



# *Personal Systems Reference Lenovo ThinkPad Notebooks 2005 to present - withdrawn*

*November 2008 - Version 348*



**lenovo.com**

# ThinkPad® R40e - withdrawn

Created by Lenovo Training Solutions  
Personal Systems Reference (PSREF)

Type-model	Processor	Speed GHz	Memory	Screen	Disk GB <sup>8</sup>	Optical	Mini PCI Comm Bay wireless	CDC modem	Ethernet on planar	Security chip	Preload	Workhorse (W) or Global (G) or Entry (E)	Avail date
2684-22U	Celeron®	1.7	128MB	13.3" XGA	20GB	CD	None	Modem	10/100	No	Windows XP Home	E	Mar 2003
2684-G2U	Celeron	1.8	128MB	14.1" XGA	20GB	CD	None	Modem	10/100	No	Windows XP Home	E	May 2003
2684-G8U	Celeron	1.8	128MB	14.1" XGA	20GB	CD	None	Modem	10/100	No	Windows XP Pro	No	May 2003
2684-CAU	Pentium® 4-M	1.7	256MB	14.1" XGA	20GB	Combo	None	Modem	10/100	No	Windows XP Pro	No	Mar 2003
2684-B2U	Pentium 4-M	1.8	128MB	14.1" XGA	20GB	CD	None	Modem	10/100	No	Windows XP Home	No	Mar 2003
2684-Q2U	Pentium 4-M	2.2	128MB	14.1" XGA	20GB	CD	None	Modem	10/100	No	Windows XP Home	E	May 2003
2684-QQU	Pentium 4-M	2.2	256MB	14.1" XGA	30GB	Combo	None	Modem	10/100	No	Windows XP Pro	No	May 2003
2684-QBU	Pentium 4-M	2.2	256MB	14.1" XGA	40GB	Combo	11b Wi-Fi <sup>32</sup>	Modem	10/100	No	Windows XP Pro	No	May 2003
Positioning Processor	<i>Mainstream performance and features; two-spindle system</i>												
L2 cache	<b>Mobile Intel® Celeron 1.7 or 1.8GHz</b> with 400MHz frontside bus or <b>Mobile Intel Pentium 4 Processor-M 1.8 or 2.2GHz</b> with enhanced Intel SpeedStep™ technology <sup>1</sup> and 400MHz frontside bus												
Memory	<i>Celeron: 256KB; Pentium 4-M: 512KB; All: on die (at processor speed) / ECC 128 or 256MB std / 1GB max<sup>7</sup> / PC2100 266MHz DDR1 / non-parity / CL2.5 / two 200-pin SO-DIMM sockets / std memory in one socket / one socket available</i>												
Diskette drive	None standard / use optional USB-based diskette drive												
CD	<i>Some: CD-ROM / 24X-10X<sup>9</sup> speed / fixed, not removable</i>												
Combo	<i>Some: Combo / 24X/10X/24X/8X<sup>21</sup> speed / fixed, not removable</i>												
Ultrabay™ 2000	None												
Disk	<b>20, 30, or 40GB<sup>8</sup></b> , 4200 rpm, 9.5mm, S.M.A.R.T. / removable and upgradable / 9.5mm high bay												
Display	<i>Some: 13.3" (337.8mm) XGA (1024x768) TFT color / Active Matrix / 150 nits</i> <i>Some: 14.1" (358.1mm) XGA (1024x768) TFT color / Active Matrix / 150 nits</i> <i>All: Easy-open cover to unlatch and open with one hand (two latches)</i>												
Graphics	<b>ATI® RADEON™ IGP 330M</b> / integrated in northbridge / 16MB DDR1 (DDR-SDRAM)												
Graphics external	External monitor support via analog DB-15 connector / up to 1600x1200 at 85Hz / DDC2B												
Keyboard	87-key / Access IBM button / palm rest / pitch: 19mm; stroke: 2.7mm (std-size keys)												
TrackPoint®	TrackPoint pointing device, "Press-to-Select," Internet Scroll Bar <sup>13</sup> , magnifying glass / soft dome TrackPoint cap / ships with classic dome and soft rim TrackPoint cap												
Touch pad	No UltraNav™ multi-pointing system												
ThinkLight™	None												
Dimensions <sup>3</sup>	12.3 x 10.0 x 1.53" / 313mm x 254mm x 38.9mm												
Weight <sup>2</sup>	with optical drive and battery: <i>G2U/G8U/B2U/Q2U: 5.9 lb (2.67kg); 22U/CAU/QQU/QBU: 6.0 lb (2.72kg)</i>												
Case material	<i>Color: Black; All: Acrylonitrile-Butadiene-Styrene (ABS) plastic</i>												
Battery - type	Lithium Ion 6-cell / intelligent												
Battery - life <sup>10</sup>	<i>Celeron models: 2.1 hrs; Pentium 4-M models: 2.6 hrs</i>												
Architecture	<b>ATI RADEON IGP 330M chipset / IGP 330M</b> northbridge (memory controller, graphics controller, PCI bus) / <b>ALi® M1535+</b> southbridge (ATA-100 EIDE, Low Pin Count [LPC] interface, USB, parallel, audio) / PCI 2.1, 32-bit 33MHz (TI® PCI1510 CardBus controller) / LPC bus 33MHz (PC87392 Super I/O for parallel)												
Port replicator	No port replicator support												
Docking station	No docking station support												
PC Card Std slots	One Type II or one Type III / CardBus 32-bit / PCMCIA 2.1 / integrated door												
Ports	Two USB (Version 1.1) / parallel / external monitor (DB-15) / RJ-11 (modem) / RJ-45 (ethernet) / no keyboard or mouse or serial or infrared port												
Video out	None												
IEEE 1394	None												
Wireless antenna	<i>Some (non-wireless models): None / can upgrade to wireless via optional PC Cards</i> <i>Some (wireless model QBU): UltraConnect™ Antenna built into the display cover</i>												
Mini PCI	<i>Some (non-wireless models): No Mini PCI slot (Communications Bay)</i> <i>Some (wireless model QBU): 11b Wi-Fi<sup>32</sup> wireless<sup>4</sup>, Mini PCI, Intersil® Prism 2.5 chipset</i>												
11b Wi-Fi <sup>32</sup>	One Communications Daughter Card (CDC) socket (used by modem) / not accessible												
CDC	56K <sup>6</sup> V.90 (V.92-designed <sup>29</sup> ) modem in CDC / Agere® chipset												
Modem	10/100 ethernet on planar / Broadcom® BCM5901 (PHY/MAC) / PXE / Wake on LAN®												
Ethernet	Soft audio / ICH AC97 controller / DirectSound® support / AD1981B AC97 codec /												
Audio support	mono speakers / 1 watt / volume up, down, mute buttons / internal mic / microphone input jack (3.5 mm; mono) / headphone jack (3.5 mm; stereo) / no line-in jack												
Security	Power-on password / hard disk password / supervisor password / security keyhole												
Security chip	None												
Limited warranty <sup>12</sup>	<b>1 year</b> - EasyServ™ <sup>19</sup> onsite pickup and delivery courier service												
Service options	Service upgrades <sup>22</sup> provide up to five years of onsite or depot repair service coverage from date of ThinkPad purchase (including warranty period)												
128 MB PC2100 DDR-SDRAM CL2.5 SOD	10K0028	ThinkPad R40e Li-Ion Battery (6-cell)	08K8218										
256 MB PC2100 DDR-SDRAM CL2.5 SOD	10K0030	Multiple Multiple Battery Charger II	22P9040										
512 MB PC2100 DDR-SDRAM CL2.5 SOD	10K0032	ThinkPad 72W AC Adapter	02K6699										
40GB HS Hard Disk 9.5mm (5400 rpm)	08K9816	ThinkPad 72W AC/DC Combo Adapter	22P9010										
USB Portable Diskette Drive	05K9276	Enh Perf Wireless Keyboard and Mouse	73P4067										
USB Serial Parallel Adapter	22P5298	USB Travel Keyboard with UltraNav	31P9490										
USB 2.0 Combo Drive	73P4515	ThinkPad Monitor Stand 2001	22P5265										
USB 2.0 Memory Key 256MB	22P9228	11a/b/g Wireless CardBus Adapter	31P9101										
USB 2.0 Memory Key 512MB	22P9230	Optical 3-Button Travel Wheel Mouse	31P7410										
USB 2.0 Portable 80GB Hard Disk	40Y8726	Optical 3-Button ScrollPoint® Mouse	31P7405										
GemPC400 Smart Card Reader/Writer	31P8901	Nylon Carrying Case	10K0207										
M400 Projector	0037A04	Leather Carrying Case	10K0209										
C400 Projector	0039A04	ThinkPad Carrying Case - Expander	73P3597										
ThinkVision® E500 Projector	0038A05	Other options at <a href="http://lenovo.com/options">lenovo.com/options</a>											
<b>SOFTWARE<sup>14</sup></b>													
<b>Windows XP Home models</b>													
- Microsoft® Windows® XP Home Edition <sup>20</sup>													
✦ Disk-to-Disk Recovery (in hidden protected area)													
<b>Windows XP Pro models</b>													
- Microsoft Windows XP Professional <sup>20</sup>													
✦ Disk-to-Disk Recovery (in hidden protected area)													
<b>Preloaded</b>													
• Access IBM													
• Adobe Reader													
• Rapid Restore™ PC													
• RecordNow and DLA by Veritas® (combo models)													
• InterVideo WinDVD (combo models)													
• Norton® AntiVirus (OEM edition)													
• PC-Doctor™													
• ThinkPad Utilities													
• Update Connector™ <sup>15</sup>													
<b>Downloadable</b>													
• IBM Director Agent													
• Software Delivery Assistant													
• System Migration Assistant													
<b>License (CD not included)</b>													
- Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client													
ThinkPad notebooks implement ThinkVantage™ technologies and design; visit <a href="http://thinkpad.com/thinkvantage">thinkpad.com/thinkvantage</a>													
Universal 72 watt AC adapter PC 2001 and PXE 2.0-compliant ACPI 1.0b and 2.0-compliant CIM and DMI 2.0-compliant International Warranty Service <sup>17</sup> 24 hour x 7 day <sup>18</sup> toll-free warranty support during the warranty <sup>12</sup> via 800-IBM-SERV (426-7378)													
ServicePac®. <sup>22</sup> 1yr IOR 9x5 NBD 30L9188													
ServicePac 2 yr IOR 9x5 NBD 30L9189													
ServicePac 3 yr IOR 9x5 NBD 30L9195													
ServicePac 4 yr IOR 9x5 NBD 30L9194													
ServicePac 5 yr IOR 9x5 NBD 30L9196													
ServicePac 2 yr P&L P/U Depot 30L9191													
ServicePac 3 yr P&L P/U Depot 30L9192													
ServicePac 4 yr P&L P/U Depot 69P9195													
ServicePac 5 yr P&L P/U Depot 69P9197													
Other ServicePac options at <a href="http://ibm.com/services/its/us/source/wamomxeu.pdf">ibm.com/services/its/us/source/wamomxeu.pdf</a>													
Post-warranty annual maintenance agreements at <a href="http://ibm.com/services/its/us/source/maspspleu.pdf">ibm.com/services/its/us/source/maspspleu.pdf</a>													

See footnotes for important warranty information  
US models announced March 12 or May 21, 2003  
US models withdrawn effective July 2003, January 2004, October 2004, or December 2005

# ThinkPad® R40 (2723) - withdrawn

Created by Lenovo Training Solutions  
Personal Systems Reference (PSREF)

Type-model	Processor	Speed GHz	Memory	Screen	Graphics memory	Disk GB <sup>8</sup>	Optical	Mini PCI Comm Bay wireless	CDC modem	Ethernet on planar	IEEE 1394 port	Security Chip	Workhorse (W) or Global (G) Avail date
2723-2FU	Pentium® M	1.3	256MB	14.1" XGA	16MB	20G	DVD	*Intel 11b Wi-Fi <sup>32</sup>	Modem	10/100		Yes	XP Pro W G Mar 2003
2723-26U	Pentium M	1.3	256MB	14.1" XGA	16MB	20G	DVD	Open; wireless upg <sup>36</sup>	Modem	10/100		Yes	XP Pro W G Mar 2003
2723-27U	Pentium M	1.3	256MB	14.1" XGA	16MB	20G	DVD	Open; wireless upg	Modem	10/100	1394	Yes	XP Pro W Mar 2003
2723-2SU	Pentium M	1.3	256MB	14.1" XGA	16MB	20G	DVD	Cisco® 802.11b <sup>32</sup>	Modem	10/100	1394	Yes	XP Pro W Mar 2003
2723-3LU	Pentium M	1.3	256MB	14.1" XGA	32MB	40G	Combo	11a/b Wi-Fi <sup>27</sup>	Modem	10/100	1394	Yes	XP Pro W Apr 2003
2723-58U	Pentium M	1.3	256MB	15.0" XGA	32MB	40G	DVD	Open; wireless upg	Modem	10/100	1394	Yes	XP Pro W Apr 2003
2723-5TU	Pentium M	1.3	256MB	15.0" XGA	32MB	40G	DVD	Cisco 802.11b	Modem	10/100	1394	Yes	XP Pro W Apr 2003
2723-6LU	Pentium M	1.3	256MB	15.0" SXGA+	32MB	40G	Combo	11a/b Wi-Fi	Modem	10/100	1394	Yes	XP Pro W Apr 2003
2723-BSU	Pentium M	1.4	256MB	15.0" XGA	32MB	40G	DVD	Cisco 802.11b	Modem	10/100		Yes	XP Pro W G Apr 2003
2723-B4U	Pentium M	1.4	256MB	15.0" XGA	32MB	40G	DVD	Open; wireless upg	Modem	10/100		Yes	XP Pro W G Apr 2003
2723-F2U	Pentium M	1.5	256MB	15.0" XGA	32MB	40G	DVD	Open; wireless upg	Modem	10/100	1394	Yes	XP Pro W Apr 2003
2723-BAU	Pentium M	1.4	256MB	15.0" XGA	32MB	40G	DVD	*Intel 11b Wi-Fi	Modem	10/100		Yes	XP Pro W G Apr 2003
<b>2723 models have a 3 year limited warranty (other 2722 ThinkPad R40 systems have a 1 year limited warranty)</b>													
Positioning	Mainstream performance and features; two-spindle system											<b>SOFTWARE<sup>14</sup></b> <b>Windows XP Professional</b> - Microsoft® Windows® XP Professional <sup>20</sup> ♦ Disk-to-Disk Recovery (in hidden protected area)  <b>Preloaded</b> • Access Program • Access Connections™ • Adobe Reader • Rapid Restore™ PC • RecordNOW and DLA by Veritas (combo models) • InterVideo WinDVD (Combo, DVD) • Norton AntiVirus (OEM edition) • PC-Doctor™ • ThinkPad Utilities • Update Connector™ <sup>15</sup>  <b>Downloadable</b> • IBM Director Agent • Software Delivery Assistant • System Migration Assistant • Client Security Software (for security chip)  <b>License</b> (CD not included) - Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client	
Processor	Intel® Pentium® M Processor 1.3, 1.4, or 1.5GHz with enhanced Intel SpeedStep™ technology <sup>1</sup> and 400MHz frontside bus												
L2 cache	1MB / on die (at processor speed) / ECC												
Memory	256MB std / 2GB max <sup>7</sup> / PC2100 266MHz DDR1 (DDR-SDRAM) / non-parity / CL2.5 / two 200-pin SO-DIMM sockets / std memory in one socket / one socket available												
Diskette drive	None standard / use optional Ultrabay™-based or USB-based diskette drive												
DVD	Some: DVD-ROM / 8X-3.3X <sup>9</sup> speed / bootable / removable from Ultrabay 2000												
Combo	Some: DVD-ROM/CD-RW / 24X/10X/24X/8X <sup>21</sup> speed / removable from Ultrabay 2000												
Ultrabay 2000	One modular bay for interchangeable devices / Ultrabay Plus-compatible / 12.7 mm high												
Disk	20GB <sup>9</sup> or 40GB, 4200 rpm, 9.5mm high / removable and upgradable / 9.5mm high bay / supports 2nd disk with optional HDD Adapter in Ultrabay 2000												
Display	Some: 14.1" (358.1mm) XGA (1024x768) TFT color / Active Matrix / 150 nits Some: 15.0" (381.0mm) XGA (1024x768) TFT color / Active Matrix / 150 nits Some: 15.0" (381.0mm) SXGA+ (1400x1050) TFT color / Active Matrix / 150 nits All: Easy-open cover to unlatch and open with one hand (two latches)												
Graphics	Some: ATI® MOBILITY™ RADEON™ / AGP 4X / 16MB DDR1 (DDR-SDRAM) Some: ATI MOBILITY RADEON 7500 / AGP 4X / 32MB DDR1 (DDR-SDRAM)												
Graphics external	External monitor support via analog DB-15 connector / up to 1600x1200 at 85Hz / DDC2B												
Keyboard	87-key / Access IBM button / palm rest / pitch: 19mm; stroke: 2.7mm (std-size keys)												
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar <sup>13</sup> , magnifying glass												
Touch pad	UltraNav™ multi-pointing system / touch pad below keyboard / Tap Zones												
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions												
Dimensions <sup>3</sup>	14.1" models: 12.3" x 10.0" x 1.53"; 15.0" models: 13.0" x 10.5" x 1.59"												
Weight <sup>2</sup>	with optical drive and battery: 14.1" models: 6.0 to 6.1 lb; 15.0": 6.6 to 6.7 lb (3.0 to 3.4kg)												
Case material	Color: Black; All: Acrylonitrile-Butadiene-Styrene (ABS) plastic												
Battery - type	Lithium Ion 8-cell / intelligent / supports unique 2nd battery in Ultrabay 2000												
Battery - life <sup>10</sup>	Model BAU: 5.0 hr; Others: 5.7 to 6.2 hr												
Architecture	Intel 855PM chipset / 82855PM Memory Controller Hub (MCH-M) / 82801DBM ICH4-M I/O Controller Hub (ATA-100 EIDE, PCI bus, ethernet MAC, Low Pin Count (LPC) interface, USB, Firmware Hub) / PCI bus 2.2 32-bit, 33MHz (TI® PCI1510 CardBus controller, TSB43AB21 1394 (some), Mini PCI, external expansion) / LPC bus 33MHz (security chip; PC87392 Super I/O for diskette, parallel, infrared)												
PC Card Std slots	One Type I, one Type II, or one Type III / CardBus 32-bit / PCMCIA 2.1 / integrated door												
Ports	Two USB (Version 2.0) / parallel / external monitor (DB-15) / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / no keyboard or mouse or serial port												
Video out	S-video out port (TV out) / one 4-pin industry standard connector												
IEEE 1394	Some: IEEE 1394 (FireWire) port / 4-pin connector												
Wireless antenna	UltraConnect™ Antenna built into the display cover for optimal wireless signal reception												
Mini PCI	One Mini PCI type III slot (Communications Bay) / customer upgradable												
Wireless upg <sup>36</sup>	Some: Wireless upgradable with wireless Mini PCI options												
11b Wi-Fi <sup>32</sup>	Some: 11b Wi-Fi <sup>32</sup> wireless <sup>4</sup> , Mini PCI, Intel PRO/Wireless 2100, Intel 82531 chipset												
Cisco 802.11b <sup>32</sup>	Some: 802.11b wireless <sup>4</sup> , Mini PCI, Cisco® Aironet® Wireless 802.11b												
11a/b Wi-Fi <sup>27</sup>	Some: 11a/b Wi-Fi <sup>27</sup> wireless <sup>4</sup> , Mini PCI, Atheros™ AR5001X chipset												
CDC	One Communications Daughter Card (CDC) socket (used by modem) / not accessible												
Modem	56K <sup>6</sup> V.90 (V.92-designed <sup>29</sup> ) modem in CDC / Agere® chipset												
Bluetooth	None												
Ethernet	10/100 ethernet on motherboard / Intel 82562EZ chipset (physical layer) / PXE												
Audio support	Soft audio / ICH AC97 controller / DirectSound® support / AD1891A AC97 codec / stereo speakers / 1 watt / volume up, down, mute buttons / internal mic / microphone input jack (3.5 mm) / headphone jack (3.5 mm) / no line in jack												
Security	Power-on password / hard disk password / supervisor password / security keyhole												
Security chip	Embedded Security Subsystem 2.0 <sup>33</sup> / hardware key storage / multi-factor authentication / local file encryption / Atmel® chip / TCG-compliant												
Limited warranty <sup>12</sup>	3 years/1 year battery - EasyServ™ <sup>19</sup> onsite pickup and delivery												
128MB PC2100 DDR-SDRAM CL2.5 SOD	10K0028	40GB HS Hard Disk 9.5mm (5400 rpm)	08K9816										
256MB PC2100 DDR-SDRAM CL2.5 SOD	10K0030	GemPC400 Smart Card Reader/Writer	31P8901										
512MB PC2100 DDR-SDRAM CL2.5 SOD	10K0032	ThinkPad R32/R40 Series Li-Ion Battery	02K7052										
1GB PC2100 DDR-SDRAM CL2.5 SOD	10K0034	Ultrabay 2000 Li-Ion battery	02K6646										
CD-RW/DVD Combo IV Ultrabay 2000	22P6991	ThinkPad Multiple Battery Charger II	22P9040										
Second HDD Adapter for Ultrabay 2000	08K6068	11a/b/g Wireless CardBus Adapter	31P9101										
USB Portable Diskette Drive	05K9276	11a/b/g Wireless Mini PCI Adapter	31P9701										
Optical 3-Button Travel Wheel Mouse	31P7410	C400 Projector	0039A04										
USB 2.0 Memory Key 256MB	22P9228	ThinkVision® E500 Projector	0038A05										
USB 2.0 Memory Key 512MB	22P9230	ThinkPad Carrying Case - Expander	73P3597										
												ThinkPad Port Replicator II	74P6733
												ThinkPad Mini Dock	287810U
												ThinkPad 72W AC Adapter	02K6699
												72W Slim AC/DC Combo Adapter	
													73P4485
												USB 2.0 Portable CD-RW Drive	22P5297
												Other options at <a href="http://lenovo.com/options">lenovo.com/options</a>	

See footnotes for important warranty information  
US models announced March 12, 2003  
US models withdrawn effective October 2003, January 2004, April 2004, or October 2004

\* Powered by Intel Centrino™ mobile technology

© Lenovo  
(R403M) October 2005

# ThinkPad® R40 (XP Home) - withdrawn

Created by Lenovo Training Solutions  
Personal Systems Reference (PSREF)

Type-model	Processor	Speed GHz	Memory	Screen	Graphics memory	Disk GB <sup>9</sup>	Optical	Mini PCI Comm Bay wireless	CDC modem	Ethernet on planar	IEEE Security 1394 Chip	Workhorse (W) or Global (G) Avail Preload or Entry (E) date
2681-15U	Celeron®	1.6	128MB	13.3" XGA	16MB	20GB	CD	Open; wireless upg <sup>36</sup>	Modem	10/100	1394 No	XP Home E Jan 2003
2681-25U	Celeron	1.6	128MB	14.1" XGA	16MB	20GB	CD	Open; wireless upg	Modem	10/100	1394 No	XP Home E Jan 2003
2681-43U	Celeron	1.8	128MB	14.1" XGA	16MB	20GB	DVD	Open; wireless upg	Modem	10/100	1394 No	XP Home No Jan 2003
2681-35U	Celeron	1.6	128MB	15.0" XGA	16MB	20GB	CD	Open; wireless upg	Modem	10/100	1394 No	XP Home No Jan 2003
2681-4FU	Celeron	1.8	128MB	14.1" XGA	16MB	20GB	CD	Open; wireless upg	Modem	10/100	1394 No	XP Home E May 2003
2681-5FU	Celeron	1.8	128MB	15.0" XGA	16MB	20GB	CD	Open; wireless upg	Modem	10/100	1394 No	XP Home No May 2003
2681-7CU	Celeron	2.0	128MB	15.0" XGA	16MB	20GB	CD	Open; wireless upg	Modem	10/100	1394 No	XP Home No Nov 2003
2681-C1U	Pentium® 4-M	1.9	128MB	14.1" XGA	16MB	20GB	CD	Open; wireless upg	Modem	10/100	1394 No	XP Home No Jan 2003
2681-J5U	Pentium 4-M	2.2	128MB	14.1" XGA	16MB	20GB	CD	Open; wireless upg	Modem	10/100	1394 No	XP Home E May 2003
Positioning Processor	<i>Mainstream performance and features; two-spindle system</i> <b>Mobile Intel® Celeron 1.6, 1.8, or 2.0GHz</b> with 400MHz system bus or <b>Mobile Intel Pentium 4 Processor-M 1.9 or 2.2GHz</b> with enhanced Intel SpeedStep™ technology <sup>1</sup> and 400MHz system bus <i>Celeron: 256KB; Pentium 4-M: 512KB; All: on die (at processor speed) / ECC</i> <b>128MB</b> std / 1GB max <sup>7</sup> / <b>PC2100</b> 266MHz DDR1 (DDR-SDRAM) / non-parity / CL2.5 / two 200-pin SO-DIMM sockets / std memory in one socket / one socket available										<b>SOFTWARE<sup>14</sup></b> <b>Windows XP Home models</b> - Microsoft® Windows® XP Home Edition <sup>20</sup> ♦ Disk-to-Disk Recovery (in hidden protected area)	
L2 cache Memory												
Diskette drive CD DVD Ultrabay 2000 Disk	None standard / use optional Ultrabay™-based or USB-based diskette drive <i>Some:</i> CD-ROM / 24X-10X <sup>9</sup> speed / bootable / removable from Ultrabay 2000 <i>Some:</i> DVD-ROM / 8X-3.3X <sup>9</sup> speed / bootable / removable from Ultrabay 2000 One modular bay for interchangeable devices / <b>Ultrabay Plus</b> -compatible / 12.7mm high <b>20GB<sup>8</sup></b> , 4200 rpm, 9.5mm high, S.M.A.R.T. / removable and upgradable / 9.5mm high bay / supports 2nd disk with optional HDD Adapter in Ultrabay 2000										<b>Preloaded</b> • Access IBM - Access Connections - Access Help - Access Support • Adobe Reader • Rapid Restore™ PC • InterVideo WinDVD (DVD models) • Norton AntiVirus (OEM edition) • PC-Doctor™ • ThinkPad Utilities • Update Connector™.15	
Display	<i>Some: 13.3" (337.8mm) XGA (1024x768) TFT color / Active Matrix / 150 nits / Some: 14.1" (358.1mm) XGA (1024x768) TFT color / Active Matrix / 150 nits / Some: 15.0" (381mm) XGA (1024x768) TFT color / Active Matrix / 150 nits / All: Easy-open cover to unlatch and open with one hand (two latches)</i>											
Graphics Graphics external	<b>ATI® Mobility™ RADEON™ / AGP 4X / 16MB</b> DDR1 (DDR-SDRAM) External monitor support via analog DB-15 connector / up to 1600x1200 at 85Hz / DDC2B											
Keyboard TrackPoint® Touch pad ThinkLight™	87-key / Access IBM button / palm rest / pitch: 19mm; stroke: 2.7mm (std-size keys) TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar <sup>13</sup> , magnifying glass UltraNav™ multi-pointing system / touch pad below keyboard / Tap Zones Illuminates the keyboard to improve visibility in low-light conditions										<b>Downloadable</b> • IBM Director Agent • Software Delivery Assistant • System Migration Assistant	
Dimensions <sup>3</sup> Weight <sup>2</sup>	13.3/14.1" models: 12.3" x 10" x 1.5"; 15.0" models: 13" x 10.5" x 1.6" with optical drive and battery: 43U/C1U/4FU/J5U: 6.0 lb; 25U: 6.1 lb; 15U: 6.2 lb; 7CU: 6.6 lb; 35U/5FU: 6.7 lb										<b>License</b> (CD not included) - Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client	
Case material Battery - type Battery - life <sup>10</sup>	<i>Color:</i> Black; <i>All:</i> Acrylonitrile-Butadiene-Styrene (ABS) plastic Lithium Ion 8-cell / intelligent / supports unique 2nd battery in Ultrabay 2000 13.3/14.1" models: 3.8 to 4.0 hrs; 15.0" models: 3.4 to 3.6 hrs											
Architecture	<b>Intel 845MP</b> chipset / 82845MP Memory Controller Hub (MCH-M) / 82801DBM ICH4-M I/O Controller Hub (ATA-100 EIDE, PCI bus, ethernet MAC, Low Pin Count (LPC) interface, USB, Firmware Hub) / PCI bus 2.2 32-bit, 33MHz (TI® PCI1510 CardBus controller, TSB43AB21 1394 (some), Mini PCI, external expansion) / LPC bus 33MHz (security chip; PC87392 Super I/O for diskette, parallel, infrared)										ThinkPad notebooks implement ThinkVantage™ technologies and design; visit <a href="http://thinkpad.com/thinkvantage">thinkpad.com/thinkvantage</a>	
Port Replicator PC Card Std slots Ports	Optional Port Replicator and Mini Dock (no ThinkPad Dock support) One Type I, one Type II, or one Type III / CardBus 32-bit / PCMCIA 2.1 / integrated door Two USB (Version 2.0) / parallel / external monitor (DB-15) / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / no keyboard or mouse or serial port										Universal 72 watt AC adapter Asset ID (system-specific info in chip accessed over network) PC 2001 and PXE 2.0-compliant ACPI 1.0b and 2.0-compliant CIM and DMI 2.0-compliant ENERGY STAR®-compliant International Warranty Service <sup>17</sup> 24 hour x 7 day <sup>18</sup> toll-free warranty support during the warranty <sup>12</sup> via 800-IBM-SERV (426-7378)	
Video out IEEE 1394 Wireless antenna Mini PCI Wireless upg <sup>36</sup> CDC Modem Ethernet Audio support	S-video out port (TV out) / one 4-pin industry standard connector IEEE 1394 (FireWire) port / 4-pin connector UltraConnect™ Antenna built into the display cover for optimal wireless signal reception One Mini PCI type III slot (Communications Bay) / customer upgradable <i>All:</i> Wireless upgradable with wireless Mini PCI options One Communications Daughter Card (CDC) socket (used by modem) / not accessible <i>All:</i> 56K <sup>6</sup> V.90 (V.92-designed <sup>29</sup> ) modem in CDC / Agere® chipset 10/100 ethernet on motherboard / Intel 82562EZ chipset (physical layer) Soft audio / ICH AC97 controller / DirectSound® support / AD1891A AC97 codec / stereo speakers / 1 watt / volume up, down, mute buttons / internal mic / microphone input jack (3.5 mm) / headphone jack (3.5 mm) / no line in jack										ServicePac <sup>22</sup> 1yr IOR 9x5 NBD 30L9188	
Security	Power-on password / hard disk password / supervisor password / security keyhole										ServicePac 2 yr IOR 9x5 NBD 30L9189	
Limited warranty <sup>12</sup>	<b>1 year</b> - EasyServ™.19 onsite pickup and delivery / service upgrades <sup>22</sup> available										ServicePac 3 yr IOR 9x5 NBD 30L9195	
128MB PC2100 DDR-SDRAM CL2.5 SOD	10K0028	ThinkPad R32/R40 Series Li-Ion Battery	02K7052	256MB PC2100 DDR-SDRAM CL2.5 SOD	10K0030	Ultrabay 2000 Li-Ion battery	02K6646	512MB PC2100 DDR-SDRAM CL2.5 SOD	10K0032	ThinkPad Multiple Battery Charger II	22P9040	ServicePac 4 yr IOR 9x5 NBD 30L9194
Ultralight 8X Max DVD Ultrabay 2000	22P9102	USB Keyboard with UltraNav	31P8950	CD-RW/DVD Combo IV Ultrabay 2000	22P6991	ThinkPad Monitor Stand 2001	22P5265	24X-10X CD-ROM Ultrabay 2000 Drive	05K9233	40GB HS Hard Disk 9.5mm (5400 rpm)	08K9816	ServicePac 5 yr IOR 9x5 NBD 30L9196
Second HDD Adapter for Ultrabay 2000	08K6068	ThinkPad Monitor Stand 2001	22P5265	Multi-Burner Plus Ultrabay Enhanced Drive	73P3312	11a/b/g Wireless Mini PCI Adapter	31P9701	USB Portable Diskette Drive	05K9276	11a/b/g Wireless CardBus Adapter	31P9101	ServicePac 2 yr P&L P/U Depot 30L9191
USB 2.0 Portable Multi-Burner Drive	22P9163	ThinkPad 72W AC Adapter	02K6699	USB Serial Parallel Adapter	22P5298	ThinkPad 72W AC/DC Combo Adapter	22P9010	Optical 3-Button Travel Wheel Mouse	31P7410	ThinkPad Port Replicator II	74P6733	ServicePac 3 yr P&L P/U Depot 30L9192
M400 Projector	0037A04	ThinkPad Mini Dock	287810U	C400 Projector	0039A04	GemPC400 Smart Card Reader/Writer	31P8901	ThinkVision® E500 Projector	0038A05	Optical 3-Button Travel Wheel Mouse	31P7410	ServicePac 5 yr P&L P/U Depot 69P9197
ThinkPad Ultrabay Plus Carrier	22P5737	ThinkPad Carrying Case - Expander	73P3597	ThinkPad Ultrabay Plus Numeric Keypad	22P7330	Other options at <a href="http://lenovo.com/options">lenovo.com/options</a>						Other ServicePac options at <a href="http://ibm.com/services/its/us/source/wamomxeu.pdf">ibm.com/services/its/us/source/wamomxeu.pdf</a>

See footnotes for important warranty information

US models announced on January 28, May 21, or November 11, 2003  
US models withdrawn effective January 2004, April 2004, or December 2005

© Lenovo  
(R40H) October 2005

# ThinkPad® R40 (2682) - October 2003 - withdrawn

Created by Lenovo Training Solutions  
Personal Systems Reference (PSREF)

Type-model	Processor	Speed GHz	Memory	Screen	Graphics memory	Disk GB <sup>3</sup>	Optical	Mini PCI Comm Bay wireless	CDC modem	Ethernet on planar	IEEE 1394 port	Security chip	Workhorse (W) Global (G) Preload Entry (E)	Avail date	
2682-N7U	Pentium® 4-M	2.4	256MB	14.1" XGA	16MB	30G	Combo	Open; wireless upg <sup>36</sup>	Modem	10/100		Yes	XP Pro	No	Oct 2003
2682-NAU	Pentium 4-M	2.4	256MB	14.1" XGA	16MB	30G	DVD	Open; wireless upg	Modem	10/100		Yes	XP Pro	No	Oct 2003
2682-PAU	Pentium 4-M	2.4	256MB	15.0" XGA	32MB	40G	Combo	Open; wireless upg	Modem	10/100	1394	Yes	XP Pro	No	Oct 2003

2682 models have a 3 year limited warranty (other 2681 and 2896 ThinkPad R40 systems have a 1 year limited warranty)

Positioning Processor	Mainstream performance and features; two-spindle system											<b>SOFTWARE<sup>14</sup></b>	
L2 cache	Mobile Intel® Pentium 4 Processor-M 2.4GHz with enhanced Intel SpeedStep™ technology <sup>1</sup> and 400MHz system bus											Windows XP Professional	
Memory	512KB / on die (at processor speed) / ECC											- Microsoft® Windows® XP Professional <sup>20</sup>	
Diskette drive	None standard / use optional Ultrabay™-based or USB-based diskette drive											◇ Disk-to-Disk Recovery (in hidden protected area)	
DVD	Some: DVD-ROM / 8X-3.3X <sup>9</sup> speed / bootable / removable from Ultrabay 2000											<b>Preloaded</b>	
Combo	Some: DVD-ROM/CD-RW / 24X/10X/24X/8X <sup>21</sup> speed / removable from Ultrabay 2000											• Access IBM	
Ultrabay 2000	One modular bay for interchangeable devices / Ultrabay Plus-compatible / 12.7 mm high											• Access Connections™	
Disk	30GB <sup>8</sup> or 40GB, 4200 rpm, 9.5mm high, S.M.A.R.T. / removable and upgradable / 9.5mm high bay / supports 2nd disk with optional HDD Adapter in Ultrabay 2000											• Adobe Reader	
Display	Some: 14.1" (358.1mm) XGA (1024x768) TFT color / Active Matrix / 150 nits /											• Rapid Restore™ PC	
	Some: 15.0" (381mm) XGA (1024x768) TFT color / Active Matrix / 150 nits /											• RecordNOW and DLA by Veritas (combo models)	
	All: easy-open cover to unlatch and open with one hand (two latches)											• InterVideo WinDVD (DVD model)	
Graphics	Some: ATI® MOBILITY™ RADEON™ / AGP 4X / 16MB DDR1 (DDR-SDRAM)											• Norton AntiVirus (OEM edition)	
	Some: ATI MOBILITY RADEON 7500 / AGP 4X / 32MB DDR1 (DDR-SDRAM)											• PC-Doctor™	
Graphics external	External monitor support via analog DB-15 connector / up to 1600x1200 at 85Hz / DDC2B											• ThinkPad Utilities	
Keyboard	87-key / Access IBM button / palm rest / pitch: 19mm; stroke: 2.7mm (std-size keys)											• Update Connector™ <sup>15</sup>	
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar <sup>13</sup> , magnifying glass											<b>Downloadable</b>	
Touch pad	UltraNav™ multi-pointing system / touch pad below keyboard / Tap Zones											• IBM Director Agent	
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions											• Software Delivery Assistant	
Dimensions <sup>3</sup>	14.1" models: 12.3" x 10" x 1.5"; 313mm x 254mm x 38.9mm											• System Migration Assistant	
	15.0" models: 13" x 10.5" x 1.6"; 329mm x 267.5mm x 40.5mm											• Client Security Software (for security chip)	
Weight <sup>2</sup>	with optical drive and battery: N7U: 6.1 lb (2.7kg); NAU: 6.0 lb (2.7kg); PAU: 6.7 lb (3.0kg)											<b>License</b> (CD not included)	
Case material	Color: black; All: Acrylonitrile-Butadiene-Styrene (ABS) plastic											- Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client	
Battery - type	Lithium Ion 8-cell / intelligent / supports unique 2nd battery in Ultrabay 2000												
Battery - life <sup>10</sup>	4.02 hrs												
Architecture	Intel 845MP chipset / 82845MP Memory Controller Hub (MCH-M) / 82801DBM ICH4-M I/O Controller Hub (ATA-100 EIDE, PCI bus, ethernet MAC, Low Pin Count (LPC) interface, USB, Firmware Hub) / PCI bus 2.2 32-bit, 33MHz (TI® PCI1510 CardBus controller, TSB43AB21 1394 (some), Mini PCI, external expansion) / LPC bus 33MHz (security chip; PC87392 Super I/O for diskette, parallel, infrared)												
PC Card Std slots	One Type I, one Type II, or one Type III / CardBus 32-bit / PCMCIA 2.1 / integrated door												
Ports	Two USB (Version 2.0) / parallel / external monitor (DB-15) / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / no keyboard or mouse or serial port												
Video out	S-video out port (TV out) / one 4-pin industry standard connector											ThinkPad notebooks implement ThinkVantage™ technologies and design; visit <a href="http://thinkpad.com/thinkvantage">thinkpad.com/thinkvantage</a>	
IEEE 1394	Some: IEEE 1394 (FireWire) port / 4-pin connector											Universal 72 watt AC adapter	
Wireless antenna	UltraConnect™ Antenna built into the display cover for optimal wireless signal reception											Asset ID (system-specific info in chip accessed over network)	
Mini PCI	One Mini PCI type III slot (Communications Bay) / customer upgradable											PC 2001 and PXE 2.0-compliant	
Wireless upg <sup>36</sup>	Wireless upgradable with wireless Mini PCI options											ACPI 1.0b and 2.0-compliant	
CDC	One Communications Daughter Card (CDC) socket (used by modem) / not accessible											CIM and DMI 2.0-compliant	
Modem	56K <sup>6</sup> V.90 (V.92-designed <sup>23</sup> ) modem in CDC / Agere® chipset											ENERGY STAR®-compliant	
Ethernet	10/100 ethernet on motherboard / Intel 82562EZ chipset (physical layer)											ImageUltra™ Services available	
Audio support	Soft audio / ICH AC97 controller / DirectSound® support / AD1891A AC97 codec / stereo speakers / 1 watt / volume up, down, mute buttons / internal mic / microphone input jack (3.5 mm) / headphone jack (3.5 mm) / no line in jack											International Warranty Service <sup>17</sup>	
Security	Power-on password / hard disk password / supervisor password / security keyhole											24 hour x 7 day <sup>18</sup> toll-free warranty support during the warranty <sup>12</sup> via 800-IBM-SERV (426-7378)	
Security chip	Embedded Security Subsystem 2.0 <sup>33</sup> / hardware key storage / multi-factor authentication / local file encryption / Atmel® chip / TCG-compliant												
Limited warranty <sup>12</sup>	3 years/1 year battery - EasyServ™ <sup>19</sup> onsite pickup and delivery												
Service options	Service upgrades <sup>22</sup> provide up to five years of onsite or depot repair service coverage from date of ThinkPad purchase (including warranty period)											ServicePac®. <sup>22</sup> 2 yr IOR 9x5 NBD 30L9190	
	128 MB PC2100 DDR-SDRAM CL2.5 SOD 10K0028											ServicePac 3 yr IOR 9x5 NBD 30L9197	
	256 MB PC2100 DDR-SDRAM CL2.5 SOD 10K0030											ServicePac 4 yr IOR 9x5 NBD 69P9198	
	512 MB PC2100 DDR-SDRAM CL2.5 SOD 10K0032											ServicePac 5 yr IOR 9x5 NBD 69P9200	
	CD-RW/DVD Combo IV Ultrabay 2000 22P6991											ServicePac 4 yr P&L P/U Depot 69P9199	
	Ultralight 8X Max DVD Ultrabay 2000 22P9102											Other ServicePac options at <a href="http://ibm.com/services/its/us/source/wamomxeu.pdf">ibm.com/services/its/us/source/wamomxeu.pdf</a>	
	24X-10X CD-ROM Ultrabay 2000 Drive 05K9233											Post-warranty annual maintenance agreements at <a href="http://ibm.com/services/its/us/source/maspspleu.pdf">ibm.com/services/its/us/source/maspspleu.pdf</a>	
	Second HDD Adapter for Ultrabay 2000 08K6068												
	Multi-Burner Plus Ultrabay Enhanced Drive 73P3312												
	USB Portable Diskette Drive 05K9276												
	USB Serial Parallel Adapter 22P5298												
	USB 2.0 Combo Drive 73P4515												
	USB 2.0 Portable 80GB Hard Disk 40Y8726												
	USB 2.0 Memory Key 256MB 22P9228												
	USB 2.0 Memory Key 512MB 22P9230												
	Optical 3-Button Travel Wheel Mouse 31P7410												
	Optical 3-Button ScrollPoint® Mouse 31P7405												
	USB Travel Keyboard with UltraNav 31P9490												
	GemPC400 Smart Card Reader/Writer 31P8901												
	ThinkPad R32/R40 Series Li-Ion Battery 02K7052												
	Ultrabay 2000 Li-Ion battery 02K6646												
	ThinkPad Multiple Battery Charger II 22P9040												
	80GB HS Hard Disk 9.5mm (5400 rpm) 09N4273												
	100GB Hard Disk 9.5mm (5400 rpm) 40Y8716												
	Cisco Aironet Wireless 802.11b Mini PCI 31P8301												
	11a/b/g Wireless Mini PCI Adapter 31P9701												
	11a/b/g Wireless CardBus Adapter 31P9101												
	ThinkPad 72W AC Adapter 02K6699												
	ThinkPad 72W AC/DC Combo Adapter 22P9010												
	ThinkPad Monitor Stand 2001 22P5265												
	M400 Projector 0037A04												
	C400 Projector 0039A04												
	ThinkVision® E500 Projector 0038A05												
	ThinkPad Port Replicator II 74P6733												
	ThinkPad Mini Dock 287810U												
	ThinkPad Carrying Case - Expander 73P3597												
	Other options at <a href="http://lenovo.com/options">lenovo.com/options</a>												

See footnotes for important warranty information  
US models announced October 7, 2003  
US models withdrawn effective October 2004 or December 2005

© Lenovo  
(R40) October 2005

# ThinkPad® R40 (2682) - Education - withdrawn

Created by Lenovo Training Solutions  
Personal Systems Reference (PSREF)

Type-model	Processor	Speed GHz	Memory	Screen	Graphics memory	Disk GB <sup>5</sup>	Optical	Mini PCI Comm Bay wireless	CDC modem	Ethernet on planar	IEEE 1394 port	Security chip	Workhorse (W) or Global (G) Entry (E)	Avail date	
2682-48U	Celeron®	1.8	128MB	14.1" XGA	16MB	20GB	CD	11a/b Wi-Fi <sup>27</sup>	Modem	10/100	1394	XP Pro	No	Mar 2003	
2682-FXU	Pentium® 4-M	2.0	256MB	14.1" XGA	32MB	40GB	Combo	11a/b Wi-Fi	Modem	10/100	1394	Yes	XP Pro	No	Mar 2003
2682-LAU	Pentium 4-M	2.2	256MB	15.0" SXGA+	32MB	40GB	Combo	11a/b Wi-Fi	Modem	10/100	1394	Yes	XP Pro	No	Mar 2003
2682-6GU	Celeron	2.0	128MB	14.1" XGA	16MB	20GB	CD	11a/b Wi-Fi	Modem	10/100	1394	Yes	XP Pro	No	Oct 2003
2682-RDU	Pentium 4-M	2.2	256MB	14.1" XGA	32MB	40GB	Combo	11a/b Wi-Fi	Modem	10/100	1394	Yes	XP Pro	No	Oct 2003
2682-QGU	Pentium 4-M	2.4	256MB	15.0" SXGA+	32MB	40GB	Combo	11a/b Wi-Fi	Modem	10/100	1394	Yes	XP Pro	No	Oct 2003

These educational models of the ThinkPad R40 notebook are available only to public or private K-12 (or higher) accredited schools organized and operated exclusively for educational purposes for use by qualified students and/or teachers.

This model for education is for sale direct from Lenovo or through an Authorized Education Reseller.

The model or models for education are not available for resale to any other organization or individual.

**2682 models have a 3 year limited warranty (other 2681 and 2896 ThinkPad R40 systems have a 1 year limited warranty)**

Positioning Processor	<i>Mainstream performance and features; two-spindle system</i> <b>Mobile Intel® Celeron 1.8 or 2.0GHz</b> with 400MHz system bus or <b>Mobile Intel® Pentium 4 Processor-M 2.0, 2.2, or 2.4GHz</b> with enhanced Intel SpeedStep™ technology <sup>1</sup> and 400MHz system bus <i>Celeron: 256KB; Pentium 4-M: 512KB; All: on die (at processor speed) / ECC</i>										<b>SOFTWARE<sup>14</sup></b> <b>Windows XP Professional</b> - Microsoft® Windows® XP Professional <sup>20</sup> ◆ Disk-to-Disk Recovery (in hidden protected area)						
L2 cache Memory	<b>128 or 256MB</b> std / 1GB max <sup>7</sup> / <b>PC2100</b> 266MHz DDR1 / non-parity / CL2.5 / two 200-pin SO-DIMM sockets / std memory in one socket / one socket available										<b>Preloaded</b> • Access IBM • Access Connections™ • Adobe Reader • Rapid Restore™ PC • RecordNOW and DLA by Veritas (combo models) • InterVideo WinDVD (combo mlds) • Norton AntiVirus (OEM edition) • PC-Doctor™ • ThinkPad Utilities • Update Connector™ <sup>15</sup>						
Diskette drive CD-ROM Combo Ultrabay 2000 Disk	None standard / use optional Ultrabay™-based or USB-based diskette drive <i>Some: CD-ROM / 24X-10X<sup>9</sup> speed / bootable / removable from Ultrabay 2000</i> <i>Some: DVD-ROM/CD-RW / 24X/10X/24X/8X<sup>21</sup> speed / removable from Ultrabay 2000</i> One modular bay for interchangeable devices / <b>Ultrabay Plus</b> -compatible / 12.7 mm high <b>20GB<sup>8</sup> or 40GB</b> , 4200 rpm, 9.5mm high, S.M.A.R.T. / removable and upgradable / 9.5mm high bay / supports 2nd disk with optional HDD Adapter in Ultrabay 2000										<b>Downloadable</b> • IBM Director Agent • Software Delivery Assistant • System Migration Assistant • Client Security Software (models with security chip)						
Display	<i>Some: 14.1" (358.1mm) XGA (1024x768) TFT color / Active Matrix / 150 nits /</i> <i>Some: 15.0" (381mm) SXGA+ (1400x1050) TFT color / Active Matrix / 150 nits /</i> <i>All: easy-open cover to unlatch and open with one hand (two latches)</i>										<b>License</b> (CD not included) - Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client						
Graphics	<i>Some: ATI® MOBILITY™ RADEON™ / AGP 4X / 16MB DDR1 (DDR-SDRAM)</i> <i>Some: ATI MOBILITY RADEON 7500 / AGP 4X / 32MB DDR1 (DDR-SDRAM)</i>										<b>Ultrabay Plus</b> integrated modular bay supports most Ultrabay 2000 devices including CD-RW/DVD Combo drive, diskette drive, or Zip drive; the optional Ultrabay Plus Device Carrier adds potential functionality by supporting the Ultrabay Plus Numeric Keypad						
Graphics external	External monitor support via analog DB-15 connector / up to 1600x1200 at 85Hz / DDC2B										<b>ServicePac®</b> , <sup>22</sup> 2 yr IOR 9x5 NBD 30L9190						
Keyboard TrackPoint® Touch pad ThinkLight™	87-key / Access IBM button / palm rest / pitch: 19mm; stroke: 2.7mm (std-size keys) TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar <sup>13</sup> , magnifying glass UltraNav™ multi-pointing system / touch pad below keyboard / Tap Zones Illuminates the keyboard to improve visibility in low-light conditions										<b>ServicePac 3 yr IOR 9x5 NBD</b> 30L9197						
Dimensions <sup>3</sup>	<i>14.1" models (WxDxH): 12.3" x 10" x 1.5"; 313mm x 254mm x 38.9mm</i> <i>15.0" models (WxDxH): 13" x 10.5" x 1.6"; 329mm x 267.5mm x 40.5mm</i> with optical drive and battery: <i>14.1" models: 6.0 to 6.1 lb (2.7kg); 15.0": 6.7 lb (3.0kg)</i> <i>Color: black; All: Acrylonitrile-Butadiene-Styrene (ABS) plastic</i>										<b>ServicePac 4 yr IOR 9x5 NBD</b> 69P9198						
Weight <sup>2</sup> Case material Battery - type Battery - life <sup>10</sup>	Lithium Ion 8-cell / intelligent / supports unique 2nd battery in Ultrabay 2000 <i>14.1" Celeron models: 3.8 hrs; 14.1" Pentium 4-M models: 3.8 hrs; 15.0" mods: 3.4 hrs</i>										<b>ServicePac 5 yr IOR 9x5 NBD</b> 69P9200						
Architecture	<b>Intel 845MP</b> chipset / 82845MP Memory Controller Hub (MCH-M) / 82801DBM ICH4-M I/O Controller Hub (ATA-100 EIDE, PCI bus, ethernet MAC, Low Pin Count (LPC) interface, USB, Firmware Hub) / PCI bus 2.2 32-bit, 33MHz (TI® PCI1510 CardBus controller, TSB43AB21 1394 (some), Mini PCI, external expansion) / LPC bus 33MHz (security chip; PC87392 Super I/O for diskette, parallel, infrared) One Type I, one Type II, or one Type III / CardBus 32-bit / PCMCIA 2.1 / integrated door Two USB (Version 2.0) / parallel / external monitor (DB-15) / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / no keyboard or mouse or serial port										<b>ServicePac 4 yr P&amp;L P/U Depot</b> 69P9199						
PC Card Std slots Ports	One Type I, one Type II, or one Type III / CardBus 32-bit / PCMCIA 2.1 / integrated door Two USB (Version 2.0) / parallel / external monitor (DB-15) / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / no keyboard or mouse or serial port										<b>ServicePac 5 yr P&amp;L P/U Depot</b> 69P9201						
Video out IEEE 1394 Wireless antenna Mini PCI 11a/b Wi-Fi <sup>27</sup> CDC Modem Ethernet Audio support	S-video out port (TV out) / one 4-pin industry standard connector IEEE 1394 (FireWire) port / 4-pin connector UltraConnect™ Antenna built into the display cover for optimal wireless signal reception One Mini PCI type III slot (Communications Bay) / not custom upgradable 11a/b Wi-Fi <sup>27</sup> wireless <sup>4</sup> , Mini PCI, Atheros™ AR5001X chipset One Communications Daughter Card (CDC) socket (used by modem) / not accessible 56K <sup>6</sup> V.90 (V.92-designed <sup>29</sup> ) modem in CDC / Agere® chipset 10/100 ethernet on motherboard / Intel 82562EZ chipset (physical layer) Soft audio / ICH AC97 controller / DirectSound® support / AD1891A AC97 codec / stereo speakers / 1 watt / volume up, down, mute buttons / internal mic / microphone input jack (3.5 mm) / headphone jack (3.5 mm) / no line in jack										<b>Universal 72 watt AC adapter</b> Asset ID (system-specific info in chip accessed over network) PC 2001 and PXE 2.0-compliant ACPI 1.0b and 2.0-compliant CIM and DMI 2.0-compliant ImageUltra™ Services available International Warranty Service <sup>17</sup> 24 hour x 7 day <sup>18</sup> toll-free warranty support during the warranty <sup>12</sup> via 800-IBM-SERV (426-7378)						
Security	Power-on password / hard disk password / supervisor password / security keyhole <i>Some: Embedded Security Subsystem 2.0<sup>33</sup> / hardware key storage / multi-factor authentication / local file encryption / Atmel® chip / TCG-compliant</i>										<b>Post-warranty annual maintenance agreements at</b> <b>ibm.com/services/its/us/source/maspspleu.pdf</b>						
Limited warranty <sup>12</sup>	<b>3 years/1 year battery - EasyServ™<sup>19</sup> onsite pickup and delivery</b>																
128 MB PC2100 DDR-SDRAM CL2.5 SOD	10K0028	ThinkPad R32/R40 Series Li-Ion Battery	02K7052	256 MB PC2100 DDR-SDRAM CL2.5 SOD	10K0030	Ultrabay 2000 Li-Ion Battery	02K6646	512 MB PC2100 DDR-SDRAM CL2.5 SOD	10K0032	ThinkPad Multiple Battery Charger II	22P9040	CD-RW/DVD Combo IV Ultrabay 2000	22P6991	80GB HS Hard Disk 9.5mm (5400 rpm)	09N4273	ServicePac 5 yr IOR 9x5 NBD	69P9200
Ultralight 8X Max DVD Ultrabay 2000	22P9102	100GB Hard Disk 9.5mm (5400 rpm)	40Y8716	24X-10X CD-ROM Ultrabay 2000 Drive	05K9233	11a/b/g Wireless Mini PCI Adapter	31P9701	Second HDD Adapter for Ultrabay 2000	08K6068	11a/b/g Wireless CardBus Adapter	31P9101	Multi-Burner Plus Ultrabay Enhanced Drive	73P3312	ThinkPad 72W AC Adapter	02K6699	ServicePac 4 yr P&L P/U Depot	69P9199
ThinkPad Slim Drive Adpr for Ultrabay 2000	62P4557	ThinkPad 72W AC/DC Combo Adapter	22P9010	USB Portable Diskette Drive	05K9276	ThinkPad Port Replicator II	74P6733	USB 2.0 Portable Combo Drive	22P9194	ThinkPad Mini Dock	287810U	USB 2.0 Memory Key 512MB	22P9230	ThinkPad Carrying Case - Expander	73P3597	Post-warranty annual maintenance agreements at	
M400 Projector	0037A04	Other options at <b>lenovo.com/options</b>															

See footnotes for important warranty information

US models announced March 25 or October 7, 2003

US models withdrawn effective April 2004, October 2004, or December 2005

© Lenovo  
(R403E) October 2005

# ThinkPad® R40 (March 2003) - withdrawn

Created by Lenovo Training Solutions  
Personal Systems Reference (PSREF)

Type-model	Processor	Speed GHz Memory	Screen	Graphics memory GB <sup>8</sup>	Disk Optical	Mini PCI Comm Bay wireless	CDC modem/ Bluetooth™	Ethernet on planar	IEEE 1394 Security port chip	Workhorse (W) or Global (G) Entry (E)	Avail date
2722-5JU	Pentium® M1.3	256MB 15.0"	XGA	32MB 40G	Combo	Open; wireless upg <sup>36</sup>	Modem	10/100	1394 Yes	XP Pro	Apr 2003
2722-58U	Pentium M 1.3	256MB 15.0"	XGA	32MB 40G	DVD	Open; wireless upg	Modem	10/100	1394 Yes	XP Pro	Apr 2003
2722-F2U	Pentium M 1.5	256MB 15.0"	XGA	32MB 40G	DVD	Open; wireless upg	Modem	10/100	1394 Yes	XP Pro	W Apr 2003
2722-G3U	Pentium M 1.5	256MB 15.0"	SXGA+32MB	60G	Combo	Open; wireless upg	Modem	10/100	1394 Yes	XP Pro	Apr 2003
2722-GAU	Pentium M 1.5	256MB 15.0"	SXGA+32MB	40G	Combo	*Intel 11b Wi-Fi <sup>32</sup>	Mod/Blu	10/100	1394 Yes	XP Pro	Apr 2003
2722-GDU	Pentium M 1.5	256MB 15.0"	SXGA+32MB	60G	Combo	11a/b Wi-Fi <sup>27</sup>	Modem	10/100	1394 Yes	XP Pro	Apr 2003
2722-22U	Pentium M 1.3	128MB 14.1"	XGA	16MB 20G	CD	Open; wireless upg	Modem	10/100	1394 Yes	XP Pro	Mar 2003
2722-2QU	Pentium M 1.3	256MB 14.1"	XGA	16MB 20G	DVD	*Intel 11b Wi-Fi	Modem	10/100	1394 Yes	XP Pro	Mar 2003
2722-27U	Pentium M 1.3	256MB 14.1"	XGA	16MB 20G	DVD	Open; wireless upg	Modem	10/100	1394 Yes	XP Pro	W Mar 2003
2722-2JU	Pentium M 1.3	256MB 14.1"	XGA	16MB 40G	Combo	Open; wireless upg	Modem	10/100	1394 Yes	XP Pro	Mar 2003
2722-47U	Pentium M 1.3	256MB 15.0"	XGA	16MB 20G	DVD	Open; wireless upg	Modem	10/100	1394 Yes	XP Pro	Mar 2003
2722-24U	Pentium M 1.3	128MB 14.1"	XGA	16MB 20G	CD	Open; wireless upg	Modem	10/100	1394 Yes	XP Home	Mar 2003
2722-9FU	Pentium M 1.4	128MB 14.1"	XGA	16MB 20G	CD	*Intel 11b Wi-Fi	Modem	10/100	1394 Yes	XP Home E	Oct 2003
2722-8FU	Pentium M 1.4	128MB 15.0"	XGA	16MB 20G	CD	*Intel 11b Wi-Fi	Modem	10/100	1394 Yes	XP Home E	Nov2003
Positioning Processor	<i>Mainstream performance and features; two-spindle system</i> <b>Intel® Pentium® M Processor 1.3, 1.4, or 1.5GHz</b> with enhanced Intel SpeedStep™ technology <sup>1</sup> and 400MHz system bus									<b>SOFTWARE<sup>14</sup></b>	
L2 cache	<b>1MB</b> / on die (at processor speed) / ECC									<b>Windows XP Pro models</b>	
Memory	<b>128 or 256MB</b> std / 2GB max <sup>7</sup> / <b>PC2100</b> 266MHz DDR1 / non-parity / CL2.5 / two 200-pin SO-DIMM sockets / std memory in one socket / one socket available									- Microsoft® Windows® XP Professional <sup>20</sup> ♦ Disk-to-Disk Recovery (in hidden protected area)	
Diskette drive	None standard / use optional Ultrabay™-based or USB-based diskette drive									<b>Windows XP Home models</b>	
CD	<i>Some:</i> CD-ROM / 24X-10X <sup>9</sup> speed / bootable / removable from Ultrabay 2000									- Microsoft Windows XP Home Edition <sup>20</sup>	
DVD	<i>Some:</i> DVD-ROM / 8X-3.3X <sup>9</sup> speed / bootable / removable from Ultrabay 2000									♦ Disk-to-Disk Recovery (in hidden protected area)	
Combo	<i>Some:</i> DVD-ROM/CD-RW / 24X/10X/24X/8X <sup>21</sup> speed / removable from Ultrabay 2000									<b>INCLUDED SOFTWARE<sup>14</sup> (all)</b>	
Ultrabay 2000	One modular bay for interchangeable devices / <b>Ultrabay Plus</b> -compatible / 12.7 mm high									<b>Preloaded</b>	
Disk	<b>20GB<sup>3</sup>, 40GB<sup>3</sup>, or 60GB<sup>3</sup></b> , 4200 rpm, 9.5mm / removable and upgradable / 9.5mm high bay / supports 2nd disk with optional HDD Adapter in Ultrabay 2000									• Access IBM • Access Connections • Adobe Reader • Rapid Restore™ PC • RecordNOW and DLA by Veritas (combo models) • InterVideo WinDVD (Combo, DVD) • Norton AntiVirus (OEM edition) • PC-Doctor™ • ThinkPad Utilities • Update Connector™ <sup>15</sup>	
Display	<i>Some:</i> <b>14.1"</b> (358.1mm) <b>XGA (1024x768) TFT color</b> / Active Matrix / 150 nits <i>Some:</i> <b>15.0"</b> (381.0mm) <b>XGA (1024x768) TFT color</b> / Active Matrix / 150 nits <i>Some:</i> <b>15.0"</b> (381.0mm) <b>SXGA+ (1450x1050) TFT color</b> / Active Matrix / 150 nits									<b>Downloadable</b>	
Graphics	<i>Some:</i> <b>ATI® MOBILITY™ RADEON™ / AGP 4X / 16MB</b> DDR1 (DDR-SDRAM) <i>Some:</i> <b>ATI MOBILITY RADEON 7500 / AGP 4X / 32MB</b> DDR1 (DDR-SDRAM)									• IBM Director Agent • Software Delivery Assistant • System Migration Assistant • Client Security Software (for security chip)	
Graphics external	External monitor support via analog DB-15 connector / up to 1600x1200 at 85Hz / DDC2B									<b>License</b> (CD not included)	
Keyboard	87-key / Access IBM button / palm rest / pitch: 19mm; stroke: 2.7mm (std-size keys)									- Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client	
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar <sup>13</sup> , magnifying glass									Universal 72 watt AC adapter Asset ID™ <sup>34</sup> (system-specific info in chip accessed over network) PC 2001 and PXE 2.0-compliant ACPI 1.0b and 2.0-compliant CIM and DMI 2.0-compliant International Warranty Service <sup>17</sup> 24 hour x 7 day <sup>18</sup> toll-free warranty support during the warranty <sup>12</sup>	
Touch pad	UltraNav™ multi-pointing system / touch pad below keyboard / Tap Zones									ServicePac® <sup>22</sup> 1yr IOR 9x5 NBD 30L9188	
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions									ServicePac 3 yr IOR 9x5 NBD 30L9195	
Dimensions <sup>3</sup>	<i>14.1" models:</i> 12.3" x 10.0" x 1.53"; <i>15.0" models:</i> 13.0" x 10.5" x 1.59"									ServicePac 3yr P&L P/U Depot 30L9192	
Weight <sup>2</sup>	with optical drive and battery: <i>14.1" models:</i> 6.0 to 6.7 lb; <i>15.0":</i> 6.6 to 6.7 lb (3.0 to 3.4kg)									ServicePac 5yr P&L P/U Depot 69P9197	
Case material	<i>Color:</i> Black; <i>All:</i> Acrylonitrile-Butadiene-Styrene (ABS) plastic									Other ServicePac options at <b>ibm.com/services/its/us/source/wamomxeu.pdf</b>	
Battery - type	Lithium Ion 8-cell / intelligent / supports unique 2nd battery in Ultrabay 2000									ThinkPad Port Replicator II 74P6733	
Battery - life <sup>10</sup>	<i>Model GAU:</i> 5.0 hr; <i>Others:</i> 5.7 to 6.2 hr									ThinkPad Mini Dock 287810U	
Architecture	<b>Intel 855PM</b> chipset / 82855PM Memory Controller Hub (MCH-M) / 82801DBM ICH4-M I/O Controller Hub (ATA-100 EIDE, PCI bus, ethernet MAC, Low Pin Count (LPC) interface, USB, Firmware Hub) / PCI bus 2.2 32-bit, 33MHz (TI® PC11510 CardBus controller, TSB43AB21 1394 (some), Mini PCI, external expansion) / LPC bus 33MHz (security chip; PC87392 Super I/O for diskette, parallel, infrared)									ThinkPad 72W AC Adapter 02K6699	
PC Card Std slots	One Type I, one Type II, or one Type III / CardBus 32-bit / PCMCIA 2.1 / integrated door									ThinkPad 72W AC/DC Combo Adapter 22P9010	
Ports	Two USB (Version 2.0) / parallel / external monitor (DB-15) / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / no keyboard or mouse or serial port									Other options at <b>lenovo.com/options</b>	
Video out	S-video out port (TV out) / one 4-pin industry standard connector										
IEEE 1394	IEEE 1394 (FireWire) port / 4-pin connector										
Wireless antenna	UltraConnect™ Antenna built into the display cover for optimal wireless signal reception										
Mini PCI	One Mini PCI type III slot (Communications Bay) / customer upgradable										
Wireless upg <sup>36</sup>	<i>Some:</i> Wireless upgradable with wireless Mini PCI options										
11b Wi-Fi <sup>32</sup>	<i>Some:</i> 11b Wi-Fi <sup>32</sup> wireless <sup>4</sup> , Mini PCI, Intel PRO/Wireless 2100 Network Connection 802.11b, Intel 82531 chipset										
11a/b Wi-Fi <sup>27</sup>	<i>Some:</i> 11a/b Wi-Fi <sup>27</sup> wireless <sup>4</sup> , Mini PCI, Atheros™ AR5001X chipset										
CDC	One Communications Daughter Card (CDC) socket (used by modem) / not accessible										
Modem	56K <sup>6</sup> V.90 (V.92-designed <sup>25</sup> ) modem in CDC / Agere® chipset										
Bluetooth™	<i>Some:</i> Bluetooth wireless technology / in CDC (with modem)										
Ethernet	10/100 ethernet on motherboard / Intel 82562EZ chipset (physical layer) / PXE										
Audio support	Soft audio / ICH AC97 controller / DirectSound® support / AD1891A AC97 codec / stereo speakers / 1 watt / volume up, down, mute buttons / internal mic / microphone input jack (3.5 mm) / headphone jack (3.5 mm) / no line in jack										
Security	Power-on password / hard disk password / supervisor password / security keyhole										
Security chip	<b>Embedded Security Subsystem 2.0<sup>33</sup></b> / hardware key storage / multi-factor authentication / local file encryption / Atmel® chip / TCG-compliant										
Limited warranty <sup>12</sup>	<b>1 year</b> - EasyServ™ <sup>19</sup> onsite pickup and delivery / service upgrades <sup>22</sup> available										
128MB PC2100 DDR-SDRAM CL2.5 SOD	10K0028			40GB HS Hard Disk 9.5mm (5400 rpm)			08K9816				
256MB PC2100 DDR-SDRAM CL2.5 SOD	10K0030			80GB HS Hard Disk 9.5mm (5400 rpm)			09N4273				
512MB PC2100 DDR-SDRAM CL2.5 SOD	10K0032			ThinkPad R32/R40 Series Li-Ion Battery			02K7052				
1GB PC2100 DDR-SDRAM CL2.5 SOD	10K0034			Ultrabay 2000 Li-Ion battery			02K6646				
CD-RW/DVD Combo IV Ultrabay 2000	22P6991			ThinkPad Multiple Battery Charger II			22P9040				
Second HDD Adapter for Ultrabay 2000	08K6068			11a/b/g Wireless CardBus Adapter			31P9101				
USB Portable Diskette Drive	05K9276			11a/b/g Wireless Mini PCI Adapter			31P9701				
USB 2.0 Combo Drive	73P4515			ThinkPad Carrying Case - Expander			73P3597				
USB 2.0 Memory Key 512MB	22P9230			M400 Projector			0037A04				

See footnotes for important warranty information \* Powered by Intel Centrino™ mobile technology  
US models announced March 12, October 21, or November 11, 2003  
US models withdrawn effective January 2004, April 2004, October 2004, or December 2005

© Lenovo  
(R40M) October 2005

# ThinkPad® R50e (1834) - September 2004 - withdrawn

Created by Lenovo Training Solutions  
Personal Systems Reference (PSREF)

Type-model	Processor	Speed	L2 cache	Memory	Screen	Disk GB <sup>8</sup>	Optical	Mini PCI Comm Bay wireless	CDC modem	Integrated graphics	Security chip	Limited warranty <sup>12</sup>	Workhorse (W) Global (G) Avail Entry (E) date		
1834-ELU	Celeron® M 330	1.4	512K	128MB	14.1" XGA	30GB	CD	None	Modem	Extreme™ 2	No	XP Home	1 yr	E	Dec 04
1834-EKU	Celeron M 330	1.4	512K	256MB	14.1" XGA	30GB	CD	None	Modem	Extreme 2	No	XP Home	1 yr		Dec 04
1834-GPU	Celeron M 330	1.4	512K	256MB	15.0" XGA	30GB	CD	None	Modem	Extreme 2	No	XP Home	1 yr		Dec 04
1834-E2U	Celeron M 340	1.5	512K	128MB	14.1" XGA	30GB	CD	None	Modem	Extreme 2	No	XP Home	1 yr	E	Sep 04
1834-E9U	Celeron M 350	1.3	1MB	128MB	14.1" XGA	30GB	CD	None	Modem	Extreme 2	No	XP Home	1 yr	E	Sep 04
1834-E4U	Celeron M 340	1.5	512K	256MB	14.1" XGA	30GB	CD	None	Modem	Extreme 2	No	XP Home	1 yr		Sep 04
1834-E7U	Celeron M 340	1.5	512K	256MB	14.1" XGA	30GB	Combo	None	Modem	Extreme 2	No	XP Pro	1 yr		Sep 04
1834-G4U	Celeron M 340	1.5	512K	256MB	15.0" XGA	30GB	CD	None	Modem	Extreme 2	No	XP Home	1 yr		Sep 04
1834-G7U	Celeron M 340	1.5	512K	256MB	15.0" XGA	30GB	Combo	None	Modem	Extreme 2	No	XP Pro	1 yr		Sep 04
1834-PEU	Pentium® M 710	1.4	2MB	128MB	14.1" XGA	30GB	CD	* Intel 11b/g <sup>32</sup>	Modem	Extreme 2	No	XP Home	1 yr	E	Oct 04
1834-PMU	Pentium M 715a	1.5	2MB	256MB	14.1" XGA	30GB	Combo	* Intel 11b/g	Modem	Extreme 2	No	XP Home	1 yr	E	Jan 05
1834-FEU	Pentium M 725	1.6	2MB	128MB	14.1" XGA	30GB	CD	* Intel 11b/g	Modem	Extreme 2	No	XP Home	1 yr	E	Sep 04
1834-FKU	Pentium M 725	1.6	2MB	256MB	14.1" XGA	30GB	Combo	* Intel 11b/g	Modem	Extreme 2	No	XP Pro	1 yr		Sep 04
1834-HRU	Pentium M 725	1.6	2MB	256MB	15.0" XGA	30GB	Combo	* Intel 11b/g	Modem	Extreme 2	No	XP Pro	1 yr		Sep 04
Positioning Processor	<b>Mainstream performance and features; two-spindle system</b> <b>Intel® Celeron M Processor 330 (1.4GHz), 340 (1.5GHz) or 350 (1.3GHz)</b> with 400MHz system bus or <b>Intel Pentium M Processor 710 (1.4GHz), 715/715a (1.5GHz), or 725 (1.6GHz)</b> with enhanced Intel SpeedStep™ technology <sup>1</sup> and 400MHz system bus <i>Celeron M 330/340: 512KB; Celeron M 350: 1MB; Pentium M 710/725: 2 MB; All: ECC</i> <b>128MB or 256MB</b> std / 2GB max <sup>7</sup> / <b>PC2700</b> 333MHz DDR1 (memory controller limits speed to 266MHz) / non-parity / CL2.5 / two 200-pin SO-DIMM sockets / std memory in one socket / one socket available											<b>SOFTWARE<sup>14</sup></b> <b>Windows XP Home models</b> - Microsoft® Windows® XP Home Edition <sup>20</sup> - <i>Dec/Jan models: Service Pack 2</i> ♦ Disk-to-Disk Recovery (in hidden protected area)			
L2 cache												<b>Windows XP Pro models</b> - Microsoft Windows XP Professional <sup>20</sup> ♦ Disk-to-Disk Recovery (in hidden protected area)			
Memory												<b>Preloaded (all)</b> • Rescue and Recovery™ • Access IBM • Access Connections • Norton AntiVirus (OEM edition) • PC-Doctor™ • ThinkPad Utilities • Update Connector™ <sup>15</sup> • RecordNOW and Drive Letter Access powered by Sonic products (combo models) • InterVideo WinDVD (combo models)			
Diskette drive	None standard / use optional USB-based diskette drive														
CD	None: CD-ROM / 24X-10X <sup>9</sup> speed / fixed, not removable / 12.7 mm high														
Combo	Some: DVD-ROM/CD-RW / 24X/24X/24X/8X <sup>21</sup> speed / fixed, not removable / 12.7 mm														
Ultrabay Enhanced Disk	None / no support for removable Ultrabay™ options <b>30GB<sup>8</sup></b> (4200 rpm), 9.5mm high / removable and upgradable / 9.5mm high bay / <b>Hard Disk Drive Shock Absorber</b>														
Display	Some: <b>14.1"</b> (358.1mm) <b>XGA (1024x768) TFT color</b> / Active Matrix / 150 nits Some: <b>15.0"</b> (381.0mm) <b>XGA (1024x768) TFT color</b> / Active Matrix / 200 nits														
Graphics	<b>Integrated Intel Extreme™ Graphics 2</b> / in 855GM GMCH / uses main memory (up to 64MB) / 200MHz														
Graphics external	External monitor support via analog DB-15 connector / up to 1600x1200 at 85Hz / DDC2B														
Keyboard	87-key / Access IBM button / palm rest / pitch: 19mm; stroke: 2.7mm (std-size keys)														
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar <sup>13</sup> , magnifying glass														
Touch pad	No UltraNav™ multi-pointing system														
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions														
Dimensions <sup>3</sup>	<b>14.1" models (WxDxH):</b> 12.4" x 10.2" x 1.35-1.46"; 314mm x 260mm x 34-37mm <b>15.0" models (WxDxH):</b> 13.1" x 10.6" x 1.47-1.58"; 332mm x 269mm x 37-40mm with optical drive and battery: <b>14.1" models:</b> 6.0 lb (2.7kg); <b>15.0" models:</b> 6.6 lb (3.0kg)														
Weight <sup>2</sup>															
Case material	Color: black; All: Acrylonitrile-Butadiene-Styrene (ABS) plastic														
Battery - type	Lithium Ion 6-cell / intelligent / supports optional 9-cell battery														
Battery - life <sup>10</sup>	<i>Celeron M models:</i> up to 3.4 hr; <i>Pentium M models:</i> up to 4.0 hr; <i>Optional High Capacity 9-cell:</i> up to 5.4 hr														
Architecture	<b>Intel 855GM</b> chipset / 82855GM Memory Controller Hub (MCH-M) / 82801DBM ICH4-M I/O Controller Hub (ATA-100 EIDE, PCI bus, ethernet MAC, Low Pin Count [LPC] interface, USB) / PCI bus 2.2 32-bit, 33MHz (TI® PCI1510 CardBus controller, Mini PCI) / LPC bus 33MHz (PC87392 Super I/O for parallel)														
Port replicator	No port replicator support														
Docking station	No docking station support														
PC Card Std slots	One Type I, one Type II, or one Type III / CardBus 32-bit / PCMCIA 2.1 / integrated door														
Ports	Two USB (Version 2.0) / parallel / external monitor (DB-15) / RJ-11 (modem) / RJ-45 (ethernet) / no keyboard or mouse or serial or infrared port														
Wireless antenna	Some: none / can upgrade to wireless via optional PC Cards Some: UltraConnect™ Antenna built into the display cover														
Mini PCI	Some: no Mini PCI slot (Communications Bay) Some: one Mini PCI slot (Communications Bay) / not customer upgradable														
Intel 11b/g <sup>32</sup>	Some: 11b/g wireless <sup>4</sup> , Mini PCI, Intel PRO/Wireless 2200BG, Intel 82532 chipset														
CDC	One Communications Daughter Card (CDC) socket (used by modem) / not accessible														
Modem	56K® V.90 (V.92-designed <sup>29</sup> ) modem in CDC / Conexant® chipset														
Ethernet	10/100 ethernet on planar / Intel 82562EZ chipset (physical layer) / Wake on LAN®														
Audio support	Soft audio / ICH AC97 controller / DirectSound® support / AD1981B AC97 codec / mono speaker / 1 watt / volume up, down, mute buttons / no internal microphone / microphone input jack (3.5 mm) / headphone jack (3.5 mm) / no line in jack														
Security	Power-on password / hard disk password / supervisor password / security keyhole														
Security chip	None														
Limited warranty <sup>12</sup>	<b>1 year - EasyServ™<sup>19</sup></b> onsite pickup and delivery courier service														
128MB PC2700 DDR-SDRAM CL2.5 SOD	31P9828			T40/R50 Series Li-Ion Battery 6-cell				08K8214				ServicePac 2 yr P&L P/U Depot			
256MB PC2700 DDR-SDRAM CL2.5 SOD	31P9830			T40/R50 High Capacity Li-Ion Batt 9-cell				08K8197				30L9188			
512MB PC2700 DDR-SDRAM CL2.5 SOD	31P9832			ThinkPad Multiple Battery Charger II				22P9040				ServicePac 3 yr P&L P/U Depot			
1GB PC2700 DDR-SDRAM CL2.5 SOD	31P9834			60GB HS Hard Disk 9.5mm (5400 rpm)				73P3357				30L9189			
USB Portable Diskette Drive	05K9276			80GB HS Hard Disk (used 9.5mm (5400 rpm)				09N4273				ServicePac 4 yr P&L P/U Depot			
USB 2.0 Combo Drive	73P4515			11a/b/g Wireless CardBus Adapter				31P9101				69P9195			
USB 2.0 Portable Multi-Burner Drive	22P9163			ThinkPad 72W AC/DC Combo Adapter				22P9010				ServicePac 5 yr P&L P/U Depot			
USB 2.0 Memory Key 512MB	22P9230			Other options at <b>lenovo.com/options</b>								69P9197			

See footnotes for important warranty information \* Powered by Intel Centrino™ mobile technology  
US models announced Sept 14, Oct 12, or Dec 21, 2004, or Jan 11, 2005  
US models withdrawn effective September 2005

© Lenovo  
(1834S) July 2005



# ThinkPad® R50e (1834) - March 2005 - withdrawn

Created by Lenovo Training Solutions  
Personal Systems Reference (PSREF)

Type-model	Processor	Speed	L2 cache	Memory	Screen	Disk GB <sup>8</sup>	Optical	Mini PCI Comm Bay wireless	CDC modem	Integrated graphics	Security chip	Preload	Limited warranty <sup>12</sup>	Global Entry	Avail date
1834-K5U	Celeron® M 350	1.3	1MB	256MB	14.1" XGA	30GB	CD	None	Modem	Extreme™ 2	No	XP Home	1 yr	No	Mar 05
1834-M4U	Celeron M 350	1.3	1MB	256MB	15.0" XGA	30GB	CD	None	Modem	Extreme 2	No	XP Home	1 yr	No	Mar 05
1834-L7U	Pentium® M 735	1.7	2MB	256MB	14.1" XGA	30GB	Combo	*Intel 11b/g <sup>32</sup>	Modem	Extreme 2	No	XP Pro	1 yr	No	Mar 05
1834-R3U	Pentium M 735	1.7	2MB	256MB	15.0" XGA	30GB	Combo	*Intel 11b/g	Modem	Extreme 2	No	XP Pro	1 yr	No	Mar 05
Positioning Processor	<b>Mainstream performance and features; two-spindle system</b> <b>Intel® Celeron M Processor 350 (1.3GHz)</b> with 400MHz system bus or <b>Intel Pentium M Processor 735 (1.7GHz)</b> with enhanced Intel SpeedStep™ technology <sup>1</sup> and 400MHz system bus										<b>SOFTWARE<sup>14</sup></b> <b>Windows XP Home models</b> - Microsoft® Windows® XP Home Edition <sup>20</sup> (Service Pack 2) ♦ Disk-to-Disk Recovery (in hidden protected area) <b>Windows XP Professional models</b> - Microsoft Windows XP Professional <sup>20</sup> (Service Pack 2) ♦ Disk-to-Disk Recovery (in hidden protected area) <b>Preloaded (all)</b> • Rescue and Recovery™ • Access IBM • Access Connections • Norton AntiVirus (OEM edition) • PC-Doctor™ • ThinkPad Utilities • Update Connector™ <sup>15</sup> • RecordNOW and Drive Letter Access powered by Sonic products (combo models) • InterVideo WinDVD (combo models) <b>Downloadable (all)</b> • IBM Director Agent • Software Delivery Assistant • System Migration Assistant <b>License (CD not included)</b> - Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client				
L2 cache	<b>Celeron M 350: 1MB; Pentium M 735: 2 MB; All: on die (at processor speed) / ECC</b>														
Memory	<b>256MB</b> std / <b>2GB</b> max <sup>7</sup> / <b>PC2700</b> 333MHz DDR1 (memory controller limits speed to 266MHz) / non-parity / CL2.5 / two 200-pin SO-DIMM sockets / std memory in one socket / one socket available														
Diskette drive	None standard / use optional USB-based diskette drive														
CD	<i>Some:</i> CD-ROM / 24X-10X <sup>9</sup> speed / fixed, not removable / 12.7 mm high														
Combo	<i>Some:</i> DVD-ROM/CD-RW / 24X/24X/24X/8X <sup>21</sup> speed / fixed, not removable / 12.7 mm														
Ultradisk Enhanced Disk	None / no support for removable Ultradisk™ options														
	<b>30GB<sup>8</sup></b> (4200 rpm), 9.5mm high / removable and upgradable / 9.5mm high bay / <b>Hard Disk Drive Shock Absorber</b>														
Display	<i>Some:</i> <b>14.1"</b> (358.1mm) <b>XGA (1024x768) TFT color</b> / Active Matrix / 150 nits <i>Some:</i> <b>15.0"</b> (381.0mm) <b>XGA (1024x768) TFT color</b> / Active Matrix / 200 nits														
Graphics	<b>Integrated Intel Extreme™ Graphics 2</b> / in 855GM GMCH / uses main memory (up to 64MB) / 200MHz														
Graphics external	External monitor support via analog DB-15 connector / up to 1600x1200 at 85Hz / DDC2B														
Keyboard	87-key / Access IBM button / palm rest / pitch: 19mm; stroke: 2.7mm (std-size keys)														
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar <sup>13</sup> , magnifying glass														
Touch pad	No UltraNav™ multi-pointing system														
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions														
Dimensions <sup>3</sup>	<b>14.1" models (WxDxH):</b> 12.4" x 10.2" x 1.35-1.46"; 314mm x 260mm x 34-37mm <b>15.0" models (WxDxH):</b> 13.1" x 10.6" x 1.47-1.58"; 332mm x 269mm x 37-40mm														
Weight <sup>2</sup>	with optical drive and battery: <b>14.1" models:</b> 6.0 lb (2.7kg); <b>15.0" models:</b> 6.6 lb (3.0kg)														
Case material	<b>Color:</b> black; <b>All:</b> Acrylonitrile-Butadiene-Styrene (ABS) plastic														
Battery - type	Lithium Ion 6-cell / intelligent / supports optional 9-cell battery														
Battery - life <sup>10</sup>	<b>Celeron M models:</b> up to 3.4 hr; <b>Pentium M models:</b> up to 4.0 hr; <b>Optional High Capacity 9-cell:</b> up to 5.4 hr														
Architecture	<b>Intel 855GM</b> chipset / 82855GM Memory Controller Hub (MCH-M) / 82801DBM ICH4-M I/O Controller Hub (ATA-100 EIDE, PCI bus, ethernet MAC, Low Pin Count [LPC] interface, USB) / PCI bus 2.2 32-bit, 33MHz (TI® PCI1510 CardBus controller, Mini PCI) / LPC bus 33MHz (PC87392 Super I/O for parallel)														
Port replicator	No port replicator support														
Docking station	No docking station support														
PC Card Std slots	One Type I, one Type II, or one Type III / CardBus 32-bit / PCMCIA 2.1 / integrated door														
Ports	Two USB (Version 2.0) / parallel / external monitor (DB-15) / RJ-11 (modem) / RJ-45 (ethernet) / no keyboard or mouse or serial or infrared port														
Wireless antenna	<i>Some:</i> none / can upgrade to wireless via optional PC Cards <i>Some:</i> UltraConnect™ Antenna built into the display cover														
Mini PCI	<i>Some:</i> no Mini PCI slot (Communications Bay) <i>Some:</i> one Mini PCI slot (Communications Bay) / not customer upgradable														
Intel 11b/g <sup>32</sup>	<i>Some:</i> 11b/g wireless <sup>4</sup> , Mini PCI, Intel PRO/Wireless 2200BG, Intel 82532 chipset														
CDC	One Communications Daughter Card (CDC) socket (used by modem) / not accessible														
Modem	56K <sup>5</sup> V.90 (V.92-designed <sup>29</sup> ) modem in CDC / Conexant® chipset														
Ethernet	10/100 ethernet on planar / Intel 82562EZ chipset (physical layer) / Wake on LAN®														
Audio support	Soft audio / ICH AC97 controller / DirectSound® support / AD1981B AC97 codec / mono speaker / 1 watt / volume up, down, mute buttons / no internal microphone / microphone input jack (3.5 mm) / headphone jack (3.5 mm) / no line in jack														
Security	Power-on password / hard disk password / supervisor password / security keyhole														
Security chip	None														
Limited warranty <sup>12</sup>	<b>1 year</b> - EasyServ™ <sup>19</sup> onsite pickup and delivery courier service														
128 MB PC2700 DDR-SDRAM CL2.5 SOD	31P9828	ThinkPad T40/R50 Li-Ion Battery 6-cell	92P1101	ServicePac 3 yr IOR 9x5 NBD	30L9189										
256 MB PC2700 DDR-SDRAM CL2.5 SOD	31P9830	ThinkPad T40/R50 Li-Ion Battery 9-cell	92P1102	ServicePac 4 yr IOR 9x5 NBD	30L9195										
512 MB PC2700 DDR-SDRAM CL2.5 SOD	31P9832	ThinkPad Multiple Battery Charger II	22P9040	ServicePac 5 yr IOR 9x5 NBD	30L9194										
1GB PC2700 DDR-SDRAM CL2.5 SOD	31P9834	Kensington® MicroSaver® Security Cable	73P2582	ServicePac 2 yr P&L P/U Depot	30L9196										
USB Portable Diskette Drive	05K9276	GemPC400 Smart Card Reader/Writer	31P8901	ServicePac 3 yr P&L P/U Depot	30L9192										
USB 2.0 Portable 80GB Hard Disk	40Y8726	11a/b/g Wireless CardBus Adapter	31P9101	ServicePac 4 yr P&L P/U Depot	69P9195										
USB 2.0 Combo Drive	73P4515	ThinkPad 72W AC Adapter	02K6699	ServicePac 5 yr P&L P/U Depot	69P9197										
USB 2.0 Portable Multi-Burner Drive	22P9163	ThinkPad 72W AC/DC Combo Adapter	22P9010	Post-warranty annual maintenance agreements at											
USB 2.0 Memory Key 256MB	22P9228	Optical 3-Button Travel Wheel Mouse	31P7410	<b>ibm.com/services/its/us/source/maspspleu.pdf</b>											
USB 2.0 Memory Key 512MB	22P9230	Optical 3-Button ScrollPoint® Mouse	31P7405												
USB Keyboard with UltraNav	31P8950	Optical 3-Button ScrollPoint Pro Mouse	31P8700												
USB Travel Keyboard with UltraNav	31P9490	USB Optical Wheel Mouse (black)	06P4069												
Enh Perf Wireless Keyboard and Mouse	73P4067	ThinkPad Nylon Carrying Case	10K0207												
Preferred Pro PS/2 Keyboard (black)	31P7415	ThinkPad Carrying Case - Organizer	73P3598												
C400 Projector	0039A04	ThinkPad Carrying Case - Expander	73P3597												
M400 Projector	0037A04	ThinkPad Carrying Case - BackPack	73P3599												
40GB HS Hard Disk 9.5mm (5400 rpm)	08K9816	ThinkPad Carrying Case - Leather	73P3600												
80GB HS Hard Disk 9.5mm (5400 rpm)	09N4273	Other options at <b>lenovo.com/options</b>													

See footnotes for important warranty information  
US models announced March 1, 2005  
US models withdrawn effective November 2005

\* Powered by Intel Centrino™ mobile technology

# ThinkPad® R50e (1834) - Education - withdrawn

Created by Lenovo Training Solutions  
Personal Systems Reference (PSREF)

Type-model	Processor	Speed GHz	L2 cache	Memory	Screen	Disk GB <sup>8</sup>	Optical	Mini PCI Comm Bay wireless	CDC modem	Integrated graphics	Security chip	Limited warranty <sup>12</sup>	Workhorse (W) Global (G) Avail Education date
1834-FWU	Celeron® M 320	1.3	512KB	256MB	14.1" XGA	30GB	CD	Intel 11b/g <sup>32</sup>	Modem	Extreme™ 2	No	XP Pro	1 yr Educ Sep 04
1834-FXU	Celeron M 340	1.5	512KB	256MB	14.1" XGA	30GB	CD	Intel 11b/g	Modem	Extreme 2	No	XP Pro	1 yr Educ Sep 04
1834-KQU	Celeron M 350	1.3	1MB	256MB	14.1" XGA	30GB	CD	Intel 11b/g	Modem	Extreme 2	No	XP Pro	1 yr Educ Mar 05
1834-LJU	Celeron M 360	1.4	1MB	256MB	14.1" XGA	40GB	CD	Intel 11b/g	Modem	Extreme 2	No	XP Pro	1 yr Educ Jul 05
1834-L4U	Pentium® M 725	1.6	2MB	256MB	14.1" XGA	30GB	Combo	* Intel 11b/g	Modem	Extreme 2	No	XP Pro	1 yr Educ Mar 05

• **The 1834 has a 1 year limited warranty**

These educational models are available only to public or private K-12 (or higher) accredited schools organized and operated exclusively for educational purposes for use by qualified students and teachers.

Positioning	<i>Mainstream performance and features; two-spindle system</i>										<b>SOFTWARE<sup>14</sup></b>		
Processor	<b>Intel® Celeron M Processor 320 (1.3GHz), 340 (1.5GHz), 350 (1.3GHz), or 360 (1.4GHz)</b> with 400MHz system bus or <b>Intel Pentium M Processor 725 (1.6GHz)</b> with enhanced Intel SpeedStep™ technology <sup>1</sup> and 400MHz system bus										<b>Windows XP Professional</b>		
L2 cache	<i>Celeron M 320/340: 512KB; Celeron M 350/360: 1MB; Pentium M 725: 2 MB; All: ECC</i>										- Microsoft® Windows® XP Professional <sup>20</sup>		
Memory	<b>256MB</b> std / 2GB max <sup>7</sup> / <b>PC2700</b> 333MHz DDR1 (memory controller limits speed to 266MHz) / non-parity / CL2.5 / two 200-pin SO-DIMM sockets / std memory in one socket / one socket available										◆ Disk-to-Disk Recovery (in hidden protected area)		
Diskette drive	None standard / use optional USB-based diskette drive										<b>Preloaded</b>		
CD	<i>Some: CD-ROM / 24X-10X<sup>9</sup> speed / fixed, not removable / 12.7 mm high</i>										• Education software from Vital Source Technologies®: vitalsource KEY™ and Personal Portable library™		
Combo	<i>Some: DVD-ROM/CD-RW / 24X/24X/24X/8X<sup>21</sup> speed / fixed, not removable / 12.7 mm</i>										• Access IBM		
Ultrabay Enhanced Disk	None / no support for removable Ultrabay™ options										• Access Connections™		
Disk	<b>30GB<sup>8</sup></b> (4200 rpm) or <b>40GB</b> (5400 rpm), 9.5mm high / removable and upgradable / 9.5mm high bay / <b>Hard Disk Drive Shock Absorber</b>										• Rescue and Recovery™		
Display	<b>14.1"</b> (358.1mm) <b>XGA (1024x768) TFT color</b> / Active Matrix / 150 nits / one latch to unlatch and open with one hand										• Norton AntiVirus (OEM edition)		
Graphics	<b>Integrated Intel Extreme™ Graphics 2</b> / in 855GM GMCH / uses main memory (up to 64MB) / 200MHz										• PC-Doctor™		
Graphics external	External monitor support via analog DB-15 connector / up to 1600x1200 at 85Hz / DDC2B										• ThinkPad Utilities		
Keyboard	87-key / Access IBM button / palm rest / pitch: 19mm; stroke: 2.7mm (std-size keys)										• Adobe Reader		
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar <sup>13</sup> , magnifying glass										• Update Connector™ <sup>15</sup>		
Touch pad	No UltraNav™ multi-pointing system										• RecordNOW and Drive Letter		
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions										Access powered by Sonic products (combo models)		
Dimensions <sup>3</sup>	<i>14.1" models (WxDxH): 12.4" x 10.2" x 1.35-1.46"; 314mm x 260mm x 34-37mm</i>										• InterVideo WinDVD (combo models)		
Weight <sup>2</sup>	<i>with optical drive and battery: 14.1" models: 6.0 lb (2.7kg)</i>										<b>Downloadable</b>		
Case material	<i>Color: black; All: Acrylonitrile-Butadiene-Styrene (ABS) plastic</i>										• IBM Director Agent		
Battery - type	Lithium Ion 6-cell / intelligent / supports optional 9-cell battery										• Software Delivery Assistant		
Battery - life <sup>10</sup>	<i>Celeron M models: up to 3.4 hr; Pentium M: up to 4.0 hr; Optional 9-cell: up to 5.4 hr</i>										• System Migration Assistant		
Architecture	<b>Intel 855GM</b> chipset / 82855GM Memory Controller Hub (MCH-M) / 82801DBM ICH4-M I/O Controller Hub (ATA-100 EIDE, PCI bus, ethernet MAC, Low Pin Count [LPC] interface, USB) / PCI bus 2.2 32-bit, 33MHz (TI® PCI1510 CardBus controller, Mini PCI) / LPC bus 33MHz (PC87392 Super I/O for parallel)										<b>License</b> (CD not included)		
Port replicator	No port replicator support										- Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client		
Docking station	No docking station support										ThinkPad notebooks implement ThinkVantage™ technologies and design; visit <a href="http://thinkpad.com/thinkvantage">thinkpad.com/thinkvantage</a>		
PC Card Std slots	One Type I, one Type II, or one Type III / CardBus 32-bit / PCMCIA 2.1 / integrated door										Universal 72 watt AC adapter		
Ports	Two USB (Version 2.0) / parallel / external monitor (DB-15) / RJ-11 (modem) / RJ-45 (ethernet) / no keyboard or mouse or serial or infrared port										Asset ID™ <sup>34</sup> (system-specific info in chip accessed over network)		
IEEE 1394	None										PC 2001 and PXE 2.0-compliant		
Wireless antenna	UltraConnect™ Antenna built into the display cover for optimal wireless signal reception										ACPI 1.0b and 2.0-compliant		
Mini PCI	One Mini PCI slot (Communications Bay) / not customer upgradable										CIM and DMI 2.0-compliant		
Intel 11b/g <sup>32</sup>	11b/g wireless <sup>4</sup> , Mini PCI, Intel PRO/Wireless 2200BG, Intel 82532 chipset										ENERGY STAR®-compliant		
CDC	One Communications Daughter Card (CDC) socket (used by modem) / not accessible										ImageUltra™ Services available		
Modem	56K <sup>6</sup> V.90 (V.92-designed <sup>29</sup> ) modem in CDC / Conexant® chipset										International Warranty Service <sup>17</sup>		
Bluetooth	None										24 hour x 7 day <sup>18</sup> toll-free warranty support during the warranty <sup>12</sup> via 800-IBM-SERV (426-7378)		
Ethernet	10/100 ethernet on planar / Intel 82562EZ chipset (physical layer) / Wake on LAN®										ServicePac®. <sup>22</sup> 1yr IOR 9x5 NBD		
Audio support	Soft audio / ICH AC97 controller / DirectSound® support / AD1981B AC97 codec / mono speaker / 1 watt / volume up, down, mute buttons / no internal microphone / microphone input jack (3.5 mm) / headphone jack (3.5 mm) / no line in jack										30L9188		
Security	Power-on password / hard disk password / supervisor password / security keyhole										ServicePac 2 yr IOR 9x5 NBD		
Security chip	None										30L9189		
Limited warranty <sup>12</sup>	<b>1 year</b> - EasyServ™. <sup>19</sup> onsite pickup and delivery courier service										ServicePac 3 yr IOR 9x5 NBD		
128MB PC2700 DDR-SDRAM CL2.5 SOD	31P9828					ThinkPad T40/R50 Li-Ion Battery 6-cell					92P1101		
256MB PC2700 DDR-SDRAM CL2.5 SOD	31P9830					ThinkPad T40/R50 Li-Ion Battery 9-cell					92P1102		
512MB PC2700 DDR-SDRAM CL2.5 SOD	31P9832					ThinkPad Multiple Battery Charger II					22P9040		
1GB PC2700 DDR-SDRAM CL2.5 SOD	31P9834					Kensington® MicroSaver® Security Cable					73P2582		
USB Portable Diskette Drive	05K9276					GemPC400 Smart Card Reader/Writer					31P8901		
USB 2.0 Portable 80GB Hard Disk	40Y8726					11a/b/g Wireless CardBus Adapter					31P9101		
USB 2.0 Combo Drive	73P4515					ThinkPad 72W AC Adapter					02K6699		
USB 2.0 Portable Multi-Burner Drive	22P9163					ThinkPad 72W AC/DC Combo Adapter					22P9010		
USB 2.0 Memory Key 512MB	22P9230					Optical 3-Button Travel Wheel Mouse					31P7410		
USB Keyboard with UltraNav	31P8950					Optical 3-Button ScrollPoint® Mouse					31P7405		
USB Travel Keyboard with UltraNav	31P9490					Optical 3-Button ScrollPoint Pro Mouse					31P8700		
Enh Perf Wireless Keyboard and Mouse	73P4067					USB Optical Wheel Mouse (black)					06P4069		
60GB HS Hard Disk 9.5mm (5400 rpm)	73P3357					ThinkPad Carrying Case - Organizer					73P3598		
100GB Hard Disk 9.5mm PATA (5400 rpm)	40Y8716					ThinkPad Carrying Case - Backpack					73P3599		
M400 Projector	0037A04					Other options at <a href="http://lenovo.com/options">lenovo.com/options</a>							

See footnotes for important warranty information  
US models announced September 14, 2004, March 1, 2005, or July 6, 2005  
US models withdrawn effective September or November 2005

# ThinkPad® R50e (1842) - Express - withdrawn

Created by Lenovo Training Solutions  
Personal Systems Reference (PSREF)

Type-model	Processor	Speed GHz	L2 cache	Memory	Screen	Disk GB <sup>8</sup>	Optical	Mini PCI Comm Bay wireless	CDC modem	Integrated graphics	Security chip	Limited warranty <sup>12</sup>	Workhorse (W) Global (G) Avail Entry (E) date		
1842-2QU	Celeron® M	1.3	512K	256MB	15.0" XGA	20GB	CD	None	Modem	Extreme™ 2	No	XP Pro	1 yr	No	May 04
1842-2RU	Celeron M	1.3	512K	256MB	15.0" XGA	30GB	Combo	None	Modem	Extreme 2	No	XP Pro	1 yr	No	May 04
1842-BJU	Pentium® M 715	1.5	2MB	256MB	15.0" XGA	30GB	Combo	*Intel 11b/g <sup>32</sup>	Modem	Extreme 2	No	XP Pro	1 yr	No	July 04
1842-PPU	Pentium M 715a	1.5	2MB	256MB	15.0" XGA	30GB	Combo	*Intel 11b/g	Modem	Extreme 2	No	XP Pro	1 yr	No	Jan 05
1842-GQU	Celeron M 330	1.4	512K	256MB	15.0" XGA	30GB	CD	None	Modem	Extreme 2	No	XP Pro	1 yr	No	Dec 04
1842-GRU	Celeron M 330	1.4	512K	256MB	15.0" XGA	30GB	Combo	None	Modem	Extreme 2	No	XP Pro	1 yr	No	Dec 04
1842-G3U	Celeron M 340	1.5	512K	256MB	15.0" XGA	30GB	CD	None	Modem	Extreme 2	No	XP Pro	1 yr	No	Sep 04
1842-G7U	Celeron M 340	1.5	512K	256MB	15.0" XGA	30GB	Combo	None	Modem	Extreme 2	No	XP Pro	1 yr	No	Sep 04
1842-GBU	Celeron M 350	1.3	1MB	256MB	15.0" XGA	30GB	CD	None	Modem	Extreme 2	No	XP Pro	1 yr	No	Sep 04
1842-GDU	Celeron M 350	1.3	1MB	256MB	15.0" XGA	30GB	Combo	None	Modem	Extreme 2	No	XP Pro	1 yr	No	Sep 04
1842-HRU	Pentium M 725	1.6	2MB	256MB	15.0" XGA	30GB	Combo	*Intel 11b/g	Modem	Extreme 2	No	XP Pro	1 yr	No	Sep 04

• These small and medium business (SMB) models are part of the US Think Express Program • The 1842 has a 1 year limited warranty

Positioning	Mainstream performance and features; two-spindle system	<b>SOFTWARE<sup>14</sup></b> <b>Windows XP Professional</b> - Microsoft® Windows® XP Professional <sup>20</sup> - Dec/Jan models: Service Pack 2 ✦ Disk-to-Disk Recovery (in hidden protected area)	
Processor	Intel® Celeron M Processor 1.3GHz, 330 (1.4GHz), 340 (1.5GHz) or 350 (1.3GHz) with 400MHz system bus or Intel Pentium M Processor 715/715a (1.5GHz) or 725 (1.6GHz) with enhanced Intel SpeedStep™ technology <sup>1</sup> and 400MHz system bus		
L2 cache	Celeron M and M 330/340: 512KB; Celeron M 350: 1MB; Pentium M 715/715a/725: 2 MB	<b>Preloaded</b> <ul style="list-style-type: none"> <li>Access IBM</li> <li>Access Connections</li> <li>Rescue and Recovery™</li> <li>Norton AntiVirus (OEM edition)</li> <li>PC-Doctor™</li> <li>ThinkPad Utilities</li> <li>Adobe Reader</li> <li>Update Connector™<sup>15</sup></li> <li>RecordNOW and Drive Letter Access powered by Sonic products (combo models)</li> <li>InterVideo WinDVD (combo models)</li> </ul>	
Memory	256MB std / 2GB max <sup>7</sup> / PC2700 333MHz DDR1 (memory controller limits speed to 266MHz) / non-parity / CL2.5 / two 200-pin SO-DIMM sockets / std memory in one socket / one socket available		
Diskette drive	None standard / use optional USB-based diskette drive	<b>Downloadable</b> <ul style="list-style-type: none"> <li>IBM Director Agent</li> <li>Software Delivery Assistant</li> <li>System Migration Assistant</li> </ul>	
CD	Some: CD-ROM / 24X-10X <sup>9</sup> speed / fixed, not removable / 12.7 mm high		
Combo	Some: DVD-ROM/CD-RW / 24X/24X/24X/8X <sup>21</sup> speed / fixed, not removable / 12.7 mm	<b>License</b> (CD not included) - Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client	
Ultrabay Enhanced Disk	None / no support for removable Ultrabay™ options 20GB <sup>8</sup> or 30GB (4200 rpm), 9.5mm high / removable and upgradable / 9.5mm high bay / <b>Hard Disk Drive Shock Absorber</b>		
Display	15.0" (381.0mm) XGA (1024x768) TFT color / Active Matrix / 200 nits / one latch to unlatch and open with one hand	ThinkPad notebooks implement ThinkVantage™ technologies and design; visit <a href="http://ibm.com/thinkvantage">ibm.com/thinkvantage</a>	
Graphics	Integrated Intel Extreme™ Graphics 2 / in 855GM GMCH / uses main memory (up to 64MB) / 200MHz	Universal 72 watt AC adapter Asset ID™ <sup>34</sup> (system-specific info in chip accessed over network) PC 2001 and PXE 2.0-compliant ACPI 1.0b and 2.0-compliant CIM and DMI 2.0-compliant ENERGY STAR®-compliant ImageUltra™ Services available International Warranty Service <sup>17</sup> 24 hour x 7 day <sup>18</sup> toll-free warranty support during the warranty <sup>12</sup> via 800-IBM-SERV (426-7378)	
Graphics external	External monitor support via analog DB-15 connector / up to 1600x1200 at 85Hz / DDC2B		
Keyboard	87-key / Access IBM button / palm rest / pitch: 19mm; stroke: 2.7mm (std-size keys)	ServicePac®. <sup>22</sup> 1yr IOR 9x5 NBD 30L9188 ServicePac 2 yr IOR 9x5 NBD 30L9189 ServicePac 3 yr IOR 9x5 NBD 30L9195 ServicePac 4 yr IOR 9x5 NBD 30L9194 ServicePac 5 yr IOR 9x5 NBD 30L9196 ServicePac 2 yr P&L P/U Depot 30L9191 ServicePac 3 yr P&L P/U Depot 30L9192 ServicePac 4 yr P&L P/U Depot 08K9816 73P3357 69P9195 ServicePac 5 yr P&L P/U Depot 09N4273 31P9101 31P7410 22P9010 10K0209	
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar <sup>13</sup> , magnifying glass		
Touch pad	No UltraNav™ multi-pointing system	Post-warranty annual maintenance agreements at <a href="http://ibm.com/services/its/us/source/maspspleu.pdf">ibm.com/services/its/us/source/maspspleu.pdf</a>	
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions		
Dimensions <sup>3</sup>	15.0" models (WxDxH): 13.1" x 10.6" x 1.47-1.58"; 332mm x 269mm x 37-40mm		
Weight <sup>2</sup>	with optical drive and battery: 15.0" models: 6.6 lb (3.0kg)		
Case material	Color: black; All: Acrylonitrile-Butadiene-Styrene (ABS) plastic		
Battery - type	Lithium Ion 6-cell / intelligent / supports optional 9-cell battery		
Battery - life <sup>10</sup>	Celeron M models: up to 3.5 hr; Pentium M models: 4.0 hr; Optional 9-cell: up to 5.4 hr		
Architecture	Intel 855GM chipset / 82855GM Memory Controller Hub (MCH-M) / 82801DBM ICH4-M I/O Controller Hub (ATA-100 EIDE, PCI bus, ethernet MAC, Low Pin Count [LPC] interface, USB) / PCI bus 2.2 32-bit, 33MHz (TI® PCI1510 CardBus controller, Mini PCI) / LPC bus 33MHz (PC87392 Super I/O for parallel)		
Port replicator	No port replicator support		
Docking station	No docking station support		
PC Card Std slots	One Type I, one Type II, or one Type III / CardBus 32-bit / PCMCIA 2.1 / integrated door		
Ports	Two USB (Version 2.0) / parallel / external monitor (DB-15) / RJ-11 (modem) / RJ-45 (ethernet) / no keyboard or mouse or serial or infrared port		
IEEE 1394	None		
Wireless antenna	Some: none / can upgrade to wireless via optional PC Cards Some: UltraConnect™ Antenna built into the display cover		
Mini PCI	Some: no Mini PCI slot (Communications Bay) Some: one Mini PCI slot (Communications Bay) / not customer upgradable Some: 11b/g wireless <sup>4</sup> , Mini PCI, Intel PRO/Wireless 2200BG, Intel 82532 chipset		
Intel 11b/g <sup>32</sup>	One Communications Daughter Card (CDC) socket (used by modem) / not accessible		
CDC	56K <sup>6</sup> V.90 (V.92-designed <sup>29</sup> ) modem in CDC / Conexant® chipset		
Modem	None		
Bluetooth	None		
Ethernet	10/100 ethernet on planar / Intel 82562EZ chipset (physical layer) / Wake on LAN®		
Audio support	Soft audio / ICH AC97 controller / DirectSound® support / AD1981B AC97 codec / mono speaker / 1 watt / volume up, down, mute buttons / no internal microphone / microphone input jack (3.5 mm) / headphone jack (3.5 mm) / no line in jack		
Security	Power-on password / hard disk password / supervisor password / security keyhole		
Security chip	None		
Limited warranty <sup>12</sup>	1 year - EasyServ™ <sup>19</sup> onsite pickup and delivery courier service		
128MB PC2700 DDR-SDRAM CL2.5 SOD	31P9828	T40/R50 Series Li-Ion Battery 6-cell	08K8214
256MB PC2700 DDR-SDRAM CL2.5 SOD	31P9830	T40/R50 High Capacity Li-Ion Batt 9-cell	08K8197
512MB PC2700 DDR-SDRAM CL2.5 SOD	31P9832	ThinkPad Multiple Battery Charger II	22P9040
1GB PC2700 DDR-SDRAM CL2.5 SOD	31P9834	40GB HS Hard Disk 9.5mm (5400 rpm)	08K9816
4GB Microdrive™ with PC Card	09N4280	60GB HS Hard Disk 9.5mm (5400 rpm)	73P3357
USB Portable Diskette Drive	05K9276	80GB HS Hard Disk 9.5mm (5400 rpm)	09N4273
USB 2.0 Portable Multi-Burner Drive	22P9163	11a/b/g Wireless CardBus Adapter	31P9101
USB 2.0 Portable 40GB Hard Disk	22P7196	Optical 3-Button Travel Wheel Mouse	31P7410
USB 2.0 Memory Key 512MB	22P9230	ThinkPad 72W AC/DC Combo Adapter	22P9010
M400 Projector	0037A04	ThinkPad Premiere Leather Carrying Case	10K0209
Kensington® MicroSaver® Security Cable	73P2582	Other options at <a href="http://lenovo.com/options">lenovo.com/options</a>	

See footnotes for important warranty information \* Powered by Intel Centrino™ mobile technology  
US models announced May 18, July 13, Sept 14, or Dec 21, 2004, or Jan 11, 2005  
US models withdrawn effective January or September 2005

# ThinkPad® R50e (1842) - TopSeller (June 2005) - withdrawn

Created by Lenovo Training Solutions  
Personal Systems Reference (PSREF)

Type-model	Processor	Speed	L2 cache	Memory	Screen	Disk GB <sup>8</sup>	Optical	Mini PCI Comm Bay wireless	CDC modem	Integrated graphics	Security chip	Limited warranty <sup>12</sup>	Workhorse Global Entry	Avail date	
1842-QDU	Pentium® M 725a	1.6 GHz	2MB	256MB	15.0" XGA	40GB	Combo	*Intel 11b/g <sup>32</sup>	Modem	Extreme™ 2	No	XP Pro	1-yr	No	Jun 05
1842-QUE	Pentium M 725a	1.6 GHz	2MB	512MB	15.0" XGA	60GB	DVD±RW	*Intel 11b/g	Modem	Extreme 2	No	XP Pro	1-yr	No	Jun 05
1842-QFU	Pentium M 725a	1.6 GHz	2MB	256MB	15.0" XGA	40GB	Combo	*Intel 11b/g	Modem	Extreme 2	No	XP Home	1-yr	No	Jun 05
1842-STU	Pentium M 725	1.6 GHz	2MB	256MB	15.0" XGA	40GB	Combo	*Intel 11b/g	Modem	Extreme 2	No	XP Pro	1-yr	No	Aug 05
1842-SUU	Pentium M 725	1.6 GHz	2MB	512MB	15.0" XGA	60GB	DVD±RW	*Intel 11b/g	Modem	Extreme 2	No	XP Pro	1-yr	No	Aug 05
1842-SVU	Pentium M 725	1.6 GHz	2MB	256MB	15.0" XGA	40GB	Combo	*Intel 11b/g	Modem	Extreme 2	No	XP Home	1-yr	No	Aug 05
1842-SKU	Celeron® M 360J	1.4 GHz	1MB	256MB	15.0" XGA	40GB	CD	Intel 11b/g	Modem	Extreme 2	No	XP Home	1-yr	No	Aug 05
1842-SLU	Celeron M 360J	1.4 GHz	1MB	256MB	15.0" XGA	40GB	Combo	Intel 11b/g	Modem	Extreme 2	No	XP Home	1-yr	No	Aug 05
1842-SMU	Celeron M 370	1.5 GHz	1MB	256MB	15.0" XGA	40GB	CD	Intel 11b/g	Modem	Extreme 2	No	XP Home	1-yr	No	Aug 05
1842-STU	Celeron M 370	1.5 GHz	1MB	256MB	15.0" XGA	40GB	Combo	Intel 11b/g	Modem	Extreme 2	No	XP Home	1-yr	No	Aug 05
1842-SPU	Celeron M 360J	1.4 GHz	1MB	256MB	15.0" XGA	40GB	CD	Intel 11b/g	Modem	Extreme 2	No	XP Pro	1-yr	No	Aug 05
1842-SQU	Celeron M 370	1.5 GHz	1MB	256MB	15.0" XGA	40GB	CD	Intel 11b/g	Modem	Extreme 2	No	XP Pro	1-yr	No	Aug 05
1842-SRU	Celeron M 360J	1.4 GHz	1MB	256MB	15.0" XGA	40GB	Combo	Intel 11b/g	Modem	Extreme 2	No	XP Pro	1-yr	No	Aug 05
1842-SSU	Celeron M 370	1.5 GHz	1MB	256MB	15.0" XGA	40GB	Combo	Intel 11b/g	Modem	Extreme 2	No	XP Pro	1-yr	No	Aug 05
1842-T4U	Celeron M 360J	1.4 GHz	1MB	256MB	14.1" XGA	40GB	CD	Intel 11b/g	Modem	Extreme 2	No	XP Home	1-yr	No	Aug 05
1842-T5U	Celeron M 370	1.5 GHz	1MB	256MB	14.1" XGA	40GB	CD	Intel 11b/g	Modem	Extreme 2	No	XP Home	1-yr	No	Aug 05

• These small and medium business (SMB) models are part of the US TopSeller™ Program  
• The 1842 has a 1-year limited warranty

Processor	Intel® Celeron M Processor 360J or 370 with Execute Disable Bit and 400MHz bus or Intel Pentium M Processor 725a or 725 (1.6GHz) with Enhanced Intel SpeedStep™ technology <sup>1</sup> and 400MHz system bus	<b>SOFTWARE<sup>14</sup></b> <b>Windows XP Home models</b> - Microsoft® Windows® XP Home Edition <sup>20</sup> (Service Pack 2) ♦ Disk-to-Disk Recovery (in hidden protected area) <b>Windows XP Professional models</b> - Microsoft® Windows XP Professional <sup>20</sup> (Service Pack 2) ♦ Disk-to-Disk Recovery (in hidden protected area) <b>Preloaded (all)</b> • Access Program • Access Connections™ • Rescue and Recovery™ • Norton AntiVirus (OEM edition) • PC-Doctor™ • ThinkPad Utilities • Adobe® Reader • RecordNOW and Drive Letter Access powered by Sonic products (combo, DVD±RW) • InterVideo WinDVD (combo, DVD±RW models) • InterVideo WinDVD Creator (DVD±RW models) • Simple Backup (DVD±RW)			
L2 cache	Celeron M: 1MB; Pentium M 725a: 2 MB; All: on die (at processor speed) / ECC				
Memory	256MB or 512MB std / 2GB max <sup>7</sup> / PC2700 333MHz DDR1 (memory controller limits speed to 266MHz) / non-parity / CL2.5 / two 200-pin SO-DIMM sockets / std memory in one socket / one socket available				
Diskette drive	None standard / use optional USB-based diskette drive				
CD	Some: CD-ROM / 24X-10X <sup>9</sup> speed / fixed, not removable / 12.7 mm high				
Combo	Some: DVD-ROM/CD-RW / 24X/24X/24X/8X <sup>21</sup> speed / fixed, not removable / 12.7 mm				
DVD±RW	Some: DVD and CD burner / Multi-Burner Plus / fixed, not removable / 12.7 mm				
Ultrad Enhanced	None / no support for removable Ultrabay™ options				
Disk	40GB <sup>8</sup> or 60GB (4200 rpm), 9.5mm high / removable and upgradable / 9.5mm high bay / Hard Disk Drive Shock Absorber				
Display	Some: 14.1" (358.1mm) XGA (1024x768) TFT color / Active Matrix / 150 nits Some: 15.0" (381.0mm) XGA (1024x768) TFT color / Active Matrix / 200 nits				
Graphics	Integrated Intel Extreme™ Graphics 2 / in 855GM / uses main memory / 200MHz				
Keyboard	87-key / Access IBM button / palm rest / pitch: 19mm; stroke: 2.7mm (std-size keys)				
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar <sup>13</sup> , magnifying glass				
Touch pad	No UltraNav™ multi-pointing system				
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions				
Dimensions <sup>3</sup>	15.0" models (WxDxH): 13.1" x 10.6" x 1.47-1.58"; 332mm x 269mm x 37-40mm				
Weight <sup>2</sup>	with optical drive and battery: 15.0" models: 6.6 lb (3.0kg)				
Case material	Color: black; All: Acrylonitrile-Butadiene-Styrene (ABS) plastic				
Battery - type	Lithium Ion 6-cell / intelligent / supports optional 9-cell battery				
Battery - life <sup>10</sup>	Celeron M models: 3.4 hr; Pentium M models: 4.0 hr; Optional 9-cell: up to 5.4 hr				
Architecture	Intel 855GM chipset / 82855GM Memory Controller Hub (MCH-M) / 82801DBM ICH4-M I/O Controller Hub (ATA-100 EIDE, PCI bus, ethernet MAC, Low Pin Count [LPC] interface, USB) / PCI bus 2.2 32-bit, 33MHz (TI® PCI1510 CardBus controller, Mini PCI) / LPC bus 33MHz (PC87392 Super I/O for parallel)				
Docking station	No port replicator or docking station support				
PC Card Std slots	One Type I, one Type II, or one Type III / CardBus 32-bit / PCMCIA 2.1 / integrated door				
Ports	Two USB (Version 2.0) / parallel / external monitor (DB-15) / RJ-11 (modem) / RJ-45 (ethernet) / no keyboard or mouse or serial or infrared port				
Wireless antenna	UltraConnect™ Antenna built into the display cover for optimal wireless signal reception				
Mini PCI	One Mini PCI slot (Communications Bay) / not customer upgradable				
Intel 11b/g <sup>32</sup>	11b/g wireless <sup>4</sup> , Mini PCI, Intel PRO/Wireless 2200BG, Intel 82532 chipset				
CDC	One Communications Daughter Card (CDC) socket (used by modem) / not accessible				
Modem	56K <sup>6</sup> V.90 (V.92-designed <sup>29</sup> ) modem in CDC / Conexant® chipset				
Ethernet	10/100 ethernet on planar / Intel 82562EZ chipset (physical layer) / Wake on LAN®				
Audio support	Soft audio / ICH AC97 controller / DirectSound® support / AD1981B AC97 codec / mono speaker, 1 watt / volume up, down, mute buttons / no internal microphone / microphone input jack (3.5 mm) / headphone jack (3.5 mm) / no line in jack				
Security	Power-on password / hard disk password / supervisor password / security keyhole				
Limited warranty <sup>12</sup>	1-year - EasyServ™ <sup>19</sup> onsite pickup and delivery courier service				
256 MB PC2700 DDR-SDRAM CL2.5 SOD	31P9830	ThinkPad T40/R50 Li-Ion Battery 6-cell	92P1101	ThinkPlus 3-year LOR 9x5 NBD	41C9166
512 MB PC2700 DDR-SDRAM CL2.5 SOD	31P9832	ThinkPad T40/R50 Li-Ion Battery 9-cell	92P1102	ThinkPlus 4-year LOR 9x5 NBD	41C9168
1GB PC2700 DDR-SDRAM CL2.5 SOD	31P9834	ThinkPad Multiple Battery Charger II	22P9040	ThinkPlus 5-year LOR 9x5 NBD	41C9171
USB Portable Diskette Drive	05K9276	Kensington® MicroSaver® Security Cable	73P2582	ThinkPlus 2-year P&L P/U Depot	41C9173
USB Gemplus GemPC Smart Card Reader	41N3040	72W Slim AC/DC Combo Adapter	73P4485	ThinkPlus 3-year P&L P/U Depot	41C9169
USB 2.0 Portable 80GB Hard Disk	40Y8726	Optical 3-Button Travel Wheel Mouse	31P7410	ThinkPlus 3-year P&L P/U Depot	41C9170
USB 2.0 CD-RW/DVD-ROM Combo II Drive	40Y8637	Optical 3-Button ScrollPoint® Mouse	31P7405	ThinkPlus 4-year P&L P/U Depot	41C9172
USB 2.0 Memory Key 1GB	40Y7421	USB Optical Wheel Mouse (black)	06P4069	ThinkPlus 5-year P&L P/U Depot	41C9174
USB Keyboard with UltraNav	31P8950	ThinkPad Carrying Case - Expander	73P3597	Other options at <a href="http://lenovo.com/options">lenovo.com/options</a>	
Enh Perf Wireless Keyboard and Mouse	73P4067	ThinkPad Carrying Case - BackPack	73P3599		
100GB Hard Disk 9.5mm PATA (5400 rpm)	40Y8716	ThinkPad Carrying Case - Leather	73P3600		
ThinkVision® L171 17" Monitor (black)	9417AC1	ThinkPad Convertible Monitor Stand	40Y7620		
ThinkVision L201p 20.1" Monitor (black)	9320HB1				

See footnotes for important warranty information \* Powered by Intel Centrino® mobile technology  
US models announced June 28, August 9, or August 23, 2005  
US models withdrawn effective March or October 2006

© Lenovo  
(1842N) October 2006

# ThinkPad® R51e (1843) - withdrawn

Created by Lenovo Training Solutions  
Personal Systems Reference (PSREF)

Type-model	Processor	Speed GHz	L2 cache	Memory	Screen	Disk GB <sup>9</sup>	Optical	Mini PCI 802.11 wireless	CDC modem	Integrated graphics	Security chip	Limited warranty <sup>12</sup>	Global Entry	Avail date	
1843-2HU	Celeron® M 360J	1.4	1MB	256MB	14.1" XGA	40GB	CD	None	Modem	Xpress 200M	No	XP Home	1-yr	No	Sep 05
1843-2YU	Celeron M 370	1.5	1MB	256MB	14.1" XGA	40GB	CD	None	Modem	Xpress 200M	No	XP Home	1-yr	No	Sep 05
1843-35U	Celeron M 360J	1.4	1MB	256MB	14.1" XGA	40GB	Combo	11b/g <sup>32</sup>	Modem	Xpress 200M	No	XP Pro	1-yr	No	Sep 05
1843-3CU	Celeron M 370	1.5	1MB	256MB	14.1" XGA	40GB	Combo	11b/g	Modem	Xpress 200M	No	XP Pro	1-yr	No	Sep 05
1843-3HU	Pentium® M 740	1.73	2MB	256MB	14.1" XGA	40GB	Combo	11b/g	Modem	Xpress 200M	No	XP Pro	1-yr	No	Sep 05
1843-3PU	Celeron M 360J	1.4	1MB	256MB	15.0" XGA	40GB	CD	None	Modem	Xpress 200M	No	XP Home	1-yr	No	Sep 05
1843-3QU	Celeron M 370	1.5	1MB	256MB	15.0" XGA	40GB	CD	None	Modem	Xpress 200M	No	XP Home	1-yr	No	Sep 05
1843-42U	Celeron M 360J	1.4	1MB	256MB	15.0" XGA	40GB	Combo	11b/g	Modem	Xpress 200M	No	XP Pro	1-yr	No	Sep 05
1843-47U	Celeron M 370	1.5	1MB	256MB	15.0" XGA	40GB	Combo	11b/g	Modem	Xpress 200M	No	XP Pro	1-yr	No	Sep 05
1843-4SU	Pentium M 740	1.73	2MB	256MB	15.0" XGA	40GB	Combo	11b/g	Modem	Xpress 200M	No	XP Pro	1-yr	No	Sep 05
Positioning Processor	<i>Mainstream performance and features; two-spindle system</i> <b>Intel® Celeron M Processor 360 (1.4GHz) or 370 (1.5GHz)</b> with 400MHz system bus or <b>Intel Pentium M Processor 740 (1.73GHz)</b> with Enhanced Intel SpeedStep™ technology <sup>1</sup> , Execute Disable Bit, and 533MHz system bus											<b>SOFTWARE<sup>14</sup></b>			
L2 cache	<b>Celeron M: 1MB; Pentium M: 2 MB; All: on die (at processor speed) / ECC</b>											<b>Windows XP Professional models</b>			
Memory	<b>256MB</b> std / 2GB max <sup>7</sup> / <b>PC2-4200 533MHz DDR2</b> / non-parity / CL4 / single channel / two 200-pin SO-DIMM sockets / std memory in one socket / one socket available											- Microsoft® Windows® XP Professional <sup>20</sup> (Service Pack 2) ◆ Disk-to-Disk Recovery (in hidden protected area)			
Diskette drive	None standard / use optional USB-based diskette drive											<b>Windows XP Home models</b>			
CD	<i>Some: CD-ROM / 24X-10X<sup>9</sup> speed / fixed, not removable / 12.7mm high</i>											- Microsoft Windows XP Home Edition <sup>20</sup> (Service Pack 2)			
Combo	<i>Some: DVD-ROM/CD-RW / 24X/24X/24X/8X<sup>21</sup> speed / fixed, not removable / 12.7mm</i>											◆ Disk-to-Disk Recovery (in hidden protected area)			
Ultrabay Enhanced Disk	None / no support for removable Ultrabay™ options <b>40GB<sup>8</sup></b> (5400 rpm), 9.5mm high / EIDE / removable and upgradable / 9.5mm high bay / <b>Hard Disk Drive Shock Absorber</b>											<b>Preloaded (all)</b>			
Display	<i>Some: 14.1" (358.1mm) XGA (1024x768) TFT color / Active Matrix / 150 nits</i> <i>Some: 15.0" (381.0mm) XGA (1024x768) TFT color / Active Matrix / 200 nits</i>											• Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • ThinkVantage System Update • Symantec® Client Security • PC-Doctor™ • ThinkPad utilities • Adobe® Reader • Multimedia Center for Think Offerings • Sonic RecordNOW and Drive Letter Access (combo) • InterVideo WinDVD (combo)			
Graphics	<b>ATI® RADEON® Xpress 200M</b> / integrated graphics / in memory controller (RC410MD) / uses main memory (32MB up to 511MB main memory; 64MB over 511MB)											- Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client (Notes client not supported on XP Home)			
Keyboard	87-key / Access IBM button / palm rest / pitch: 19mm; stroke: 2.7mm (std-size keys)											ThinkPad notebooks implement ThinkVantage™ technologies and design; <a href="http://thinkpad.com/thinkvantage">thinkpad.com/thinkvantage</a>			
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar <sup>13</sup> , magnifying glass											Universal 72 watt AC adapter PC 2001 and PXE 2.0-compliant ACPI 1.0b and 2.0-compliant CIM and DMI 2.0-compliant ENERGY STAR®-compliant International Warranty Service <sup>17</sup> 24 hour x 7 day <sup>18</sup> toll-free warranty support during the warranty <sup>12</sup>			
Touch pad	None											ThinkPlus™.22 1-year LOR 9x5 NBD 41C9166			
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions											ThinkPlus 2-year LOR 9x5 NBD 41C9167			
Dimensions <sup>3</sup>	<i>14.1" models (WxDxH): 12.4" x 10.2" x 1.3-1.4"; 314mm x 260mm x 34-37mm</i> <i>15.0" models (WxDxH): 13.1" x 10.6" x 1.4-1.5"; 332mm x 269mm x 37-40mm</i> with optical drive and battery: <i>14.1" models: 6.2 lb (2.8kg); 15.0" models: 6.7 lb (3.0kg)</i> <i>Color: black; All: Acrylonitrile-Butadiene-Styrene (ABS) plastic</i>											ThinkPlus 3-year LOR 9x5 NBD 41C9168			
Weight <sup>2</sup>	with optical drive and battery: <i>14.1" models: 6.2 lb (2.8kg); 15.0" models: 6.7 lb (3.0kg)</i>											ThinkPlus 4-year LOR 9x5 NBD 41C9171			
Case material	Color: black; All: Acrylonitrile-Butadiene-Styrene (ABS) plastic											ThinkPlus 5-year LOR 9x5 NBD 41C9173			
Battery - type	Lithium Ion <b>6-cell</b> / intelligent / supports optional 9-cell battery											ThinkPlus 2-year P&L P/U Depot 41C9169			
Battery - life <sup>10</sup>	<i>6-cell Celeron models: up to 2.2 hr; 6-cell Pentium models: up to 4.0 hr; optional 9-cell Celeron models: up to 3.2 hr; optional 9-cell Pentium models: up to 6.0 hr</i>											ThinkPlus 3-year P&L P/U Depot 41C9170			
Architecture	<b>ATI RC410MD</b> chipset (integrated graphics, PCI Express x1 for ethernet and ExpressCard) / ATI SB400 southbridge (ATA-100 EIDE, PCI bus, USB, Low Pin Count [LPC] interface) / PCI bus 2.2 32-bit, 33MHz (TI® PCI1510 CardBus controller, Mini PCI) / LPC bus 33MHz (PC87392 Super I/O for parallel)											ThinkPlus 4-year P&L P/U Depot 41C9172			
Docking station	No port replicator or docking station support											ThinkPlus 5-year P&L P/U Depot 41C9174			
PC Card Std slot	One Type I or Type II / CardBus 32-bit / PCMCIA 2.1 / integrated door											Post-warranty annual maintenance agreements at <a href="http://lenovo.com/thinkplus/warranty">lenovo.com/thinkplus/warranty</a>			
ExpressCard slot	One ExpressCard/34 or ExpressCard/54 / PCI Express x1 or USB 2.0 / integrated door														
Ports	Two USB (Version 2.0) / parallel / external monitor (DB-15) / RJ-11 (modem) / RJ-45 (ethernet) / no keyboard or mouse or serial or infrared port														
Wireless antenna	<i>Some: none / can upgrade to wireless via optional PC Cards or ExpressCards</i> <i>Some: UltraConnect™ Antenna built into the display cover (models with 802.11 wireless)</i> <i>Some: no Mini PCI slot (Communications Bay)</i>														
Mini PCI 11b/g <sup>32</sup>	<i>Some: one Mini PCI slot (Communications Bay) / not customer upgradable / ThinkPad 11b/g Wi-Fi<sup>32</sup> wireless<sup>4</sup>, Mini PCI, Atheros™ AR5004G chipset</i>														
CDC Modem	One Communications Daughter Card (CDC) socket (used by modem) / not accessible 56K <sup>9</sup> V.90 (V.92-designed <sup>29</sup> ) modem in CDC / Conexant® chipset														
Ethernet	10/100 ethernet on systemboard / Broadcom® BCM5751F (MAC/PHY) / PCIe x1														
Audio support	AC97 controller / AD1981B AC97 codec / stereo speakers / 1 watt / volume up, down, mute buttons / no internal microphone / microphone input jack (3.5 mm) / headphone jack (3.5 mm) / no line in jack														
Security	Power-on password / hard disk password / supervisor password / security keyhole														
Security chip	None														
Fingerprint reader	None														
Limited warranty <sup>12</sup>	<b>1-year - EasyServ™.19</b> onsite pickup and delivery courier service														
256MB PC2-4200 DDR2 NP CL4 SOD	73P3840				ThinkPad T40/R50 Li-Ion Battery 6-cell				92P1101						
512MB PC2-4200 DDR2 NP CL4 SOD	73P3842				ThinkPad T40/R50 Li-Ion Battery 9-cell				92P1102		ThinkPlus 5-year LOR 9x5 NBD				
1GB PC2-4200 DDR2 NP CL4 SOD	73P3844				ThinkPad Multiple Battery Charger II				22P9040		41C9173				
USB Serial Parallel Adapter	22P5298				SonyEricsson® GC83 EDGE PC Card				26K3393		ThinkPlus 2-year P&L P/U Depot				
USB Portable Diskette Drive	05K9276				Verizon Wireless V620 WWAN PC Card <sup>25</sup>				40Y9137		41C9169				
USB 2.0 Portable 80GB Hard Disk	40Y8726				72W Slim AC/DC Combo Adapter				73P4485		ThinkPlus 3-year P&L P/U Depot				
USB 2.0 CD-RW/DVD-ROM Combo II Drive	40Y8637				Optical 3-Button Travel Wheel Mouse				31P7410		41C9170				
USB 2.0 Memory Key 1GB	40Y7421				ThinkPad Nylon Carrying Case				10K0207		ThinkPlus 4-year P&L P/U Depot				
100GB Hard Disk 9.5mm PATA (5400 rpm)	40Y8716				ThinkPad Carrying Case - Backpack				73P3599		41C9172				
USB Travel Keyboard with UltraNav	31P9490				ThinkPad Carrying Case - Organizer				73P3598		ThinkPlus 5-year P&L P/U Depot				
Enh Perf Wireless Keyboard and Mouse	73P4067				ThinkPad Convertible Monitor Stand				40Y7620		41C9174				
ThinkVision® E500 Projector	0038A05				Kensington® MicroSaver® Security Cable				73P2582						
ThinkVision L171 17" Monitor (black)	9417AB1				TrackPoint Cap Collection				73P2698						
ThinkVision L192p 19" Monitor (black)	9419HB2				Other options at <a href="http://lenovo.com/options">lenovo.com/options</a>										

See footnotes for important warranty information  
US models announced September 20, 2005  
US models withdrawn effective April 2006

© Lenovo  
(KD61) April 2006

# ThinkPad® R51e (1843) - January 2006 - withdrawn

Created by Lenovo Training Solutions  
Personal Systems Reference (PSREF)

Type-model	Processor	Speed GHz	L2 cache	Memory	Screen	Disk GB <sup>9</sup>	Optical	Mini PCI 802.11 wireless	CDC modem	Integrated graphics	Security chip	Limited warranty <sup>12</sup>	Workhorse Global Entry	Avail date	
1843-AJU	Celeron® M 380	1.6	1MB	256MB	14.1" XGA	40GB	CD	11a/b/g <sup>32</sup>	Modem	Xpress 200M	No	XP Pro	1-yr	No	Jan 06
1843-ALU	Celeron M 380	1.6	1MB	256MB	14.1" XGA	40GB	Combo	11a/b/g	Modem	Xpress 200M	No	XP Pro	1-yr	No	Jan 06
1843-ATU	Pentium® M 750	1.86	2MB	256MB	14.1" XGA	40GB	Combo	11a/b/g	Modem	Xpress 200M	No	XP Pro	1-yr	No	Jan 06
1843-D6U	Pentium M 750	1.86	2MB	512MB	15.0" XGA	60GB	DVD±RW	11a/b/g	Modem	Xpress 200M	No	XP Pro	1-yr	No	Jan 06
1843-D8U	Pentium M 760	2.0	2MB	512MB	15.0" XGA	60GB	DVD±RW	11a/b/g	Modem	Xpress 200M	No	XP Pro	1-yr	No	Jan 06

**• These models have an EasyServ™<sup>19</sup> onsite pickup and delivery 1-year limited warranty.**

Positioning Processor	<i>Mainstream performance and features; two-spindle system</i> <b>Intel® Celeron M Processor 380 (1.6GHz)</b> with 400MHz system bus or <b>Intel Pentium M Processor 750 (1.86GHz) or 760 (2.0GHz)</b> with Enhanced Intel SpeedStep™ technology <sup>1</sup> , Execute Disable Bit, and 533MHz system bus	<b>SOFTWARE<sup>14</sup></b> <b>Windows XP Professional models</b> - Microsoft® Windows® XP Professional <sup>20</sup> (Service Pack 2) ♦ Disk-to-Disk Recovery (in hidden protected area)  <b>Preloaded</b> • Rescue and Recovery™ • Access Connections™ • Client Security Solution • ThinkVantage Productivity Center • ThinkVantage System Update • Symantec® Client Security • PC-Doctor™ • ThinkPad utilities • Adobe® Reader • Multimedia Center for Think Offerings • Sonic RecordNOW and Drive Letter Access (combo) • InterVideo WinDVD (combo)  <b>License - CD not included</b> - Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client		
L2 cache	<b>Celeron M: 1MB; Pentium M: 2 MB; All: on die (at processor speed) / ECC</b>			
Memory	<b>256 or 512MBstd / 2GB max<sup>7</sup> / PC2-4200 533MHz DDR2 / non-parity / CL4 / two 200-pin SO-DIMM sockets / std memory in one socket / one socket available</b>			
Diskette drive	None standard / use optional USB-based diskette drive			
CD	<i>Some: CD-ROM / 24X-10X<sup>9</sup> speed / fixed, not removable / 12.7mm high</i>			
Combo	<i>Some: DVD-ROM/CD-RW / 24X/24X/24X/8X<sup>21</sup> speed / fixed, not removable / 12.7mm</i>			
DVD±RW	<i>Some: DVD and CD burner / Multi-Burner Plus / fixed, not removable / 12.7mm high</i>			
Ultrabay Enhanced	None / no support for removable Ultrabay™ options			
Disk	<b>40 or 60GB<sup>8</sup> (5400 rpm), 9.5mm high / EIDE / removable and upgradable / 9.5mm bay / Hard Disk Drive Shock Absorber</b>			
Display	<i>Some: 14.1" (358.1mm) XGA (1024x768) TFT color / Active Matrix / 150 nits</i> <i>Some: 15.0" (381.0mm) XGA (1024x768) TFT color / Active Matrix / 200 nits</i>			
Graphics	<b>ATI® RADEON® Xpress 200M / integrated graphics / in memory controller (RC410MD) / uses main memory (32MB up to 511MB main memory; 64MB over 511MB)</b>			
Keyboard	87-key / Access IBM button / palm rest / pitch: 19mm; stroke: 2.7mm (std-size keys)			
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar <sup>13</sup> , magnifying glass			
Touch pad	None			
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions			
Dimensions <sup>3</sup>	<b>14.1" models (WxDxH): 12.4" x 10.2" x 1.3-1.4"; 314mm x 260mm x 34-37mm</b> <b>15.0" models (WxDxH): 13.1" x 10.6" x 1.4-1.5"; 332mm x 269mm x 37-40mm</b>			
Weight <sup>2</sup>	with optical drive and battery: <b>14.1" models: 6.2 lb (2.8kg); 15.0" models: 6.7 lb (3.0kg)</b>			
Case material	<i>Color: black; All: Acrylonitrile-Butadiene-Styrene (ABS) plastic</i>			
Battery - type	Lithium Ion <b>6-cell / 2.4Ah / intelligent / supports optional 9-cell battery</b>			
Battery - life <sup>10</sup>	<i>6-cell Celeron models: up to 2.2 hr; 6-cell Pentium models: up to 3.5 hr; optional 9-cell Celeron models: up to 3.2 hr; optional 9-cell Pentium models: up to 5.0 hr</i>			
Architecture	<b>ATI RC410MD</b> chipset (integrated graphics, PCI Express x1 for ethernet and ExpressCard) / ATI SB400 southbridge (ATA-100 EIDE, PCI bus, USB, Low Pin Count [LPC] interface) / PCI bus 2.2 32-bit, 33MHz (TI® PCI1510 CardBus controller, Mini PCI) / LPC bus 33MHz (PC87392 Super I/O for parallel)			
Docking station	No port replicator or docking station support			
PC Card Std slot	One Type I or Type II / CardBus 32-bit / PCMCIA 2.1 / integrated door			
ExpressCard slot	One ExpressCard/34 or ExpressCard/54 / PCI Express x1 or USB 2.0 / integrated door			
Ports	Two USB (Version 2.0) / parallel / external monitor (DB-15) / RJ-11 (modem) / RJ-45 (ethernet) / no keyboard or mouse or serial or infrared port			
Wireless antenna	UltraConnect™ Antenna built into the display cover (models with 802.11 wireless)			
Mini PCI	One Mini PCI slot (Communications Bay) / not customer upgradable / 11a/b/g wireless <sup>4</sup> , ThinkPad 11a/b/g Mini PCI, Adapter II, Atheros™ AR5004X chip			
11a/b/g <sup>32</sup>	One Communications Daughter Card (CDC) socket (used by modem) / not accessible			
CDC	56K <sup>6</sup> V.90 (V.92-designed <sup>29</sup> ) modem in CDC / Conexant® chipset			
Modem	10/100 ethernet on systemboard / Broadcom® BCM5751F (MAC/PHY) / PCIe x1			
Ethernet	AC97 controller / AD1981B AC97 codec / stereo speakers, 1 watt / volume up, down, mute buttons / no internal microphone / microphone input jack (3.5 mm) / headphone jack (3.5 mm) / no line in jack			
Audio support	Power-on password / hard disk password / supervisor password / security keyhole			
Security	None			
Security chip	None			
Fingerprint reader	None			
Limited warranty <sup>12</sup>	<b>1-year - EasyServ™<sup>19</sup> onsite pickup and delivery courier service</b>			
256MB PC2-4200 DDR2 NP CL4 SOD	73P3840	ThinkPad T40/R50 Li-Ion Battery 6-cell	92P1101	ThinkPlus 4-year LOR 9x5 NBD
512MB PC2-4200 DDR2 NP CL4 SOD	73P3842	ThinkPad T40/R50 Li-Ion Battery 9-cell	92P1102	41C9166
1GB PC2-4200 DDR2 NP CL4 SOD	73P3844	ThinkPad Multiple Battery Charger II	22P9040	ThinkPlus 2-year LOR 9x5 NBD
USB Serial Parallel Adapter	22P5298	SonyEricsson® GC83 EDGE PC Card	26K3393	41C9173
USB Portable Diskette Drive	05K9276	Verizon Wireless V620 WWAN PC Card <sup>25</sup>	40Y9137	ThinkPlus 2-year P&L P/U Depot
USB 2.0 Memory Key 1GB	40Y7421	72W Slim AC/DC Combo Adapter	73P4485	41C9169
USB 2.0 Portable 80GB Hard Disk	40Y8726	Optical 3-Button Travel Wheel Mouse	31P7410	ThinkPlus 3-year P&L P/U Depot
USB 2.0 Super Multi-Burner Drive	40Y8638	ThinkPad Nylon Carrying Case	10K0207	41C9170
60GB Hard Disk 9.5mm (5400 rpm)	73P3357	ThinkPad Carrying Case - Backpack	73P3599	ThinkPlus 4-year P&L P/U Depot
80GB Hard Disk 9.5mm (5400 rpm)	09N4273	ThinkPad Carrying Case - Organizer	73P3598	41C9172
100GB Hard Disk 9.5mm PATA (5400 rpm)	40Y8716	ThinkVision® E500 Projector	0038A05	ThinkPlus 5-year P&L P/U Depot
USB Travel Keyboard with UltraNav	31P9490	ThinkVision L171 17" Monitor (black)	9417AC1	41C9174
Enh Perf Wireless Keyboard and Mouse	73P4067	ThinkVision L192p 19" Monitor (black)	9419HB2	Post-warranty annual maintenance agreements at
Kensington® MicroSaver® Security Cable	73P2582	ThinkPad Convertible Monitor Stand	40Y7620	<b>lenovo.com/thinkplus/warranty</b>
Trackpoint Cap Collection	73P2698	Other options at <b>lenovo.com/options</b>		

See footnotes for important warranty information  
US models announced January 10, 2006  
US models withdrawn effective October 2006

© Lenovo  
(KD6-3) October 2006

# ThinkPad® R51e (1843) - Education - withdrawn

Created by Lenovo Training Solutions  
Personal Systems Reference (PSREF)

Type-model	Processor	Speed GHz	L2 cache	Memory	Screen	Disk GB <sup>5</sup>	Optical	Mini PCI 802.11 wireless	CDC modem	Integrated graphics	Security chip	Limited warranty <sup>12</sup>	Workhorse Global Entry	Avail date
1843-A2U	Celeron® M 380	1.6	1MB	256MB	14.1" XGA	40GB	CD	11a/b/g II <sup>32</sup>	Modem	Xpress 200M	No	XP Pro	1-yr	No Jan 06
1843-A3U	Pentium® M 750	1.86	2MB	512MB	14.1" XGA	40GB	Combo	11a/b/g II	Modem	Xpress 200M	No	XP Pro	1-yr	No Jan 06

• **These models have an EasyServ™<sup>19</sup> onsite pickup and delivery 1-year limited warranty**

These educational models are available only to public or private K-12 (or higher) accredited schools organized and operated exclusively for educational purposes for use by qualified students and teachers.

Positioning Processor	<i>Mainstream performance and features; two-spindle system</i> <b>Intel® Celeron M Processor 380 (1.6 GHz)</b> with 400MHz system bus or <b>Intel Pentium M Processor 750 (1.86 GHz)</b> with Enhanced Intel SpeedStep™ technology <sup>1</sup> , Execute Disable Bit, and 533MHz system bus										<b>SOFTWARE<sup>14</sup></b> <b>Windows XP Professional</b> - Microsoft® Windows® XP Professional <sup>20</sup> (Service Pack 2) ◆ Disk-to-Disk Recovery (in hidden protected area)			
L2 cache Memory	<i>Celeron M: 1MB; Pentium M: 2 MB; All: on die (at processor speed) / ECC</i> <b>256 or 512MB</b> std / 2GB max <sup>7</sup> / <b>PC2-4200 533MHz DDR2</b> / non-parity / CL4 / two 200-pin SO-DIMM sockets / std memory in one socket / one socket available										◆ <b>Preloaded</b> • Education software from Vital Source Technologies®: vitalsource KEY™ and Personal Portable library™ • Rescue and Recovery™ • Access Connections™ • Client Security Solution • ThinkVantage Productivity Center • ThinkVantage System Update • Symantec® Client Security • PC-Doctor™ • ThinkPad utilities • Adobe® Reader • Multimedia Center for Think Offerings • Sonic RecordNOW and Drive Letter Access (combo) • InterVideo WinDVD (combo)			
Diskette drive	None standard / use optional USB-based diskette drive										◆ <b>License - CD not included</b> - Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client			
CD	<i>Some: CD-ROM / 24X-10X<sup>9</sup> speed / fixed, not removable / 12.7mm high</i>													
Combo	<i>Some: DVD-ROM/CD-RW / 24X/24X/24X/8X<sup>21</sup> speed / fixed, not removable / 12.7mm</i>													
Ultrabay Enhanced Disk	None / no support for removable Ultrabay™ options <b>40GB<sup>8</sup></b> (5400 rpm), 9.5mm high / EIDE / removable and upgradable / 9.5mm high bay / <b>Hard Disk Drive Shock Absorber</b>													
Display	<b>14.1"</b> (358.1mm) <b>XGA (1024x768) TFT color</b> / Active Matrix / 150 nits													
Graphics	<b>ATI® RADEON® Xpress 200M</b> / integrated graphics / in memory controller (RC410MD) / uses main memory (32MB up to 511MB main memory; 64MB over 511MB)													
Keyboard	87-key / Access IBM button / palm rest / pitch: 19mm; stroke: 2.7mm (std-size keys)													
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar <sup>13</sup> , magnifying glass													
Touch pad	None													
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions													
Dimensions <sup>3</sup>	<i>(WxDxH): 12.4" x 10.2" x 1.3-1.4"; 314mm x 260mm x 34-37mm</i>													
Weight <sup>2</sup>	with optical drive and battery: 6.2 lb (2.8kg)													
Case material	<i>Color: black; All: Acrylonitrile-Butadiene-Styrene (ABS) plastic</i>													
Battery - type	Lithium Ion <b>6-cell</b> / 2.4Ah / intelligent / supports optional 9-cell battery													
Battery - life <sup>10</sup>	<i>6-cell Celeron models: up to 2.2 hr; 6-cell Pentium models: up to 3.5 hr; optional 9-cell Celeron models: up to 3.2 hr; optional 9-cell Pentium models: up to 5.0 hr</i>													
Architecture	<b>ATI RC410MD</b> chipset (integrated graphics, PCI Express x1 for ethernet and ExpressCard) / ATI SB400 southbridge (ATA-100 EIDE, PCI bus, USB, Low Pin Count [LPC] interface) / PCI bus 2.2 32-bit, 33MHz (TI® PCI1510 CardBus controller, Mini PCI) / LPC bus 33MHz (PC87392 Super I/O for parallel)													
Docking station	No port replicator or docking station support													
PC Card Std slot	One Type I or Type II / CardBus 32-bit / PCMCIA 2.1 / integrated door													
ExpressCard slot	One ExpressCard/34 or ExpressCard/54 / PCI Express x1 or USB 2.0 / integrated door													
Ports	Two USB (Version 2.0) / parallel / external monitor (DB-15) / RJ-11 (modem) / RJ-45 (ethernet) / no keyboard or mouse or serial or infrared port										ThinkPad notebooks implement ThinkVantage™ technologies and design; <a href="http://thinkpad.com/thinkvantage">thinkpad.com/thinkvantage</a>			
Wireless antenna	UltraConnect™ Antenna built into the display cover (models with 802.11 wireless)										Universal 72-watt AC adapter PC 2001 and PXE 2.0-compliant ACPI 1.0b and 2.0-compliant CIM and DMI 2.0-compliant ENERGY STAR®-compliant RoHS-compliant International Warranty Service <sup>17</sup> 24 hour x 7 day <sup>18</sup> toll-free warranty support during the warranty <sup>12</sup>			
Mini PCI	One Mini PCI slot (Communications Bay) / not customer upgradable / 11a/b/g wireless <sup>4</sup> , ThinkPad 11a/b/g Mini PCI Adapter II, Atheros™ AR5004X chip													
CDC	One Communications Daughter Card (CDC) socket (used by modem) / not accessible													
Modem	56K <sup>6</sup> V.90 (V.92-designed <sup>29</sup> ) modem in CDC / Conexant® chipset													
Ethernet	10/100 ethernet on systemboard / Broadcom® BCM5751F (MAC/PHY) / PCIe x1													
Audio support	AC97 controller / AD1981B AC97 codec / stereo speakers / 1 watt / volume up, down, mute buttons / no internal microphone / microphone input jack (3.5 mm) / headphone jack (3.5 mm) / no line in jack													
Security	Power-on password / hard disk password / supervisor password / security keyhole													
Security chip	None													
Fingerprint reader	None													
Limited warranty <sup>12</sup>	<b>1-year - EasyServ™<sup>19</sup> onsite pickup and delivery courier service</b>										ThinkPlus™ <sup>22</sup> 1-year LOR 9x5 NBD 41C9166			
256MB PC2-4200 DDR2 NP CL4 SOD	73P3840			ThinkPad T40/R50 Li-Ion Battery 6-cell			92P1101			ThinkPlus 2-year LOR 9x5 NBD				
512MB PC2-4200 DDR2 NP CL4 SOD	73P3842			ThinkPad T40/R50 Li-Ion Battery 9-cell			92P1102			41C9167				
1GB PC2-4200 DDR2 NP CL4 SOD	73P3844			ThinkPad Multiple Battery Charger II			22P9040			ThinkPlus 3-year LOR 9x5 NBD				
USB Portable Diskette Drive	05K9276			SonyEricsson® GC83 EDGE PC Card			26K3393			41C9168				
USB 2.0/Analog Headset by Sennheiser	40Y8518			Verizon Wireless V620 WWAN PC Card <sup>25</sup>			40Y9137			ThinkPlus 4-year LOR 9x5 NBD				
USB 2.0 Lenovo Webcam	40Y8519			72W Slim AC/DC Combo Adapter			73P4485			41C9171				
USB 2.0 Portable 80GB Hard Disk	40Y8726			Optical 3-Button Travel Wheel Mouse			31P7410			ThinkPlus 5-year LOR 9x5 NBD				
USB 2.0 CD-RW/DVD-ROM Combo II Drive	40Y8637			Optical 3-Button ScrollPoint® Mouse			31P7405			41C9173				
USB 2.0 Memory Key 1GB	40Y7421			Optical 3-Button ScrollPoint Pro Mouse			31P8700			ThinkPlus 2-year P&L P/U Depot				
60GB Hard Disk 9.5mm (5400 rpm)	73P3357			ThinkPad Nylon Carrying Case			10K0207			41C9169				
80GB Hard Disk 9.5mm (5400 rpm)	09N4273			ThinkPad Carrying Case - Backpack			73P3599			ThinkPlus 3-year P&L P/U Depot				
100GB Hard Disk 9.5mm PATA (5400 rpm)	40Y8716			ThinkPad Carrying Case - Organizer			73P3598			41C9170				
USB Travel Keyboard with UltraNav	31P9490			ThinkVision® L171 17" Monitor (black)			9417AC1			ThinkPlus 4-year P&L P/U Depot				
USB Keyboard with UltraNav	31P8950			ThinkVision L171p 17" Monitor (black)			9417HB2			41C9172				
Enh Perf Wireless Keyboard and Mouse	73P4067			ThinkVision L192p 19" Monitor (black)			9419HB2			ThinkPlus 5-year P&L P/U Depot				
Kensington® MicroSaver® Security Cable	73P2582			ThinkVision L201p 20.1" Monitor (black)			9320HB1			41C9174				
Trackpoint Cap Collection	73P2698			PC Card Gemplus Smart Card Reader			41N3004			Post-warranty annual maintenance agreements at				
ThinkVision® E500 Projector	0038A05			ThinkPad Monitor Stand			22P5265			<a href="http://lenovo.com/thinkplus/warranty">lenovo.com/thinkplus/warranty</a>				
ThinkVision C400 Wireless Projector	0039WA1			Other options at <a href="http://lenovo.com/options">lenovo.com/options</a>										

See footnotes for important warranty information  
US models announced January 10, 2006  
US models withdrawn effective October 2006

© Lenovo  
(KD6-4) October 2006

# ThinkPad® R51e (1844) - TopSeller - withdrawn

Created by Lenovo Training Solutions  
Personal Systems Reference (PSREF)

Type-model	Processor	Speed GHz	L2 cache	Memory	Screen	Disk GB <sup>9</sup>	Optical	Mini PCI 802.11 wireless	CDC modem	Integrated graphics	Security chip	Preload	Limited warranty <sup>12</sup>	Avail date
1844-5FU	Celeron® M 360J	1.4	1MB	256MB	14.1" XGA	40GB 4200	DVD	None	Modem	Xpress 200M	No	XP Home	1-yr	Sep 05
1844-5GU	Pentium® M 740	1.73	2MB	512MB	15.0" XGA	40GB 4200	Combo	11b/g <sup>32</sup>	Modem	Xpress 200M	No	XP Pro	1-yr	Sep 05
1844-68U	Celeron M 360J	1.4	1MB	256MB	15.0" XGA	40GB 5400	CD	11b/g	Modem	Xpress 200M	No	XP Home	1-yr	Oct 05
1844-69U	Celeron M 360J	1.4	1MB	256MB	15.0" XGA	40GB 5400	Combo	11b/g	Modem	Xpress 200M	No	XP Home	1-yr	Oct 05
1844-6AU	Celeron M 370	1.5	1MB	256MB	15.0" XGA	40GB 5400	CD	11b/g	Modem	Xpress 200M	No	XP Home	1-yr	Oct 05
1844-6BU	Celeron M 370	1.5	1MB	256MB	15.0" XGA	40GB 5400	Combo	11b/g	Modem	Xpress 200M	No	XP Home	1-yr	Oct 05
1844-6CU	Celeron M 360J	1.4	1MB	256MB	15.0" XGA	40GB 5400	CD	11b/g	Modem	Xpress 200M	No	XP Pro	1-yr	Oct 05
1844-6DU	Celeron M 370	1.5	1MB	256MB	15.0" XGA	40GB 5400	CD	11b/g	Modem	Xpress 200M	No	XP Pro	1-yr	Oct 05
1844-6EU	Celeron M 360J	1.4	1MB	256MB	15.0" XGA	40GB 5400	Combo	11b/g	Modem	Xpress 200M	No	XP Pro	1-yr	Oct 05
1844-6FU	Celeron M 370	1.5	1MB	256MB	15.0" XGA	40GB 5400	Combo	11b/g	Modem	Xpress 200M	No	XP Pro	1-yr	Oct 05
1844-6GU	Celeron M 360J	1.4	1MB	256MB	14.1" XGA	40GB 5400	CD	11b/g	Modem	Xpress 200M	No	XP Home	1-yr	Oct 05
1844-6HU	Celeron M 370	1.5	1MB	256MB	14.1" XGA	40GB 5400	CD	11b/g	Modem	Xpress 200M	No	XP Home	1-yr	Oct 05

- These small and medium business (SMB) models are part of the US TopSeller™ Program
- These 1844 models have a 1-year limited warranty

Positioning	<i>Mainstream performance and features; two-spindle system</i>										<b>SOFTWARE<sup>14</sup></b>			
Processor	Intel® Celeron M Processor 360 (1.4GHz) or 370 (1.5GHz) with 400MHz system bus or Intel Pentium M Processor 740 (1.73GHz) with Enhanced Intel SpeedStep™ technology <sup>1</sup> , Execute Disable Bit, and 533MHz system bus										<b>Windows XP Professional models</b>			
L2 cache	Celeron M: 1MB; Pentium M: 2 MB; All: on die (at processor speed) / ECC										- Microsoft® Windows® XP Professional <sup>20</sup> (Service Pack 2)			
Memory	256MB or 512MB std / 2GB max <sup>7</sup> / PC2-4200 533MHz DDR2 / non-parity / CL4 / single channel / two 200-pin SO-DIMM sockets / std memory in 1 socket / one socket available										✦ Disk-to-Disk Recovery (in hidden protected area)			
Diskette drive	None standard / use optional USB-based diskette drive										<b>Windows XP Home models</b>			
CD	Some: CD-ROM / 24X-10X <sup>9</sup> speed / fixed, not removable / 12.7mm high										- Microsoft Windows XP Home Edition <sup>20</sup> (Service Pack 2)			
DVD	Some: DVD-ROM / 8X-3.3X <sup>9</sup> speed / single-layer / fixed, not removable / 12.7mm										✦ Disk-to-Disk Recovery (in hidden protected area)			
Combo	Some: DVD-ROM/CD-RW / 24X/24X/24X/8X <sup>21</sup> speed / fixed, not removable / 12.7mm										<b>Preloaded (all)</b>			
Ultrabay Enhanced Disk	None / no support for removable Ultrabay™ options										• Rescue and Recovery™			
Disk	40GB <sup>8</sup> (4200 or 5400 rpm), 9.5mm high / EIDE / removable and upgradable / 9.5mm high bay / <b>Hard Disk Drive Shock Absorber</b>										• Access Connections™			
Display	Some: 14.1" (358.1mm) XGA (1024x768) TFT color / Active Matrix / 150 nits										• Client Security Solution™			
	Some: 15.0" (381.0mm) XGA (1024x768) TFT color / Active Matrix / 200 nits										• ThinkVantage Productivity Center			
Graphics	ATI® RADEON® Xpress 200M / integrated graphics / in memory controller (RC410MD) / uses main memory (32MB up to 511MB main memory; 64MB over 511MB)										• ThinkVantage System Update			
Keyboard	87-key / Access IBM button / palm rest / pitch: 19mm; stroke: 2.7mm (std-size keys)										• Symantec® Client Security			
TrackPoint™	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar <sup>13</sup> , (no touch pad)										• PC-Doctor™			
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions										• ThinkPad utilities			
Dimensions <sup>3</sup>	14.1" models (WxDxH): 12.4" x 10.2" x 1.3-1.4"; 314mm x 260mm x 34-37mm										• Adobe® Reader			
	15.0" models (WxDxH): 13.1" x 10.6" x 1.4-1.5"; 332mm x 269mm x 37-40mm										• Multimedia Center for Think Offerings			
Weight <sup>2</sup>	with optical drive and battery: 14.1" models: 6.2 lb (2.8kg); 15.0" models: 6.7 lb (3.0kg)										• Sonic RecordNOW and Drive Letter Access (combo)			
Case material	Color: black; All: Acrylonitrile-Butadiene-Styrene (ABS) plastic										• InterVideo WinDVD (combo)			
Battery - type	Lithium Ion 6-cell / intelligent / supports optional 9-cell battery										<b>License - CD not included (all)</b>			
Battery - life <sup>10</sup>	6-cell Celeron models: up to 2.2 hr; 6-cell Pentium models: up to 4.0 hr; optional 9-cell Celeron models: up to 3.2 hr; optional 9-cell Pentium models: up to 6.0 hr										- Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client (Notes client not supported on XP Home)			
Architecture	ATI RC410MD chipset (integrated graphics, PCI Express x1 for ethernet and ExpressCard) / ATI SB400 southbridge (ATA-100 EIDE, PCI bus, USB, Low Pin Count [LPC] interface) / PCI bus 2.2 32-bit, 33MHz (TI® PCI1510 CardBus controller, Mini PCI) / LPC bus 33MHz (PC87392 Super I/O for parallel)										ThinkPad notebooks implement ThinkVantage™ technologies and design; <a href="http://thinkpad.com/thinkvantage">thinkpad.com/thinkvantage</a>			
Docking station	No port replicator or docking station support										Universal 72 watt AC adapter			
PC Card Std slot	One Type I or Type II / CardBus 32-bit / PCMCIA 2.1 / integrated door										PC 2001 and PXE 2.0-compliant			
ExpressCard slot	One ExpressCard/34 or ExpressCard/54 / PCI Express x1 or USB 2.0 / integrated door										ACPI 1.0b and 2.0-compliant			
Ports	Two USB (Version 2.0) / parallel / external monitor (DB-15) / RJ-11 (modem) / RJ-45 (ethernet) / no keyboard or mouse or serial or infrared port										CIM and DMI 2.0-compliant			
Wireless antenna	Some: none / can upgrade to wireless via optional PC Cards or ExpressCards										ENERGY STAR®-compliant			
	Some: UltraConnect™ Antenna built into the display cover (models with 802.11 wireless)										International Warranty Service <sup>17</sup>			
Mini PCI	Some: no Mini PCI slot (Communications Bay)										24 hour x 7 day <sup>18</sup> toll-free warranty support during the warranty <sup>12</sup>			
11b/g <sup>32</sup>	Some: one Mini PCI slot (Communications Bay) / not customer upgradable / ThinkPad 11b/g Wi-Fi <sup>32</sup> wireless <sup>4</sup> , Mini PCI, Atheros™ AR5004G chipset										ThinkPlus™.22 1-year LOR 9x5 NBD			
CDC	One Communications Daughter Card (CDC) socket (used by modem) / not accessible										41C9166			
Modem	56K <sup>6</sup> V.90 (V.92-designed <sup>29</sup> ) modem in CDC / Conexant® chipset										ThinkPlus 2-year LOR 9x5 NBD			
Ethernet	10/100 ethernet on systemboard / Broadcom® BCM5751F (MAC/PHY) / PCIe x1										41C9167			
Audio support	AC97 controller / AD1981B AC97 codec / stereo speakers, 1 watt / volume up, down, mute buttons / no internal microphone / microphone input jack (3.5 mm) / headphone jack (3.5 mm) / no line in jack										ThinkPlus 3-year LOR 9x5 NBD			
Security	Power-on password / hard disk password / supervisor password / security keyhole										41C9168			
Limited warranty <sup>12</sup>	1-year - EasyServ™.19 onsite pickup and delivery courier service										ThinkPlus 4-year LOR 9x5 NBD			
	256MB PC2-4200 DDR2 NP CL4 SOD		73P3840		ThinkPad T40/R50 Li-Ion Battery 6-cell		92P1101				ThinkPlus 5-year LOR 9x5 NBD			
	512MB PC2-4200 DDR2 NP CL4 SOD		73P3842		ThinkPad T40/R50 Li-Ion Battery 9-cell		92P1102							
	1GB PC2-4200 DDR2 NP CL4 SOD		73P3844		ThinkPad Multiple Battery Charger II		22P9040							
	USB Portable Diskette Drive		05K9276		Verizon Wireless V620 WWAN PC Card <sup>25</sup>		40Y9137				ThinkPlus 2-year P&L P/U Depot			
	USB 2.0 Portable 80GB Hard Disk		40Y8726		72W Slim AC/DC Combo Adapter		73P4485				41C9169			
	USB 2.0 Memory Key 1GB		40Y7421		ThinkPad Monitor Stand		22P5265				ThinkPlus 3-year P&L P/U Depot			
	USB 2.0 Super Multi-Burner Drive		40Y8638		ThinkPad Carrying Case - Expander		73P3597				41C9170			
	80GB HS Hard Disk 9.5mm (5400 rpm)		09N4273		ThinkPad Carrying Case - BackPack		73P3599				ThinkPlus 4-year P&L P/U Depot			
	100GB Hard Disk 9.5mm PATA (5400 rpm)		40Y8716		ThinkPad Carrying Case - Organizer		73P3598				41C9172			
	Kensington® MicroSaver® Security Cable		73P2582		ThinkPad Convertible Monitor Stand		40Y7620				ThinkPlus 5-year P&L P/U Depot			
	ThinkVision® E500 Projector		0038A05		Other options at <a href="http://lenovo.com/options">lenovo.com/options</a>						41C9174			

See footnotes for important warranty information  
US models announced September 20 or October 18, 2005  
US models withdrawn effective April 2006

© Lenovo  
(KD62) April 2006



# ThinkPad® R51e (1844) - TopSeller (January 2006) - withdrawn

Created by Lenovo Training Solutions  
Personal Systems Reference (PSREF)

Type-model	Processor	Speed GHz	L2 cache	Memory	Screen	Disk GB <sup>5</sup>	Optical	Mini PCI 802.11 wireless	CDC modem	Integrated graphics	Security chip	Preload	Limited warranty <sup>12</sup>	Avail date
1844-DGU	Celeron® M 370	1.5	1MB	256MB	14.1" XGA	40GB 4200	CD	11b/g <sup>32</sup>	Modem	Xpress 200M	No	XP Home	1-yr	Jan 06
1844-DHU	Celeron M 370	1.5	1MB	256MB	14.1" XGA	40GB 4200	CD	11b/g	Modem	Xpress 200M	No	XP Pro	1-yr	Jan 06
1844-DJU	Celeron M 380	1.6	1MB	256MB	14.1" XGA	40GB 4200	Combo	11b/g	Modem	Xpress 200M	No	XP Home	1-yr	Jan 06
1844-DKU	Celeron M 380	1.6	1MB	256MB	14.1" XGA	40GB 4200	Combo	11b/g	Modem	Xpress 200M	No	XP Pro	1-yr	Jan 06
1844-DLU	Pentium® M 750	1.86	2MB	512MB	14.1" XGA	40GB 4200	Combo	11b/g	Modem	Xpress 200M	No	XP Pro	1-yr	Jan 06
1844-DMU	Pentium M 750	1.86	2MB	512MB	14.1" XGA	60GB 5400	DVD±RW	11b/g	Modem	Xpress 200M	No	XP Pro	1-yr	Jan 06
1844-DNU	Celeron M 370	1.5	1MB	256MB	15.0" XGA	40GB 4200	CD	11b/g	Modem	Xpress 200M	No	XP Home	1-yr	Jan 06
1844-DPU	Celeron M 370	1.5	1MB	256MB	15.0" XGA	40GB 4200	CD	11b/g	Modem	Xpress 200M	No	XP Pro	1-yr	Jan 06
1844-DRU	Celeron M 380	1.6	1MB	256MB	15.0" XGA	40GB 4200	Combo	11b/g	Modem	Xpress 200M	No	XP Home	1-yr	Jan 06
1844-DSU	Celeron M 380	1.6	1MB	256MB	15.0" XGA	40GB 4200	Combo	11b/g	Modem	Xpress 200M	No	XP Pro	1-yr	Jan 06
1844-DXU	Pentium M 750	1.86	2MB	512MB	15.0" XGA	40GB 4200	Combo	11b/g	Modem	Xpress 200M	No	XP Pro	1-yr	Jan 06
1844-DZU	Pentium M 760	2.0	2MB	512MB	15.0" XGA	60GB 5400	DVD±RW	11b/g	Modem	Xpress 200M	No	XP Pro	1-yr	Jan 06
1844-E9U	Pentium M 740	1.73	2MB	512MB	15.0" XGA	40GB 5400	Combo	11b/g	Modem	Xpress 200M	No	XP Pro	1-yr	Mar 06
1844-EUJ	Pentium M 730	1.60	2MB	512MB	15.0" XGA	40GB 5400	Combo	11b/g	Modem	Xpress 200M	No	XP Pro	1-yr	Apr 06
1844-EVU	Pentium M 730	1.60	2MB	512MB	15.0" XGA	60GB 5400	Combo	11b/g	Modem	Xpress 200M	No	XP Pro	1-yr	Apr 06
1844-EWU	Pentium M 730	1.60	2MB	512MB	15.0" XGA	40GB 5400	DVD±RW	11b/g	Modem	Xpress 200M	No	XP Home	1-yr	Apr 06

- These small and medium business (SMB) models are part of the US TopSeller™ Program
- These models have a 1-year limited warranty

Positioning Processor	Mainstream performance and features; two-spindle system <b>Intel® Celeron M Processor 370 (1.5GHz) or 380 (1.6GHz)</b> with 400MHz system bus or <b>Intel® Pentium M Processor 730, 740, 750, or 760</b> with Enhanced Intel SpeedStep™ technology <sup>1</sup> , Execute Disable Bit, and 533MHz system bus <i>Celeron M: 1MB; Pentium M: 2MB; All: on die (at processor speed) / ECC</i>										<b>SOFTWARE<sup>14</sup></b> <b>Windows XP Professional models</b> - Microsoft® Windows® XP Professional <sup>20</sup> (Service Pack 2) ◆ Disk-to-Disk Recovery <b>Windows XP Home models</b> - Microsoft Windows XP Home Edition <sup>20</sup> (Service Pack 2) ◆ Disk-to-Disk Recovery			
L2 cache Memory	256MB or 512MB std / 2GB max <sup>7</sup> / <b>PC2-4200 533MHz DDR2</b> / non-parity / CL4 / single channel / two 200-pin SO-DIMM sockets / std memory in 1 socket / one socket available										<b>Preloaded</b> (only some listed) • Rescue and Recovery™ • Access Connections™ • Client Security Solution • ThinkVantage Productivity Center • ThinkVantage System Update • Symantec® Client Security • PC-Doctor™ • Multimedia Center for Think Offerings • Sonic RecordNOW and Drive Letter Access (combo) • InterVideo WinDVD (combo)			
Diskette drive CD Combo DVD±RW Ultrabay Enhanced Disk	None standard / use optional USB-based diskette drive <i>Some: CD-ROM / 24X-10X<sup>9</sup> speed / fixed, not removable / 12.7mm high</i> <i>Some: DVD-ROM/CD-RW / 24X/24X/24X/8X<sup>21</sup> speed / fixed, not removable / 12.7mm</i> <i>Some: DVD and CD burner / Multi-Burner Plus / fixed, not removable / 12.7mm high</i> None / no support for removable Ultrabay™ options <b>40GB<sup>8</sup></b> (4200 or 5400 rpm) or <b>60GB</b> (5400 rpm), 9.5mm high / EIDE / removable and upgradable / 9.5mm high bay / <b>Hard Disk Drive Shock Absorber</b>													
Display	<i>Some: 14.1"</i> (358.1mm) <b>XGA (1024x768) TFT color</b> / Active Matrix / 150 nits <i>Some: 15.0"</i> (381.0mm) <b>XGA (1024x768) TFT color</b> / Active Matrix / 200 nits													
Graphics	<b>ATI® RADEON® Xpress 200M</b> / integrated graphics / in memory controller (RC410MD) / uses main memory (32MB up to 511MB main memory; 64MB over 511MB)													
Keyboard TrackPoint™ ThinkLight™	87-key / Access IBM button / palm rest / pitch: 19mm; stroke: 2.7mm (std-size keys) TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar <sup>13</sup> , (no touch pad) Illuminates the keyboard to improve visibility in low-light conditions													
Dimensions <sup>3</sup>	14.1" models (WxDxH): 12.4" x 10.2" x 1.3-1.4"; 314mm x 260mm x 34-37mm 15.0" models (WxDxH): 13.1" x 10.6" x 1.4-1.5"; 332mm x 269mm x 37-40mm with optical drive and battery: 14.1" models: 6.2 lb (2.8kg); 15.0" models: 6.7 lb (3.0kg)													
Weight <sup>2</sup> Case material Battery - type Battery - life <sup>10</sup>	Color: black; All: Acrylonitrile-Butadiene-Styrene (ABS) plastic Lithium Ion <b>6-cell</b> / 2.4Ah / intelligent / supports optional 9-cell battery <i>6-cell Celeron models: up to 2.2 hr; 6-cell Pentium models: up to 3.5 hr; optional 9-cell Celeron models: up to 3.2 hr; optional 9-cell Pentium models: up to 5.0 hr</i>										License - CD not included (all) - Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client (Notes client not supported on XP Home)			
Architecture	<b>ATI RC410MD</b> chipset (integrated graphics, PCI Express x1 for ethernet and ExpressCard) / ATI SB400 southbridge (ATA-100 EIDE, PCI bus, USB, Low Pin Count [LPC] interface) / PCI bus 2.2 32-bit, 33MHz (TI® PCI1510 CardBus controller, Mini PCI) / LPC bus 33MHz (PC87392 Super I/O for parallel)										ThinkPad notebooks implement ThinkVantage™ technologies and design; <a href="http://thinkpad.com/thinkvantage">thinkpad.com/thinkvantage</a>			
Docking station PC Card Std slot ExpressCard slot Ports	No port replicator or docking station support One Type I or Type II / CardBus 32-bit / PCMCIA 2.1 / integrated door One ExpressCard/34 or ExpressCard/54 / PCI Express x1 or USB 2.0 / integrated door Two USB (Version 2.0) / parallel / external monitor (DB-15) / RJ-11 (modem) / RJ-45 (ethernet) / no keyboard or mouse or serial or infrared port										Universal 72 watt AC adapter PC 2001 and PXE 2.0-compliant ACPI 1.0b and 2.0-compliant CIM and DMI 2.0-compliant ENERGY STAR®-compliant RoHS - compliant			
Wireless antenna Mini PCI 11b/g <sup>32</sup> CDC Modem Ethernet Audio support	UltraConnect™ Antenna built into the display cover (models with 802.11 wireless) One Mini PCI slot (Communications Bay) / not customer upgradable / ThinkPad 11b/g Wi-Fi <sup>32</sup> wireless <sup>4</sup> , Mini PCI, Atheros™ AR5004G chipset One Communications Daughter Card (CDC) socket (used by modem) / not accessible 56K® V.90 (V.92-designed <sup>29</sup> ) modem in CDC / Conexant® chipset 10/100 ethernet on systemboard / Broadcom® BCM5751F (MAC/PHY) / PCIe x1 AC97 controller / AD1981B AC97 codec / stereo speakers / 1 watt / volume up, down, mute buttons / no internal microphone / microphone input jack (3.5 mm) / headphone jack (3.5 mm) / no line in jack										International Warranty Service <sup>17</sup> 24 hour x 7 day <sup>18</sup> toll-free warranty support during the warranty <sup>12</sup> ThinkPlus™.22 1-year LOR 9x5 NBD 41C9166 ThinkPlus 2-year LOR 9x5 NBD 41C9167 ThinkPlus 3-year LOR 9x5 NBD 41C9168 ThinkPlus 4-year LOR 9x5 NBD 41C9171 ThinkPlus 5-year LOR 9x5 NBD 41C9173			
Security	Power-on password / hard disk password / supervisor password / security keyhole													
Limited warranty <sup>12</sup>	1-year - EasyServ™.19 onsite pickup and delivery courier service													
256MB PC2-4200 DDR2 NP CL4 SOD	73P3840		ThinkPad T40/R50 Li-Ion Battery 6-cell		92P1101									
512MB PC2-4200 DDR2 NP CL4 SOD	73P3842		ThinkPad T40/R50 Li-Ion Battery 9-cell		92P1102									
1GB PC2-4200 DDR2 NP CL4 SOD	73P3844		ThinkPad Multiple Battery Charger II		22P9040									
USB Portable Diskette Drive	05K9276		Verizon Wireless V620 WWAN PC Card <sup>25</sup>		40Y9137									
USB 2.0 Memory Key 1GB	40Y7421		72W Slim AC/DC Combo Adapter		73P4485									
100GB Hard Disk 9.5mm PATA (5400 rpm)	40Y8716		ThinkPad Carrying Case - BackPack		73P3599									
ThinkVision® L201p 20.1" Monitor (black)	9320HB1		ThinkPad Carrying Case - Organizer		73P3598									
ThinkPad Convertible Monitor Stand	40Y7620		Other options at <a href="http://lenovo.com/options">lenovo.com/options</a>											

See footnotes for important warranty information  
US models announced January 10, March 21, or April 4, 2006  
US models withdrawn effective October 2006

© Lenovo  
(KD6-5) October 2006

# ThinkPad® R51 - withdrawn

Created by Lenovo Training Solutions  
Personal Systems Reference (PSREF)

Type-model	Processor	Speed GHz	Memory GB	Screen	Graphics controller	Disk GB <sup>B</sup>	Optical	Mini PCI Comm Bay wireless	Ethernet on planar	CDC modem	IEEE 1394 port	Security chip	Workhorse (W) Global (G) Preload Entry (E)	Avail date
1830-ADU	Pentium® M	1.6	256MB	14.1" XGA	7500	40GB	Combo	*Intel 11b/g <sup>32</sup>	Modem	Gigabit	1394	Yes	XP Pro W	Apr 2004
1830-AKU	Pentium M	1.6	512MB	14.1" XGA	7500	40HS	Combo	11a/b/g Wi-Fi <sup>32</sup>	Modem	Gigabit	1394	Yes	XP Pro	Apr 2004
1830-ALU	Pentium M	1.6	256MB	14.1" XGA	7500	40GB	Combo	11b/g <sup>32</sup>	Modem	Gigabit	1394	Yes	XP Pro W	Apr 2004
1830-BLU	Pentium M	1.6	256MB	15.0" XGA	7500	40GB	Combo	*Intel 11b Wi-Fi <sup>32</sup>	Modem	Gigabit	1394	Yes	XP Pro W G	Apr 2004
1830-BQU	Pentium M	1.6	256MB	15.0" SXGA+	9000	40GB	Combo	*Intel 11b/g	Modem	Gigabit	1394	Yes	XP Pro W	Apr 2004
1830-BVU	Pentium M	1.6	256MB	15.0" XGA	7500	40GB	Combo	11b/g	Modem	Gigabit	1394	Yes	XP Pro W	Apr 2004

1830 models have a 3-year limited warranty (other 1829/1836 ThinkPad R51 systems have a 1-year limited warranty)

Positioning	Mainstream performance and features; two-spindle system										<b>SOFTWARE<sup>14</sup></b> <b>Windows XP Professional</b> - Microsoft® Windows® XP Professional <sup>20</sup> ♦ Disk-to-Disk Recovery (in hidden protected area) <b>Preloaded</b> • Access Program • Access Connections™ • Rescue and Recovery™ • RecordNOW and Drive Letter Access powered by Sonic products (combo models) • InterVideo WinDVD (combo) • Norton AntiVirus (OEM edition) • PC-Doctor™ • ThinkPad Utilities • Adobe® Reader • Update Connector™ <sup>15</sup> <b>Downloadable</b> • IBM Director Agent • Software Delivery Assistant • System Migration Assistant • Client Security Software (for security chip) <b>License</b> (CD not included) - Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client			
Processor	Intel® Pentium® M Processor 1.6GHz with Enhanced Intel SpeedStep™ technology <sup>1</sup> and 400MHz system bus													
L2 cache	1MB / on die (at processor speed) / ECC													
Memory	256 or 512MB std / 2GB max <sup>7</sup> / PC2700 333MHz DDR1 (DDR-SDRAM) / non-parity / CL2.5 / two 200-pin SO-DIMM sockets / std memory in one socket / one socket available													
Diskette drive	None standard / use optional USB-based diskette drive													
Combo	DVD-ROM/CD-RW / 24X/24X/24X/8X <sup>21</sup> speed / removable from Ultrabay Enhanced													
Ultrabay Enhanced Disk	One modular bay for interchangeable devices / Ultrabay Slim-compatible / 12.7 mm high 40GB <sup>8</sup> (4200 rpm) or 40GB (HS 5400 rpm), 9.5mm high / removable and upgradable / 9.5mm high bay / supports 2nd disk with optional 'Second HDD Adapter for Ultrabay Slim' / Hard Disk Drive Shock Absorber / Active Protection System™													
Display	Some: 14.1" (358.1mm) XGA (1024x768) TFT color / Active Matrix / 150 nits Some: 15.0" (381.0mm) XGA (1024x768) TFT color / Active Matrix / 200 nits Some: 15.0" (381.0mm) SXGA+ (1400x1050) TFT color / Active Matrix / 200 nits / FlexView display with wide viewing angle and high density using IPS technology													
Graphics	Some: ATI® MOBILITY™ RADEON™ 7500 / AGP 4X / 32MB DDR1 (DDR-SDRAM) Some: ATI MOBILITY RADEON 9000 / AGP 4X / 32MB DDR1 (DDR-SDRAM)													
Graphics external	External monitor support via analog DB-15 connector / up to 1600x1200 at 85Hz / DDC2B													
Keyboard	87-key / Access IBM button / palm rest / pitch: 19mm; stroke: 2.7mm (std-size keys)													
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar <sup>13</sup> , magnifying glass													
Touch pad	UltraNav® multi-pointing system / touch pad below keyboard / Tap Zones													
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions													
Dimensions <sup>3</sup>	14.1" models (WxDxH): 12.4" x 10.2" x 1.35-1.46"; 314mm x 260mm x 34-37mm 15.0" models (WxDxH): 13.1" x 10.6" x 1.47-1.58"; 332mm x 269mm x 37-40mm with optical drive and battery; ADU/AKU/ALU: 6.0 lb (2.7kg); BLU/BQU/BVU: 6.6 lb (3.0kg)													
Weight <sup>2</sup>	Color: black; All: Acrylonitrile-Butadiene-Styrene (ABS) plastic													
Case material	Lithium Ion 6-cell / intelligent / supports unique 2nd battery in Ultrabay Enhanced													
Battery - type	Model BQU with SXGA+: up to 4.0 hr; Others: up to 4.7 hr; Optional 9-cell: up to 6.9 hr													
Battery - life <sup>10</sup>														
Architecture	Intel 855PM chipset / 82855PM Memory Controller Hub (MCH-M) / 82801DBM ICH4-M I/O Controller Hub (ATA-100 EIDE, PCI bus, ethernet MAC, Low Pin Count [LPC] interface, USB, [Bluetooth]) / PCI bus 2.2 32-bit, 33MHz (TI® PCI4520A CardBus and 1394 controller, Mini PCI, external expansion) / LPC bus 33MHz (security chip; PC87392 Super I/O for parallel, infrared, [docking-based ports])													
PC Card Std slots	One Type I, one Type II, or one Type III / CardBus 32-bit / PCMCIA 2.1 / integrated door													
Ports	Two USB (Version 2.0) / parallel / external monitor (DB-15) / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / no keyboard or mouse or serial port													
Video out	S-video out port (TV out) / one 4-pin industry standard connector													
IEEE 1394	IEEE 1394 (FireWire) port / 4-pin connector / 1394a-2000 standard													
Wireless antenna	UltraConnect™ Antenna built into the display cover for optimal wireless signal reception													
Mini PCI	One Mini PCI type III slot (Communications Bay) / customer upgradable													
11b Wi-Fi <sup>32</sup>	Some: 11b Wi-Fi <sup>32</sup> wireless <sup>4</sup> , Mini PCI, Intel PRO/Wireless 2100, Intel 82531 chipset													
Intel 11b/g <sup>32</sup>	Some: 11b/g wireless <sup>4</sup> , Mini PCI, Intel PRO/Wireless 2200BG, Intel 82532 chipset													
11b/g <sup>32</sup>	Some: 11b/g Wi-Fi <sup>32</sup> wireless <sup>4</sup> , Mini PCI, Atheros™ AR5004G chipset													
11a/b/g Wi-Fi <sup>32</sup>	Some: 11a/b/g Wi-Fi <sup>32</sup> wireless <sup>4</sup> , Mini PCI, Atheros™ AR5001X+ chipset													
CDC	One Communications Daughter Card (CDC) socket (used by modem) / not accessible													
Modem	56K <sup>6</sup> V.90 (V.92-designed <sup>29</sup> ) modem in CDC / Conexant® chipset													
Bluetooth	None standard													
Ethernet	Gigabit Ethernet on planar / Intel 82540EP chipset (MAC/PHY) / Wake on LAN®													
Audio support	Soft audio / ICH AC97 controller / DirectSound® support / AD1981B AC97 codec / stereo speakers / 1 watt / volume up, down, mute buttons / internal microphone / microphone input jack (3.5 mm) / headphone jack (3.5 mm) / no line in jack													
Security	Power-on password / hard disk password / supervisor password / security keyhole													
Security chip	Embedded Security Subsystem 2.0 <sup>33</sup> / hardware key storage / multi-factor authentication / local file encryption / Atmel® chip / TCG-compliant													
Limited warranty <sup>12</sup>	3-year/1-yr battery - EasyServ™ <sup>19</sup> onsite pickup and delivery / service upgrades <sup>22</sup> avail													
256MB PC2700 DDR-SDRAM CL2.5 SOD	31P9830	ThinkPad T40/R50 Li-Ion Battery 6-cell	92P1101	ThinkPlus™. 22 2-year LOR 9x5 NBD	41C9175									
512MB PC2700 DDR-SDRAM CL2.5 SOD	31P9832	ThinkPad T40/R50 Li-Ion Battery 9-cell	92P1102	ThinkPlus 3-year LOR 9x5 NBD	41C9176									
1GB PC2700 DDR-SDRAM CL2.5 SOD	31P9834	Ultrabay Slim Li-Polymer Battery 3-cell	08K8190	ThinkPlus 4-year LOR 9x5 NBD	41C9177									
Second HDD Adapter for Ultrabay Slim	41U3148	11a/b/g Wireless Mini PCI Adapter II	73P4301	ThinkPlus 5-year LOR 9x5 NBD	41C9179									
CD-RW/DVD Combo Ultrabay Enhanced	73P3275	72W Slim AC/DC Combo Adapter	73P4485	ThinkPlus 4-year P&L P/U Depot	41C9178									
Super Multi-Burner Ultrabay Enh Drv (curved)	40Y8624	ThinkPad Port Replicator II	74P6733	ThinkPlus 5-year P&L P/U Depot	41C9180									
USB Portable Diskette Drive	05K9276	ThinkPad Mini Dock	287810U	Post-warranty annual maintenance agreements at	lenovo.com/thinkplus/warranty									
USB 2.0 CD-RW/DVD-ROM Combo II Drive	40Y8637	ThinkPad Dock II	287710U											
USB 2.0 Memory Key 1GB	40Y7421	ThinkPad Convertible Monitor Stand	40Y7620											
60GB HS Hard Disk 9.5mm (5400 rpm)	73P3357	ThinkVision® C400 Wireless Projector	0039WA1											
80GB HS Hard Disk 9.5mm (5400 rpm)	09N4273	ThinkVision L201p 20.1" Monitor (black)	9220HB1											
100GB Hard Disk 9.5mm PATA (5400 rpm)	40Y8716	Lenovo Laser Mouse (USB, PS/2)	41U3074											
Verizon Wireless V620 WWAN PC Card <sup>25</sup>	40Y9137	Other options at lenovo.com/options												

See footnotes for important warranty information  
US models announced April 6, 2004  
US models withdrawn effective January 2005 or February 2007

\* Powered by Intel Centrino® mobile technology

© Lenovo  
(R51) February 2007

# ThinkPad® R51 (July 2004) - withdrawn

Created by Lenovo Training Solutions  
Personal Systems Reference (PSREF)

Type-model	Processor	Speed GHz	Memory	Screen	Graphics controller	Disk GB <sup>8</sup>	Optical	Mini PCI Comm Bay wireless	CDC modem	Ethernet on planar	IEEE 1394 port	Security chip	Workhorse (W) Global (G) Avail
1830-G7U	Pentium® M 725	1.6	256MB	14.1" XGA	7500	40GB	Combo	* Intel 11b/g <sup>32</sup>	Modem	Gigabit	1394	Yes	XP Pro No Jul 04
1830-H3U	Pentium M 725	1.6	256MB	15.0" XGA	7500	40GB	Combo	* Intel 11b/g	Modem	Gigabit	1394	Yes	XP Pro No Jul 04
1830-8MU	Pentium M 735	1.7	256MB	14.1" XGA	7500	40GB	Combo	* Intel 11b/g	Modem	Gigabit	1394	Yes	XP Pro W G Sep 04
1830-8TU	Pentium M 735	1.7	512MB	14.1" XGA	7500	40GB	Combo	* Intel 11b/g	Modem	Gigabit	1394	Yes	XP Pro W Sep 04
1830-9TU	Pentium M 735	1.7	512MB	15.0" SXGA+	9000	40GB	Combo	* Intel 11b/g	Modem	Gigabit	1394	Yes	XP Pro W Sep 04
1830-PVU	Pentium M 735	1.7	256MB	15.0" XGA	7500	40GB	Combo	* Intel 11b/g	Modem	Gigabit	1394	Yes	XP Pro W G Sep 04
1830-F4U	Pentium M 735	1.7	512MB	15.0" XGA	7500	40GB	Combo	* Intel 11b/g	Modem	Gigabit	1394	Yes	XP Pro W Sep 04

**1830 models have a 3-year limited warranty (other 1829/1836 ThinkPad R51 systems have a 1-year limited warranty)**

Positioning Processor	<b>Mainstream performance and features; two-spindle system</b> <b>Intel® Pentium® M Processor 725 (1.6GHz) or 735 (1.7GHz)</b> with Enhanced Intel SpeedStep™ technology <sup>1</sup> and 400MHz system bus										<b>SOFTWARE<sup>14</sup></b>		
L2 cache	<b>2MB</b> / on die (at processor speed) / ECC										<b>Windows XP Professional</b>		
Memory	<b>256 or 512MB</b> std / 2GB max <sup>7</sup> / <b>PC2700</b> 333MHz DDR1 (DDR-SDRAM) / non-parity / CL2.5 / two 200-pin SO-DIMM sockets / std memory in one socket / one socket available										- Microsoft® Windows® XP Professional <sup>20</sup> ◆ Disk-to-Disk Recovery (in hidden protected area)		
Diskette drive	None standard / use optional USB-based diskette drive										<b>Preloaded</b>		
Combo	DVD-ROM/CD-RW / 24X/24X/24X/8X <sup>21</sup> speed / removable from Ultrabay Enhanced										• Access Program		
Ultrabay Enhanced	One modular bay for interchangeable devices / Ultrabay Slim-compatible / 12.7 mm high										• Access Connections™		
Disk	<b>40GB</b> (4200 rpm) or <b>40GB</b> (HS 5400 rpm), 9.5mm high / removable and upgradable / 9.5mm high bay / supports 2nd disk with optional "Second HDD Adapter for Ultrabay Slim" / <b>Hard Disk Drive Shock Absorber / Active Protection System™</b>										• Rescue and Recovery™		
Display	<i>Some:</i> <b>14.1"</b> (358.1mm) <b>XGA (1024x768) TFT color</b> / Active Matrix / 150 nits <i>Some:</i> <b>15.0"</b> (381.0mm) <b>XGA (1024x768) TFT color</b> / Active Matrix / 200 nits										• Norton AntiVirus (OEM edition)		
Graphics	<i>Some:</i> <b>ATI® MOBILITY™ RADEON™ 7500 / AGP 4X / 32MB</b> DDR1 (DDR-SDRAM) <i>Some:</i> <b>ATI MOBILITY RADEON 9000 / AGP 4X / 32MB</b> DDR1 (DDR-SDRAM)										• PC-Doctor™		
Graphics external	External monitor support via analog DB-15 connector / up to 1600x1200 at 85Hz / DDC2B										• ThinkPad Utilities		
Keyboard	87-key / Access IBM button / palm rest / pitch: 19mm; stroke: 2.7mm (std-size keys)										• Adobe Reader		
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar <sup>13</sup> , magnifying glass										• Update Connector™ <sup>15</sup>		
Touch pad	UltraNav® multi-pointing system / touch pad below keyboard / Tap Zones										• RecordNOW and Drive Letter Access powered by Sonic products (combo models)		
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions										• InterVideo WinDVD (combo)		
Dimensions <sup>3</sup>	<b>14.1" models (WxDxH):</b> 12.4" x 10.2" x 1.35-1.46"; 314mm x 260mm x 34-37mm <b>15.0" models (WxDxH):</b> 13.1" x 10.6" x 1.47-1.58"; 332mm x 269mm x 37-40mm with optical drive and battery; <b>14.1" models:</b> 6.0 lb (2.7kg); <b>15.0" models:</b> 6.6 lb (3.0kg)										<b>Downloadable</b>		
Weight <sup>2</sup>											• IBM Director Agent		
Case material	<b>Color:</b> black; <b>All:</b> Acrylonitrile-Butadiene-Styrene (ABS) plastic										• Software Delivery Assistant		
Battery - type	Lithium Ion 6-cell / intelligent / supports unique 2nd battery in Ultrabay Enhanced										• System Migration Assistant		
Battery - life <sup>10</sup>	<i>Model with SXGA+:</i> up to 3.7 hr; <i>Others:</i> up to 4.0 hr; <i>Optional 9-cell:</i> up to 6.2 hr										• Client Security Software (for security chip)		
Architecture	<b>Intel 855PM</b> chipset / 82855PM Memory Controller Hub (MCH-M) / 82801DBM ICH4-M I/O Controller Hub (ATA-100 EIDE, PCI bus, ethernet MAC, Low Pin Count [LPC] interface, USB, [Bluetooth]) / PCI bus 2.2 32-bit, 33MHz (TI® PCI4520A CardBus and 1394 controller, Mini PCI, external expansion) / LPC bus 33MHz (security chip; PC87392 Super I/O for parallel, infrared, [docking-based ports])										<b>License</b> (CD not included)		
PC Card Std slots	One Type I, one Type II, or one Type III / CardBus 32-bit / PCMCIA 2.1 / integrated door										- Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client		
Ports	Two USB (Version 2.0) / parallel / external monitor (DB-15) / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / no keyboard or mouse or serial port										ThinkPad notebooks implement ThinkVantage® technologies and design; visit <a href="http://thinkpad.com/thinkvantage">thinkpad.com/thinkvantage</a>		
Video out	S-video out port (TV out) / one 4-pin industry standard connector										Universal 72-watt AC adapter		
IEEE 1394	IEEE 1394 (FireWire) port / 4-pin connector / 1394a-2000 standard										Asset ID™ <sup>34</sup> (system-specific info in chip accessed over network)		
Wireless antenna	UltraConnect™ Antenna built into the display cover for optimal wireless signal reception										PC 2001 and PXE 2.0-compliant		
Mini PCI	One Mini PCI type III slot (Communications Bay) / customer upgradable										ACPI 1.0b and 2.0-compliant		
Intel 11b/g <sup>32</sup>	11b/g wireless <sup>4</sup> , Mini PCI, Intel PRO/Wireless 2200BG, Intel 82532 chipset										CIM and DMI 2.0-compliant		
CDC	One Communications Daughter Card (CDC) socket (used by modem) / not accessible										ENERGY STAR®-compliant		
Modem	56K <sup>5</sup> V.90 (V.92-designed <sup>25</sup> ) modem in CDC / Conexant® chipset										ImageUltra™ Services available		
Bluetooth	None standard										International Warranty Service <sup>17</sup>		
Ethernet	Gigabit Ethernet on planar / Intel 82540EP chipset (MAC/PHY) / Wake on LAN®										24 hour x 7 day <sup>18</sup> toll-free warranty support during the warranty <sup>12</sup> via 800-IBM-SERV (426-7378)		
Audio support	Soft audio / ICH AC97 controller / DirectSound® support / AD1981B AC97 codec / stereo speakers / 1 watt / volume up, down, mute buttons / internal microphone / microphone input jack (3.5 mm) / headphone jack (3.5 mm) / no line in jack										ThinkPlus™.22 2-year LOR 9x5 NBD 41C9175		
Security	Power-on password / hard disk password / supervisor password / security keyhole										ThinkPlus 3-year LOR 9x5 NBD 41C9176		
Security chip	<b>Embedded Security Subsystem 2.0<sup>33</sup></b> / hardware key storage / multi-factor authentication / local file encryption / Atmel® chip / TCG-compliant										ThinkPlus 4-year LOR 9x5 NBD 41C9177		
Limited warranty <sup>12</sup>	<b>3-year/1-yr battery - EasyServ™<sup>19</sup> onsite pickup and delivery / service upgrades<sup>22</sup> avail</b>										ThinkPlus 5-year LOR 9x5 NBD 41C9179		
256 MB PC2700 DDR-SDRAM CL2.5 SOD	31P9830	ThinkPad T40/R50 Li-Ion Battery 6-cell	92P1101										
512 MB PC2700 DDR-SDRAM CL2.5 SOD	31P9832	ThinkPad T40/R50 Li-Ion Battery 9-cell	92P1102										
1GB PC2700 DDR-SDRAM CL2.5 SOD	31P9834	Ultrabay Slim Li-Polymer Battery 3-cell	08K8190										
Second HDD Adapter for Ultrabay Slim	41U3148	ThinkPad Multiple Battery Charger II	22P9040										
DVD-ROM Ultrabay Enhanced Drive	39X2642	Kensington® MicroSaver® Security Cable	73P2582										
CD-RW/DVD Combo Ultrabay Enhanced	73P3275	ThinkPad Monitor Stand	22P5265										
Super Multi-Burner Ultrabay Enh Drv (curved)	40Y8624	ThinkPad Convertible Monitor Stand	40Y7620										
USB Portable Diskette Drive	05K9276	11a/b/g Wireless Mini PCI Adapter II	73P4301										
USB Fingerprint Reader	41U3167	72W Slim AC/DC Combo Adapter	73P4485										
USB 2.0 Lenovo Webcam	40Y8519	ThinkPad Port Replicator II	74P6733										
USB 2.0 CD-RW/DVD-ROM Combo II Drive	40Y8637	ThinkPad Mini Dock	287810U										
USB 2.0 Memory Key 1GB	40Y7421	ThinkPad Dock II	287710U										
Enh Perf Wireless Keyboard and Mouse	73P4067	SonyEricsson® GC83 EDGE PC Card	26K3393										
USB Travel Keyboard with UltraNav	31P9490	Verizon Wireless V620 WWAN PC Card <sup>25</sup>	40Y9137										
Preferred Pro USB Fingerprint Keyboard	73P4730	Lenovo M500 Projector	0037A05										
80GB HS Hard Disk 9.5mm (5400 rpm)	09N4273	ThinkPad Carrying Case - Organizer	73P3598										
100GB Hard Disk 9.5mm PATA (5400 rpm)	40Y8716	ThinkPad Carrying Case - Expander	73P3597										
ThinkVision® L201p 20.1" Monitor (black)	9220HB1	Other options at <a href="http://lenovo.com/options">lenovo.com/options</a>											

See footnotes for important warranty information  
US models announced July 13 or September 14, 2004  
US models withdrawn effective March 2005 or February 2007

\* Powered by Intel Centrino® mobile technology

© Lenovo  
(R51L) February 2007

# ThinkPad® R51 (1830) - Education - withdrawn

Created by Lenovo Training Solutions  
Personal Systems Reference (PSREF)

Type-model	Processor	Speed GHz	Memory	Screen	Disk GB <sup>8</sup>	Optical	Mini PCI Comm Bay wireless	CDC modem	Ethernet planar	Secu- rity chip	Preload	Workhorse (W) Limited warranty <sup>12</sup>	Global (G) Education	Avail date
1830-AHU	Pentium® M	1.5	512MB	14.1" XGA	40GB	Combo	*Intel 11b/g <sup>32</sup>	Modem	Gigabit	Yes	XP Pro	EasyServ	Educ	Apr 04
1830-AJU	Pentium M	1.5	512MB	14.1" XGA	60GB	DVD-RW	*Intel 11b/g	Modem	Gigabit	Yes	XP Pro	EasyServ	Educ	Apr 04
1830-BTU	Pentium M	1.5	512MB	15.0" XGA	40GB	Combo	*Intel 11b/g	Modem	Gigabit	Yes	XP Pro	EasyServ	Educ	Apr 04
1830-BUU	Pentium M	1.5	512MB	15.0" SXGA+	60GB	Combo	*Intel 11b/g	Modem	Gigabit	Yes	XP Pro	EasyServ	Educ	Apr 04
1830-8KU	Pentium M 725	1.6	512MB	14.1" XGA	40GB	Combo	*Intel 11b/g	Modem	Gigabit	Yes	XP Pro	EasyServ	Educ	Sep 04
1830-8LU	Pentium M 725	1.6	512MB	14.1" XGA	60GB	DVD±RW	*Intel 11b/g	Modem	Gigabit	Yes	XP Pro	EasyServ	Educ	Sep 04
1830-PUU	Pentium M 725	1.6	512MB	15.0" XGA	40GB	Combo	*Intel 11b/g	Modem	Gigabit	Yes	XP Pro	EasyServ	Educ	Sep 04
1830-9QU	Pentium M 725	1.6	512MB	15.0" SXGA+	60GB	Combo	*Intel 11b/g	Modem	Gigabit	Yes	XP Pro	EasyServ	Educ	Sep 04

• The 1830 has an EasyServ™<sup>19</sup> onsite pickup and delivery 3-year limited warranty

Positioning Processor	Mainstream performance and features; two-spindle system <b>Intel® Pentium® M Processor 1.5GHz or Intel Pentium M Processor 725 (1.6GHz)</b> with Enhanced Intel SpeedStep™ technology <sup>1</sup> and 400MHz system bus											<b>SOFTWARE<sup>14</sup></b> <b>Windows XP Professional</b> - Microsoft® Windows® XP Professional <sup>20</sup> ♦ Disk-to-Disk Recovery (in hidden protected area)  <b>Preloaded</b> • Education software from Vital Source Technologies®: vitalsource KEY™ and Personal Portable library™ • Access Program • Access Connections™ • Rescue and Recovery™ • Norton AntiVirus (OEM edition) • PC-Doctor™ • ThinkPad Utilities • Adobe® Reader • Update Connector™ <sup>15</sup> • RecordNOW and Drive Letter Access powered by Sonic products (combo, DVD-RW, DVD±RW) • InterVideo WinDVD (combo, DVD-RW, DVD±RW) • InterVideo WinDVD Creator (DVD-RW, DVD±RW) • Simple Backup (DVD-RW, DVD±RW)  <b>Downloadable</b> • IBM Director Agent • Software Delivery Assistant • System Migration Assistant • Client Security Software (for security chip)  <b>License</b> (CD not included) - Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client  Universal 72 watt AC adapter Asset ID™ <sup>34</sup> (system-specific info in chip accessed over network) PC 2001 and PXE 2.0-compliant ACPI 1.0b and 2.0-compliant CIM and DMI 2.0-compliant ENERGY STAR®-compliant International Warranty Service <sup>17</sup> 24 hour x 7 day <sup>18</sup> toll-free warranty support during the warranty <sup>12</sup> via 800-IBM-SERV (426-7378)  ThinkPlus™ options at <a href="http://lenovo.com/thinkplus/warranty">lenovo.com/thinkplus/warranty</a>  These educational models of the ThinkPad notebook are available only to public or private K-12 (or higher) accredited schools organized and operated exclusively for educational purposes for use by qualified students and teachers. This model for education is for sale direct from Lenovo or through an Authorized Education Reseller. The model or models for education are not available for resale to any other organization or individual.		
L2 cache	1.5GHz: <b>1MB</b> ; 1.6GHz: <b>2MB</b> ; All: on die (at processor speed) / ECC													
Memory	<b>512MB</b> std / 2GB max <sup>7</sup> / <b>PC2700</b> 333MHz DDR1 (DDR-SDRAM) / non-parity / CL2.5 / two 200-pin SO-DIMM sockets / std memory in one socket / one socket available													
Diskette drive	None standard / use optional USB-based diskette drive													
Combo	Some: DVD-ROM/CD-RW / 24X/24X/24X/8X <sup>21</sup> speed / removable from Ultrabay Enhanced													
DVD-RW	Some: CD-RW/DVD-RW Multi-Burner / removable from Ultrabay Enhanced													
DVD±RW	Some: DVD and CD burner / Multi-Burner Plus / removable from Ultrabay Enhanced													
Ultrabay Enhanced Disk	One modular bay for interchangeable devices / Ultrabay Slim-compatible / 12.7 mm high <b>40GB<sup>9</sup> or 60GB</b> , 4200 rpm, 9.5mm high / removable and upgradable / 9.5mm high bay / supports 2nd disk with optional 'Second HDD Adapter for Ultrabay Slim' / <b>Hard Disk Drive Shock Absorber / Active Protection System™</b> (shock protection)													
Display	Some: <b>14.1"</b> (358.1mm) <b>XGA (1024x768) TFT color</b> / Active Matrix / 150 nits Some: <b>15.0"</b> (381.0mm) <b>XGA (1024x768) TFT color</b> / Active Matrix / 200 nits Some: <b>15.0"</b> (381.0mm) <b>SXGA+ (1400x1050) TFT color</b> / Active Matrix / 200 nits / FlexView display with wide viewing angle and high density using in plane switching (IPS) technology													
Graphics	<b>ATI® MOBILITY™ RADEON™ 9000 / AGP 4X / 32MB</b> DDR1 (DDR-SDRAM)													
Graphics external	External monitor support via analog DB-15 connector / up to 1600x1200 at 85Hz / DDC2B													
Keyboard	87-key / Access IBM button / palm rest / pitch: 19mm; stroke: 2.7mm (std-size keys)													
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar <sup>13</sup> , magnifying glass													
Touch pad	UltraNav® multi-pointing system / touch pad below keyboard / Tap Zones													
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions													
Dimensions <sup>3</sup>	14.1" models (WxDxH): 12.4" x 10.2" x 1.35-1.46"; 314mm x 260mm x 34-37mm 15.0" models (WxDxH): 13.1" x 10.6" x 1.47-1.58"; 332mm x 269mm x 37-40mm with optical drive and battery: 14.1" models: 6.0 lb (2.7kg); 15.0" models: 6.6 lb (3.0kg)													
Weight <sup>2</sup>	Color: black; All: Acrylonitrile-Butadiene-Styrene (ABS) plastic													
Case material	Lithium Ion 6-cell / intelligent / supports unique 2nd battery in Ultrabay Enhanced													
Battery - type	Models with SXGA+: up to 3.7 hr; Others: up to 4.0 hr; <i>Optional 9-cell</i> : up to 6.2 hr													
Battery - life <sup>10</sup>														
Architecture	Intel <b>855PM</b> chipset / 82855PM Memory Controller Hub (MCH-M) / 82801DBM ICH4-M I/O Controller Hub (ATA-100 EIDE, PCI bus, ethernet MAC, Low Pin Count [LPC] interface, USB, [Bluetooth]) / PCI bus 2.2 32-bit, 33MHz (TI® PCI4520A CardBus and 1394 controller, Mini PCI, external expansion) / LPC bus 33MHz (security chip; PC87392 Super I/O for parallel, infrared, [docking-based ports]) One Type I, one Type II, or one Type III / CardBus 32-bit / PCMCIA 2.1 / integrated door Two USB (Version 2.0) / parallel / external monitor (DB-15) / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / no keyboard or mouse or serial port													
PC Card Std slots														
Ports														
Video out	S-video out port (TV out) / one 4-pin industry standard connector													
IEEE 1394	IEEE 1394 (FireWire) port / 4-pin connector / 1394a-2000 standard													
Wireless antenna	UltraConnect™ Antenna built into the display cover for optimal wireless signal reception													
Mini PCI	One Mini PCI type III slot (Communications Bay) / customer upgradable													
Intel 11b/g <sup>32</sup>	11b/g wireless <sup>4</sup> , Mini PCI, Intel PRO/Wireless 2200BG, Intel 82532 chipset													
CDC	One Communications Daughter Card (CDC) socket (used by modem) / not accessible													
Modem	56K <sup>6</sup> V.90 (V.92-designed <sup>29</sup> ) modem in CDC / Conexant® chipset													
Bluetooth	None standard													
Ethernet	Gigabit Ethernet on planar / Intel 82540EP chipset (MAC/PHY) / Wake on LAN®													
Audio support	Soft audio / ICH AC97 controller / DirectSound® support / AD1981B AC97 codec / stereo speakers / 1 watt / volume up, down, mute buttons / internal microphone / microphone input jack (3.5 mm) / headphone jack (3.5 mm) / no line in jack													
Security	Power-on password / hard disk password / supervisor password / security keyhole													
Security chip	<b>Embedded Security Subsystem 2.0<sup>33</sup></b> / hardware key storage / multi-factor authentication / local file encryption / Atmel® chip / TCG-compliant													
Limited warranty <sup>12</sup>	3-year/1-yr battery - EasyServ™ <sup>19</sup> onsite pickup and delivery / service upgrades <sup>22</sup> avail													
256MB PC2700 DDR-SDRAM CL2.5 SOD	31P9830	ThinkPad T40/R50 Li-Ion Battery 6-cell	92P1101											
512MB PC2700 DDR-SDRAM CL2.5 SOD	31P9832	ThinkPad T40/R50 Li-Ion Battery 9-cell	92P1102											
1GB PC2700 DDR-SDRAM CL2.5 SOD	31P9834	Ultrabay Slim Li-Polymer Battery 3-cell	08K8190											
Second HDD Adapter for Ultrabay Slim	41U3148	11a/b/g Wireless Mini PCI Adapter II	73P4301											
CD-RW/DVD Combo Ultrabay Enhanced	73P3275	72W Slim AC/DC Combo Adapter	73P4485											
Super Multi-Burner Ultrabay Enh Drv (curved)	40Y8624	Kensington® MicroSaver® Security Cable	73P2582											
USB Portable Diskette Drive	05K9276	ThinkPad Port Replicator II	74P6733											
USB 2.0 CD-RW/DVD-ROM Combo II Drive	40Y8637	ThinkPad Mini Dock	287810U											
40GB HS Hard Disk 9.5mm (5400 rpm)	08K9816	ThinkPad Dock II	287710U											
80GB HS Hard Disk 9.5mm (5400 rpm)	09N4273	ThinkPad Convertible Monitor Stand	40Y7620											
Lenovo D221 Wide 22" Monitor (black)	6622HB1	Verizon Wireless V620 WWAN PC Card <sup>25</sup>	40Y9137											
ThinkVision® L201p 20.1" Monitor (black)	9220HB1	Other options at <a href="http://lenovo.com/options">lenovo.com/options</a>												

See footnotes for important warranty information

\* Powered by Intel Centrino® mobile technology

© Lenovo

US models announced April 6 or September 14, 2004

(R51E) February 2007

US models withdrawn effective November 2005 or February 2007

# ThinkPad® R51 (1831) - Education - withdrawn

Created by Lenovo Training Solutions  
Personal Systems Reference (PSREF)

Type-model	Processor	Speed GHz	Memory	Screen	Disk GB <sup>8</sup>	Optical	Mini PCI Comm Bay wireless	CDC modem	Ethernet on planar	Security chip	Preload	Workhorse (W) Limited Global (G) Education	Avail date
1831-AHU	Pentium® M	1.5	512MB	14.1" XGA	40GB	Combo	* Intel 11b/g <sup>32</sup>	Modem	Gigabit	Yes	XP Pro	Onsite Educ	Apr 2004
1831-AJU	Pentium M	1.5	512MB	14.1" XGA	60GB	DVD-RW	* Intel 11b/g	Modem	Gigabit	Yes	XP Pro	Onsite Educ	Apr 2004
1831-BTU	Pentium M	1.5	512MB	15.0" XGA	40GB	Combo	* Intel 11b/g	Modem	Gigabit	Yes	XP Pro	Onsite Educ	Apr 2004
1831-BUU	Pentium M	1.5	512MB	15.0" SXGA+	60GB	Combo	* Intel 11b/g	Modem	Gigabit	Yes	XP Pro	Onsite Educ	Apr 2004
1831-8KU	Pentium M 725	1.6	512MB	14.1" XGA	40GB	Combo	* Intel 11b/g	Modem	Gigabit	Yes	XP Pro	Onsite Educ	Sep2004
1831-8LU	Pentium M 725	1.6	512MB	14.1" XGA	60GB	DVD±RW	* Intel 11b/g	Modem	Gigabit	Yes	XP Pro	Onsite Educ	Sep2004
1831-PUU	Pentium M 725	1.6	512MB	15.0" XGA	40GB	Combo	* Intel 11b/g	Modem	Gigabit	Yes	XP Pro	Onsite Educ	Sep2004
1831-9QU	Pentium M 725	1.6	512MB	15.0" SXGA+	60GB	Combo	* Intel 11b/g	Modem	Gigabit	Yes	XP Pro	Onsite Educ	Sep2004

• The 1831 has a limited onsite service<sup>24</sup> 3-year limited warranty

Positioning Processor	<b>Mainstream performance and features; two-spindle system</b> <b>Intel® Pentium® M Processor 1.5GHz or Intel Pentium M Processor 725 (1.6GHz)</b> with Enhanced Intel SpeedStep™ technology <sup>1</sup> and 400MHz system bus										<b>SOFTWARE<sup>14</sup></b> <b>Windows XP Professional</b> - Microsoft® Windows® XP Professional <sup>20</sup> ♦ Disk-to-Disk Recovery (in hidden protected area)  <b>Preloaded</b> • Education software from Vital Source Technologies®: vitalsource KEY™ and Personal Portable library™ • Access Program • Access Connections™ • Rescue and Recovery™ • Norton AntiVirus (OEM edition) • PC-Doctor™ • ThinkPad Utilities • Adobe® Reader • Update Connector™ <sup>15</sup> • RecordNOW and Drive Letter Access powered by Sonic products (combo, DVD-RW, DVD±RW) • InterVideo WinDVD (combo, DVD-RW, DVD±RW) • InterVideo WinDVD Creator (DVD-RW, DVD±RW) • Simple Backup (DVD-RW, DVD±RW)  <b>Downloadable</b> • IBM Director Agent • Software Delivery Assistant • System Migration Assistant • Client Security Software (for security chip)  <b>License</b> (CD not included) - Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client  Universal 72 watt AC adapter Asset ID™ <sup>34</sup> (system-specific info in chip accessed over network) PC 2001 and PXE 2.0-compliant ACPI 1.0b and 2.0-compliant CIM and DMI 2.0-compliant ENERGY STAR®-compliant International Warranty Service <sup>17</sup> 24 hour x 7 day <sup>18</sup> toll-free hardware support during the warranty <sup>12</sup> via 800-IBM-SERV (426-7378)  Post-warranty annual maintenance agreements at <a href="http://lenovo.com/thinkplus/warranty">lenovo.com/thinkplus/warranty</a>  These educational models of the ThinkPad notebook are available only to public or private K-12 (or higher) accredited schools organized and operated exclusively for educational purposes for use by qualified students and teachers. This model for education is for sale direct from Lenovo or through an Authorized Education Reseller. The model or models for education are not available for resale to any other organization or individual.
L2 cache	1.5GHz: <b>1MB</b> ; 1.6GHz: <b>2MB</b> ; All: on die (at processor speed) / ECC										
Memory	<b>512MB</b> std / 2GB max <sup>7</sup> / <b>PC2700</b> 333MHz DDR1 (DDR-SDRAM) / non-parity / CL2.5 / two 200-pin SO-DIMM sockets / std memory in one socket / one socket available										
Diskette drive	None standard / use optional USB-based diskette drive										
Combo	Some: DVD-ROM/CD-RW / 24X/24X/24X/8X <sup>21</sup> speed / removable from Ultrabay Enhanced										
DVD-RW	Some: CD-RW/DVD-RW Multi-Burner / removable from Ultrabay Enhanced										
DVD±RW	Some: DVD and CD burner / Multi-Burner Plus / removable from Ultrabay Enhanced										
Ultrabay Enhanced Disk	One modular bay for interchangeable devices / Ultrabay Slim-compatible / 12.7 mm high <b>40GB<sup>9</sup> or 60GB</b> , 4200 rpm, 9.5mm high / removable and upgradable / 9.5mm high bay / supports 2nd disk with optional 'Second HDD Adapter for Ultrabay Slim' / <b>Hard Disk Drive Shock Absorber / Active Protection System™</b> (shock protection)										
Display	Some: <b>14.1"</b> (358.1mm) <b>XGA (1024x768) TFT color</b> / Active Matrix / 150 nits Some: <b>15.0"</b> (381.0mm) <b>XGA (1024x768) TFT color</b> / Active Matrix / 200 nits Some: <b>15.0"</b> (381.0mm) <b>SXGA+ (1400x1050) TFT color</b> / Active Matrix / 200 nits / FlexView display with wide viewing angle and high density using IPS technology										
Graphics	<b>ATI® MOBILITY™ RADEON™ 9000 / AGP 4X / 32MB</b> DDR1 (DDR-SDRAM)										
Graphics external	External monitor support via analog DB-15 connector / up to 1600x1200 at 85Hz / DDC2B										
Keyboard	87-key / Access IBM button / palm rest / pitch: 19mm; stroke: 2.7mm (std-size keys)										
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar <sup>13</sup> , magnifying glass										
Touch pad	UltraNav® multi-pointing system / touch pad below keyboard / Tap Zones										
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions										
Dimensions <sup>3</sup>	14.1" models (WxDxH): 12.4" x 10.2" x 1.35-1.46"; 314mm x 260mm x 34-37mm 15.0" models (WxDxH): 13.1" x 10.6" x 1.47-1.58"; 332mm x 269mm x 37-40mm										
Weight <sup>2</sup>	with optical drive and battery: 14.1" models: 6.0 lb (2.7kg); 15.0" models: 6.6 lb (3.0kg)										
Case material	Color: black; All: Acrylonitrile-Butadiene-Styrene (ABS) plastic										
Battery - type	Lithium Ion 6-cell / intelligent / supports unique 2nd battery in Ultrabay Enhanced										
Battery - life <sup>10</sup>	Models with SXGA+: up to 3.7 hr; Others: up to 4.0 hr; Optional 9-cell: up to 6.2 hr										
Architecture	<b>Intel 855PM</b> chipset / 82855PM Memory Controller Hub (MCH-M) / 82801DBM ICH4-M I/O Controller Hub (ATA-100 EIDE, PCI bus, ethernet MAC, Low Pin Count [LPC] interface, USB, [Bluetooth]) / PCI bus 2.2 32-bit, 33MHz (TI® PCI4520A CardBus and 1394 controller, Mini PCI, external expansion) / LPC bus 33MHz (security chip; PC87392 Super I/O for parallel, infrared, [docking-based ports])										
PC Card Std slots	One Type I, one Type II, or one Type III / CardBus 32-bit / PCMCIA 2.1 / integrated door										
Ports	Two USB (Version 2.0) / parallel / external monitor (DB-15) / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / no keyboard or mouse or serial port										
Video out	S-video out port (TV out) / one 4-pin industry standard connector										
IEEE 1394	IEEE 1394 (FireWire) port / 4-pin connector / 1394a-2000 standard										
Wireless antenna	UltraConnect™ Antenna built into the display cover for optimal wireless signal reception										
Mini PCI	One Mini PCI type III slot (Communications Bay) / customer upgradable										
Intel 11b/g <sup>32</sup>	11b/g wireless <sup>4</sup> , Mini PCI, Intel PRO/Wireless 2200BG, Intel 82532 chipset										
CDC	One Communications Daughter Card (CDC) socket (used by modem) / not accessible										
Modem	56K <sup>6</sup> V.90 (V.92-designed <sup>29</sup> ) modem in CDC / Conexant® chipset										
Bluetooth	None standard										
Ethernet	Gigabit Ethernet on planar / Intel 82540EP chipset (MAC/PHY) / Wake on LAN®										
Audio support	Soft audio / ICH AC97 controller / DirectSound® support / AD1981B AC97 codec / stereo speakers / 1 watt / volume up, down, mute buttons / internal microphone / microphone input jack (3.5 mm) / headphone jack (3.5 mm) / no line in jack										
Security	Power-on password / hard disk password / supervisor password / security keyhole										
Security chip	<b>Embedded Security Subsystem 2.0<sup>33</sup></b> / hardware key storage / multi-factor authentication / local file encryption / Atmel® chip / TCG-compliant										
Limited warranty <sup>12</sup>	<b>3-year/1-year battery, limited onsite service</b> , 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time <sup>24</sup>										
256MB PC2700 DDR-SDRAM CL2.5 SOD	31P9830	ThinkPad T40/R50 Li-Ion Battery 6-cell	92P1101								
512MB PC2700 DDR-SDRAM CL2.5 SOD	31P9832	ThinkPad T40/R50 Li-Ion Battery 9-cell	92P1102								
1GB PC2700 DDR-SDRAM CL2.5 SOD	31P9834	Ultrabay Slim Li-Polymer Battery 3-cell	08K8190								
Second HDD Adapter for Ultrabay Slim	41U3148	11a/b/g Wireless Mini PCI Adapter II	73P4301								
DVD-ROM Ultrabay Enhanced Drive	39X2642	72W Slim AC/DC Combo Adapter	73P4485								
Super Multi-Burner Ultrabay Enh Drv (curved)	40Y8624	Lenovo M500 Projector	0037A05								
USB Portable Diskette Drive	05K9276	ThinkPad Port Replicator II	74P6733								
USB Fingerprint Reader	41U3167	ThinkPad Mini Dock	287810U								
USB 2.0 CD-RW/DVD-ROM Combo II Drive	40Y8637	ThinkPad Dock II	287710U								
80GB HS Hard Disk 9.5mm (5400 rpm)	09N4273	ThinkPad Convertible Monitor Stand	40Y7620								
100GB Hard Disk 9.5mm PATA (5400 rpm)	40Y8716	Verizon Wireless V620 WWAN PC Card <sup>25</sup>	40Y9137								
ThinkVision® L201p 20.1" Monitor (black)	9220HB1	Other options at <a href="http://lenovo.com/options">lenovo.com/options</a>									

See footnotes for important warranty information  
US models announced April 6 or September 14, 2004  
US models withdrawn effective February 2007

\* Powered by Intel Centrino® mobile technology

© Lenovo  
(1831) February 2007

# ThinkPad® R51 (1836) - TopSeller (September 2004) - withdrawn

Created by Lenovo Training Solutions  
Personal Systems Reference (PSREF)

Type-model	Processor	Speed GHz	Memory	Screen	Graphics controller	Disk GB <sup>3</sup>	Optical	Mini PCI Comm Bay wireless	CDC modem/ Bluetooth™	Ethernet on planar	IEEE 1394 port	Security chip	Workhorse (W) Global (G) Entry (E)	Avail date
1836-Q2U	Pentium® M 725	1.6	256MB	14.1" XGA	7500	40GB	Combo	* Intel 11b/g <sup>32</sup>	Modem	10/100		Yes	No	Sep 2004
1836-Q3U	Pentium M 725	1.6	256MB	14.1" XGA	7500	60GB	DVD±RW	11a/b/g II <sup>32</sup>	Modem	Gigabit	1394	Yes	No	Sep 2004
1836-Q4U	Pentium M 725	1.6	256MB	15.0" XGA	7500	40GB	Combo	* Intel 11b/g	Modem	10/100		Yes	No	Sep 2004
1836-Q5U	Pentium M 725	1.6	256MB	15.0" SXGA+	7500	40GB	Combo	* Intel 11b/g	Modem	Gigabit	1394	Yes	No	Sep 2004
1836-Q6U	Pentium M 735	1.7	256MB	15.0" SXGA+	9000	60GB	Combo	* Intel 11b/g	Modem	Gigabit	1394	Yes	No	Sep 2004
1836-Q7U	Pentium M 735	1.7	512MB	15.0" SXGA+	9000	80GB	DVD±RW	11a/b/g II	Mod/Blue	Gigabit	1394	Yes	No	Sep 2004
<b>These small and medium business (SMB) models are part of the US TopSeller™ Program</b>														
Positioning Processor	Mainstream performance and features; two-spindle system <b>Intel® Pentium® M Processor 725 (1.6GHz) or 735 (1.7GHz)</b> with Enhanced Intel SpeedStep™ technology <sup>1</sup> and 400MHz system bus										<b>SOFTWARE<sup>14</sup></b>			
L2 cache	<b>2MB</b> / on die (at processor speed) / ECC										Windows XP Professional			
Memory	<b>256</b> or <b>512MB</b> std / 2GB max <sup>7</sup> / <b>PC2700</b> 333MHz DDR1 (DDR-SDRAM) / non-parity / CL2.5 / two 200-pin SO-DIMM sockets / std memory in one socket / one socket available										- Microsoft® Windows® XP Professional <sup>20</sup> ♦ Disk-to-Disk Recovery (in hidden protected area)			
Diskette drive	None standard / use optional USB-based diskette drive										<b>Preloaded</b> • Access Program • Access Connections™ • Rescue and Recovery™ • Norton AntiVirus (OEM edition) • PC-Doctor™ • ThinkPad Utilities • Adobe® Reader • Update Connector™.15 • RecordNOW and Drive Letter Access powered by Sonic products (combo, DVD±RW) • InterVideo WinDVD (combo, DVD±RW) • InterVideo WinDVD Creator (DVD±RW) • Simple Backup (DVD±RW)			
Combo DVD±RW	Some: DVD-ROM/CD-RW / 24X/24X/24X/8X <sup>21</sup> speed / removable from Ultrabay Enhance Some: DVD and CD burner / Multi-Burner Plus / removable from Ultrabay Enhanced													
Ultrabay Enhanced Disk	One modular bay for interchangeable devices / Ultrabay Slim-compatible / 12.7 mm high <b>40GB<sup>8</sup></b> (4200 rpm), <b>60GB</b> (4200 rpm), or <b>80GB</b> (4200 rpm) / 9.5mm high / removable and upgradable / 9.5mm high bay / supports 2nd disk with optional 'Second HDD Adapter for Ultrabay Slim' / <b>Hard Disk Drive Shock Absorber / Active Protection System™</b>										<b>Downloadable</b> • IBM Director Agent • Software Delivery Assistant • System Migration Assistant • Client Security Software (for security chip)  <b>License</b> (CD not included) - Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client			
Display	Some: <b>14.1"</b> (358.1mm) <b>XGA (1024x768) TFT color</b> / Active Matrix / 150 nits Some: <b>15.0"</b> (381.0mm) <b>XGA (1024x768) TFT color</b> / Active Matrix / 200 nits Some: <b>15.0"</b> (381.0mm) <b>SXGA+ (1400x1050) TFT color</b> / Active Matrix / 200 nits / FlexView display with wide viewing angle and high density using IPS technology													
Graphics	Some: <b>ATI® MOBILITY™ RADEON™ 7500 / AGP 4X / 32MB</b> DDR1 (DDR-SDRAM) Some: <b>ATI MOBILITY RADEON 9000 / AGP 4X / 32MB</b> DDR1 (DDR-SDRAM)										<b>ThinkPad notebooks implement ThinkVantage® technologies and design; visit <a href="http://thinkpad.com/thinkvantage">thinkpad.com/thinkvantage</a></b>			
Graphics external	External monitor support via analog DB-15 connector / up to 1600x1200 at 85Hz / DDC2B													
Keyboard	87-key / Accs IBM button / palm rest / pitch: 19mm; stroke: 2.7mm (std-size keys)										<b>Universal 72 watt AC adapter</b> Asset ID™.34 (system-specific info in chip accessed over network) PC 2001 and PXE 2.0-compliant ACPI 1.0b and 2.0-compliant CIM and DMI 2.0-compliant ENERGY STAR®-compliant ImageUltra™ Services available International Warranty Service <sup>17</sup> 24 hour x 7 day <sup>18</sup> toll-free warranty support during the warranty <sup>12</sup>			
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar <sup>13</sup> , magnifying glass													
Touch pad	UltraNav® multi-pointing system / touch pad below keyboard / Tap Zones										<b>ThinkPlus™.22 1-year LOR 9x5 NBD</b> 41C9166 <b>ThinkPlus 2-year LOR 9x5 NBD</b> 41C9167 <b>ThinkPlus 3-year LOR 9x5 NBD</b> 41C9168 <b>ThinkPlus 4-year LOR 9x5 NBD</b> 41C9171 <b>ThinkPlus 5-year LOR 9x5 NBD</b> 41C9173 <b>ThinkPlus 2-year P&amp;L P/U Depot</b> 41C9169 <b>ThinkPlus 3-year P&amp;L P/U Depot</b> 41C9170 <b>ThinkPlus 4-year P&amp;L P/U Depot</b> 41C9172 <b>ThinkPlus 5-year P&amp;L P/U Depot</b> 41C9174 <b>Post-warranty annual maintenance agreements at <a href="http://lenovo.com/thinkplus/warranty">lenovo.com/thinkplus/warranty</a></b>			
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions													
Dimensions <sup>3</sup>	<b>14.1" models (WxDxH):</b> 12.4" x 10.2" x 1.35-1.46"; 314mm x 260mm x 34-37mm <b>15.0" models (WxDxH):</b> 13.1" x 10.6" x 1.47-1.58"; 332mm x 269mm x 37-40mm										<b>Other options at <a href="http://lenovo.com/options">lenovo.com/options</a></b>			
Weight <sup>2</sup>	with optical drive and battery: <b>14.1" models:</b> 6.0 lb (2.7kg); <b>15.0" models:</b> 6.6 lb (3.0kg)													
Case material	Color: black; All: Acrylonitrile-Butadiene-Styrene (ABS) plastic										<b>Other options at <a href="http://lenovo.com/options">lenovo.com/options</a></b>			
Battery - type	Lithium Ion 6-cell / intelligent / supports unique 2nd battery in Ultrabay Enhanced													
Battery - life <sup>10</sup>	Models with SXGA+: up to 3.7 hr; Others: up to 4.0 hr; <i>Optional 9-cell:</i> up to 6.2 hr										<b>Other options at <a href="http://lenovo.com/options">lenovo.com/options</a></b>			
Architecture	<b>Intel 855PM</b> chipset / 82855PM Memory Controller Hub (MCH-M) / 82801DBM ICH4-M I/O Controller Hub (ATA-100 EIDE, PCI bus, ethernet MAC, Low Pin Count [LPC] interface, USB, [Bluetooth]) / PCI bus 2.2 32-bit, 33MHz (TI® PCI4520A CardBus and 1394 controller, Mini PCI, external expansion) / LPC bus 33MHz (security chip; PC87392 Super I/O for parallel, infrared, [docking-based ports]) One Type I, one Type II, or one Type III / CardBus 32-bit / PCMCIA 2.1 / integrated door													
PC Card Std slots	Two USB (Version 2.0) / parallel / external monitor (DB-15) / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / no keyboard or mouse or serial port										<b>Other options at <a href="http://lenovo.com/options">lenovo.com/options</a></b>			
Ports	S-video out port (TV out) / one 4-pin industry standard connector Some: IEEE 1394 (FireWire) port / 4-pin connector / 1394a-2000 standard UltraConnect™ Antenna built into the display cover for optimal wireless signal reception One Mini PCI type III slot (Communications Bay) / customer upgradable Some: 11b/g wireless <sup>4</sup> , Mini PCI, Intel PRO/Wireless 2200BG, Intel 82532 chipset Some: 11a/b/g wireless <sup>4</sup> , ThinkPad 11a/b/g Mini PCI Adapter II, Atheros™ AR5004X chip													
Video out	One Communications Daughter Card (CDC) socket (used by modem) / not accessible										<b>Other options at <a href="http://lenovo.com/options">lenovo.com/options</a></b>			
IEEE 1394	56K <sup>6</sup> V.90 (V.92-designed <sup>29</sup> ) modem in CDC / Conexant® chipset Some: Bluetooth wireless technology / in CDC (with modem) Some: 10/100 ethernet on planar / Intel 82562EZ chipset (physical layer) / Wake on LAN® Some: Gigabit Ethernet on planar / Intel 82540EP chipset (MAC/PHY) / Wake on LAN													
Wireless antenna	Soft audio / ICH AC97 controller / DirectSound® support / AD1981B AC97 codec / stereo speakers, 1 watt / volume up, down, mute buttons / internal microphone / microphone input jack (3.5 mm) / headphone jack (3.5 mm) / no line in jack										<b>Other options at <a href="http://lenovo.com/options">lenovo.com/options</a></b>			
Mini PCI	Power-on password / hard disk password / supervisor password / security keyhole													
Intel 11b/g <sup>32</sup>	<b>Embedded Security Subsystem 2.0<sup>33</sup></b> / hardware key storage / multi-factor authentication / local file encryption / Atmel® chip / TCG-compliant										<b>Other options at <a href="http://lenovo.com/options">lenovo.com/options</a></b>			
11a/b/g II <sup>32</sup>	Limited warranty <sup>12</sup> <b>1-year</b> - EasyServ™.19 onsite pickup and delivery / service upgrades <sup>22</sup> available													
CDC	256MB PC2700 DDR-SDRAM CL2.5 SOD 31P9830										<b>Other options at <a href="http://lenovo.com/options">lenovo.com/options</a></b>			
Modem	512MB PC2700 DDR-SDRAM CL2.5 SOD 31P9832													
Bluetooth	1GB PC2700 DDR-SDRAM CL2.5 SOD 31P9834										<b>Other options at <a href="http://lenovo.com/options">lenovo.com/options</a></b>			
Ethernet	Second HDD Adapter for Ultrabay Slim 41U3148													
Ethernet	CD-RW/DVD Combo Ultrabay Enhanced 73P3275										<b>Other options at <a href="http://lenovo.com/options">lenovo.com/options</a></b>			
Audio support	Super Multi-Burner Ultrabay Enh Drv (curved) 40Y8624													
Security	USB Portable Diskette Drive 05K9276										<b>Other options at <a href="http://lenovo.com/options">lenovo.com/options</a></b>			
Security chip	USB 2.0 Super Multi-Burner Drive 41N5565													
Security chip	80GB HS Hard Disk 9.5mm (5400 rpm) 09N4273										<b>Other options at <a href="http://lenovo.com/options">lenovo.com/options</a></b>			
Limited warranty <sup>12</sup>	100GB Hard Disk 9.5mm PATA (5400 rpm) 40Y8716													
256MB PC2700 DDR-SDRAM CL2.5 SOD	Lenovo D221 Wide 22" Monitor (black) 6622HB1										<b>Other options at <a href="http://lenovo.com/options">lenovo.com/options</a></b>			
512MB PC2700 DDR-SDRAM CL2.5 SOD	ThinkVision® L201p 20.1" Monitor (black) 9220HB1													
1GB PC2700 DDR-SDRAM CL2.5 SOD											<b>Other options at <a href="http://lenovo.com/options">lenovo.com/options</a></b>			
Second HDD Adapter for Ultrabay Slim														
CD-RW/DVD Combo Ultrabay Enhanced											<b>Other options at <a href="http://lenovo.com/options">lenovo.com/options</a></b>			
Super Multi-Burner Ultrabay Enh Drv (curved)														
USB Portable Diskette Drive											<b>Other options at <a href="http://lenovo.com/options">lenovo.com/options</a></b>			
USB 2.0 Super Multi-Burner Drive														
80GB HS Hard Disk 9.5mm (5400 rpm)											<b>Other options at <a href="http://lenovo.com/options">lenovo.com/options</a></b>			
100GB Hard Disk 9.5mm PATA (5400 rpm)														
Lenovo D221 Wide 22" Monitor (black)											<b>Other options at <a href="http://lenovo.com/options">lenovo.com/options</a></b>			
ThinkVision® L201p 20.1" Monitor (black)														

See footnotes for important warranty information  
US models announced September 14, 2004  
US models withdrawn effective February 2007

\* Powered by Intel Centrino® mobile technology

© Lenovo  
(R51BS) February 2007

# ThinkPad® R51 (2887) - withdrawn

Created by Lenovo Training Solutions  
Personal Systems Reference (PSREF)

Type-model	Processor	Speed GHz	Memory	Screen	Disk GB <sup>3</sup>	Optical	Mini PCI Comm Bay wireless	Integrated graphics	Ethernet IEEE 1394 port	Secu- rity chip	Limited warranty <sup>12</sup>	Workhorse (W) Global (G) Avail Entry (E) date	
2887-45U	Celeron® M	1.3	128MB	14.1" XGA	20GB	CD	Open; wireless upg <sup>36</sup>	Extreme™ 2	10/100	No	Yes	XP Home 1-yr	Apr 04
2887-67U	Celeron M	1.3	128MB	15.0" XGA	20GB	CD	Open; wireless upg	Extreme 2	10/100	No	Yes	XP Home 1-yr	Apr 04
2887-EXU	Celeron M 330	1.4	256MB	14.1" XGA	30GB	CD	Open; wireless upg	Extreme 2	10/100	No	Yes	XP Home 1-yr	Dec 04
2887-GWU	Celeron M 330	1.4	256MB	15.0" XGA	30GB	CD	Open; wireless upg	Extreme 2	10/100	No	Yes	XP Home 1-yr	Dec 04
2887-E3U	Celeron M 340	1.5	256MB	14.1" XGA	30GB	CD	Open; wireless upg	Extreme 2	10/100	No	Yes	XP Home 1-yr	Sep 04
2887-GAU	Celeron M 340	1.5	256MB	15.0" XGA	30GB	CD	Open; wireless upg	Extreme 2	10/100	No	Yes	XP Home 1-yr	Sep 04
2887-2KU	Pentium® M	1.5	128MB	14.1" XGA	20GB	CD	* Intel 11b/g <sup>32</sup>	Extreme 2	10/100	No	Yes	XP Home 1-yr	E Apr 04
2887-2LU	Pentium M	1.5	128MB	15.0" XGA	20GB	CD	* Intel 11b/g	Extreme 2	10/100	No	Yes	XP Home 1-yr	E Apr 04
2887-8PU	Pentium M 715	1.5	128MB	14.1" XGA	30GB	CD	* Intel 11b/g	Extreme 2	10/100	No	Yes	XP Home 1-yr	E July 04
2887-P2U	Pentium M 710	1.4	256MB	15.0" XGA	40GB	Combo	* Intel 11b/g	Extreme 2	10/100	No	Yes	XP Pro 1-yr	Nov 04
2887-P3U	Pentium M 710	1.4	256MB	15.0" XGA	40GB	Combo	* Intel 11b/g	Extreme 2	Gigabit	Yes	Yes	XP Pro 1-yr	Nov 04
Positioning Processor	<i>Mainstream performance and features; two-spindle system</i> <b>Intel® Celeron M Processor 1.3GHz or 330 (1.4GHz), 340 (1.5GHz) with 400MHz bus or Intel Pentium M Processor 1.5GHz or Intel Pentium M Processor 710 (1.4GHz) or 715 (1.5GHz) with Enhanced Intel SpeedStep™ technology<sup>1</sup> and 400MHz system bus</b> <i>Celeron M: 512KB; Pentium M: 1MB; Pentium M 710/715: 2 MB; All: ECC</i>										<b>SOFTWARE<sup>14</sup></b>		
L2 cache Memory	<b>128 or 256MB std / 2GB max<sup>7</sup> / PC2700 333MHz DDR1 (DDR-SDRAM) / non-parity / CL2.5 / two 200-pin SO-DIMM sockets / std memory in one socket / one socket avail</b>										<b>Windows XP Home models</b> - Microsoft® Windows® XP Home Edition <sup>20</sup> ♦ Disk-to-Disk Recovery (in hidden protected area)		
Diskette drive CD Combo Ultrabay Enhanced Disk	None standard / use optional USB-based diskette drive <i>Some: CD-ROM / 24X-10X<sup>9</sup> speed / removable from Ultrabay Enhanced</i> <i>Some: DVD-ROM/CD-RW / 24X/24X/24X/8X<sup>21</sup> speed / removable from Ultrabay Enhanc</i> One modular bay for interchangeable devices / Ultrabay Slim-compatible / 12.7 mm high <b>20GB<sup>8</sup>, 30GB, or 40GB</b> (4200 rpm) / 9.5mm high / removable and upgradable / 9.5mm high bay / supports 2nd disk with optional 'Second HDD Adapter for Ultrabay Slim' / <b>Hard Disk Drive Shock Absorber / Active Protection System™</b>										<b>Windows XP Professional models</b> - Microsoft Windows XP Professional <sup>20</sup> (Service Pack 2) ♦ Disk-to-Disk Recovery (in hidden protected area)		
Display	<i>Some: 14.1" (358.1mm) XGA (1024x768) TFT color / Active Matrix / 150 nits</i> <i>Some: 15.0" (381.0mm) XGA (1024x768) TFT color / Active Matrix / 200 nits</i>										<b>Preloaded (all)</b> • Access Program • Access Connections™ • Rescue and Recovery™ • Norton AntiVirus (OEM edition) • PC-Doctor™ • ThinkPad Utilities • Adobe® Reader • Update Connector™ <sup>15</sup> • RecordNOW and Drive Letter Access powered by Sonic products (combo models) • InterVideo WinDVD (combo)		
Graphics	<b>Integrated Intel Extreme™ Graphics 2 / in 855GME GMCH / uses main memory (up to 64MB) / 250MHz</b>										<b>Downloadable (all)</b> • IBM Director Agent • Software Delivery Assistant • System Migration Assistant • Client Security Software (for security chip)		
Graphics external	External monitor support via analog DB-15 connector / up to 1600x1200 at 85Hz / DDC2B										<b>License (CD not included)</b> - Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client		
Keyboard TrackPoint® Touch pad ThinkLight™	87-key / Access IBM button / palm rest / pitch: 19mm; stroke: 2.7mm (std-size keys) TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar <sup>13</sup> , magnifying glass UltraNav® multi-pointing system / touch pad below keyboard / Tap Zones Illuminates the keyboard to improve visibility in low-light conditions										ThinkPad notebooks implement ThinkVantage® technologies and design; visit <a href="http://thinkpad.com/thinkvantage">thinkpad.com/thinkvantage</a>		
Dimensions <sup>3</sup>	<i>14.1" models (WxDxH): 12.4" x 10.2" x 1.35-1.46"; 314mm x 260mm x 34-37mm</i> <i>15.0" models (WxDxH): 13.1" x 10.6" x 1.47-1.58"; 332mm x 269mm x 37-40mm</i> with optical drive and battery: <i>14.1" models: 6.0 lb (2.7kg); 15.0" models: 6.6 lb (3.0kg)</i>										<b>ThinkPlus™.22 1-year LOR 9x5 NBD</b> 41C9166		
Weight <sup>2</sup> Case material Battery - type Battery - life <sup>10</sup>	<i>Color: black; All: Acrylonitrile-Butadiene-Styrene (ABS) plastic</i> Lithium Ion 6-cell / intelligent / supports unique 2nd battery in Ultrabay Enhanced <i>Celeron M models: up to 3.5 hr; Pentium M models: up to 4.0 hr;</i> <i>Optional High Capacity 9-cell: up to 6.0 hr</i>										<b>ThinkPlus 3-year LOR 9x5 NBD</b> 41C9168		
Architecture	<b>Intel 855GME chipset / 82855GME Memory Controller Hub (MCH-M) / 82801DBM ICH4-M I/O Controller Hub (ATA-100 EIDE, PCI bus, ethernet MAC, Low Pin Count [LPC] interface, USB) / PCI bus 2.2 32-bit, 33MHz (TI® PCI4510 CardBus and 1394 controller, Mini PCI, external expansion) / LPC bus 33MHz (security chip; PC87392 Super I/O for parallel, infrared, [docking-based ports])</b>										<b>ThinkPlus 5-year LOR 9x5 NBD</b> 41C9173		
PC Card Std slots Ports	One Type I, one Type II, or one Type III / CardBus 32-bit / PCMCIA 2.1 / integrated door Two USB (Version 2.0) / parallel / external monitor (DB-15) / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / no keyboard or mouse or serial port										<b>ThinkPlus 3-year P&amp;L P/U Depot</b> 41C9170		
Video out IEEE 1394 Wireless antenna Mini PCI Wireless upg <sup>36</sup> Intel 11b/g <sup>32</sup> CDC Modem Ethernet	S-video out port (TV out) / one 4-pin industry standard connector <i>Some: IEEE 1394 (FireWire) port / 4-pin connector / 1394a-2000 standard</i> UltraConnect™ Antenna built into the display cover for optimal wireless signal reception One Mini PCI type III slot (Communications Bay) / customer upgradable <i>Some: wireless upgradable with wireless Mini PCI options</i> <i>Some: 11b/g wireless<sup>4</sup>, Mini PCI, Intel PRO/Wireless 2200BG, Intel 82532 chipset</i> One Communications Daughter Card (CDC) socket (used by modem) / not accessible 56K <sup>5</sup> V.90 (V.92-designed <sup>29</sup> ) modem in CDC / Conexant® chipset <i>Some: 10/100 ethernet on planar / Intel 82562EZ chipset (physical layer) / Wake on LAN®</i> <i>Some: Gigabit Ethernet on planar / Intel 82540EP chipset (MAC/PHY) / Wake on LAN</i> Soft audio / ICH AC97 controller / DirectSound® support / AD1981B AC97 codec / stereo speakers / 1 watt / volume up, down, mute buttons / internal microphone / microphone input jack (3.5 mm) / headphone jack (3.5 mm) / no line in jack Power-on password / hard disk password / supervisor password / security keyhole										<b>ThinkPlus 4-year P&amp;L P/U Depot</b> 41C9172		
Audio support	Soft audio / ICH AC97 controller / DirectSound® support / AD1981B AC97 codec / stereo speakers / 1 watt / volume up, down, mute buttons / internal microphone / microphone input jack (3.5 mm) / headphone jack (3.5 mm) / no line in jack Power-on password / hard disk password / supervisor password / security keyhole										<b>ThinkPlus 5-year P&amp;L P/U Depot</b> 41C9174		
Security Security chip	<b>Embedded Security Subsystem 2.0<sup>33</sup> / Atmel® chip / TCG-compliant</b>										<b>Post-warranty annual maintenance agreements at</b> <b>lenovo.com/thinkplus/warranty</b>		
Limited warranty <sup>12</sup>	<b>1-year - EasyServ™.19 onsite pickup and delivery / service upgrades<sup>22</sup> available</b>												
256MB PC2700 DDR-SDRAM CL2.5 SOD	31P9830			ThinkPad T40/R50 Li-Ion Battery 6-cell			92P1101			ThinkPlus 5-year LOR 9x5 NBD			
512MB PC2700 DDR-SDRAM CL2.5 SOD	31P9832			ThinkPad T40/R50 Li-Ion Battery 9-cell			92P1102			41C9173			
1GB PC2700 DDR-SDRAM CL2.5 SOD	31P9834			Ultrabay Slim Li-Polymer Battery 3-cell			08K8190			ThinkPlus 3-year P&L P/U Depot			
Second HDD Adapter for Ultrabay Slim	41U3148			ThinkPad Multiple Battery Charger II			22P9040			41C9170			
ThinkPad DVD-ROM Ultrabay Slim Drive	73P3270			11a/b/g Wireless Mini PCI Adapter II			73P4301			ThinkPlus 4-year P&L P/U Depot			
CD-RW/DVD Combo Ultrabay Enhanced	73P3275			ThinkPad Port Replicator II			74P6733			41C9172			
Super Multi-Burner Ultrabay Enh Drv (curved)	40Y8624			ThinkPad Mini Dock			287810U			ThinkPlus 5-year P&L P/U Depot			
USB 2.0 CD-RW/DVD-ROM Combo II Drive	40Y8637			ThinkPad Dock II			287710U			41C9174			
80GB HS Hard Disk 9.5mm (5400 rpm)	09N4273			ThinkPad Convertible Monitor Stand			40Y7620			Post-warranty annual maintenance agreements at			
Verizon Wireless V620 WWAN PC Card <sup>25</sup>	40Y9137			Verizon Wireless V620 WWAN PC Card <sup>25</sup>			40Y9137			lenovo.com/thinkplus/warranty			
ThinkVision® L201p 20.1" Monitor (black)	9220HB1			Other options at <a href="http://lenovo.com/options">lenovo.com/options</a>									

See footnotes for important warranty information \* Powered by Intel Centrino® mobile technology  
US models announced on April 6, July 13, September 14, November 30, or December 21, 2004  
US models withdrawn effective January 2005, March 2005, or February 2007

# ThinkPad® R51 (2888) - withdrawn

Created by Lenovo Training Solutions  
Personal Systems Reference (PSREF)

Type-model	Processor	Speed GHz	Memory	Screen	Disk GB <sup>8</sup>	Optical	Mini PCI Comm Bay wireless	Ethernet CDC modem planar	IEEE 1394 port	Security chip	Limited warranty <sup>12</sup>	Workhorse (W) Global (G) Entry (E)	Avail date
2888-4AU	Pentium® M	1.6	256MB	14.1" XGA	30GB	CD	*Intel 11b/g <sup>32</sup>	Mod 10/100	No	Yes	XP Pro 3-yr	W	Apr 2004
2888-47U	Pentium M	1.5	256MB	14.1" XGA	20GB	DVD	Open; wireless upg <sup>36</sup>	Mod 10/100	No	Yes	XP Pro 3-yr	W G	Apr 2004
2888-5RU	Pentium M	1.6	256MB	14.1" XGA	40GB	Combo	*Intel 11b/g	Mod Gigabit	Yes	Yes	XP Pro 3-yr	W	Apr 2004
2888-4BU	Pentium M	1.6	256MB	14.1" XGA	30GB	DVD	11b/g <sup>32</sup>	Mod 10/100	No	Yes	XP Pro 3-yr	W	Apr 2004
2888-6AU	Pentium M	1.6	256MB	15.0" XGA	30GB	DVD	11b/g	Mod 10/100	No	Yes	XP Pro 3-yr	W	Apr 2004
2888-68U	Pentium M	1.6	256MB	15.0" XGA	30GB	CD	*Intel 11b/g	Mod 10/100	No	Yes	XP Pro 3-yr	W	Apr 2004
2888-69U	Pentium M	1.6	256MB	15.0" XGA	30GB	DVD	Open; wireless upg	Mod 10/100	No	Yes	XP Pro 3-yr	W	Apr 2004
2888-7JU	Pentium M	1.6	256MB	15.0" XGA	40GB	Combo	*Intel 11b/g	Mod Gigabit	Yes	Yes	XP Pro 3-yr	W	Apr 2004
2888-BQU	Pentium M 725	1.6	256MB	15.0" XGA	40GB	Combo	*Intel 11b/g	Mod Gigabit	Yes	Yes	XP Pro 3-yr		July 2004
Positioning Processor	<b>Mainstream performance and features; two-spindle system</b> <b>Intel® Pentium® M Processor 1.5 or 1.6GHz or Intel Pentium M Processor 725 (1.6GHz)</b> with Enhanced Intel SpeedStep™ technology <sup>1</sup> and 400MHz system bus <i>Pentium M: 1MB; Pentium M 725: 2MB; All: on die (at processor speed) / ECC</i>										<b>SOFTWARE<sup>14</sup></b>		
L2 cache											<b>Windows XP Professional</b>		
Memory	256MB std / 2GB max <sup>7</sup> / <b>PC2700</b> 333MHz DDR1 (DDR-SDRAM) / non-parity / CL2.5 / two 200-pin SO-DIMM sockets / std memory in one socket / one socket available										- Microsoft® Windows® XP Professional <sup>20</sup> ♦ Disk-to-Disk Recovery (in hidden protected area)		
Diskette drive	None standard / use optional USB-based diskette drive										<b>Preloaded</b>		
CD	Some: CD-ROM / 24X-10X <sup>9</sup> speed / removable from Ultrabay Enhanced										• Access Program		
DVD	Some: DVD-ROM / 8X-3.3X <sup>9</sup> speed / single-layer / removable from Ultrabay Enhanced										• Access Connections™		
Combo	Some: DVD-ROM/CD-RW / 24X/24X/24X/8X <sup>21</sup> speed / removable from Ultrabay Enhance										• Rescue and Recovery™		
Ultrabay Enhanced Disk	One modular bay for interchangeable devices / Ultrabay Slim-compatible / 12.7 mm high 20GB <sup>8</sup> , 30GB, or 40GB (4200 rpm), 9.5mm high / removable and upgradable / 9.5mm high bay / supports 2nd disk with optional 'Second HDD Adapter for Ultrabay Slim' / <b>Hard Disk Drive Shock Absorber / Active Protection System™</b>										• Norton AntiVirus (OEM edition)		
Display	Some: 14.1" (358.1mm) XGA (1024x768) TFT color / Active Matrix / 150 nits Some: 15.0" (381.0mm) XGA (1024x768) TFT color / Active Matrix / 200 nits										• PC-Doctor™		
Graphics	<b>Integrated Intel Extreme™ Graphics 2</b> / in 855GME GMCH / uses main memory (up to 64MB) / 250MHz										• ThinkPad Utilities		
Graphics external	External monitor support via analog DB-15 connector / up to 1600x1200 at 85Hz / DDC2B										• Adobe® Reader		
Keyboard	87-key / Access IBM button / palm rest / pitch: 19mm; stroke: 2.7mm (std-size keys)										• Update Connector™ <sup>15</sup>		
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar <sup>13</sup> , magnifying glass										• RecordNOW and Drive Letter		
Touch pad	UltraNav® multi-pointing system / touch pad below keyboard / Tap Zones										Access powered by Sonic products (combo models)		
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions										• InterVideo WinDVD (combo, DVD models)		
Dimensions <sup>3</sup>	14.1" models (WxDxH): 12.4" x 10.2" x 1.35-1.46"; 314mm x 260mm x 34-37mm 15.0" models (WxDxH): 13.1" x 10.6" x 1.47-1.58"; 332mm x 269mm x 37-40mm										<b>Downloadable</b>		
Weight <sup>2</sup>	with optical drive and battery: 14.1" models: 6.0 lb (2.7kg); 15.0" models: 6.6 lb (3.0kg)										• IBM Director Agent		
Case material	Color: black; All: Acrylonitrile-Butadiene-Styrene (ABS) plastic										• Software Delivery Assistant		
Battery - type	Lithium Ion 6-cell / intelligent / supports unique 2nd battery in Ultrabay Enhanced										• System Migration Assistant		
Battery - life <sup>10</sup>	Up to 4.7 hr; <i>Optional High Capacity 9-cell</i> : up to 6.9 hr										• Client Security Software (for security chip)		
Architecture	<b>Intel 855GME</b> chipset / 82855GME Memory Controller Hub (MCH-M) / 82801DBM ICH4-M I/O Controller Hub (ATA-100 EIDE, PCI bus, ethernet MAC, Low Pin Count [LPC] interface, USB) / PCI bus 2.2 32-bit, 33MHz (TI® PCI4510 CardBus and 1394 controller, Mini PCI, external expansion) / LPC bus 33MHz (security chip; PC87392 Super I/O for diskette, parallel, infrared, [docking-based ports])										<b>Licence</b> (CD not included)		
PC Card Std slots	One Type I, one Type II, or one Type III / CardBus 32-bit / PCMCIA 2.1 / integrated door										- Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client		
Ports	Two USB (Version 2.0) / parallel / external monitor (DB-15) / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / no keyboard or mouse or serial port												
Video out	S-video out port (TV out) / one 4-pin industry standard connector										ThinkPad notebooks implement ThinkVantage® technologies and design; visit <a href="http://thinkpad.com/thinkvantage">thinkpad.com/thinkvantage</a>		
IEEE 1394	Some: IEEE 1394 (FireWire) port / 4-pin connector / 1394a-2000 standard										Universal 72 watt AC adapter		
Wireless antenna	UltraConnect™ Antenna built into the display cover for optimal wireless signal reception										Asset ID™ <sup>34</sup> (system-specific info in chip accessed over network)		
Mini PCI	One Mini PCI type III slot (Communications Bay) / customer upgradable										PC 2001 and PXE 2.0-compliant		
Wireless upg <sup>36</sup>	Some: wireless upgradable with wireless Mini PCI options										ACPI 1.0b and 2.0-compliant		
Intel 11b/g <sup>32</sup>	Some: 11b/g wireless <sup>4</sup> , Mini PCI, Intel PRO/Wireless 2200BG, Intel 82532 chipset										CIM and DMI 2.0-compliant		
11b/g <sup>32</sup>	Some: 11b/g Wi-Fi <sup>32</sup> wireless <sup>4</sup> , Mini PCI, Atheros™ AR5004G chipset										ENERGY STAR®-compliant		
CDC	One Communications Daughter Card (CDC) socket (used by modem) / not accessible										ImageUltra™ Services available		
Modem	56K <sup>9</sup> V.90 (V.92-designed <sup>29</sup> ) modem in CDC / Conexant® chipset										International Warranty Service <sup>17</sup>		
Bluetooth	None										24 hour x 7 day <sup>18</sup> toll-free warranty support during the warranty <sup>12</sup>		
Ethernet	Some: 10/100 ethernet on planar / Intel 82562EZ chipset (physical layer) / Wake on LAN®										ThinkPlus™ <sup>22</sup> 2-year LOR 9x5 NBD		
Audio support	Some: Gigabit Ethernet on planar / Intel 82540EP chipset (MAC/PHY) / Wake on LAN										41C9175		
Security	Soft audio / ICH AC97 controller / DirectSound® support / AD1981B AC97 codec / stereo speakers / 1 watt / volume up, down, mute buttons / internal microphone / microphone input jack (3.5 mm) / headphone jack (3.5 mm) / no line in jack										ThinkPlus 3-year LOR 9x5 NBD		
Security chip	<b>Embedded Security Subsystem 2.0</b> <sup>33</sup> / hardware key storage / multi-factor authentication / local file encryption / Atmel® chip / TCG-compliant										41C9176		
Limited warranty <sup>12</sup>	3-year/1-yr battery - EasyServ™ <sup>19</sup> onsite pickup and delivery / service upgrades <sup>22</sup> avail										41C9177		
256MB PC2700 DDR-SDRAM CL2.5 SOD	31P9830	ThinkPad T40/R50 Li-Ion Battery 6-cell	92P1101										
512MB PC2700 DDR-SDRAM CL2.5 SOD	31P9832	ThinkPad T40/R50 Li-Ion Battery 9-cell	92P1102										
1GB PC2700 DDR-SDRAM CL2.5 SOD	31P9834	Ultrabay Slim Li-Polymer Battery 3-cell	08K8190										
Second HDD Adapter for Ultrabay Slim	41U3148	11a/b/g Wireless Mini PCI Adapter II	73P4301										
CD-RW/DVD Combo Ultrabay Enhanced	73P3275	ThinkVision® E500 Projector	0038A05										
Super Multi-Burner Ultrabay Enh Drv (curved)	40Y8624	72W Slim AC/DC Combo Adapter	73P4485										
USB Portable Diskette Drive	05K9276	ThinkPad Port Replicator II	74P6733										
USB 2.0 CD-RW/DVD-ROM Combo II Drive	40Y8637	ThinkPad Mini Dock	287810U										
60GB HS Hard Disk 9.5mm (5400 rpm)	73P3357	ThinkPad Dock II	287710U										
100GB Hard Disk 9.5mm PATA (5400 rpm)	40Y8716	ThinkPad Convertible Monitor Stand	40Y7620										
ThinkPad Carrying Case - BackPack	73P3599	Verizon Wireless V620 WWAN PC Card <sup>25</sup>	40Y9137										
ThinkVision® L201p 20.1" Monitor (black)	9220HB1	Other options at <a href="http://lenovo.com/options">lenovo.com/options</a>											

See footnotes for important warranty information

\* Powered by Intel Centrino® mobile technology

© Lenovo

US models announced April 6 or July 13, 2004

(2888) February 2007

US models withdrawn effective March 2005 or February 2007



# ThinkPad® R51 (2888) - September 2004 - withdrawn

Created by Lenovo Training Solutions  
Personal Systems Reference (PSREF)

Type-model	Processor	Speed GHz	GHz Memory	Screen	Disk GB <sup>8</sup>	Optical	Mini PCI Comm Bay wireless	Ethernet IEEE CDC on 1394 port	Security chip	Limited Workhorse (W) warranty <sup>12</sup>	Global (G) Entry (E)	Avail date
2888-P9U	Pentium® M 715a	1.5	256MB	14.1" XGA	40GB	Combo	*Intel 11b/g <sup>32</sup>	Mod 10/100	No	Yes XP Pro	3-yr	Jan 2005
2888-PAU	Pentium M 715a	1.5	256MB	15.0" XGA	40GB	Combo	*Intel 11b/g	Mod 10/100	No	Yes XP Pro	3-yr	Jan 2005
2888-PBU	Pentium M 715a	1.5	256MB	15.0" XGA	40GB	Combo	*Intel 11b/g	Mod Gigabit	Yes	Yes XP Pro	3-yr	Jan 2005
2888-ESU	Pentium M 735	1.7	256MB	14.1" XGA	30GB	DVD	*Intel 11b/g	Mod 10/100	No	Yes XP Pro	3-yr	W G Sep 2004
2888-ETU	Pentium M 735	1.7	256MB	14.1" XGA	30GB	CD	*Intel 11b/g	Mod 10/100	No	Yes XP Pro	3-yr	W Sep 2004
2888-EUU	Pentium M 735	1.7	256MB	14.1" XGA	30GB	DVD	Open; wireless upg <sup>36</sup>	Mod 10/100	No	Yes XP Pro	3-yr	W Sep 2004
2888-FMU	Pentium M 735	1.7	256MB	14.1" XGA	40GB	Combo	*Intel 11b/g	Mod Gigabit	Yes	Yes XP Pro	3-yr	W Sep 2004
2888-GRU	Pentium M 735	1.7	256MB	15.0" XGA	30GB	CD	*Intel 11b/g	Mod 10/100	No	Yes XP Pro	3-yr	W Sep 2004
2888-GSU	Pentium M 735	1.7	256MB	15.0" XGA	30GB	DVD	Open; wireless upg	Mod 10/100	No	Yes XP Pro	3-yr	W Sep 2004
2888-GTU	Pentium M 735	1.7	256MB	15.0" XGA	30GB	DVD	*Intel 11b/g	Mod 10/100	No	Yes XP Pro	3-yr	W Sep 2004
2888-M9U	Pentium M 735	1.7	256MB	15.0" XGA	40GB	Combo	*Intel 11b/g	Mod Gigabit	Yes	Yes XP Pro	3-yr	W Sep 2004
Positioning Processor	<b>Mainstream performance and features; two-spindle system</b> <b>Intel® Pentium® M Processor 715 /715a (1.5GHz) or 735 (1.7GHz)</b> with Enhanced Intel SpeedStep™ technology <sup>1</sup> and 400MHz system bus										<b>SOFTWARE<sup>14</sup></b>	
L2 cache	<b>2MB</b> / on die (at processor speed) / ECC										<b>Windows XP Professional</b>	
Memory	<b>256MB</b> std / 2GB max <sup>7</sup> / <b>PC2700</b> 333MHz DDR1 (DDR-SDRAM) / non-parity / CL2.5 / two 200-pin SO-DIMM sockets / std memory in one socket / one socket available										- Microsoft® Windows® XP Professional <sup>20</sup> - <i>Pxx models only</i> : Service Pack 2 ♦ Disk-to-Disk Recovery (in hidden protected area)	
Diskette drive	None standard / use optional USB-based diskette drive										<b>Preloaded</b>	
CD	<i>Some</i> : CD-ROM / 24X-10X <sup>9</sup> speed / removable from Ultrabay Enhanced										• Access Program	
DVD	<i>Some</i> : DVD-ROM / 8X-3.3X <sup>9</sup> speed / single-layer / removable from Ultrabay Enhanced										• Access Connections™	
Combo	<i>Some</i> : DVD-ROM/CD-RW / 24X/24X/8X <sup>21</sup> speed / removable from Ultrabay Enhanced										• Rescue and Recovery™	
Ultrabay Enhanced Disk	One modular bay for interchangeable devices / Ultrabay Slim-compatible / 12.7 mm high <b>30GB<sup>8</sup></b> or <b>40GB</b> (4200 rpm), 9.5mm high / removable and upgradable / 9.5mm high bay / supports 2nd disk with optional 'Second HDD Adapter for Ultrabay Slim' / <b>Hard Disk Drive Shock Absorber / Active Protection System™</b>										• Norton AntiVirus (OEM edition) • PC-Doctor™	
Display	<i>Some</i> : <b>14.1"</b> (358.1mm) <b>XGA (1024x768) TFT color</b> / Active Matrix / 150 nits <i>Some</i> : <b>15.0"</b> (381.0mm) <b>XGA (1024x768) TFT color</b> / Active Matrix / 200 nits										• ThinkPad Utilities • Adobe® Reader • Update Connector™ <sup>15</sup> • RecordNOW and Drive Letter Access powered by Sonic products (combo models) • InterVideo WinDVD (combo, DVD models)	
Graphics	<b>Integrated Intel Extreme™ Graphics 2</b> / in 855GME GMCH / uses main memory (up to 64MB) / 250MHz										<b>Downloadable</b>	
Graphics external	External monitor support via analog DB-15 connector / up to 1600x1200 at 85Hz / DDC2B										• IBM Director Agent • Software Delivery Assistant • System Migration Assistant • Client Security Software (for security chip)	
Keyboard	87-key / Access IBM button / palm rest / pitch: 19mm; stroke: 2.7mm (std-size keys)										<b>License</b> (CD not included)	
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar <sup>13</sup> , magnifying glass										- Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client	
Touch pad	UltraNav® multi-pointing system / touch pad below keyboard / Tap Zones											
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions											
Dimensions <sup>3</sup>	<b>14.1" models (WxDxH)</b> : 12.4" x 10.2" x 1.35-1.46"; 314mm x 260mm x 34-37mm <b>15.0" models (WxDxH)</b> : 13.1" x 10.6" x 1.47-1.58"; 332mm x 269mm x 37-40mm										ThinkPad notebooks implement ThinkVantage® technologies and design; visit <a href="http://thinkpad.com/thinkvantage">thinkpad.com/thinkvantage</a>	
Weight <sup>2</sup>	with optical drive and battery: <b>14.1" models</b> : 6.0 lb (2.7kg); <b>15.0" models</b> : 6.6 lb (3.0kg)										Universal 72 watt AC adapter Asset ID™ <sup>34</sup> (system-specific info in chip accessed over network) PC 2001 and PXE 2.0-compliant ACPI 1.0b and 2.0-compliant CIM and DMI 2.0-compliant ENERGY STAR®-compliant ImageUltra™ Services available International Warranty Service <sup>17</sup> 24 hour x 7 day <sup>18</sup> toll-free warranty support during the warranty <sup>12</sup>	
Case material	<b>Color</b> : black; <b>All</b> : Acrylonitrile-Butadiene-Styrene (ABS) plastic											
Battery - type	Lithium Ion 6-cell / intelligent / supports unique 2nd battery in Ultrabay Enhanced											
Battery - life <sup>10</sup>	Up to 4.0 hr; <i>Optional High Capacity 9-cell</i> : up to 6.2 hr											
Architecture	<b>Intel 855GME</b> chipset / 82855GME Memory Controller Hub (MCH-M) / 82801DBM ICH4-M I/O Controller Hub (ATA-100 EIDE, PCI bus, ethernet MAC, Low Pin Count [LPC] interface, USB) / PCI bus 2.2 32-bit, 33MHz (TI® PCI14510 CardBus and 1394 controller, Mini PCI, external expansion) / LPC bus 33MHz (security chip; PC87392 Super I/O for diskette, parallel, infrared, [docking-based ports])											
PC Card Std slots	One Type I, one Type II, or one Type III / CardBus 32-bit / PCMCIA 2.1 / integrated door											
Ports	Two USB (Version 2.0) / parallel / external monitor (DB-15) / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / no keyboard or mouse or serial port											
Video out	S-video out port (TV out) / one 4-pin industry standard connector											
IEEE 1394	<i>Some</i> : IEEE 1394 (FireWire) port / 4-pin connector / 1394a-2000 standard											
Wireless antenna	UltraConnect™ Antenna built into the display cover for optimal wireless signal reception											
Mini PCI	One Mini PCI type III slot (Communications Bay) / customer upgradable											
Wireless upg <sup>36</sup>	<i>Some</i> : wireless upgradable with wireless Mini PCI options											
Intel 11b/g <sup>32</sup>	<i>Some</i> : 11b/g wireless <sup>4</sup> , Mini PCI, Intel PRO/Wireless 2200BG, Intel 82532 chipset											
CDC	One Communications Daughter Card (CDC) socket (used by modem) / not accessible											
Modem	56K <sup>6</sup> V.90 (V.92-designed <sup>29</sup> ) modem in CDC / Conexant® chipset											
Bluetooth	None											
Ethernet	<i>Some</i> : 10/100 ethernet on planar / Intel 82562EZ chipset (physical layer) / Wake on LAN® <i>Some</i> : Gigabit Ethernet on planar / Intel 82540EP chipset (MAC/PHY) / Wake on LAN											
Audio support	Soft audio / ICH AC97 controller / DirectSound® support / AD1981B AC97 codec / stereo speakers / 1 watt / volume up, down, mute buttons / internal microphone / microphone input jack (3.5 mm) / headphone jack (3.5 mm) / no line in jack											
Security	Power-on password / hard disk password / supervisor password / security keyhole											
Security chip	<b>Embedded Security Subsystem 2.0<sup>33</sup></b> / Atmel® chip / TCG-compliant										ThinkPlus™ <sup>22</sup> 2-year LOR 9x5 NBD 41C9175	
Limited warranty <sup>12</sup>	<b>3-year/1-yr battery</b> - EasyServ™ <sup>19</sup> onsite pickup and delivery / service upgrades <sup>22</sup> avail										ThinkPlus 3-year LOR 9x5 NBD 41C9176	
256MB PC2700 DDR-SDRAM CL2.5 SOD	31P9830		ThinkPad T40/R50 Li-Ion Battery 6-cell		92P1101		ThinkPlus 4-year LOR 9x5 NBD		41C9177			
512MB PC2700 DDR-SDRAM CL2.5 SOD	31P9832		ThinkPad T40/R50 Li-Ion Battery 9-cell		92P1102		ThinkPlus 5-year LOR 9x5 NBD		41C9178			
1GB PC2700 DDR-SDRAM CL2.5 SOD	31P9834		Ultrabay Slim Li-Polymer Battery 3-cell		08K8190		ThinkPlus 4-year P&L P/U Depot		41C9179			
Second HDD Adapter for Ultrabay Slim	41U3148		11a/b/g Wireless Mini PCI Adapter II		73P4301		ThinkPlus 5-year P&L P/U Depot		41C9180			
CD-RW/DVD Combo Ultrabay Enhanced	73P3275		72W Slim AC/DC Combo Adapter		73P4485		Post-warranty annual maintenance agreements at		lenovo.com/thinkplus/warranty			
Super Multi-Burner Ultrabay Enh Drv (curved)	40Y8624		ThinkPad Port Replicator II		74P6733							
USB Fingerprint Reader	41U3167		ThinkPad Mini Dock		287810U							
USB 2.0 CD-RW/DVD-ROM Combo II Drive	40Y8637		ThinkPad Dock II		287710U							
80GB HS Hard Disk 9.5mm (5400 rpm)	09N4273		ThinkPad Convertible Monitor Stand		40Y7620							
ThinkPad Carrying Case - Organizer	73P3598		Verizon Wireless V620 WWAN PC Card <sup>25</sup>		40Y9137							
ThinkVision® L201p 20.1" Monitor (black)	9220HB1		Other options at <a href="http://lenovo.com/options">lenovo.com/options</a>									

See footnotes for important warranty information \* Powered by Intel Centrino® mobile technology  
US models announced September 14, 2004 or January 11, 2005  
US models withdrawn effective November 2005 or February 2007

© Lenovo  
(2888S) February 2007

# ThinkPad® R51 (2887/2888) - Education - withdrawn

Created by Lenovo Training Solutions  
Personal Systems Reference (PSREF)

Type-model	Processor	Speed GHz	Memory	Screen	Disk GB <sup>8</sup>	Optical	Mini PCI Comm Bay wireless	CDC modem	Integrated graphics	IEEE1394 port	Security chip	Limited warranty <sup>12</sup>	Workhorse (W) Global (G) Avail Entry (E) date
2887-2RU	Celeron® M	1.3	256MB	14.1" XGA	30GB	CD	Intel 11b/g <sup>32</sup>	Modem	Extreme™ 2	No	Yes	1-year	XP Pro Educ Apr 04
2888-2RU	Celeron M	1.3	256MB	14.1" XGA	30GB	CD	Intel 11b/g	Modem	Extreme™ 2	No	Yes	3-year	XP Pro Educ Apr 04
2888-EVU	Celeron M 340	1.5	256MB	14.1" XGA	30GB	CD	Intel 11b/g	Modem	Extreme™ 2	No	Yes	3-year	XP Pro Educ Sep 04
2888-2WU	Pentium® M	1.5	256MB	14.1" XGA	40GB	Combo	*Intel 11b/g	Modem	Extreme™ 2	No	Yes	3-year	XP Pro Educ Apr 04
2888-EWU	Pentium M 725	1.6	256MB	14.1" XGA	40GB	Combo	*Intel 11b/g	Modem	Extreme™ 2	No	Yes	3-year	XP Pro Educ Sep 04

• **The 2887 has an EasyServ™<sup>19</sup> onsite pickup and delivery 1-year limited warranty**

• **The 2888 has an EasyServ™ onsite pickup and delivery 3-year limited warranty**

These educational models are available only to public or private K-12 (or higher) accredited schools organized and operated exclusively for educational purposes for use by qualified students and teachers.

Positioning Processor	<i>Mainstream performance and features; two-spindle system</i> <b>Intel® Celeron M Processor 1.3GHz or 340 (1.5GHz)</b> with 400MHz system bus or <b>Intel Pentium M Processor 1.5GHz or Intel Pentium M Processor 725 (1.6GHz)</b> with Enhanced Intel SpeedStep™ technology <sup>1</sup> and 400MHz system bus										<b>SOFTWARE<sup>14</sup></b>			
L2 cache	<b>Celeron M: 512KB; Pentium M 1.5GHz: 1MB; Pentium M 725: 2MB; All: on die / ECC</b>										<b>Windows XP Professional</b>			
Memory	<b>256MB</b> std / <b>2GB</b> max <sup>7</sup> / <b>PC2700</b> 333MHz DDR1 (DDR-SDRAM) / non-parity / CL2.5 / two 200-pin SO-DIMM sockets / std memory in one socket / one socket available										- Microsoft® Windows® XP Professional <sup>20</sup> ◆ Disk-to-Disk Recovery (in hidden protected area)			
Diskette drive	None standard / use optional USB-based diskette drive										<b>Preloaded</b>			
CD	<i>Some: CD-ROM / 24X-10X<sup>9</sup> speed / removable from Ultrabay Enhanced</i>										• Access Program			
Combo	<i>Some: DVD-ROM/CD-RW / 24X/24X/24X/8X<sup>21</sup> speed / removable from Ultrabay Enhanced</i>										• Access Connections™			
Ultrabay Enhanced Disk	One modular bay for interchangeable devices / Ultrabay Slim-compatible / 12.7 mm high <b>30GB<sup>8</sup> or 40GB</b> (4200 rpm), 9.5mm high / removable and upgradable / 9.5mm high bay / supports 2nd disk with optional 'Second HDD Adapter for Ultrabay Slim' / <b>Hard Disk Drive Shock Absorber / Active Protection System™</b>										• Rescue and Recovery™			
Display	<b>14.1"</b> (358.1mm) <b>XGA (1024x768) TFT color</b> / Active Matrix / 150 nits										• Norton AntiVirus (OEM edition)			
Graphics	<b>Integrated Intel Extreme™ Graphics 2</b> / in 855GME GMCH / uses main memory (up to 64MB) / 250MHz										• PC-Doctor™			
Graphics external	External monitor support via analog DB-15 connector / up to 1600x1200 at 85Hz / DDC2B										• ThinkPad Utilities			
Keyboard	87-key / Access IBM button / palm rest / pitch: 19mm; stroke: 2.7mm (std-size keys)										• Adobe® Reader			
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar <sup>13</sup> , magnifying glass										• Update Connector™ <sup>15</sup>			
Touch pad	UltraNav® multi-pointing system / touch pad below keyboard / Tap Zones										• RecordNOW and Drive Letter			
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions										Access powered by Sonic products (combo model)			
Dimensions <sup>3</sup>	<b>14.1" models (WxDxH): 12.4" x 10.2" x 1.35-1.46"</b> ; 314mm x 260mm x 34-37mm with optical drive and battery: 6.0 lb (2.7kg)										• InterVideo WinDVD (combo model)			
Weight <sup>2</sup>	with optical drive and battery: 6.0 lb (2.7kg)										<b>Downloadable</b>			
Case material	<i>Color: black; All: Acrylonitrile-Butadiene-Styrene (ABS) plastic</i>										• IBM Director Agent			
Battery - type	Lithium Ion 6-cell / intelligent / supports unique 2nd battery in Ultrabay Enhanced										• Software Delivery Assistant			
Battery - life <sup>10</sup>	<i>Celeron models: up to 3.4 hr; Pentium model: up to 4.0 hr; Optional 9-cell: up to 6.2 hr</i>										• System Migration Assistant			
Architecture	<b>Intel 855GME</b> chipset / 82855GME Memory Controller Hub (MCH-M) / 82801DBM ICH4-M I/O Controller Hub (ATA-100 EIDE, PCI-bus, ethernet MAC, Low Pin Count [LPC] interface, USB) / PCI bus 2.2 32-bit, 33MHz (TI® PCI4510 CardBus and 1394 controller, Mini PCI, external expansion) / LPC bus 33MHz (security chip; PC87392 Super I/O for diskette, parallel, infrared, [docking-based ports])										• Client Security Software (for security chip)			
PC Card Std slots	One Type I, one Type II, or one Type III / CardBus 32-bit / PCMCIA 2.1 / integrated door										<b>License</b> (CD not included)			
Ports	Two USB (Version 2.0) / parallel / external monitor (DB-15) / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / no keyboard or mouse or serial port										- Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client			
Video out	S-video out port (TV out) / one industry standard connector										ThinkPad notebooks implement ThinkVantage® technologies and design; visit <a href="http://thinkpad.com/thinkvantage">thinkpad.com/thinkvantage</a>  Universal 72 watt AC adapter Asset ID™ <sup>34</sup> (system-specific info in chip accessed over network) PC 2001 and PXE 2.0-compliant ACPI 1.0b and 2.0-compliant CIM and DMI 2.0-compliant ENERGY STAR®-compliant ImageUltra™ Services available International Warranty Service <sup>17</sup> 24 hour x 7 day <sup>18</sup> toll-free warranty support during the warranty <sup>12</sup> via 800-IBM-SERV (426-7378)			
IEEE 1394	None													
Wireless antenna	UltraConnect™ Antenna built into the display cover for optimal wireless signal reception													
Mini PCI	One Mini PCI type III slot (Communications Bay) / customer upgradable													
Wireless upg <sup>36</sup>	<i>Some: wireless upgradable with wireless Mini PCI options</i>													
Intel 11b/g <sup>32</sup>	<i>Some: 11b/g wireless<sup>4</sup>, Mini PCI, Intel PRO/Wireless 2200BG, Intel 82532 chipset</i>													
CDC	One Communications Daughter Card (CDC) socket (used by modem) / not accessible													
Modem	56K <sup>6</sup> V.90 (V.92-designed <sup>29</sup> ) modem in CDC / Conexant® chipset													
Bluetooth	None													
Ethernet	10/100 ethernet on planar / Intel 82562EZ chipset (physical layer) / Wake on LAN®													
Audio support	Soft audio / ICH AC97 controller / DirectSound® support / AD1981B AC97 codec / stereo speakers / 1 watt / volume up, down, mute buttons / internal microphone / microphone input jack (3.5 mm) / headphone jack (3.5 mm) / no line in jack													
Security	Power-on password / hard disk password / supervisor password / security keyhole													
Security chip	<b>Embedded Security Subsystem 2.0<sup>33</sup></b> / hardware key storage / multi-factor authentication / local file encryption / Atmel® chip / TCG-compliant													
Limited warranty <sup>12</sup>	<b>2887: 1-year - EasyServ™<sup>19</sup> onsite pickup and delivery / service upgrades<sup>22</sup> available</b> <b>2888: 3-year/1-year battery - EasyServ onsite pickup and delivery / srv upgrades<sup>22</sup> avail</b>													
256 MB PC2700 DDR-SDRAM CL2.5 SOD	31P9830	ThinkPad T40/R50 Li-Ion Battery 6-cell	92P1101	ThinkPlus™ options at <a href="http://lenovo.com/thinkplus/warranty">lenovo.com/thinkplus/warranty</a>										
512 MB PC2700 DDR-SDRAM CL2.5 SOD	31P9832	ThinkPad T40/R50 Li-Ion Battery 9-cell	92P1102	Post-warranty annual maintenance agreements at <a href="http://lenovo.com/thinkplus/warranty">lenovo.com/thinkplus/warranty</a>										
1GB PC2700 DDR-SDRAM CL2.5 SOD	31P9834	Ultrabay Slim Li-Polymer Battery 3-cell	08K8190											
Second HDD Adapter for Ultrabay Slim	41U3148	ThinkPad Multiple Battery Charger II	22P9040											
DVD-ROM Ultrabay Enhanced Drive	39X2642	Preferred Pro USB Fingerprint Keyboard	73P4730											
CD-RW/DVD Combo Ultrabay Enhanced	73P3275	Kensington® MicroSaver® Security Cable	73P2582											
Super Multi-Burner Ultrabay Enh Drv (curve)	40Y8624	80GB HS Hard Disk 9.5mm (5400 rpm)	09N4273											
USB Fingerprint Reader	41U3167	100GB Hard Disk 9.5mm (5400 rpm)	40Y8716											
USB 2.0/Analog Headset by Sennheiser	40Y8518	11a/b/g Wireless Mini PCI Adapter II	73P4301											
USB 2.0 CD-RW/DVD-ROM Combo II Drive	40Y8637	ThinkPad 72W AC Adapter	02K6699											
USB 2.0 Memory Key 1GB	40Y7421	72W Slim AC/DC Combo Adapter	73P4485											
Lenovo M500 Projector	0037A05	ThinkPad Convertible Monitor Stand	40Y7620											
ThinkPad Carrying Case - Leather	73P3600	Verizon Wireless V620 WWAN PC Card <sup>25</sup>	40Y9137											
Lenovo D221 Wide 22" Monitor (black)	6622HB1	Other options at <a href="http://lenovo.com/options">lenovo.com/options</a>												

See footnotes for important warranty information

\* Powered by Intel Centrino® mobile technology

© Lenovo

US models announced April 6 or September 14, 2004

(2887E) February 2007

US models withdrawn effective January 2005, November 2005, or February 2007

# ThinkPad® R51 (2889) - Education - withdrawn

Created by Lenovo Training Solutions  
Personal Systems Reference (PSREF)

Type-model	Processor	Speed GHz	Memory	Screen	Disk GB <sup>8</sup>	Optical	Mini PCI Comm Bay wireless	CDC modem	Integrated graphics	IEEE Secu- 1394 port	Preload chip	Workhorse (W) Limited Global (G) Avail Entry (E) date
2889-2RU	Celeron® M	1.3	256MB	14.1" XGA	30GB	CD	Intel 11b/g <sup>32</sup>	Modem	Extreme™ 2	No	Yes	XP Pro Onsite Educ Apr 04
2889-EVU	Celeron M 340	1.5	256MB	14.1" XGA	30GB	CD	Intel 11b/g	Modem	Extreme 2	No	Yes	XP Pro Onsite Educ Sep 04
2889-2WU	Pentium® M	1.5	256MB	14.1" XGA	40GB	Combo	*Intel 11b/g	Modem	Extreme 2	No	Yes	XP Pro Onsite Educ Apr 04
2889-EWU	Pentium M 725	1.6	256MB	14.1" XGA	40GB	Combo	*Intel 11b/g	Modem	Extreme 2	No	Yes	XP Pro Onsite Educ Sep 04

• **The 2889 has a limited onsite service<sup>24</sup> 3-year limited warranty**

These educational models are available only to public or private K-12 (or higher) accredited schools organized and operated exclusively for educational purposes for use by qualified students and teachers.

Positioning Processor	<i>Mainstream performance and features; two-spindle system</i> <b>Intel® Celeron M Processor 1.3GHz or 340 (1.5GHz)</b> with 400MHz system bus or <b>Intel Pentium M Processor 1.5GHz or Intel Pentium M Processor 725 (1.6GHz)</b> with Enhanced Intel SpeedStep™ technology <sup>1</sup> and 400MHz system bus										<b>SOFTWARE<sup>14</sup></b>
L2 cache Memory	<i>Celeron M: 512KB; Pentium M 1.5GHz: 1MB; Pentium M 725: 2MB; All: on die / ECC</i> <b>256MB</b> std / 2GB max <sup>7</sup> / <b>PC2700</b> 333MHz DDR1 (DDR-SDRAM) / non-parity / CL2.5 / two 200-pin SO-DIMM sockets / std memory in one socket / one socket available										<b>Windows XP Professional</b> - Microsoft® Windows® XP Professional <sup>20</sup> ✦ Disk-to-Disk Recovery (in hidden protected area)
Diskette drive CD Combo	None standard / use optional USB-based diskette drive <i>Some: CD-ROM / 24X-10X<sup>9</sup> speed / removable from Ultrabay Enhanced</i> <i>Some: DVD-ROM/CD-RW / 24X/24X/24X/8X<sup>21</sup> speed / removable from Ultrabay Enhanc</i>										<b>Preloaded</b> • Access Program • Access Connections™ • Rescue and Recovery™ • Norton AntiVirus (OEM edition) • PC-Doctor™ • ThinkPad Utilities • Adobe® Reader • Update Connector™ <sup>15</sup> • RecordNOW and Drive Letter Access powered by Sonic products (combo model) • InterVideo WinDVD (combo model)
Ultrabay Enhanced Disk	One modular bay for interchangeable devices / Ultrabay Slim-compatible / 12.7 mm high <b>30GB<sup>8</sup> or 40GB</b> (4200 rpm), 9.5mm high / removable and upgradable / 9.5mm high bay / supports 2nd disk with optional 'Second HDD Adapter for Ultrabay Slim' / <b>Hard Disk Drive Shock Absorber / Active Protection System™</b>										
Display	<b>14.1"</b> (358.1mm) <b>XGA (1024x768) TFT color</b> / Active Matrix / 150 nits										
Graphics	<b>Integrated Intel Extreme™ Graphics 2</b> / in 855GME GMCH / uses main memory (up to 64MB) / 250MHz										
Graphics external	External monitor support via analog DB-15 connector / up to 1600x1200 at 85Hz / DDC2B										
Keyboard TrackPoint® Touch pad ThinkLight™	87-key / Access IBM button / palm rest / pitch: 19mm; stroke: 2.7mm (std-size keys) TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar <sup>13</sup> , magnifying glass UltraNav® multi-pointing system / touch pad below keyboard / Tap Zones Illuminates the keyboard to improve visibility in low-light conditions										<b>Downloadable</b> • IBM Director Agent • Software Delivery Assistant • System Migration Assistant • Client Security Software (for security chip)
Dimensions <sup>3</sup> Weight <sup>2</sup> Case material	14.1" models (WxDxH): 12.4" x 10.2" x 1.35-1.46"; 314mm x 260mm x 34-37mm with optical drive and battery: 6.0 lb (2.7kg) <i>Color: black; All: Acrylonitrile-Butadiene-Styrene (ABS) plastic</i>										<b>License</b> (CD not included) - Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client
Battery - type Battery - life <sup>10</sup>	Lithium Ion 6-cell / intelligent / supports unique 2nd battery in Ultrabay Enhanced <i>Celeron models: up to 3.5 hr; Pentium model: up to 4.0 hr; Optional 9-cell: up to 6.2 hr</i>										
Architecture	<b>Intel 855GME</b> chipset / 82855GME Memory Controller Hub (MCH-M) / 82801DBM ICH4-M I/O Controller Hub (ATA-100 EIDE, PCI bus, ethernet MAC, Low Pin Count [LPC] interface, USB) / PCI bus 2.2 32-bit, 33MHz (TI® PCI4150 CardBus and 1394 controller, Mini PCI, external expansion) / LPC bus 33MHz (security chip; PC87392 Super I/O for parallel, infrared, [docking-based ports])										
PC Card Std slots Ports	One Type I, one Type II, or one Type III / CardBus 32-bit / PCMCIA 2.1 / integrated door Two USB (Version 2.0) / parallel / external monitor (DB-15) / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / no keyboard or mouse or serial port										
Video out IEEE 1394	S-video out port (TV out) / one 4-pin industry standard connector None										ThinkPad notebooks implement ThinkVantage® technologies and design; visit <a href="http://thinkpad.com/thinkvantage">thinkpad.com/thinkvantage</a>
Wireless antenna Mini PCI	UltraConnect™ Antenna built into the display cover for optimal wireless signal reception One Mini PCI type III slot (Communications Bay) / customer upgradable										
CDC Modem Bluetooth	11b/g wireless <sup>4</sup> , Mini PCI, Intel PRO/Wireless 2200BG, Intel 82532 chipset One Communications Daughter Card (CDC) socket (used by modem) / not accessible 56K <sup>6</sup> V.90 (V.92-designed <sup>29</sup> ) modem in CDC / Conexant® chipset None										Universal 72 watt AC adapter Asset ID™ <sup>34</sup> (system-specific info in chip accessed over network) PC 2001 and PXE 2.0-compliant ACPI 1.0b and 2.0-compliant CIM and DMI 2.0-compliant ENERGY STAR™-compliant ImageUltra™ Services available International Warranty Service <sup>17</sup> 24 hour x 7 day <sup>18</sup> toll-free warranty support during the warranty <sup>12</sup> via 800-IBM-SERV (426-7378)
Ethernet Audio support	10/100 ethernet on planar / Intel 82562EZ chipset (physical layer) / Wake on LAN® Soft audio / ICH AC97 controller / DirectSound® support / AD1981B AC97 codec / stereo speakers / 1 watt / volume up, down, mute buttons / internal microphone / microphone input jack (3.5 mm) / headphone jack (3.5 mm) / no line in jack										
Security Security chip	Power-on password / hard disk password / supervisor password / security keyhole <b>Embedded Security Subsystem 2.0<sup>33</sup></b> / hardware key storage / multi-factor authentication / local file encryption / Atmel® chip / TCG-compliant										
Limited warranty <sup>12</sup>	<b>3-year/1-year battery, limited onsite service, 8 am - 5 pm, Mon - Fri coverage</b> excluding holidays, next business day response time <sup>24</sup>										
256MB PC2700 DDR-SDRAM CL2.5 SOD	31P9830	ThinkPad T40/R50 Li-Ion Battery 6-cell	92P1101	Post-warranty annual maintenance agreements at <b>lenovo.com/thinkplus/warranty</b>							
512MB PC2700 DDR-SDRAM CL2.5 SOD	31P9832	ThinkPad T40/R50 Li-Ion Battery 9-cell	92P1102								
1GB PC2700 DDR-SDRAM CL2.5 SOD	31P9834	Ultrabay Slim Li-Polymer Battery 3-cell	08K8190								
Second HDD Adapter for Ultrabay Slim	41U3148	ThinkPad Multiple Battery Charger II	22P9040								
ThinkPad DVD-ROM Ultrabay Slim Drive	73P3270	80GB HS Hard Disk 9.5mm (5400 rpm)	09N4273								
CD-RW/DVD Combo Ultrabay Enhanced	73P3275	100GB Hard Disk 9.5mm (5400 rpm)	40Y8716								
Super Multi-Burner Ultrabay Enh Drv (curve)	40Y8624	Intel PRO/Wireless 2915ABG Mini PCI	41N2990								
USB Portable Diskette Drive	05K9276	11a/b/g Wireless Mini PCI Adapter II	73P4301								
USB 2.0 CD-RW/DVD-ROM Combo II Drive	40Y8637	ThinkPad 72W AC Adapter	02K6699								
USB 2.0 Memory Key 1GB	40Y7421	72W Slim AC/DC Combo Adapter	73P4485								
Enh Perf Wireless Keyboard and Mouse	73P4067	Lenovo M500 Projector	0037A05								
Kensington® MicroSaver® Security Cable	73P2582	Verizon Wireless V620 WWAN PC Card <sup>25</sup>	40Y9137								
ThinkPad Carrying Case - Organizer	73P3598	ThinkPad Convertible Monitor Stand	40Y7620								
Lenovo D221 Wide 22" Monitor (black)	6622HB1	PC Card Gemplus Smart Card Reader	41N3004								
ThinkVision® L201p 20.1" Monitor (black)	9220HB1	Other options at <b>lenovo.com/options</b>									
ThinkPad Port Replicator II	74P6733										
ThinkPad Mini Dock	287810U										
ThinkPad Dock II	287710U										
TrackPoint Cap Collection	73P2698										
ThinkPad Monitor Stand	22P5265										

See footnotes for important warranty information

\* Powered by Intel Centrino® mobile technology

© Lenovo

US models announced April 6 or September 14, 2004

(2889E) February 2007

US models withdrawn effective January 2005, November 2005, or February 2007

# ThinkPad® R51 (2883) - TopSeller (September 2004) - withdrawn

Created by Lenovo Training Solutions  
Personal Systems Reference (PSREF)

Type-model	Processor	Speed GHz	L2 cache	Memory	Screen	Disk GB <sup>8</sup>	Optical	Mini PCI Comm Bay wireless	CDC modem	Integrated graphics	Secu- rity chip	Limited warranty <sup>12</sup> Preload	Workhorse (W) Global (G) Avail Entry (E) date
2883-GXU	Celeron® M 330	1.4	512KB	256MB	15.0" XGA	30GB	Combo	Intel 11b/g <sup>32</sup>	Modem	Extreme™ 2	Yes	1-yr XP Pro	No Dec 04
2883-GHU	Celeron M 340	1.5	512KB	256MB	15.0" XGA	30GB	Combo	Intel 11b/g	Modem	Extreme 2	Yes	1-yr XP Pro	No Sep 04
2883-GJU	Celeron M 350	1.3	1MB	256MB	15.0" XGA	30GB	Combo	Intel 11b/g	Modem	Extreme 2	Yes	1-yr XP Pro	No Sep 04
2883-ELU	Pentium® M 725	1.6	2MB	256MB	14.1" XGA	30GB	Combo	*Intel 11b/g	Modem	Extreme 2	Yes	1-yr XP Pro	No Sep 04
2883-GKU	Pentium M 725	1.6	2MB	256MB	15.0" XGA	30GB	Combo	*Intel 11b/g	Modem	Extreme 2	Yes	1-yr XP Pro	No Sep 04

• These small and medium business (SMB) models are part of the US TopSeller™ Program • The 2883 has a 1-year limited warranty

Positioning	<b>Mainstream performance and features; two-spindle system</b>										
Processor	<b>Intel® Celeron M Processor 330 (1.4GHz), 340 (1.5GHz) or 350 (1.3GHz)</b> with 400MHz system bus or <b>Intel Pentium M Processor 725 (1.6GHz)</b> with Enhanced Intel SpeedStep™ technology <sup>1</sup> and 400MHz system bus										
L2 cache	<b>Celeron M 330/340: 512KB; Celeron M 350: 1MB; Pentium M 725: 2 MB; All: ECC</b>										
Memory	<b>256MB</b> std / 2GB max <sup>7</sup> / <b>PC2700</b> 333MHz DDR1 (DDR-SDRAM) / non-parity / CL2.5 / two 200-pin SO-DIMM sockets / std memory in one socket / one socket available										
Diskette drive	None standard / use optional USB-based diskette drive										
Combo	DVD-ROM/CD-RW / 24X/24X/24X/8X <sup>21</sup> speed / removable from Ultrabay Enhance										
Ultrabay Enhanced Disk	One modular bay for interchangeable devices / Ultrabay Slim-compatible / 12.7 mm high <b>30GB<sup>8</sup></b> (4200 rpm), 9.5mm high / removable and upgradable / 9.5mm high bay / supports 2nd disk with optional 'Second HDD Adapter for Ultrabay Slim' / <b>Hard Disk Drive Shock Absorber / Active Protection System™</b>										
Display	<i>Some: 14.1"</i> (358.1mm) <b>XGA (1024x768) TFT color</b> / Active Matrix / 150 nits <i>Some: 15.0"</i> (381.0mm) <b>XGA (1024x768) TFT color</b> / Active Matrix / 200 nits										
Graphics	<b>Integrated Intel Extreme™ Graphics 2</b> / in 855GME GMCH / uses main memory (up to 64MB) / 250MHz										
Graphics external	External monitor support via analog DB-15 connector / up to 1600x1200 at 85Hz / DDC2B										
Keyboard	87-key / Access IBM button / palm rest / pitch: 19mm; stroke: 2.7mm (std-size keys)										
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar <sup>13</sup> , magnifying glass										
Touch pad	UltraNav® multi-pointing system / touch pad below keyboard / Tap Zones										
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions										
Dimensions <sup>3</sup>	<i>14.1" models (WxDxH):</i> 12.4" x 10.2" x 1.35-1.46"; 314mm x 260mm x 34-37mm <i>15.0" models (WxDxH):</i> 13.1" x 10.6" x 1.47-1.58"; 332mm x 269mm x 37-40mm with optical drive and battery: <i>14.1" models:</i> 6.0 lb (2.7kg); <i>15.0" models:</i> 6.6 lb (3.0kg)										
Weight <sup>2</sup>											
Case material	<i>Color:</i> black; <i>All:</i> Acrylonitrile-Butadiene-Styrene (ABS) plastic										
Battery - type	Lithium Ion 6-cell / intelligent / supports unique 2nd battery in Ultrabay Enhanced										
Battery - life <sup>10</sup>	<i>Celeron M models:</i> up to 3.4 hr; <i>Pentium M models:</i> up to 4.0 hr; <i>Optional High Capacity 9-cell:</i> up to 6.2 hr										
Architecture	<b>Intel 855GME</b> chipset / 82855GME Memory Controller Hub (MCH-M) / 82801DBM ICH4-M I/O Controller Hub (ATA-100 EIDE, PCI bus, ethernet MAC, Low Pin Count [LPC] interface, USB) / PCI bus 2.2 32-bit, 33MHz (TI® PCI4510 CardBus and 1394 controller, Mini PCI, external expansion) / LPC bus 33MHz (security chip; PC87392 Super I/O for parallel, infrared, [docking-based ports])										
PC Card Std slots	One Type I, one Type II, or one Type III / CardBus 32-bit / PCMCIA 2.1 / integrated door										
Ports	Two USB (Version 2.0) / parallel / external monitor (DB-15) / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / no keyboard or mouse or serial port										
Video out	S-video out port (TV out) / one 4-pin industry standard connector										
IEEE 1394	None										
Wireless antenna	UltraConnect™ Antenna built into the display cover for optimal wireless signal reception										
Mini PCI	One Mini PCI type III slot (Communications Bay) / customer upgradable										
Intel 11b/g <sup>32</sup>	11b/g wireless <sup>4</sup> , Mini PCI, Intel PRO/Wireless 2200BG, Intel 82532 chipset										
CDC	One Communications Daughter Card (CDC) socket (used by modem) / not accessible										
Modem	56K <sup>5</sup> V.90 (V.92-designed <sup>29</sup> ) modem in CDC / Conexant® chipset										
Bluetooth	None										
Ethernet	10/100 ethernet on planar / Intel 82562EZ chipset (physical layer) / Wake on LAN®										
Audio support	Soft audio / ICH AC97 controller / DirectSound® support / AD1981B AC97 codec / stereo speakers, 1 watt / volume up, down, mute buttons / internal microphone / microphone input jack (3.5 mm) / headphone jack (3.5 mm) / no line in jack										
Security	Power-on password / hard disk password / supervisor password / security keyhole										
Security chip	<b>Embedded Security Subsystem 2.0<sup>33</sup></b> / hardware key storage / multi-factor authentication / local file encryption / Atmel® chip / TCG-compliant										
Limited warranty <sup>12</sup>	<b>1-year</b> - EasyServ™ <sup>19</sup> onsite pickup and delivery / service upgrades <sup>22</sup> available										
256 MB PC2700 DDR-SDRAM CL2.5 SOD	31P9830	ThinkPad T40/R50 Li-Ion Battery 6-cell	92P1101	ThinkPlus™ <sup>22</sup> 1-year LOR 9x5 NBD							
512 MB PC2700 DDR-SDRAM CL2.5 SOD	31P9832	ThinkPad T40/R50 Li-Ion Battery 9-cell	92P1102	41C9166							
1GB PC2700 DDR-SDRAM CL2.5 SOD	31P9834	Ultrabay Slim Li-Polymer Battery 3-cell	08K8190	41C9167							
Second HDD Adapter for Ultrabay Slim	41U3148	ThinkPad Multiple Battery Charger II	22P9040	ThinkPlus 3-year LOR 9x5 NBD							
CD-RW/DVD Combo Ultrabay Enhanced	73P3275	80GB HS Hard Disk 9.5mm (5400 rpm)	09N4273	41C9168							
Super Multi-Burner Ultrabay Enh Drv (curved)	40Y8624	100GB Hard Disk 9.5mm (5400 rpm)	40Y8716	ThinkPlus 4-year LOR 9x5 NBD							
USB Fingerprint Reader	41U3167	11a/b/g Wireless Mini PCI Adapter II	73P4301	41C9171							
USB Portable Diskette Drive	05K9276	72W Slim AC/DC Combo Adapter	73P4485	ThinkPlus 5-year LOR 9x5 NBD							
USB 2.0 Lenovo Webcam	40Y8519	ThinkPad Port Replicator II	74P6733	41C9173							
USB 2.0 Memory Key 1GB	40Y7421	ThinkPad Mini Dock	287810U	ThinkPlus 2-year P&L P/U Depot							
USB 2.0 Super Multi-Burner Drive	41N5565	ThinkPad Dock II	287710U	41C9169							
Kensington® MicroSaver® Security Cable	73P2582	PC Card Gemplus Smart Card Reader	41N3004	ThinkPlus 3-year P&L P/U Depot							
SonyEricsson® GC83 EDGE PC Card	26K3393	Lenovo D221 Wide 22" Monitor (black)	6622HB1	41C9172							
Verizon Wireless V620 WWAN PC Card <sup>25</sup>	40Y9137	ThinkVision® L201p 20.1" Monitor (black)	9220HB1	ThinkPlus 4-year P&L P/U Depot							
ThinkPad Carrying Case - Expander	73P3597	Lenovo M500 Projector	0037A05	41C9174							
ThinkPad Carrying Case - BackPack	73P3599	Verizon Wireless V620 WWAN PC Card <sup>25</sup>	40Y9137	Post-warranty annual maintenance agreements at							
ThinkPad Convertible Monitor Stand	40Y7620	Other options at <a href="http://lenovo.com/options">lenovo.com/options</a>		<a href="http://lenovo.com/thinkplus/warranty">lenovo.com/thinkplus/warranty</a>							

See footnotes for important warranty information  
US models announced September 14 or December 21, 2004  
US models withdrawn effective March 2005 or February 2007

\* Powered by Intel Centrino® mobile technology

© Lenovo  
(2883S) February 2007

# ThinkPad® R52 (1846) - withdrawn

Created by Lenovo Training Solutions  
Personal Systems Reference (PSREF)

Type-model	Processor	Speed GHz	Memory	Screen	Graphics controller and memory	Disk GB <sup>6</sup>	Optical	Mini PCI Comm Bay wireless	CDC modem/ Bluetooth™	IEEE Finger 1394 print port reader	Secu- rity chip	Workhorse or Global Entry	Avail date	
1846-59U	Pentium® M 740	1.73	256MB	14.1" XGA	X300 64MB	40GB	Combo	* Intel 11b/g <sup>32</sup>	Modem	No	No	Yes	No	Mar 05
<p>• <b>This model has a 1 year limited warranty</b></p>														
Positioning Processor	<p><b>Mainstream performance and features; two-spindle system</b>  <b>Intel® Pentium® M Processor 740 (1.73GHz)</b> with enhanced Intel SpeedStep™ technology<sup>1</sup>, Execute Disable Bit, and 533MHz system bus</p>										<p><b>SOFTWARE<sup>14</sup></b>  <b>Windows XP Professional</b>                      - Microsoft® Windows® XP Professional<sup>20</sup> (Service Pack 2)                      ⇨ Disk-to-Disk Recovery (in hidden protected area)</p>			
L2 cache	<p><b>2MB</b> / on die (at processor speed) / ECC</p>										<p><b>Preloaded</b>                      • Rescue and Recovery™                      • Access IBM                      • Access Connections                      • Norton AntiVirus                      • PC-Doctor™                      • ThinkPad Utilities                      • Adobe Reader                      • Update Connector™<sup>15</sup>                      • RecordNOW and Drive Letter Access powered by Sonic products (combo model)                      • InterVideo WinDVD (combo model)                      • Client Security Software (for security chip)</p>			
Memory	<p><b>256MB</b> std / 2GB max<sup>7</sup> / PC2-4200 533MHz DDR2 / non-parity / CL4 / dual channel capable / two 200-pin SO-DIMM sockets / std mem in one socket / one socket available</p>										<p><b>Downloadable</b>                      • IBM Director Agent                      • Software Delivery Assistant                      • System Migration Assistant</p>			
Diskette drive	<p>None standard / use optional USB-based diskette drive</p>										<p><b>License (CD not included)</b>                      - Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client</p>			
Combo	<p>DVD-ROM/CD-RW / 24X/24X/24X/8X<sup>21</sup> speed / removable from Ultrabay Enhanced</p>										<p>ThinkPad notebooks implement ThinkVantage™ technologies and design; visit <a href="http://thinkpad.com/thinkvantage">thinkpad.com/thinkvantage</a></p>			
Ultrabay Enhanced	<p>One modular bay for interchangeable devices / Ultrabay Slim-compatible / 12.7mm high</p>										<p>Universal 72 watt AC adapter                      PC 2001-compliant                      ACPI 1.0b and 2.0-compliant                      CIM and DMI 2.0-compliant                      PXE 2.1-compliant                      ENERGY STAR®-compliant                      International Warranty Service<sup>17</sup>                      24 hour x 7 day<sup>18</sup> toll-free warranty support during the warranty<sup>12</sup></p>			
Disk	<p><b>40GB<sup>8</sup></b> (4200 rpm) / 9.5mm high / removable and upgradable / 9.5mm high bay / supports 2nd disk with optional 'Second HDD Adapter for Ultrabay Slim' / <b>Hard Disk Drive Shock Absorber / Active Protection System</b> (shock protection)</p>										<p>ServicePac<sup>22</sup> 1yr IOR 9x5 NBD 30L9188</p>			
Display	<p><b>14.1"</b> (358.1mm) <b>XGA (1024x768) TFT color</b> / Active Matrix / 150 nits</p>										<p>ServicePac 2 yr IOR 9x5 NBD 30L9189</p>			
Graphics	<p><b>ATI® MOBILITY™ RADEON® X300</b> / PCI Express x16 / <b>64MB</b> GDDR1 memory</p>										<p>ServicePac 3 yr IOR 9x5 NBD 30L9195</p>			
Keyboard	<p>87-key / Access IBM button / palm rest / pitch: 19mm; stroke: 2.5mm (std-size keys)</p>										<p>ServicePac 4 yr IOR 9x5 NBD 30L9194</p>			
TrackPoint®	<p>TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar<sup>13</sup>, magnifying glass /</p>										<p>ServicePac 5 yr IOR 9x5 NBD 30L9196</p>			
Touch pad	<p>UltraNav™ multi-pointing system / touch pad below keyboard / Tap Zones</p>										<p>ServicePac 2 yr P&amp;L P/U Depot 30L9191</p>			
ThinkLight™	<p>Illuminates the keyboard to improve visibility in low-light conditions</p>										<p>ServicePac 3 yr P&amp;L P/U Depot 30L9192</p>			
Dimensions <sup>3</sup>	<p><b>14.1" models (WxDxH):</b> 12.4" x 10.2" x 1.35-1.46"; 314mm x 260mm x 34-37mm</p>										<p>ServicePac 4 yr P&amp;L P/U Depot 69P9195</p>			
Weight <sup>2</sup>	<p>with optical drive and battery: <b>14.1" model:</b> 6.1 lb (2.8kg)</p>										<p>ServicePac 5 yr P&amp;L P/U Depot 69P9197</p>			
Case material	<p><b>Color:</b> black; <b>All:</b> Acrylonitrile-Butadiene-Styrene (ABS) plastic</p>										<p>Other ServicePac options at <a href="http://ibm.com/services/its/us/source/wamomxeu.pdf">ibm.com/services/its/us/source/wamomxeu.pdf</a></p>			
Battery - type	<p>Lithium Ion <b>6-cell</b> / intelligent / supports unique 2nd battery in Ultrabay Enhanced</p>										<p>Post-warranty annual maintenance agreements at <a href="http://ibm.com/services/its/us/source/maspspleu.pdf">ibm.com/services/its/us/source/maspspleu.pdf</a></p>			
Battery - life <sup>10</sup>	<p>Up to 3.6 hr; <b>Optional 9-cell:</b> up to 5.6 hr</p>													
Architecture	<p><b>Mobile Intel 915PM Express Chipset</b> / 82915PM Memory Controller Hub / 82801FBM ICH6-M I/O Controller Hub (SATA150, ATA-100 EIDE, PCI Express x1, PCI bus, ethernet MAC, USB, Low Pin Count [LPC] interface, [Bluetooth]) / PCI bus (Ricoch® R5C811 CardBus controller, Mini PCI, external expansion) / LPC bus (NS PC8394T Super I/O for security chip (TPM), Asset ID, hardware event log, parallel, infrared, [docking-based ports (serial, diskette)])</p>													
PC Card Std slot	<p>One Type I or Type II slot / CardBus 32-bit / integrated door</p>													
ExpressCard slot	<p>One ExpressCard/34 or ExpressCard/54 / PCI Express x1 or USB 2.0 / integrated door</p>													
Ports	<p>Two USB (Version 2.0) / parallel / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / no keyboard or mouse or serial ports (use USB)</p>													
Video out	<p>S-video out port (TV out) / one 4-pin industry standard connector</p>													
IEEE 1394	<p><b>Some:</b> IEEE 1394 (FireWire) port / 4-pin connector / 1394a-2000 standard</p>													
Wireless antenna	<p>UltraConnect™ Antenna built into the display cover for optimal wireless signal reception</p>													
Mini PCI	<p>One Mini PCI type III slot (Communications Bay) / customer upgradable</p>													
Intel 11b/g <sup>32</sup>	<p>11b/g wireless<sup>4</sup>, Mini PCI, Intel PRO/Wireless 2200BG, Intel 82532 chip</p>													
CDC	<p>One Communications Daughter Card (CDC) socket / customer accessible</p>													
Modem	<p>56K<sup>6</sup> V.90 (V.92-designed<sup>29</sup>) modem in CDC / Conexant® chipset</p>													
Bluetooth™	<p>None</p>													
Ethernet	<p>Gigabit ethernet on systemboard / Broadcom BCM5751M (MAC/PHY) / PCIe x1 / PXE</p>													
Audio support	<p>Soft audio / ICH AC97 controller / DirectSound® support / AD1981B AC97 codec / stereo speakers / 1 watt / volume up, down, mute buttons / internal microphone / microphone input jack (3.5 mm; pink) / headphone jack (3.5 mm; green)</p>													
Security	<p>Power-on password / hard disk password / supervisor password / security keyhole</p>													
Security chip	<p><b>Embedded Security Subsystem 2.0<sup>33</sup></b> / in NS PC8394T chip / TCG-compliant</p>													
Fingerprint reader	<p>None</p>													
<p>Limited warranty<sup>12</sup> <b>1 year</b> - EasyServ™<sup>19</sup> onsite pickup and delivery / service upgrades<sup>22</sup> available</p>														
256MB PC2-4200 DDR2 NP CL4 SOD	73P3840	ThinkPad T40/R50 Li-Ion Battery 6-cell	92P1101											
512MB PC2-4200 DDR2 NP CL4 SOD	73P3842	ThinkPad T40/R50 Li-Ion Battery 9-cell	92P1102											
1GB PC2-4200 DDR2 NP CL4 SOD	73P3844	Ultrabay Slim Li-Polymer Battery 3-cell	08K8190											
USB 2.0 Portable Multi-Burner Drive	22P9163	ThinkPad Multiple Battery Charger II	22P9040											
USB 2.0 Memory Key 128MB	73P4512	ThinkPad 72W AC/DC Combo Adapter	22P9010											
USB 2.0 Memory Key 256MB	22P9228	11a/b/g Wireless Mini PCI Adapter II	73P4301											
USB 2.0 Memory Key 512MB	22P9230	Intel PRO/Wireless 2200BG Mini PCI	73P2801											
USB 2.0 Portable 40GB Hard Disk	22P7196	11a/b/g Wireless CardBus Adapter	31P9101											
4GB Microdrive® with PC Card	09N4280	ThinkPad Port Replicator II	74P6733											
40GB HS Hard Disk 9.5mm (5400 rpm)	08K9816	ThinkPad Mini Dock	287810U											
80GB HS Hard Disk 9.5mm (5400 rpm)	09N4273	ThinkPad Dock II	287710U											
USB Portable Diskette Drive	05K9276	ThinkPad Carrying Case - Expander	73P3597											
USB Fingerprint Reader	73P4774	ThinkPad Carrying Case - Backpack	73P3599											
Second HDD Adapter for Ultrabay Slim	62P4554	ThinkPad Carrying Case - Leather	73P3600											
CD-RW/DVD Combo Ultrabay Enhanced	73P3275	ThinkPad Carrying Case - Organizer	73P3598											
Multi-Burner Plus Ultrabay Enhanced Drive	73P3312	M400 Projector	0037A04											
Enh Perf Wireless Keyboard and Mouse	73P4067	E400 Projector	0038A04											
USB Travel Keyboard with UltraNav	31P9490	TrackPoint Cap Collection	73P2698											
Preferred Pro USB Fingerprint Keyboard	73P4730	ThinkPad Monitor Stand 2001	22P5265											
Optical 3-Button Travel Wheel Mouse	31P7410	SonyEricsson® GC83 EDGE PC Card	26K3393											
Kensington® MicroSaver® Security Cable	73P2582	Other options at <a href="http://lenovo.com/options">lenovo.com/options</a>												

See footnotes for important warranty information  
 US model announced March 1, 2005  
 US model withdrawn effective September 2005

\* Powered by Intel Centrino™ mobile technology

# ThinkPad® R52 (1846) - August 2005 - withdrawn

Created by Lenovo Training Solutions  
Personal Systems Reference (PSREF)

Type-model	Processor	Speed GHz	Memory	Screen	Graphics controller and memory	Disk GB <sup>6</sup>	Optical	Mini PCI Comm Bay wireless	CDC modem/Bluetooth™	IEEE 1394 port	Finger print reader	Limited warranty <sup>12</sup>	Workhorse or Global Entry	Avail date
1846-96U	Pentium® M 750	1.86	256MB	15.0" XGA	X300 64MB	40GB	Combo	* Intel 11b/g <sup>32</sup>	Modem	1394	No	1-yr	No	Aug 05
1846-9AU	Pentium M 740	1.73	256MB	15.0" XGA	X300 64MB	40GB	Combo	* Intel 11b/g	Modem	1394	Finger	1-yr	No	Aug 05
1846-9BU	Pentium M 740	1.73	256MB	15.0" XGA	X300 64MB	40GB	Combo	* Intel 11b/g	Modem	1394	Finger	1-yr	No	Aug 05
1846-9CU	Pentium M 740	1.73	256MB	15.0" XGA	X300 64MB	40GB	Combo	* Intel 11b/g	Mod/Blue	1394	Finger	1-yr	No	Aug 05
<b>• These models have a 1-year limited warranty</b>														
Positioning Processor	Mainstream performance and features; two-spindle system <b>Intel® Pentium® M Processor 740 (1.73GHz) or 750 (1.86GHz)</b> with Enhanced Intel SpeedStep™ technology <sup>1</sup> , Execute Disable Bit, and 533MHz system bus										<b>SOFTWARE<sup>14</sup></b>			
L2 cache	2MB / on die (at processor speed) / ECC										<b>Windows XP Professional</b> - Microsoft® Windows® XP Professional <sup>20</sup> (Service Pack 2) ⇨ Disk-to-Disk Recovery (in hidden protected area)			
Memory	<b>256MB</b> std / 2GB max <sup>7</sup> / PC2-4200 533MHz DDR2 / non-parity / CL4 / dual channel capable / two 200-pin SO-DIMM sockets / std mem in one socket / one socket available													
Diskette drive	None standard / use optional USB-based diskette drive										<b>Preloaded</b> • Rescue and Recovery™ • Access Program • Access Connections™ • Norton AntiVirus • PC-Doctor™ • ThinkPad Utilities • Adobe® Reader • RecordNOW and Drive Letter Access powered by Sonic products (combo model) • InterVideo WinDVD (combo model) • Fingerprint Software (fingerprint models) • Client Security Software (for security chip)			
Combo	DVD-ROM/CD-RW / 24X/24X/24X/8X <sup>21</sup> speed / removable from Ultrabay Enhanced													
Ultrabay Enhanced	One modular bay for interchangeable devices / Ultrabay Slim-compatible / 12.7mm high										<b>Downloadable</b> • IBM Director Agent • Software Delivery Assistant • System Migration Assistant			
Disk	<b>40GB<sup>8</sup></b> (5400 rpm) / 9.5mm high / removable and upgradable / 9.5mm high bay / supports 2nd disk with optional 'Second HDD Adapter for Ultrabay Slim' / <b>Hard Disk Drive Shock Absorber / Active Protection System™</b> (shock protection)													
Display	<b>15.0"</b> (381.0mm) <b>XGA (1024x768) TFT color</b> / Active Matrix / 200 nits										<b>License</b> (CD not included) - Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client			
Graphics	<b>ATI® MOBILITY™ RADEON® X300</b> / PCI Express x16 / <b>64MB</b> GDDR1 memory													
Keyboard	87-key / Access IBM button / palm rest / pitch: 19mm; stroke: 2.5mm (std-size keys)										• Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client			
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar <sup>13</sup> , magnifying glass													
Touch pad	UltraNav® multi-pointing system / touch pad below keyboard / Tap Zones										<b>ThinkPad notebooks implement ThinkVantage® technologies and design; visit <a href="http://thinkpad.com/thinkvantage">thinkpad.com/thinkvantage</a></b>			
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions													
Dimensions <sup>3</sup>	<b>15.0" models (WxDxH):</b> 13.1" x 10.6" x 1.47-1.58"; 332mm x 269mm x 37-40mm										Universal 72-watt AC adapter PC 2001-compliant ACPI 1.0b and 2.0-compliant CIM and DMI 2.0-compliant PXE 2.1-compliant ENERGY STAR®-compliant International Warranty Service <sup>17</sup> 24 hour x 7 day <sup>18</sup> toll-free warranty support during the warranty <sup>12</sup>			
Weight <sup>2</sup>	with optical drive and battery: <b>14.1" model: 6.1 lb (2.8kg)</b>													
Case material	<b>Color:</b> black; <b>All:</b> Acrylonitrile-Butadiene-Styrene (ABS) plastic										ThinkPlus™, 22 1-year LOR 9x5 NBD 41C9166			
Battery - type	Lithium Ion <b>6-cell</b> / intelligent / supports unique 2nd battery in Ultrabay Enhanced													
Battery - life <sup>10</sup>	Up to 3.6 hr; <b>Optional 9-cell:</b> up to 5.6 hr										ThinkPlus 2-year LOR 9x5 NBD 41C9167			
Architecture	<b>Mobile Intel 915PM Express Chipset</b> / 82915PM Memory Controller Hub / 82801FBM ICH6-M I/O Controller Hub (SATA150, ATA-100 EIDE, PCI Express x1, PCI bus, ethernet MAC, USB, Low Pin Count [LPC] interface, [Bluetooth]) / PCI bus (RICH® R5C811 CardBus controller, Mini PCI, external expansion) / LPC bus (NS PC8394T Super I/O for security chip (TPM), Asset ID, hardware event log, parallel, infrared, [docking-based ports (serial, diskette)])													
PC Card Std slot	One Type I or Type II slot / CardBus 32-bit / integrated door										ThinkPlus 3-year LOR 9x5 NBD 41C9168			
ExpressCard slot	One ExpressCard/34 or ExpressCard/54 / PCI Express x1 or USB 2.0 / integrated door													
Ports	Two USB (Version 2.0) / parallel / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / no keyboard or mouse or serial ports (use USB)										ThinkPlus 4-year LOR 9x5 NBD 41C9171			
Video out	S-video out port (TV out) / one 4-pin industry standard connector													
IEEE 1394	IEEE 1394 (FireWire) port / 4-pin connector / 1394a-2000 standard										ThinkPlus 5-year LOR 9x5 NBD 41C9173			
Wireless antenna	UltraConnect™ Antenna built into the display cover for optimal wireless signal reception													
Mini PCI	One Mini PCI type III slot (Communications Bay) / customer upgradable										ThinkPlus 2-year P&L P/U Depot 41C9169			
Intel 11b/g <sup>32</sup>	11b/g wireless <sup>4</sup> , Mini PCI, Intel PRO/Wireless 2200BG, Intel 82532 chip													
CDC	One Communications Daughter Card (CDC) socket / customer accessible										ThinkPlus 3-year P&L P/U Depot 41C9170			
Modem	56K <sup>6</sup> V.90 (V.92-designed <sup>29</sup> ) modem in CDC / Conexant® chipset													
Bluetooth™	<b>Some:</b> Bluetooth wireless technology / in CDC (with modem)										ThinkPlus 4-year P&L P/U Depot 41C9172			
Ethernet	Gigabit ethernet on systemboard / Broadcom BCM5751M (MAC/PHY) / PCIe x1 / PXE													
Audio support	Soft audio / ICH AC97 controller / DirectSound® support / AD1981B AC97 codec / stereo speakers, 1 watt / volume up, down, mute buttons / internal microphone / microphone input jack (3.5 mm; pink) / headphone jack (3.5 mm; green)										ThinkPlus 5-year P&L P/U Depot 41C9174			
Security	Power-on password / hard disk password / supervisor password / security keyhole													
Security chip	<b>Embedded Security Subsystem 2.0<sup>33</sup></b> / in NS PC8394T chip / TCG-compliant										Post-warranty annual maintenance agreements at <b>lenovo.com/thinkplus/warranty</b>			
Fingerprint reader	<b>Some: Fingerprint reader on palm rest</b> / swipe sensor / integrated with security chip													
Limited warranty <sup>12</sup>	<b>1-year</b> - EasyServ™, 19 onsite pickup and delivery / service upgrades <sup>22</sup> available													
256MB PC2-4200 DDR2 NP CL4 SOD	73P3840		ThinkPad T40/R50 Li-Ion Battery 6-cell		92P1101		ThinkPlus™, 22 1-year LOR 9x5 NBD							
512MB PC2-4200 DDR2 NP CL4 SOD	73P3842		ThinkPad T40/R50 Li-Ion Battery 9-cell		92P1102		41C9166							
1GB PC2-4200 DDR2 NP CL4 SOD	73P3844		Ultrabay Slim Li-Polymer Battery 3-cell		08K8190		ThinkPlus 2-year LOR 9x5 NBD							
USB Portable Diskette Drive	05K9276		ThinkPad Multiple Battery Charger II		22P9040		41C9167							
USB Fingerprint Reader	41U3167		72W Slim AC/DC Combo Adapter		73P4485		ThinkPlus 3-year LOR 9x5 NBD							
USB Gemplus GemPC Smart Card Reader	41N3040		11a/b/g Wireless Mini PCI Adapter II		73P4301		41C9168							
USB 2.0/Analog Headset by Sennheiser	40Y8518		Intel PRO/Wireless 2915ABG Mini PCI		41N2990		ThinkPlus 4-year LOR 9x5 NBD							
USB 2.0 Lenovo Webcam	40Y8519		ThinkPad Port Replicator II		74P6733		41C9171							
USB 2.0 Memory Key 1GB	40Y7421		ThinkPad Mini Dock		287810U		ThinkPlus 5-year LOR 9x5 NBD							
USB 2.0 Portable 80GB Hard Disk	40Y8726		ThinkPad Dock II		287710U		41C9173							
USB 2.0 CD-RW/DVD-ROM Combo II Drive	40Y8637		ThinkPad Carrying Case - Expander		73P3597		ThinkPlus 2-year P&L P/U Depot							
USB 2.0 Super Multi-Burner Drive	41N5565		ThinkPad Carrying Case - Backpack		73P3599		41C9169							
ExpressCard Gemplus Smart Card Reader	41N3043		ThinkPad Carrying Case - Leather		73P3600		ThinkPlus 3-year P&L P/U Depot							
80GB HS Hard Disk 9.5mm (5400 rpm)	09N4273		ThinkPad Carrying Case - Organizer		73P3598		41C9170							
100GB Hard Disk 9.5mm PATA (5400 rpm)	40Y8716		ThinkVision® E500 Projector		0038A05		ThinkPlus 4-year P&L P/U Depot							
Second HDD Adapter for Ultrabay Slim	41U3148		Lenovo M500 Projector		0037A05		41C9172							
CD-RW/DVD Combo Ultrabay Enhanced	73P3275		TrackPoint Cap Collection		73P2698		ThinkPlus 5-year P&L P/U Depot							
Super Multi-Burner Ultrabay Enh Drv (curved)	40Y8624		ThinkPad Monitor Stand		22P5265		41C9174							
Enh Perf Wireless Keyboard and Mouse	73P4067		ThinkPad Convertible Monitor Stand		40Y7620		Post-warranty annual maintenance							
USB Travel Keyboard with UltraNav	31P9490		Verizon Wireless V620 WWAN PC Card <sup>25</sup>		40Y9137		agreements at							
Kensington® MicroSaver® Security Cable	73P2582		Other accessories at <a href="http://lenovo.com/accessories">lenovo.com/accessories</a>				<b>lenovo.com/thinkplus/warranty</b>							

See footnotes for important warranty information  
US models announced August 2, 2005  
US models withdrawn effective February 2007

\* Powered by Intel Centrino® mobile technology

© Lenovo  
(JN61) February 2007

# ThinkPad® R52 (1847) - withdrawn

Created by Lenovo Training Solutions  
Personal Systems Reference (PSREF)

Type-model	Processor	Speed GHz	Memory	Screen	Graphics controller and memory	Disk GB <sup>8</sup>	Optical	Mini PCI Comm Bay wireless	CDC modem/Bluetooth™	IEEE 1394 port	Security Limited warranty <sup>12</sup>	Workhorse (W) Global (G) Entry (E)	Avail date
1847-22U	Pentium® M 740	1.73	512MB	14.1" XGA	X300 64MB	40GB	Combo	* Intel 11b/g <sup>32</sup>	Modem	No	Yes 3-year	W G	Mar 05
1847-28U	Pentium M 750	1.86	256MB	14.1" XGA	X300 32MB	40GB	Combo	* Intel 11a/b/g <sup>32</sup>	Modem	No	Yes 3-year	W	Mar 05
1847-29U	Pentium M 750	1.86	512MB	14.1" XGA	X300 64MB	40GB	Combo	* Intel 11a/b/g	Modem	No	Yes 3-year	W	Mar 05
1847-2BU	Pentium M 750	1.86	512MB	14.1" XGA	X300 64MB	60GB	Combo	* Intel 11a/b/g	Modem	No	Yes 3-year	W	Mar 05
1847-32U	Pentium M 740	1.73	512MB	15.0" XGA	X300 64MB	40HS	Combo	* Intel 11b/g	Modem	No	Yes 3-year	W G	Mar 05
1847-38U	Pentium M 750	1.86	256MB	15.0" XGA	X300 32MB	40GB	Combo	* Intel 11a/b/g	Modem	No	Yes 3-year	W	Mar 05
1847-39U	Pentium M 750	1.86	512MB	15.0" XGA	X300 64MB	40GB	Combo	* Intel 11a/b/g	Modem	No	Yes 3-year	W	Mar 05
1847-3CU	Pentium M 740	1.73	256MB	15.0" XGA	X300 64MB	40GB	Combo	* Intel 11b/g	Modem	No	Yes 3-year	W	Mar 05
1847-3JU	Pentium M 750	1.86	512MB	15.0" XGA	X300 64MB	60GB	Combo	* Intel 11b/g	Modem	No	Yes 3-year	W	Mar 05
1847-46U	Pentium M 750	1.86	512MB	15.0" SXGA+	X300 64MB	40GB	Combo	* Intel 11a/b/g	Modem	1394	Yes 3-year	W	Mar 05
Positioning Processor	<b>Mainstream performance and features; two-spindle system</b> <b>Intel® Pentium® M Processor 740 (1.73GHz) or 750 (1.86GHz)</b> with Enhanced Intel SpeedStep™ technology <sup>1</sup> , Execute Disable Bit, and 533MHz system bus										<b>SOFTWARE<sup>14</sup></b>		
L2 cache	2MB / on die (at processor speed) / ECC										<b>Windows XP Professional</b>		
Memory	<b>256 or 512MB</b> std / 2GB max <sup>7</sup> / PC2-4200 533MHz DDR2 / non-parity / CL4 / dual channel capable / two 200-pin SO-DIMM sockets / std mem in 1 socket / 1 socket avail										- Microsoft® Windows® XP Professional <sup>20</sup> (Service Pack 2) ↔ Disk-to-Disk Recovery (in hidden protected area)		
Diskette drive	None standard / use optional USB-based diskette drive										<b>Preloaded</b>		
Combo	DVD-ROM/CD-RW / 24X/24X/24X/8X <sup>21</sup> speed / removable from Ultrabay Enhanced										• Rescue and Recovery™		
Ultrabay Enhanced Disk	One modular bay for interchangeable devices / Ultrabay Slim-compatible / 12.7mm high / 40GB <sup>8</sup> (4200 rpm), 40GB (HS 5400 rpm), or 60GB (4200 rpm) / 9.5mm high / removable and upgradable / 9.5mm high bay / supports 2nd disk / <b>Hard Disk Drive Shock Absorber / Active Protection System™</b> (shock protection)										• Access Program • Access Connections™ • Norton AntiVirus • PC-Doctor™ • ThinkPad Utilities • Adobe® Reader • Update Connector™ <sup>15</sup> • RecordNow and Drive Letter Access powered by Sonic products (combo models) • InterVideo WinDVD (combo models) • Client Security Software (for security chip)		
Display	Some: 14.1" (358.1mm) XGA (1024x768) TFT color / Active Matrix / 150 nits Some: 15.0" (381.0mm) XGA (1024x768) TFT color / Active Matrix / 200 nits Some: 15.0" (381.0mm) SXGA+ (1400x1050) TFT color / Active Matrix / 200 nits										• IBM Director Agent • Software Delivery Assistant • System Migration Assistant		
Graphics	Some: <b>ATI® MOBILITY™ RADEON® X300</b> / PCI Express x16 / <b>32MB</b> GDDR1 memory Some: <b>ATI MOBILITY RADEON X300</b> / PCI Express x16 / <b>64MB</b> GDDR1 memory										<b>Downloadable</b> • IBM Director Agent • Software Delivery Assistant • System Migration Assistant		
Keyboard	87-key / Access IBM button / palm rest / pitch: 19mm; stroke: 2.5mm (std-size keys)										<b>License</b> (CD not included) - Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client		
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar <sup>13</sup> , magnifying glass												
Touch pad	UltraNav® multi-pointing system / touch pad below keyboard / Tap Zones												
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions												
Dimensions <sup>3</sup>	14.1" models (WxDxH): 12.4" x 10.2" x 1.35-1.46"; 314mm x 260mm x 34-37mm 15.0" models (WxDxH): 13.1" x 10.6" x 1.47-1.58"; 332mm x 269mm x 37-40mm with optical drive and battery: 14.1" models: 6.1 lb (2.8kg); 15" models: 6.6 lb (3.0kg)												
Weight <sup>2</sup>													
Case material	Color: black; All: Acrylonitrile-Butadiene-Styrene (ABS) plastic												
Battery - type	Lithium Ion <b>6-cell</b> / intelligent / supports unique 2nd battery in Ultrabay Enhanced												
Battery - life <sup>10</sup>	Up to 3.6 hr; <i>Optional 9-cell</i> : up to 5.6 hr												
Architecture	<b>Mobile Intel 915PM Express Chipset</b> / 82915PM Memory Controller Hub / 82801FBM ICH6-M I/O Controller Hub (SATA150, ATA-100 EIDE, PCI Express x1, PCI bus, ethernet MAC, USB, Low Pin Count [LPC] interface, [Bluetooth]) / PCI bus (Ricoh® R5C811 CardBus controller, Mini PCI, external expansion) / LPC bus (NS PC8394T Super I/O for security chip (TPM), Asset ID, hardware event log, parallel, infrared, [docking-based ports (serial, diskette)])												
PC Card Std slot	One Type I or Type II slot / CardBus 32-bit / integrated door												
ExpressCard slot	One ExpressCard/34 or ExpressCard/54 / PCI Express x1 or USB 2.0 / integrated door												
Ports	Two USB (Version 2.0) / parallel / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / no keyboard or mouse or serial ports (use USB)												
Video out	S-video out port (TV out) / one 4-pin industry standard connector												
IEEE 1394	Some: IEEE 1394 (FireWire) port / 4-pin connector / 1394a-2000 standard												
Wireless antenna	UltraConnect™ Antenna built into the display cover for optimal wireless signal reception										ThinkPad notebooks implement ThinkVantage® technologies and design; visit <a href="http://thinkpad.com/thinkvantage">thinkpad.com/thinkvantage</a>		
Mini PCI	One Mini PCI type III slot (Communications Bay) / customer upgradable												
Intel 11b/g <sup>32</sup>	Some: 11b/g wireless <sup>4</sup> , Mini PCI, Intel PRO/Wireless 2200BG, Intel 82532 chip												
Intel 11a/b/g <sup>32</sup>	Some: 11a/b/g wireless <sup>4</sup> , Mini PCI, Intel PRO/Wireless 2915ABG, 82533 chipset												
CDC	One Communications Daughter Card (CDC) socket / customer accessible										Universal 72 watt AC adapter PC 2001-compliant ACPI 1.0b and 2.0-compliant CIM and DMI 2.0-compliant PXE 2.1-compliant ENERGY STAR®-compliant International Warranty Service <sup>17</sup> 24 hour x 7 day <sup>18</sup> toll-free warranty support during the warranty <sup>12</sup>		
Modem	56K <sup>6</sup> V.90 (V.92-designed <sup>29</sup> ) modem in CDC / Conexant® chipset												
Bluetooth™	None												
Ethernet	Gigabit ethernet on systemboard / Broadcom BCM5751M (MAC/PHY) / PCIe x1 / PXE												
Audio support	Soft audio / ICH AC97 controller / DirectSound® support / AD1981B AC97 codec / stereo speakers, 1 watt / volume up, down, mute buttons / internal microphone / microphone input jack (3.5 mm; pink) / headphone jack (3.5 mm; green)												
Security	Power-on password / hard disk password / supervisor password / security keyhole												
Security chip	<b>Embedded Security Subsystem 2.0<sup>33</sup></b> / in NS PC8394T chip / TCG-compliant												
Fingerprint reader	None										ThinkPlus™.22 2-year LOR 9x5 NBD 41C9175		
Limited warranty <sup>12</sup>	<b>3-year/1-yr battery</b> - EasyServ™.19 onsite pickup and delivery / service upgrades <sup>22</sup> avail										ThinkPlus 3-year LOR 9x5 NBD 41C9176		
256MB PC2-4200 DDR2 NP CL4 SOD	73P3840		ThinkPad T40/R50 Li-Ion Battery 6-cell		92P1101		ThinkPlus 4-year LOR 9x5 NBD 41C9177						
512MB PC2-4200 DDR2 NP CL4 SOD	73P3842		ThinkPad T40/R50 Li-Ion Battery 9-cell		92P1102		ThinkPlus 5-year LOR 9x5 NBD 41C9179						
1GB PC2-4200 DDR2 NP CL4 SOD	73P3844		Ultrabay Slim Li-Polymer Battery 3-cell		08K8190		ThinkPlus 4-year P&L P/U Depot 41C9178						
USB Portable Diskette Drive	05K9276		72W Slim AC/DC Combo Adapter		73P4485		ThinkPlus 5-year P&L P/U Depot 41C9180						
USB Fingerprint Reader	41U3167		11a/b/g Wireless Mini PCI Adapter II		73P4301		Post-warranty annual maintenance agreements at <a href="http://lenovo.com/thinkplus/warranty">lenovo.com/thinkplus/warranty</a>						
USB 2.0 Memory Key 1GB	40Y7421		Intel PRO/Wireless 2915ABG Mini PCI		41N2990								
USB 2.0 Super Multi-Burner Drive	41N5565		ThinkPad Port Replicator II		74P6733								
80GB HS Hard Disk 9.5mm (5400 rpm)	09N4273		ThinkPad Mini Dock		287810U								
100GB Hard Disk 9.5mm PATA (5400 rpm)	40Y8716		ThinkPad Dock II		287710U								
Second HDD Adapter for Ultrabay Slim	41U3148		ThinkPad Carrying Case - Expander		73P3597								
Super Multi-Burner Ultrabay Enh Drv (curved)	40Y8624		ThinkVision® L201p 20.1" Monitor (black)		9220HB1								
Preferred Pro USB Fingerprint Keyboard	73P4730		Other accessories at <a href="http://lenovo.com/accessories">lenovo.com/accessories</a>										

See footnotes for important warranty information

\* Powered by Intel Centrino® mobile technology

© Lenovo

US models announced March 1, 2005

(R1) February 2007

US models withdrawn effective September 2005 or February 2007

# ThinkPad® R52 (1847) - August 2005 - withdrawn

Created by Lenovo Training Solutions  
Personal Systems Reference (PSREF)

Type-model	Processor	Speed GHz	Memory	Screen	Graphics controller and memory	Disk GB <sup>8</sup>	Optical	Mini PCI Comm Bay wireless	CDC modem/Bluetooth™	IEEE Finger 1394 print port reader	Limited warranty <sup>12</sup>	Workhorse (W) Global (G) Avail (E) date
1847-82U	Pentium® M 750	1.86	512MB	14.1" XGA	X300 64MB	40GB	Combo	* Intel 11b/g <sup>32</sup>	Modem	No	3-year	W G Aug 05
1847-83U	Pentium M 750	1.86	512MB	14.1" XGA	X300 64MB	40GB	Combo	* Intel 11b/g	Modem	No	Finger 3-year	W G Aug 05
1847-92U	Pentium M 750	1.86	512MB	15.0" XGA	X300 64MB	60GB	Combo	* Intel 11b/g	Modem	No	3-year	W G Aug 05
1847-93U	Pentium M 750	1.86	512MB	15.0" XGA	X300 64MB	60GB	Combo	* Intel 11b/g	Modem	No	Finger 3-year	W G Aug 05
1847-8EU	Pentium M 760	2.00	512MB	14.1" XGA	X300 64MB	60GB	Combo	* Intel 11a/b/g <sup>32</sup>	Modem	No	3-year	W Aug 05
1847-8FU	Pentium M 750	1.86	512MB	14.1" XGA	X300 64MB	40GB	Combo	* Intel 11a/b/g	Modem	No	Finger 3-year	W Aug 05
1847-8GU	Pentium M 750	1.86	512MB	14.1" XGA	X300 64MB	60GB	Combo	* Intel 11a/b/g	Modem	No	Finger 3-year	W Aug 05
1847-8HU	Pentium M 760	2.00	512MB	14.1" XGA	X300 64MB	60GB	Combo	* Intel 11a/b/g	Modem	No	Finger 3-year	W Aug 05
1847-AFU	Pentium M 750	1.86	512MB	15.0" SXGA+	X300 64MB	60GB	Combo	* Intel 11a/b/g	Modem	1394 Finger	3-year	W Aug 05
1847-AGU	Pentium M 760	2.00	512MB	15.0" SXGA+	X300 64MB	80GB	DVD±RW	* Intel 11a/b/g	Modem	1394 Finger	3-year	W Aug 05
1847-9PU	Pentium M 750	1.86	512MB	15.0" XGA	X300 64MB	60GB	Combo	* Intel 11a/b/g	Modem	No	Finger 3-year	W Aug 05
1847-9QU	Pentium M 750	1.86	512MB	15.0" XGA	X300 64MB	40GB	Combo	* Intel 11a/b/g	Modem	No	Finger 3-year	W Aug 05
1847-9SU	Pentium M 760	2.00	512MB	15.0" XGA	X300 64MB	60GB	Combo	* Intel 11a/b/g	Modem	No	Finger 3-year	W Aug 05
1847-9TU	Pentium M 760	2.00	512MB	15.0" XGA	X300 64MB	60GB	Combo	* Intel 11a/b/g	Modem	No	Finger 3-year	W Aug 05
1847-B2U	Pentium M 750	1.86	512MB	14.1" XGA	X300 64MB	40GB	Combo	Open; upg <sup>36</sup>	Modem	No	3-year	W Aug 05
Positioning Processor	<i>Mainstream performance and features; two-spindle system</i> <b>Intel® Pentium® M Processor 750 (1.86GHz) or 760 (2.00GHz)</b> with Enhanced Intel SpeedStep™ technology <sup>1</sup> , Execute Disable Bit, and 533MHz system bus										<b>SOFTWARE<sup>14</sup></b>	
L2 cache	<b>2MB</b> / on die (at processor speed) / ECC										<b>Windows XP Professional</b>	
Memory	<b>512MB</b> std / 2GB max <sup>7</sup> / PC2-4200 533MHz DDR2 / non-parity / CL4 / dual channel capable / two 200-pin SO-DIMM sockets / std mem in one socket / one socket available										- Microsoft® Windows® XP Professional <sup>20</sup> (Service Pack 2) ↔ Disk-to-Disk Recovery (in hidden protected area)	
Diskette drive	None standard / use optional USB-based diskette drive										<b>Preloaded</b>	
Combo DVD±RW	<i>Some:</i> DVD-ROM/CD-RW / 24X/24X/24X/8X <sup>21</sup> speed / removable from Ultrabay Enhanced										• Rescue and Recovery™	
Ultrabay Enhanced Disk	<i>Some:</i> DVD and CD burner / Multi-Burner Plus / removable from Ultrabay Enhanced One modular bay for interchangeable devices / Ultrabay Slim-compatible / 12.7mm high <b>40GB<sup>8</sup></b> (5400 rpm), <b>60GB</b> (5400 rpm), or <b>80GB</b> (5400 rpm) / 9.5mm high / removable and upgradable / 9.5mm high bay / supports 2nd disk / <b>Hard Disk Drive Shock Absorber / Active Protection System™</b> (shock protection)										• Access Program • Access Connections™ • Norton AntiVirus • PC-Doctor™ • ThinkPad Utilities • Adobe® Reader • RecordNOW and Drive Letter Access powered by Sonic products (combo, DVD±RW)	
Display	<i>Some:</i> <b>14.1"</b> (358.1mm) <b>XGA (1024x768) TFT color</b> / Active Matrix / 150 nits <i>Some:</i> <b>15.0"</b> (381.0mm) <b>XGA (1024x768) TFT color</b> / Active Matrix / 200 nits <i>Some:</i> <b>15.0"</b> (381.0mm) <b>SXGA+ (1400x1050) TFT color</b> / Active Matrix / 200 nits										• InterVideo WinDVD (combo, DVD±RW models) • InterVideo WinDVD Creator (DVD±RW models) • Fingerprint Software (fingerprint models) • Client Security Software (for security chip)	
Graphics	<b>ATI® MOBILITY™ RADEON® X300</b> / PCI Express x16 / <b>64MB</b> GDDR1 memory										<b>Downloadable</b> • IBM Director Agent • Software Delivery Assistant • System Migration Assistant	
Keyboard TrackPoint®	87-key / Access IBM button / palm rest / pitch: 19mm; stroke: 2.5mm (std-size keys) TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar <sup>13</sup> , magnifying glass										• Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client	
Touch pad ThinkLight™	UltraNav® multi-pointing system / touch pad below keyboard / Tap Zones Illuminates the keyboard to improve visibility in low-light conditions										License (CD not included) - Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client	
Dimensions <sup>3</sup>	<i>14.1" models (WxDxH):</i> 12.4" x 10.2" x 1.35-1.46"; 314mm x 260mm x 34-37mm <i>15.0" models (WxDxH):</i> 13.1" x 10.6" x 1.47-1.58"; 332mm x 269mm x 37-40mm with optical drive and battery: <i>14.1" models:</i> 6.1 lb (2.8kg); <i>15" models:</i> 6.6 lb (3.0kg)										ThinkPad notebooks implement ThinkVantage™ technologies and design; visit <a href="http://thinkpad.com/thinkvantage">thinkpad.com/thinkvantage</a>	
Weight <sup>2</sup>	with optical drive and battery: <i>14.1" models:</i> 6.1 lb (2.8kg); <i>15" models:</i> 6.6 lb (3.0kg)										Universal 72 watt AC adapter PC 2001-compliant ACPI 1.0b and 2.0-compliant CIM and DMI 2.0-compliant PXE 2.1-compliant ENERGY STAR®-compliant International Warranty Service <sup>17</sup> 24 hour x 7 day <sup>18</sup> toll-free warranty support during the warranty <sup>12</sup>	
Case material	<i>Color:</i> black; <i>All:</i> Acrylonitrile-Butadiene-Styrene (ABS) plastic										ThinkPlus™.22 2-year LOR 9x5 NBD 41C9175	
Battery - type	Lithium Ion <b>6-cell</b> / intelligent / supports unique 2nd battery in Ultrabay Enhanced										ThinkPlus 3-year LOR 9x5 NBD 41C9176	
Battery - life <sup>10</sup>	Up to 3.6 hr; <i>Optional 9-cell:</i> up to 5.6 hr										ThinkPlus 4-year LOR 9x5 NBD 41C9177	
Architecture	<b>Mobile Intel 915PM Express Chipset</b> / 82915PM Memory Controller Hub / 82801FBM ICH6-M I/O Controller Hub (SATA150, ATA-100 EIDE, PCI Express x1, PCI bus, ethernet MAC, USB, Low Pin Count [LPC] interface, [Bluetooth]) / PCI bus (Ricoch® R5C811 CardBus controller, Mini PCI, external expansion) / LPC bus (NS PC8394T Super I/O for security chip (TPM), Asset ID, hardware event log, parallel, infrared, [docking-based ports (serial, diskette)]) One Type I or Type II slot / CardBus 32-bit / integrated door										ThinkPlus 5-year LOR 9x5 NBD 41C9179	
PC Card Std slot	One ExpressCard/34 or ExpressCard/54 / PCI Express x1 or USB 2.0 / integrated door										ThinkPlus 4-year P&L P/U Depot 41C9178	
ExpressCard slot	Two USB (Version 2.0) / parallel / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / no keyboard or mouse or serial ports (use USB)										ThinkPlus 5-year P&L P/U Depot 41C9180	
Ports	S-video out port (TV out) / one 4-pin industry standard connector <i>Some:</i> IEEE 1394 (FireWire) port / 4-pin connector / 1394a-2000 standard UltraConnect™ Antenna built into the display cover for optimal wireless signal reception One Mini PCI type III slot (Communications Bay) / customer upgradable <i>Some:</i> wireless upgradable with wireless Mini PCI options <i>Some:</i> 11b/g wireless <sup>4</sup> , Mini PCI, Intel PRO/Wireless 2200BG, Intel 82532 chip <i>Some:</i> 11a/b/g wireless <sup>4</sup> , Mini PCI, Intel PRO/Wireless 2915ABG, 82533 chipset										Post-warranty annual maintenance agreements at <b>lenovo.com/thinkplus/warranty</b>	
Video out	One Communications Daughter Card (CDC) socket / customer accessible											
IEEE 1394	56K <sup>6</sup> V.90 (V.92-designed <sup>29</sup> ) modem in CDC / Conexant® chipset											
Wireless antenna	None											
Mini PCI	Gigabit ethernet on systemboard / Broadcom BCM5751M (MAC/PHY) / PCIe x1 / PXE											
Wireless upg <sup>36</sup>	Soft audio / ICH AC97 controller / DirectSound® support / AD1981B AC97 codec / stereo speakers / 1 watt / volume up, down, mute buttons / internal microphone / microphone input jack (3.5 mm; pink) / headphone jack (3.5 mm; green)											
Intel 11b/g <sup>32</sup>	Power-on password / hard disk password / supervisor password / security keyhole											
Intel 11a/b/g <sup>32</sup>	<b>Embedded Security Subsystem 2.0<sup>33</sup></b> / in NS PC8394T chip / TCG-compliant											
CDC	<i>Some:</i> <b>Fingerprint reader on palm rest</b> / swipe sensor / integrated with security chip											
Modem	Limited warranty <sup>12</sup> <b>3-year/1-yr battery</b> - EasyServ™.19 onsite pickup and delivery / service upgrades <sup>22</sup> avail											
Bluetooth™	256MB PC2-4200 DDR2 NP CL4 SOD 73P3840											
Ethernet	ThinkPad T40/R50 Li-Ion Battery 6-cell 92P1101											
Audio support	512MB PC2-4200 DDR2 NP CL4 SOD 73P3842											
Security	ThinkPad T40/R50 Li-Ion Battery 9-cell 92P1102											
Security chip	1GB PC2-4200 DDR2 NP CL4 SOD 73P3844											
Fingerprint reader	100GB Hard Disk 9.5mm PATA (5400 rpm) 40Y8716											
Limited warranty <sup>12</sup>	Second HDD Adapter for Ultrabay Slim 41U3148											
	Super Multi-Burner Ultrabay Enh Drv (curved)40Y8624											
	Other options at <a href="http://lenovo.com/options">lenovo.com/options</a>											

See footnotes for important warranty information  
US models announced August 2, 2005  
US models withdrawn effective June or November 2006

\* Powered by Intel Centrino® mobile technology

© Lenovo  
(JN63) December 2006



# ThinkPad® R52 (1847) - Education - withdrawn

Created by Lenovo Training Solutions  
Personal Systems Reference (PSREF)

Type-model	Processor	Speed GHz	Memory	Screen	Graphics controller and memory	Disk GB <sup>3</sup> and rpm	Optical	Mini PCI Comm Bay wireless	CDC modem/ Bluetooth™	IEEE 1394 port	Finger print reader	Limited warranty <sup>12</sup>	Avail date
1847-2FU	Pentium® M 740	1.73	512MB	14.1" XGA	X300 64MB	40GB 4200	Combo	* Intel 11a/b/g <sup>32</sup>	Modem 1394	No	EasyServ	Mar 05	
1847-2GU	Pentium M 740	1.73	512MB	14.1" XGA	X300 64MB	60GB 4200	DVD±RW	* Intel 11a/b/g	Modem 1394	No	EasyServ	Mar 05	
1847-4BU	Pentium M 740	1.73	1GB	15.0" SXGA+	X300 64MB	60GB 4200	DVD±RW	* Intel 11a/b/g	Modem 1394	No	EasyServ	Mar 05	
1847-2KU	Pentium M 740	1.73	512MB	14.1" XGA	X300 64MB	40GB 4200	Combo	11a/b/g II <sup>32</sup>	Modem 1394	No	EasyServ	Aug 05	
1847-2LU	Pentium M 740	1.73	512MB	14.1" XGA	X300 64MB	60GB 4200	DVD±RW	11a/b/g II	Modem 1394	No	EasyServ	Aug 05	
1847-4XU	Pentium M 740	1.73	1GB	15.0" SXGA+	X300 64MB	60GB 4200	DVD±RW	11a/b/g II	Modem 1394	No	EasyServ	Aug 05	
1847-8JU	Pentium M 750	1.86	512MB	14.1" XGA	X300 64MB	40GB 5400	Combo	* Intel 11a/b/g	Modem 1394	Finger	EasyServ	Aug 05	
1847-8KU	Pentium M 750	1.86	512MB	14.1" XGA	X300 64MB	60GB 5400	DVD±RW	* Intel 11a/b/g	Modem 1394	Finger	EasyServ	Aug 05	
1847-AJU	Pentium M 750	1.86	1GB	15.0" SXGA+	X300 64MB	60GB 5400	DVD±RW	* Intel 11a/b/g	Modem 1394	Finger	EasyServ	Aug 05	

• **These models have an EasyServ™<sup>19</sup> onsite pickup and delivery 3-year limited warranty**  
These educational models are available only to public or private K-12 (or higher) accredited schools organized and operated exclusively for educational purposes for use by qualified students and teachers.

Positioning Processor	<i>Mainstream performance and features; two-spindle system</i> <b>Intel® Pentium® M Processor 740 (1.73GHz) or 750 (1.86GHz)</b> with Enhanced Intel SpeedStep™ technology <sup>1</sup> , Execute Disable Bit, and 533MHz system bus	<b>SOFTWARE<sup>14</sup></b> <b>Windows XP Professional</b> - Microsoft® Windows® XP Professional <sup>20</sup> (Service Pack 2) ↔ Disk-to-Disk Recovery (in hidden protected area)
L2 cache	<b>2MB</b> / on die (at processor speed) / ECC	
Memory	<b>512MB</b> or <b>1GB</b> std / 2GB max <sup>7</sup> / PC2-4200 533MHz DDR2 / non-parity / CL4 / dual channel capable / two 200-pin SO-DIMM sockets / std mem in 1 socket / 1 socket avail	<b>Preloaded</b> • Education software from Vital Source Technologies®: vitalsource KEY™ and Personal Portable library™ • Rescue and Recovery™ • Access Program • Access Connections™ • Norton AntiVirus • PC-Doctor™ • ThinkPad Utilities • Adobe® Reader • RecordNOW and Drive Letter Access powered by Sonic products (combo, DVD±RW) • InterVideo WinDVD (combo, DVD±RW models) • InterVideo WinDVD Creator (DVD±RW models) • Client Security Software (for security chip)
Diskette drive	None standard / use optional USB-based diskette drive	
Combo DVD±RW	<i>Some:</i> DVD-ROM/CD-RW / 24X/24X/24X/8X <sup>21</sup> speed / removable from Ultrabay Enhance	<b>Downloadable</b> • IBM Director Agent • Software Delivery Assistant • System Migration Assistant <b>License</b> (CD not included) - Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client
Ultrabay Enhanced Disk	<i>Some:</i> DVD and CD burner / Multi-Burner Plus / removable from Ultrabay Enhanced One modular bay for interchangeable devices / Ultrabay Slim-compatible / 12.7mm high <b>40GB<sup>8</sup></b> (4200 or 5400 rpm) or <b>60GB</b> (4200 or 5400 rpm) / 9.5mm high / removable and upgradable / 9.5mm high bay / supports 2nd disk with optional 'Second HDD Adapter for Ultrabay Slim' / <b>Hard Disk Drive Shock Absorber / Active Protection System</b>	
Display	<i>Some:</i> <b>14.1"</b> (358.1mm) <b>XGA (1024x768) TFT color</b> / Active Matrix / 150 nits <i>Some:</i> <b>15.0"</b> (381.0mm) <b>SXGA+ (1400x1050) TFT color</b> / Active Matrix / 200 nits	<b>ThinkPad notebooks implement ThinkVantage® technologies and design; visit <a href="http://thinkpad.com/thinkvantage">thinkpad.com/thinkvantage</a></b>
Graphics	<b>ATI® MOBILITY™ RADEON® X300</b> / PCI Express x16 / <b>64MB</b> GDDR1 memory	
Keyboard	87-key / Access IBM button / palm rest / pitch: 19mm; stroke: 2.5mm (std-size keys)	<b>Universal 72 watt AC adapter</b> PC 2001-compliant ACPI 1.0b and 2.0-compliant CIM and DMI 2.0-compliant PXE 2.1-compliant ENERGY STAR®-compliant International Warranty Service <sup>17</sup> 24 hour x 7 day <sup>18</sup> toll-free warranty support during the warranty <sup>12</sup>
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar <sup>13</sup> , magnifying glass	
Touch pad	UltraNav™ multi-pointing system / touch pad below keyboard / Tap Zones	<b>ThinkPlus™<sup>22</sup> 2-year LOR 9x5 NBD</b> 41C9175
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions	
Dimensions <sup>3</sup>	<i>14.1" models (WxDxH):</i> 12.4" x 10.2" x 1.35-1.46"; 314mm x 260mm x 34-37mm <i>15.0" models (WxDxH):</i> 13.1" x 10.6" x 1.47-1.58"; 332mm x 269mm x 37-40mm with optical drive and batt: <i>14.1" models:</i> up to 6.2 lb; <i>15" models:</i> up to 6.6 lb (3.0kg)	<b>ThinkPlus 3-year LOR 9x5 NBD</b> 41C9176
Weight <sup>2</sup>	<i>Color:</i> black; <i>All:</i> Acrylonitrile-Butadiene-Styrene (ABS) plastic	
Case material	Lithium Ion <b>6-cell</b> / intelligent / supports unique 2nd battery in Ultrabay Enhanced	<b>ThinkPlus 4-year LOR 9x5 NBD</b> 41C9177
Battery - type	Up to 3.6 hr; <i>Optional 9-cell:</i> up to 5.6 hr	
Battery - life <sup>10</sup>		<b>ThinkPlus 5-year LOR 9x5 NBD</b> 41C9179
Architecture	<b>Mobile Intel 915PM Express Chipset</b> / 82915PM Memory Controller Hub / 82801FBM ICH6-M I/O Controller Hub (SATA150, ATA-100 EIDE, PCI Express x1, PCI bus, ethernet MAC, USB, Low Pin Count [LPC] interface, [Bluetooth]) / PCI bus (Richtek® R5C811 CardBus controller, Mini PCI, external expansion) / LPC bus (NS PC8394T Super I/O for security chip (TPM), Asset ID, hardware event log, parallel, infrared, [docking-based ports (serial, diskette)])	
PC Card Std slot	One Type I or Type II slot / CardBus 32-bit / integrated door	<b>ThinkPlus 4-year P&amp;L P/U Depot</b> 41C9178
ExpressCard slot	One ExpressCard/34 or ExpressCard/54 / PCI Express x1 or USB 2.0 / integrated door	
Ports	Two USB (Version 2.0) / parallel / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / no keyboard or mouse or serial ports (use USB)	<b>ThinkPlus 5-year P&amp;L P/U Depot</b> 41C9180
Video out	S-video out port (TV out) / one 4-pin industry standard connector	
IEEE 1394	IEEE 1394 (FireWire) port / 4-pin connector / 1394a-2000 standard	<b>Post-warranty annual maintenance agreements at <a href="http://lenovo.com/thinkplus/warranty">lenovo.com/thinkplus/warranty</a></b>
Wireless antenna	UltraConnect™ Antenna built into the display cover for optimal wireless signal reception	
Mini PCI	One Mini PCI type III slot (Communications Bay) / customer upgradable	<b>See footnotes for important warranty information</b>
Intel 11a/b/g <sup>32</sup>	<i>Some:</i> 11a/b/g wireless <sup>4</sup> , Mini PCI, Intel PRO/Wireless 2915ABG, 82533 chipset	
11a/b/g II <sup>32</sup>	<i>Some:</i> 11a/b/g wireless <sup>4</sup> , ThinkPad 11a/b/g Mini PCI Adapter II, Atheros™ AR5004X chip	<b>* Powered by Intel Centrino® mobile technology</b>
CDC	One Communications Daughter Card (CDC) socket / customer accessible	
Modem	56K <sup>6</sup> V.90 (V.92-designed <sup>29</sup> ) modem in CDC / Conexant® chipset	<b>© Lenovo (R4) February 2007</b>
Ethernet	Gigabit ethernet on systemboard / Broadcom BCM5751M (MAC/PHY) / PCIe x1 / PXE	
Audio support	Soft audio / ICH AC97 controller / DirectSound® support / AD1981B AC97 codec / stereo speakers / 1 watt / volume up, down, mute buttons / internal microphone / microphone input jack (3.5 mm; pink) / headphone jack (3.5 mm; green)	
Security	Power-on password / hard disk password / supervisor password / security keyhole	
Security chip	<b>Embedded Security Subsystem 2.0<sup>33</sup></b> / in NS PC8394T chip / TCG-compliant	
Fingerprint reader	<i>Some:</i> <b>Fingerprint reader on palm rest</b> / swipe sensor / integrated with security chip	
Limited warranty <sup>12</sup>	<b>3-year/1-yr battery - EasyServ™<sup>19</sup> onsite pickup and delivery / service upgrades<sup>22</sup> avail</b>	

256MB PC2-4200 DDR2 NP CL4 SOD	73P3840	ThinkPad T40/R50 Li-Ion Battery 6-cell	92P1101	ThinkPlus 4-year LOR 9x5 NBD
512MB PC2-4200 DDR2 NP CL4 SOD	73P3842	ThinkPad T40/R50 Li-Ion Battery 9-cell	92P1102	41C9177
1GB PC2-4200 DDR2 NP CL4 SOD	73P3844	Ultrabay Slim Li-Polymer Battery 3-cell	08K8190	ThinkPlus 5-year LOR 9x5 NBD
USB Portable Diskette Drive	05K9276	ThinkPad Port Replicator II	74P6733	41C9179
USB Fingerprint Reader	41U3167	ThinkPad Mini Dock	287810U	ThinkPlus 4-year P&L P/U Depot
USB 2.0 Memory Key 1GB	40Y7421	ThinkPad Dock II	287710U	41C9178
100GB Hard Disk 9.5mm PATA (5400 rpm)	40Y8716	ThinkPad Carrying Case - Expander	73P3597	ThinkPlus 5-year P&L P/U Depot
CD-RW/DVD Combo Ultrabay Enhanced	73P3275	ThinkPad Carrying Case - BackPack	73P3599	41C9180
Super Multi-Burner Ultrabay Enh Drv (curved)	40Y8624	ThinkPad Carrying Case - Organizer	73P3598	
Kensington® MicroSaver® Security Cable	73P2582	ThinkVision® L201p 20.1" Monitor (black) 9220HB1		
ThinkPad Convertible Monitor Stand	40Y7620	Other accessories at <a href="http://lenovo.com/accessories">lenovo.com/accessories</a>		

See footnotes for important warranty information

\* Powered by Intel Centrino® mobile technology

© Lenovo

US models announced March 1, August 2, or August 16, 2005

(R4) February 2007

US models withdrawn effective November 2005, June 2006, or February 2007

# ThinkPad® R52 (1848) - withdrawn

Created by Lenovo Training Solutions  
Personal Systems Reference (PSREF)

Type-model	Processor	Speed GHz	Memory	Screen	Graphics controller and memory	Disk GB <sup>8</sup>	Optical	Mini PCI Comm Bay wireless	CDC modem/Bluetooth™	IEEE Finger 1394 print port reader	3 year limited warranty <sup>12</sup>	Workhorse (W) or Global Entry	Avail date	
1848-83U	Pentium® M 750	1.86	512MB	14.1" XGA	X300 64MB	40GB	Combo	* Intel 11b/g <sup>32</sup>	Modem	No	Finger	Onsite	W Gbl	Aug 05
1848-93U	Pentium M 750	1.86	512MB	15.0" XGA	X300 64MB	60GB	Combo	* Intel 11b/g	Modem	No	Finger	Onsite	W Gbl	Aug 05
<p><b>• These models have a limited onsite service<sup>24</sup> 3-year limited warranty</b></p>														
Positioning Processor	<p><b>Mainstream performance and features; two-spindle system</b>  <b>Intel® Pentium® M Processor 750 (1.86GHz)</b> with Enhanced Intel SpeedStep™ technology<sup>1</sup>, Execute Disable Bit, and 533MHz system bus</p>										<p><b>SOFTWARE<sup>14</sup></b>  <b>Windows XP Professional</b>                      - Microsoft® Windows® XP Professional<sup>20</sup> (Service Pack 2)                      ⇨ Disk-to-Disk Recovery (in hidden protected area)</p>			
L2 cache	<p><b>2MB</b> / on die (at processor speed) / ECC</p>										<p><b>Preloaded</b>                      • Rescue and Recovery™                      • Access Program                      • Access Connections™                      • Norton AntiVirus                      • PC-Doctor™                      • ThinkPad Utilities                      • Adobe® Reader                      • RecordNOW and Drive Letter Access powered by Sonic products (combo models)                      • InterVideo WinDVD (combo models)                      • Fingerprint Software (fingerprint models)                      • Client Security Software (for security chip)</p>			
Memory	<p><b>512MB</b> std / 2GB max<sup>7</sup> / PC2-4200 533MHz DDR2 / non-parity / CL4 / dual channel capable / two 200-pin SO-DIMM sockets / std mem in one socket / one socket available</p>										<p><b>Downloadable</b>                      • IBM Director Agent                      • Software Delivery Assistant                      • System Migration Assistant</p>			
Diskette drive	<p>None standard / use optional USB-based diskette drive</p>										<p><b>License (CD not included)</b>                      - Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client</p>			
Combo	<p>DVD-ROM/CD-RW / 24X/24X/24X/8X<sup>21</sup> speed / removable from Ultrabay Enhance</p>													
Ultrabay Enhanced Disk	<p>One modular bay for interchangeable devices / Ultrabay Slim-compatible / 12.7mm high <b>40GB<sup>8</sup></b> (5400 rpm) or <b>60GB</b> (5400 rpm) / 9.5mm high / removable and upgradable / 9.5mm high bay / supports 2nd disk with optional 'Second HDD Adapter for Ultrabay Slim' / <b>Hard Disk Drive Shock Absorber / Active Protection System™</b></p>													
Display	<p>Some: <b>14.1"</b> (358.1mm) <b>XGA (1024x768) TFT color</b> / Active Matrix / 150 nits                      Some: <b>15.0"</b> (381.0mm) <b>SXGA+ (1400x1050) TFT color</b> / Active Matrix / 200 nits</p>													
Graphics	<p><b>ATI® MOBILITY™ RADEON® X300</b> / PCI Express x16 / <b>64MB</b> GDDR1 memory</p>													
Keyboard	<p>87-key / Access IBM button / palm rest / pitch: 19mm; stroke: 2.5mm (std-size keys)</p>													
TrackPoint®	<p>TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar<sup>13</sup>, magnifying glass</p>													
Touch pad	<p>UltraNav® multi-pointing system / touch pad below keyboard / Tap Zones</p>													
ThinkLight™	<p>Illuminates the keyboard to improve visibility in low-light conditions</p>													
Dimensions <sup>3</sup>	<p><b>14.1" models (WxDxH):</b> 12.4" x 10.2" x 1.35-1.46"; 314mm x 260mm x 34-37mm  <b>15.0" models (WxDxH):</b> 13.1" x 10.6" x 1.47-1.58"; 332mm x 269mm x 37-40mm                      with optical drive and batt: <b>14.1" mod:</b> 6.1 lb (2.8kg); <b>2GU:</b> 6.2 lb; <b>15" mod:</b> 6.6 lb (3.0kg)</p>													
Weight <sup>2</sup>														
Case material	<p><b>Color:</b> black; <b>All:</b> Acrylonitrile-Butadiene-Styrene (ABS) plastic</p>													
Battery - type	<p>Lithium Ion <b>6-cell</b> / intelligent / supports unique 2nd battery in Ultrabay Enhanced</p>													
Battery - life <sup>10</sup>	<p>Up to 3.6 hr; <b>Optional 9-cell:</b> up to 5.6 hr</p>													
Architecture	<p><b>Mobile Intel 915PM Express Chipset</b> / 82915PM Memory Controller Hub / 82801FBM ICH6-M I/O Controller Hub (SATA150, ATA-100 EIDE, PCI Express x1, PCI bus, ethernet MAC, USB, Low Pin Count [LPC] interface, [Bluetooth]) / PCI bus (Ricoh® R5C811 CardBus controller, Mini PCI, external expansion) / LPC bus (NS PC8394T Super I/O for security chip (TPM), Asset ID, hardware event log, parallel, infrared, [docking-based ports (serial, diskette)])</p>													
PC Card Std slot	<p>One Type I or Type II slot / CardBus 32-bit / integrated door</p>													
ExpressCard slot	<p>One ExpressCard/34 or ExpressCard/54 / PCI Express x1 or USB 2.0 / integrated door</p>													
Ports	<p>Two USB (Version 2.0) / parallel / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / no keyboard or mouse or serial ports (use USB)</p>													
Video out	<p>S-video out port (TV out) / one 4-pin industry standard connector</p>													
IEEE 1394	<p>None</p>													
Wireless antenna	<p>UltraConnect™ Antenna built into the display cover for optimal wireless signal reception</p>													
Mini PCI	<p>One Mini PCI type III slot (Communications Bay) / customer upgradable</p>													
Intel 11b/g <sup>32</sup>	<p>11b/g wireless<sup>4</sup>, Mini PCI, Intel PRO/Wireless 2200BG, Intel 82532 chip</p>													
CDC	<p>One Communications Daughter Card (CDC) socket / customer accessible</p>													
Modem	<p>56K<sup>6</sup> V.90 (V.92-designed<sup>29</sup>) modem in CDC / Conexant® chipset</p>													
Bluetooth™	<p>None</p>													
Ethernet	<p>Gigabit ethernet on systemboard / Broadcom BCM5751M (MAC/PHY) / PCIe x1 / PXE</p>													
Audio support	<p>Soft audio / ICH AC97 controller / DirectSound® support / AD1981B AC97 codec / stereo speakers / 1 watt / volume up, down, mute buttons / internal microphone / microphone input jack (3.5 mm; pink) / headphone jack (3.5 mm; green)</p>													
Security	<p>Power-on password / hard disk password / supervisor password / security keyhole</p>													
Security chip	<p><b>Embedded Security Subsystem 2.0<sup>33</sup></b> / in NS PC8394T chip / TCG-compliant</p>													
Fingerprint reader	<p><b>Fingerprint reader on palm rest</b> / swipe sensor / integrated with security chip</p>													
Limited warranty <sup>12</sup>	<p><b>3-year/1-year battery, limited onsite service<sup>24</sup>, 8 am - 5 pm, Mon - Fri coverage</b> excluding holidays, next business day response time</p>													
256MB PC2-4200 DDR2 NP CL4 SOD	73P3840	ThinkPad T40/R50 Li-Ion Battery 6-cell	92P1101											
512MB PC2-4200 DDR2 NP CL4 SOD	73P3842	ThinkPad T40/R50 Li-Ion Battery 9-cell	92P1102											
1GB PC2-4200 DDR2 NP CL4 SOD	73P3844	Ultrabay Slim Li-Polymer Battery 3-cell	08K8190											
USB Portable Diskette Drive	05K9276	ThinkPad Multiple Battery Charger II	22P9040											
USB Fingerprint Reader	41U3167	72W Slim AC/DC Combo Adapter	73P4485											
USB 2.0/Analog Headset by Sennheiser	40Y8518	11a/b/g Wireless Mini PCI Adapter II	73P4301											
USB 2.0 Lenovo Webcam	40Y8519	Intel PRO/Wireless 2915ABG Mini PCI	41N2990											
USB 2.0 Memory Key 1GB	40Y7421	ThinkPad Port Replicator II	74P6733											
USB 2.0 Portable 80GB Hard Disk	40Y8726	ThinkPad Mini Dock	287810U											
USB 2.0 CD-RW/DVD-ROM Combo II Drive	40Y8637	ThinkPad Dock II	287710U											
ExpressCard Gemplus Smart Card Reader	41N3043	ThinkPad Carrying Case - Expander	73P3597											
80GB HS Hard Disk 9.5mm (5400 rpm)	09N4273	ThinkPad Carrying Case - BackPack	73P3599											
100GB Hard Disk 9.5mm PATA (5400 rpm)	40Y8716	ThinkPad Carrying Case - Leather	73P3600											
Second HDD Adapter for Ultrabay Slim	41U3148	ThinkPad Carrying Case - Organizer	73P3598											
DVD-ROM Ultrabay Enhanced Drive	39X2642	ThinkVision® E500 Projector	0038A05											
CD-RW/DVD Combo Ultrabay Enhanced	73P3275	TrackPoint Cap Collection	73P2698											
Super Multi-Burner Ultrabay Enh Drv (curved)	40Y8624	ThinkPad Monitor Stand	22P5265											
Enh Perf Wireless Keyboard and Mouse	73P4067	ThinkPad Convertible Monitor Stand	40Y7620											
USB Travel Keyboard with UltraNav	31P9490	SonyEricsson® GC83 EDGE PC Card	26K3393											
Optical 3-Button Travel Wheel Mouse	31P7410	Verizon Wireless V620 WWAN PC Card <sup>25</sup>	40Y9137											
Kensington® MicroSaver® Security Cable	73P2582	Other options at <a href="http://lenovo.com/options">lenovo.com/options</a>												

See footnotes for important warranty information  
 US models announced August 2, 2005  
 US models withdrawn effective November 2006

\* Powered by Intel Centrino® mobile technology

# ThinkPad® R52 (1848) - Education - withdrawn

Created by Lenovo Training Solutions  
Personal Systems Reference (PSREF)

Type-model	Processor	Speed GHz	Memory	Screen	Graphics controller and memory	Disk GB <sup>8</sup> and rpm	Optical	Mini PCI Comm Bay wireless	CDC modem/ Bluetooth™	IEEE 1394 port	Finger print reader	Limited warranty <sup>12</sup>	Avail date
1848-2FU Pentium® M 740	1.73	512MB	14.1" XGA	X300 64MB	40GB 4200	Combo	* Intel 11a/b/g <sup>32</sup>	Modem 1394	No	Onsite Mar 05			
1848-2GU Pentium M 740	1.73	512MB	14.1" XGA	X300 64MB	60GB 4200	DVD±RW	* Intel 11a/b/g	Modem 1394	No	Onsite Mar 05			
1848-4BU Pentium M 740	1.73	1GB	15.0" SXGA+	X300 64MB	60GB 4200	DVD±RW	* Intel 11a/b/g	Modem 1394	No	Onsite Mar 05			
1848-2KU Pentium M 740	1.73	512MB	14.1" XGA	X300 64MB	40GB 4200	Combo	11a/b/g II <sup>32</sup>	Modem 1394	No	Onsite Aug 05			
1848-2LU Pentium M 740	1.73	512MB	14.1" XGA	X300 64MB	60GB 4200	DVD±RW	11a/b/g II	Modem 1394	No	Onsite Aug 05			
1848-4XU Pentium M 740	1.73	1GB	15.0" SXGA+	X300 64MB	60GB 4200	DVD±RW	11a/b/g II	Modem 1394	No	Onsite Aug 05			
1848-8MU Pentium M 750	1.86	512MB	14.1" XGA	X300 64MB	40GB 5400	Combo	* Intel 11a/b/g	Modem 1394	Finger	Onsite Aug 05			
1848-8NU Pentium M 750	1.86	512MB	14.1" XGA	X300 64MB	60GB 5400	DVD±RW	* Intel 11a/b/g	Modem 1394	Finger	Onsite Aug 05			
1848-ALU Pentium M 750	1.86	1GB	15.0" SXGA+	X300 64MB	60GB 5400	DVD±RW	* Intel 11a/b/g	Modem 1394	Finger	Onsite Aug 05			

• **These models have a limited onsite service<sup>24</sup> 3-year limited warranty**

These educational models are available only to public or private K-12 (or higher) accredited schools organized and operated exclusively for educational purposes for use by qualified students and teachers.

Positioning Processor	<i>Mainstream performance and features; two-spindle system</i> <b>Intel® Pentium® M Processor 740 (1.73GHz) or 750 (1.86GHz)</b> with Enhanced Intel SpeedStep™ technology <sup>1</sup> , Execute Disable Bit, and 533MHz system bus								<b>SOFTWARE<sup>14</sup></b>				
L2 cache	<b>2MB</b> / on die (at processor speed) / ECC								<b>Windows XP Professional</b>				
Memory	<b>512MB</b> or <b>1GB</b> std / 2GB max <sup>7</sup> / PC2-4200 533MHz DDR2 / non-parity / CL4 / dual channel capable / two 200-pin SO-DIMM sockets / std mem in 1 socket / 1 socket avail								- Microsoft® Windows® XP Professional <sup>20</sup> (Service Pack 2) ↳ Disk-to-Disk Recovery (in hidden protected area)				
Diskette drive	None standard / use optional USB-based diskette drive								<b>Preloaded</b>				
Combo DVD±RW	<i>Some:</i> DVD-ROM/CD-RW / 24X/24X/24X/8X <sup>21</sup> speed / removable from Ultrabay Enhanced								• Education software from Vital Source Technologies®: vidualsource KEY™ and Personal Portable library™				
Ultrabay Enhanced Disk	One modular bay for interchangeable devices / Ultrabay Slim-compatible / 12.7mm high <b>40GB<sup>8</sup></b> (4200 or 5400 rpm) or <b>60GB</b> (4200 or 5400 rpm) / 9.5mm high / removable and upgradable / 9.5mm high bay / supports 2nd disk with optional 'Second HDD Adapter for Ultrabay Slim' / <b>Hard Disk Drive Shock Absorber / Active Protection System</b>								• Rescue and Recovery™				
Display	<i>Some:</i> <b>14.1"</b> (358.1mm) <b>XGA (1024x768) TFT color</b> / Active Matrix / 150 nits <i>Some:</i> <b>15.0"</b> (381.0mm) <b>SXGA+ (1400x1050) TFT color</b> / Active Matrix / 200 nits								• Access Program				
Graphics	<b>ATI® MOBILITY™ RADEON® X300</b> / PCI Express x16 / <b>64MB</b> GDDR1 memory								• Access Connections™				
Keyboard	87-key / Access IBM button / palm rest / pitch: 19mm; stroke: 2.5mm (std-size keys)								• Norton AntiVirus				
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar <sup>13</sup> , magnifying glass								• PC-Doctor™				
Touch pad	UltraNav™ multi-pointing system / touch pad below keyboard / Tap Zones								• ThinkPad Utilities				
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions								• Adobe® Reader				
Dimensions <sup>3</sup>	<i>14.1" models (WxDxH):</i> 12.4" x 10.2" x 1.35-1.46"; 314mm x 260mm x 34-37mm <i>15.0" models (WxDxH):</i> 13.1" x 10.6" x 1.47-1.58"; 332mm x 269mm x 37-40mm with optical drive and batt: <i>14.1" models:</i> up to 6.2 lb; <i>15" models:</i> up to 6.6 lb (3.0kg)								• RecordNOW and Drive Letter Access powered by Sonic products (combo, DVD±RW)				
Weight <sup>2</sup>									• InterVideo WinDVD (combo, DVD±RW models)				
Case material	<i>Color:</i> black; <i>All:</i> Acrylonitrile-Butadiene-Styrene (ABS) plastic								• InterVideo WinDVD Creator (DVD±RW models)				
Battery - type	Lithium Ion <b>6-cell</b> / intelligent / supports unique 2nd battery in Ultrabay Enhanced								• Client Security Software (for security chip)				
Battery - life <sup>10</sup>	Up to 3.6 hr; <i>Optional 9-cell:</i> up to 5.6 hr								<b>Downloadable</b>				
Architecture	<b>Mobile Intel 915PM Express Chipset</b> / 82915PM Memory Controller Hub / 82801FBM ICH6-M I/O Controller Hub (SATA150, ATA-100 EIDE, PCI Express x1, PCI bus, ethernet MAC, USB, Low Pin Count (LPC) interface, [Bluetooth]) / PCI bus (Ricoch® R5C811 CardBus controller, Mini PCI, external expansion) / LPC bus (NS PC8394T Super I/O for security chip (TPM), Asset ID, hardware event log, parallel, infrared, [docking-based ports (serial, diskette)])								• IBM Director Agent				
PC Card Std slot	One Type I or Type II slot / CardBus 32-bit / integrated door								• Software Delivery Assistant				
ExpressCard slot	One ExpressCard/34 or ExpressCard/54 / PCI Express x1 or USB 2.0 / integrated door								• System Migration Assistant				
Ports	Two USB (Version 2.0) / parallel / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / no keyboard or mouse or serial ports (use USB)								<b>License</b> (CD not included) - Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client				
Video out	S-video out port (TV out) / one 4-pin industry standard connector												
IEEE 1394	IEEE 1394 (FireWire) port / 4-pin connector / 1394a-2000 standard												
Wireless antenna	UltraConnect™ Antenna built into the display cover for optimal wireless signal reception												
Mini PCI	One Mini PCI type III slot (Communications Bay) / customer upgradable												
Intel 11a/b/g <sup>32</sup>	<i>Some:</i> 11a/b/g wireless <sup>4</sup> , Mini PCI, Intel PRO/Wireless 2915ABG, 82533 chipset												
11a/b/g II <sup>32</sup>	<i>Some:</i> 11a/b/g wireless <sup>4</sup> , ThinkPad 11a/b/g Mini PCI Adapter II, Atheros™ AR5004X chip												
CDC	One Communications Daughter Card (CDC) socket / customer accessible												
Modem	56K <sup>6</sup> V.90 (V.92-designed <sup>29</sup> ) modem in CDC / Conexant® chipset												
Ethernet	Gigabit ethernet on systemboard / Broadcom BCM5751M (MAC/PHY) / PCIe x1 / PXE												
Audio support	Soft audio / ICH AC97 controller / DirectSound® support / AD1981B AC97 codec / stereo speakers, 1 watt / volume up, down, mute buttons / internal microphone / microphone input jack (3.5 mm; pink) / headphone jack (3.5 mm; green)												
Security	Power-on password / hard disk password / supervisor password / security keyhole								ThinkPad notebooks implement ThinkVantage® technologies and design;				
Security chip	<b>Embedded Security Subsystem 2.0<sup>33</sup></b> / in NS PC8394T chip / TCG-compliant								visit <a href="http://thinkpad.com/thinkvantage">thinkpad.com/thinkvantage</a>				
Fingerprint reader	<i>Some:</i> <b>Fingerprint reader on palm rest</b> / swipe sensor / integrated with security chip												
Limited warranty <sup>12</sup>	<b>3-year/1-year battery, limited onsite service<sup>24</sup></b> , 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time								Universal 72 watt AC adapter PC 2001-compliant ACPI 1.0b and 2.0-compliant CIM and DMI 2.0-compliant PXE 2.1-compliant ENERGY STAR®-compliant International Warranty Service <sup>17</sup> 24 hour x 7 day <sup>18</sup> toll-free warranty support during the warranty <sup>12</sup>				
256MB PC2-4200 DDR2 NP CL4 SOD	73P3840	ThinkPad T40/R50 Li-Ion Battery 6-cell	92P1101										
512MB PC2-4200 DDR2 NP CL4 SOD	73P3842	ThinkPad T40/R50 Li-Ion Battery 9-cell	92P1102										
1GB PC2-4200 DDR2 NP CL4 SOD	73P3844	Ultrabay Slim Li-Polymer Battery 3-cell	08K8190										
80GB HS Hard Disk 9.5mm (5400 rpm)	09N4273	ThinkPad Multiple Battery Charger II	22P9040										
100GB Hard Disk 9.5mm PATA (5400 rpm)	40Y8716	72W Slim AC/DC Combo Adapter	73P4485										
Second HDD Adapter for Ultrabay Slim	41U3148	ThinkPad Port Replicator II	74P6733										
CD-RW/DVD Combo Ultrabay Enhanced	73P3275	ThinkPad Mini Dock	287810U										
Super Multi-Burner Ultrabay Enh Drv (curved)	40Y8624	ThinkPad Dock II	287710U										
Enh Perf Wireless Keyboard and Mouse	73P4067	ThinkVision® L201p 20.1" Monitor (black)	9220HB1										
ThinkPad Convertible Monitor Stand	40Y7620	Other accessories at <a href="http://lenovo.com/accessories">lenovo.com/accessories</a>											

See footnotes for important warranty information \* Powered by Intel Centrino® mobile technology

US models announced March 1, August 2, or August 16, 2005

US models withdrawn effective November 2005, June 2006, or February 2007

© Lenovo  
(R5) February 2007

# ThinkPad® R52 (1849) - Express - withdrawn

Created by Lenovo Training Solutions  
Personal Systems Reference (PSREF)

Type-model	Processor	Speed GHz	Memory	Screen	Graphics controller and memory	Disk GB <sup>6</sup>	Optical	Mini PCI Comm Bay wireless	CDC modem/Bluetooth™	IEEE Finger 1394 port	Secu- rity chip	Workhorse or Global Entry	Avail date
1849-2JU	Pentium® M 750	1.86	512MB	14.1" XGA	X300 64MB	60GB	DVD±RW	* Intel 11a/b/g <sup>32</sup>	Mod/Blue	1394	No	Yes	Mar 05
1849-3VU	Pentium M 740	1.73	512MB	15.0" XGA	X300 64MB	40GB	Combo	* Intel 11a/b/g	Modem	1394	No	Yes	Mar 05
1849-4VU	Pentium M 750	1.86	512MB	15.0" SXGA+	X300 64MB	60GB	Combo	* Intel 11a/b/g	Modem	1394	No	Yes	Mar 05
1849-4WU	Pentium M 750	1.86	512MB	15.0" SXGA+	X300 64MB	80HS	DVD±RW	* Intel 11a/b/g	Mod/Blue	1394	No	Yes	Mar 05
1849-5SU	Pentium M 740	1.73	512MB	14.1" XGA	X300 64MB	40HS	Combo	* Intel 11b/g <sup>32</sup>	Modem	1394	No	Yes	Mar 05
1849-5UU	Pentium M 740	1.73	256MB	14.1" XGA	X300 64MB	40GB	Combo	* Intel 11b/g	Modem	No	No	Yes	Mar 05
1849-5ZU	Pentium M 740	1.73	256MB	14.1" XGA	X300 64MB	40GB	Combo	* Intel 11b/g	Modem	1394	No	Yes	Mar 05
1849-6VU	Pentium M 740	1.73	512MB	15.0" XGA	X300 64MB	60GB	Combo	* Intel 11b/g	Modem	No	No	Yes	Mar 05
1849-4PU	Pentium M 760	2.00	512MB	15.0" SXGA+	X300 64MB	80GB	Combo	* Intel 11b/g	Modem	No	No	Yes	Mar 05
1849-4QU	Pentium M 750	1.86	512MB	15.0" SXGA+	X300 64MB	80HS	DVD±RW	* Intel 11a/b/g	Mod/Blue	1394	No	Yes	Mar 05
1849-4RU	Pentium M 760	2.00	512MB	15.0" SXGA+	X300 64MB	80GB	DVD±RW	* Intel 11b/g	Modem	1394	No	Yes	Mar 05

- These small and medium business (SMB) models are part of the US Think Express Program
- These 1849 models have a 1 year limited warranty

Positioning Processor	Mainstream performance and features; two-spindle system <b>Intel® Pentium® M Processor 740 (1.73GHz), 750 (1.86GHz), or 760 (2.00GHz)</b> with enhanced Intel SpeedStep™ technology <sup>1</sup> , Execute Disable Bit, and 533MHz system bus								<b>SOFTWARE<sup>14</sup></b>				
L2 cache	2MB / on die (at processor speed) / ECC								Windows XP Professional				
Memory	256 or 512MB std / 2GB max <sup>7</sup> / PC2-4200 533MHz DDR2 / non-parity / CL4 / dual channel capable / two 200-pin SO-DIMM sockets / std mem in 1 socket / 1 socket avail								- Microsoft® Windows® XP Professional <sup>20</sup> (Service Pack 2) ↔ Disk-to-Disk Recovery (in hidden protected area)				
Diskette drive	None standard / use optional USB-based diskette drive								<b>Preloaded</b>				
Combo DVD±RW	Some: DVD-ROM/CD-RW / 24X/24X/24X/8X <sup>21</sup> speed / removable from Ultrabay Enhanced								• Rescue and Recovery™				
Ultrabay Enhanced Disk	Some: DVD and CD burner / Multi-Burner Plus / removable from Ultrabay Enhanced One modular bay for interchangeable devices / Ultrabay Slim-compatible / 12.7mm high <b>40GB<sup>8</sup></b> (4200 rpm), <b>40GB</b> (HS 5400 rpm), <b>60GB</b> (4200 rpm), <b>80GB<sup>8</sup></b> (4200 rpm), or <b>80GB</b> (HS 5400 rpm) / 9.5mm high / removable and upgradable / 9.5mm high bay / supports 2nd disk with optional 'Second HDD Adapter for Ultrabay Slim' / <b>Hard Disk Drive Shock Absorber / Active Protection System</b> (shock protection)								• Access IBM • Access Connections • Norton AntiVirus • PC-Doctor™ • ThinkPad Utilities • Adobe Reader • Update Connector™ <sup>15</sup> • RecordNOW and Drive Letter Access powered by Sonic products (combo, DVD±RW) • InterVideo WinDVD (combo, DVD±RW models) • InterVideo WinDVD Creator (DVD±RW models) • Simple Backup (DVD±RW) • Client Security Software (for security chip)				
Display	Some: <b>14.1"</b> (358.1mm) <b>XGA (1024x768) TFT color</b> / Active Matrix / 150 nits Some: <b>15.0"</b> (381.0mm) <b>XGA (1024x768) TFT color</b> / Active Matrix / 200 nits Some: <b>15.0"</b> (381.0mm) <b>SXGA+ (1400x1050) TFT color</b> / Active Matrix / 200 nits								• IBM Director Agent • Software Delivery Assistant • System Migration Assistant				
Graphics	<b>ATI® MOBILITY™ RADEON X300</b> / PCI Express x16 / <b>64MB</b> GDDR1 memory								<b>License</b> (CD not included) - Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client				
Keyboard TrackPoint® Touch pad ThinkLight™	87-key / Access IBM button / palm rest / pitch: 19mm; stroke: 2.5mm (std-size keys) TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar <sup>13</sup> , magnifying glass / UltraNav™ multi-pointing system / touch pad below keyboard / Tap Zones Illuminates the keyboard to improve visibility in low-light conditions								ThinkPad notebooks implement ThinkVantage™ technologies and design; visit <a href="http://ibm.com/thinkvantage">ibm.com/thinkvantage</a>				
Dimensions <sup>3</sup>	14.1" models (WxDxH): 12.4" x 10.2" x 1.35-1.46"; 314mm x 260mm x 34-37mm 15.0" models (WxDxH): 13.1" x 10.6" x 1.47-1.58"; 332mm x 269mm x 37-40mm with optical drive and batt: 14.1" mod: 6.1 lb (2.8kg); 2JU: 6.2 lb; 15" mod: 6.6 lb (3.0kg)								Universal 72 watt AC adapter PC 2001-compliant ACPI 1.0b and 2.0-compliant CIM and DMI 2.0-compliant PXE 2.1-compliant ENERGY STAR®-compliant International Warranty Service <sup>17</sup> 24 hour x 7 day <sup>18</sup> toll-free warranty support during the warranty <sup>12</sup>				
Weight <sup>2</sup>	Color: black; All: Acrylonitrile-Butadiene-Styrene (ABS) plastic								ServicePac®. <sup>22</sup> 1yr IOR 9x5 NBD 30L9188				
Case material	Lithium Ion <b>6-cell</b> / intelligent / supports unique 2nd battery in Ultrabay Enhanced								ServicePac 2 yr IOR 9x5 NBD 30L9189				
Battery - type	Up to 3.6 hr; <i>Optional 9-cell</i> : up to 5.6 hr								ServicePac 3 yr IOR 9x5 NBD 30L9195				
Battery - life <sup>10</sup>									ServicePac 4 yr IOR 9x5 NBD 30L9194				
Architecture	<b>Mobile Intel 915PM Express Chipset</b> / 82915PM Memory Controller Hub / 82801FBM ICH6-M I/O Controller Hub (SATA150, ATA-100 EIDE, PCI Express x1, PCI bus, ethernet MAC, USB, Low Pin Count [LPC] interface, [Bluetooth]) / PCI bus (Ricoh® R5C811 CardBus controller, Mini PCI, external expansion) / LPC bus (NS PC8394T Super I/O for security chip (TPM), Asset ID, hardware event log, parallel, infrared, [docking-based ports (serial, diskette)])								ServicePac 5 yr IOR 9x5 NBD 30L9196				
PC Card Std slot	One Type I or Type II slot / CardBus 32-bit / integrated door								ServicePac 2 yr P&L P/U Depot 30L9191				
ExpressCard slot	One ExpressCard/34 or ExpressCard/54 / PCI Express x1 or USB 2.0 / integrated door								ServicePac 3 yr P&L P/U Depot 30L9192				
Ports	Two USB (Version 2.0) / parallel / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / no keyboard or mouse or serial ports (use USB)								ServicePac 5 yr P&L P/U Depot 69P9197				
Video out	S-video out port (TV out) / one 4-pin industry standard connector												
IEEE 1394	Some: IEEE 1394 (FireWire) port / 4-pin connector / 1394a-2000 standard												
Wireless antenna	UltraConnect™ Antenna built into the display cover for optimal wireless signal reception												
Mini PCI	One Mini PCI type III slot (Communications Bay) / customer upgradable												
Intel 11b/g <sup>32</sup>	Some: 11b/g wireless <sup>4</sup> , Mini PCI, Intel PRO/Wireless 2200BG, Intel 82532 chip												
Intel 11a/b/g <sup>32</sup>	Some: 11a/b/g wireless <sup>4</sup> , Mini PCI, Intel PRO/Wireless 2915ABG, 82533 chipset												
CDC	One Communications Daughter Card (CDC) socket / customer accessible												
Modem	56K <sup>6</sup> V.90 (V.92-designed <sup>29</sup> ) modem in CDC / Conexant® chipset												
Bluetooth™	Some: Bluetooth wireless technology / in CDC (with modem)												
Ethernet	Gigabit ethernet on systemboard / Broadcom BCM5751M (MAC/PHY) / PCIe x1 / PXE												
Audio support	Soft audio / ICH AC97 controller / DirectSound® support / AD1981B AC97 codec / stereo speakers / 1 watt / volume up, down, mute buttons / internal microphone / microphone input jack (3.5 mm; pink) / headphone jack (3.5 mm; green)												
Security	Power-on password / hard disk password / supervisor password / security keyhole												
Security chip	<b>Embedded Security Subsystem 2.0<sup>33</sup></b> / in NS PC8394T chip / TCG-compliant												
Fingerprint reader	None												
Limited warranty <sup>12</sup>	1 year - EasyServ™ <sup>19</sup> onsite pickup and delivery / service upgrades <sup>22</sup> available												
256MB PC2-4200 DDR2 NP CL4 SOD	73P3840		ThinkPad T40/R50 Li-Ion Battery 6-cell		92P1101								
512MB PC2-4200 DDR2 NP CL4 SOD	73P3842		ThinkPad T40/R50 Li-Ion Battery 9-cell		92P1102								
1GB PC2-4200 DDR2 NP CL4 SOD	73P3844		Ultrabay Slim Li-Polymer Battery 3-cell		08K8190								
USB 2.0 Memory Key 512MB	22P9230		ThinkPad Port Replicator II		74P6733								
60GB HS Hard Disk 9.5mm (5400 rpm)	73P3357		ThinkPad Mini Dock		287810U								
80GB HS Hard Disk 9.5mm (5400 rpm)	09N4273		ThinkPad Dock II		287710U								
Second HDD Adapter for Ultrabay Slim	62P4554		ThinkPad Carrying Case - Backpack		73P3599								
Multi-Burner Plus Ultrabay Enhanced Drive	73P3312		Other options at <a href="http://lenovo.com/options">lenovo.com/options</a>										

See footnotes for important warranty information  
US models announced March 1, 2005  
US models withdrawn effective September 2005

\* Powered by Intel Centrino™ mobile technology

© Lenovo  
(R3) July 2005

# ThinkPad® R52 (1849) - Express (August 2005) - withdrawn

Created by Lenovo Training Solutions  
Personal Systems Reference (PSREF)

Type-model	Processor	Speed GHz	Memory	Screen	Graphics controller and memory	Disk GB <sup>8</sup>	Optical	Mini PCI Comm Bay wireless	CDC modem/Bluetooth™	IEEE 1394 port	Finger print reader	Security chip	Workhorse or Global Entry	Avail date
1849-8CU	Pentium® M 740	1.73	512MB	14.1" XGA	X300 64MB	40GB	Combo	* Intel 11b/g <sup>32</sup>	Modem	1394	Finger	Yes	No	Aug 05
1849-8DU	Pentium M 750	1.86	512MB	14.1" XGA	X300 64MB	60GB	DVD±RW	* Intel 11a/b/g <sup>32</sup>	Mod/Blue	1394	Finger	Yes	No	Aug 05
1849-9WU	Pentium M 740	1.73	512MB	15.0" XGA	X300 64MB	60GB	Combo	* Intel 11b/g	Modem	1394	Finger	Yes	No	Aug 05
1849-ADU	Pentium M 750	1.86	512MB	15.0" SXGA+	X300 64MB	80GB	DVD±RW	* Intel 11a/b/g	Mod/Blue	1394	Finger	Yes	No	Aug 05

- These small and medium business (SMB) models are part of the US Think Express Program
- These 1849 models have a 1 year limited warranty

Positioning Processor	Mainstream performance and features; two-spindle system <b>Intel® Pentium® M Processor 740 (1.73GHz) or 750 (1.86GHz)</b> with enhanced Intel SpeedStep™ technology <sup>1</sup> , Execute Disable Bit, and 533MHz system bus										<b>SOFTWARE<sup>14</sup></b>			
L2 cache	<b>2MB</b> / on die (at processor speed) / ECC										<b>Windows XP Professional</b>			
Memory	<b>256</b> or <b>512MB</b> std / 2GB max <sup>7</sup> / PC2-4200 533MHz DDR2 / non-parity / CL4 / dual channel capable / two 200-pin SO-DIMM sockets / std mem in 1 socket / 1 socket avail										- Microsoft® Windows® XP Professional <sup>20</sup> (Service Pack 2) ↳ Disk-to-Disk Recovery (in hidden protected area)			
Diskette drive	None standard / use optional USB-based diskette drive										<b>Preloaded</b>			
Combo DVD±RW	Some: DVD-ROM/CD-RW / 24X/24X/24X/8X <sup>21</sup> speed / removable from Ultrabay Enhanced Some: DVD and CD burner / Multi-Burner Plus / removable from Ultrabay Enhanced										• Rescue and Recovery™			
Ultrabay Enhanced Disk	One modular bay for interchangeable devices / Ultrabay Slim-compatible / 12.7mm high <b>40GB<sup>8</sup></b> (5400 rpm), <b>60GB</b> (5400 rpm), <b>80GB</b> (5400 rpm) / 9.5mm high / removable and upgradable / 9.5mm high bay / supports 2nd disk with optional 'Second HDD Adapter for Ultrabay Slim' / <b>Hard Disk Drive Shock Absorber / Active Protection System</b> (shock protection)										• Access Program			
Display	Some: <b>14.1"</b> (358.1mm) <b>XGA (1024x768) TFT color</b> / Active Matrix / 150 nits Some: <b>15.0"</b> (381.0mm) <b>XGA (1024x768) TFT color</b> / Active Matrix / 200 nits Some: <b>15.0"</b> (381.0mm) <b>SXGA+ (1400x1050) TFT color</b> / Active Matrix / 200 nits										• Access Connections™			
Graphics	<b>ATI® MOBILITY™ RADEON X300</b> / PCI Express x16 / <b>64MB</b> GDDR1 memory										• Norton AntiVirus			
Keyboard	87-key / Access IBM button / palm rest / pitch: 19mm; stroke: 2.5mm (std-size keys)										• PC-Doctor™			
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar <sup>13</sup> , magnifying glass										• ThinkPad Utilities			
Touch pad	UltraNav™ multi-pointing system / touch pad below keyboard / Tap Zones										• Adobe Reader			
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions										• RecordNOW and Drive Letter Access powered by Sonic products (combo, DVD±RW)			
Dimensions <sup>3</sup>	14.1" models (WxDxH): 12.4" x 10.2" x 1.35-1.46"; 314mm x 260mm x 34-37mm 15.0" models (WxDxH): 13.1" x 10.6" x 1.47-1.58"; 332mm x 269mm x 37-40mm with optical drive and batt: 14.1" mod: 6.1 lb (2.8kg); 2JU: 6.2 lb; 15" mod: 6.6 lb (3.0kg)										• InterVideo WinDVD (combo, DVD±RW models)			
Weight <sup>2</sup>	Color: black; All: Acrylonitrile-Butadiene-Styrene (ABS) plastic										• InterVideo WinDVD Creator (DVD±RW models)			
Case material	Lithium Ion <b>6-cell</b> / intelligent / supports unique 2nd battery in Ultrabay Enhanced										• Fingerprint Software (fingerprint models)			
Battery - type	Up to 3.6 hr; <i>Optional 9-cell</i> : up to 5.6 hr										• Client Security Software (for security chip)			
Battery - life <sup>10</sup>											<b>Downloadable</b>			
Architecture	<b>Mobile Intel 915PM Express Chipset</b> / 82915PM Memory Controller Hub / 82801FBM ICH6-M I/O Controller Hub (SATA150, ATA-100 EIDE, PCI Express x1, PCI bus, ethernet MAC, USB, Low Pin Count [LPC] interface, [Bluetooth]) / PCI bus (Ricoch® R5C811 CardBus controller, Mini PCI, external expansion) / LPC bus (NS PC8394T Super I/O for security chip (TPM), Asset ID, hardware event log, parallel, infrared, [docking-based ports (serial, diskette)])										• IBM Director Agent			
PC Card Std slot	One Type I or Type II slot / CardBus 32-bit / integrated door										• Software Delivery Assistant			
ExpressCard slot	One ExpressCard/34 or ExpressCard/54 / PCI Express x1 or USB 2.0 / integrated door										• System Migration Assistant			
Ports	Two USB (Version 2.0) / parallel / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / no keyboard or mouse or serial ports (use USB)										<b>License</b> (CD not included) - Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client			
Video out	S-video out port (TV out) / one 4-pin industry standard connector										ThinkPad notebooks implement ThinkVantage™ technologies and design; visit <a href="http://thinkpad.com/thinkvantage">thinkpad.com/thinkvantage</a>			
IEEE 1394	IEEE 1394 (FireWire) port / 4-pin connector / 1394a-2000 standard										Universal 72 watt AC adapter			
Wireless antenna	UltraConnect™ Antenna built into the display cover for optimal wireless signal reception										PC 2001-compliant			
Mini PCI	One Mini PCI type III slot (Communications Bay) / customer upgradable										ACPI 1.0b and 2.0-compliant			
Intel 11b/g <sup>32</sup>	Some: 11b/g wireless <sup>4</sup> , Mini PCI, Intel PRO/Wireless 2200BG, Intel 82532 chip										CIM and DMI 2.0-compliant			
Intel 11a/b/g <sup>32</sup>	Some: 11a/b/g wireless <sup>4</sup> , Mini PCI, Intel PRO/Wireless 2915ABG, 82533 chipset										PXE 2.1-compliant			
CDC	One Communications Daughter Card (CDC) socket / customer accessible										ENERGY STAR®-compliant			
Modem	56K <sup>6</sup> V.90 (V.92-designed <sup>29</sup> ) modem in CDC / Conexant® chipset										International Warranty Service <sup>17</sup>			
Bluetooth™	Some: Bluetooth wireless technology / in CDC (with modem)										24 hour x 7 day <sup>18</sup> toll-free warranty support during the warranty <sup>12</sup>			
Ethernet	Gigabit ethernet on systemboard / Broadcom BCM5751M (MAC/PHY) / PCIe x1 / PXE													
Audio support	Stereo audio / ICH AC97 controller / DirectSound™ support / AD1981B AC97 codec / stereo speakers / 1 watt / volume up, down, mute buttons / internal microphone / microphone input jack (3.5 mm; pink) / headphone jack (3.5 mm; green)										ThinkPlus™.22 1-year LOR 9x5 NBD 41C9166			
Security	Power-on password / hard disk password / supervisor password / security keyhole										ThinkPlus 2-year LOR 9x5 NBD 41C9167			
Security chip	<b>Embedded Security Subsystem 2.0<sup>33</sup></b> / in NS PC8394T chip / TCG-compliant										ThinkPlus 3-year LOR 9x5 NBD 41C9168			
Fingerprint reader	<b>Fingerprint reader on palm rest</b> / swipe sensor / integrated with security chip										ThinkPlus 4-year LOR 9x5 NBD 41C9171			
Limited warranty <sup>12</sup>	<b>1-year</b> - EasyServ™.19 onsite pickup and delivery / service upgrades <sup>22</sup> available										ThinkPlus 5-year LOR 9x5 NBD 41C9173			
256MB PC2-4200 DDR2 NP CL4 SOD	73P3840	ThinkPad T40/R50 Li-Ion Battery 6-cell	92P1101											
512MB PC2-4200 DDR2 NP CL4 SOD	73P3842	ThinkPad T40/R50 Li-Ion Battery 9-cell	92P1102											
1GB PC2-4200 DDR2 NP CL4 SOD	73P3844	Ultrabay Slim Li-Polymer Battery 3-cell	08K8190											
USB 2.0 Portable Multi-Burner Drive	22P9163	ThinkPad Multiple Battery Charger II	22P9040											
USB 2.0 Memory Key 1GB	40Y7421	11a/b/g Wireless CardBus Adapter	31P9101											
80GB HS Hard Disk 9.5mm (5400 rpm)	09N4273	ThinkPad Port Replicator II	74P6733											
100GB Hard Disk 9.5mm PATA (5400 rpm)	40Y8716	ThinkPad Mini Dock	287810U											
USB Portable Diskette Drive	05K9276	ThinkPad Dock II	287710U											
USB Fingerprint Reader	73P4774	ThinkPad Carrying Case - Expander	73P3597											
Second HDD Adapter for Ultrabay Slim	62P4554	ThinkPad Carrying Case - BackPack	73P3599											
CD-RW/DVD Combo Ultrabay Enhanced	73P3275	ThinkPad Carrying Case - Leather	73P3600											
Multi-Burner Plus Ultrabay Enhanced Drive	73P3312	ThinkPad Carrying Case - Organizer	73P3598											
Optical 3-Button Travel Wheel Mouse	31P7410	ThinkVision® E500 Projector	0038A05											
Kensington® MicroSaver® Security Cable	73P2582	ThinkPad Monitor Stand	22P5265											

See footnotes for important warranty information  
US models announced August 2, 2005  
US models withdrawn effective June 2006

\* Powered by Intel Centrino® mobile technology

© Lenovo  
(JN62) January 2006

# ThinkPad® R52 (1858) - withdrawn

Created by Lenovo Training Solutions  
Personal Systems Reference (PSREF)

Type-model	Processor	Speed GHz	Memory	Screen	Graphics controller	Disk GB <sup>6</sup>	Optical	Mini PCI Comm Bay wireless	CDC modem/Bluetooth™	IEEE Secu-1394 port	rity Chipset	91x Preload	Workhorse or Global Avail	
1858-22U	Celeron® M 360	1.4	256MB	14.1" XGA	GMA 900	40GB	CD	Open; upg <sup>36</sup>	Modem	No	Yes	GML	Home No Mar 05	
1858-4UU	Celeron M 360	1.4	256MB	15.0" XGA	GMA 900	40GB	CD	Open; upg	Modem	No	Yes	GML	Home No Mar 05	
1858-3BU	Pentium® M 740	1.73	512MB	14.1" XGA	GMA 900	40HS	Combo	*Intel 11b/g <sup>32</sup>	Mod/Blue	1394	Yes	GM	Pro No Mar 05	
1858-4MU	Pentium M 760	2.00	512MB	15.0" SXGA+	GMA 900	80GB	DVD±RW	*Intel 11a/b/g <sup>32</sup>	Mod/Blue	1394	Yes	GM	Pro No Mar 05	
Positioning Processor	<b>Mainstream performance and features; two-spindle system</b> <b>Intel® Celeron M Processor 360 (1.4GHz)</b> with 400MHz system bus or <b>Intel Pentium M Processor 740 (1.73GHz)</b> or <b>760 (2.00GHz)</b> with enhanced Intel SpeedStep™ technology <sup>1</sup> . Execute Disable Bit, and 533MHz system bus										<b>SOFTWARE<sup>14</sup></b>			
L2 cache	Celeron M: <b>1 MB</b> ; Pentium M: <b>2MB</b> ; All: on die (at processor speed) / ECC										<b>Windows XP Home models</b>			
Memory	<b>256</b> or <b>512MB</b> std / 2GB max <sup>7</sup> / PC2-4200 533MHz DDR2 / non-parity / CL4 / dual channel capable / two 200-pin SO-DIMM sockets / std mem in 1 socket / 1 socket avail										- Microsoft® Windows® XP Home Edition <sup>20</sup> (Service Pack 2) ◇ Disk-to-Disk Recovery (in hidden protected area)			
Diskette drive	None standard / use optional USB-based diskette drive										<b>Windows XP Professional models</b>			
CD	Some: CD-ROM / 24X-10X <sup>9</sup> speed / removable from Ultrabay Enhanced										- Microsoft Windows XP Professional <sup>20</sup> (Service Pack 2) ◇ Disk-to-Disk Recovery (in hidden protected area)			
Combo	Some: DVD-ROM/CD-RW / 24X/24X/24X/8X <sup>21</sup> speed / removable from Ultrabay Enhanced										◇ Disk-to-Disk Recovery (in hidden protected area)			
DVD±RW	Some: DVD and CD burner / Multi-Burner Plus / removable from Ultrabay Enhanced													
Ultrabay Enhanced	One modular bay for interchangeable devices / Ultrabay Slim-compatible / 12.7mm high													
Disk	<b>40GB<sup>8</sup></b> (4200 rpm), <b>40GB</b> (HS 5400 rpm), or <b>80GB</b> (4200 rpm) / 9.5mm high / removable and upgradable / 9.5mm high bay / supports 2nd disk / <b>Hard Disk Drive Shock Absorber / Active Protection System</b> (shock protection)										<b>Preloaded</b> (all) • Rescue and Recovery™ • Access IBM • Access Connections • Norton AntiVirus • PC-Doctor™ • ThinkPad Utilities • Adobe Reader • Update Connector™ <sup>15</sup> • RecordNOW and Drive Letter Access powered by Sonic products (combo, DVD±RW) • InterVideo WinDVD (combo, DVD±RW models) • InterVideo WinDVD Creator (DVD±RW models) • Simple Backup (DVD±RW) • Client Security Software (for security chip)			
Display	Some: <b>14.1"</b> (358.1mm) <b>XGA (1024x768) TFT color</b> / Active Matrix / 150 nits Some: <b>15.0"</b> (381.0mm) <b>XGA (1024x768) TFT color</b> / Active Matrix / 200 nits Some: <b>15.0"</b> (381.0mm) <b>SXGA+ (1400x1050) TFT color</b> / Active Matrix / 200 nits										<b>Downloadable</b> (all) • IBM Director Agent • Software Delivery Assistant • System Migration Assistant			
Graphics	<b>Intel Graphics Media Accelerator 900 (GMA 900)</b> / integrated graphics in 915GM GMCH / uses main memory (up to 128MB with 256MB+) / 200MHz										<b>License</b> (CD not included) - Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client			
Keyboard	87-key / Access IBM button / palm rest / pitch: 19mm; stroke: 2.5mm (std-size keys)										ThinkPad notebooks implement ThinkVantage™ technologies and design; visit <a href="http://ibm.com/thinkvantage">ibm.com/thinkvantage</a>			
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar <sup>13</sup> , magnifying glass / UltraNav™ multi-pointing system / touch pad below keyboard / Tap Zones													
Touch pad	Illuminates the keyboard to improve visibility in low-light conditions													
ThinkLight™														
Dimensions <sup>3</sup>	14.1" models (WxDxH): 12.4" x 10.2" x 1.35-1.46"; 314mm x 260mm x 34-37mm 15.0" models (WxDxH): 13.1" x 10.6" x 1.47-1.58"; 332mm x 269mm x 37-40mm with optical drive and battery: 14.1" models: 6.1 lb (2.8kg); 15" models: 6.6 lb (3.0kg)													
Weight <sup>2</sup>														
Case material	Color: black; All: Acrylonitrile-Butadiene-Styrene (ABS) plastic													
Battery - type	Lithium Ion <b>6-cell</b> / intelligent / supports unique 2nd battery in Ultrabay Enhanced													
Battery - life <sup>10</sup>	Celeron models: up to 2.2 hr; Pentium models: up to 3.8 hr; <i>Optional 9-cell: up to 5.8 hr</i>													
Architecture	Some: <b>Mobile Intel 910GML Express Chipset</b> / 82910GML Graphics Mem Cont Hub Some: <b>Mobile Intel 915GM Express Chipset</b> / 82915GM Graphics Mem Cont Hub All: 82801FBM ICH6-M I/O Controller Hub (SATA150, ATA-100 EIDE, PCI Express x1, PCI bus, ethernet MAC, USB, Low Pin Count [LPC] interface, [Bluetooth]) / PCI bus (TI® PCI1510 CardBus controller, Mini PCI, external expansion) / LPC bus (National Semiconductor® PC8394T Super I/O for security chip (TPM), Asset ID, hardware event log, parallel, infrared, [docking-based ports (serial, diskette)])													
PC Card Std slot	One Type I or Type II slot / CardBus 32-bit / integrated door													
ExpressCard slot	One ExpressCard/34 or ExpressCard/54 / PCI Express x1 or USB 2.0 / integrated door													
Ports	Two USB (Version 2.0) / parallel / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / no keyboard or mouse or serial ports (use USB)													
Video out	S-video out port (TV out) / one 4-pin industry standard connector										Universal 72 watt AC adapter PC 2001-compliant ACPI 1.0b and 2.0-compliant CIM and DMI 2.0-compliant PXE 2.1-compliant ENERGY STAR®-compliant International Warranty Service <sup>17</sup> 24 hour x 7 day <sup>18</sup> toll-free warranty support during the warranty <sup>12</sup>			
IEEE 1394	Some: IEEE 1394 (FireWire) port / 4-pin connector / 1394a-2000 standard													
Wireless antenna	UltraConnect™ Antenna built into the display cover for optimal wireless signal reception													
Mini PCI	One Mini PCI type III slot (Communications Bay) / customer upgradable													
Wireless upg <sup>36</sup>	Some: wireless upgradable with wireless Mini PCI options													
Intel 11b/g <sup>32</sup>	Some: 11b/g wireless <sup>4</sup> , Mini PCI, Intel PRO/Wireless 2200BG, Intel 82532 chip													
Intel 11a/b/g <sup>32</sup>	Some: 11a/b/g wireless <sup>4</sup> , Mini PCI, Intel PRO/Wireless 2915ABG, 82533 chipset													
CDC	One Communications Daughter Card (CDC) socket / customer accessible													
Modem	56K <sup>6</sup> V.90 (V.92 designed <sup>29</sup> ) modem in CDC / Conexant® chipset													
Bluetooth™	Some: Bluetooth wireless technology / in CDC (with modem)													
Ethernet	Gigabit ethernet on systemboard / Broadcom BCM5751M (MAC/PHY) / PCIe x1 / PXE													
Audio support	Soft audio / ICH AC97 controller / DirectSound™ support / AD1981B AC97 codec / stereo speakers / 1 watt / volume up, down, mute buttons / internal microphone / microphone input jack (3.5 mm; pink) / headphone jack (3.5 mm; green)										ServicePac <sup>22</sup> 1yr IOR 9x5 NBD 30L9188 ServicePac 2 yr IOR 9x5 NBD 30L9189 ServicePac 3 yr IOR 9x5 NBD 30L9195 ServicePac 4 yr IOR 9x5 NBD 30L9194 ServicePac 5 yr IOR 9x5 NBD 30L9196			
Security	Power-on password / hard disk password / supervisor password / security keyhole													
Security chip	<b>Embedded Security Subsystem 2.0<sup>33</sup></b> / in NS PC8394T chip / TCG-compliant													
Fingerprint reader	None													
Limited warranty <sup>12</sup>	<b>1 year</b> - EasyServ™ <sup>19</sup> onsite pickup and delivery / service upgrades <sup>22</sup> available													
256MB PC2-4200 DDR2 NP CL4 SOD	73P3840		ThinkPad T40/R50 Li-Ion Battery 6-cell		92P1101									
512MB PC2-4200 DDR2 NP CL4 SOD	73P3842		ThinkPad T40/R50 Li-Ion Battery 9-cell		92P1102									
1GB PC2-4200 DDR2 NP CL4 SOD	73P3844		Ultrabay Slim Li-Polymer Battery 3-cell		08K8190									
USB 2.0 Portable Multi-Burner Drive	22P9163		ThinkPad 72W AC/DC Combo Adapter		22P9010									
USB 2.0 Memory Key 512MB	22P9230		11a/b/g Wireless Mini PCI Adapter II		73P4301									
60GB HS Hard Disk 9.5mm (5400 rpm)	73P3357		Intel PRO/Wireless 2200BG Mini PCI		73P2801									
80GB HS Hard Disk 9.5mm (5400 rpm)	09N4273		11a/b/g Wireless CardBus Adapter		31P9101									
USB Fingerprint Reader	73P4774		ThinkPad Port Replicator II		74P6733									
Second HDD Adapter for Ultrabay Slim	62P4554		ThinkPad Mini Dock		287810U									
Multi-Burner Plus Ultrabay Enhanced Drive	73P3312		ThinkPad Dock II		287710U									
Enh Perf Wireless Keyboard and Mouse	73P4067		ThinkPad Carrying Case - Organizer		73P3598									
Preferred Pro USB Fingerprint Keyboard	73P4730		E400 Projector		0038A04									
Kensington® MicroSaver® Security Cable	73P2582		Other options at <a href="http://lenovo.com/options">lenovo.com/options</a>											

See footnotes for important warranty information  
US models announced March 1, 2005  
US models withdrawn effective September 2005

\* Powered by Intel Centrino™ mobile technology

© Lenovo  
(RY2) July 2005

# ThinkPad® R52 (1858) - withdrawn

Created by Lenovo Training Solutions  
Personal Systems Reference (PSREF)

Type-model	Processor	Speed GHz	Memory	Screen	Integrated graphics controller	Disk GB <sup>8</sup>	Optical	Mini PCI Comm Bay wireless	CDC modem/ Bluetooth™	IEEE 1394 port	Finger print reader	Chip set 91x cells	Bat- tery war- ranty <sup>12</sup>	Limited work- horse or Global Avail Entry date		
1858-9EU	Celeron® M 370	1.5	256MB	14.1" XGA	GMA 40GB	CD		Open; upg <sup>36</sup>	Modem	No	No	GML	6-cell	1 yr	No	Aug 05
1858-9FU	Pentium® M 740	1.73	256MB	14.1" XGA	GMA 40GB	Combo	* Intel 11b/g <sup>32</sup>		Modem	No	Finger	GM	6-cell	1 yr	No	Aug 05
1858-9GU	Pentium M 750	1.86	256MB	14.1" XGA	GMA 40GB	Combo	* Intel 11b/g		Modem	No	Finger	GM	6-cell	1 yr	No	Aug 05
1858-9HU	Pentium M 750	1.86	256MB	15.0" XGA	GMA 40GB	Combo	* Intel 11b/g		Modem	No	Finger	GM	6-cell	1 yr	No	Aug 05
1858-9LU	Pentium M 750	1.86	512MB	15.0" XGA	GMA 40GB	Combo	* Intel 11b/g		Modem	Yes	No	GM	6-cell	1 yr	No	Aug 05
1858-AAU	Pentium M 770	2.13	512MB	15.0" XGA	GMA 80GB	DVD±RW	* Intel 11a/b/g <sup>32</sup>		Mod/Blue	Yes	Finger	GM	6-cell	1 yr	No	Aug 05
1858-AKU	Pentium M 780	2.26	512MB	15.0" SXGA+	GMA 100G	DVD±RW	* Intel 11a/b/g		Mod/Blue	Yes	No	GM	9-cell	1 yr	No	Aug 05
Positioning Processor	<b>Mainstream performance and features; two-spindle system</b> Intel® Celeron M Processor 370 with Execute Disable Bit and 400MHz system bus or Intel® Pentium® M Processor 740, 750, 770, 780 with enhanced Intel SpeedStep™ technology <sup>1</sup> , Execute Disable Bit, and 533MHz system bus											<b>SOFTWARE<sup>14</sup></b>				
L2 cache	Celeron M: <b>1 MB</b> ; Pentium M: <b>2MB</b> ; All: on die (at processor speed) / ECC											<b>Windows XP Professional</b>				
Memory	<b>256 or 512MB</b> std / 2GB max <sup>7</sup> / PC2-4200 533MHz DDR2 / non-parity / CL4 / dual channel capable / two 200-pin SO-DIMM sockets / std mem in 1 socket / 1 socket avail											- Microsoft® Windows® XP Professional <sup>20</sup> (Service Pack 2) ↔ Disk-to-Disk Recovery (in hidden protected area)				
Diskette drive	None standard / use optional USB-based diskette drive											<b>Preloaded</b>				
CD	Some: CD-ROM / 24X-10X <sup>9</sup> speed / removable from Ultrabay Enhanced											• Rescue and Recovery™				
Combo DVD±RW	Some: DVD-ROM/CD-RW / 24X/24X/24X/8X <sup>21</sup> speed / removable from Ultrabay Enhanced											• Access Program				
Ultrabay Enhanced Disk	One modular bay for interchangeable devices / Ultrabay Slim-compatible / 12.7mm high <b>40GB<sup>8</sup></b> (5400 rpm), <b>60GB</b> (5400 rpm), <b>80GB</b> (5400 rpm), or <b>100GB</b> (5400 rpm) / 9.5mm high / removable, upgradable / 9.5mm high bay / supports 2nd disk in Ultrabay Enhanced with option / <b>Hard Disk Drive Shock Absorber / Active Protection System</b>											• Access Connections™				
Display	Some: <b>14.1"</b> (358.1mm) <b>XGA (1024x768) TFT color</b> / Active Matrix / 150 nits Some: <b>15.0"</b> (381.0mm) <b>XGA (1024x768) TFT color</b> / Active Matrix / 200 nits Some: <b>15.0"</b> (381.0mm) <b>SXGA+ (1400x1050) TFT color</b> / Active Matrix / 200 nits											• Norton AntiVirus				
Graphics	Intel Graphics Media Accelerator 900 (GMA 900) / integrated graphics in 915GM GMCH / uses main memory (up to 128MB with 256MB+) / 200MHz											• PC-Doctor™				
Keyboard	87-key / Access IBM button / palm rest / pitch: 19mm; stroke: 2.5mm (std-size keys)											• ThinkPad Utilities				
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar <sup>13</sup> , magnifying glass											• Adobe Reader				
Touch pad	UltraNav™ multi-pointing system / touch pad below keyboard / Tap Zones											• RecordNOW and Drive Letter Access powered by Sonic products (combo, DVD±RW)				
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions											• InterVideo WinDVD (combo, DVD±RW models)				
Dimensions <sup>3</sup>	14.1" models (WxDxH): 12.4" x 10.2" x 1.35-1.46"; 314mm x 260mm x 34-37mm 15.0" models (WxDxH): 13.1" x 10.6" x 1.47-1.58"; 332mm x 269mm x 37-40mm with optical drive and battery: 14.1" models: 6.1 lb (2.8kg); 15" models: 6.6 lb (3.0kg)											• InterVideo WinDVD Creator (DVD±RW models)				
Weight <sup>2</sup>												• Fingerprint Software (fingerprint models)				
Case material	Color: black; All: Acrylonitrile-Butadiene-Styrene (ABS) plastic											• Client Security Software (for security chip)				
Battery - type	Lithium Ion <b>6- or 9-cell</b> / intelligent / supports unique 2nd battery in Ultrabay Enhanced											<b>Downloadable</b>				
Battery - life <sup>10</sup>	6-cell: up to 3.9 hr; 9-cell: up to 5.7 hr											• IBM Director Agent				
Architecture	Some: <b>Mobile Intel 910GML Express Chipset</b> / 82910GML Graphics Mem Cont Hub Some: <b>Mobile Intel 915GM Express Chipset</b> / 82915GM Graphics Mem Cont Hub 82801FBM ICH6-M I/O Controller Hub (SATA150, ATA-100 EIDE, PCI Express x1, PCI bus, ethernet MAC, USB, Low Pin Count [LPC] interface, [Bluetooth]) / PCI bus (TI® PCI1510 CardBus controller, Mini PCI, external expansion) / LPC bus (National Semiconductor® PC8394T Super I/O for security chip (TPM), Asset ID, hardware event log, parallel, infrared, [docking-based ports (serial, diskette)])											• Software Delivery Assistant				
PC Card Std slot	One Type I or Type II slot / CardBus 32-bit / integrated door											• System Migration Assistant				
ExpressCard slot	One ExpressCard/34 or ExpressCard/54 / PCI Express x1 or USB 2.0 / integrated door											<b>License</b> (CD not included)				
Ports	Two USB (Version 2.0) / parallel / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / no keyboard or mouse or serial ports (use USB)											- Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client				
Video out	S-video out port (TV out) / one 4-pin industry standard connector											ThinkPad notebooks implement ThinkVantage™ technologies and design; visit <a href="http://thinkpad.com/thinkvantage">thinkpad.com/thinkvantage</a>				
IEEE 1394	Some: IEEE 1394 (FireWire) port / 4-pin connector / 1394a-2000 standard											Universal 72 watt AC adapter				
Wireless antenna	UltraConnect™ Antenna built into the display cover for optimal wireless signal reception											PC 2001-compliant				
Mini PCI	One Mini PCI type III slot (Communications Bay) / customer upgradable											ACPI 1.0b and 2.0-compliant				
Wireless upg <sup>36</sup>	Some: wireless upgradable with wireless Mini PCI options											CIM and DMI 2.0-compliant				
Intel 11b/g <sup>32</sup>	Some: 11b/g wireless <sup>4</sup> , Mini PCI, Intel PRO/Wireless 2200BG, Intel 82532 chip											PXE 2.1-compliant				
Intel 11a/b/g <sup>32</sup>	Some: 11a/b/g wireless <sup>4</sup> , Mini PCI, Intel PRO/Wireless 2915ABG, 82533 chipset											ENERGY STAR®-compliant				
CDC	One Communications Daughter Card (CDC) socket / customer accessible											International Warranty Service <sup>17</sup>				
Modem	56K <sup>6</sup> V.90 (V.92-designed <sup>29</sup> ) modem in CDC / Conexant® chipset											24 hour x 7 day <sup>18</sup> toll-free warranty support during the warranty <sup>12</sup>				
Bluetooth™	Some: Bluetooth wireless technology / in CDC (with modem)											ThinkPlus™.22 1yr LOR 9x5 NBD				
Ethernet	Gigabit ethernet on systemboard / Broadcom BCM5751M (MAC/PHY) / PCIe x1 / PXE											41C9166				
Audio support	Soft audio / ICH AC97 controller / DirectSound® support / AD1981B AC97 codec / stereo speakers / 1 watt / volume up, down, mute buttons / internal microphone / microphone input jack (3.5 mm; pink) / headphone jack (3.5 mm; green)											ThinkPlus 2 yr LOR 9x5 NBD				
Security	Power-on password / hard disk password / supervisor password / security keyhole											41C9167				
Security chip	<b>Embedded Security Subsystem 2.0<sup>33</sup></b> / in NS PC8394T chip / TCG-compliant											ThinkPlus 3 yr LOR 9x5 NBD				
Fingerprint reader	Some: <b>Fingerprint reader on palm rest</b> / swipe sensor / integrated with security chip											41C9168				
Limited warranty <sup>12</sup>	<b>1 year</b> - EasyServ™.19 onsite pickup and delivery / service upgrades <sup>22</sup> available											ThinkPlus 4 yr LOR 9x5 NBD				
256MB PC2-4200 DDR2 NP CL4 SOD	73P3840		ThinkPad T40/R50 Li-Ion Battery 6-cell		92P1101						41C9171					
512MB PC2-4200 DDR2 NP CL4 SOD	73P3842		ThinkPad T40/R50 Li-Ion Battery 9-cell		92P1102						41C9173					
1GB PC2-4200 DDR2 NP CL4 SOD	73P3844		Ultrabay Slim Li-Polymer Battery 3-cell		08K8190						41C9169					
USB Fingerprint Reader	73P4774		72W Slim AC/DC Combo Adapter		73P4485						41C9170					
USB 2.0 Portable Multi-Burner Drive	22P9163		11a/b/g Wireless Mini PCI Adptr II		73P4301						41C9172					
USB 2.0 Memory Key 1GB	40Y7421		11a/b/g Wireless CardBus Adapter		31P9101						41C9174					
80GB HS Hard Disk 9.5mm (5400 rpm)	09N4273		ThinkPad Port Replicator II		74P6733						41C9174					
Second HDD Adapter for Ultrabay Slim	62P4554		ThinkPad Mini Dock		287810U						Post-warranty annual maintenance agreements at					
Multi-Burner Plus Ultrabay Enhanced Drive	73P3312		ThinkPad Dock II		287710U						<a href="http://lenovo.com/thinkplus/warranty">lenovo.com/thinkplus/warranty</a>					
Kensington® MicroSaver® Security Cable	73P2582		Other options at <a href="http://lenovo.com/options">lenovo.com/options</a>													

See footnotes for important warranty information  
US models announced August 2, 2005  
US models withdrawn effective February 2006

\* Powered by Intel Centrino® mobile technology

© Lenovo  
(YK61) January 2006

# ThinkPad® R52 (1859) - Express - withdrawn

Created by Lenovo Training Solutions  
Personal Systems Reference (PSREF)

Type-model	Processor	Speed GHz	Memory	Screen	Graphics controller	Disk GB <sup>6</sup>	Optical	Mini PCI Comm Bay wireless	CDC modem/Bluetooth™	IEEE 1394 port	Security chip	Chipset 91x	Workhorse or Global Avail or Entry date
1859-28U	Pentium® M 740	1.73	256MB	14.1" XGA	GMA 900	40GB	Combo	* Intel 11b/g <sup>32</sup>	Modem	1394	Yes	915GM	No Mar 05
1859-4YU	Celeron® M 350	1.3	256MB	15.0" XGA	GMA 900	40GB	Combo	Intel 11b/g	Modem	1394	Yes	910GML	No Mar 05
1859-5RU	Pentium M 740	1.73	256MB	15.0" XGA	GMA 900	40GB	Combo	* Intel 11b/g	Modem	1394	Yes	915GM	No Mar 05
1859-4AU	Pentium M 740	1.73	512MB	15.0" SXGA+	GMA 900	60GB	Combo	* Intel 11a/b/g <sup>32</sup>	Modem	1394	Yes	915GM	No Mar 05
<ul style="list-style-type: none"> <li>• These small and medium business (SMB) models are part of the US Think Express Program</li> <li>• These 1859 models have a 1 year limited warranty</li> </ul>													
Positioning Processor	Mainstream performance and features; two-spindle system <b>Intel® Celeron M Processor 350 (1.3GHz)</b> with 400MHz system bus or <b>Intel Pentium M Processor 740 (1.73GHz)</b> with enhanced Intel SpeedStep™ technology <sup>1</sup> , Execute Disable Bit, and 533MHz system bus										<b>SOFTWARE<sup>14</sup></b>		
L2 cache	Celeron M: <b>1 MB</b> ; Pentium M: <b>2MB</b> ; All: on die (at processor speed) / ECC										<b>Windows XP Professional</b>		
Memory	<b>256 or 512MB</b> std / 2GB max <sup>7</sup> / PC2-4200 533MHz DDR2 / non-parity / CL4 / dual channel capable / two 200-pin SO-DIMM sockets / std mem in 1 socket / 1 socket avail										- Microsoft® Windows® XP Professional <sup>20</sup> (Service Pack 2) ↔ Disk-to-Disk Recovery (in hidden protected area)		
Diskette drive	None standard / use optional USB-based diskette drive										<b>Preloaded</b>		
Combo	DVD-ROM/CD-RW / 24X/24X/24X/8X <sup>21</sup> speed / removable from Ultrabay Enhanced										• Rescue and Recovery™		
Ultrabay Enhanced Disk	One modular bay for interchangeable devices / Ultrabay Slim-compatible / 12.7mm high <b>40GB<sup>8</sup></b> (4200 rpm) or <b>60GB</b> (4200 rpm) / 9.5mm high / removable and upgradable / 9.5mm high bay / supports 2nd disk with optional 'Second HDD Adapter for Ultrabay Slim' / <b>Hard Disk Drive Shock Absorber / Active Protection System</b>										• Access IBM		
Display	Some: <b>14.1"</b> (358.1mm) <b>XGA (1024x768) TFT color</b> / Active Matrix / 150 nits Some: <b>15.0"</b> (381.0mm) <b>XGA (1024x768) TFT color</b> / Active Matrix / 200 nits Some: <b>15.0"</b> (381.0mm) <b>SXGA+ (1400x1050) TFT color</b> / Active Matrix / 200 nits										• Access Connections™		
Graphics	<b>Intel Graphics Media Accelerator 900 (GMA 900)</b> / integrated graphics in 915GM GMCH / uses main memory (up to 128MB with 256MB+) / 200MHz										• Norton AntiVirus		
Keyboard	87-key / Access IBM button / palm rest / pitch: 19mm; stroke: 2.5mm (std-size keys)										• PC-Doctor™		
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar <sup>13</sup> , magnifying glass /										• ThinkPad Utilities		
Touch pad	UltraNav™ multi-pointing system / touch pad below keyboard / Tap Zones										• Adobe Reader		
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions										• Update Connector™ <sup>15</sup>		
Dimensions <sup>3</sup>	14.1" models (WxDxH): 12.4" x 10.2" x 1.35-1.46"; 314mm x 260mm x 34-37mm 15.0" models (WxDxH): 13.1" x 10.6" x 1.47-1.58"; 332mm x 269mm x 37-40mm with optical drive and battery: 14.1" models: 6.1 lb (2.8kg); 15" models: 6.6 lb (3.0kg)										• RecordNOW and Drive Letter Access powered by Sonic products (combo models)		
Weight <sup>2</sup>	Color: black; All: Acrylonitrile-Butadiene-Styrene (ABS) plastic										• InterVideo WinDVD (combo models)		
Case material	Lithium Ion <b>6-cell</b> / intelligent / supports unique 2nd battery in Ultrabay Enhanced										• Client Security Software (for security chip)		
Battery - type	Celeron models: up to 2.2 hr; Pentium models: up to 3.8 hr; <i>Optional 9-cell</i> : up to 5.8 hr										<b>Downloadable</b>		
Battery - life <sup>10</sup>	Some: <b>Mobile Intel 910GML Express Chipset</b> / 82910GML Graphics Mem Cont Hub Some: <b>Mobile Intel 915GM Express Chipset</b> / 82915GM Graphics Mem Cont Hub										• IBM Director Agent		
Architecture	All: 82801FBM ICH6-M I/O Controller Hub (SATA150, ATA-100 EIDE, PCI Express x1, PCI bus, ethernet MAC, USB, Low Pin Count [LPC] interface, [Bluetooth]) / PCI bus (TI® PCI1510 CardBus controller, Mini PCI, external expansion) / LPC bus (National Semiconductor® PC8394T Super I/O for security chip (TPM), Asset ID, hardware event log, parallel, infrared, [docking-based ports (serial, diskette)])										• Software Delivery Assistant		
PC Card Std slot	One Type I or Type II slot / CardBus 32-bit / integrated door										• System Migration Assistant		
ExpressCard slot	One ExpressCard/34 or ExpressCard/54 / PCI Express x1 or USB 2.0 / integrated door										<b>License</b> (CD not included)		
Ports	Two USB (Version 2.0) / parallel / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / no keyboard or mouse or serial ports (use USB)										- Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client		
Video out	S-video out port (TV out) / one 4-pin industry standard connector										ThinkPad notebooks implement ThinkVantage™ technologies and design; visit <a href="http://thinkpad.com/thinkvantage">thinkpad.com/thinkvantage</a>		
IEEE 1394	IEEE 1394 (FireWire) port / 4-pin connector / 1394a-2000 standard										Universal 72 watt AC adapter		
Wireless antenna	UltraConnect™ Antenna built into the display cover for optimal wireless signal reception										PC 2001-compliant		
Mini PCI	One Mini PCI type III slot (Communications Bay) / customer upgradable										ACPI 1.0b and 2.0-compliant		
Intel 11b/g <sup>32</sup>	Some: 11b/g wireless <sup>4</sup> , Mini PCI, Intel PRO/Wireless 2200BG, Intel 82532 chip										CIM and DMI 2.0-compliant		
Intel 11a/b/g <sup>32</sup>	Some: 11a/b/g wireless <sup>4</sup> , Mini PCI, Intel PRO/Wireless 2915ABG, 82533 chipset										PXE 2.1-compliant		
CDC	One Communications Daughter Card (CDC) socket / customer accessible										ENERGY STAR®-compliant		
Modem	56K <sup>6</sup> V.90 (V.92-designed <sup>29</sup> ) modem in CDC / Conexant® chipset										International Warranty Service <sup>17</sup>		
Bluetooth™	None										24 hour x 7 day <sup>18</sup> toll-free warranty support during the warranty <sup>12</sup>		
Ethernet	Gigabit ethernet on systemboard / Broadcom BCM5751M (MAC/PHY) / PCIe x1 / PXE										ServicePac <sup>22</sup> 1yr IOR 9x5 NBD		
Audio support	Soft audio / ICH AC97 controller / DirectSound® support / AD1981B AC97 codec / stereo speakers / 1 watt / volume up, down, mute buttons / internal microphone / microphone input jack (3.5 mm; pink) / headphone jack (3.5 mm; green)										30L9188		
Security	Power-on password / hard disk password / supervisor password / security keyhole										ServicePac 2 yr IOR 9x5 NBD		
Security chip	<b>Embedded Security Subsystem 2.0<sup>33</sup></b> / in NS PC8394T chip / TCG-compliant										30L9189		
Fingerprint reader	None										ServicePac 3 yr IOR 9x5 NBD		
Limited warranty <sup>12</sup>	<b>1 year</b> - EasyServ™ <sup>19</sup> onsite pickup and delivery / service upgrades <sup>22</sup> available										30L9195		
256MB PC2-4200 DDR2 NP CL4 SOD	73P3840	ThinkPad T40/R50 Li-Ion Battery 6-cell	92P1101	ServicePac 4 yr IOR 9x5 NBD	30L9194	ServicePac 5 yr IOR 9x5 NBD	30L9196	ServicePac 2 yr P&L P/U Depot	30L9191	ServicePac 3 yr P&L P/U Depot	30L9192	ServicePac 4 yr P&L P/U Depot	69P9195
512MB PC2-4200 DDR2 NP CL4 SOD	73P3842	ThinkPad T40/R50 Li-Ion Battery 9-cell	92P1102	ServicePac 5 yr P&L P/U Depot	69P9195	Other ServicePac options at <a href="http://ibm.com/services/its/us/source/wamomxeu.pdf">ibm.com/services/its/us/source/wamomxeu.pdf</a>	Post-warranty annual maintenance agreements at <a href="http://ibm.com/services/its/us/source/maspspleu.pdf">ibm.com/services/its/us/source/maspspleu.pdf</a>	ServicePac 2 yr P&L P/U Depot	30L9191	ServicePac 3 yr P&L P/U Depot	30L9192	ServicePac 4 yr P&L P/U Depot	69P9195
1GB PC2-4200 DDR2 NP CL4 SOD	73P3844	Ultrabay Slim Li-Polymer Battery 3-cell	08K8190	ServicePac 3 yr P&L P/U Depot	30L9192	ServicePac 4 yr P&L P/U Depot	69P9195	ServicePac 4 yr P&L P/U Depot	69P9195	ServicePac 5 yr P&L P/U Depot	69P9197	ServicePac 5 yr P&L P/U Depot	69P9197
USB 2.0 Portable Multi-Burner Drive	22P9163	ThinkPad 72W AC/DC Combo Adapter	22P9010	ServicePac 5 yr P&L P/U Depot	69P9195	ServicePac 5 yr P&L P/U Depot	69P9197	ServicePac 5 yr P&L P/U Depot	69P9197	ServicePac 5 yr P&L P/U Depot	69P9197	ServicePac 5 yr P&L P/U Depot	69P9197
USB 2.0 Memory Key 512MB	22P9230	11a/b/g Wireless Mini PCI Adptr II	73P4301	ServicePac 5 yr P&L P/U Depot	69P9195	ServicePac 5 yr P&L P/U Depot	69P9197	ServicePac 5 yr P&L P/U Depot	69P9197	ServicePac 5 yr P&L P/U Depot	69P9197	ServicePac 5 yr P&L P/U Depot	69P9197
USB 2.0 Portable 40GB Hard Disk	22P7196	Intel PRO/Wireless 2200BG Mini PCI	73P2801	ServicePac 5 yr P&L P/U Depot	69P9195	ServicePac 5 yr P&L P/U Depot	69P9197	ServicePac 5 yr P&L P/U Depot	69P9197	ServicePac 5 yr P&L P/U Depot	69P9197	ServicePac 5 yr P&L P/U Depot	69P9197
80GB HS Hard Disk 9.5mm (5400 rpm)	09N4273	11a/b/g Wireless CardBus Adapter	31P9101	ServicePac 5 yr P&L P/U Depot	69P9195	ServicePac 5 yr P&L P/U Depot	69P9197	ServicePac 5 yr P&L P/U Depot	69P9197	ServicePac 5 yr P&L P/U Depot	69P9197	ServicePac 5 yr P&L P/U Depot	69P9197
USB Fingerprint Reader	73P4774	ThinkPad Port Replicator II	74P6733	ServicePac 5 yr P&L P/U Depot	69P9195	ServicePac 5 yr P&L P/U Depot	69P9197	ServicePac 5 yr P&L P/U Depot	69P9197	ServicePac 5 yr P&L P/U Depot	69P9197	ServicePac 5 yr P&L P/U Depot	69P9197
Second HDD Adapter for Ultrabay Slim	62P4554	ThinkPad Mini Dock	287810U	ServicePac 5 yr P&L P/U Depot	69P9195	ServicePac 5 yr P&L P/U Depot	69P9197	ServicePac 5 yr P&L P/U Depot	69P9197	ServicePac 5 yr P&L P/U Depot	69P9197	ServicePac 5 yr P&L P/U Depot	69P9197
Multi-Burner Plus Ultrabay Enhanced Drive	73P3312	ThinkPad Dock II	287710U	ServicePac 5 yr P&L P/U Depot	69P9195	ServicePac 5 yr P&L P/U Depot	69P9197	ServicePac 5 yr P&L P/U Depot	69P9197	ServicePac 5 yr P&L P/U Depot	69P9197	ServicePac 5 yr P&L P/U Depot	69P9197
Enh Perf Wireless Keyboard and Mouse	73P4067	M400 Projector	0037A04	ServicePac 5 yr P&L P/U Depot	69P9195	ServicePac 5 yr P&L P/U Depot	69P9197	ServicePac 5 yr P&L P/U Depot	69P9197	ServicePac 5 yr P&L P/U Depot	69P9197	ServicePac 5 yr P&L P/U Depot	69P9197
Preferred Pro USB Fingerprint Keyboard	73P4730	ThinkPad Carrying Case - Leather	73P3600	ServicePac 5 yr P&L P/U Depot	69P9195	ServicePac 5 yr P&L P/U Depot	69P9197	ServicePac 5 yr P&L P/U Depot	69P9197	ServicePac 5 yr P&L P/U Depot	69P9197	ServicePac 5 yr P&L P/U Depot	69P9197
Kensington® MicroSaver® Security Cable	73P2582	Other options at <a href="http://lenovo.com/options">lenovo.com/options</a>		ServicePac 5 yr P&L P/U Depot	69P9195	ServicePac 5 yr P&L P/U Depot	69P9197	ServicePac 5 yr P&L P/U Depot	69P9197	ServicePac 5 yr P&L P/U Depot	69P9197	ServicePac 5 yr P&L P/U Depot	69P9197

See footnotes for important warranty information  
US models announced March 1, 2005  
US models withdrawn effective September 2005

\* Powered by Intel Centrino™ mobile technology

© Lenovo  
(RY3) July 2005



# ThinkPad® R52 (1859) - TopSeller (July 2005) - withdrawn

Created by Lenovo Training Solutions  
Personal Systems Reference (PSREF)

Type-model	Processor	Speed GHz	Memory	Screen	Graphics controller	Disk GB <sup>6</sup>	Optical	Mini PCI Comm Bay wireless	CDC modem/Bluetooth™	IEEE 1394 port	Security chip	Chipset or 91x	Workhorse or Global Entry	Avail date
1859-6VU	Celeron® M 360	1.4	256MB	15.0" XGA	GMA 900	40GB	Combo	Intel 11b/g <sup>32</sup>	Modem	1394	Yes	910GML	No	July 05
1859-6WU	Celeron M 370	1.5	256MB	15.0" XGA	GMA 900	40GB	Combo	Intel 11b/g	Modem	1394	Yes	910GML	No	July 05

- These small and medium business (SMB) models are part of the US TopSeller™ Program
- These 1859 models have a 1-year limited warranty

Positioning	Mainstream performance and features; two-spindle system												
Processor	Intel® Celeron M Processor 360 (1.4GHz) or 370 (1.5GHz) with 400MHz system bus												
Features	Celeron M Processor 370: Execute Disable Bit												
L2 cache	1 MB / on die (at processor speed) / ECC												
Memory	256MB std / 2GB max <sup>7</sup> / PC2-4200 533MHz DDR2 / non-parity / CL4 / dual channel capable / two 200-pin SO-DIMM sockets / std mem in one socket / one socket available												
Diskette drive	None standard / use optional USB-based diskette drive												
Combo	DVD-ROM/CD-RW / 24X/24X/24X/8X <sup>21</sup> speed / removable from Ultrabay Enhanced												
Ultrabay Enhanced	One modular bay for interchangeable devices / Ultrabay Slim-compatible / 12.7mm high												
Disk	40GB <sup>8</sup> (5400 rpm) / 9.5mm high / removable and upgradable / 9.5mm high bay / supports 2nd disk with optional 'Second HDD Adapter for Ultrabay Slim' / <b>Hard Disk Drive Shock Absorber / Active Protection System™</b>												
Display	15.0" (381.0mm) XGA (1024x768) TFT color / Active Matrix / 200 nits												
Graphics	Intel Graphics Media Accelerator 900 (GMA 900) / integrated graphics in 915GM GMCH / uses main memory (up to 128MB with 256MB+) / 200MHz												
Keyboard	87-key / Access IBM button / palm rest / pitch: 19mm; stroke: 2.5mm (std-size keys)												
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar <sup>13</sup> , magnifying glass												
Touch pad	UltraNav® multi-pointing system / touch pad below keyboard / Tap Zones												
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions												
Dimensions <sup>3</sup>	15.0" models (WxDxH): 13.1" x 10.6" x 1.47-1.58"; 332mm x 269mm x 37-40mm												
Weight <sup>2</sup>	with optical drive and battery: 15" models: 6.6 lb (3.0kg)												
Case material	Color: black; All: Acrylonitrile-Butadiene-Styrene (ABS) plastic												
Battery - type	Lithium Ion 6-cell / intelligent / supports unique 2nd battery in Ultrabay Enhanced												
Battery - life <sup>10</sup>	Optional 6-cell: up to 2.2 hr; Optional 9-cell: up to 4.2 hr												
Architecture	Mobile Intel 910GML Express Chipset / 82910GML Graphics Memory Cont Hub / 82801FBM ICH6-M I/O Controller Hub (SATA150, ATA-100 EIDE, PCI Express x1, PCI bus, ethernet MAC, USB, Low Pin Count [LPC] interface, [Bluetooth]) / PCI bus (TI® PCI1510 CardBus controller, Mini PCI, external expansion) / LPC bus (National Semiconductor® PC8394T Super I/O for security chip (TPM), Asset ID, hardware event log, parallel, infrared, [docking-based ports (serial, diskette)])												
PC Card Std slot	One Type I or Type II slot / CardBus 32-bit / integrated door												
ExpressCard slot	One ExpressCard/34 or ExpressCard/54 / PCI Express x1 or USB 2.0 / integrated door												
Ports	Two USB (Version 2.0) / parallel / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / no keyboard or mouse or serial ports (use USB)												
Video out	S-video out port (TV out) / one 4-pin industry standard connector												
IEEE 1394	IEEE 1394 (FireWire) port / 4-pin connector / 1394a-2000 standard												
Wireless antenna	UltraConnect™ Antenna built into the display cover for optimal wireless signal reception												
Mini PCI	One Mini PCI type III slot (Communications Bay) / customer upgradable												
Intel 11b/g <sup>32</sup>	11b/g wireless <sup>4</sup> , Mini PCI, Intel PRO/Wireless 2200BG, Intel 82532 chip												
CDC	One Communications Daughter Card (CDC) socket / customer accessible												
Modem	56K <sup>6</sup> V.90 (V.92-designed <sup>29</sup> ) modem in CDC / Conexant® chipset												
Bluetooth™	None												
Ethernet	Gigabit ethernet on systemboard / Broadcom BCM5751M (MAC/PHY) / PCIe x1 / PXE												
Audio support	Soft audio / ICH AC97 controller / DirectSound® support / AD1981B AC97 codec / stereo speakers, 1 watt / volume up, down, mute buttons / internal microphone / microphone input jack (3.5 mm; pink) / headphone jack (3.5 mm; green)												
Security	Power-on password / hard disk password / supervisor password / security keyhole												
Security chip	Embedded Security Subsystem 2.0 <sup>33</sup> / in NS PC8394T chip / TCG-compliant												
Fingerprint reader	None												
Limited warranty <sup>12</sup>	1-year - EasyServ™.19 onsite pickup and delivery / service upgrades <sup>22</sup> available												
256MB PC2-4200 DDR2 NP CL4 SOD	73P3840	ThinkPad T40/R50 Li-Ion Battery 6-cell	92P1101	ThinkPlus™.22 1-year LOR 9x5 NBD	41C9166								
512MB PC2-4200 DDR2 NP CL4 SOD	73P3842	ThinkPad T40/R50 Li-Ion Battery 9-cell	92P1102	ThinkPlus 2-year LOR 9x5 NBD	41C9167								
1GB PC2-4200 DDR2 NP CL4 SOD	73P3844	Ultrabay Slim Li-Polymer Battery 3-cell	08K8190	ThinkPlus 3-year LOR 9x5 NBD	41C9168								
USB Portable Diskette Drive	05K9276	ThinkPad Multiple Battery Charger II	22P9040	ThinkPlus 4-year LOR 9x5 NBD	41C9171								
USB Gemplus GemPC Smart Card Reader	41N3040	72W Slim AC/DC Combo Adapter	73P4485	ThinkPlus 5-year LOR 9x5 NBD	41C9173								
USB 2.0/Analog Headset by Sennheiser	40Y8518	11a/b/g Wireless Mini PCI Adapter II	73P4301	ThinkPlus 2-year P&L P/U Depot	41C9169								
USB 2.0 Memory Key 1GB	40Y7421	Intel PRO/Wireless 2915ABG Mini PCI	41N2990	ThinkPlus 3-year P&L P/U Depot	41C9170								
USB 2.0 CD-RW/DVD-ROM Combo II Drive	40Y8637	ThinkPad Port Replicator II	74P6733	ThinkPlus 4-year P&L P/U Depot	41C9172								
USB 2.0 Super Multi-Burner Drive	41N5565	ThinkPad Mini Dock	287810U	ThinkPlus 5-year P&L P/U Depot	41C9174								
ExpressCard Gemplus Smart Card Reader	41N3043	ThinkPad Dock II	287710U	Post-warranty annual maintenance agreements at	lenovo.com/thinkplus/warranty								
80GB HS Hard Disk 9.5mm (5400 rpm)	09N4273	ThinkPad Carrying Case - Expander	73P3597										
Second HDD Adapter for Ultrabay Slim	41U3148	ThinkPad Carrying Case - Backpack	73P3599										
DVD-ROM Ultrabay Enhanced Drive	39X2642	ThinkPad Carrying Case - Leather	73P3600										
CD-RW/DVD Combo Ultrabay Enhanced	73P3275	ThinkPad Carrying Case - Organizer	73P3598										
Super Multi-Burner Ultrabay Enh Drv (curved)	40Y8624	ThinkVision® C400 Wireless Projector	0039WA1										
Enh Perf Wireless Keyboard and Mouse	73P4067	ThinkPad Monitor Stand	22P5265										
USB Travel Keyboard with UltraNav	31P9490	Verizon Wireless V620 WWAN PC Card <sup>25</sup>	40Y9137										
Preferred Pro USB Fingerprint Keyboard	73P4730	ThinkPad Convertible Monitor Stand	40Y7620										
Kensington® MicroSaver® Security Cable	73P2582	Other accessories at lenovo.com/accessories											

See footnotes for important warranty information  
US models announced July 6, 2005  
US models withdrawn effective February 2007

© Lenovo  
(RY7) February 2007

# ThinkPad® R52 (1859) - TopSeller (August 2005) - withdrawn

Created by Lenovo Training Solutions  
Personal Systems Reference (PSREF)

Type-model	Processor	Speed GHz	Memory	Screen	Graphics controller	Disk GB <sup>6</sup>	Optical	Mini PCI Comm Bay wireless	CDC modem/Bluetooth™	IEEE 1394 port	Finger print reader	Limited warranty <sup>12</sup>	Workhorse or Global Entry	Avail date
1859-B6U	Pentium® M 740	1.73	256MB	14.1" XGA	GMA 900	40GB	DVD	Open; upg <sup>36</sup>	Modem	1394	No	1-year	No	Aug 05
1859-B7U	Pentium M 740	1.73	256MB	14.1" XGA	GMA 900	40GB	Combo	* Intel 11b/g <sup>32</sup>	Modem	1394	Finger	1-year	No	Aug 05
1859-B8U	Pentium M 740	1.73	512MB	14.1" XGA	GMA 900	60GB	Combo	* Intel 11b/g	Modem	1394	Finger	1-year	No	Aug 05
1859-B9U	Pentium M 740	1.73	256MB	15.0" XGA	GMA 900	40GB	Combo	* Intel 11b/g	Modem	1394	Finger	1-year	No	Aug 05
1859-BAU	Pentium M 740	1.73	512MB	15.0" SXGA+	GMA 900	60GB	Combo	* Intel 11b/g	Modem	1394	Finger	1-year	No	Aug 05
<ul style="list-style-type: none"> <li>• These small and medium business (SMB) models are part of the US TopSeller™ Program</li> <li>• These 1859 models have a 1-year limited warranty</li> </ul>														
Positioning Processor	Mainstream performance and features; two-spindle system <b>Intel® Pentium® M Processor 740 (1.73GHz)</b> with Enhanced Intel SpeedStep™ technology <sup>1</sup> , Execute Disable Bit, and 533MHz system bus										<b>SOFTWARE<sup>14</sup></b>			
Features L2 cache	<b>2MB</b> / on die (at processor speed) / ECC										<b>Windows XP Professional</b>			
Memory	<b>256</b> or <b>512MB</b> std / 2GB max <sup>7</sup> / PC2-4200 533MHz DDR2 / non-parity / CL4 / dual channel capable / two 200-pin SO-DIMM sockets / std mem in 1 socket / 1 socket avail										- Microsoft® Windows® XP Professional <sup>20</sup> (Service Pack 2) ↔ Disk-to-Disk Recovery (in hidden protected area)			
Diskette drive	None standard / use optional USB-based diskette drive										<b>Preloaded</b>			
DVD	Some: DVD-ROM / 8X-3.3X <sup>9</sup> speed / single-layer / removable from Ultrabay™ Enhance										• Rescue and Recovery™			
Combo	Some: DVD-ROM/CD-RW / 24X/24X/24X/8X <sup>21</sup> speed / removable from Ultrabay Enhance										• Access Program			
Ultrabay Enhanced	One modular bay for interchangeable devices / Ultrabay Slim-compatible / 12.7mm high										• Access Connections™			
Disk	<b>40GB<sup>8</sup></b> (5400 rpm) or <b>60GB</b> (5400 rpm) / 9.5mm high / removable and upgradable / 9.5mm high bay / supports 2nd disk with optional 'Second HDD Adapter for Ultrabay Slim' / <b>Hard Disk Drive Shock Absorber / Active Protection System</b>										• Norton AntiVirus			
Display	Some: <b>14.1"</b> (358.1mm) <b>XGA (1024x768) TFT color</b> / Active Matrix / 150 nits Some: <b>15.0"</b> (381.0mm) <b>XGA (1024x768) TFT color</b> / Active Matrix / 200 nits Some: <b>15.0"</b> (381.0mm) <b>SXGA+ (1400x1050) TFT color</b> / Active Matrix / 200 nits										• PC-Doctor™			
Graphics	<b>Intel Graphics Media Accelerator 900 (GMA 900)</b> / integrated graphics in 915GM GMCH / uses main memory (up to 128MB with 256MB+) / 200MHz										• ThinkPad Utilities			
Keyboard	87-key / Access IBM button / palm rest / pitch: 19mm; stroke: 2.5mm (std-size keys)										• Adobe® Reader			
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar <sup>13</sup> , magnifying glass										• RecordNOW and Drive Letter Access powered by Sonic products (combo models)			
Touch pad	UltraNav™ multi-pointing system / touch pad below keyboard / Tap Zones										• InterVideo WinDVD (combo models)			
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions										• Fingerprint Software (fingerprint models)			
Dimensions <sup>3</sup>	15.0" models (WxDxH): 13.1" x 10.6" x 1.47-1.58"; 332mm x 269mm x 37-40mm with optical drive and battery; 15" models: 6.6 lb (3.0kg)										• Client Security Software (for security chip)			
Weight <sup>2</sup>	Color: black; All: Acrylonitrile-Butadiene-Styrene (ABS) plastic										<b>Downloadable</b>			
Case material	Lithium Ion <b>6-cell</b> / intelligent / supports unique 2nd battery in Ultrabay Enhanced										• IBM Director Agent			
Battery - type	Optional <b>6-cell</b> : up to 2.2 hr; <b>Optional 9-cell</b> : up to 4.2 hr										• Software Delivery Assistant			
Battery - life <sup>10</sup>											• System Migration Assistant			
Architecture	<b>Mobile Intel 915GM Express Chipset</b> / 82915GM Graph Mem Cont Hub (GMCH-M) / 82801FBM ICH6-M I/O Controller Hub (SATA150, ATA-100 EIDE, PCI Express x1, PCI bus, ethernet MAC, USB, Low Pin Count [LPC] interface, [Bluetooth]) / PCI bus (TI® PCI11510 CardBus controller, Mini PCI, external expansion) / LPC bus (National Semiconductor® PC8394T Super I/O for security chip (TPM), Asset ID, hardware event log, parallel, infrared, [docking-based ports (serial, diskette)])										<b>License</b> (CD not included)			
PC Card Std slot	One Type I or Type II slot / CardBus 32-bit / integrated door										- Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client			
ExpressCard slot	One ExpressCard/34 or ExpressCard/54 / PCI Express x1 or USB 2.0 / integrated door										ThinkPad notebooks implement ThinkVantage® technologies and design;			
Ports	Two USB (Version 2.0) / parallel / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / no keyboard or mouse or serial ports (use USB)										visit <a href="http://thinkpad.com/thinkvantage">thinkpad.com/thinkvantage</a>			
Video out	S-video out port (TV out) / one 4-pin industry standard connector										Universal 72 watt AC adapter			
IEEE 1394	IEEE 1394 (FireWire) port / 4-pin connector / 1394a-2000 standard										PC 2001-compliant			
Wireless antenna	UltraConnect™ Antenna built into the display cover for optimal wireless signal reception										ACPI 1.0b and 2.0-compliant			
Mini PCI	One Mini PCI type III slot (Communications Bay) / customer upgradable										CIM and DMI 2.0-compliant			
Wireless upg <sup>36</sup>	Some: wireless upgradable with wireless Mini PCI options										PXE 2.1-compliant			
Intel 11b/g <sup>32</sup>	Some: 11b/g wireless <sup>4</sup> , Mini PCI, Intel PRO/Wireless 2200BG, Intel 82532 chip										ENERGY STAR®-compliant			
CDC	One Communications Daughter Card (CDC) socket / customer accessible										International Warranty Service <sup>17</sup>			
Modem	56K <sup>6</sup> V.90 (V.92-designed <sup>29</sup> ) modem in CDC / Conexant® chipset										24 hour x 7 day <sup>18</sup> toll-free warranty support during the warranty <sup>12</sup>			
Ethernet	Gigabit ethernet on systemboard / Broadcom BCM5751M (MAC/PHY) / PCIe x1 / PXE										ThinkPlus™.22 1-year LOR 9x5 NBD			
Audio support	Soft audio / ICH AC97 controller / DirectSound® support / AD1981B AC97 codec / stereo speakers, 1 watt / volume up, down, mute buttons / internal microphone / microphone input jack (3.5 mm; pink) / headphone jack (3.5 mm; green)										41C9166			
Security	Power-on password / hard disk password / supervisor password / security keyhole										ThinkPlus 2-year LOR 9x5 NBD			
Security chip	<b>Embedded Security Subsystem 2.0<sup>33</sup></b> / in NS PC8394T chip / TCG-compliant										41C9167			
Fingerprint reader	Some: <b>Fingerprint reader on palm rest</b> / swipe sensor / integrated with security chip										ThinkPlus 3-year LOR 9x5 NBD			
Limited warranty <sup>12</sup>	<b>1-year</b> - EasyServ™.19 onsite pickup and delivery / service upgrades <sup>22</sup> available										41C9168			
256MB PC2-4200 DDR2 NP CL4 SOD	73P3840			ThinkPad T40/R50 Li-Ion Battery 6-cell			92P1101			ThinkPlus 4-year LOR 9x5 NBD				
512MB PC2-4200 DDR2 NP CL4 SOD	73P3842			ThinkPad T40/R50 Li-Ion Battery 9-cell			92P1102			41C9171				
1GB PC2-4200 DDR2 NP CL4 SOD	73P3844			Ultrabay Slim Li-Polymer Battery 3-cell			08K8190			ThinkPlus 5-year LOR 9x5 NBD				
USB Portable Diskette Drive	05K9276			72W Slim AC/DC Combo Adapter			73P4485			41C9173				
USB Fingerprint Reader	41U3167			11a/b/g Wireless Mini PCI Adapter II			73P4301			ThinkPlus 2-year P&L P/U Depot				
USB 2.0 Memory Key 1GB	40Y7421			ThinkPad Port Replicator II			74P6733			41C9169				
USB 2.0 Super Multi-Burner Drive	41N5565			ThinkPad Mini Dock			287810U			ThinkPlus 3-year P&L P/U Depot				
100GB Hard Disk 9.5mm PATA (5400 rpm)	40Y8716			ThinkPad Dock II			287710U			41C9170				
Second HDD Adapter for Ultrabay Slim	41U3148			ThinkPad Carrying Case - Expander			73P3597			ThinkPlus 4-year P&L P/U Depot				
CD-RW/DVD Combo Ultrabay Enhanced	73P3275			ThinkPad Carrying Case - BackPack			73P3599			41C9172				
Super Multi-Burner Ultrabay Enh Drv (curved)	40Y8624			ThinkPad Carrying Case - Leather			73P3600			ThinkPlus 5-year P&L P/U Depot				
Enh Perf Wireless Keyboard and Mouse	73P4067			ThinkPad Carrying Case - Organizer			73P3598			41C9174				
USB Travel Keyboard with UltraNav	31P9490			ThinkPad Monitor Stand			22P5265			Post-warranty annual maintenance agreements at				
Preferred Pro USB Fingerprint Keyboard	73P4730			ThinkPad Convertible Monitor Stand			40Y7620			<a href="http://lenovo.com/thinkplus/warranty">lenovo.com/thinkplus/warranty</a>				
ThinkVision® L201p 20.1" Monitor (black)	9220HB1			Other accessories at <a href="http://lenovo.com/accessories">lenovo.com/accessories</a>										

See footnotes for important warranty information  
US models announced August 2, 2005  
US models withdrawn effective February 2007

\* Powered by Intel Centrino® mobile technology

# ThinkPad® R52 (1860) - withdrawn

Created by Lenovo Training Solutions  
Personal Systems Reference (PSREF)

Type-model	Processor	Speed GHz	Memory	Screen	Graphics controller	Disk GB <sup>8</sup>	Optical	Mini PCI Comm Bay wireless	CDC modem/ Bluetooth™	IEEE 1394 port	Security chip	Warranty <sup>12</sup> Limited or Global (G) or Entry (E)	Workhorse (W) or Global (G) Entry (E)	Avail date
1860-2BU	Pentium® M 740	1.73	256MB	14.1" XGA	GMA 900	40GB	Combo	* Intel 11b/g <sup>32</sup>	Modem	No	Yes	3-year	W G	Mar 05
1860-2MU	Pentium M 750	1.86	256MB	14.1" XGA	GMA 900	40GB	CD	* Intel 11a/b/g <sup>32</sup>	Modem	No	Yes	3-year	W	Mar 05
1860-2NU	Pentium M 750	1.86	512MB	14.1" XGA	GMA 900	40GB	Combo	* Intel 11a/b/g	Modem	No	Yes	3-year	W	Mar 05
1860-4QU	Pentium M 750	1.86	512MB	15.0" SXGA+	GMA 900	40GB	Combo	* Intel 11a/b/g	Modem	No	Yes	3-year	W	Mar 05
1860-5EU	Pentium M 740	1.73	512MB	15.0" XGA	GMA 900	40HS	Combo	* Intel 11b/g	Modem	No	Yes	3-year	W G	Mar 05
1860-5BU	Pentium M 750	1.86	256MB	15.0" XGA	GMA 900	40GB	CD	* Intel 11a/b/g	Modem	No	Yes	3-year	W	Mar 05
1860-5CU	Pentium M 750	1.86	512MB	15.0" XGA	GMA 900	40GB	Combo	* Intel 11a/b/g	Modem	No	Yes	3-year	W	Mar 05
Positioning Processor	<b>Mainstream performance and features; two-spindle system</b> <b>Intel® Pentium® M Processor 740 (1.73GHz) or 750 (1.86GHz)</b> with Enhanced Intel SpeedStep™ technology <sup>1</sup> , Execute Disable Bit, and 533MHz system bus										<b>SOFTWARE<sup>14</sup></b>			
L2 cache	<b>2MB / on die</b> (at processor speed) / ECC										<b>Windows XP Professional</b>			
Memory	<b>256 or 512MB</b> std / 2GB max <sup>7</sup> / PC2-4200 533MHz DDR2 / non-parity / CL4 / dual channel capable / two 200-pin SO-DIMM sockets / std mem in 1 socket / 1 socket avail										- Microsoft® Windows® XP Professional <sup>20</sup> (Service Pack 2) ↳ Disk-to-Disk Recovery (in hidden protected area)			
Diskette drive	None standard / use optional USB-based diskette drive										<b>Preloaded</b>			
CD	Some: CD-ROM / 24X-10X <sup>9</sup> speed / removable from Ultrabay Enhanced										• Rescue and Recovery™			
Combo	Some: DVD-ROM/CD-RW / 24X/24X/24X/8X <sup>21</sup> speed / removable from Ultrabay Enhanced										• Access Program			
Ultrabay Enhanced Disk	One modular bay for interchangeable devices / Ultrabay Slim-compatible / 12.7mm high <b>40GB<sup>8</sup></b> (4200 rpm) or <b>40GB</b> (HS 5400 rpm) / 9.5mm high / removable, upgradable / 9.5mm high bay / supports 2nd disk with optional 'Second HDD Adapter for Ultrabay Slim' / <b>Hard Disk Drive Shock Absorber / Active Protection System™</b>										• Access Connections™			
Display	Some: <b>14.1"</b> (358.1mm) <b>XGA (1024x768) TFT color</b> / Active Matrix / 150 nits Some: <b>15.0"</b> (381.0mm) <b>XGA (1024x768) TFT color</b> / Active Matrix / 200 nits Some: <b>15.0"</b> (381.0mm) <b>SXGA+ (1400x1050) TFT color</b> / Active Matrix / 200 nits										• Norton AntiVirus			
Graphics	<b>Intel Graphics Media Accelerator 900 (GMA 900)</b> / integrated graphics in 915GM GMCH / uses main memory (up to 128MB with 256MB+) / 200MHz										• PC-Doctor™			
Keyboard	87-key / Access IBM button / palm rest / pitch: 19mm; stroke: 2.5mm (std-size keys)										• ThinkPad Utilities			
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar <sup>13</sup> , magnifying glass										• Adobe® Reader			
Touch pad	UltraNav® multi-pointing system / touch pad below keyboard / Tap Zones										• Update Connector™ <sup>15</sup>			
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions										• RecordNOW and Drive Letter Access powered by Sonic products (combo models)			
Dimensions <sup>3</sup>	<b>14.1" models (WxDxH):</b> 12.4" x 10.2" x 1.35-1.46"; 314mm x 260mm x 34-37mm <b>15.0" models (WxDxH):</b> 13.1" x 10.6" x 1.47-1.58"; 332mm x 269mm x 37-40mm with optical drive and battery: <b>14.1" models:</b> 6.1 lb (2.8kg); <b>15" models:</b> 6.6 lb (3.0kg)										• Client Security Software (for security chip)			
Weight <sup>2</sup>	Color: black; All: Acrylonitrile-Butadiene-Styrene (ABS) plastic										<b>Downloadable</b>			
Case material	Lithium Ion <b>6-cell</b> / intelligent / supports unique 2nd battery in Ultrabay Enhanced										• IBM Director Agent			
Battery - type	Up to 3.8 hr; <i>Optional 9-cell:</i> up to 5.8 hr										• Software Delivery Assistant			
Battery - life <sup>10</sup>											• System Migration Assistant			
Architecture	<b>Mobile Intel 915GM Express Chipset</b> / 82915GM Graph Mem Cont Hub (GMCH-M) / 82801FBM ICH6-M I/O Controller Hub (SATA150, ATA-100 EIDE, PCI Express x1, PCI bus, ethernet MAC, USB, Low Pin Count [LPC] interface, [Bluetooth]) / PCI bus (TI® PCI1510 CardBus controller, Mini PCI, external expansion) / LPC bus (National Semiconductor® PC8394T Super I/O for security chip (TPM), Asset ID, hardware event log, parallel, infrared, [docking-based ports (serial, diskette)])										- Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client			
PC Card Std slot	One Type I or Type II slot / CardBus 32-bit / integrated door													
ExpressCard slot	One ExpressCard/34 or ExpressCard/54 / PCI Express x1 or USB 2.0 / integrated door													
Ports	Two USB (Version 2.0) / parallel / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / no keyboard or mouse or serial ports (use USB)													
Video out	S-video out port (TV out) / one 4-pin industry standard connector													
IEEE 1394	None													
Wireless antenna	UltraConnect™ Antenna built into the display cover for optimal wireless signal reception													
Mini PCI	One Mini PCI type III slot (Communications Bay) / customer upgradable										ThinkPad notebooks implement ThinkVantage® technologies and design; visit <a href="http://thinkpad.com/thinkvantage">thinkpad.com/thinkvantage</a>			
Intel 11b/g <sup>32</sup>	Some: 11b/g wireless <sup>4</sup> , Mini PCI, Intel PRO/Wireless 2200BG, Intel 82532 chip													
Intel 11a/b/g <sup>32</sup>	Some: 11a/b/g wireless <sup>4</sup> , Mini PCI, Intel PRO/Wireless 2915ABG, 82533 chipset													
CDC	One Communications Daughter Card (CDC) socket / customer accessible													
Modem	56K <sup>6</sup> V.90 (V.92-designed <sup>29</sup> ) modem in CDC / Conexant® chipset													
Bluetooth™	None										Universal 72 watt AC adapter PC 2001-compliant			
Ethernet	Gigabit ethernet on systemboard / Broadcom BCM5751M (MAC/PHY) / PCIe x1 / PXE										ACPI 1.0b and 2.0-compliant			
Audio support	Soft audio / ICH AC97 controller / DirectSound® support / AD1981B AC97 codec / stereo speakers / 1 watt / volume up, down, mute buttons / internal microphone / microphone input jack (3.5 mm; pink) / headphone jack (3.5 mm; green)										CIM and DMI 2.0-compliant			
Security	Power-on password / hard disk password / supervisor password / security keyhole										PXE 2.1-compliant			
Security chip	<b>Embedded Security Subsystem 2.0<sup>33</sup></b> / in NS PC8394T chip / TCG-compliant										ENERGY STAR®-compliant			
Fingerprint reader	None										International Warranty Service <sup>17</sup> 24 hour x 7 day <sup>18</sup> toll-free warranty support during the warranty <sup>12</sup>			
Limited warranty <sup>12</sup>	3-year/1-yr battery - EasyServ™ <sup>19</sup> onsite pickup and delivery / service upgrades <sup>22</sup> avail													
256MB PC2-4200 DDR2 NP CL4 SOD	73P3840	ThinkPad T40/R50 Li-Ion Battery 6-cell	92P1101	ThinkPlus™ <sup>22</sup> 2-year LOR 9x5 NBD	41C9175									
512MB PC2-4200 DDR2 NP CL4 SOD	73P3842	ThinkPad T40/R50 Li-Ion Battery 9-cell	92P1102	ThinkPlus 3-year LOR 9x5 NBD										
1GB PC2-4200 DDR2 NP CL4 SOD	73P3844	Ultrabay Slim Li-Polymer Battery 3-cell	08K8190	ThinkPlus 4-year LOR 9x5 NBD	41C9176									
USB Portable Diskette Drive	05K9276	72W Slim AC/DC Combo Adapter	73P4485	ThinkPlus 5-year LOR 9x5 NBD										
USB Fingerprint Reader	41U3167	11a/b/g Wireless Mini PCI Adapter II	73P4301	ThinkPlus 4-year P&L P/U Depot	41C9177									
USB 2.0 Portable Multi-Burner Drive	22P9163	Intel PRO/Wireless 2915ABG Mini PCI	41N2990	ThinkPlus 5-year LOR 9x5 NBD										
USB 2.0 Memory Key 1GB	40Y7421	ThinkPad Port Replicator II	74P6733	ThinkPlus 4-year P&L P/U Depot	41C9179									
100GB Hard Disk 9.5mm PATA (5400 rpm)	40Y8716	ThinkPad Mini Dock	287810U	ThinkPlus 4-year P&L P/U Depot	41C9178									
Second HDD Adapter for Ultrabay Slim	41U3148	ThinkPad Dock II	287710U	ThinkPlus 5-year P&L P/U Depot	41C9180									
Super Multi-Burner Ultrabay Enh Drv (curved)	40Y8624	ThinkPad Carrying Case - Expander	73P3597	Post-warranty annual maintenance agreements at										
Enh Perf Wireless Keyboard and Mouse	73P4067	ThinkPad Carrying Case - Leather	73P3600	<b>lenovo.com/thinkplus/warranty</b>										
Preferred Pro USB Fingerprint Keyboard	73P4730	Lenovo M500 Projector	0037A05											
Kensington® MicroSaver® Security Cable	73P2582	ThinkVision® L201p 20.1" Monitor (black)	9220HB1											
Verizon Wireless V620 WWAN PC Card <sup>25</sup>	40Y9137	Other accessories at <a href="http://lenovo.com/accessories">lenovo.com/accessories</a>												

See footnotes for important warranty information  
US models announced March 1, 2005  
US models withdrawn effective February 2007

\* Powered by Intel Centrino® mobile technology

# ThinkPad® R52 (1860) - August 2005 - withdrawn

Created by Lenovo Training Solutions  
Personal Systems Reference (PSREF)

Type-model	Processor	Speed GHz	Memory	Screen	Integrated graphics controller	Disk GB <sup>8</sup>	Optical	Mini PCI Comm Bay wireless	CDC modem/Bluetooth™	IEEE Finger 1394 print port reader	Workhorse (W) Limited or Global (G) or Entry (E)	Avail date
1860-9GU	Pentium® M 750	1.86	256MB	14.1" XGA	GMA 900	40GB	Combo	* Intel 11b/g <sup>32</sup>	Modem	No	Finger 3-year	W G Aug 05
1860-BQU	Pentium M 750	1.86	512MB	14.1" XGA	GMA 900	40GB	Combo	* Intel 11a/b/g <sup>32</sup>	Modem	No	Finger 3-year	W Aug 05
1860-BRU	Pentium M 760	2.00	512MB	14.1" XGA	GMA 900	40GB	Combo	* Intel 11a/b/g	Modem	No	No 3-year	W Aug 05
1860-BSU	Pentium M 760	2.00	256MB	14.1" XGA	GMA 900	40GB	CD	* Intel 11a/b/g	Modem	No	No 3-year	W Aug 05
1860-BTU	Pentium M 750	1.86	512MB	15.0" XGA	GMA 900	40GB	Combo	* Intel 11a/b/g	Modem	No	Finger 3-year	W Aug 05
1860-BUU	Pentium M 750	1.86	512MB	15.0" XGA	GMA 900	40GB	Combo	* Intel 11b/g	Modem	No	No 3-year	W G Aug 05
1860-BZU	Pentium M 750	1.86	512MB	15.0" XGA	GMA 900	40GB	Combo	* Intel 11b/g	Modem	No	Finger 3-year	W G Aug 05
1860-C2U	Pentium M 760	2.00	512MB	15.0" XGA	GMA 900	40GB	Combo	* Intel 11a/b/g	Modem	No	No 3-year	W Aug 05
1860-C3U	Pentium M 760	2.00	256MB	15.0" XGA	GMA 900	40GB	CD	* Intel 11a/b/g	Modem	No	No 3-year	W Aug 05
1860-C4U	Pentium M 750	1.86	512MB	15.0" SXGA+	GMA 900	40GB	Combo	* Intel 11a/b/g	Modem	Yes	Finger 3-year	W Aug 05
1860-C5U	Pentium M 760	2.00	512MB	15.0" SXGA+	GMA 900	60GB	Combo	* Intel 11a/b/g	Modem	Yes	Finger 3-year	W Aug 05
1860-CDU	Pentium M 750	1.86	512MB	14.1" XGA	GMA 900	40GB	Combo	Open; upg <sup>36</sup>	Modem	No	No 3-year	W Aug 05
1860-CPU	Pentium M 750	1.86	1GB	15.0" XGA	GMA 900	40GB	Combo	* Intel 11b/g	Modem	No	No 3-year	W Jan 06
Positioning Processor	<b>Mainstream performance and features; two-spindle system</b> <b>Intel® Pentium® M Processor 750 (1.86GHz) or 760 (2.00GHz)</b> with Enhanced Intel SpeedStep™ technology <sup>1</sup> , Execute Disable Bit, and 533MHz system bus										<b>SOFTWARE<sup>14</sup></b> <b>Windows XP Professional</b> - Microsoft® Windows® XP Professional <sup>20</sup> (Service Pack 2) ⇨ Disk-to-Disk Recovery (in hidden protected area) <b>Preloaded</b> • Rescue and Recovery™ • Access Program • Access Connections™ • Norton AntiVirus • PC-Doctor™ • ThinkPad Utilities • Adobe® Reader • RecordNOW and Drive Letter Access powered by Sonic products (combo models) • InterVideo WinDVD (combo models) • Fingerprint Software (fingerprint models) • Client Security Software (for security chip) <b>Downloadable</b> • IBM Director Agent • Software Delivery Assistant • System Migration Assistant <b>License</b> (CD not included) - Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client	
L2 cache	2MB / on die (at processor speed) / ECC											
Memory	256MB, 512MB, or 1GB std / 2GB max <sup>7</sup> / PC2-4200 533MHz DDR2 / non-parity / dual-channel capable / two 200-pin SO-DIMM sockets / std mem in 1 socket / 1 socket avail											
Diskette drive	None standard / use optional USB-based diskette drive											
CD	Some: CD-ROM / 24X-10X <sup>9</sup> speed / removable from Ultrabay Enhanced											
Combo	Some: DVD-ROM/CD-RW / 24X/24X/24X/8X <sup>21</sup> speed / removable from Ultrabay Enhanced											
Ultrabay Enhanced Disk	One modular bay for interchangeable devices / Ultrabay Slim-compatible / 12.7mm high 40GB <sup>8</sup> (5400 rpm) or 60GB (5400 rpm) / 9.5mm high / removable, upgradable / 9.5mm high bay / supports 2nd disk with optional 'Second HDD Adapter for Ultrabay Slim' / <b>Hard Disk Drive Shock Absorber / Active Protection System</b>											
Display	Some: 14.1" (358.1mm) XGA (1024x768) TFT color / Active Matrix / 150 nits Some: 15.0" (381.0mm) XGA (1024x768) TFT color / Active Matrix / 200 nits Some: 15.0" (381.0mm) SXGA+ (1400x1050) TFT color / Active Matrix / 200 nits											
Graphics	Intel Graphics Media Accelerator 900 (GMA 900) / integrated graphics in 915GM											
Keyboard	87-key / Access IBM button / palm rest / pitch: 19mm; stroke: 2.5mm (std-size keys)											
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar <sup>13</sup> , magnifying glass											
Touch pad	UltraNav™ multi-pointing system / touch pad below keyboard / Tap Zones											
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions											
Dimensions <sup>3</sup>	14.1" models (WxDxH): 12.4" x 10.2" x 1.35-1.46"; 314mm x 260mm x 34-37mm 15.0" models (WxDxH): 13.1" x 10.6" x 1.47-1.58"; 332mm x 269mm x 37-40mm											
Weight <sup>2</sup>	with optical drive and battery: 14.1" models: 6.1 lb (2.8kg); 15" models: 6.6 lb (3.0kg)											
Case material	Color: black; All: Acrylonitrile-Butadiene-Styrene (ABS) plastic											
Battery - type	Lithium Ion 6-cell / intelligent / supports unique 2nd battery in Ultrabay Enhanced											
Battery - life <sup>10</sup>	Up to 3.8 hr; Optional 9-cell: up to 5.8 hr											
Architecture	Mobile Intel 915GM Express Chipset / 82915GM Graph Mem Cont Hub (GMCH-M) / 82801FBM ICH6-M I/O Controller Hub (SATA150, ATA-100 EIDE, PCI Express x1, PCI bus, ethernet MAC, USB, Low Pin Count [LPC] interface, [Bluetooth]) / PCI bus (TI® PCI1510 CardBus controller, Mini PCI, external expansion) / LPC bus (National Semiconductor® PC8394T Super I/O for security chip (TPM), Asset ID, hardware event log, parallel, infrared, [docking-based ports (serial, diskette)])											
PC Card Std slot	One Type I or Type II slot / CardBus 32-bit / integrated door											
ExpressCard slot	One ExpressCard/34 or ExpressCard/54 / PCI Express x1 or USB 2.0 / integrated door											
Ports	Two USB (Version 2.0) / parallel / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / no keyboard or mouse or serial ports (use USB)											
Video out	S-video out port (TV out) / one 4-pin industry standard connector											
IEEE 1394	Some: IEEE 1394 (FireWire) port / 4-pin connector / 1394a-2000 standard											
Wireless antenna	UltraConnect™ Antenna built into the display cover for optimal wireless signal reception											
Mini PCI	One Mini PCI type III slot (Communications Bay) / customer upgradable											
Wireless upg <sup>36</sup>	Some: wireless upgradable with wireless Mini PCI options											
Intel 11b/g <sup>32</sup>	Some: 11b/g wireless <sup>4</sup> , Mini PCI, Intel PRO/Wireless 2200BG, Intel 82532 chip											
Intel 11a/b/g <sup>32</sup>	Some: 11a/b/g wireless <sup>4</sup> , Mini PCI, Intel PRO/Wireless 2915ABG, 82533 chipset											
CDC	One Communications Daughter Card (CDC) socket / customer accessible											
Modem	56K <sup>6</sup> V.90 (V.92-designed <sup>29</sup> ) modem in CDC / Conexant® chipset											
Ethernet	Gigabit ethernet on systemboard / Broadcom BCM5751M (MAC/PHY) / PCIe x1 / PXE											
Audio support	Soft audio / ICH AC97 controller / DirectSound® support / AD1981B AC97 codec / stereo speakers, 1 watt / volume up, down, mute buttons / internal microphone / microphone input jack (3.5 mm; pink) / headphone jack (3.5 mm; green)											
Security	Power-on password / hard disk password / supervisor password / security keyhole											
Security chip	Embedded Security Subsystem 2.0 <sup>35</sup> / in NS PC8394T chip / TCG-compliant											
Fingerprint reader	Some: Fingerprint reader on palm rest / swipe sensor / integrated with security chip											
Limited warranty <sup>12</sup>	3-year/1-yr battery - EasyServ™ <sup>19</sup> onsite pickup and delivery / service upgrades <sup>22</sup> avail											
256MB PC2-4200 DDR2 NP CL4 SOD	73P3840	ThinkPad T40/R50 Li-Ion Battery 6-cell	92P1101	ThinkPlus 5-year LOR 9x5 NBD								
512MB PC2-4200 DDR2 NP CL4 SOD	73P3842	ThinkPad T40/R50 Li-Ion Battery 9-cell	92P1102	ThinkPlus 5-year LOR 9x5 NBD								
1GB PC2-4200 DDR2 NP CL4 SOD	73P3844	Ultrabay Slim Li-Polymer Battery 3-cell	08K8190	ThinkPlus 4-year P&L P/U Depot								
USB Fingerprint Reader	41U3167	11a/b/g Wireless Mini PCI Adapter II	73P4301	ThinkPlus 5-year P&L P/U Depot								
USB 2.0 Memory Key 1GB	40Y7421	ThinkPad Port Replicator II	74P6733	ThinkPlus 5-year P&L P/U Depot								
USB 2.0 Super Multi-Burner Drive	41N5565	ThinkPad Mini Dock	287810U	ThinkPlus 5-year P&L P/U Depot								
100GB Hard Disk 9.5mm PATA (5400 rpm)	40Y8716	ThinkPad Dock II	287710U	Post-warranty annual maintenance agreements at								
Second HDD Adapter for Ultrabay Slim	41U3148	ThinkPad Carrying Case - Expander	73P3597	lenovo.com/thinkplus/warranty								
Super Multi-Burner Ultrabay Enh Drv (curved)	40Y8624	Other accessories at lenovo.com/accessories										

See footnotes for important warranty information \* Powered by Intel Centrino® mobile technology

US models announced August 2, 2005 or January 17, 2006

US models withdrawn effective August 2006, November 2006, or February 2007

© Lenovo

(YK62) February 2007

# ThinkPad® R52 (1860) - Education - withdrawn

Created by Lenovo Training Solutions  
Personal Systems Reference (PSREF)

Type-model	Processor	Speed GHz	Memory	Screen	Graphics controller	Disk GB <sup>8</sup> rpm	Optical	Mini PCI Comm Bay wireless	CDC modem/ <sup>TM</sup> Bluetooth	IEEE 1394 port	Security chip	Chipset 91x	Limited warranty <sup>12</sup>	Avail date
1860-25U	Celeron® M 350	1.3	256MB	14.1" XGA	GMA	40GB 4200	CD	Intel 11b/g <sup>32</sup>	Modem	1394	Yes	GML	EasyServ	Mar 05
1860-26U	Celeron M 350	1.3	256MB	14.1" XGA	GMA	40GB 4200	Combo	Intel 11b/g	Modem	1394	Yes	GML	EasyServ	Mar 05
1860-3RU	Celeron M 360	1.4	256MB	14.1" XGA	GMA	40GB 5400	CD	Intel 11b/g	Modem	1394	Yes	GML	EasyServ	July 05
1860-3SU	Celeron M 360	1.4	256MB	14.1" XGA	GMA	40GB 5400	Combo	Intel 11b/g	Modem	1394	Yes	GML	EasyServ	July 05
1860-3MU	Pentium® M 725a	1.60	256MB	14.1" XGA	GMA	60GB 5400	Combo	*Intel 11a/b/g <sup>32</sup>	Modem	1394	Yes	GM	EasyServ	Jun 05
1860-2YU	Pentium M 740	1.73	256MB	14.1" XGA	GMA	40GB 4200	Combo	*Intel 11a/b/g	Modem	1394	Yes	GM	EasyServ	Mar 05
1860-5SU	Pentium M 740	1.73	512MB	15.0" XGA	GMA	40GB 4200	Combo	*Intel 11a/b/g	Modem	1394	Yes	GM	EasyServ	Mar 05
<p><b>• These models have an EasyServ™<sup>19</sup> onsite pickup and delivery 3-year limited warranty</b>                      These educational models are available only to public or private K-12 (or higher) accredited schools organized and operated exclusively for educational purposes for use by qualified students and teachers.</p>														
Positioning Processor	<i>Mainstream performance and features; two-spindle system</i> <b>Intel® Celeron M Processor 350 or 360 or Pentium M Processor 725a (1.60GHz)</b> with 400MHz system bus or <b>Intel Pentium M Processor 740 (1.73GHz)</b> with Enhanced Intel SpeedStep™ technology <sup>1</sup> , Execute Disable Bit, and 533MHz system bus										<b>SOFTWARE<sup>14</sup></b>			
L2 cache	<b>Celeron M: 1 MB; Pentium M: 2MB; All: on die (at processor speed) / ECC</b>										<b>Windows XP Professional</b>			
Memory	<b>256 or 512MB</b> std / 2GB max <sup>7</sup> / PC2-4200 533MHz DDR2 / non-parity / CL4 / dual channel capable / two 200-pin SO-DIMM sockets / std mem in 1 socket / 1 socket avail										- Microsoft® Windows® XP Professional <sup>20</sup> (Service Pack 2) ⇨ Disk-to-Disk Recovery (in hidden protected area)			
Diskette drive	None standard / use optional USB-based diskette drive										<b>Preloaded</b>			
CD	<i>Some:</i> CD-ROM / 24X-10X <sup>9</sup> speed / removable from Ultrabay Enhanced										• Education software from Vital Source Technologies®: vitalsource KEY™ and Personal Portable library™			
Combo	<i>Some:</i> DVD-ROM/CD-RW / 24X/24X/24X/8X <sup>21</sup> speed / removable from Ultrabay Enh										• Rescue and Recovery™			
Ultrabay Enhanced Disk	One modular bay for interchangeable devices / Ultrabay Slim-compatible / 12.7mm high <b>40GB<sup>8</sup></b> (4200 or 5400 rpm) or <b>60GB</b> (5400 rpm) / 9.5mm high / removable and upgradable / 9.5mm high bay / supports 2nd disk with optional 'Second HDD Adapter for Ultrabay Slim' / <b>Hard Disk Drive Shock Absorber / Active Protection System</b>										• Access Program			
Display	<i>Some:</i> <b>14.1"</b> (358.1mm) <b>XGA (1024x768) TFT color</b> / Active Matrix / 150 nits <i>Some:</i> <b>15.0"</b> (381.0mm) <b>XGA (1024x768) TFT color</b> / Active Matrix / 200 nits										• Access Connections™			
Graphics	<b>Intel Graphics Media Accelerator 900 (GMA 900)</b> / integrated graphics in 915GM GMCH / uses main memory (up to 128MB with 256MB+) / 200MHz										• Norton AntiVirus			
Keyboard	87-key / Access IBM button / palm rest / pitch: 19mm; stroke: 2.5mm (std-size keys)										• PC-Doctor™			
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar <sup>13</sup> , magnifying glass										• ThinkPad Utilities			
Touch pad	UltraNav™ multi-pointing system / touch pad below keyboard / Tap Zones										• Adobe® Reader			
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions										• Update Connector™ <sup>15</sup>			
Dimensions <sup>3</sup>	<i>14.1" models (WxDxH):</i> 12.4" x 10.2" x 1.35-1.46"; 314mm x 260mm x 34-37mm <i>15.0" models (WxDxH):</i> 13.1" x 10.6" x 1.47-1.58"; 332mm x 269mm x 37-40mm										• RecordNOW and Drive Letter Access powered by Sonic products (combo models)			
Weight <sup>2</sup>	with optical drive and battery: <i>14.1" models:</i> 6.1 lb (2.8kg); <i>15" models:</i> 6.6 lb (3.0kg)										• InterVideo WinDVD (combo models)			
Case material	<i>Color:</i> black; <i>All:</i> Acrylonitrile-Butadiene-Styrene (ABS) plastic										• Client Security Software (for security chip)			
Battery - type	Lithium Ion <b>6-cell</b> / intelligent / supports unique 2nd battery in Ultrabay Enhanced										<b>Downloadable</b>			
Battery - life <sup>10</sup>	<i>Celeron models:</i> up to 2.2 hr; <i>Pentium models:</i> up to 3.8 hr; <i>Optional 9-cell:</i> up to 5.8 hr										• IBM Director Agent			
Architecture	<i>Some:</i> <b>Mobile Intel 910GML Express Chipset</b> / 82910GML Graphics Mem Cont Hub <i>Some:</i> <b>Mobile Intel 915GM Express Chipset</b> / 82915GM Graphics Mem Cont Hub <i>All:</i> 82801FBM ICH6-M I/O Controller Hub (SATA150, ATA-100 EIDE, PCI Express x1, PCI bus, ethernet MAC, USB, Low Pin Count [LPC] interface, [Bluetooth]) / PCI bus (TI® PCI1510 CardBus controller, Mini PCI, external expansion) / LPC bus (National Semiconductor® PC8394T Super I/O for security chip (TPM), Asset ID, hardware event log, parallel, infrared, [docking-based ports (serial, diskette)])										• Software Delivery Assistant			
PC Card Std slot	One Type I or Type II slot / CardBus 32-bit / integrated door										• System Migration Assistant			
ExpressCard slot	One ExpressCard/34 or ExpressCard/54 / PCI Express x1 or USB 2.0 / integrated door										<b>License</b> (CD not included)			
Ports	Two USB (Version 2.0) / parallel / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / no keyboard or mouse or serial ports (use USB)										- Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client			
Video out	S-video out port (TV out) / one 4-pin industry standard connector										ThinkPad notebooks implement ThinkVantage® technologies and design; visit <a href="http://thinkpad.com/thinkvantage">thinkpad.com/thinkvantage</a>			
IEEE 1394	IEEE 1394 (FireWire) port / 4-pin connector / 1394a-2000 standard										Universal 72 watt AC adapter			
Wireless antenna	UltraConnect™ Antenna built into the display cover for optimal wireless signal reception										PC 2001-compliant			
Mini PCI	One Mini PCI type III slot (Communications Bay) / customer upgradable										ACPI 1.0b and 2.0-compliant			
Intel 11b/g <sup>32</sup>	<i>Some:</i> 11b/g wireless <sup>4</sup> , Mini PCI, Intel PRO/Wireless 2200BG, Intel 82532 chip										CIM and DMI 2.0-compliant			
Intel 11a/b/g <sup>32</sup>	<i>Some:</i> 11a/b/g wireless <sup>4</sup> , Mini PCI, Intel PRO/Wireless 2915ABG, 82533 chipset										PXE 2.1-compliant			
CDC	One Communications Daughter Card (CDC) socket / customer accessible										ENERGY STAR®-compliant			
Modem	56K <sup>6</sup> V.90 (V.92-designed <sup>29</sup> ) modem in CDC / Conexant® chipset										International Warranty Service <sup>17</sup>			
Ethernet	Gigabit ethernet on systemboard / Broadcom BCM5751M (MAC/PHY) / PCIe x1 / PXE										24 hour x 7 day <sup>18</sup> toll-free warranty support during the warranty <sup>12</sup>			
Audio support	Soft audio / ICH AC97 controller / DirectSound® support / AD1981B AC97 codec / stereo speakers / 1 watt / volume up, down, mute buttons / internal microphone / microphone input jack (3.5 mm; pink) / headphone jack (3.5 mm; green)													
Security	Power-on password / hard disk password / supervisor password / security keyhole										ThinkPlus™. <sup>22</sup> 2-year LOR 9x5 NBD			
Security chip	<b>Embedded Security Subsystem 2.0<sup>33</sup></b> / in NS PC8394T chip / TCG-compliant										41C9175			
Fingerprint reader	None										ThinkPlus 3-year LOR 9x5 NBD			
Limited warranty <sup>12</sup>	<b>3-year/1-yr battery - EasyServ™<sup>19</sup> onsite pickup and delivery / service upgrades<sup>22</sup> avail</b>										41C9176			
256MB PC2-4200 DDR2 NP CL4 SOD	73P3840			ThinkPad T40/R50 Li-Ion Battery 6-cell			92P1101			ThinkPlus 4-year LOR 9x5 NBD				
512MB PC2-4200 DDR2 NP CL4 SOD	73P3842			ThinkPad T40/R50 Li-Ion Battery 9-cell			92P1102			41C9177				
1GB PC2-4200 DDR2 NP CL4 SOD	73P3844			Ultrabay Slim Li-Polymer Battery 3-cell			08K8190			ThinkPlus 5-year LOR 9x5 NBD				
USB Fingerprint Reader	41U3167			11a/b/g Wireless Mini PCI Adapter II			73P4301			ThinkPlus 4-year P&L P/U Depot				
USB 2.0 CD-RW/DVD-ROM Combo II Drive	40Y8637			ThinkPad Port Replicator II			74P6733			41C9178				
USB 2.0 Portable 80GB Hard Disk	40Y8726			ThinkPad Mini Dock			287810U			ThinkPlus 5-year P&L P/U Depot				
80GB HS Hard Disk 9.5mm (5400 rpm)	09N4273			ThinkPad Dock II			287710U			41C9180				
Second HDD Adapter for Ultrabay Slim	41U3148			ThinkPad Carrying Case - Expander			73P3597			Post-warranty annual maintenance agreements at				
Super Multi-Burner Ultrabay Enh Drv (curved)	40Y8624			ThinkVision® L201p 20.1" Monitor (black)			9220HB1			agreements at				
Preferred Pro USB Fingerprint Keyboard	73P4730			Other accessories at <a href="http://lenovo.com/accessories">lenovo.com/accessories</a>						<a href="http://lenovo.com/thinkplus/warranty">lenovo.com/thinkplus/warranty</a>				

See footnotes for important warranty information

\* Powered by Intel Centrino® mobile technology

© Lenovo

US models announced March 1, June 28, or July 6, 2005

(RY4) February 2007

US models withdrawn effective January 2006 or February 2007

# ThinkPad® R52 (1860) - Education (August 2005) - withdrawn

Created by Lenovo Training Solutions  
Personal Systems Reference (PSREF)

Type-model	Processor	Speed GHz	Memory	Screen	Graphics controller	Disk GB <sup>8</sup> rpm	Optical	Mini PCI Comm Bay wireless	CDC modem/ Bluetooth™	IEEE Finger 1394 print reader	Chipset 91x	Limited warranty <sup>12</sup>	Avail date
1860-C6U	Celeron® M 360	1.4	256MB	14.1" XGA	GMA	40GB 5400	CD	Intel 11b/g <sup>32</sup>	Modem	1394 No	GML	EasyServ	Aug 05
1860-C7U	Celeron M 360	1.4	256MB	14.1" XGA	GMA	40GB 5400	Combo	Intel 11b/g	Modem	1394 No	GML	EasyServ	Aug 05
1860-3VU	Pentium® M 740	1.73	256MB	14.1" XGA	GMA	40GB 4200	Combo	11a/b/g II <sup>32</sup>	Modem	1394 No	GM	EasyServ	Aug 05
1860-86U	Pentium M 740	1.73	512MB	15.0" XGA	GMA	40GB 4200	Combo	11a/b/g II	Modem	1394 No	GM	EasyServ	Aug 05
1860-C8U	Pentium M 750	1.86	256MB	14.1" XGA	GMA	40GB 5400	Combo	* Intel 11a/b/g <sup>32</sup>	Modem	1394 No	GM	EasyServ	Aug 05
1860-C9U	Pentium M 750	1.86	256MB	14.1" XGA	GMA	40GB 5400	Combo	* Intel 11a/b/g	Modem	1394 Finger	GM	EasyServ	Aug 05
1860-CAU	Pentium M 750	1.86	512MB	15.0" XGA	GMA	40GB 5400	Combo	* Intel 11a/b/g	Modem	1394 No	GM	EasyServ	Aug 05
1860-CBU	Pentium M 750	1.86	512MB	15.0" XGA	GMA	40GB 5400	Combo	* Intel 11a/b/g	Modem	1394 Finger	GM	EasyServ	Aug 05

• **These models have an EasyServ™<sup>19</sup> onsite pickup and delivery 3-year limited warranty**  
These educational models are available only to public or private K-12 (or higher) accredited schools organized and operated exclusively for educational purposes for use by qualified students and teachers.

Processor	Intel® Celeron M Processor 360 with 400MHz system bus or Intel Pentium M Processor 740 (1.73GHz) or 750 (1.86GHz) with Enhanced Intel SpeedStep™ technology <sup>1</sup> , Execute Disable Bit, and 533MHz system bus	<b>SOFTWARE<sup>14</sup></b> <b>Windows XP Professional</b> - Microsoft® Windows® XP Professional <sup>20</sup> (Service Pack 2) ↳ Disk-to-Disk Recovery (in hidden protected area)  <b>Preloaded</b> • Education software from Vital Source Technologies®: vitalsource KEY™ and Personal Portable library™ • Rescue and Recovery™ • Access Program • Access Connections™ • Norton AntiVirus • PC-Doctor™ • ThinkPad Utilities • Adobe® Reader • RecordNow and Drive Letter Access powered by Sonic products (combo models) • InterVideo WinDVD (combo models) • Fingerprint Software (fingerprint models) • Client Security Software (for security chip)  <b>Downloadable</b> • IBM Director Agent • Software Delivery Assistant • System Migration Assistant  <b>License</b> (CD not included) - Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client
L2 cache	Celeron M: 1 MB; Pentium M: 2MB; All: on die (at processor speed) / ECC	
Memory	256 or 512MB std / 2GB max <sup>7</sup> / PC2-4200 533MHz DDR2 / non-parity / CL4 / dual channel capable / two 200-pin SO-DIMM sockets / std mem in 1 socket / 1 socket avail	
Diskette drive	None standard / use optional USB-based diskette drive	
CD	Some: CD-ROM / 24X-10X <sup>9</sup> speed / removable from Ultrabay Enhanced	
Combo	Some: DVD-ROM/CD-RW / 24X/24X/24X/8X <sup>21</sup> speed / removable from Ultrabay Enh	
Ultrabay Enhanced	One modular bay for interchangeable devices / Ultrabay Slim-compatible / 12.7mm high	
Disk	40GB <sup>8</sup> (4200 or 5400 rpm) / 9.5mm high / removable, upgradable / 9.5mm high bay / supports 2nd disk with optional 'Second HDD Adapter for Ultrabay Slim' / <b>Hard Disk Drive Shock Absorber / Active Protection System</b>	
Display	Some: 14.1" (358.1mm) XGA (1024x768) TFT color / Active Matrix / 150 nits Some: 15.0" (381.0mm) XGA (1024x768) TFT color / Active Matrix / 200 nits	
Graphics	Intel Graphics Media Accelerator 900 (GMA 900) / integrated graphics in 915GM GMCH / uses main memory (up to 128MB with 256MB+) / 200MHz	
Keyboard	87-key / Access IBM button / palm rest / pitch: 19mm; stroke: 2.5mm (std-size keys)	
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar <sup>13</sup> , magnifying glass	
Touch pad	UltraNav™ multi-pointing system / touch pad below keyboard / Tap Zones	
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions	
Dimensions <sup>3</sup>	14.1" models (WxDxH): 12.4" x 10.2" x 1.35-1.46"; 314mm x 260mm x 34-37mm 15.0" models (WxDxH): 13.1" x 10.6" x 1.47-1.58"; 332mm x 269mm x 37-40mm with optical drive and battery: 14.1" models: 6.1 lb (2.8kg); 15" models: 6.6 lb (3.0kg)	
Weight <sup>2</sup>		
Case material	Color: black; All: Acrylonitrile-Butadiene-Styrene (ABS) plastic	
Battery - type	Lithium Ion 6-cell / intelligent / supports unique 2nd battery in Ultrabay Enhanced	
Battery - life <sup>10</sup>	Celeron models: up to 2.2 hr; Pentium models: up to 3.8 hr; Optional 9-cell: up to 5.8 hr	
Architecture	Some: Mobile Intel 910GML Express Chipset / 82910GML Graphics Mem Cont Hub Some: Mobile Intel 915GM Express Chipset / 82915GM Graphics Mem Cont Hub All: 82801FBM ICH6-M I/O Controller Hub (SATA150, ATA-100 EIDE, PCI Express x1, PCI bus, ethernet MAC, USB, Low Pin Count [LPC] interface, [Bluetooth]) / PCI bus (TI® PCI1510 CardBus controller, Mini PCI, external expansion) / LPC bus (National Semiconductor® PC8394T Super I/O for security chip (TPM), Asset ID, hardware event log, parallel, infrared, [docking-based ports (serial, diskette)])	
PC Card Std slot	One Type I or Type II slot / CardBus 32-bit / integrated door	
ExpressCard slot	One ExpressCard/34 or ExpressCard/54 / PCI Express x1 or USB 2.0 / integrated door	
Ports	Two USB (Version 2.0) / parallel / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / no keyboard or mouse or serial ports (use USB)	
Video out	S-video out port (TV out) / one 4-pin industry standard connector	
IEEE 1394	IEEE 1394 (FireWire) port / 4-pin connector / 1394a-2000 standard	
Wireless antenna	UltraConnect™ Antenna built into the display cover for optimal wireless signal reception	
Mini PCI	One Mini PCI type III slot (Communications Bay) / customer upgradable	
Intel 11b/g <sup>32</sup>	Some: 11b/g wireless <sup>4</sup> , Mini PCI, Intel PRO/Wireless 2200BG, Intel 82532 chip	
Intel 11a/b/g <sup>32</sup>	Some: 11a/b/g wireless <sup>4</sup> , Mini PCI, Intel PRO/Wireless 2915ABG, 82533 chipset	
11a/b/g II <sup>32</sup>	Some: 11a/b/g wireless <sup>4</sup> , ThinkPad 11a/b/g Mini PCI Adapter II, Atheros™ AR5004X chip	
CDC	One Communications Daughter Card (CDC) socket / customer accessible	
Modem	56K <sup>6</sup> V.90 (V.92-designed <sup>29</sup> ) modem in CDC / Conexant® chipset	
Ethernet	Gigabit ethernet on systemboard / Broadcom BCM5751M (MAC/PHY) / PCIe x1 / PXE	
Audio support	Soft audio / ICH AC97 controller / DirectSound® support / AD1981B AC97 codec / stereo speakers, 1 watt / volume up, down, mute buttons / internal microphone / microphone input jack (3.5 mm; pink) / headphone jack (3.5 mm; green)	
Security	Power-on password / hard disk password / supervisor password / security keyhole	
Security chip	Embedded Security Subsystem 2.0 <sup>33</sup> / in NS PC8394T chip / TCG-compliant	
Fingerprint reader	Some: Fingerprint reader on palm rest / swipe sensor / integrated with security chip	
Limited warranty <sup>12</sup>	3-year/1-yr battery - EasyServ™ <sup>19</sup> onsite pickup and delivery / service upgrades <sup>22</sup> avail	

256MB PC2-4200 DDR2 NP CL4 SOD	73P3840	ThinkPad T40/R50 Li-Ion Battery 6-cell	92P1101	ThinkPlus 5-year LOR 9x5 NBD	41C9175
512MB PC2-4200 DDR2 NP CL4 SOD	73P3842	ThinkPad T40/R50 Li-Ion Battery 9-cell	92P1102	ThinkPlus 4-year P&L P/U Depot	41C9179
1GB PC2-4200 DDR2 NP CL4 SOD	73P3844	Ultrabay Slim Li-Polymer Battery 3-cell	08K8190	ThinkPlus 5-year P&L P/U Depot	41C9178
USB Fingerprint Reader	41U3167	ThinkPad Port Replicator II	74P6733	ThinkPlus 4-year LOR 9x5 NBD	41C9177
USB 2.0 Portable 80GB Hard Disk	40Y8726	ThinkPad Mini Dock	287810U	ThinkPlus 5-year LOR 9x5 NBD	41C9175
100GB Hard Disk 9.5mm PATA (5400 rpm)	40Y8716	ThinkPad Dock II	287710U	Post-warranty annual maintenance agreements at	lenovo.com/thinkplus/warranty
Second HDD Adapter for Ultrabay Slim	41U3148	ThinkPad Carrying Case - Expander	73P3597		
Super Multi-Burner Ultrabay Enh Drv (curved)	40Y8624	ThinkVision® L201p 20.1" Monitor (black)	9220HB1		
ThinkPad Convertible Monitor Stand	40Y7620	Other accessories at lenovo.com/accessories			

See footnotes for important warranty information  
US models announced August 2 or August 16, 2005  
US models withdrawn effective June 2006 or February 2007

\* Powered by Intel Centrino® mobile technology

# ThinkPad® R52 (1861) - Education - withdrawn

Created by Lenovo Training Solutions  
Personal Systems Reference (PSREF)

Type-model	Processor	Speed GHz	Memory	Screen	Graphics controller	Disk GB <sup>3</sup> rpm	Optical	Mini PCI Comm Bay wireless	CDC modem/Bluetooth™	IEEE 1394 port	Security chip	Chipset 91x	Limited warranty <sup>12</sup>	Avail date
1861-25U	Celeron® M 350	1.3	256MB	14.1" XGA	GMA	40GB 4200	CD	Intel 11b/g <sup>32</sup>	Modem	1394	Yes	GML	Onsite	Mar 05
1861-26U	Celeron M 350	1.3	256MB	14.1" XGA	GMA	40GB 4200	Combo	Intel 11b/g	Modem	1394	Yes	GML	Onsite	Mar 05
1861-3TU	Celeron M 360	1.4	256MB	14.1" XGA	GMA	40GB 5400	CD	Intel 11b/g	Modem	1394	Yes	GML	Onsite	Mar 05
1861-3UU	Celeron M 360	1.4	256MB	14.1" XGA	GMA	40GB 5400	Combo	Intel 11b/g	Modem	1394	Yes	GML	Onsite	Mar 05
1861-2YU	Pentium® M 740	1.73	256MB	14.1" XGA	GMA	40GB 4200	Combo	*Intel 11a/b/g <sup>32</sup>	Modem	1394	Yes	GM	Onsite	Mar 05
1861-5SU	Pentium M 740	1.73	512MB	15.0" XGA	GMA	40GB 4200	Combo	*Intel 11a/b/g	Modem	1394	Yes	GM	Onsite	Mar 05

• **These models have a limited onsite service<sup>24</sup> 3-year limited warranty**

These educational models are available only to public or private K-12 (or higher) accredited schools organized and operated exclusively for educational purposes for use by qualified students and teachers.

Positioning Processor	<i>Mainstream performance and features; two-spindle system</i> <b>Intel® Celeron M Processor 350 (1.3) or 360 (1.4GHz)</b> with 400MHz system bus or <b>Intel Pentium M Processor 740 (1.73GHz)</b> with Enhanced Intel SpeedStep™ technology <sup>1</sup> , Execute Disable Bit, and 533MHz system bus										<b>SOFTWARE<sup>14</sup></b>			
L2 cache	<i>Celeron M: 1 MB; Pentium M: 2MB; All: on die (at processor speed) / ECC</i>										<b>Windows XP Professional</b>			
Memory	<b>256 or 512MB</b> std / 2GB max <sup>7</sup> / PC2-4200 533MHz DDR2 / non-parity / CL4 / dual channel capable / two 200-pin SO-DIMM sockets / std mem in 1 socket / 1 socket avail										- Microsoft® Windows® XP Professional <sup>20</sup> (Service Pack 2) ↳ Disk-to-Disk Recovery (in hidden protected area)			
Diskette drive	None standard / use optional USB-based diskette drive										<b>Preloaded</b>			
CD	<i>Some: CD-ROM / 24X-10X<sup>9</sup> speed / removable from Ultrabay Enhanced</i>										• Education software from Vital Source Technologies®: vitalsource KEY™ and Personal Portable library™			
Combo	<i>Some: DVD-ROM/CD-RW / 24X/24X/24X/8X<sup>21</sup> speed / removable from Ultrabay Enh</i>										• Rescue and Recovery™			
Ultrabay Enhanced	One modular bay for interchangeable devices / Ultrabay Slim-compatible / 12.7mm high										• Access Program			
Disk	<b>40GB<sup>3</sup></b> (4200 or 5400 rpm) / 9.5mm high / removable, upgradable / 9.5mm high bay / supports 2nd disk with optional 'Second HDD Adapter for Ultrabay Slim' / <b>Hard Disk Drive Shock Absorber / Active Protection System™</b> (shock protection)										• Access Connections™			
Display	<i>Some: 14.1" (358.1mm) XGA (1024x768) TFT color / Active Matrix / 150 nits</i> <i>Some: 15.0" (381.0mm) XGA (1024x768) TFT color / Active Matrix / 200 nits</i>										• Norton AntiVirus			
Graphics	<b>Intel Graphics Media Accelerator 900 (GMA 900)</b> / integrated graphics in 915GM GMCH / uses main memory (up to 128MB with 256MB+) / 200MHz										• PC-Doctor™			
Keyboard	87-key / Access IBM button / palm rest / pitch: 19mm; stroke: 2.5mm (std-size keys)										• ThinkPad Utilities			
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar <sup>13</sup> , magnifying glass										• Adobe® Reader			
Touch pad	UltraNav® multi-pointing system / touch pad below keyboard / Tap Zones										• Update Connector™ <sup>15</sup>			
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions										• RecordNOW and Drive			
Dimensions <sup>3</sup>	<i>14.1" models (WxDxH): 12.4" x 10.2" x 1.35-1.46"; 314mm x 260mm x 34-37mm</i> <i>15.0" models (WxDxH): 13.1" x 10.6" x 1.47-1.58"; 332mm x 269mm x 37-40mm</i> with optical drive and battery: <i>14.1" models: 6.1 lb (2.8kg); 15" models: 6.6 lb (3.0kg)</i>										• Letter Access powered by Sonic products (combo models)			
Weight <sup>2</sup>	<i>Color: black; All: Acrylonitrile-Butadiene-Styrene (ABS) plastic</i>										• InterVideo WinDVD (combo models)			
Case material	Lithium Ion <b>6-cell</b> / intelligent / supports unique 2nd battery in Ultrabay Enhanced										• Client Security Software (for security chip)			
Battery - type	<i>Celeron models: up to 2.2 hr; Pentium models: up to 3.8 hr; Optional 9-cell: up to 5.8 hr</i>										<b>Downloadable</b>			
Battery - life <sup>10</sup>	<i>Some: Mobile Intel 910GML Express Chipset / 82910GML Graphics Mem Cont Hub</i> <i>Some: Mobile Intel 915GM Express Chipset / 82915GM Graphics Mem Cont Hub</i> <i>All: 82801FBM ICH6-M I/O Controller Hub (SATA150, ATA-100 EIDE, PCI Express x1, PCI bus, ethernet MAC, USB, Low Pin Count [LPC] interface, [Bluetooth]) / PCI bus (TI® PCI1510 CardBus controller, Mini PCI, external expansion) / LPC bus (National Semiconductor® PC8394T Super I/O for security chip (TPM), Asset ID, hardware event log, parallel, infrared, [docking-based ports (serial, diskette)])</i>										• IBM Director Agent			
Architecture	<i>One Type I or Type II slot / CardBus 32-bit / integrated door</i>										• Software Delivery Assistant			
PC Card Std slot	One ExpressCard/34 or ExpressCard/54 / PCI Express x1 or USB 2.0 / integrated door										• System Migration Assistant			
ExpressCard slot	Two USB (Version 2.0) / parallel / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / no keyboard or mouse or serial ports (use USB)										<b>License</b> (CD not included)			
Ports	S-video out port (TV out) / one 4-pin industry standard connector										- Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client			
Video out	IEEE 1394 (FireWire) port / 4-pin connector / 1394a-2000 standard													
IEEE 1394	UltraConnect™ Antenna built into the display cover for optimal wireless signal reception													
Wireless antenna	One Mini PCI type III slot (Communications Bay) / customer upgradable													
Mini PCI	<i>Some: 11b/g wireless<sup>4</sup>, Mini PCI, Intel PRO/Wireless 2200BG, Intel 82532 chip</i> <i>Some: 11a/b/g wireless<sup>4</sup>, Mini PCI, Intel PRO/Wireless 2915ABG, 82533 chipset</i>													
Intel 11b/g <sup>32</sup>	One Communications Daughter Card (CDC) socket / customer accessible													
Intel 11a/b/g <sup>32</sup>	56K <sup>6</sup> V.90 (V.92-designed <sup>29</sup> ) modem in CDC / Conexant™ chipset													
CDC	Gigabit ethernet on systemboard / Broadcom BCM5751M (MAC/PHY) / PCIe x1 / PXE													
Modem	Soft audio / ICH AC97 controller / DirectSound® support / AD1981B AC97 codec / stereo speakers / 1 watt / volume up, down, mute buttons / internal microphone / microphone input jack (3.5 mm; pink) / headphone jack (3.5 mm; green)													
Ethernet	Power-on password / hard disk password / supervisor password / security keyhole													
Audio support	<b>Embedded Security Subsystem 2.0<sup>33</sup></b> / in NS PC8394T chip / TCG-compliant													
Security	None										ThinkPad notebooks implement ThinkVantage® technologies and design; visit <a href="http://thinkpad.com/thinkvantage">thinkpad.com/thinkvantage</a>			
Security chip														
Fingerprint reader														
Limited warranty <sup>12</sup>	<b>3-year/1-year battery, limited onsite service<sup>24</sup>, 8 am - 5 pm, Mon - Fri</b> coverage excluding holidays, next business day response time										Universal 72 watt AC adapter PC 2001-compliant ACPI 1.0b and 2.0-compliant CIM and DMI 2.0-compliant PXE 2.1-compliant ENERGY STAR®-compliant International Warranty Service <sup>17</sup> 24 hour x 7 day <sup>18</sup> toll-free warranty support during the warranty <sup>12</sup>			
256MB PC2-4200 DDR2 NP CL4 SOD	73P3840	ThinkPad T40/R50 Li-Ion Battery 6-cell	92P1101											
512MB PC2-4200 DDR2 NP CL4 SOD	73P3842	ThinkPad T40/R50 Li-Ion Battery 9-cell	92P1102											
1GB PC2-4200 DDR2 NP CL4 SOD	73P3844	Ultrabay Slim Li-Polymer Battery 3-cell	08K8190											
USB Fingerprint Reader	41U3167	11a/b/g Wireless Mini PCI Adapter II	73P4301											
USB 2.0 Memory Key 1GB	40Y7421	Intel PRO/Wireless 2915ABG Mini PCI	41N2990											
100GB Hard Disk 9.5mm PATA (5400 rpm)	40Y8716	ThinkPad Port Replicator II	74P6733											
Second HDD Adapter for Ultrabay Slim	41U3148	ThinkPad Mini Dock	287810U											
Super Multi-Burner Ultrabay Enh Drv (curved)	40Y8624	ThinkPad Dock II	287710U											
Preferred Pro USB Fingerprint Keyboard	73P4730	ThinkVision® L201p 20.1" Monitor (black)	9220HB1											
ThinkPad Convertible Monitor Stand	40Y7620	Other accessories at <a href="http://lenovo.com/accessories">lenovo.com/accessories</a>												

See footnotes for important warranty information  
US models announced March 1 or July 6, 2005  
US models withdrawn effective February 2007

\* Powered by Intel Centrino® mobile technology

© Lenovo  
(RY5) February 2007

# ThinkPad® R52 (1861) - Education (August 2005) - withdrawn

Created by Lenovo Training Solution  
Personal Systems Reference (PSREF)

Type-model	Processor	Speed GHz	Memory	Screen	Graphics controller	Disk GB <sup>8</sup> rpm	Optical	Mini PCI Comm Bay wireless	CDC modem/ Bluetooth™	IEEE Finger 1394 print reader	Chipset 91x	Limited warranty <sup>12</sup>	Avail date	
1861-C6U	Celeron® M 360	1.4	256MB	14.1" XGA	GMA	40GB 5400	CD	Intel 11b/g <sup>32</sup>	Modem	1394	No	GML	Onsite	Aug 05
1861-C7U	Celeron M 360	1.4	256MB	14.1" XGA	GMA	40GB 5400	Combo	Intel 11b/g	Modem	1394	No	GML	Onsite	Aug 05
1861-3VU	Pentium® M 740	1.73	256MB	14.1" XGA	GMA	40GB 4200	Combo	11a/b/g II <sup>32</sup>	Modem	1394	No	GM	Onsite	Aug 05
1861-86U	Pentium M 740	1.73	512MB	15.0" XGA	GMA	40GB 4200	Combo	11a/b/g II	Modem	1394	No	GM	Onsite	Aug 05
1861-C8U	Pentium M 750	1.86	256MB	14.1" XGA	GMA	40GB 5400	Combo	* Intel 11a/b/g <sup>32</sup>	Modem	1394	No	GM	Onsite	Aug 05
1861-C9U	Pentium M 750	1.86	256MB	14.1" XGA	GMA	40GB 5400	Combo	* Intel 11a/b/g	Modem	1394	Finger	GM	Onsite	Aug 05
1861-CAU	Pentium M 750	1.86	512MB	15.0" XGA	GMA	40GB 5400	Combo	* Intel 11a/b/g	Modem	1394	No	GM	Onsite	Aug 05
1861-CBU	Pentium M 750	1.86	512MB	15.0" XGA	GMA	40GB 5400	Combo	* Intel 11a/b/g	Modem	1394	Finger	GM	Onsite	Aug 05
<p>• <b>These models have a limited onsite service<sup>24</sup> 3-year limited warranty</b>                      These educational models are available only to public or private K-12 (or higher) accredited schools organized and operated exclusively for educational purposes for use by qualified students and teachers.</p>														
Processor	<b>Intel® Celeron M Processor 360</b> with 400MHz system bus or <b>Intel Pentium M Processor 740 (1.73GHz) or 750 (1.86GHz)</b> with Enhanced Intel SpeedStep™ technology <sup>1</sup> , Execute Disable Bit, and 533MHz system bus L2 cache Memory <b>256 or 512MB</b> std / 2GB max <sup>7</sup> / PC-2400 533MHz DDR2 / non-parity / CL4 / dual channel capable / two 200-pin SO-DIMM sockets / std mem in 1 socket / 1 socket avail										<b>SOFTWARE<sup>14</sup></b> <b>Windows XP Professional</b> - Microsoft® Windows® XP Professional <sup>20</sup> (Service Pack 2) ⇨ Disk-to-Disk Recovery (in hidden protected area)			
Diskette drive	None standard / use optional USB-based diskette drive										<b>Preloaded</b> • Education software from Vital Source Technologies®: vidualsource KEY™ and Personal Portable library™ • Rescue and Recovery™ • Access Program • Access Connections™ • Norton AntiVirus • PC-Doctor™ • ThinkPad Utilities • Adobe® Reader • RecordNOW and Drive Letter Access powered by Sonic products (combo models) • InterVideo WinDVD (combo models) • Fingerprint Software (fingerprint models) • Client Security Software (for security chip)			
CD	Some: CD-ROM / 24X-10X <sup>9</sup> speed / removable from Ultrabay Enhanced													
Combo	Some: DVD-ROM/CD-RW / 24X/24X/24X/8X <sup>21</sup> speed / removable from Ultrabay Enh													
Ultrabay Enhanced	One modular bay for interchangeable devices / Ultrabay Slim-compatible / 12.7mm high													
Disk	<b>40GB<sup>8</sup></b> (4200 or 5400 rpm) / 9.5mm high / removable, upgradable / 9.5mm high bay / supports 2nd disk with optional 'Second HDD Adapter for Ultrabay Slim' / <b>Hard Disk Drive Shock Absorber / Active Protection System</b>													
Display	Some: <b>14.1"</b> (358.1mm) <b>XGA (1024x768) TFT color</b> / Active Matrix / 150 nits Some: <b>15.0"</b> (381.0mm) <b>XGA (1024x768) TFT color</b> / Active Matrix / 200 nits													
Graphics	<b>Intel Graphics Media Accelerator 900 (GMA 900)</b> / integrated graphics in 915GM GMCH / uses main memory (up to 128MB with 256MB+) / 200MHz													
Keyboard	87-key / Access IBM button / palm rest / pitch: 19mm; stroke: 2.5mm (std-size keys)													
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar <sup>13</sup> , magnifying glass													
Touch pad	UltraNav™ multi-pointing system / touch pad below keyboard / Tap Zones													
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions													
Dimensions <sup>3</sup>	<b>14.1" models (WxDxH):</b> 12.4" x 10.2" x 1.35-1.46"; 314mm x 260mm x 34-37mm <b>15.0" models (WxDxH):</b> 13.1" x 10.6" x 1.47-1.58"; 332mm x 269mm x 37-40mm with optical drive and battery: <b>14.1" models:</b> 6.1 lb (2.8kg); <b>15" models:</b> 6.6 lb (3.0kg) Color: black; All: Acrylonitrile-Butadiene-Styrene (ABS) plastic													
Weight <sup>2</sup>														
Case material	Lithium Ion <b>6-cell</b> / intelligent / supports unique 2nd battery in Ultrabay Enhanced													
Battery - type	Celeron models: up to 2.2 hr; Pentium models: up to 3.8 hr; Optional 9-cell: up to 5.8 hr													
Battery - life <sup>10</sup>														
Architecture	Some: <b>Mobile Intel 910GML Express Chipset</b> / 82910GML Graphics Mem Cont Hub Some: <b>Mobile Intel 915GM Express Chipset</b> / 82915GM Graphics Mem Cont Hub All: 82801FBM ICH6-M I/O Controller Hub (SATA150, ATA-100 EIDE, PCI Express x1, PCI bus, ethernet MAC, USB, Low Pin Count [LPC] interface, [Bluetooth]) / PCI bus (TI® PCI1510 CardBus controller, Mini PCI, external expansion) / LPC bus (National Semiconductor® PC8394T Super I/O for security chip (TPM), Asset ID, hardware event log, parallel, infrared, [docking-based ports (serial, diskette)])										<b>Downloadable</b> • IBM Director Agent • Software Delivery Assistant • System Migration Assistant  <b>License</b> (CD not included) - Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client			
PC Card Std slot	One Type I or Type II slot / CardBus 32-bit / integrated door													
ExpressCard slot	One ExpressCard/34 or ExpressCard/54 / PCI Express x1 or USB 2.0 / integrated door													
Ports	Two USB (Version 2.0) / parallel / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / no keyboard or mouse or serial ports (use USB)													
Video out	S-video out port (TV out) / one 4-pin industry standard connector													
IEEE 1394	IEEE 1394 (FireWire) port / 4-pin connector / 1394a-2000 standard													
Wireless antenna	UltraConnect™ Antenna built into the display cover for optimal wireless signal reception													
Mini PCI	One Mini PCI type III slot (Communications Bay) / customer upgradable													
Intel 11b/g <sup>32</sup>	Some: 11b/g wireless <sup>4</sup> , Mini PCI, Intel PRO/Wireless 2200BG, Intel 82532 chip													
Intel 11a/b/g <sup>32</sup>	Some: 11a/b/g wireless <sup>4</sup> , Mini PCI, Intel PRO/Wireless 2915ABG, 82533 chipset													
11a/b/g II <sup>32</sup>	Some: 11a/b/g wireless <sup>4</sup> , ThinkPad 11a/b/g Mini PCI Adapter II, Atheros™ AR5004X chip													
CDC	One Communications Daughter Card (CDC) socket / customer accessible													
Modem	56K <sup>6</sup> V.90 (V.92-designed <sup>29</sup> ) modem in CDC / Conexant® chipset													
Ethernet	Gigabit ethernet on systemboard / Broadcom BCM5751M (MAC/PHY) / PCIe x1 / PXE													
Audio support	Soft audio / ICH AC97 controller / DirectSound® support / AD1981B AC97 codec / stereo speakers / 1 watt / volume up, down, mute buttons / internal microphone / microphone input jack (3.5 mm; pink) / headphone jack (3.5 mm; green)										ThinkPad notebooks implement ThinkVantage® technologies and design; visit <a href="http://thinkpad.com/thinkvantage">thinkpad.com/thinkvantage</a>			
Security	Power-on password / hard disk password / supervisor password / security keyhole													
Security chip	<b>Embedded Security Subsystem 2.0<sup>33</sup></b> / in NS PC8394T chip / TCG-compliant													
Fingerprint reader	Some: <b>Fingerprint reader on palm rest</b> / swipe sensor / integrated with security chip													
Limited warranty <sup>12</sup>	<b>3-year/1-year battery, limited onsite service<sup>24</sup></b> , 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time										Universal 72 watt AC adapter PC 2001-compliant ACPI 1.0b and 2.0-compliant CIM and DMI 2.0-compliant PXE 2.1-compliant ENERGY STAR®-compliant International Warranty Service <sup>17</sup> 24 hour x 7 day <sup>18</sup> toll-free warranty support during the warranty <sup>12</sup>			
256MB PC2-4200 DDR2 NP CL4 SOD	73P3840	ThinkPad T40/R50 Li-Ion Battery 6-cell		92P1101										
512MB PC2-4200 DDR2 NP CL4 SOD	73P3842	ThinkPad T40/R50 Li-Ion Battery 9-cell		92P1102										
1GB PC2-4200 DDR2 NP CL4 SOD	73P3844	Ultrabay Slim Li-Polymer Battery 3-cell		08K8190										
USB Fingerprint Reader	41U3167	11a/b/g Wireless Mini PCI Adptr II		73P4301										
USB 2.0 Portable 80GB Hard Disk	40Y8726	ThinkPad Port Replicator II		74P6733										
100GB Hard Disk 9.5mm PATA (5400 rpm)	40Y8716	ThinkPad Mini Dock		287810U										
Second HDD Adapter for Ultrabay Slim	41U3148	ThinkPad Dock II		287710U										
Super Multi-Burner Ultrabay Enh Drv (curved)	40Y8624	ThinkPad Carrying Case - Expander		73P3597										
ThinkPad Convertible Monitor Stand	40Y7620	Other accessories at <a href="http://lenovo.com/accessories">lenovo.com/accessories</a>			Post-warranty annual maintenance agreements at <a href="http://lenovo.com/thinkplus/warranty">lenovo.com/thinkplus/warranty</a>									

See footnotes for important warranty information  
 US models announced August 2 or August 16, 2005  
 US models withdrawn effective February 2007

\* Powered by Intel Centrino® mobile technology



# ThinkPad® R52 (1958) - TopSeller and Education - withdrawn

Created by Lenovo Training Solutions  
Personal Systems Reference (PSREF)

Type-model	Processor	Speed GHz	Memory	Screen	Graphics controller	Disk GB <sup>8</sup> rpm	Optical	Mini PCI Comm Bay wireless	CDC modem/ <sup>TM</sup> Bluetooth	IEEE 1394 port	Security chip	Chipset 91x	Limited warranty <sup>12</sup>	Avail date
1958-3FU	Celeron® M 350	1.3	256MB	14.1" XGA	GMA	60GB 4200	CD	Intel 11b/g <sup>32</sup>	Modem	1394	Yes	GML EasyServ	Mar 05	
1958-3QU	Celeron M 360	1.4	256MB	14.1" XGA	GMA	60GB 5400	Combo	Intel 11b/g	Modem	1394	Yes	GML EasyServ	July 05	
1958-3LU	Pentium® M 725a	1.60	256MB	14.1" XGA	GMA	40GB 5400	Combo	*Intel 11a/b/g <sup>32</sup>	Modem	1394	Yes	GM EasyServ	Jun 05	
1958-3GU	Pentium M 740	1.73	256MB	14.1" XGA	GMA	60GB 4200	Combo	*Intel 11a/b/g	Modem	1394	Yes	GM EasyServ	Mar 05	
1958-6QU	Pentium M 740	1.73	512MB	15.0" XGA	GMA	60GB 4200	Combo	*Intel 11a/b/g	Modem	1394	Yes	GM EasyServ	Mar 05	
<ul style="list-style-type: none"> <li>• <b>These small and medium business (SMB) models are part of the US TopSeller™ Program</b></li> <li>• <b>These models have an EasyServ™<sup>19</sup> onsite pickup and delivery 3-year limited warranty</b></li> </ul>														
Positioning Processor	<b>Mainstream performance and features; two-spindle system</b> <b>Intel® Celeron M Processor 350 (1.3GHz), 360 (1.4GHz) or Pentium M Processor 725a (1.60GHz)</b> with 400MHz system bus or <b>Intel Pentium M Processor 740 (1.73GHz)</b> with Enhanced Intel SpeedStep™ technology <sup>1</sup> , Execute Disable Bit, and 533MHz system bus L2 cache Memory <b>Celeron M: 1 MB; Pentium M: 2MB; All: on die (at processor speed) / ECC 256 or 512MB std / 2GB max<sup>7</sup> / PC2-4200 533MHz DDR2 / non-parity / CL4 / dual channel capable / two 200-pin SO-DIMM sockets / std mem in 1 socket / 1 socket avail</b>										<b>SOFTWARE<sup>14</sup></b> <b>Windows XP Professional</b> - Microsoft® Windows® XP Professional <sup>20</sup> (Service Pack 2) ⇨ Disk-to-Disk Recovery (in hidden protected area) <b>Preloaded</b> • Education software from Vital Source Technologies®: vitalsource KEY™ and Personal Portable library™ • Rescue and Recovery™ • Access Program • Access Connections™ • Norton AntiVirus • PC-Doctor™ • ThinkPad Utilities • Adobe® Reader • RecordNOW and Drive Letter Access powered by Sonic products (combo models) • InterVideo WinDVD (combo models) • Client Security Software (for security chip) <b>Downloadable</b> • IBM Director Agent • Software Delivery Assistant • System Migration Assistant <b>License (CD not included)</b> - Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client			
Diskette drive	None standard / use optional USB-based diskette drive													
CD	Some: CD-ROM / 24X-10X <sup>9</sup> speed / removable from Ultrabay Enhanced													
Combo	Some: DVD-ROM/CD-RW / 24X/24X/24X/8X <sup>21</sup> speed / removable from Ultrabay Enh													
Ultrabay Enhanced	One modular bay for interchangeable devices / Ultrabay Slim-compatible / 12.7mm high													
Disk	<b>40GB<sup>8</sup></b> (5400 rpm), <b>60GB</b> (4200 rpm), or <b>60GB</b> (5400 rpm) / 9.5mm high / removable and upgradable / 9.5mm high bay / supports 2nd disk with opt 'Second HDD Adapter for Ultrabay Slim' / <b>Hard Disk Drive Shock Absorber / Active Protection System™</b>													
Display	Some: <b>14.1"</b> (358.1mm) <b>XGA (1024x768) TFT color</b> / Active Matrix / 150 nits Some: <b>15.0"</b> (381.0mm) <b>XGA (1024x768) TFT color</b> / Active Matrix / 200 nits													
Graphics	<b>Intel Graphics Media Accelerator 900 (GMA 900)</b> / integrated graphics in 91x GMCH / uses main memory (up to 128MB with 256MB+) / 200MHz													
Keyboard	87-key / Access IBM button / palm rest / pitch: 19mm; stroke: 2.5mm (std-size keys)													
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar <sup>13</sup> , magnifying glass													
Touch pad	UltraNav® multi-pointing system / touch pad below keyboard / Tap Zones													
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions													
Dimensions <sup>3</sup>	14.1" models (WxDxH): 12.4" x 10.2" x 1.35-1.46"; 314mm x 260mm x 34-37mm 15.0" models (WxDxH): 13.1" x 10.6" x 1.47-1.58"; 332mm x 269mm x 37-40mm with optical drive and battery: 14.1" models: 6.1 lb (2.8kg); 15" models: 6.6 lb (3.0kg)													
Weight <sup>2</sup>	Color: black; All: Acrylonitrile-Butadiene-Styrene (ABS) plastic													
Case material	Lithium Ion <b>6-cell</b> / intelligent / supports unique 2nd battery in Ultrabay Enhanced													
Battery - type	Celeron models: up to 2.2 hr; Pentium models: up to 3.8 hr; Optional 9-cell: up to 5.8 hr													
Battery - life <sup>10</sup>														
Architecture	Some: <b>Mobile Intel 910GML Express Chipset</b> / 82910GML Graphics Mem Cont Hub Some: <b>Mobile Intel 915GM Express Chipset</b> / 82915GM Graphics Mem Cont Hub All: 82801FBM ICH6-M I/O Controller Hub (SATA150, ATA-100 EIDE, PCI Express x1, PCI bus, ethernet MAC, USB, Low Pin Count [LPC] interface, [Bluetooth]) / PCI bus (TI® PCI1510 CardBus controller, Mini PCI, external expansion) / LPC bus (National Semiconductor® PC8394T Super I/O for security chip (TPM), Asset ID, hardware event log, parallel, infrared, [docking-based ports (serial, diskette)])													
PC Card Std slot	One Type I or Type II slot / CardBus 32-bit / integrated door													
ExpressCard slot	One ExpressCard/34 or ExpressCard/54 / PCI Express x1 or USB 2.0 / integrated door													
Ports	Two USB (Version 2.0) / parallel / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / no keyboard or mouse or serial ports (use USB)													
Video out	S-video out port (TV out) / one 4-pin industry standard connector													
IEEE 1394	IEEE 1394 (FireWire) port / 4-pin connector / 1394a-2000 standard													
Wireless antenna	UltraConnect™ Antenna built into the display cover for optimal wireless signal reception										ThinkPad notebooks implement ThinkVantage® technologies and design; visit <a href="http://thinkpad.com/thinkvantage">thinkpad.com/thinkvantage</a>			
Mini PCI	One Mini PCI type III slot (Communications Bay) / customer upgradable													
Intel 11b/g <sup>32</sup>	Some: 11b/g wireless <sup>4</sup> , Mini PCI, Intel PRO/Wireless 2200BG, Intel 82532 chip										Universal 72 watt AC adapter			
Intel 11a/b/g <sup>32</sup>	Some: 11a/b/g wireless <sup>4</sup> , Mini PCI, Intel PRO/Wireless 2915ABG, 82533 chipset										PC 2001-compliant			
CDC	One Communications Daughter Card (CDC) socket / customer accessible										ACPI 1.0b and 2.0-compliant			
Modem	56K <sup>6</sup> V.90 (V.92-designed <sup>29</sup> ) modem in CDC / Conexant® chipset										CIM and DMI 2.0-compliant			
Bluetooth™	None										PXE 2.1-compliant			
Ethernet	Gigabit ethernet on systemboard / Broadcom BCM5751M (MAC/PHY) / PCIe x1 / PXE										ENERGY STAR®-compliant			
Audio support	Soft audio / ICH AC97 controller / DirectSound® support / AD1981B AC97 codec / stereo speakers, 1 watt / volume up, down, mute buttons / internal microphone / microphone input jack (3.5 mm; pink) / headphone jack (3.5 mm; green)										International Warranty Service <sup>17</sup> 24 hour x 7 day <sup>18</sup> toll-free warranty support during the warranty <sup>12</sup>			
Security	Power-on password / hard disk password / supervisor password / security keyhole													
Security chip	<b>Embedded Security Subsystem 2.0<sup>33</sup></b> / in NS PC8394T chip / TCG-compliant													
Fingerprint reader	None										ThinkPlus™.22 2-year LOR 9x5 NBD 41C9175			
Limited warranty <sup>12</sup>	<b>3-year</b> 1-yr battery - EasyServ™.19 onsite pickup and delivery / service upgrades <sup>22</sup> avail										ThinkPlus 3-year LOR 9x5 NBD 41C9176			
256MB PC2-4200 DDR2 NP CL4 SOD	73P3840				ThinkPad T40/R50 Li-Ion Battery 6-cell				92P1101		ThinkPlus 4-year LOR 9x5 NBD			
512MB PC2-4200 DDR2 NP CL4 SOD	73P3842				ThinkPad T40/R50 Li-Ion Battery 9-cell				92P1102		41C9177			
1GB PC2-4200 DDR2 NP CL4 SOD	73P3844				Ultrabay Slim Li-Polymer Battery 3-cell				08K8190		ThinkPlus 5-year LOR 9x5 NBD			
USB Fingerprint Reader	41U3167				11a/b/g Wireless Mini PCI Adapter II				73P4301		41C9179			
USB 2.0 Memory Key 1GB	40Y7421				Intel PRO/Wireless 2915ABG Mini PCI				41N2990		ThinkPlus 4-year P&L P/U Depot			
USB 2.0 Super Multi-Burner Drive	41N5565				ThinkPad Port Replicator II				74P6733		41C9178			
100GB Hard Disk 9.5mm PATA (5400 rpm)	40Y8716				ThinkPad Mini Dock				287810U		ThinkPlus 5-year P&L P/U Depot			
Second HDD Adapter for Ultrabay Slim	41U3148				ThinkPad Dock II				287710U		41C9180			
Super Multi-Burner Ultrabay Enh Drv (curved)	40Y8624				ThinkPad Carrying Case - Expander				73P3597		Post-warranty annual maintenance agreements at			
Verizon Wireless V620 WWAN PC Card <sup>25</sup>	40Y9137				ThinkVision® L201p 20.1" Monitor (black)				9220HB1		agreements at			
ThinkPad Convertible Monitor Stand	40Y7620				Other accessories at <a href="http://lenovo.com/accessories">lenovo.com/accessories</a>						<a href="http://lenovo.com/thinkplus/warranty">lenovo.com/thinkplus/warranty</a>			

See footnotes for important warranty information

\* Powered by Intel Centrino® mobile technology

© Lenovo

US models announced April 12, June 28, or July 6, 2005

(RY6) February 2007

US models withdrawn effective September 2005 or February 2007

# ThinkPad® R60e (0657) - TopSeller - withdrawn

Created by Lenovo Training Solutions  
Personal Systems Reference (PSREF)

Type-model	Processor	Speed GHz	Memory	Anti-glare screen	Graphics controller MHz	Disk SATA GB <sup>8</sup> rpm	EIDE optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN wireless	Blue- tooth	Finger- print reader	Chip- set	Preload	Avail date
0657-4HU	Celeron® M 410	1.46	256MB	15.0"	XGA GMA166	40GB 5400	CD	11a/b/g <sup>32</sup>	None	None	None	GML	Home	May 06
0657-4JU	Celeron M 410	1.46	256MB	15.0"	XGA GMA166	40GB 5400	CD	11a/b/g	None	None	None	GML	XP Pro	May 06
0657-4KU	Celeron M 410	1.46	256MB	15.0"	XGA GMA166	40GB 5400	Combo	11a/b/g	None	None	None	GML	Home	May 06
0657-4LU	Celeron M 410	1.46	512MB	15.0"	XGA GMA166	60GB 5400	DVD±RW	11a/b/g	None	None	None	GML	XP Pro	May 06
0657-33U	Celeron M 420	1.60	256MB	15.0"	XGA GMA166	40GB 5400	CD	11a/b/g	None	None	None	GML	Home	May 06
0657-34U	Celeron M 420	1.60	256MB	15.0"	XGA GMA166	40GB 5400	CD	11a/b/g	None	None	None	GML	XP Pro	May 06
0657-35U	Celeron M 420	1.60	256MB	15.0"	XGA GMA166	40GB 5400	Combo	11a/b/g	None	None	None	GML	Home	May 06
0657-3AU	Celeron M 420	1.60	512MB	15.0"	XGA GMA166	60GB 5400	DVD±RW	11a/b/g	None	None	None	GML	XP Pro	May 06
0657-01U	Celeron M 430	1.73	512MB	15.0"	XGA GMA166	80GB 5400	DVD±RW	11a/b/g	None	None	None	GML	XP Pro	May 07
0657-3TU	Core Duo T2400	1.83	256MB	15.0"	XGA GMA250	40GB 5400	Combo	* Intel 11a/b/g <sup>32</sup>	None	None	None	GM	XP Pro	May 06
0657-45U	Core Solo T1300	1.66	256MB	15.0"	XGA GMA250	40GB 5400	Combo	* Intel 11a/b/g	None	None	None	GM	XP Pro	May 06
0657-46U	Core Solo T1300	1.66	256MB	15.0"	XGA GMA250	40GB 5400	Combo	* Intel 11a/b/g	None	None	None	GM	Home	May 06
0657-48U	Core Solo T1300	1.66	512MB	15.0"	XGA GMA250	60GB 5400	DVD±RW	* Intel 11a/b/g	None	None	None	GM	XP Pro	May 06
0657-4NU	Core Solo T1400	1.83	256MB	15.0"	XGA GMA250	40GB 5400	Combo	* Intel 11a/b/g	None	None	None	GM	XP Pro	Jul 06
0657-4PU	Core Solo T1400	1.83	256MB	15.0"	XGA GMA250	40GB 5400	Combo	* Intel 11a/b/g	None	None	None	GM	Home	Jul 06
0657-3EU	Core Duo T2300E	1.66	256MB	15.0"	XGA GMA250	40GB 5400	Combo	* Intel 11a/b/g	None	None	None	GM	XP Pro	May 06
0657-3FU	Core Duo T2300E	1.66	256MB	15.0"	XGA GMA250	40GB 5400	Combo	* Intel 11a/b/g	None	None	None	GM	Home	May 06
0657-4MU	Core Duo T2300E	1.66	512MB	15.0"	XGA GMA250	60GB 5400	DVD±RW	* Intel 11a/b/g	None	None	None	GM	XP Pro	May 06
0657-3JU	Core Duo T2300E	1.66	512MB	15.0"	XGA GMA250	60GB 5400	DVD±RW	* Intel 11a/b/g	None	None	None	GM	Home	May 06

- These small and medium business (SMB) models are part of the US TopSeller™ Program
- These models have a 1-year limited warranty<sup>2</sup>

Positioning Processor	Everyday computing; two spindles <b>Intel® Celeron M Processor 410, 420, or 430</b> with Execute Disable Bit, 533MHz system bus, and 1MB L2 cache or <b>Intel Core™ Solo processor T1300 or T1400</b> with single-core, Enhanced Intel SpeedStep™ technology <sup>1</sup> , Execute Disable Bit, 667MHz bus, and 2MB L2 cache or <b>Intel Core Duo processor T2300E or T2400</b> with dual-core, Enhanced Intel SpeedStep™ technology <sup>1</sup> , Execute Disable Bit, 667MHz system bus, and 2MB shared L2 cache	<b>SOFTWARE<sup>14</sup></b> <b>Windows XP Professional models</b> - Microsoft® Windows® XP Professional <sup>20</sup> (Service Pack 2) ↳ Disk-to-Disk Recovery <b>Windows XP Home models</b> - Microsoft Windows XP Home Edition <sup>20</sup> (Service Pack 2) ↳ Disk-to-Disk Recovery <b>Preloaded (all)</b> • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center with Away Manager • ThinkVantage System Update • Symantec® Client Security™ • Diskeeper Lite • PC-Doctor™ (diagnostics) • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader • Google Toolbar • Google Desktop • Picasa from Google • Multimedia Center for Think Offerings • Sonic RecordNOW and Drive Letter Access (combo, DVD±RW) • InterVideo WinDVD (combo, DVD±RW models) • InterVideo WinDVD Creator (DVD±RW models) <b>License</b> - CD not included (all) - Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client (Notes client not supported on XP Home)
Memory	<b>256MB or 512MB</b> std / <b>940GML models: 2GB max; 945GM models: 4GB max<sup>31</sup></b> / PC2-5300 667MHz DDR2 / <b>940GML models: PC2-5300</b> memory supported at slower 533MHz (not 667MHz) speed / non-parity / CL5 / dual-channel capable / two 200-pin SO-DIMM sockets / std memory in one socket / one socket available	
Diskette drive	None standard / use optional USB-based diskette drive	
EIDE CD	Some: CD-ROM / 24X-10X <sup>9</sup> speed / fixed, not removable / 12.7mm high	
EIDE Combo	Some: DVD-ROM/CD-RW / 24X/24X/24X/8X <sup>21</sup> speed / fixed, not removable / 12.7mm	
EIDE DVD±RW	Some: DVD burner / Super Multi-Burner DL (40Y8624) / fixed, not removable	
Ultrabay Enhanced	None / no support for removable Ultrabay™ options	
Serial ATA disk (SATA150)	<b>40GB<sup>8</sup></b> (5400 rpm) or <b>60GB</b> (5400 rpm) / 9.5mm high / removable, upgradable / 9.5mm high bay / <b>Hard Disk Drive Shock Absorber</b>	
Display	<b>15.0"</b> (381.0mm) <b>XGA (1024x768) TFT color</b> / 150 nits / anti-glare / 4:3 aspect ratio	
Graphics	Some: <b>Intel Graphics Media Accelerator 950 (GMA 950)</b> / in 940GML / 166MHz Some: <b>Intel Graphics Media Accelerator 950 (GMA 950)</b> / in 945GM / 250MHz	
Keyboard	89-key / ThinkVantage button / spill-resistant / multimedia Fn keys / Windows, Appl keys	
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar <sup>13</sup> (no touch pad)	
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions	
Dimensions <sup>3</sup>	<b>15.0" models (WxDxH): 13.1" x 10.6" x 1.47-1.58"</b> ; 332mm x 269mm x 37.3-40.2mm	
Weight <sup>2</sup>	with optical drive and battery: up to 6.3 lb (2.8 kg)	
Case material	Color: black; All: Acrylonitrile-Butadiene-Styrene (ABS) plastic	
Battery - type	Lithium Ion <b>6-cell</b> / supports optional 9-cell battery	
Battery - life <sup>10</sup>	<b>6-cell:</b> up to 5.2 hr; <b>optional 9-cell:</b> up to 7.8 hr	
Architecture	Some: <b>Mobile Intel 940GML Express Chipset</b> / 82940GML Graphics Mem Cont Hub Some: <b>Mobile Intel 945GM Express Chipset</b> / 82945GM Graphics Memory Cont Hub All: 82801GBM ICH7-M I/O Controller Hub (SATA300, ATA-100 EIDE, PCI Express x1, PCI bus, USB, LPC interface) / PCI bus (TI PC1512 CardBus controller) / no Super I/O	
Docking station	No port replicator or docking station support	
PC Card Std slot	One Type I or Type II slot / CardBus 32-bit / integrated door	
ExpressCard slot	None	
Ports	Three USB 2.0 / external DB-15 monitor / RJ-11 (modem) / RJ-45 (ethernet) / no keyboard, mouse, serial, parallel, infrared, S-video out, or 1394 FireWire port (use USB)	
Wireless antenna	UltraConnect™ Antenna built into the display cover / on-off switch for all wireless radios	
Mini PCI Express	One Mini PCI Express slot / not customer upgradable	
Intel 11a/b/g <sup>32</sup>	Some: 11a/b/g wireless <sup>4</sup> , Mini PCI Express adapter, Intel PRO/Wireless 3945ABG	
11a/b/g <sup>32</sup>	Some: 11a/b/g wireless <sup>4</sup> , ThinkPad 11a/b/g Mini PCIe Adapter, Atheros AR5006EX	
WWAN <sup>16</sup>	None	
Modem	56K <sup>6</sup> V.90 (V.92-designed <sup>29</sup> ) modem in Communications Daughter Card socket	
Bluetooth™	None	
Ethernet	Gigabit ethernet on systemboard / Broadcom® BCM5751M (MAC/PHY) / PCIe x1 / PXE	
Audio support	High Definition (HD) Audio / AD1981HD codec / mono speaker, 1 watt / volume up, down, mute buttons / mono microphone / microphone input jack / headphone jack	
Security	Power-on password / hard disk password / supervisor password / security keyhole	
Security chip	None	
Fingerprint reader	None	
Limited warranty <sup>12</sup>	<b>1-year</b> - EasyServ™ <sup>19</sup> onsite pickup and delivery / service upgrades <sup>22</sup> available	Supports ThinkVantage® technologies 65-watt AC adapter ThinkPad Roll Cage (one-piece magnesium frame) RoHS-compliant International Warranty Service <sup>17</sup> 24 hour x 7 day <sup>18</sup> toll-free warranty support during the warranty <sup>12</sup> ThinkPlus™ <sup>22</sup> 1-year LOR 9x5 NBD 41C9166 ThinkPlus 3-year LOR 9x5 NBD 41C9168 Other ThinkPlus services at <a href="http://lenovo.com/thinkplus/warranty">lenovo.com/thinkplus/warranty</a>

See footnotes for important warranty information  
US models announced May 16, May 30, or July 18, 2006 or May 11, 2007  
US models withdrawn effective October 2006 or September 2007

\* Powered by Intel Centrino® mobile technology  
\* Powered by Intel Centrino® Duo mobile technology

# ThinkPad® R60e (0657) - TopSeller (October 2006) - withdrawn

Created by Lenovo Training Solutions  
Personal Systems Reference (PSREF)

Type-model	Processor	GHz	Memory	Anti-glare screen	Graphics controller MHz	Disk SATA GB <sup>3</sup> rpm	EIDE optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN wireless	Finger-print reader	Chip-set	Preload	Avail date
0657-HQU	Core 2 Duo T5500	1.66	512MB	15.0" XGA	GMA250	80GB 5400	Combo	* Intel 11a/b/g <sup>32</sup>	None	None	GM	XP Pro	Oct 06
0657-HRU	Core 2 Duo T5500	1.66	1GB	15.0" XGA	GMA250	120GB 5400	DVD±RW	ThinkPad 11n <sup>28</sup>	None	None	GM	XP Pro	Oct 06

- These small and medium business (SMB) models are part of the US TopSeller™ Program
- These models have a 1-year limited warranty<sup>12</sup>

Positioning Processor	<i>Everyday computing; two spindles</i> <b>Intel® Core™ 2 Duo processor T5500</b> with dual-core, Intel 64 Technology, Enhanced Intel SpeedStep™ technology <sup>1</sup> , Execute Disable Bit, 667MHz system bus, and 2MB shared L2 cache											
Memory	<b>512MB</b> or <b>1GB</b> std / 4GB max <sup>31</sup> / PC2-5300 667MHz DDR2 / non-parity / CL5 / dual-channel capable / two 200-pin SO-DIMM sockets / <i>512MB model:</i> std memory in one socket; one socket available; <i>1GB model:</i> std memory in two sockets; no sockets available											
Diskette drive	None standard / use optional USB-based diskette drive											
EIDE Combo	<i>Some:</i> DVD-ROM/CD-RW / 24X/24X/8X <sup>21</sup> speed / fixed, not removable / 12.7mm											
EIDE DVD±RW	<i>Some:</i> DVD burner / Super Multi-Burner DL (40Y8624) / fixed, not removable											
Ultrabay Enhance	None / no support for removable Ultrabay™ options											
Serial ATA disk (SATA150)	<b>80GB<sup>8</sup></b> or <b>120GB</b> (5400 rpm) / 9.5mm high / removable, upgradable / 9.5mm high bay / <b>Hard Disk Drive Shock Absorber</b>											
Display	<b>15.0"</b> (381.0mm) <b>XGA (1024x768) TFT color</b> / 150 nits / anti-glare / 4:3 aspect ratio											
Graphics	<b>Intel Graphics Media Accelerator 950 (GMA 950)</b> / in 945GM / 250MHz											
Keyboard	89-key / ThinkVantage button / spill-resistant / multimedia Fn keys / Windows, Appl keys											
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar <sup>13</sup> (no touch pad)											
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions											
Dimensions <sup>3</sup>	<i>15.0" models (WxDxH):</i> 13.1" x 10.6" x 1.47-1.58"; 332mm x 269mm x 37.3-40.2mm											
Weight <sup>2</sup>	with optical drive and battery: up to 6.6 lb (3.0kg)											
Case material	<i>Color:</i> black; <i>All:</i> Acrylonitrile-Butadiene-Styrene (ABS) plastic											
Battery - type	Lithium Ion <b>6-cell</b> / supports optional 9-cell battery											
Battery - life <sup>10</sup>	<i>6-cell:</i> up to 5.2 hr; <i>optional 9-cell:</i> up to 7.8 hr											
Architecture	<b>Mobile Intel 945GM Express Chipset</b> / 82945GM Graphics Memory Controller Hub / 82801GBM ICH7-M I/O Controller Hub (SATA300, ATA-100 EIDE, PCI Express x1, PCI bus, USB, LPC interface) / PCI bus (TI PCI1512 CardBus controller) / no Super I/O											
Docking station	No port replicator or docking station support											
PC Card Std slot	One Type I or Type II slot / CardBus 32-bit / integrated door											
ExpressCard slot	None											
Ports	Three USB 2.0 / external DB-15 monitor / RJ-11 (modem) / RJ-45 (ethernet) / no keyboard, mouse, serial, parallel, infrared, S-video out, or 1394 FireWire port (use USB)											
Wireless antenna	UltraConnect™ Antenna built into the display cover / on-off switch for all wireless radios											
Mini PCI Express	One Mini PCI Express slot / not customer upgradable											
Intel 11a/b/g <sup>32</sup>	<i>Some:</i> 11a/b/g wireless <sup>4</sup> , Mini PCI Express adapter, Intel PRO/Wireless 3945ABG											
ThinkPad 11n <sup>28</sup>	<i>Some:</i> 11a/b/g/n wireless <sup>4</sup> , ThinkPad 11a/b/g/n Mini PCI Express Adapter, Atheros AR5008 chipset, MIMO 2x2											
WWAN <sup>16</sup>	None											
Modem	56K <sup>6</sup> V.90 (V.92-designed <sup>29</sup> ) modem in Communications Daughter Card socket											
Bluetooth™	None											
Ethernet	Gigabit ethernet on systemboard / Broadcom® BCM5751M (MAC/PHY) / PCIe x1 / PXE											
Audio support	High Definition (HD) Audio / AD1981HD codec / mono speaker, 1 watt / volume up, down, mute buttons / mono microphone / microphone input jack / headphone jack											
Security	Power-on password / hard disk password / supervisor password / security keyhole											
Security chip	None											
Fingerprint reader	None											
Limited warranty <sup>12</sup>	<b>1-year</b> - EasyServ™ <sup>19</sup> onsite pickup and delivery / service upgrades <sup>22</sup> available											
512MB PC2-5300 DDR2 CL5 SODIMM	40Y7733	T60/R60 Series Li-Ion Battery 6-cell	40Y6799									
1GB PC2-5300 DDR2 CL5 SODIMM	40Y7734	Z60m/T60/R60 Li-Ion Battery 9-cell	40Y6797									
60GB Disk 9.5mm SATA150 (7200 rpm)	41N3012	ThinkPad External Battery Charger	40Y7625									
100GB Disk 9.5mm SATA150 (7200 rpm)	41N3013	ThinkPad 90W AC Adapter	40Y7659									
120GB Disk 9.5mm SATA150 (5400 rpm)	41N5691	ThinkPad 90W AC/DC Combo Adapter	40Y7630									
160GB Disk 9.5mm SATA150 (5400 rpm)	41N5692	Lenovo M500 Projector	0037A05									
USB Numeric Keypad	33L3225	Lenovo C500 Projector	0039A05									
USB Portable Diskette Drive	05K9276	ThinkPad Carrying Case - Expander	73P3597									
USB 2.0 Lenovo Multimedia Headset	40Y8518	ThinkPad Carrying Case - Backpack	73P3599									
USB 2.0 Lenovo Webcam	40Y8519	ThinkPad Carrying Case - Organizer	73P3598									
USB 2.0 Security Memory Key 2GB	41U5119	Premiere Leather Carrying Case	10K0209									
USB 2.0 Security Memory Key 4GB	41U5120	ThinkPad Convertible Carrying Case	22P8860									
USB 2.0 Port Replicator with Video	40Y8132	USB Fingerprint Reader	73P4774									
USB 2.0 Portable 80GB Hard Disk	41N8378	ThinkPad Convertible Monitor Stand	40Y7620									
USB 2.0 Portable 120GB Hard Disk	41N8379	Lenovo L171 17" Monitor (black)	9227AC1									
USB 2.0 Super Multi-Burner Drive	41N5565	Lenovo L192 Wide 19" Monitor (black)	6920AB1									
USB Keyboard with UltraNav	31P8950	ThinkVision® L171p 17" Monitor (black)	9417HC2									
USB Travel Keyboard with UltraNav	31P9490	ThinkVision L192p 19" Monitor (black)	9419HC2									
Enh Perf Wireless Keyboard and Mouse	73P4067	ThinkVision L201p 20.1" Monitor (black)	9220HB1									
TrackPoint Cap Collection	73P2698	Other accessories at <a href="http://lenovo.com/accessories">lenovo.com/accessories</a>										
<b>SOFTWARE<sup>14</sup></b>												
<b>Windows XP Professional</b>												
- Microsoft® Windows® XP Professional <sup>20</sup> (Service Pack 2)												
↳ Disk-to-Disk Recovery (in hidden protected area)												
<b>Preloaded</b>												
• Microsoft Office OneNote® 2003												
• Rescue and Recovery™												
• Access Connections™												
• Client Security Solution™												
• ThinkVantage Productivity Center with Away Manager												
• ThinkVantage System Update												
• Symantec® Client Security™												
• Diskeeper Lite												
• PC-Doctor™ (diagnostics)												
• ThinkPad Utilities (Power Manager and Presentation Director)												
• Adobe® Reader												
• Google Toolbar												
• Google Desktop												
• Picasa from Google												
• Fingerprint Software (fingerprint models)												
• Multimedia Center for Think Offerings												
• Sonic RecordNOW and Drive Letter Access (combo, DVD±RW)												
• InterVideo WinDVD (combo, DVD±RW models)												
• InterVideo WinDVD Creator (DVD±RW models)												
<b>CD included</b>												
• Microsoft Office OneNote 2003												
<b>License</b> - CD not included												
- Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client												
Supports ThinkVantage® technologies												
65-watt AC adapter												
ThinkPad Roll Cage (one-piece magnesium frame)												
RoHS-compliant												
International Warranty Service <sup>17</sup>												
24 hour x 7 day <sup>18</sup> toll-free warranty support during the warranty <sup>12</sup>												
ThinkPlus™.22 1-year LOR 9x5 NBD 41C9166												
ThinkPlus 2-year LOR 9x5 NBD 41C9167												
ThinkPlus 3-year LOR 9x5 NBD 41C9168												
ThinkPlus 4-year LOR 9x5 NBD 41C9171												
ThinkPlus 5-year LOR 9x5 NBD 41C9173												
ThinkPlus 2-year P&L P/U Depot 41C9169												
ThinkPlus 3-year P&L P/U Depot 41C9170												
ThinkPlus 4-year P&L P/U Depot 41C9172												
ThinkPlus 5-year P&L P/U Depot 41C9174												

See footnotes for important warranty information  
US models announced October 17, 2006  
US models withdrawn effective July 2007

\* Powered by Intel Centrino® Duo mobile technology

© Lenovo  
(PC2-1) August 2007

# ThinkPad® R60e (0658) - withdrawn

Created by Lenovo Training Solutions  
Personal Systems Reference (PSREF)

Type-model	Processor	GHz	Memory	Anti-glare screen	Graphics controller MHz	Disk SATA GB <sup>8</sup> rpm	EIDE optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN wireless	Finger-print reader	Chip-set	Workhorse Global (G)	Avail date
0658-53U	Celeron® M 420	1.60	256MB	15.0" XGA	GMA166	40GB 5400	DVD	None; no upg	None	None	GML	XP Pro	May 06
0658-5HU	Celeron M 420	1.60	256MB	15.0" XGA	GMA166	40GB 5400	DVD	None; no upg	None	None	GML	Home	May 06
0658-5YU	Celeron M 420	1.60	256MB	15.0" XGA	GMA166	40GB 5400	Combo	11a/b/g <sup>32</sup>	None	None	GML	XP Pro	May 06
0658-G3U	Celeron M 420	1.60	256MB	15.0" XGA	GMA166	40GB 5400	CD	None; no upg	None	None	GML	Home	G Oct 06
0658-6HU	Core Duo T2300E	1.66	512MB	15.0" XGA	GMA250	40GB 5400	Combo	*Intel 11a/b/g <sup>32</sup>	None	None	GM	XP Pro	May 06
0658-6KU	Core Duo T2300E	1.66	512MB	15.0" XGA	GMA250	60GB 5400	DVD±RW	*Intel 11a/b/g	None	None	GM	XP Pro	May 06
0658-7PU	Core Solo T1300	1.66	256MB	15.0" XGA	GMA250	40GB 5400	Combo	*Intel 11a/b/g	None	None	GM	XP Pro	May 06
0658-G4U	Core Solo T1400	1.83	512MB	15.0" XGA	GMA250	60GB 5400	Combo	*Intel 11a/b/g	None	None	GM	XP Pro	G Oct 06
0658-CKU	Core Duo T2400	1.83	512MB	15.0" XGA	GMA250	60GB 5400	Combo	*Intel 11a/b/g	None	None	GM	XP Pro	G Oct 06
0658-CLU	Core Duo T2500	2.00	512MB	15.0" XGA	GMA250	80GB 5400	DVD±RW	*Intel 11a/b/g	None	None	GM	XP Pro	G Oct 06
Positioning Processor	<b>Everyday computing; two spindles</b> <b>Intel® Celeron M Processor 420</b> with Execute Disable Bit, 533MHz system bus, and 1MB L2 cache or <b>Intel Core™ Solo processor T1300 or T1400</b> with single-core, Enhanced Intel Speed-Step™ technology <sup>1</sup> , Execute Disable Bit, 667MHz bus, and 2MB L2 cache or <b>Intel Core Duo processor T2300E, T2400, or T2500</b> with dual-core, Enhanced Intel SpeedStep technology <sup>1</sup> , Execute Disable Bit, 667MHz system bus, and 2MB shared L2 cache												
Memory	<b>256MB or 512MB</b> std / <b>940GML models: 2GB max; 945GM models: 4GB max<sup>31</sup></b> / PC2-5300 667MHz DDR2 / <b>940GML models: PC2-5300</b> memory supported at slower 533MHz [not 667MHz] speed / non-parity / CL5 / dual-channel capable / two 200-pin SO-DIMM sockets / std memory in one socket / one socket available												
Diskette drive	None standard / use optional USB-based diskette drive												
EIDE CD	Some: CD-ROM / 24X-10X <sup>9</sup> speed / fixed, not removable / 12.7mm high												
EIDE DVD	Some: DVD-ROM / 8X-3.3X <sup>9</sup> speed / single-layer / fixed, not removable / 12.7mm high												
EIDE Combo	Some: DVD-ROM/CD-RW / 24X/24X/24X/8X <sup>21</sup> speed / fixed, not removable / 12.7mm												
EIDE DVD±RW	Some: DVD burner / Super Multi-Burner DL (40Y8624) / fixed, not removable / 12.7mm												
Ultrabay Enhanced	None / no support for removable Ultrabay™ options												
Serial ATA disk (SATA150)	<b>40GB<sup>8</sup></b> (5400 rpm), <b>60GB</b> (5400 rpm), or <b>80GB</b> (5400 rpm) / 9.5mm high / removable, upgradable / 9.5mm high bay / <b>Hard Disk Drive Shock Absorber</b>												
Display	<b>15.0"</b> (381.0mm) <b>XGA (1024x768) TFT color</b> / 150 nits / anti-glare / 4:3 aspect ratio												
Graphics	Some: <b>Intel Graphics Media Accelerator 950 (GMA 950)</b> / in 940GML / 166MHz Some: <b>Intel Graphics Media Accelerator 950 (GMA 950)</b> / in 945GM / 250MHz												
Keyboard	89-key / ThinkVantage button / spill-resistant / multimedia Fn keys / Windows, Appl keys												
TrackPoint™	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar <sup>13</sup> (no touch pad)												
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions												
Dimensions <sup>3</sup>	<b>15.0" models (WxDxH): 13.1" x 10.6" x 1.47-1.58"</b> ; 332mm x 269mm x 37.3-40.2mm												
Weight <sup>2</sup>	with optical drive and battery: up to 6.3 lb (2.8 kg)												
Case material	Color: black; All: Acrylonitrile-Butadiene-Styrene (ABS) plastic												
Battery - type	Lithium Ion <b>6-cell</b> / supports optional 9-cell battery												
Battery - life <sup>10</sup>	<b>6-cell</b> : up to 5.2 hr; <b>optional 9-cell</b> : up to 7.8 hr												
Architecture	Some: <b>Mobile Intel 940GML Express Chipset</b> / 82940GML Graphics Mem Cont Hub Some: <b>Mobile Intel 945GM Express Chipset</b> / 82945GM Graphics Memory Cont Hub All: 82801GBM ICH7-M I/O Controller Hub (SATA300, ATA-100 EIDE, PCI Express x1, PCI bus, USB, LPC interface) / PCI bus (TI PCI1512 CardBus controller) / no Super I/O												
Docking station	No port replicator or docking station support												
PC Card Std slot	One Type I or Type II slot / CardBus 32-bit / integrated door												
ExpressCard slot	None												
Ports	Three USB 2.0 / external DB-15 monitor / RJ-11 (modem) / RJ-45 (ethernet) / no keyboard, mouse, serial, parallel, infrared, S-video out, or 1394 FireWire port (use USB)												
Wireless antenna	UltraConnect™ Antenna built into the display cover / on-off switch for all wireless radios												
Mini PCI Express	<b>53U/5HU</b> : no Mini PCI Express slot / no internal 802.11 wireless upg (use PC Card) <b>Others</b> : one Mini PCI Express slot / not customer upgradable Some: 11a/b/g wireless <sup>4</sup> , Mini PCI Express adapter, Intel PRO/Wireless 3945ABG Some: 11a/b/g wireless <sup>4</sup> , ThinkPad 11a/b/g Mini PCIe Adapter, Atheros AR5006EX												
Intel 11a/b/g <sup>32</sup>	None												
11a/b/g <sup>32</sup>	None												
WWAN <sup>16</sup>	None												
Modem	56K <sup>6</sup> V.90 (V.92-designed <sup>29</sup> ) modem in Communications Daughter Card socket												
Bluetooth™	None												
Ethernet	Gigabit ethernet on systemboard / Broadcom® BCM5751M (MAC/PHY) / PCIe x1 / PXE												
Audio support	High Definition (HD) Audio / AD1981HD codec / mono speaker, 1 watt / volume up, down, mute buttons / mono microphone / microphone input jack / headphone jack												
Security	Power-on password / hard disk password / supervisor password / security keyhole												
Security chip	None												
Fingerprint reader	None												
Limited warranty <sup>12</sup>	<b>1-year - EasyServ™<sup>19</sup> onsite pickup and delivery / service upgrades<sup>22</sup> available</b>												
512MB PC2-5300 DDR2 CL5 SODIMM	40Y7733	T60/R60 Series Li-Ion Battry 6-cell	40Y6799										
1GB PC2-5300 DDR2 CL5 SODIMM	40Y7734	Z60m/T60/R60 Li-Ion Battry 9-cell	40Y6797										
100GB Disk 9.5mm SATA150 (7200 rpm)	41N3013	ThinkPad 90W AC Adapter	40Y7659										
USB Portable Diskette Drive	05K9276	ThinkPad 90W AC/DC Combo Adapter	40Y7630										
USB 2.0 Lenovo Multimedia Headset	40Y8518	ThinkPad Carrying Case - Expander	73P3597										
USB 2.0 Lenovo Webcam	40Y8519	ThinkPad Carrying Case - Organizer	73P3598										
USB 2.0 Security Memory Key 2GB	41U5119	Premiere Leather Carrying Case	10K0209										
USB 2.0 Security Memory Key 4GB	41U5120	ThinkPad Convertible Monitor Stand	40Y7620										
USB 2.0 Port Replicator with Video	40Y8132	Lenovo L192 Wide 19" Monitor (black)	6920AB1										
USB 2.0 Super Multi-Burner Drive	41N5565	ThinkVision® L201p 20.1" Monitor (blk)	9220HB1										
TrackPoint Cap Collection	73P2698	Other accessories at <a href="http://lenovo.com/accessories">lenovo.com/accessories</a>											
65-watt AC adapter	Supports ThinkVantage® technologies												
ThinkPad Roll Cage (one-piece magnesium frame)													
RoHS-compliant													
International Warranty Service <sup>17</sup>	24 hour x 7 day <sup>18</sup> toll-free warranty support during the warranty <sup>12</sup>												
ThinkPlus™ <sup>22</sup> 1-year LOR 9x5 NBD	41C9166												
ThinkPlus 2-year LOR 9x5 NBD	41C9167												
ThinkPlus 3-year LOR 9x5 NBD	41C9168												
ThinkPlus 4-year LOR 9x5 NBD	41C9171												
ThinkPlus 5-year LOR 9x5 NBD	41C9173												
ThinkPlus 2-year P&L P/U Depot	41C9169												
ThinkPlus 3-year P&L P/U Depot	41C9170												
ThinkPlus 4-year P&L P/U Depot	41C9172												
ThinkPlus 5-year P&L P/U Depot	41C9174												

See footnotes for important warranty information \* Powered by Intel Centrino® Duo mobile technology  
 US models announced May 16, May 30, or October 17, 2006  
 US models withdrawn effective May, July, or September 2007

# ThinkPad® R60e (0658) - Education - withdrawn

Created by Lenovo Training Solutions  
Personal Systems Reference (PSREF)

Type-model	Processor	Speed GHz Memory	Anti-glare screen	Graphics controller MHz	Disk SATA GB <sup>8</sup> rpm	EIDE optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN wireless	Blue- tooth	Finger- print reader	Chip- set	1-year limited warranty <sup>12</sup>	Avail date
0658-5XU	Celeron M 420	1.60 256MB	15.0" XGA	GMA166	40GB 5400 CD		11a/b/g <sup>32</sup>	None	None	None	GML	EasyServ	May 06
0658-6GU	Core Duo T2300E	1.66 512MB	15.0" XGA	GMA250	40GB 5400	Combo *	Intel 11a/b/g <sup>32</sup>	None	None	None	GM	EasyServ	May 06
<p>• <b>This model has an EasyServ™<sup>19</sup> onsite pickup and delivery 1-year limited warranty</b>                      These educational models are available only to public or private K-12 (or higher) accredited schools organized and operated exclusively for educational purposes for use by qualified students and teachers.</p>													
Positioning Processor	<i>Everyday computing; two spindles</i> <b>Intel® Celeron M Processor 420</b> with Execute Disable Bit, 533MHz system bus, and 1MB L2 cache or <b>Intel Core™ Duo processor T2300E or T2400</b> with dual-core, Enhanced Intel SpeedStep™ technology <sup>1</sup> , Execute Disable Bit, 667MHz system bus, and 2MB shared L2 cache										<b>SOFTWARE<sup>14</sup></b>		
Memory	<b>256MB or 512MB</b> std / <i>940GML models: 2GB max; 945GM models: 4GB max<sup>31</sup></i> / PC2-5300 667MHz DDR2 / <i>940GML models: PC2-5300</i> memory supported at slower 533MHz [not 667MHz] speed) / non-parity / CL5 / dual-channel capable / two 200-pin SO-DIMM sockets / std memory in one socket / one socket available										<b>Windows XP Professional</b> - Microsoft® Windows® XP Professional <sup>20</sup> (Service Pack 2) ⇨ Disk-to-Disk Recovery (in hidden protected area)  <b>Preloaded</b> • VitalSource Library education software • Adobe® Photoshop® Elements plus Adobe Premiere® Elements • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center with Away Manager • ThinkVantage System Update • Symantec® Client Security™ • Diskeeper Lite • PC-Doctor™ (diagnostics) • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader • Google Toolbar • Google Desktop • Picasa from Google • Multimedia Center for Think Offerings • Sonic RecordNOW and Drive Letter Access (combo model) • InterVideo WinDVD (combo model)		
Diskette drive	None standard / use optional USB-based diskette drive												
EIDE CD	Some: CD-ROM / 24X-10X <sup>9</sup> speed / fixed, not removable / 12.7mm high												
EIDE Combo	Some: DVD-ROM/CD-RW / 24X/24X/24X/8X <sup>21</sup> speed / fixed, not removable / 12.7mm												
Ultrabay Enhanced	None / no support for removable Ultrabay™ options												
Serial ATA disk (SATA150)	<b>40GB<sup>8</sup></b> (5400 rpm) / 9.5mm high / removable, upgradable / 9.5mm high bay / <b>Hard Disk Drive Shock Absorber</b>												
Display	<b>15.0"</b> (381.0mm) <b>XGA (1024x768) TFT color</b> / 150 nits / anti-glare / 4:3 aspect ratio												
Graphics	Some: <b>Intel Graphics Media Accelerator 950 (GMA 950)</b> / in 940GML / 166MHz Some: <b>Intel Graphics Media Accelerator 950 (GMA 950)</b> / in 945GM / 250MHz												
Keyboard	89-key / ThinkVantage button / spill-resistant / multimedia Fn keys / Windows, Appl keys												
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar <sup>13</sup> (no touch pad)												
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions												
Dimensions <sup>3</sup>	<i>15.0" models (WxDxH): 13.1" x 10.6" x 1.47-1.58"</i> ; 332mm x 269mm x 37.3-40.2mm												
Weight <sup>2</sup>	with optical drive and battery: up to 6.3 lb (2.8 kg)												
Case material	Color: black; All: Acrylonitrile-Butadiene-Styrene (ABS) plastic												
Battery - type	Lithium Ion <b>6-cell</b> / supports optional 9-cell battery												
Battery - life <sup>10</sup>	<i>6-cell: up to 5.2 hr; optional 9-cell: up to 7.8 hr</i>												
Architecture	Some: <b>Mobile Intel 940GML Express Chipset</b> / 82940GML Graphics Mem Cont Hub Some: <b>Mobile Intel 945GM Express Chipset</b> / 82945GM Graphics Memory Cont Hub All: 82801GBM ICH7-M I/O Controller Hub (SATA300, ATA-100 EIDE, PCI Express x1, PCI bus, USB, LPC interface) / PCI bus (TI PCI1512 CardBus controller) / no Super I/O												
Docking station	No port replicator or docking station support												
PC Card Std slot	One Type I or Type II slot / CardBus 32-bit / integrated door												
ExpressCard slot	None												
Ports	Three USB 2.0 / external DB-15 monitor / RJ-11 (modem) / RJ-45 (ethernet) / no keyboard, mouse, serial, parallel, infrared, S-video out, or 1394 FireWire port (use USB)												
Wireless antenna	UltraConnect™ Antenna built into the display cover / on-off switch for all wireless radios												
Mini PCI Express	One Mini PCI Express slot / not customer upgradable												
Intel 11a/b/g <sup>32</sup>	Some: 11a/b/g wireless <sup>4</sup> , Mini PCI Express adapter, Intel PRO/Wireless 3945ABG												
11a/b/g <sup>32</sup>	Some: 11a/b/g wireless <sup>4</sup> , ThinkPad 11a/b/g Mini PCIe Adapter, Atheros AR5006EX												
WWAN <sup>16</sup>	None												
Modem	56K <sup>6</sup> V.90 (V.92-designed <sup>29</sup> ) modem in Communications Daughter Card socket												
Bluetooth™	None												
Ethernet	Gigabit ethernet on systemboard / Broadcom® BCM5751M (MAC/PHY) / PCIe x1 / PXE												
Audio support	High Definition (HD) Audio / AD1981HD codec / mono speaker, 1 watt / volume up, down, mute buttons / mono microphone / microphone input jack / headphone jack												
Security	Power-on password / hard disk password / supervisor password / security keyhole												
Security chip	None												
Fingerprint reader	None												
Limited warranty <sup>12</sup> <b>1-year</b> - EasyServ™ <sup>19</sup> onsite pickup and delivery / service upgrades <sup>22</sup> available													
512MB PC2-5300 DDR2 CL5 SODIMM	40Y7733	T60/R60 Series Li-Ion Battry 6-cell	40Y6799										
1GB PC2-5300 DDR2 CL5 SODIMM	40Y7734	Z60m/T60/R60 Li-Ion Battry 9-cell	40Y6797										
60GB Disk 9.5mm SATA150 (7200 rpm)	41N3012	ThinkPad External Battery Charger	40Y7625										
100GB Disk 9.5mm SATA150 (7200 rpm)	41N3013	ThinkPad 90W AC Adapter	40Y7659										
120GB Disk 9.5mm SATA150 (5400 rpm)	41N5691	ThinkPad 90W AC/DC Combo Adapter	40Y7630										
160GB Disk 9.5mm SATA150 (5400 rpm)	41N5692	Lenovo M500 Projector	0037A05										
USB Portable Diskette Drive	05K9276	Lenovo C500 Projector	0039A05										
USB 2.0 Lenovo Multimedia Headset	40Y8518	ThinkPad Carrying Case - Expander	73P3597										
USB 2.0 Lenovo Webcam	40Y8519	ThinkPad Carrying Case - Organizer	73P3598										
USB 2.0 Security Memory Key 2GB	41U5119	Premiere Leather Carrying Case	10K0209										
USB 2.0 Security Memory Key 4GB	41U5120	ThinkPad Convertible Carrying Case	22P8860										
USB 2.0 Port Replicator with Video	40Y8132	USB Fingerprint Reader	73P4774										
USB 2.0 Portable 80GB Hard Disk	41N8378	ThinkPad Convertible Monitor Stand	40Y7620										
USB 2.0 Portable 120GB Hard Disk	41N8379	Lenovo L171 17" Monitor (black)	9227AC1										
USB 2.0 Super Multi-Burner Drive	41N5565	Lenovo L192 Wide 19" Monitor (black)	6920AB1										
USB Travel Keyboard with UltraNav	31P9490	Lenovo D221 Wide 22" Monitor (black)	6622HB1										
Preferred Pro USB Keyboard	73P5220	ThinkVision® L171p 17" Monitor (black)	9417HC2										
Enh Perf Wireless Keyboard and Mouse	73P4067	ThinkVision L192p 19" Monitor (black)	9419HC2										
TrackPoint Cap Collection	73P2698	ThinkVision L201p 20.1" Monitor (black)	9220HB1										
Lenovo Laser Mouse (USB, PS/2)	41U3074	Other accessories at <a href="http://lenovo.com/accessories">lenovo.com/accessories</a>											
										<b>ThinkPlus™<sup>22</sup> 1-year LOR 9x5 NBD</b> 41C9166 <b>ThinkPlus 2-year LOR 9x5 NBD</b> 41C9167 <b>ThinkPlus 3-year LOR 9x5 NBD</b> 41C9168 <b>ThinkPlus 4-year LOR 9x5 NBD</b> 41C9171 <b>ThinkPlus 5-year LOR 9x5 NBD</b> 41C9173 <b>ThinkPlus 2-year P&amp;L P/U Depot</b> 41C9169 <b>ThinkPlus 3-year P&amp;L P/U Depot</b> 41C9170 <b>ThinkPlus 4-year P&amp;L P/U Depot</b> 41C9172 <b>ThinkPlus 5-year P&amp;L P/U Depot</b> 41C9174 Post-warranty annual maintenance agreements at <a href="http://lenovo.com/thinkplus/warranty">lenovo.com/thinkplus/warranty</a>			

See footnotes for important warranty information  
 US models announced May 16 or May 30, 2006  
 US models withdrawn effective May or September 2007

\* Powered by Intel Centrino® Duo mobile technology

© Lenovo  
 (PC1-4) September 2007

# ThinkPad® R60e (0659) - withdrawn

Created by Lenovo Training Solutions  
Personal Systems Reference (PSREF)

Type-model	Processor	GHz	Memory	Anti-glare screen	Graphics controller MHz	Disk SATA GB <sup>8</sup> rpm	EIDE optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN wireless	Blue-tooth	Finger-print reader	Chip-set	Limited warranty <sup>12</sup>	Avail date
0659-9DU	Core Duo T2300E	1.66	512MB	15.0" XGA	GMA250	40GB 5400	Combo *	Intel 11a/b/g <sup>32</sup>	None	None	None	GM	3-year	May 06
0659-94U	Core Duo T2300E	1.66	512MB	15.0" XGA	GMA250	80GB 5400	Combo *	Intel 11a/b/g	None	None	None	GM	3-year	May 06
0659-H7U	Core 2 Duo T5500	1.66	512MB	15.0" XGA	GMA250	80GB 5400	Combo *	Intel 11a/b/g	None	None	None	GM	3-year	Oct 06

Positioning Processor	<i>Everyday computing; two spindles</i> <b>Intel® Core™ Duo processor T2300E</b> with dual-core, Enhanced Intel SpeedStep™ technology <sup>1</sup> , Execute Disable Bit, 667MHz system bus, and 2MB shared L2 cache or <b>Intel Core 2 Duo processor T5500</b> with dual-core, Intel 64 Technology, Enhanced Intel SpeedStep™ technology <sup>1</sup> , Execute Disable Bit, 667MHz system bus, and 2MB shared L2 cache													<b>SOFTWARE<sup>14</sup></b>	
Memory	512MB std / 4GB max <sup>31</sup> / PC2-5300 667MHz DDR2 / non-parity / CL5 / dual-channel capable / two 200-pin SO-DIMM sockets / std memory in one socket / one socket available													<b>Windows XP Professional</b> - Microsoft® Windows® XP Professional <sup>20</sup> (Service Pack 2) ⇨ Disk-to-Disk Recovery (in hidden protected area)  <b>Preloaded</b> • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center with Away Manager • ThinkVantage System Update • Symantec® Client Security™ • Diskeeper® Lite • PC-Doctor™ (diagnostics) • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader • Google Toolbar • Google Desktop • Picasa from Google • Multimedia Center for Think Offerings • Sonic RecordNOW and Drive Letter Access (combo model) • InterVideo WinDVD (combo model)	
Diskette drive	None standard / use optional USB-based diskette drive													<b>License - CD not included</b> - Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client	
EIDE Combo	DVD-ROM/CD-RW / 24X/24X/24X/8X <sup>21</sup> speed / fixed, not removable / 12.7mm high														
Ultrabay Enhanced	None / no support for removable Ultrabay™ options														
Serial ATA disk (SATA150)	40GB <sup>8</sup> (5400 rpm) or 80GB (5400 rpm) / 9.5mm high / removable, upgradable / 9.5mm high bay / <b>Hard Disk Drive Shock Absorber</b>														
Display	15.0" (381.0mm) XGA (1024x768) TFT color / 150 nits / anti-glare / 4:3 aspect ratio														
Graphics	Intel Graphics Media Accelerator 950 (GMA 950) / in 945GM / 250MHz													<b>Supports ThinkVantage® technologies</b>  65-watt AC adapter ThinkPad Roll Cage (one-piece magnesium frame) RoHS-compliant International Warranty Service <sup>17</sup> 24 hour x 7 day <sup>18</sup> toll-free warranty support during the warranty <sup>12</sup>  ThinkPlus™.22 2-year LOR 9x5 NBD 41C9175 ThinkPlus 3-year LOR 9x5 NBD 41C9176 ThinkPlus 4-year LOR 9x5 NBD 41C9177 ThinkPlus 5-year LOR 9x5 NBD 41C9179 ThinkPlus 4-year P&L P/U Depot 41C9178 ThinkPlus 5-year P&L P/U Depot 41C9180 Post-warranty annual maintenance agreements at <b>lenovo.com/thinkplus/warranty</b>	
Keyboard TrackPoint® ThinkLight™	89-key / ThinkVantage button / spill-resistant / multimedia Fn keys / Windows, Appl keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar <sup>13</sup> (no touch pad) Illuminates the keyboard to improve visibility in low-light conditions														
Dimensions <sup>3</sup> Weight <sup>2</sup>	15.0" models (WxDxH): 13.1" x 10.6" x 1.47-1.58"; 332mm x 269mm x 37.3-40.2mm with optical drive and battery: up to 6.3 lb (2.9 kg)														
Case material	Color: black; All: Acrylonitrile-Butadiene-Styrene (ABS) plastic														
Battery - type	Lithium Ion 6-cell / supports optional 9-cell battery														
Battery - life <sup>10</sup>	6-cell: up to 5.2 hr; optional 9-cell: up to 7.8 hr														
Architecture	Mobile Intel 945GM Express Chipset / 82945GM Graphics Memory Controller Hub / 82801GBM ICH7-M I/O Controller Hub (SATA300, ATA-100 EIDE, PCI Express x1, PCI bus, USB, LPC interface) / PCI bus (TI PC1512 CardBus controller) / no Super I/O														
Docking station	No port replicator or docking station support														
PC Card Std slot	One Type I or Type II slot / CardBus 32-bit / integrated door														
ExpressCard slot	None														
Ports	Three USB 2.0 / external DB-15 monitor / RJ-11 (modem) / RJ-45 (ethernet) / no keyboard, mouse, serial, parallel, infrared, S-video out, or 1394 FireWire port (use USB)														
Wireless antenna	UltraConnect™ Antenna built into the display cover / on-off switch for all wireless radios														
Mini PCI Express	One Mini PCI Express slot / not customer upgradable														
Intel 11a/b/g <sup>32</sup> WWAN <sup>16</sup>	11a/b/g wireless <sup>4</sup> , Mini PCI Express adapter, Intel PRO/Wireless 3945ABG														
Modem	56K <sup>6</sup> V.90 (V.92-designed <sup>29</sup> ) modem in Communications Daughter Card socket														
Bluetooth™	None														
Ethernet	Gigabit ethernet on systemboard / Broadcom® BCM5751M (MAC/PHY) / PCIe x1 / PXE														
Audio support	High Definition (HD) Audio / AD1981HD codec / mono speaker, 1 watt / volume up, down, mute buttons / mono microphone / microphone input jack / headphone jack														
Security	Power-on password / hard disk password / supervisor password / security keyhole														
Security chip	None														
Fingerprint reader	None														
Limited warranty <sup>12</sup>	3-year/1-yr battery - EasyServ™.19 onsite pickup and delivery / service upgrades <sup>22</sup> avail														
512MB PC2-5300 DDR2 CL5 SODIMM	40Y7733	T60/R60 Series Li-Ion Battry 6-cell	40Y6799												
1GB PC2-5300 DDR2 CL5 SODIMM	40Y7734	Z60m/T60/R60 Li-Ion Battry 9-cell	40Y6797												
80GB Disk 9.5mm SATA150 (5400 rpm)	41N5662	ThinkPad External Battery Charger	40Y7625												
100GB Disk 9.5mm SATA150 (7200 rpm)	41N3013	ThinkPad 90W AC Adapter	40Y7659												
120GB Disk 9.5mm SATA150 (5400 rpm)	41N5691	ThinkPad 90W AC/DC Combo Adapter	40Y7630												
160GB Disk 9.5mm SATA150 (5400 rpm)	41N5692	Lenovo M500 Projector	0037A05												
USB Numeric Keypad	33L3225	Lenovo C500 Projector	0039A05												
USB Portable Diskette Drive	05K9276	ThinkPad Carrying Case - Expander	73P3597												
USB 2.0 Lenovo Multimedia Headset	40Y8518	ThinkPad Carrying Case - Organizer	73P3598												
USB 2.0 Lenovo Webcam	40Y8519	Premiere Leather Carrying Case	10K0209												
USB 2.0 Security Memory Key 2GB	41U5119	ThinkPad Convertible Carrying Case	22P8860												
USB 2.0 Security Memory Key 4GB	41U5120	USB Fingerprint Reader	73P4774												
USB 2.0 Port Replicator with Video	40Y8132	ThinkPad Convertible Monitor Stand	40Y7620												
USB 2.0 Portable 80GB Hard Disk	41N8378	Lenovo L171 17" Monitor (black)	9227AC1												
USB 2.0 Portable 120GB Hard Disk	41N8379	Lenovo L192 Wide 19" Monitor (black)	6920AB1												
USB 2.0 Super Multi-Burner Drive	41N5565	Lenovo D221 Wide 22" Monitor (black)	6622HB1												
USB Travel Keyboard with UltraNav	31P9490	ThinkVision® L171p 17" Monitor (black)	9417HC2												
Enh Perf Wireless Keyboard and Mouse	73P4067	ThinkVision L192p 19" Monitor (black)	9419HC2												
TrackPoint Cap Collection	73P2698	ThinkVision L201p 20.1" Monitor (black)	9220HB1												
Lenovo Laser Mouse (USB, PS/2)	41U3074	Other accessories at <b>lenovo.com/accessories</b>													

See footnotes for important warranty information  
US models announced May 30 or October 17, 2006  
US models withdrawn effective July or September 2007

\* Powered by Intel Centrino® Duo mobile technology

© Lenovo  
(PC-13) September 2007

# ThinkPad® R60e Accessories - withdrawn

Created by Lenovo Training Solutions  
Personal Systems Reference (PSREF)

## Partial list of accessories supported on ThinkPad R60e originally announced on May 16, 2006

### Memory

512MB PC2-5300 DDR2 CL5 SODIMM	40Y7733	ann 01/05/06
1GB PC2-5300 DDR2 CL5 SODIMM	40Y7734	ann 01/05/06

### Ultrabay Slim 9.5mm

None (no removable bay options)

### Ultrabay Enhanced 12.7mm

None (no removable bay options)

### Storage and removable storage

60GB Disk 9.5mm SATA150 (7200 rpm)	41N3012	ann 01/05/06
80GB Disk 9.5mm SATA150 (5400 rpm)	41N5662	ann 08/15/06
100GB Disk 9.5mm SATA150 (7200 rpm)	41N3013	ann 01/05/06
120GB Disk 9.5mm SATA150 (5400 rpm)	41N5691	ann 03/20/07
160GB Disk 9.5mm SATA150 (5400 rpm)	41N5692	ann 03/20/07

USB 2.0 Essential Memory Key 1GB	41U4940	ann 01/23/07
USB 2.0 Essential Memory Key 2GB	41U4944	ann 01/23/07
USB 2.0 Security Memory Key 1GB	41U5118	ann 07/17/07
USB 2.0 Security Memory Key 2GB	41U5119	ann 07/17/07
USB 2.0 Security Memory Key 4GB	41U5120	ann 07/17/07

USB Portable Diskette Drive	05K9276	ann 06/05/00
USB 2.0 CD-RW/DVD-ROM Combo II Drive	40Y8637	ann 01/05/06
USB 2.0 Portable 80GB Hard Disk	41N8378	ann 04/17/07
USB 2.0 Portable 120GB Hard Disk	41N8379	ann 04/17/07
USB 2.0 Super Multi-Burner Drive	41N5565	ann 01/23/07

### Wireless LAN (Mini PCI Express)

No Mini PCI Express upgrade supported (use PC Card)

### ThinkPad Expansion

USB Serial Parallel Adapter	22P5298	ann 10/09/01
USB 2.0 Port Replicator with Video	40Y8132	ann 02/23/06
ThinkPad Adjustable Notebook Stand <sup>41</sup>	40Y7676	ann 09/20/05

<sup>41</sup> System will not physically attach to stand but can be placed on the ledge of the stand.

### External Keyboard

TrackPoint Cap Collection	73P2698	ann 12/16/03
USB Numeric Keypad	33L3225	ann 05/01/00
Preferred Pro USB Keyboard	73P5220	ann 06/21/05
Enhanced Performance USB Keyboard	73P2620	ann 03/23/04
Enh Perf Wireless Keyboard and Mouse	73P4067	ann 12/07/04
USB Keyboard with UltraNav	31P8950	ann 01/28/03
USB Travel Keyboard with UltraNav	31P9490	ann 04/27/04
Preferred Pro USB Fingerprint Keyboard	73P4730	ann 02/22/05

### External Mouse

USB Optical Wheel Mouse	06P4069	ann 05/21/03
Optical 3-Button ScrollPoint® Mouse	31P7405	ann 08/27/02
Optical 3-Button ScrollPoint Pro Mouse	31P8700	ann 10/01/02
Optical 3-Button Travel Wheel Mouse	31P7410	
Lenovo Laser Mouse (USB, PS/2)	41U3074	ann 01/23/07

### Multimedia

USB 2.0 Lenovo Multimedia Headset	40Y8518	ann 06/27/06
USB 2.0 Lenovo Webcam	40Y8519	ann 08/29/06

### Batteries

ThinkPad T60/R60 Series Li-Ion Battery 6-cell	40Y6799	ann 01/05/06
ThinkPad Z60m/T60/R60 Li-Ion Battery 9-cell	40Y6797	ann 09/20/05
ThinkPad External Battery Charger <sup>42</sup>	40Y7625	ann 09/20/05

<sup>42</sup> Requires the *ThinkPad 90W AC Adapter* 40Y7659.

ThinkPad 65W AC Adapter <sup>43</sup>	40Y7696	
<sup>43</sup> Only compatible with the 945GM and GM965 chipset models.		
ThinkPad 90W AC Adapter	40Y7659	ann 09/20/05
ThinkPad 90W AC/DC Combo Adapter	40Y7630	ann 12/13/05
Belkin 1 Outlet Notebook Surge	31P7658	
Belkin Universal Notebook Travel Surge	22P7127	
Belkin 8-outlet 6-foot Surge Protector	31P7659	

### Data/Video Projectors

Lenovo M500 Projector	0037A05	ann 02/28/06
Lenovo C500 Projector	0039A05	ann 07/11/06

### Carrying Cases

Lenovo Carrying Case - Messenger Max	41U5253	ann 05/01/07
Lenovo Carry Case - Performance Backpack	41U5254	ann 05/01/07
ThinkPad Nylon Carrying Case	10K0207	
ThinkPad Carrying Case - Expander	73P3597	
ThinkPad Carrying Case - Backpack	73P3599	
ThinkPad Premiere Leather Carrying Case	10K0209	
ThinkPad Convertible Carrying Case	22P8860	

### Security

Kensington® Cable Lock from Lenovo	73P2582	ann 12/29/03
USB Gemplus GemPC Smart Card Reader	41N3040	ann 02/21/06
PC Card Gemplus Smart Card Reader	41N3004	ann 12/13/05
USB Fingerprint Reader	41U3167	ann 10/24/06

### Monitors

Lenovo E75 17" CRT Monitor (16.0" vis) blk	6307BTN	ann 01/16/07
Lenovo L151 15" Monitor (black)	9165AB6	ann 02/28/06
Lenovo L171 17" Monitor (black)	9227AC1	ann 11/07/06
Lenovo L191 19" Monitor (black)	6135AB1	ann 06/27/06
Lenovo L192 Wide 19" Monitor (black)	6920AB1	ann 09/19/06
Lenovo D221 Wide 22" Monitor (black)	6622HB1	ann 11/21/06
ThinkVision® L171p 17" Monitor (black)	9417HC2	ann 10/31/06
ThinkVision L192p 19" Monitor (black)	9419HC2	ann 10/31/06
ThinkVision L201p 20.1" Monitor (black)	9220HB1	ann 10/31/06

### Monitor Accessories<sup>46</sup>

ThinkVision USB Soundbar	40Y7616	ann 08/23/05
Kensington Cable Lock from Lenovo	73P2582	ann 12/29/03
ThinkPad Convertible Monitor Stand	40Y7620	ann 01/05/06
Radial Arm	19K4464	ann 05/05/00

<sup>46</sup> Compatible on selected Lenovo and ThinkVision monitors.

Other accessories at [lenovo.com/accessories](http://lenovo.com/accessories)

Need to buy accessories no longer marketed by Lenovo? See [www.itxchange.com/lenovo](http://www.itxchange.com/lenovo) for the Options Continuation Program.

# ThinkPad® R60 (9455) - withdrawn

Created by Lenovo Training Solutions  
Personal Systems Reference (PSREF)

Type-model	Processor	Speed GHz	Memory	Anti-glare screen	Graphics controller	Disk SATA GB <sup>8</sup>	rpm	EIDE Optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN	Blue- tooth	Finger- print reader	Touch pad	1394/ S-Video port	Workhorse Global (G) Preload	Avail date
9455-4MU	Celeron® M 410	1.46	256	15.0"	XGA	GMA 40G	5400	CD	11a/b/g <sup>32</sup>	None				/S	Home G	May 06
9455-ACU	Celeron M 420	1.60	256	15.0"	XGA	GMA 40G	5400	CD	Open; upg <sup>36</sup>	None				/S	Home G	Oct 06
9455-2CU	Core Solo T1300	1.66	256	14.1"	XGA	GMA 40G	5400	Combo	Intel 11a/b/g <sup>32</sup>	None		T		XP Pro	G	May 06
9455-C8U	Core Solo T1400	1.83	512	15.0"	XGA	GMA 60G	5400	Combo	11a/b/g	None				XP Pro	G	Oct 06
9455-C9U	Core Solo T1400	1.83	512	15.0"	XGA	GMA 60G	5400	Combo	*Intel 11a/b/g	None		T		XP Pro	G	Oct 06
9455-22U	Core Duo T2300E	1.66	512	14.1"	SXGA+	GMA 60G	5400	Combo	*Intel 11a/b/g	None		T	1394	XP Pro	G	May 06
9455-23U	Core Duo T2400	1.83	1GB	14.1"	SXGA+	GMA 100G	5400	DVD±RW	*Intel 11a/b/g	None	Blue	Finger T	1394	XP Pro	G	May 06
9455-2DU	Core Duo T2300E	1.66	512	14.1"	XGA	GMA 60G	5400	DVD±RW	*Intel 11a/b/g	None		T		XP Pro	G	May 06
9455-2JU	Core Duo T2400	1.83	512	14.1"	XGA	GMA 60G	5400	DVD±RW	*Intel 11a/b/g	None	Blue	Finger T	1394	XP Pro	G	May 06
9455-38U	Core Duo T2400	1.83	1GB	15.0"	SXGA+	GMA 100G	7200	DVD±RW	*Intel 11a/b/g	None	Blue	Finger T	1394 /S	XP Pro	G	May 06
9455-39U	Core Duo T2500	2.00	1GB	15.0"	SXGA+	GMA 100G	7200	DVD±RW	*Intel 11a/b/g	None	Blue	Finger T	1394 /S	XP Pro	G	May 06
9455-3KU	Core Duo T2300E	1.66	512	15.0"	XGA	GMA 60G	5400	Combo	*Intel 11a/b/g	None		T	/S	XP Pro	G	May 06
9455-49U	Core Duo T2400	1.83	512	15.0"	XGA	GMA 60G	5400	DVD±RW	*Intel 11a/b/g	None		Finger T	1394 /S	XP Pro	G	May 06
Positioning Processor	<i>Everyday computing; two spindles</i> Intel® <b>Celeron M Processor 410</b> or <b>420</b> with Execute Disable Bit, 533MHz system bus, and 1MB L2 cache or Intel <b>Core™ Solo processor T1300</b> or <b>T1400</b> with single-core, Enhanced Intel SpeedStep™ technology <sup>1</sup> , Execute Disable Bit, 667MHz system bus, and 2MB L2 cache or Intel <b>Core Duo processor T2300E, T2400, or T2500</b> with dual-core, Enhanced Intel SpeedStep™ technology <sup>1</sup> , Execute Disable Bit, 667MHz system bus, and 2MB shared L2 cache															
Memory	<b>256MB, 512MB, or 1GB</b> std / 4GB max <sup>31</sup> / PC2-5300 667MHz DDR2 / non-parity / CL5 / dual-channel capable / two 200-pin SO-DIMM sockets / standard memory in one socket / one socket available															
EIDE CD	<i>Some:</i> CD-ROM / 24X-10X <sup>9</sup> speed / removable from Ultrabay™ Enhanced															
EIDE Combo	<i>Some:</i> DVD-ROM/CD-RW / 24X/24X/24X/8X <sup>21</sup> speed / removable from Ultrabay Enhanc															
EIDE DVD±RW	<i>Some:</i> DVD burner / Super Multi-Burner DL (40Y8624) / removable Ultrabay Enhanced															
Ultrabay Enhanced	One bay for removable devices / Ultrabay Slim-compatible / 12.7mm high / curved bezel															
Serial ATA disk (SATA150)	<b>40GB<sup>8</sup></b> (5400 rpm), <b>60GB</b> (5400 rpm), or <b>100GB</b> (5400 or 7200 rpm) / 9.5mm high / removable, upgradable / 9.5mm high bay / supports 2nd disk with optional 'Second HDD Adapter for Ultrabay Slim' / <b>Hard Disk Drive Shock Absorber / Active Protection System</b>															
Display	<i>Some:</i> <b>14.1"</b> (358.1mm) <b>XGA (1024x768) TFT color</b> / 150 nits / anti-glare / 4:3 aspect <i>Some:</i> <b>14.1"</b> (358.1mm) <b>SXGA+ (1400x1050) TFT color</b> / 150 nits / anti-glare / 4:3 aspect <i>Some:</i> <b>15.0"</b> (381.0mm) <b>XGA (1024x768) TFT color</b> / 150 nits / anti-glare / 4:3 aspect <i>Some:</i> <b>15.0"</b> (381.0mm) <b>SXGA+ (1400x1050) TFT color</b> / 200 nits / anti-glare / 4:3 aspect															
Graphics	<b>Intel Graphics Media Accelerator 950 (GMA 950)</b> / integrated in 945GM / 250MHz															
Keyboard	89-key / ThinkVantage button / spill-resistant / multimedia Fn keys / Windows, Appl keys															
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar <sup>13</sup> , magnifying glass															
Touch pad	<i>Some:</i> UltraNav™ multi-pointing system / touch pad below keyboard / Tap Zones															
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions															
Dimensions <sup>3</sup>	<b>14.1" models (WxDxH):</b> 12.4" x 10.2" x 1.35-1.46"; 314mm x 260mm x 34.3-37.2mm <b>15.0" models (WxDxH):</b> 13.1" x 10.6" x 1.47-1.58"; 332mm x 269mm x 37.3-40.2mm with optical drive and battery: <b>14.1" models:</b> up to 5.8 lb (2.6kg); <b>15":</b> up to 6.3 lb (2.9 kg)															
Weight <sup>2</sup>																
Case material	<i>Color:</i> black; <i>All:</i> Acrylonitrile-Butadiene-Styrene (ABS) plastic															
Battery - type	Lithium Ion <b>6-cell</b> / supports unique 2nd battery in Ultrabay Enhanced															
Battery - life <sup>10</sup>	<b>6-cell:</b> up to 5.2 hr; <i>optional 9-cell:</i> up to 7.8 hr; <b>9-cell plus Ultrabay battery:</b> up to 10 hr															
Architecture	<b>Mobile Intel 945GM Express Chipset</b> / 82945GM Graphics Memory Controller Hub / 82801GBM ICH7-M I/O Controller Hub (SATA300, ATA-100 EIDE, PCI Express x1, PCI bus, USB, LPC interface, [Bluetooth], [fingerprint]) / PCI bus (TI® PCIx512 CardBus controller) / LPC bus (National Semiconductor® PC87382 Super I/O, Atmel® 97SC3203)															
PC Card Std slot	One Type I or Type II slot / CardBus 32-bit / integrated door															
ExpressCard slot	One ExpressCard/34 or ExpressCard/54 / PCI Express x1 or USB 2.0 / integrated door															
Ports	Three USB 2.0 / external DB-15 monitor / RJ-11 (modem) / RJ-45 (ethernet) / <i>some:</i> 1394 FireWire 400 (4-pin connector; 1394a-2000 standard) / <b>15" models:</b> S-video out / no keyboard, mouse, serial, parallel, or infrared port															
Wireless antenna	UltraConnect™ Antenna built into the display cover / on-off switch for all wireless radios															
Mini PCI Express	Two Mini PCI Express slots / only 802.11 wireless is customer upgradable															
Wireless upg <sup>36</sup>	<i>Some:</i> wireless upgradable with wireless Mini PCI Express options															
Intel 11a/b/g <sup>32</sup>	<i>Some:</i> 11a/b/g wireless <sup>4</sup> , Mini PCI Express adapter, Intel PRO/Wireless 3945ABG															
11a/b/g <sup>32</sup>	<i>Some:</i> 11a/b/g wireless <sup>4</sup> , ThinkPad 11a/b/g Mini PCIe Adapter, Atheros AR5006EX															
WWAN <sup>16</sup>	None															
Modem	56K <sup>6</sup> V.90 (V.92-designed <sup>29</sup> ) modem in Communications Daughter Card socket															
Bluetooth™	<i>Some:</i> Bluetooth 2.0 wireless / USB 2.0 interface via ICH7-M / LED indicator															
Ethernet	Gigabit ethernet on systemboard / Broadcom® BCM5751M (MAC/PHY) / PCIe x1 / PXE															
Audio support	High Definition (HD) Audio / AD1981HD codec / stereo speakers, 1 watt / volume up, down, mute buttons / mono microphone / microphone input jack / headphone jack															
Security	Power-on password / hard disk password / supervisor password / security keyhole															
Security chip	<b>Trusted Platform Module</b> / Atmel chip / TCG 1.2-compliant															
Fingerprint reader	<i>Some:</i> <b>Fingerprint reader on palm rest</b> / swipe sensor / supports the security chip															
Limited warranty <sup>12</sup>	<b>1-year</b> - EasyServ™ <sup>19</sup> onsite pickup and delivery / service upgrades <sup>22</sup> available															
1GB PC2-5300 DDR2 CL5 SODIMM	40Y7734	T60/R60 Series Li-Ion Battery 6-cell										40Y6799	ThinkPlus 3-year P&L P/U Depot			
ThinkPad Essential Port Replicator	250510W	Z60m/T60/R60 Li-Ion Battery 9-cell										40Y6797	41C9166			
ThinkPad Advanced Mini Dock	250410U	ThinkPad 90W AC/DC Combo Adapter										40Y7630	41C9167			
Other accessories on O-R60 sheet	Other accessories at <a href="http://lenovo.com/accessories">lenovo.com/accessories</a>										41C9168					
										41C9169						
										41C9170						
										Other ThinkPlus services at <a href="http://lenovo.com/thinkplus/warranty">lenovo.com/thinkplus/warranty</a>						

See footnotes for important warranty information

\* Powered by Intel Centrino® mobile technology

© Lenovo

US models announced May 16, May 30, or Oct 17, 2006

\* Powered by Intel Centrino Duo mobile technology

(RC1-1) September 2007

US models withdrawn effective February, July, or September 2007



# ThinkPad® R60 (9456) - TopSeller (Celeron) - withdrawn

Created by Lenovo Training Solutions  
Personal Systems Reference (PSREF)

Type-model	Processor	Speed GHz	Memory	Anti-glare screen	Graphics controller	Disk SATA GB <sup>8</sup> rpm	EIDE optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN wireless	Blue- tooth	Finger- print reader	1394/ S-Video	Bat- tery cells	Preload	Avail date
9456-59U	Celeron® M 420	1.60	256MB	14.1" XGA	GMA	40GB 5400	Combo	11a/b/g <sup>32</sup>	None	None	None	None	6	XP Home	May 06
9456-5BU	Celeron M 420	1.60	256MB	14.1" XGA	GMA	40GB 5400	Combo	11a/b/g	None	None	None	None	6	XP Pro	May 06
9456-5AU	Celeron M 420	1.60	512MB	14.1" XGA	GMA	60GB 5400	DVD±RW	11a/b/g	None	None	None	None	6	XP Pro	May 06
9456-5RU	Celeron M 410	1.46	256MB	14.1" XGA	GMA	40GB 5400	Combo	11a/b/g	None	None	None	None	6	XP Home	May 06
9456-5SU	Celeron M 410	1.46	256MB	14.1" XGA	GMA	40GB 5400	Combo	11a/b/g	None	None	None	None	6	XP Pro	May 06
9456-5TU	Celeron M 410	1.46	512MB	14.1" XGA	GMA	60GB 5400	DVD±RW	11a/b/g	None	None	None	None	6	XP Pro	May 06
9456-5UU	Celeron M 410	1.46	256MB	14.1" XGA	GMA	40GB 5400	CD	11a/b/g	None	None	None	None	6	XP Pro	May 06
9456-5VU	Celeron M 410	1.46	512MB	14.1" XGA	GMA	60GB 5400	CD	11a/b/g	None	None	None	None	6	XP Pro	May 06

• These small and medium business (SMB) models are part of the US TopSeller™ Program  
 • These models have a 1-year limited warranty<sup>12</sup>

Positioning	Everyday computing; two spindles	<b>SOFTWARE<sup>14</sup></b> <b>Windows XP Professional models</b> - Microsoft® Windows® XP Professional <sup>20</sup> (Service Pack 2) ↔ Disk-to-Disk Recovery	
Processor	Intel® Celeron M Processor 410 or 420 with Execute Disable Bit, 533MHz system bus, and 1MB L2 cache		
Memory	256MB or 512MB std / 4GB max <sup>31</sup> / PC2-5300 667MHz DDR2 / non-parity / CL5 / dual-channel capable / two 200-pin SO-DIMM sockets / standard memory in one socket / one socket available	<b>Windows XP Home models</b> - Microsoft Windows XP Home Edition <sup>20</sup> (Service Pack 2) ↔ Disk-to-Disk Recovery	
Diskette drive	None standard / use optional USB-based diskette drive		
EIDE CD	Some: CD-ROM / 24X-10X <sup>9</sup> speed / removable from Ultrabay™ Enhanced	<b>Preloaded (all)</b> • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center with Away Manager • ThinkVantage System Update • Symantec® Client Security™ • Diskeeper Lite • PC-Doctor™ (diagnostics) • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader • Google Toolbar • Google Desktop • Picasa from Google • Multimedia Center for Think Offerings • Sonic RecordNOW and Drive Letter Access (combo, DVD±RW) • InterVideo WinDVD (combo, DVD±RW models) • InterVideo WinDVD Creator (DVD±RW models) <b>License - CD not included (all)</b> - Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client (Notes client not supported on XP Home)	
EIDE Combo	Some: DVD-ROM/CD-RW / 24X/24X/24X/8X <sup>21</sup> speed / removable from Ultrabay Enhance		
EIDE DVD±RW	Some: DVD burner / Super Multi-Burner DL (40Y8624) / removable Ultrabay Enhanced		
Ultrabay Enhanced	One bay for removable devices / Ultrabay Slim-compatible / 12.7mm high / curved bezel	Supports ThinkVantage® technologies 65-watt AC adapter (GMA graphics) ThinkPad Roll Cage (one-piece magnesium frame) RoHS-compliant International Warranty Service <sup>17</sup> 24 hour x 7 day <sup>18</sup> toll-free warranty support during the warranty <sup>12</sup> ThinkPlus™.22 1-year LOR 9x5 NBD 41C9166 ThinkPlus 2-year LOR 9x5 NBD 0037A05 41C9167 ThinkPlus 3-year LOR 9x5 NBD 0039A05 41C9168 ThinkPlus 5-year LOR 9x5 NBD 10K0209 41C9173 ThinkPlus 2-year P&L P/U Depot 41C9169 ThinkPlus 3-year P&L P/U Depot 6622HB1 41C9170 ThinkPlus 5-year P&L P/U Depot 9417HC2 41C9174	
Serial ATA disk (SATA150)	40GB <sup>8</sup> (5400 rpm) or 60GB (5400 rpm) / 9.5mm high / removable, upgradable / 9.5mm high bay / supports 2nd disk with optional 'Second HDD Adapter for Ultrabay Slim' / <b>Hard Disk Drive Shock Absorber / Active Protection System</b>		
Display	14.1" (358.1mm) XGA (1024x768) TFT color / 150 nits / anti-glare / 4:3 aspect		
Graphics	Intel Graphics Media Accelerator 950 (GMA 950) / integrated in 945GM / 250MHz		
Keyboard	89-key / ThinkVantage button / spill-resistant / multimedia Fn keys / Windows, Appl keys		
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar <sup>13</sup> , magnifying glass		
Touch pad	UltraNav™ multi-pointing system / touch pad below keyboard / Tap Zones		
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions		
Dimensions <sup>3</sup>	14.1" models (WxDxH): 12.4" x 10.2" x 1.35-1.46"; 314mm x 260mm x 34.3-37.2mm with optical drive and battery: 14.1" models: up to 5.8 lb (2.6kg)		
Weight <sup>2</sup>	Color: black; All: Acrylonitrile-Butadiene-Styrene (ABS) plastic		
Case material	Lithium Ion 6-cell / supports unique 2nd battery in Ultrabay Enhanced		
Battery - type	6-cell: up to 2.5 hr; opt 9-cell: up to 3.8 hr; 9-cell plus Ultrabay battery: up to 4.7 hr		
Battery - life <sup>10</sup>			
Architecture	Mobile Intel 945GM Express Chipset / 82945GM Graphics Memory Controller Hub / 82801GBM ICH7-M I/O Controller Hub (SATA300, ATA-100 EIDE, PCI Express x1, PCI bus, USB, LPC interface, [Bluetooth], [fingerprint]) / PCI bus (T <sup>16</sup> PCIx512 CardBus controller) / LPC bus (National Semiconductor® PC87382 Super I/O, Atmel® 97SC3203)		
PC Card Std slot	One Type I or Type II slot / CardBus 32-bit / integrated door		
ExpressCard slot	One ExpressCard/34 or ExpressCard/54 / PCI Express x1 or USB 2.0 / integrated door		
Ports	Three USB 2.0 / external DB-15 monitor / RJ-11 (modem) / RJ-45 (ethernet) / no 1394 FireWire 400 / no S-video out / no keyboard, mouse, serial, parallel, or infrared port		
Wireless antenna	UltraConnect™ Antenna built into the display cover / on-off switch for all wireless radios		
Mini PCI Express	Two Mini PCI Express slots / only 802.11 wireless is customer upgradable		
11a/b/g <sup>32</sup>	11a/b/g wireless <sup>4</sup> , ThinkPad 11a/b/g Mini PCIe Adapter, Atheros AR5006EX		
WWAN <sup>16</sup>	None		
Modem	56K <sup>6</sup> V.90 (V.92-designed <sup>29</sup> ) modem in Communications Daughter Card socket		
Bluetooth™	None		
Ethernet	Gigabit ethernet on systemboard / Broadcom® BCM5751M (MAC/PHY) / PCIe x1 / PXE		
Audio support	High Definition (HD) Audio / AD1981HD codec / stereo speakers, 1 watt / volume up, down, mute buttons / mono microphone / microphone input jack / headphone jack		
Security	Power-on password / hard disk password / supervisor password / security keyhole		
Security chip	Trusted Platform Module / Atmel chip / TCG 1.2-compliant		
Fingerprint reader	None		
Limited warranty <sup>12</sup> 1-year - EasyServ™.19 onsite pickup and delivery / service upgrades <sup>22</sup> available			
512MB PC2-5300 DDR2 CL5 SODIMM	40Y7733	T60/R60 Series Li-Ion Battery 6-cell	40Y6799
1GB PC2-5300 DDR2 CL5 SODIMM	40Y7734	Z60m/T60/R60 Li-Ion Battery 9-cell	40Y6797
2GB PC2-5300 DDR2 SODIMM	40Y7735	Advanced Ultrabay Battery 3-cell	40Y6789
Serial Hard Drive Ultrabay Slim Adapter (flat)	40Y8725	ThinkPad External Battery Charger	40Y7625
Combo II Ultrabay Slim Drive (flat bezel)	40Y8621	ThinkPad 90W AC/DC Combo Adapter	40Y7630
ThinkPad DVD Ultrabay Slim Burner (flat)	41N5643	Lenovo M500 Projector	0037A05
100GB Disk 9.5mm SATA150 (7200 rpm)	41N3013	Lenovo C500 Projector	0039A05
USB 2.0 Lenovo Multimedia Headset	40Y8518	ThinkPad Carrying Case - Organizer	73P3598
USB 2.0 Lenovo Webcam	40Y8519	Premiere Leather Carrying Case	10K0209
USB 2.0 Security Memory Key 2GB	41U5119	ThinkPad Convertible Carrying Case	22P8860
USB 2.0 Security Memory Key 4GB	41U5120	USB Fingerprint Reader	73P4774
USB 2.0 Portable 120GB Hard Disk	41N8379	ThinkPad Adjustable Notebook Stand	40Y7676
USB 2.0 Super Multi-Burner Drive	41N5565	ThinkPad Convertible Monitor Stand	40Y7620
ExpressCard Gemplus Smart Card Reader	41N3043	Lenovo D221 Wide 22" Monitor (black)	6622HB1
11a/b/g Wireless Mini PCI Express Adapter	40Y7026	ThinkVision® L171p 17" Monitor (black)	9417HC2
ThinkPad Essential Port Replicator	250510W	ThinkVision L192p 19" Monitor (black)	9419HC2
ThinkPad Advanced Mini Dock	250410U	ThinkVision L201p 20.1" Monitor (black)	9220HB1
ThinkPad Advanced Dock	250310U	Other accessories at <a href="http://lenovo.com/accessories">lenovo.com/accessories</a>	

See footnotes for important warranty information  
US models announced May 16 or May 30, 2006  
US models withdrawn effective October 2006 or September 2007



# ThinkPad® R60 (9456) - TopSeller (Core™ 2 Duo Processor) - withdrawn

Created by Lenovo Training Solutions  
Personal Systems Reference (PSREF)

Type-model	Processor	Speed GHz	Memory	Anti-glare screen	Graphics controller	Graphics GB*	Disk SATA rpm	EIDE optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN wireless	Blue-tooth	Finger-print reader	1394/S-Video port	OneNote preload and CD	Avail date
9456-FBU	Core 2 Duo T5500	1.66	1GB	15.0" XGA	GMA	80GB	5400	Combo	*Intel 11a/b/g <sup>32</sup>	None	None	Finger	1394 /S	OneNote	Oct 06
9456-FCU	Core 2 Duo T5500	1.66	1GB	15.0" XGA	GMA	100G	5400	DVD±RW	*Intel 11a/b/g	None	None	Finger	1394 /S	OneNote	Oct 06

- These small and medium business (SMB) models are part of the US TopSeller™ Program
- These models have a 1-year limited warranty<sup>2</sup>

Positioning Processor	<b>Everyday computing; two spindles</b> <b>Intel® Core™ 2 Duo processor T5500</b> with dual-core, Intel 64 Technology, Enhanced Intel SpeedStep™ technology <sup>1</sup> , Execute Disable Bit, 667MHz system bus, and 2MB shared L2 cache													
Memory	<b>1GB</b> std / 4GB max <sup>31</sup> / PC2-5300 667MHz DDR2 / non-parity / CL5 / dual-channel capable / two 200-pin SO-DIMM sockets / standard memory in both sockets (512MB each socket) / no sockets available													
Diskette drive	None standard / use optional USB-based diskette drive													
EIDE Combo	<i>Some:</i> DVD-ROM/CD-RW / 24X/24X/24X/8X <sup>21</sup> speed / removable from Ultrabay™ Enhance													
EIDE DVD±RW	<i>Some:</i> DVD burner / Super Multi-Burner DL (40Y8624) / removable Ultrabay Enhanced													
Ultrabay Enhanced	One bay for removable devices / Ultrabay Slim-compatible / 12.7mm high / curved bezel													
Serial ATA disk (SATA150)	<b>80GB<sup>8</sup></b> (5400 rpm) or <b>100GB</b> (5400 rpm) / 9.5mm high / removable, upgradable / 9.5mm high bay / supports 2nd disk with optional 'Second HDD Adapter for Ultrabay Slim' / <b>Hard Disk Drive Shock Absorber / Active Protection System</b>													
Display	<b>15.0"</b> (381.0mm) <b>XGA (1024x768) TFT color</b> / 150 nits / anti-glare / 4:3 aspect													
Graphics	<b>Intel Graphics Media Accelerator 950 (GMA 950)</b> / integrated in 945GM / 250MHz													
Keyboard	89-key / ThinkVantage button / spill-resistant / multimedia Fn keys / Windows, Appl keys													
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar <sup>13</sup> , magnifying glass													
Touch pad	UltraNav™ multi-pointing system / touch pad below keyboard / Tap Zones													
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions													
Dimensions <sup>3</sup>	15.0" models (WxDxH): 13.1" x 10.6" x 1.47-1.58"; 332mm x 269mm x 37.3-40.2mm													
Weight <sup>2</sup>	with optical drive and battery: 15" models: up to 6.8 lb (3.1 kg)													
Case material	Color: black; All: Acrylonitrile-Butadiene-Styrene (ABS) plastic													
Battery - type	Lithium Ion <b>6-cell</b> / supports unique 2nd battery in Ultrabay Enhanced													
Battery - life <sup>10</sup>	<b>6-cell:</b> up to 5.2 hr; <b>optional 9-cell:</b> up to 7.8 hr; <b>9-cell plus Ultrabay battery:</b> up to 10.0 hr													
Architecture	<b>Mobile Intel 945GM Express Chipset</b> / 82945GM Graphics Memory Controller Hub / 82801GBM ICH7-M I/O Controller Hub (SATA300, ATA-100 EIDE, PCI Express x1, PCI bus, USB, LPC interface, [Bluetooth], [fingerprint]) / PCI bus (T <sup>16</sup> PCIx512 CardBus controller) / LPC bus (National Semiconductor® PC87382 Super I/O, Atmel® 97SC3203)													
PC Card Std slot	One Type I or Type II slot / CardBus 32-bit / integrated door													
ExpressCard slot	One ExpressCard/34 or ExpressCard/54 / PCI Express x1 or USB 2.0 / integrated door													
Ports	Three USB 2.0 / external DB-15 monitor / RJ-11 (modem) / RJ-45 (ethernet) / 1394 FireWire 400 (4-pin connector; 1394a-2000 standard) / 15" models only: S-video out / no keyboard, mouse, serial, parallel, or infrared port													
Wireless antenna	UltraConnect™ Antenna built into the display cover / on-off switch for all wireless radios													
Mini PCI Express	Two Mini PCI Express slots / only 802.11 wireless is customer upgradable													
Intel 11a/b/g <sup>32</sup>	11a/b/g wireless <sup>4</sup> , Mini PCI Express adapter, Intel PRO/Wireless 3945ABG													
WWAN <sup>16</sup>	None													
Modem	56K <sup>6</sup> V.90 (V.92-designed <sup>29</sup> ) modem in Communications Daughter Card socket													
Bluetooth™	None													
Ethernet	Gigabit ethernet on systemboard / Broadcom® BCM5751M (MAC/PHY) / PCIe x1 / PXE													
Audio support	High Definition (HD) Audio / AD1981HD codec / stereo speakers, 1 watt / volume up, down, mute buttons / mono microphone / microphone input jack / headphone jack													
Security	Power-on password / hard disk password / supervisor password / security keyhole													
Security chip	<b>Trusted Platform Module</b> / Atmel chip / TCG 1.2-compliant													
Fingerprint reader	<b>Fingerprint reader on palm rest</b> / swipe sensor / supports the security chip													
Limited warranty <sup>12</sup>	<b>1-year</b> - EasyServ™ <sup>19</sup> onsite pickup and delivery / service upgrades <sup>22</sup> available													
512MB PC2-5300 DDR2 CL5 SODIMM	40Y7733	T60/R60 Series Li-Ion Battery 6-cell	40Y6799	ThinkPlus™ <sup>22</sup> 1-year LOR 9x5 NBD										
1GB PC2-5300 DDR2 CL5 SODIMM	40Y7734	Z60m/T60/R60 Li-Ion Battery 9-cell	40Y6797	41C9166										
2GB PC2-5300 DDR2 SODIMM	40Y7735	Advanced Ultrabay Battery 3-cell	40Y6789	ThinkPlus 2-year LOR 9x5 NBD										
Serial Hard Drive Ultrabay Slim Adapter (flat)	40Y8725	ThinkPad External Battery Charger	40Y7625	41C9167										
Combo II Ultrabay Slim Drive (flat bezel)	40Y8621	ThinkPad 90W AC Adapter	40Y7659	ThinkPlus 3-year LOR 9x5 NBD										
ThinkPad DVD Ultrabay Slim Burner (flat)	41N5643	ThinkPad 90W AC/DC Combo Adapter	40Y7630	41C9168										
160GB Disk 9.5mm SATA150 (5400 rpm)	41N5692	Lenovo M500 Projector	0037A05	ThinkPlus 4-year LOR 9x5 NBD										
USB 2.0 Lenovo Multimedia Headset	40Y8518	Lenovo C500 Projector	0039A05	41C9171										
USB 2.0 Lenovo Webcam	40Y8519	Premiere Leather Carrying Case	10K0209	ThinkPlus 5-year LOR 9x5 NBD										
USB 2.0 Security Memory Key 4GB	41U5120	USB Fingerprint Reader	73P4774	41C9173										
USB 2.0 Portable 120GB Hard Disk	41N8379	ThinkPad Adjustable Notebook Stand	40Y7676	ThinkPlus 2-year P&L P/U Depot										
USB 2.0 Super Multi-Burner Drive	41N5565	ThinkPad Convertible Monitor Stand	40Y7620	41C9169										
ExpressCard Gemplus Smart Card Reader	41N3043	Lenovo L171 17" Monitor (black)	9227AC1	ThinkPlus 3-year P&L P/U Depot										
11a/b/g Wireless Mini PCI Express Adapter	40Y7026	Lenovo L192 Wide 19" Monitor (black)	6920AB1	41C9170										
ThinkPad Essential Port Replicator	250510W	ThinkVision® L192p 19" Monitor (black)	9419HC2	ThinkPlus 4-year P&L P/U Depot										
ThinkPad Advanced Mini Dock	250410U	ThinkVision L201p 20.1" Monitor (black)	9220HB1	41C9172										
ThinkPad Advanced Dock	250310U	TrackPoint Cap Collection	73P2698	ThinkPlus 5-year P&L P/U Depot										
Other accessories on O-R60 sheet		Other accessories at <a href="http://lenovo.com/accessories">lenovo.com/accessories</a>		41C9174										

See footnotes for important warranty information  
US models announced October 17, 2006  
US models withdrawn effective July 2007

\* Powered by Intel Centrino® Duo mobile technology

© Lenovo  
(RC2-1) August 2007

# ThinkPad® R60 (9457) - withdrawn

Created by Lenovo Training Solutions  
Personal Systems Reference (PSREF)

Type-model	Processor	Speed GHz	Memory	Anti-glare screen	Graphics controller	Disk SATA GB <sup>3</sup>	rpm	EIDE optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN	Blue-tooth	Finger-print reader	1394/S-Video port	Preload	Workhorse (W) Gbl (G) Avail date
9457-72U	Core Duo T2300E	1.66	512MB	14.1" SXGA+	GMA	60GB	5400	Combo	* Intel 11a/b/g <sup>32</sup>				1394	XP Pro	May 06
9457-73U	Core Duo T2400	1.83	512MB	14.1" SXGA+	GMA	60GB	5400	Combo	* Intel 11a/b/g				1394	XP Pro W	May 06
9457-76U	Core Duo T2400	1.83	512MB	14.1" SXGA+	GMA	60GB	5400	DVD±RW	* Intel 11a/b/g			Finger	1394	XP Pro W	May 06
9457-92U	Core Duo T2300E	1.66	512MB	14.1" XGA	GMA	60GB	5400	Combo	* Intel 11a/b/g					XP Pro G	May 06
9457-93U	Core Duo T2400	1.83	512MB	14.1" XGA	GMA	60GB	5400	Combo	* Intel 11a/b/g			Finger		XP Pro WG	May 06
9457-7PU	Core Solo T1300	1.66	512MB	14.1" XGA	GMA	40GB	5400	Combo	* Intel 11a/b/g					XP Pro G	May 06
9457-83U	Core Duo T2400	1.83	512MB	15.0" SXGA+	GMA	100G	5400	DVD±RW	* Intel 11a/b/g			Blue Finger	/S	XP Pro W	May 06
9457-82U	Core Duo T2400	1.83	512MB	15.0" SXGA+	GMA	60GB	5400	Combo	* Intel 11a/b/g			Finger	/S	XP Pro W	May 06
9457-94U	Core Solo T1300	1.66	512MB	15.0" XGA	GMA	40GB	5400	Combo	* Intel 11a/b/g				/S	XP Pro G	May 06
9457-95U	Core Duo T2300E	1.66	512MB	15.0" XGA	GMA	60GB	5400	Combo	* Intel 11a/b/g				/S	XP Pro G	May 06
9457-96U	Core Duo T2400	1.83	512MB	15.0" XGA	GMA	60GB	5400	Combo	* Intel 11a/b/g			Finger	/S	XP Pro WG	May 06
9457-8EU	Core Duo T2400	1.83	512MB	15.0" XGA	GMA	60GB	5400	Combo	* Intel 11a/b/g				/S	XP Pro W	May 06
9457-97U	Core Duo T2300E	1.66	512MB	15.0" XGA	GMA	60GB	5400	Combo	* Intel 11a/b/g			Blue Finger	1394 /S	XP Pro G	May 06
9457-98U	Core Duo T2400	1.83	512MB	15.0" XGA	GMA	60GB	5400	Combo	* Intel 11a/b/g			Blue	1394 /S	Home G	May 06
9457-8PU	Core Duo T2400	1.83	512MB	15.0" SXGA+	GMA	60GB	5400	Combo	* Intel 11a/b/g	Verizon			1394 /S	XP Pro W	May 06
9457-8WU	Core Duo T2300E	1.66	512MB	15.0" XGA	GMA	60GB	5400	DVD±RW	* Intel 11a/b/g			Finger	1394 /S	XP Pro G	May 06
9457-G5U	Core Duo T2400	1.83	512MB	15.0" XGA	GMA	80GB	5400	Combo	* Intel 11a/b/g			Blue Finger	1394 /S	XP Pro G	May 06

Positioning Processor	<i>Everyday computing; two spindles</i> <b>Intel® Core™ Solo processor T1300</b> with single-core, Enhanced Intel SpeedStep™ technology <sup>1</sup> , Execute Disable Bit, 667MHz bus, and 2MB L2 cache or <b>Intel Core Duo processor T2300E or T2400</b> with dual-core, Enhanced Intel SpeedStep™ technology <sup>1</sup> , Execute Disable Bit, 667MHz system bus, and 2MB shared L2 cache	<b>SOFTWARE</b> <sup>14</sup> <b>Windows XP Professional models</b> - Microsoft® Windows® XP Professional <sup>20</sup> (Service Pack 2) ↔ Disk-to-Disk Recovery <b>Windows XP Home models</b> - Microsoft Windows XP Home Edition <sup>20</sup> (Service Pack 2) ↔ Disk-to-Disk Recovery
Memory	<b>512MB</b> std / 4GB max <sup>31</sup> / PC2-5300 667MHz DDR2 / non-parity / CL5 / dual-channel capable / two 200-pin SO-DIMM sockets / standard memory in one socket / one socket available	<b>Windows XP Home models</b> - Microsoft Windows XP Home Edition <sup>20</sup> (Service Pack 2) ↔ Disk-to-Disk Recovery
EIDE Combo EIDE DVD±RW Ultrabay Enhanced Serial ATA disk (SATA150)	<i>Some: DVD-ROM/CD-RW / 24X/24X/24X/8X<sup>21</sup> speed / removable from Ultrabay™ Enhn</i> <i>Some: DVD burner / Super Multi-Burner DL (40Y8624) / removable Ultrabay Enhanced</i> One bay for removable devices / Ultrabay Slim-compatible / 12.7mm high / curved bezel <b>40GB</b> <sup>9</sup> (5400 rpm), <b>60GB</b> (5400 rpm), or <b>100GB</b> (5400 rpm) / 9.5mm high / removable, upgradable / 9.5mm high bay / supports 2nd disk with optional 'Second HDD Adapter for Ultrabay Slim' / <b>Hard Disk Drive Shock Absorber / Active Protection System</b>	<b>Preloaded (all)</b> • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center with Away Manager • ThinkVantage System Update • Symantec® Client Security™ • Diskeeper® Lite • PC-Doctor™ (diagnostics) • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader • Google Toolbar • Google Desktop • Picasa from Google • Fingerprint Software (fingerprint models) • Multimedia Center for Think Offerings • Sonic RecordNOW and Drive Letter Access (combo, DVD±RW) • InterVideo WinDVD (combo, DVD±RW models) • InterVideo WinDVD Creator (DVD±RW models)
Display	<i>Some: 14.1"</i> (358.1mm) <b>XGA (1024x768) TFT color</b> / 150 nits / anti-glare / 4:3 aspect <i>Some: 14.1"</i> (358.1mm) <b>SXGA+ (1400x1050) TFT color</b> / 150 nits / anti-glare / 4:3 aspect <i>Some: 15.0"</i> (381.0mm) <b>XGA (1024x768) TFT color</b> / 150 nits / anti-glare / 4:3 aspect <i>Some: 15.0"</i> (381.0mm) <b>SXGA+ (1400x1050) TFT color</b> / 200 nits / anti-glare / 4:3 aspect	• License - CD not included (all) - Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client (Notes client not supported on XP Home)
Graphics	<b>Intel Graphics Media Accelerator 950 (GMA 950)</b> / integrated in 945GM / 250MHz	
Keyboard TrackPoint® Touch pad ThinkLight™	89-key / ThinkVantage button / spill-resistant / multimedia Fn keys / Windows, Appl keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar <sup>13</sup> , magnifying glass UltraNav™ multi-pointing system / touch pad below keyboard / Tap Zones Illuminates the keyboard to improve visibility in low-light conditions	
Dimensions <sup>3</sup> Weight <sup>2</sup> Case material Battery - type Battery - life <sup>10</sup>	<i>14.1" models (WxDxH):</i> 12.4" x 10.2" x 1.35-1.46"; 314mm x 260mm x 34.3-37.2mm <i>15.0" models (WxDxH):</i> 13.1" x 10.6" x 1.47-1.58"; 332mm x 269mm x 37.3-40.2mm with optical drive and battery: <i>14.1" models:</i> up to 5.8 lb (2.6kg); <i>15":</i> up to 6.3 lb (2.9 kg) <i>Color:</i> black; <i>All:</i> Acrylonitrile-Butadiene-Styrene (ABS) plastic Lithium Ion <b>6-cell</b> / supports unique 2nd battery in Ultrabay Enhanced <i>6-cell:</i> up to 5.2 hr; <i>optional 9-cell:</i> up to 7.8 hr; <i>9-cell plus Ultrabay battery:</i> up to 10 hr	
Architecture	<b>Mobile Intel 945GM Express Chipset</b> / 82945GM Graphics Memory Controller Hub / 82801GBM ICH7-M I/O Controller Hub (SATA300, ATA-100 EIDE, PCI Express x1, PCI bus, USB, LPC interface, [Bluetooth], [fingerprint]) / PCI bus (T <sup>16</sup> PCIx512 CardBus controller) / LPC bus (National Semiconductor® PC87382 Super I/O, Atmel® 97SC3203)	
PC Card Std slot ExpressCard slot Ports	One Type I or Type II slot / CardBus 32-bit / integrated door One ExpressCard/34 or ExpressCard/54 / PCI Express x1 or USB 2.0 / integrated door Three USB 2.0 / external DB-15 monitor / RJ-11 (modem) / RJ-45 (ethernet) / <i>some:</i> 1394 FireWire 400 (4-pin connector; 1394a-2000 standard) / <i>15" models:</i> S-video out / no keyboard, mouse, serial, parallel, or infrared port	
Wireless antenna Mini PCI Express Intel 11a/b/g <sup>32</sup> WWAN <sup>16</sup>	UltraConnect™ Antenna built into the display cover / on-off switch for all wireless radios Two Mini PCI Express slots / only 802.11 wireless is customer upgradable 11a/b/g wireless <sup>4</sup> , Mini PCI Express adapter, Intel PRO/Wireless 3945ABG <i>Some:</i> Wireless WAN, Sierra Wireless 1xEV-DO Network Adapter, Mini PCIe Adapter, EV-DO/1xRTT, WWAN antenna on display, service contract reqd with Verizon® Wireless 56K <sup>6</sup> V.90 (V.92-designed <sup>29</sup> ) modem in Communications Daughter Card socket <i>Some:</i> Bluetooth 2.0 wireless / USB 2.0 interface via ICH7-M / LED indicator Gigabit ethernet on systemboard / Broadcom® BCM5751M (MAC/PHY) / PCIe x1 / PXE High Definition (HD) Audio / AD1981HD codec / stereo speakers, 1 watt / volume up, down, mute buttons / mono microphone / microphone input jack / headphone jack Power-on password / hard disk password / supervisor password / security keyhole	Supports ThinkVantage™ technologies
Modem Bluetooth™ Ethernet Audio support		65 watt AC adapter (GMA graphics) ThinkPad Roll Cage (one-piece magnesium frame) RoHS-compliant International Warranty Service <sup>17</sup> 24 hour x 7 day <sup>18</sup> toll-free warranty support during the warranty <sup>12</sup>
Security Security chip Fingerprint reader	<b>Trusted Platform Module</b> / Atmel chip / TCG 1.2-compliant <i>Some:</i> <b>Fingerprint reader on palm rest</b> / swipe sensor / supports the security chip	ThinkPlus™.22 2-year LOR 9x5 NBD 41C9175
Limited warranty <sup>12</sup>	<b>3-year</b> /1-yr battery - EasyServ™.19 onsite pickup and delivery / service upgrades <sup>22</sup> avail	ThinkPlus 3-year LOR 9x5 NBD 41C9176 ThinkPlus 5-year LOR 9x5 NBD 41C9179
1GB PC2-5300 DDR2 CL5 SODIMM ThinkPad DVD Ultrabay Slim Burner (flat) ThinkPad Essential Port Replicator ThinkPad Advanced Dock	40Y7734 41N5643 250510W 250310U	T60/R60 Series Li-Ion Battery 6-cell 40Y6799 Z60m/T60/R60 Li-Ion Battery 9-cell 40Y6797 Lenovo L192 Wide 19" Monitor (black) 6920AB1 Other accessories at <a href="http://lenovo.com/accessories">lenovo.com/accessories</a>

See footnotes for important warranty information  
US models announced May 16, May 30, or Oct 17, 2006  
US models withdrawn effective May, July, or September 2007

# ThinkPad® R60 (9457) - October 2006 - withdrawn

Created by Lenovo Training Solutions  
Personal Systems Reference (PSREF)

Type-model	Processor	Speed GHz	Memory	Anti-glare screen	Graphics controller	Disk SATA GB <sup>3</sup>	EIDE rpm	EIDE optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN wireless	Blue-tooth	Finger-print reader	1394/S-Video port	3-year limited warranty <sup>12</sup>	Workhorse Gbl Avail date
9457-G2U	Core 2 Duo T7200	2.00	1GB	14.1" SXGA+	GMA 80GB	5400	Combo	* Intel 11a/b/g <sup>32</sup>	None	Blue	1394	3-year Gbl	Oct 06		
9457-G3U	Core 2 Duo T7200	2.00	512M	14.1" XGA	GMA 60GB	5400	Combo	* Intel 11a/b/g	None	Finger	1394	3-year Gbl	Oct 06		
9457-G4U	Core 2 Duo T7200	2.00	1GB	15.0" SXGA+	GMA 80GB	5400	Combo	* Intel 11a/b/g	None	Blue Finger	1394	3-year Gbl	Oct 06		
9457-G6U	Core 2 Duo T5600	1.83	512M	15.0" XGA	GMA 60GB	5400	DVD±RW*	Intel 11a/b/g	None	Blue Finger	1394 /S	3-year Gbl	Oct 06		
9457-G7U	Core 2 Duo T5600	1.83	512M	15.0" XGA	GMA 100G	5400	DVD±RW*	Intel 11a/b/g	None	Blue Finger	1394 /S	3-year Gbl	Oct 06		
9457-G8U	Core 2 Duo T7200	2.00	1GB	14.1" XGA	GMA 80GB	5400	Combo	* Intel 11a/b/g	None		1394 /S	3-year Gbl	Oct 06		

  

Positioning Processor	<i>Everyday computing; two spindles</i> <b>Intel® Core™ 2 Duo processor T5600 or T7200</b> with dual-core, Intel 64 Technology, Enhanced Intel SpeedStep™ technology <sup>1</sup> , Execute Disable Bit, and 667MHz system bus; <i>T5600: 2MB shared L2 cache; T7200: 4MB shared L2 cache</i> <b>512MB or 1GB</b> std / 4GB max <sup>31</sup> / PC2-5300 667MHz DDR2 / non-parity / CL5 / dual-channel capable / two 200-pin SO-DIMM sockets / <i>512MB models: standard memory in 1 socket; 1 socket available; 1GB models: std memory in both sockets (512MB each socket); no sockets avail;</i>	<b>SOFTWARE<sup>14</sup></b> <b>Windows XP Professional</b> - Microsoft® Windows® XP Professional <sup>20</sup> (Service Pack 2) ⇨ Disk-to-Disk Recovery <b>Preloaded</b> • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center with Away Manager • ThinkVantage System Update • Symantec® Client Security™ • Diskeeper Lite • PC-Doctor™ (diagnostics) • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader • Google Toolbar • Google Desktop • Picasa from Google • Fingerprint Software (fingerprint models) • Multimedia Center for Think Offerings • Sonic RecordNOW and Drive Letter Access (combo, DVD±RW) • InterVideo WinDVD (combo, DVD±RW models) • InterVideo WinDVD Creator (DVD±RW models) <b>License - CD not included</b> - Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client
Memory	<i>Some: DVD-ROM/CD-RW / 24X/24X/24X/8X<sup>21</sup> speed / removable from Ultrabay™ Enhn</i> <i>Some: DVD burner / Super Multi-Burner DL (40Y8624) / removable Ultrabay Enhanced</i> One bay for removable devices / Ultrabay Slim-compatible / 12.7mm high / curved bezel <b>60GB<sup>8</sup></b> (5400 rpm), <b>80GB</b> (5400 rpm), or <b>100GB</b> (5400 rpm) / 9.5mm high / removable, upgradable / 9.5mm high bay / supports 2nd disk with optional 'Second HDD Adapter for Ultrabay Slim' / <b>Hard Drive Shock Absorber / Active Protection System</b>	
EIDE Combo EIDE DVD±RW Ultrabay Enhanced Serial ATA disk (SATA150)	<i>Some: 14.1" (358.1mm) XGA (1024x768) TFT color / 150 nits / anti-glare / 4:3 aspect</i> <i>Some: 14.1" (358.1mm) SXGA+ (1400x1050) TFT color / 150 nits / anti-glare / 4:3</i> <i>Some: 15.0" (381.0mm) XGA (1024x768) TFT color / 150 nits / anti-glare / 4:3 aspect</i> <i>Some: 15.0" (381.0mm) SXGA+ (1400x1050) TFT color / 200 nits / anti-glare / 4:3</i>	
Display	<b>Intel Graphics Media Accelerator 950 (GMA 950)</b> / integrated in 945GM / 250MHz	
Graphics	89-key / ThinkVantage button / spill-resistant / multimedia Fn keys / Windows, Appl keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar <sup>13</sup> , magnifying glass UltraNav™ multi-pointing system / touch pad below keyboard / Tap Zones Illuminates the keyboard to improve visibility in low-light conditions	
Keyboard TrackPoint® Touch pad ThinkLight™	<i>14.1" models (WxDxH): 12.4" x 10.2" x 1.35-1.46"; 314mm x 260mm x 34.3-37.2mm</i> <i>15.0" models (WxDxH): 13.1" x 10.6" x 1.47-1.58"; 332mm x 269mm x 37.3-40.2mm</i> with optical drive and battery: <i>14.1" models: up to 5.8 lb (2.6kg); 15": up to 6.3 lb (2.9 kg)</i> <i>Color: black; All: Acrylonitrile-Butadiene-Styrene (ABS) plastic</i> Lithium Ion <b>6-cell</b> / supports unique 2nd battery in Ultrabay Enhanced <i>6-cell: up to 5.2 hr; optional 9-cell: up to 7.8 hr; 9-cell plus Ultrabay battery: up to 10 hr</i>	
Dimensions <sup>3</sup> Weight <sup>2</sup> Case material Battery - type Battery - life <sup>10</sup>	<b>Mobile Intel 945GM Express Chipset</b> / 82945GM Graphics Memory Controller Hub / 82801GBM ICH7-M I/O Controller Hub (SATA300, ATA-100 EIDE, PCI Express x1, PCI bus, USB, LPC interface, [Bluetooth], [fingerprint]) / PCI bus (TI® PCIx512 CardBus controller) / LPC bus (National Semiconductor® PC87382 Super I/O, Atmel® 97SC3203)	
Architecture	One Type I or Type II slot / CardBus 32-bit / integrated door One ExpressCard/34 or ExpressCard/54 / PCI Express x1 or USB 2.0 / integrated door Three USB 2.0 / external DB-15 monitor / RJ-11 (modem) / RJ-45 (ethernet) / <i>some: 1394 FireWire 400 (4-pin connector; 1394a-2000 standard) / 15" models: S-video out / no keyboard, mouse, serial, parallel, or infrared port</i>	
PC Card Std slot ExpressCard slot Ports	UltraConnect™ Antenna built into the display cover / on-off switch for all wireless radios Two Mini PCI Express slots / only 802.11 wireless is customer upgradable 11a/b/g wireless <sup>4</sup> , Mini PCI Express adapter, Intel PRO/Wireless 3945ABG None 56K <sup>6</sup> V.90 (V.92-designed <sup>29</sup> ) modem in Communications Daughter Card socket <i>Some: Bluetooth 2.0 wireless / USB 2.0 interface via ICH7-M / LED indicator</i> Gigabit ethernet on systemboard / Broadcom® BCM5751M (MAC/PHY) / PCIe x1 / PXE High Definition (HD) Audio / AD1981HD codec / stereo speakers, 1 watt / volume up, down, mute buttons / mono microphone / microphone input jack / headphone jack Power-on password / hard disk password / supervisor password / security keyhole <b>Trusted Platform Module</b> / Atmel chip / TCG 1.2-compliant <i>Some: Fingerprint reader on palm rest / swipe sensor / supports the security chip</i>	
Wireless antenna Mini PCI Express Intel 11a/b/g <sup>32</sup> WWAN <sup>16</sup>	One Type I or Type II slot / CardBus 32-bit / integrated door One ExpressCard/34 or ExpressCard/54 / PCI Express x1 or USB 2.0 / integrated door Three USB 2.0 / external DB-15 monitor / RJ-11 (modem) / RJ-45 (ethernet) / <i>some: 1394 FireWire 400 (4-pin connector; 1394a-2000 standard) / 15" models: S-video out / no keyboard, mouse, serial, parallel, or infrared port</i>	
Modem Bluetooth™ Ethernet Audio support	65 watt AC adapter (GMA graphics) ThinkPad Roll Cage (one-piece magnesium frame) RoHS-compliant International Warranty Service <sup>17</sup> 24 hour x 7 day <sup>18</sup> toll-free warranty support during the warranty <sup>12</sup>	
Security Security chip Fingerprint reader	ThinkPlus™.22 2-year LOR 9x5 NBD 41C9175 ThinkPlus 3-year LOR 9x5 NBD 41C9176 ThinkPlus 4-year LOR 9x5 NBD 41C9177 ThinkPlus 5-year LOR 9x5 NBD 41C9179 ThinkPlus 4-year P&L P/U Depot 41C9178 ThinkPlus 5-year P&L P/U Depot 41C9180 Post-warranty annual maintenance agreements at <b>lenovo.com/thinkplus/warranty</b>	
Limited warranty <sup>12</sup>	512MB PC2-5300 DDR2 CL5 SODIMM 40Y7733 1GB PC2-5300 DDR2 CL5 SODIMM 40Y7734 2GB PC2-5300 DDR2 SODIMM 40Y7735 Serial Hard Drive Ultrabay Slim Adapter (flat) 40Y8725 Combo II Ultrabay Slim Drive (flat bezel) 40Y8621 ThinkPad DVD Ultrabay Slim Burner (flat) 41N5643 100GB Disk 9.5mm SATA150 (7200 rpm) 41N3013 USB 2.0 Lenovo Multimedia Headset 40Y8518 USB 2.0 Security Memory Key 4GB 41U5120 USB 2.0 Portable 120GB Hard Disk 41N8379 USB 2.0 Super Multi-Burner Drive 41N5565 ThinkPad Essential Port Replicator 250510W ThinkPad Advanced Mini Dock 250410U ThinkPad Advanced Dock 250310U T60/R60 Series Li-Ion Battery 6-cell 40Y6799 Z60m/T60/R60 Li-Ion Battery 9-cell 40Y6797 Advanced Ultrabay Battery 3-cell 40Y6789 ThinkPad External Battery Charger 40Y7625 ThinkPad 90W AC Adapter 40Y7659 ThinkPad 90W AC/DC Combo Adapter 40Y7630 Lenovo M500 Projector 0037A05 Lenovo C500 Projector 0039A05 ThinkPad Convertible Carrying Case 22P8860 USB Fingerprint Reader 73P4774 ThinkPad Adjustable Notebook Stand 40Y7676 ThinkPad Convertible Monitor Stand 40Y7620 Lenovo L192 Wide 19" Monitor (black) 6920AB1 ThinkVision® L201p 20.1" Monitor (blk) 9220HB1 Other accessories at <b>lenovo.com/accessories</b>	

See footnotes for important warranty information  
US models announced October 17, 2006  
US models withdrawn effective July 2007

\* Powered by Intel Centrino® Duo mobile technology

# ThinkPad® R60 (9457) - Education - withdrawn

Created by Lenovo Training Solutions  
Personal Systems Reference (PSREF)

Type-model	Processor	Speed GHz	Memory	Anti-glare screen	Graphics controller	Disk SATA GB <sup>8</sup>	EIDE rpm	EIDE optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN wireless	Finger-IEEE print 1394 reader port	S-Video out port	3-year limited warranty <sup>12</sup>	Avail date
9457-74U	Core Duo T2400	1.83	512MB	14.1" SXGA+	GMA	80GB	5400	DVD±RW	* Intel 11a/b/g <sup>32</sup>	None	None	1394	EasyServ	May 06
9457-7GU	Celeron® M 420	1.60	512MB	14.1" XGA	GMA	60GB	5400	Combo	Intel 11a/b/g	None	None	1394	EasyServ	May 06
9457-7HU	Core Duo T2400	1.83	512MB	14.1" XGA	GMA	60GB	5400	Combo	* Intel 11a/b/g	None	None	1394	EasyServ	May 06
9457-8JU	Core Duo T2400	1.83	512MB	15.0" XGA	GMA	60GB	5400	Combo	* Intel 11a/b/g	None	None	1394	S-Vid EasyServ	May 06
9457-8KU	Core Duo T2400	1.83	512MB	15.0" XGA	GMA	80GB	5400	DVD±RW	* Intel 11a/b/g	None	None	1394	S-Vid EasyServ	May 06

• These models have an EasyServ™<sup>19</sup> onsite pickup and delivery 3-year limited warranty

These educational models are available only to public or private K-12 (or higher) accredited schools organized and operated exclusively for educational purposes for use by qualified students and teachers.

Positioning Processor	<i>Everyday computing; two spindles</i> <b>Intel® Celeron M Processor 420</b> with Execute Disable Bit, 533MHz system bus, and 1MB L2 cache or <b>Intel Core™ Duo processor T2400</b> with dual-core, Enhanced Intel SpeedStep™ technology <sup>1</sup> , Execute Disable Bit, 667MHz system bus, and 2MB shared L2 cache											<b>SOFTWARE<sup>14</sup></b> <b>Windows XP Professional</b> - Microsoft® Windows® XP Professional <sup>20</sup> (Service Pack 2) ↳ Disk-to-Disk Recovery		
Memory	<b>512MB</b> std / 4GB max <sup>31</sup> / PC2-5300 667MHz DDR2 / non-parity / CL5 / dual-channel capable / two 200-pin SO-DIMM sockets / standard memory in one socket available											<b>Preloaded</b> • VitalSource Library education software • Adobe® Photoshop® Elements plus Adobe Premiere® Elements • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center with Away Manager • ThinkVantage System Update • Symantec® Client Security™ • Diskeeper Lite • PC-Doctor™ (diagnostics) • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe Reader • Google Toolbar • Google Desktop • Picasa from Google • Multimedia Center for Think Offerings • Sonic RecordNOW and Drive Letter Access (combo, DVD±RW) • InterVideo WinDVD (combo, DVD±RW models) • InterVideo WinDVD Creator (DVD±RW models)		
Diskette drive	None standard / use optional USB-based diskette drive											<b>CD</b> • Adobe Photoshop Elements plus Adobe Premiere Elements <b>License</b> - CD not included - Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client		
EIDE Combo	Some: DVD-ROM/CD-RW / 24X/24X/24X/8X <sup>21</sup> speed / removable from Ultrabay Enhance													
EIDE DVD±RW	Some: DVD burner / Super Multi-Burner DL (40Y8624) / removable Ultrabay Enhanced											<b>Supports ThinkVantage® technologies</b>  65-watt AC adapter (GMA graphics) ThinkPad Roll Cage (one-piece magnesium frame) RoHS-compliant International Warranty Service <sup>17</sup> 24 hour x 7 day <sup>18</sup> toll-free warranty support during the warranty <sup>12</sup>		
Ultrabay Enhanced Serial ATA disk (SATA150)	One bay for removable devices / Ultrabay Slim-compatible / 12.7mm high / curved bezel <b>60GB<sup>8</sup></b> (5400 rpm) or <b>80GB</b> (5400 rpm) / 9.5mm high / removable, upgradable / 9.5mm high bay / supports 2nd disk with optional 'Second HDD Adapter for Ultrabay Slim' / <b>Hard Disk Drive Shock Absorber / Active Protection System</b>													
Display	Some: <b>14.1"</b> (358.1mm) <b>XGA (1024x768) TFT color</b> / 150 nits / anti-glare / 4:3 aspect Some: <b>14.1"</b> (358.1mm) <b>SXGA+ (1400x1050) TFT color</b> / 150 nits / anti-glare / 4:3 aspect Some: <b>15.0"</b> (381.0mm) <b>XGA (1024x768) TFT color</b> / 150 nits / anti-glare / 4:3 aspect											<b>License</b> - CD not included - Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client		
Graphics	<b>Intel Graphics Media Accelerator 950 (GMA 950)</b> / integrated in 945GM / 250MHZ													
Keyboard TrackPoint®	89-key / ThinkVantage button / spill-resistant / multimedia Fn keys / Windows, Appl keys											<b>License</b> - CD not included - Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client		
Touch pad ThinkLight™	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar <sup>13</sup> , magnifying glass UltraNav™ multi-pointing system / touch pad below keyboard / Tap Zones Illuminates the keyboard to improve visibility in low-light conditions													
Dimensions <sup>3</sup>	14.1" models (WxDxH): 12.4" x 10.2" x 1.35-1.46"; 314mm x 260mm x 34.3-37.2mm 15.0" models (WxDxH): 13.1" x 10.6" x 1.47-1.58"; 332mm x 269mm x 37.3-40.2mm with optical and 6-cell battery: 14.1" models: up to 5.8 lb (2.6kg); 15": up to 6.3 lb (2.9kg) Color: black; All: Acrylonitrile-Butadiene-Styrene (ABS) plastic											<b>License</b> - CD not included - Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client		
Weight <sup>2</sup>	Lithium Ion <b>6-cell</b> / supports unique 2nd battery in Ultrabay Enhanced 6-cell: up to 5.2 hr; optional 9-cell: up to 7.8 hr; 9-cell plus Ultrabay battery: up to 10 hr													
Case material	Lithium Ion <b>6-cell</b> / supports unique 2nd battery in Ultrabay Enhanced											<b>License</b> - CD not included - Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client		
Battery - type	6-cell: up to 5.2 hr; optional 9-cell: up to 7.8 hr; 9-cell plus Ultrabay battery: up to 10 hr													
Battery - life <sup>10</sup>	6-cell: up to 5.2 hr; optional 9-cell: up to 7.8 hr; 9-cell plus Ultrabay battery: up to 10 hr											<b>License</b> - CD not included - Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client		
Architecture	<b>Mobile Intel 945GM Express Chipset</b> / 82945GM Graphics Memory Controller Hub / 82801GBM ICH7-M I/O Controller Hub (SATA300, ATA-100 EIDE, PCI Express x1, PCI bus, USB, LPC interface, [Bluetooth], [fingerprint]) / PCI bus (TI® PCIx512 CardBus controller) / LPC bus (National Semiconductor® PC87382 Super I/O, Atmel® 97SC3203)													
PC Card Std slot	One Type I or Type II slot / CardBus 32-bit / integrated door											<b>License</b> - CD not included - Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client		
ExpressCard slot	One ExpressCard/34 or ExpressCard/54 / PCI Express x1 or USB 2.0 / integrated door													
Ports	Three USB 2.0 / external DB-15 monitor / RJ-11 (modem) / RJ-45 (ethernet) / 1394 FireWire 400 (4-pin connector; 1394a-2000 standard) / 15" models: S-video out / no keyboard, mouse, serial, parallel, or infrared port (use USB)											<b>License</b> - CD not included - Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client		
Wireless antenna	UltraConnect™ Antenna built into the display cover / on-off switch for all wireless radios													
Mini PCI Express	Two Mini PCI Express slots / only 802.11 wireless is customer upgradable											<b>License</b> - CD not included - Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client		
Intel 11a/b/g <sup>32</sup> WWAN <sup>16</sup>	11a/b/g wireless <sup>4</sup> , Mini PCI Express adapter, Intel PRO/Wireless 3945ABG													
Modem	56K <sup>6</sup> V.90 (V.92-designed <sup>29</sup> ) modem in Communications Daughter Card socket											<b>License</b> - CD not included - Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client		
Bluetooth™	None													
Ethernet	Gigabit ethernet on systemboard / Broadcom® BCM5751M (MAC/PHY) / PCIe x1 / PXE											<b>License</b> - CD not included - Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client		
Audio support	High Definition (HD) Audio / AD1981HD codec / stereo speakers, 1 watt / volume up, down, mute buttons / mono microphone / microphone input jack / headphone jack													
Security	Power-on password / hard disk password / supervisor password / security keyhole											<b>License</b> - CD not included - Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client		
Security chip	<b>Trusted Platform Module</b> / Atmel chip / TCG 1.2-compliant													
Fingerprint reader	None											<b>License</b> - CD not included - Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client		
Limited warranty <sup>12</sup>	3-year/1-yr battery - EasyServ™ <sup>19</sup> onsite pickup and delivery / service upgrades <sup>22</sup> avail													
512MB PC2-5300 DDR2 CL5 SODIMM	40Y7733	T60/R60 Series Li-Ion Battery 6-cell	40Y6799											
1GB PC2-5300 DDR2 CL5 SODIMM	40Y7734	Z60m/T60/R60 Li-Ion Battery 9-cell	40Y6797											
2GB PC2-5300 DDR2 SODIMM	40Y7735	Advanced Ultrabay Battery 3-cell	40Y6789											
Serial Hard Drive Ultrabay Slim Adapter (flat)	40Y8725	ThinkPad External Battery Charger	40Y7625											
Combo II Ultrabay Slim Drive (flat bezel)	40Y8621	ThinkPad 90W AC/DC Combo Adapter	40Y7630											
ThinkPad DVD Ultrabay Slim Burner (flat)	41N5643	Lenovo M500 Projector	0037A05											
100GB Disk 9.5mm SATA150 (7200 rpm)	41N3013	Lenovo C500 Projector	0039A05											
USB Portable Diskette Drive	05K9276	Premiere Leather Carrying Case	10K0209											
USB 2.0 Security Memory Key 4GB	41U5120	ThinkPad Convertible Carrying Case	22P8860											
11a/b/g Wireless Mini PCI Express Adapter	40Y7026	ThinkPad Adjustable Notebook Stand	40Y7676											
ThinkPad Essential Port Replicator	250510W	Lenovo L192 Wide 19" Monitor (black)	6920AB1											
ThinkPad Advanced Mini Dock	250410U	ThinkVision® L171p 17" Monitor (black)	9417HC2											
ThinkPad Advanced Dock	250310U	ThinkVision L201p 20.1" Monitor (black)	9220HB1											
Lenovo Laser Mouse (USB, PS/2)	41U3074	Other accessories at <b>lenovo.com/accessories</b>												
											ThinkPlus™ <sup>22</sup> 2-year LOR 9x5 NBD 41C9175			
											ThinkPlus 3-year LOR 9x5 NBD 41C9176			
											ThinkPlus 4-year LOR 9x5 NBD 41C9177			
											ThinkPlus 5-year LOR 9x5 NBD 41C9179			
											ThinkPlus 4-year P&L P/U Depot 41C9178			
											ThinkPlus 5-year P&L P/U Depot 41C9180			
											Post-warranty annual maintenance agreements at <b>lenovo.com/thinkplus/warranty</b>			

See footnotes for important warranty information  
US models announced May 16, 2006  
US models withdrawn effective May or September 2007

\* Powered by Intel Centrino® Duo mobile technology

© Lenovo  
(RC1-5) September 2007

# ThinkPad® R60 (9457) - Education (Vista™) - withdrawn

Created by Lenovo Training Solutions  
Personal Systems Reference (PSREF)

Type-model	Processor	Speed GHz	Memory	Anti-glare screen	Graphics controller	Disk SATA GB <sup>5</sup>	rpm	EIDE optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN wireless	Finger- print reader	S-Video out port	Educ pre- load	3-year limited warranty <sup>12</sup>	Avail date
9457-LSU	Core 2 Duo T7200	2.00	1GB	15.0" XGA	GMA	80GB	5400	Combo	11a/b/g <sup>32</sup>	None	None	S-Vid	K12	EasyServ	Apr 07

• **These models have an EasyServ™<sup>19</sup> onsite pickup and delivery 3-year limited warranty**

These educational models are available only to public or private K-12 (or higher) accredited schools organized and operated exclusively for educational purposes for use by qualified students and teachers.

Positioning Processor	<i>Everyday computing; two spindles</i> <b>Intel® Core 2 Duo processor T7200</b> with dual-core, Intel 64 Technology, Enhanced Intel SpeedStep™ technology <sup>1</sup> , Execute Disable Bit, 667MHz system bus, and 4MB shared L2 cache										<b>Preloaded operating system<sup>20</sup></b> - Microsoft® Windows® Vista™ Business Edition (32-bit) ↳ Vista Basic logo				
Memory	1GB std / 4GB max <sup>31</sup> / PC2-5300 667MHz DDR2 / non-parity / CL5 / dual-channel capable / two 200-pin SO-DIMM sockets / standard memory in one socket / one socket available										<b>Preloaded applications<sup>14</sup></b> • K-12 education software - VitalSource Library School Edition - Adobe® Instructor Resource Center - Adobe Digital School Collection - Photoshop Elements 5 (and CD) - Premier Elements 3 (and DVD) - Acrobat 8 Professional (and CD) - Contribute 4 (and CD) • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center with Away Manager • ThinkVantage System Update • System Migration Assistant • Norton Internet Security (90 days of virus definitions) • Diskeeper™ Home • PC-Doctor™ (diagnostics) • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader • Picasa from Google				
Diskette drive	None (use optional USB-based diskette drive)										<b>License - CD not included</b> - Lotus® Notes® Stand-alone Client				
EIDE Combo	DVD-ROM/CD-RW / 24X/24X/24X/8X <sup>21</sup> speed / removable from Ultrabay Enhanced														
Ultrabay Enhanced	One bay for removable devices / Ultrabay Slim-compatible / 12.7mm high / curved bezel														
Serial ATA disk (SATA150)	80GB <sup>8</sup> (5400 rpm) / 9.5mm high / removable, upgradable / 9.5mm high bay / supports 2nd disk with optional 'Second HDD Adapter for Ultrabay Slim' / <b>Hard Disk Drive Shock Absorber / Active Protection System</b>														
Display	15.0" (381.0mm) XGA (1024x768) TFT color / 150 nits / anti-glare / 4:3 aspect														
Graphics	Intel Graphics Media Accelerator 950 (GMA 950) / integrated in 945GM / 250MHz														
Keyboard	89-key / ThinkVantage button / spill-resistant / multimedia Fn keys / Windows, Appl keys														
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar <sup>13</sup> , magnifying glass														
Touch pad	UltraNav™ multi-pointing system / touch pad below keyboard / Tap Zones														
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions														
Dimensions <sup>3</sup>	15.0" models (WxDxH): 13.1" x 10.6" x 1.47-1.58"; 332mm x 269mm x 37.3-40.2mm														
Weight <sup>2</sup>	with optical and 6-cell battery: 14.1" models: up to 5.8 lb (2.6kg); 15": up to 6.3 lb (2.9kg)														
Case material	Color: black; All: Acrylonitrile-Butadiene-Styrene (ABS) plastic														
Battery - type	Lithium Ion 9-cell / supports unique 2nd battery in Ultrabay Enhanced														
Battery - life <sup>10</sup>	9-cell: up to 7.8 hr; 9-cell plus Ultrabay battery: up to 10 hr														
Architecture	Mobile Intel 945GM Express Chipset / 82945GM Graphics Memory Controller Hub / 82801GBM ICH7-M I/O Controller Hub (SATA300, ATA-100 EIDE, PCI Express x1, PCI bus, USB, LPC interface, [Bluetooth], [fingerprint]) / PCI bus (TI® PCIx512 CardBus controller) / LPC bus (National Semiconductor® PC87382 Super I/O, Atmel® 97SC3203)														
PC Card Std slot	One Type I or Type II slot / CardBus 32-bit / integrated door														
ExpressCard slot	One ExpressCard/34 or ExpressCard/54 / PCI Express x1 or USB 2.0 / integrated door														
Ports	Three USB 2.0 / external DB-15 monitor / RJ-11 (modem) / RJ-45 (ethernet) / 1394 FireWire 400 (4-pin connector; 1394a-2000 standard) / 15" models: S-video out / no keyboard, mouse, serial, parallel, or infrared port (use USB)														
Wireless antenna	UltraConnect™ Antenna built into the display cover / on-off switch for all wireless radios														
Mini PCI Express	Two Mini PCI Express slots / only 802.11 wireless is customer upgradable														
11a/b/g <sup>32</sup>	11a/b/g wireless <sup>4</sup> , ThinkPad 11a/b/g Mini PCIe Adapter, Atheros AR5006EX														
WWAN <sup>16</sup>	None														
Modem	56K <sup>6</sup> V.90 (V.92-designed <sup>29</sup> ) modem in Communications Daughter Card socket										Supports ThinkVantage® technologies				
Bluetooth™	None														
Ethernet	Gigabit ethernet on systemboard / Broadcom® BCM5751M (MAC/PHY) / PCIe x1 / PXE										65-watt AC adapter (GMA graphics)				
Audio support	High Definition (HD) Audio / AD1981HD codec / stereo speakers, 1 watt / volume up, down, mute buttons / mono microphone / microphone input jack / headphone jack										ThinkPad Roll Cage (one-piece magnesium frame)				
Security	Power-on password / hard disk password / supervisor password / security keyhole										RoHS-compliant				
Security chip	Trusted Platform Module / Atmel chip / TCG 1.2-compliant										International Warranty Service <sup>17</sup>				
Fingerprint reader	None										24 hour x 7 day <sup>18</sup> toll-free warranty support during the warranty <sup>12</sup>				
Limited warranty <sup>12</sup> 3-year/1-yr battery - EasyServ™ <sup>19</sup> onsite pickup and delivery / service upgrades <sup>22</sup> avail															
512MB PC2-5300 DDR2 CL5 SODIMM	40Y7733	T60/R60 Series Li-Ion Battery 6-cell	40Y6799												
1GB PC2-5300 DDR2 CL5 SODIMM	40Y7734	Z60m/T60/R60 Li-Ion Battery 9-cell	40Y6797												
2GB PC2-5300 DDR2 SODIMM	40Y7735	Advanced Ultrabay Battery 3-cell	40Y6789												
Serial Hard Drive Ultrabay Slim Adapter (flat)	40Y8725	ThinkPad External Battery Charger	40Y7625												
Combo II Ultrabay Slim Drive (flat bezel)	40Y8621	ThinkPad 90W AC/DC Combo Adapter	40Y7630												
ThinkPad DVD Ultrabay Slim Burner (flat)	41N5643	Lenovo M500 Projector	0037A05												
100GB Disk 9.5mm SATA150 (7200 rpm)	41N3013	ThinkPad Carrying Case - Organizer	73P3598												
USB Portable Diskette Drive	05K9276	Premiere Leather Carrying Case	10K0209												
USB 2.0 Security Memory Key 4GB	41U5120	ThinkPad Convertible Carrying Case	22P8860												
11a/b/g Wireless Mini PCI Express Adapter	40Y7026	ThinkPad Adjustable Notebook Stand	40Y7676												
ThinkPad Essential Port Replicator	250510W	Lenovo L192 Wide 19" Monitor (black)	6920AB1												
ThinkPad Advanced Mini Dock	250410U	ThinkVision® L171p 17" Monitor (black)	9417HC2												
ThinkPad Advanced Dock	250310U	ThinkVision L201p 20.1" Monitor (black)	9220HB1												
Lenovo Laser Mouse (USB, PS/2)	41U3074	Other accessories at <a href="http://lenovo.com/accessories">lenovo.com/accessories</a>													
												ThinkPlus™. <sup>22</sup> 2-year LOR 9x5 NBD 41C9175			
												ThinkPlus 3-year LOR 9x5 NBD 41C9176			
												ThinkPlus 4-year LOR 9x5 NBD 41C9177			
												ThinkPlus 5-year LOR 9x5 NBD 41C9179			
												ThinkPlus 4-year P&L P/U Depot 41C9178			
												ThinkPlus 5-year P&L P/U Depot 41C9180			
												Post-warranty annual maintenance agreements at <a href="http://lenovo.com/thinkplus/warranty">lenovo.com/thinkplus/warranty</a>			

See footnotes for important warranty information  
US model announced April 24, 2007  
US model withdrawn effective July 2007

© Lenovo  
(RC2-3) August 2007

# ThinkPad® R60 (9458) - TopSeller and Education - withdrawn

Created by Lenovo Training Solutions  
Personal Systems Reference (PSREF)

Type-model	Processor	Speed GHz	Memory	Anti-glare screen	Graphics controller	Disk SATA GB <sup>8</sup>	rpm	EIDE optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN wireless	Blue-tooth	Finger-print reader	S-Video out port	3-year limited warranty <sup>12</sup>	Avail date
9458-7MU	Core Duo T2400	1.83	512MB	14.1" XGA	GMA	60GB	5400	Combo	* Intel 11a/b/g <sup>32</sup>	None	None	None	None	EasyServ	May 06
9458-8QU	Core Duo T2400	1.83	512MB	15.0" XGA	GMA	60GB	5400	Combo	* Intel 11a/b/g	None	None	None	S-Vid	EasyServ	May 06

- These small and medium business (SMB) models are part of the US TopSeller™ Program
- These models have an EasyServ™<sup>19</sup> onsite pickup and delivery 3-year limited warranty

These educational models are available only to public or private K-12 (or higher) accredited schools organized and operated exclusively for educational purposes for use by qualified students and teachers.

Positioning Processor	Mainstream performance and features; two-spindle system <b>Intel® Core™ Duo processor T2400</b> with dual-core, Enhanced Intel SpeedStep™ technology <sup>1</sup> , Execute Disable Bit, 667MHz system bus, and 2MB L2 cache (shared)										<b>SOFTWARE<sup>14</sup></b> <b>Windows XP Professional</b> - Microsoft® Windows® XP Professional <sup>20</sup> (Service Pack 2) ⇨ Disk-to-Disk Recovery				
Memory	<b>512MB</b> std / 4GB max <sup>31</sup> / PC2-5300 667MHz DDR2 / non-parity / CL5 / dual-channel capable / two 200-pin SO-DIMM sockets / standard memory in one socket / one socket available										<b>Preloaded</b> • VitalSource Library education software • Adobe® Photoshop® Elements plus Adobe Premiere® Elements • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center with Away Manager • ThinkVantage System Update • Symantec® Client Security™ • Diskeeper Lite • PC-Doctor™ (diagnostics) • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader • Google Toolbar • Google Desktop • Picasa from Google • Multimedia Center for Think Offerings • Sonic RecordNOW and Drive Letter Access (combo models) • InterVideo WinDVD (combo models)				
Diskette drive EIDE Combo	None standard / use optional USB-based diskette drive										<b>CD</b> • Adobe Photoshop Elements plus Adobe Premiere Elements  <b>License - CD not included</b> • Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client				
UltraBay Enhanced Serial ATA disk (SATA150)	DVD-ROM/CD-RW / 24X/24X/24X/8X <sup>21</sup> speed / removable from UltraBay™ Enhanced One bay for removable devices / UltraBay Slim-compatible / 12.7mm high / curved bezel <b>60GB<sup>8</sup></b> (5400 rpm) / 9.5mm high / removable, upgradable / 9.5mm high bay / supports 2nd disk with optional 'Second HDD Adapter for UltraBay Slim' / <b>Hard Disk Drive Shock Absorber / Active Protection System</b>														
Display	Some: <b>14.1"</b> (358.1mm) <b>XGA (1024x768) TFT color</b> / 150 nits / anti-glare / 4:3 aspect Some: <b>15.0"</b> (381.0mm) <b>XGA (1024x768) TFT color</b> / 150 nits / anti-glare / 4:3 aspect										<b>ThinkPad notebooks implement ThinkVantage® technologies and design; visit <a href="http://thinkpad.com/thinkvantage">thinkpad.com/thinkvantage</a></b>  65-watt AC adapter (GMA graphics) ThinkPad Roll Cage (one-piece magnesium frame) ENERGY STAR®-compliant RoHS-compliant International Warranty Service <sup>17</sup> 24 hour x 7 day <sup>18</sup> toll-free warranty support during the warranty <sup>12</sup>  ThinkPlus™. <sup>22</sup> 2-year LOR 9x5 NBD 41C9175 ThinkPlus 3-year LOR 9x5 NBD 41C9176 ThinkPlus 4-year LOR 9x5 NBD 41C9177 ThinkPlus 5-year LOR 9x5 NBD 41C9179 ThinkPlus 4-year P&L P/U Depot 41C9178 ThinkPlus 5-year P&L P/U Depot 41C9180 Post-warranty annual maintenance agreements at <a href="http://lenovo.com/thinkplus/warranty">lenovo.com/thinkplus/warranty</a>				
Graphics	<b>Intel Graphics Media Accelerator 950 (GMA 950)</b> / integrated in 945GM / 250MHz														
Keyboard TrackPoint®	89-key / ThinkVantage button / spill-resistant / multimedia Fn keys / Windows, Appl keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar <sup>13</sup> , magnifying glass														
Touch pad ThinkLight™	UltraNav™ multi-pointing system / touch pad below keyboard / Tap Zones Illuminates the keyboard to improve visibility in low-light conditions														
Dimensions <sup>3</sup>	14.1" models (WxDxH): 12.4" x 10.2" x 1.35-1.46"; 314mm x 260mm x 34.3-37.2mm 15.0" models (WxDxH): 13.1" x 10.6" x 1.47-1.58"; 332mm x 269mm x 37.3-40.2mm														
Weight <sup>2</sup>	with optical and 6-cell battery: 14.1" models: up to 6.2 lb (2.8kg); 15": up to 6.8 lb (3.1 kg)														
Case material	Color: black; All: Acrylonitrile-Butadiene-Styrene (ABS) plastic														
Battery - type	Lithium Ion <b>6-cell</b> / supports unique 2nd battery in UltraBay Enhanced														
Battery - life <sup>10</sup>	6-cell: up to 5.2 hr; optional 9-cell: up to 7.8 hr; 9-cell plus UltraBay battery: up to 10 hr														
Architecture	<b>Mobile Intel 945GM Express Chipset</b> / 82945GM Graphics Memory Controller Hub / 82801GBM ICH7-M I/O Controller Hub (SATA300, ATA-100 EIDE, PCI Express x1, PCI bus, USB, LPC interface, [Bluetooth], [fingerpoint]) / PCI bus (TI® PCIx512 CardBus controller) / LPC bus (National Semiconductor® PC87382 Super I/O, Atmel® 97SC3203)														
PC Card Std slot ExpressCard slot	One Type I or Type II slot / CardBus 32-bit / integrated door One ExpressCard/34 or ExpressCard/54 / PCI Express x1 or USB 2.0 / integrated door														
Ports	Three USB 2.0 / external DB-15 monitor / RJ-11 (modem) / RJ-45 (ethernet) / 1394 FireWire 400 (4-pin connector; 1394a-2000 standard) / 15" models: S-video out / no keyboard, mouse, serial, parallel, or infrared port (use USB)														
Wireless antenna	UltraConnect™ Antenna built into the display cover / on-off switch for all wireless radios														
Mini PCI Express	Two Mini PCI Express slots / only 802.11 wireless is customer upgradable														
Intel 11a/b/g <sup>32</sup> WWAN <sup>16</sup>	11a/b/g wireless <sup>4</sup> , Mini PCI Express adapter, Intel PRO/Wireless 3945ABG														
Modem	None														
Bluetooth™	56K <sup>6</sup> V.90 (V.92-designed <sup>29</sup> ) modem in Communications Daughter Card socket														
Ethernet	None														
Audio support	Gigabit ethernet on systemboard / Broadcom® BCM5751M (MAC/PHY) / PCIe x1 / PXE High Definition (HD) Audio / AD1981HD codec / stereo speakers, 1 watt / volume up, down, mute buttons / mono microphone / microphone input jack / headphone jack														
Security	Power-on password / hard disk password / supervisor password / security keyhole														
Security chip	<b>Trusted Platform Module</b> / Atmel chip / TCG 1.2-compliant														
Fingerprint reader	None														
Limited warranty <sup>12</sup> <b>3-year/1-yr battery</b> - EasyServ™ <sup>19</sup> onsite pickup and delivery / service upgrades <sup>22</sup> avail															
512MB PC2-5300 DDR2 CL5 SODIMM	40Y7733	T60/R60 Series Li-Ion Battery 6-cell	40Y6799												
1GB PC2-5300 DDR2 CL5 SODIMM	40Y7734	Z60m/T60/R60 Li-Ion Battery 9-cell	40Y6797												
2GB PC2-4200 DDR2 CL4 SODIMM	73P3846	Advanced UltraBay Battery 3-cell	40Y6789												
2GB PC2-5300 DDR2 SODIMM	40Y7735	ThinkPad External Battery Charger	40Y7625												
Serial Hard Drive UltraBay Slim Adapter (flat)	40Y8725	ThinkPad 90W AC Adapter	40Y7659												
Combo II UltraBay Slim Drive (curved bezel)	73P3288	ThinkPad 90W AC/DC Combo Adapter	40Y7630												
Super Multi-Burner UltraBay Enh Drv (curve)	40Y8624	Lenovo M500 Projector	0037A05												
160GB Disk 9.5mm SATA150 (5400 rpm)	41N5692	Lenovo C500 Projector	0039A05												
USB Portable Diskette Drive	05K9276	ThinkPad Education Backpack	31P8640												
USB 2.0/Analog Headset by Sennheiser	40Y8518	Premiere Leather Carrying Case	10K0209												
USB 2.0 Memory Key 1GB	40Y7421	ThinkPad Convertible Carrying Case	22P8860												
USB 2.0 Portable 80GB Hard Disk	40Y8726	USB Fingerprint Reader	73P4774												
USB 2.0 Super Multi-Burner Drive	41N5565	ThinkPad Adjustable Notebook Stand	40Y7676												
11a/b/g Wireless Mini PCI Express Adapter	40Y7026	ThinkPad Convertible Monitor Stand	40Y7620												
Verizon Wireless V620 WWAN PC Card <sup>25</sup>	40Y9137	Lenovo L192 Wide 19" Monitor (black)	6920AB1												
ThinkPad Essential Port Replicator	250510W	ThinkVision® L192p 19" Monitor (black)	9419HC2												
ThinkPad Advanced Mini Dock	250410U	ThinkVision L201p 20.1" Monitor (black)	9220HB1												
ThinkPad Advanced Dock	250310U	TrackPoint Cap Collection	73P2698												
Enh Perf Wireless Keyboard and Mouse	73P4067	Lenovo Laser Mouse (USB, PS/2)	41U3074												
Other accessories on O-R60 sheet		Other accessories at <a href="http://lenovo.com/accessories">lenovo.com/accessories</a>													

See footnotes for important warranty information  
US models announced May 16, 2006  
US models withdrawn effective May 2007

\* Powered by Intel Centrino® Duo mobile technology



# ThinkPad® R60 (9459) - Education (Vista™) - withdrawn

Created by Lenovo Training Solutions  
Personal Systems Reference (PSREF)

Type-model	Processor	Speed GHz	Memory	Anti-glare screen	Graphics controller	Disk SATA GB <sup>5</sup>	EIDE rpm	EIDE optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN wireless	Finger- print reader	S-Video out port	Educ pre- load	3-year limited warranty <sup>12</sup>	Avail date
9459-LTU	Core 2 Duo T7200	2.00	1GB	15.0" XGA	GMA	80GB	5400	Combo	11a/b/g <sup>32</sup>	None	None	S-Vid	K12	Onsite	Apr 07

**These models have a limited onsite service<sup>24</sup> 3-year limited warranty**

These educational models are available only to public or private K-12 (or higher) accredited schools organized and operated exclusively for educational purposes for use by qualified students and teachers.

Positioning Processor	<i>Everyday computing; two spindles</i> <b>Intel® Core 2 Duo processor T7200</b> with dual-core, Intel 64 Technology, Enhanced Intel SpeedStep™ technology <sup>1</sup> , Execute Disable Bit, 667MHz system bus, and 4MB shared L2 cache											<b>Preloaded operating system<sup>20</sup></b> - Microsoft® Windows® Vista™ Business Edition (32-bit) ◇ Vista Basic logo							
Memory	<b>1GB</b> std / 4GB max <sup>31</sup> / PC2-5300 667MHz DDR2 / non-parity / CL5 / dual-channel capable / two 200-pin SO-DIMM sockets / standard memory in one socket / one socket available											<b>Preloaded applications<sup>14</sup></b> • K-12 education software - VitalSource Library School Edition - Adobe® Instructor Resource Center - Adobe Digital School Collection - Photoshop Elements 5 (and CD) - Premier Elements 3 (and DVD) - Acrobat 8 Professional (and CD) - Contribute 4 (and CD) • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center with Away Manager • ThinkVantage System Update • System Migration Assistant • Norton Internet Security (90 days of virus definitions) • Diskeeper™ Home • PC-Doctor™ (diagnostics) • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe Reader • Picasa from Google							
Diskette drive	None (use optional USB-based diskette drive)											<b>License - CD not included</b> - Lotus® Notes® Stand-alone Client							
EIDE Combo	DVD-ROM/CD-RW / 24X/24X/24X/8X <sup>21</sup> speed / removable from Ultrabay Enhanced																		
Ultrabay Enhanced	One bay for removable devices / Ultrabay Slim-compatible / 12.7mm high / curved bezel											<b>Supports ThinkVantage® technologies</b>  65-watt AC adapter (GMA graphics) ThinkPad Roll Cage (one-piece magnesium frame) RoHS-compliant International Warranty Service <sup>17</sup> 24 hour x 7 day <sup>18</sup> toll-free warranty support during the warranty <sup>12</sup>							
Serial ATA disk (SATA150)	<b>80GB<sup>8</sup></b> (5400 rpm) / 9.5mm high / removable, upgradable / 9.5mm high bay / supports 2nd disk with optional 'Second HDD Adapter for Ultrabay Slim' / <b>Hard Disk Drive Shock Absorber / Active Protection System</b>																		
Display	<b>15.0"</b> (381.0mm) <b>XGA (1024x768) TFT color</b> / 150 nits / anti-glare / 4:3 aspect											ThinkPlus™.22 2-year LOR 9x5 NBD 41C9175 ThinkPlus 3-year LOR 9x5 NBD 41C9176 ThinkPlus 4-year LOR 9x5 NBD 41C9177 ThinkPlus 5-year LOR 9x5 NBD 41C9179 ThinkPlus 4-year P&L P/U Depot 41C9178 ThinkPlus 5-year P&L P/U Depot 41C9180 Post-warranty annual maintenance agreements at <b>lenovo.com/thinkplus/warranty</b>							
Graphics	<b>Intel Graphics Media Accelerator 950 (GMA 950)</b> / integrated in 945GM / 250MHz																		
Keyboard	89-key / ThinkVantage button / spill-resistant / multimedia Fn keys / Windows, Appl keys											ThinkPlus™.22 2-year LOR 9x5 NBD 41C9175 ThinkPlus 3-year LOR 9x5 NBD 41C9176 ThinkPlus 4-year LOR 9x5 NBD 41C9177 ThinkPlus 5-year LOR 9x5 NBD 41C9179 ThinkPlus 4-year P&L P/U Depot 41C9178 ThinkPlus 5-year P&L P/U Depot 41C9180 Post-warranty annual maintenance agreements at <b>lenovo.com/thinkplus/warranty</b>							
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar <sup>13</sup> , magnifying glass																		
Touch pad	UltraNav™ multi-pointing system / touch pad below keyboard / Tap Zones																		
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions																		
Dimensions <sup>3</sup>	<i>15.0" models (WxDxH):</i> 13.1" x 10.6" x 1.47-1.58"; 332mm x 269mm x 37.3-40.2mm																		
Weight <sup>2</sup>	with optical and 6-cell battery: <i>14.1" models:</i> up to 5.8 lb (2.6kg); <i>15":</i> up to 6.3 lb (2.9kg)																		
Case material	<i>Color:</i> black; <i>All:</i> Acrylonitrile-Butadiene-Styrene (ABS) plastic																		
Battery - type	Lithium Ion <b>9-cell</b> / supports unique 2nd battery in Ultrabay Enhanced																		
Battery - life <sup>10</sup>	<i>9-cell:</i> up to 7.8 hr; <i>9-cell plus Ultrabay battery:</i> up to 10 hr																		
Architecture	<b>Mobile Intel 945GM Express Chipset</b> / 82945GM Graphics Memory Controller Hub / 82801GBM ICH7-M I/O Controller Hub (SATA300, ATA-100 EIDE, PCI Express x1, PCI bus, USB, LPC interface, [Bluetooth], [fingerprint]) / PCI bus (TI® PCIx512 CardBus controller) / LPC bus (National Semiconductor® PC87382 Super I/O, Atmel® 97SC3203)																		
PC Card Std slot	One Type I or Type II slot / CardBus 32-bit / integrated door											ThinkPlus™.22 2-year LOR 9x5 NBD 41C9175 ThinkPlus 3-year LOR 9x5 NBD 41C9176 ThinkPlus 4-year LOR 9x5 NBD 41C9177 ThinkPlus 5-year LOR 9x5 NBD 41C9179 ThinkPlus 4-year P&L P/U Depot 41C9178 ThinkPlus 5-year P&L P/U Depot 41C9180 Post-warranty annual maintenance agreements at <b>lenovo.com/thinkplus/warranty</b>							
ExpressCard slot	One ExpressCard/34 or ExpressCard/54 / PCI Express x1 or USB 2.0 / integrated door																		
Ports	Three USB 2.0 / external DB-15 monitor / RJ-11 (modem) / RJ-45 (ethernet) / 1394 FireWire 400 (4-pin connector; 1394a-2000 standard) / <i>15" models:</i> S-video out / no keyboard, mouse, serial, parallel, or infrared port (use USB)																		
Wireless antenna	UltraConnect™ Antenna built into the display cover / on-off switch for all wireless radios																		
Mini PCI Express	Two Mini PCI Express slots / only 802.11 wireless is customer upgradable																		
11a/b/g <sup>32</sup>	11a/b/g wireless <sup>4</sup> , ThinkPad 11a/b/g Mini PCIe Adapter, Atheros AR5006EX																		
WWAN <sup>16</sup>	None																		
Modem	56K <sup>6</sup> V.90 (V.92-designed <sup>29</sup> ) modem in Communications Daughter Card socket																		
Bluetooth™	None																		
Ethernet	Gigabit ethernet on systemboard / Broadcom® BCM5751M (MAC/PHY) / PCIe x1 / PXE																		
Audio support	High Definition (HD) Audio / AD1981HD codec / stereo speakers, 1 watt / volume up, down, mute buttons / mono microphone / microphone input jack / headphone jack																		
Security	Power-on password / hard disk password / supervisor password / security keyhole											ThinkPlus™.22 2-year LOR 9x5 NBD 41C9175 ThinkPlus 3-year LOR 9x5 NBD 41C9176 ThinkPlus 4-year LOR 9x5 NBD 41C9177 ThinkPlus 5-year LOR 9x5 NBD 41C9179 ThinkPlus 4-year P&L P/U Depot 41C9178 ThinkPlus 5-year P&L P/U Depot 41C9180 Post-warranty annual maintenance agreements at <b>lenovo.com/thinkplus/warranty</b>							
Security chip	<b>Trusted Platform Module</b> / Atmel chip / TCG 1.2-compliant																		
Fingerprint reader	None																		
Limited warranty <sup>12</sup>	<b>3-year</b> /1-year battery, <b>limited onsite service</b> , 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time <sup>24</sup>																		
512MB PC2-5300 DDR2 CL5 SODIMM	40Y7733	T60/R60 Series Li-Ion Battery 6-cell	40Y6799																
1GB PC2-5300 DDR2 CL5 SODIMM	40Y7734	Z60m/T60/R60 Li-Ion Battery 9-cell	40Y6797																
2GB PC2-5300 DDR2 SODIMM	40Y7735	Advanced Ultrabay Battery 3-cell	40Y6789																
Serial Hard Drive Ultrabay Slim Adapter (flat)	40Y8725	ThinkPad External Battery Charger	40Y7625																
Combo II Ultrabay Slim Drive (flat bezel)	40Y8621	ThinkPad 90W AC/DC Combo Adapter	40Y7630																
ThinkPad DVD Ultrabay Slim Burner (flat)	41N5643	Lenovo M500 Projector	0037A05																
100GB Disk 9.5mm SATA150 (7200 rpm)	41N3013	Lenovo C500 Projector	0039A05																
USB Portable Diskette Drive	05K9276	Premiere Leather Carrying Case	10K0209																
USB 2.0 Lenovo Webcam	40Y8519	ThinkPad Convertible Carrying Case	22P8860																
USB 2.0 Security Memory Key 4GB	41U5120	ThinkPad Adjustable Notebook Stand	40Y7676																
11a/b/g Wireless Mini PCI Express Adapter	40Y7026	Lenovo L192 Wide 19" Monitor (black)	6920AB1																
ThinkPad Essential Port Replicator	250510W	ThinkVision® L171p 17" Monitor (black)	9417HC2																
ThinkPad Advanced Mini Dock	250410U	ThinkVision L201p 20.1" Monitor (black)	9220HB1																
ThinkPad Advanced Dock	250310U	Other accessories at <b>lenovo.com/accessories</b>																	

See footnotes for important warranty information  
US model announced April 24, 2007  
US model withdrawn July 2007

© Lenovo  
(RC2-4) August 2007

# ThinkPad® R60 (9460) - ATI® graphics - withdrawn

Created by Lenovo Training Solutions  
Personal Systems Reference (PSREF)

Type-model	Processor	Speed GHz	Memory	Anti-glare screen	Discrete graphics memory	Disk SATA GB <sup>8</sup>	rpm	EIDE optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN wireless	Finger- print reader	S- Video out	Bat- tery cells	Lim- mited warranty <sup>12</sup>	Workhorse Gbl Avail date	
9460-25U	Core Duo T2400	1.83	512MB	14.1" SXGA+	64MB	80GB	5400	DVD±RW	* Intel 11a/b/g <sup>32</sup>		Finger		6	1-yr	None	May 06
9460-26U	Core Duo T2300E	1.66	512MB	14.1" SXGA+	64MB	60GB	5400	Combo	* Intel 11a/b/g		Blue		6	1-yr	None	May 06
9460-27U	Core Duo T2300E	1.66	512MB	14.1" XGA	128MB	60GB	5400	DVD±RW	* Intel 11a/b/g				6	1-yr	None	May 06
9460-2BU	Core Solo T1300	1.66	512MB	14.1" XGA	64MB	40GB	5400	Combo	* Intel 11a/b/g				6	1-yr	None	May 06
9460-2KU	Core Duo T2300E	1.66	512MB	14.1" XGA	64MB	60GB	5400	Combo	* Intel 11a/b/g	Verizon			6	1-yr	None	May 06
9460-34U	Core Duo T2500	2.00	1GB	15.0" SXGA+	128MB	100GB	5400	DVD±RW	* Intel 11a/b/g		Blue Finger	S	9	1-yr	None	May 06
9460-35U	Core Duo T2300E	1.66	512MB	15.0" SXGA+	64MB	60GB	5400	Combo	* Intel 11a/b/g			S	6	1-yr	None	May 06
9460-3FU	Core Duo T2300E	1.66	512MB	15.0" XGA	64MB	60GB	5400	DVD±RW	* Intel 11a/b/g			S	6	1-yr	None	May 06
Positioning Processor	<i>Everyday computing; two spindles</i> <b>Intel® Core™ Solo processor T1300</b> with single-core, Enhanced Intel SpeedStep™ technology <sup>1</sup> , Execute Disable Bit, 667MHz bus, and 2MB L2 cache or <b>Intel Core Duo processor T2300E, T2400, or T2500</b> with dual-core, Enhanced Intel SpeedStep™ technology <sup>1</sup> , Execute Disable Bit, 667MHz system bus, and 2MB shared L2 cache										<b>SOFTWARE<sup>14</sup></b> <b>Windows XP Professional</b> - Microsoft® Windows® XP Professional <sup>20</sup> (Service Pack 2) ↳ Disk-to-Disk Recovery					
Memory	<b>512MB</b> or <b>1GB</b> std / 4GB max <sup>31</sup> / PC2-5300 667MHz DDR2 / non-parity / CL5 / dual-channel capable / two 200-pin SO-DIMM sockets / standard memory in one socket / one socket available										<b>Preloaded</b> • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center with Away Manager • ThinkVantage System Update • Symantec® Client Security™ • Diskeeper Lite • PC-Doctor™ (diagnostics) • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader • Google Toolbar • Google Desktop • Picasa from Google • Fingerprint Software (fingerprint models) • Multimedia Center for Think Offerings • Sonic RecordNOW and Drive Letter Access (combo, DVD±RW) • InterVideo WinDVD (combo, DVD±RW models) • InterVideo WinDVD Creator (DVD±RW models)					
Diskette drive	None standard / use optional USB-based diskette drive															
EIDE Combo	<i>Some:</i> DVD-ROM/CD-RW / 24X/24X/24X/8X <sup>21</sup> speed / removable from Ultrabay Enhance															
EIDE DVD±RW	<i>Some:</i> DVD burner / Super Multi-Burner DL (40Y8624) / removable Ultrabay Enhanced															
Ultrabay Enhanced Serial ATA disk (SATA150)	One bay for removable devices / Ultrabay Slim-compatible / 12.7mm high / curved bezel <b>40GB<sup>8</sup></b> (5400 rpm), <b>60GB</b> (5400 rpm), <b>80GB</b> (5400 rpm), or <b>100GB</b> (5400 rpm) / 9.5mm high / removable, upgradable / 9.5mm high bay / supports 2nd disk with optional 'Second HDD Adapter for Ultrabay Slim' / <b>Hard Disk Drive Shock Absorber / Active Protection System</b>															
Display	<i>Some:</i> <b>14.1"</b> (358.1mm) <b>XGA (1024x768) TFT color</b> / 150 nits / anti-glare / 4:3 aspect <i>Some:</i> <b>14.1"</b> (358.1mm) <b>SXGA+ (1400x1050) TFT color</b> / 150 nits / anti-glare / 4:3 <i>Some:</i> <b>15.0"</b> (381.0mm) <b>XGA (1024x768) TFT color</b> / 150 nits / anti-glare / 4:3 aspect <i>Some:</i> <b>15.0"</b> (381.0mm) <b>SXGA+ (1400x1050) TFT color</b> / 200 nits / anti-glare / 4:3															
Graphics	<i>Some:</i> <b>ATI® MOBILITY™ Radeon™ X1300 M52</b> / PCI Express x16 / <b>64MB</b> GDDR1 <i>Some:</i> <b>ATI MOBILITY Radeon X1400 M54</b> / PCI Express x16 / <b>128MB</b> GDDR1															
Keyboard	89-key / ThinkVantage button / spill-resistant / multimedia Fn keys / Windows, Appl keys															
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar <sup>13</sup> , magnifying glass															
Touch pad	UltraNav™ multi-pointing system / touch pad below keyboard / Tap Zones															
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions															
Dimensions <sup>3</sup>	<b>14.1" models (WxDxH):</b> 12.4" x 10.2" x 1.35-1.46"; 314mm x 260mm x 34.3-37.2mm <b>15.0" models (WxDxH):</b> 13.1" x 10.6" x 1.47-1.58"; 332mm x 269mm x 37.3-40.2mm with optical and 6-cell battery: <b>14.1" models:</b> up to 5.8 lb (2.6kg); <b>15":</b> up to 6.4 lb (2.9kg) <i>Color:</i> black; <i>All:</i> Acrylonitrile-Butadiene-Styrene (ABS) plastic															
Weight <sup>2</sup>																
Case material																
Battery - type	Lithium Ion <b>6-cell</b> or <b>9-cell</b> / supports unique 2nd battery in Ultrabay Enhanced										<b>License</b> - CD not included - Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client					
Battery - life <sup>10</sup>	<b>6-cell:</b> up to 3.1 hr; <b>9-cell:</b> up to 4.6 hr; <b>9-cell plus Ultrabay battery:</b> up to 6.6 hr															
Architecture	<b>Mobile Intel 945PM Express Chipset</b> / 82945PM Memory Controller Hub / 82801GBM ICH7-M I/O Controller Hub (SATA300, ATA-100 EIDE, PCI Express x1, PCI bus, USB, LPC interface, [Bluetooth], [fingerprint]) / PCI bus (TI® PCI4512 CardBus controller) / LPC bus (National Semiconductor® PC87382 Super I/O, Atmel® 97SC3203)															
PC Card Std slot	One Type I or Type II slot / CardBus 32-bit / integrated door										ThinkPad notebooks implement ThinkVantage® technologies and design; visit <a href="http://thinkpad.com/thinkvantage">thinkpad.com/thinkvantage</a>					
ExpressCard slot	One ExpressCard/34 or ExpressCard/54 / PCI Express x1 or USB 2.0 / integrated door															
Ports	Three USB 2.0 / external DB-15 monitor / RJ-11 (modem) / RJ-45 (ethernet) / 1394 FireWire 400 (4-pin connector; 1394a-2000 standard) / <b>15" models:</b> S-video out / no keyboard, mouse, serial, parallel, or infrared port (use USB)															
Wireless antenna	UltraConnect™ Antenna built into the display cover / on-off switch for all wireless radios										90-watt AC adapter (discrete graphics) ThinkPad Roll Cage (one-piece magnesium frame) RoHS-compliant International Warranty Service <sup>17</sup> 24 hour x 7 day <sup>18</sup> toll-free warranty support during the warranty <sup>12</sup>					
Mini PCI Express	Two Mini PCI Express slots / only 802.11 wireless is customer upgradable															
Intel 11a/b/g <sup>32</sup> WWAN <sup>16</sup>	11a/b/g wireless <sup>4</sup> , Mini PCI Express adapter, Intel PRO/Wireless 3945ABG <i>Some:</i> Wireless WAN, Sierra Wireless 1xEV-DO Network Adapter, Mini PCIe Adapter, EV-DO/1xRTT, WWAN antenna on display, service contract reqd with Verizon® Wireless 56K <sup>6</sup> V.90 (V.92-designed <sup>29</sup> ) modem in Communications Daughter Card socket <i>Some:</i> Bluetooth 2.0 wireless / USB 2.0 interface via ICH7-M / LED indicator															
Modem	Gigabit ethernet on systemboard / Broadcom® BCM5751M (MAC/PHY) / PCIe x1 / PXE															
Bluetooth™	High Definition (HD) Audio / AD1981HD codec / stereo speakers, 1 watt / volume up, down, mute buttons / mono microphone / microphone input jack / headphone jack										ThinkPlus™.22 1-year LOR 9x5 NBD 41C9166 ThinkPlus 2-year LOR 9x5 NBD 41C9167 ThinkPlus 3-year LOR 9x5 NBD 41C9168 ThinkPlus 4-year LOR 9x5 NBD 41C9171 ThinkPlus 5-year LOR 9x5 NBD 41C9173 ThinkPlus 2-year P&L P/U Depot 41C9169 ThinkPlus 3-year P&L P/U Depot 41C9170 ThinkPlus 4-year P&L P/U Depot 41C9172 ThinkPlus 5-year P&L P/U Depot 41C9174					
Ethernet	Power-on password / hard disk password / supervisor password / security keyhole															
Audio support	<b>Trusted Platform Module</b> / Atmel chip / TCG 1.2-compliant															
Security	<i>Some:</i> <b>Fingerprint reader on palm rest</b> / swipe sensor / supports the security chip															
Security chip																
Fingerprint reader																
Limited warranty <sup>12</sup>	<b>1-year</b> - EasyServ™.19 onsite pickup and delivery / service upgrades <sup>22</sup> available															
512MB PC2-5300 DDR2 CL5 SODIMM	40Y7733	T60/R60 Series Li-Ion Battery 6-cell			40Y6799											
1GB PC2-5300 DDR2 CL5 SODIMM	40Y7734	Z60m/T60/R60 Li-Ion Battery 9-cell			40Y6797											
2GB PC2-5300 DDR2 SODIMM	40Y7735	Advanced Ultrabay Battery 3-cell			40Y6789											
Combo II Ultrabay Slim Drive (flat bezel)	40Y8621	ThinkPad 90W AC/DC Combo Adapter			40Y7630											
ThinkPad DVD Ultrabay Slim Burner (flat)	41N5643	Lenovo M500 Projector			0037A05											
100GB Disk 9.5mm SATA150 (7200 rpm)	41N3013	Lenovo C500 Projector			0039A05											
USB Portable Diskette Drive	05K9276	ThinkPad Convertible Carrying Case			22P8860											
USB 2.0 Super Multi-Burner Drive	41N5565	ThinkPad Adjustable Notebook Stand			40Y7676											
11a/b/g Wireless Mini PCI Express Adapter	40Y7026	ThinkPad Convertible Monitor Stand			40Y7620											
ThinkPad Essential Port Replicator	250510W	Lenovo L192 Wide 19" Monitor (black)			6920AB1											
ThinkPad Advanced Mini Dock	250410U	ThinkVision® L192p 19" Monitor (black)			9419HC2											
ThinkPad Advanced Dock	250310U	Other accessories at <a href="http://lenovo.com/accessories">lenovo.com/accessories</a>														

See footnotes for important warranty information  
US models announced May 16 or May 30, 2006  
US models withdrawn effective September 2007

\* Powered by Intel Centrino® mobile technology  
\* Powered by Intel Centrino® Duo processor technology

© Lenovo  
(RC1-E) September 2007

# ThinkPad® R60 (9461) - ATI® graphics (TopSeller) - withdrawn

Created by Lenovo Training Solutions  
Personal Systems Reference (PSREF)

Type-model	Processor	Speed GHz	Memory	Anti-glare screen	Discrete graphics memory	Disk SATA GB <sup>8</sup>	rpm	EIDE optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN wireless	Finger-print reader	S-Video out port	Bat-tery cells	Preload	Avail date
9461-42U	Core Duo T2300E	1.66	256MB	14.1" SXGA+	64MB	40GB	5400	Combo	* Intel 11a/b/g <sup>32</sup>				6	XP Pro	May 06
9461-47U	Core Duo T2300E	1.66	256MB	14.1" SXGA+	64MB	40GB	5400	Combo	* Intel 11a/b/g				6	XP Home	May 06
9461-4XU	Core Duo T2300E	1.66	512MB	14.1" XGA	128MB	100GB	5400	DVD±RW	* Intel 11a/b/g		Finger		6	XP Pro	May 06
9461-4HU	Core Solo T1300	1.66	256MB	14.1" XGA	64MB	40GB	5400	Combo	* Intel 11a/b/g <sup>32</sup>				6	XP Home	May 06
9461-4JU	Core Solo T1300	1.66	256MB	14.1" XGA	64MB	40GB	5400	Combo	* Intel 11a/b/g				6	XP Pro	May 06
9461-4LU	Core Duo T2300E	1.66	256MB	14.1" XGA	64MB	40GB	5400	Combo	* Intel 11a/b/g				6	XP Home	May 06
9461-4MU	Core Duo T2300E	1.66	256MB	14.1" XGA	64MB	40GB	5400	Combo	* Intel 11a/b/g				6	XP Pro	May 06
9461-4NU	Core Duo T2300E	1.66	512MB	14.1" XGA	64MB	60GB	5400	DVD±RW	* Intel 11a/b/g				6	XP Pro	May 06
9461-4SU	Core Duo T2300E	1.66	512MB	14.1" XGA	64MB	60GB	5400	Combo	* Intel 11a/b/g	Verizon			6	XP Pro	May 06
9461-4TU	Core Duo T2400	1.83	512MB	14.1" XGA	64MB	100GB	5400	DVD±RW	* Intel 11a/b/g	Verizon			6	XP Pro	May 06
9461-52U	Core Duo T2300E	1.66	512MB	15.0" SXGA+	128MB	100GB	5400	DVD±RW	* Intel 11a/b/g		Finger	S-Vid	6	XP Pro	May 06
9461-56U	Core Duo T2500	2.00	1GB	15.0" SXGA+	128MB	100GB	7200	DVD±RW	* Intel 11a/b/g		Finger	S-Vid	9	XP Pro	May 06
9461-5BU	Core Solo T1300	1.66	256MB	15.0" XGA	64MB	40GB	5400	Combo	* Intel 11a/b/g			S-Vid	6	XP Home	May 06
9461-5CU	Core Solo T1300	1.66	256MB	15.0" XGA	64MB	40GB	5400	Combo	* Intel 11a/b/g			S-Vid	6	XP Pro	May 06
9461-5EU	Core Duo T2300E	1.66	512MB	15.0" XGA	64MB	60GB	5400	DVD±RW	* Intel 11a/b/g			S-Vid	6	XP Pro	May 06

- These small and medium business (SMB) models are part of the US TopSeller™ Program
- These models have a 1-year limited warranty<sup>2</sup>

Positioning Processor	Everyday computing; two spindles <b>Intel® Core™ Solo processor T1300</b> with single-core, Enhanced Intel SpeedStep™ technology <sup>1</sup> , Execute Disable Bit, 667MHz bus, and 2MB L2 cache or <b>Intel Core Duo processor T2300E, T2400, or T2500</b> with dual-core, Enhanced Intel SpeedStep™ technology <sup>1</sup> , Execute Disable Bit, 667MHz system bus, and 2MB shared L2 cache	<b>SOFTWARE<sup>14</sup></b> <b>Windows XP Professional models</b> - Microsoft® Windows® XP Professional <sup>20</sup> (Service Pack 2) ⇨ Disk-to-Disk Recovery <b>Windows XP Home models</b> - Microsoft Windows XP Home Edition <sup>20</sup> (Service Pack 2) ⇨ Disk-to-Disk Recovery <b>Preloaded (all)</b> • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center with Away Manager • ThinkVantage System Update • Symantec® Client Security™ • Diskkeeper Lite • PC-Doctor™ (diagnostics) • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader • Google Toolbar • Google Desktop • Picasa from Google • Fingerprint Software (fingerprint models) • Multimedia Center for Think Offerings • Sonic RecordNOW and Drive Letter Access (combo, DVD±RW) • InterVideo WinDVD (combo, DVD±RW models) • InterVideo WinDVD Creator (DVD±RW models) <b>License - CD not included (all)</b> - Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client (Notes client not supported on XP Home)
Memory	<b>256MB, 512MB, or 1GB</b> std / 4GB max <sup>31</sup> / PC2-5300 667MHz DDR2 / non-parity / CL5 / dual-channel capable / two 200-pin SO-DIMM sockets / standard memory in one socket / one socket available	
Diskette drive	None standard / use optional USB-based diskette drive	
EIDE Combo	Some: DVD-ROM/CD-RW / 24X/24X/24X/8X <sup>21</sup> speed / removable from Ultrabay™ Enh	
EIDE DVD±RW	Some: DVD burner / Super Multi-Burner DL (40Y8624) / removable Ultrabay Enhanced	
Ultrabay Enhanced	One bay for removable devices / Ultrabay Slim-compatible / 12.7mm high / curved bezel	
Serial ATA disk (SATA150)	<b>40GB<sup>8</sup></b> (5400 rpm), <b>60GB</b> (5400 rpm), or <b>100GB</b> (5400 or 7200 rpm) / 9.5mm high / removable, upgradable / 9.5mm high bay / supports 2nd disk with optional 'Second HDD Adapter for Ultrabay Slim' / <b>Hard Disk Drive Shock Absorber / Active Protection System</b>	
Display	Some: <b>14.1"</b> (358.1mm) <b>XGA (1024x768) TFT color</b> / 150 nits / anti-glare / 4:3 aspect Some: <b>14.1"</b> (358.1mm) <b>SXGA+ (1400x1050) TFT color</b> / 150 nits / anti-glare / 4:3 Some: <b>15.0"</b> (381.0mm) <b>XGA (1024x768) TFT color</b> / 150 nits / anti-glare / 4:3 aspect Some: <b>15.0"</b> (381.0mm) <b>SXGA+ (1400x1050) TFT color</b> / 200 nits / anti-glare / 4:3	
Graphics	Some: <b>ATI® MOBILITY™ Radeon™ X1300 M52</b> / PCI Express x16 / <b>64MB</b> GDDR1 Some: <b>ATI MOBILITY Radeon X1400 M54</b> / PCI Express x16 / <b>128MB</b> GDDR1	
Keyboard	89-key / ThinkVantage button / spill-resistant / multimedia Fn keys / Windows, Appl keys	
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar <sup>13</sup> , magnifying glass	
Touch pad	UltraNav™ multi-pointing system / touch pad below keyboard / Tap Zones	
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions	
Dimensions <sup>3</sup>	<b>14.1" models (WxDxH):</b> 12.4" x 10.2" x 1.35-1.46"; 314mm x 260mm x 34.3-37.2mm <b>15.0" models (WxDxH):</b> 13.1" x 10.6" x 1.47-1.58"; 332mm x 269mm x 37.3-40.2mm	
Weight <sup>2</sup>	with optical and 6-cell battery: <b>14.1" models:</b> up to 6.2 lb (2.8kg); <b>15":</b> up to 6.8 lb (3.1 kg)	
Case material	<b>Color:</b> black; <b>All:</b> Acrylonitrile-Butadiene-Styrene (ABS) plastic	
Battery - type	Lithium Ion <b>6-cell</b> or <b>9-cell</b> / supports unique 2nd battery in Ultrabay Enhanced	
Battery - life <sup>10</sup>	<b>6-cell:</b> up to 3.1 hr; <b>9-cell:</b> up to 4.6 hr; <b>9-cell plus Ultrabay battery:</b> up to 6.6 hr	
Architecture	<b>Mobile Intel 945PM Express Chipset</b> / 82945PM Memory Controller Hub / 82801GBM ICH7-M I/O Controller Hub (SATA300, ATA-100 EIDE, PCI Express x1, PCI bus, USB, LPC interface, [Bluetooth], [fingerprint]) / PCI bus (TI® PCI4512 CardBus controller) / LPC bus (National Semiconductor® PC87382 Super I/O, Atmel® 97SC3203)	
PC Card Std slot	One Type I or Type II slot / CardBus 32-bit / integrated door	
ExpressCard slot	One ExpressCard/34 or ExpressCard/54 / PCI Express x1 or USB 2.0 / integrated door	
Ports	Three USB 2.0 / external DB-15 monitor / RJ-11 (modem) / RJ-45 (ethernet) / 1394 FireWire 400 (4-pin connector; 1394a-2000 standard) / <b>15" models:</b> S-video out / no keyboard, mouse, serial, parallel, or infrared port (use USB)	
Wireless antenna	UltraConnect™ Antenna built into the display cover / on-off switch for all wireless radios	Supports ThinkVantage® technologies
Mini PCI Express	Two Mini PCI Express slots / only 802.11 wireless is customer upgradable	
Intel 11a/b/g <sup>32</sup>	Some: 11a/b/g wireless <sup>4</sup> , Mini PCI Express adapter, Intel PRO/Wireless 3945ABG	90-watt AC adapter (discrete graphics) ThinkPad Roll Cage (one-piece magnesium frame) RoHS-compliant International Warranty Service <sup>17</sup> 24 hour x 7 day <sup>18</sup> toll-free warranty support during the warranty <sup>12</sup>
11a/b/g <sup>32</sup>	Some: 11a/b/g wireless <sup>4</sup> , ThinkPad 11a/b/g Mini PCIe Adapter, Atheros AR5006EX	
WWAN <sup>16</sup>	Some: Wireless WAN, Sierra Wireless 1xEV-DO Network Adapter, Mini PCIe Adapter, EV-DO/1xRTT, WWAN antenna on display, service contract reqd with Verizon® Wireless 56K <sup>6</sup> V.90 (V.92-designed <sup>29</sup> ) modem in Communications Daughter Card socket	
Modem	None	
Bluetooth™	None	
Ethernet	Gigabit ethernet on systemboard / Broadcom® BCM5751M (MAC/PHY) / PCIe x1 / PXE	
Audio support	High Definition (HD) Audio / AD1981HD codec / stereo speakers, 1 watt / volume up, down, mute buttons / mono microphone / microphone input jack / headphone jack	
Security	Power-on password / hard disk password / supervisor password / security keyhole	
Security chip	<b>Trusted Platform Module</b> / Atmel chip / TCG 1.2-compliant	
Fingerprint reader	Some: <b>Fingerprint reader on palm rest</b> / swipe sensor / supports the security chip	
Limited warranty <sup>12</sup>	<b>1-year</b> - EasyServ™ <sup>19</sup> onsite pickup and delivery / service upgrades <sup>22</sup> available	Other ThinkPlus services at <b>lenovo.com/thinkplus/warranty</b>

See footnotes for important warranty information  
US models announced May 16 or May 30, 2006  
US models withdrawn effective October 2006, May 2007, or September 2007

\* Powered by Intel Centrino® mobile technology  
\* Powered by Intel Centrino® Duo processor technology

© Lenovo  
(RC1-A) September 2007

# ThinkPad® R60 (9461) - ATI® graphics (TopSeller) - Oct 2006 - withdrawn

Created by Lenovo Training Solutions  
Personal Systems Reference (PSREF)

Type-model	Processor	Speed GHz	Memory	Anti-glare screen	Discrete graphics memory	Disk SATA GB <sup>3</sup> rpm	EIDE optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN wireless	Finger-print reader	S-Video out port	Pre-load and CD	OneNote preload and CD	Avail date
9461-CKU	Core 2 Duo T5500	1.66	512	14.1" XGA	64MB	40GB 5400	CD	*Intel 11a/b/g <sup>32</sup>	Verizon		Home	OneNote	Nov06	
9461-DUU	Core 2 Duo T7200	2.00	1GB	15.0" SXGA+	128MB	120GB 5400	DVD±RW	ThinkPad 11n <sup>28</sup>		Finger S-Vid Pro	OneNote	Oct 06		

- These small and medium business (SMB) models are part of the US TopSeller™ Program
- These models have a 1-year limited warranty<sup>2</sup>

Positioning	<i>Everyday computing; two spindles</i>										
Processor	Intel® Core 2 Duo processor T5500 or T7200 with dual-core, Intel 64 Technology, Enhanced Intel SpeedStep™ technology <sup>1</sup> , Execute Disable Bit, and 667MHz bus; T5500: 2MB shared L2 cache; T7200: 4MB shared L2 cache										
Memory	512MB or 1GB std / 4GB max <sup>31</sup> / PC2-5300 667MHz DDR2 / non-parity / CL5 / dual-channel capable / two 200-pin SO-DIMM sockets / standard memory in one socket / one socket available										
Diskette drive	None standard / use optional USB-based diskette drive										
EIDE CD	Some: CD-ROM / 24X-10X <sup>9</sup> speed / removable from Ultrabay™ Enhanced										
EIDE DVD±RW	Some: DVD burner / Super Multi-Burner DL (40Y8624) / removable Ultrabay™ Enhanced										
Ultrabay Enhanced	One bay for removable devices / Ultrabay Slim-compatible / 12.7mm high / curved bezel										
Serial ATA disk (SATA150)	40GB or 120GB <sup>8</sup> (5400 rpm) / 9.5mm high / removable, upgradable / 9.5mm high bay / supports 2nd disk with optional 'Second HDD Adapter for Ultrabay Slim' / <b>Hard Disk Drive Shock Absorber / Active Protection System</b>										
Display	Some: 14.1" (358.1mm) XGA (1024x768) TFT color / 150 nits / anti-glare / 4:3 aspect Some: 15.0" (381.0mm) SXGA+ (1400x1050) TFT color / 200 nits / anti-glare / 4:3										
Graphics	Some: ATI® MOBILITY™ Radeon™ X1300 M52 / PCI Express x16 / 64MB memory Some: ATI MOBILITY Radeon X1400 M54 / PCI Express x16 / 128MB memory										
Keyboard	89-key / ThinkVantage button / spill-resistant / multimedia Fn keys / Windows, Appl keys										
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar <sup>13</sup> , magnifying glass										
Touch pad	UltraNav™ multi-pointing system / touch pad below keyboard / Tap Zones										
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions										
Dimensions <sup>3</sup>	14.1" models (WxDxH): 12.4" x 10.2" x 1.35-1.46"; 314mm x 260mm x 34.3-37.2mm 15.0" models (WxDxH): 13.1" x 10.6" x 1.47-1.58"; 332mm x 269mm x 37.3-40.2mm with optical and 6-cell battery: 14.1" models: up to 6.2 lb (2.8kg); 15": up to 6.8 lb (3.1 kg)										
Weight <sup>2</sup>											
Case material	Color: black; All: Acrylonitrile-Butadiene-Styrene (ABS) plastic										
Battery - type	Lithium Ion 6-cell / supports unique 2nd battery in Ultrabay Enhanced										
Battery - life <sup>10</sup>	6-cell: up to 3.1 hr; opt 9-cell: up to 4.6 hr; 9-cell plus Ultrabay battery: up to 6.6 hr										
Architecture	Mobile Intel 945PM Express Chipset / 82945PM Memory Controller Hub / 82801GBM ICH7-M I/O Controller Hub (SATA300, ATA-100 EIDE, PCI Express x1, PCI bus, USB, LPC interface, [Bluetooth], [fingerprint]) / PCI bus (TI® PCI4512 CardBus controller) / LPC bus (National Semiconductor® PC87382 Super I/O, Atmel® 97SC3203)										
PC Card Std slot	One Type I or Type II slot / CardBus 32-bit / integrated door										
ExpressCard slot	One ExpressCard/34 or ExpressCard/54 / PCI Express x1 or USB 2.0 / integrated door										
Ports	Three USB 2.0 / external DB-15 monitor / RJ-11 (modem) / RJ-45 (ethernet) / 1394 FireWire 400 (4-pin connector; 1394a-2000 standard) / 15" models: S-video out / no keyboard, mouse, serial, parallel, or infrared port (use USB)										
Wireless antenna	UltraConnect™ Antenna built into the display cover / on-off switch for all wireless radios										
Mini PCI Express	Two Mini PCI Express slots / only 802.11 wireless is customer upgradable										
Intel 11a/b/g <sup>32</sup>	Some: 11a/b/g wireless <sup>4</sup> , Mini PCI Express adapter, Intel PRO/Wireless 3945ABG										
ThinkPad 11n <sup>28</sup>	Some: 11a/b/g/n wireless <sup>4</sup> , ThinkPad 11a/b/g/n Mini PCI Express Adapter, Atheros AR5008 chipset, MIMO 2x2										
WWAN <sup>16</sup>	Some: Wireless WAN, Sierra Wireless 1xEV-DO Network Adapter, Mini PCIe Adapter, EV-DO/1xRTT, WWAN antenna on display, service contract reqd with Verizon® Wireless 56K <sup>6</sup> V.90 (V.92-designed <sup>29</sup> ) modem in Communications Daughter Card socket										
Modem	None										
Bluetooth™	None										
Ethernet	Gigabit ethernet on systemboard / Broadcom® BCM5751M (MAC/PHY) / PCIe x1 / PXE										
Audio support	High Definition (HD) Audio / AD1981HD codec / stereo speakers, 1 watt / volume up, down, mute buttons / mono microphone / microphone input jack / headphone jack										
Security	Power-on password / hard disk password / supervisor password / security keyhole										
Security chip	Trusted Platform Module / Atmel chip / TCG 1.2-compliant										
Fingerprint reader	Some: Fingerprint reader on palm rest / swipe sensor / supports the security chip										
Limited warranty <sup>12</sup> 1-year - EasyServ™ <sup>19</sup> onsite pickup and delivery / service upgrades <sup>22</sup> available											
1GB PC2-5300 DDR2 CL5 SODIMM	40Y7733	T60/R60 Series Li-Ion Battery 6-cell	40Y6799								
512MB PC2-5300 DDR2 CL5 SODIMM	40Y7734	Z60m/T60/R60 Li-Ion Battery 9-cell	40Y6797								
2GB PC2-5300 DDR2 SODIMM	40Y7735	Advanced Ultrabay Battery 3-cell	40Y6789								
Serial Hard Drive Ultrabay Slim Adapter (flat)	40Y8725	ThinkPad External Battery Charger	40Y7625								
Combo II Ultrabay Slim Drive (curved bezel)	73P3288	ThinkPad 90W AC Adapter	40Y7659								
ThinkPad DVD Ultrabay Slim Burner (flat)	41N5643	ThinkPad 90W AC/DC Combo Adapter	40Y7630								
160GB Disk 9.5mm SATA150 (5400 rpm)	41N5692	Lenovo M500 Projector	0037A05								
USB 2.0 Lenovo Multimedia Headset	40Y8518	Lenovo C500 Projector	0039A05								
USB 2.0 Security Memory Key 2GB	41U5119	ThinkPad Carrying Case - Backpack	73P3599								
USB 2.0 Security Memory Key 4GB	41U5120	Premiere Leather Carrying Case	10K0209								
USB 2.0 Super Multi-Burner Drive	41N5565	ThinkPad Adjustable Notebook Stand	40Y7676								
ExpressCard Gemplus Smart Card Reader	41N3043	ThinkPad Convertible Monitor Stand	40Y7620								
11a/b/g Wireless Mini PCI Express Adapter	40Y7026	Lenovo L192 Wide 19" Monitor (black)	6920AB1								
ThinkPad Essential Port Replicator	250510W	ThinkVision® L192p 19" Monitor (black)	9419HC2								
ThinkPad Advanced Mini Dock	250410U	ThinkVision L201p 20.1" Monitor (black)	9220HB1								
ThinkPad Advanced Dock	250310U	TrackPoint Cap Collection	73P2698								
Other accessories on O-R60 sheet		Other accessories at <a href="http://lenovo.com/accessories">lenovo.com/accessories</a>									
<p><b>SOFTWARE<sup>14</sup></b></p> <p><b>Windows XP Professional models</b></p> <ul style="list-style-type: none"> <li>- Microsoft® Windows® XP Professional<sup>20</sup> (Service Pack 2)</li> <li>↔ Disk-to-Disk Recovery</li> </ul> <p><b>Windows XP Home models</b></p> <ul style="list-style-type: none"> <li>- Microsoft Windows XP Home Edition<sup>20</sup> (Service Pack 2)</li> <li>↔ Disk-to-Disk Recovery</li> </ul> <p><b>Preloaded</b> (all; only some listed)</p> <ul style="list-style-type: none"> <li>• Microsoft Office OneNote® 2003</li> <li>• Rescue and Recovery™</li> <li>• Access Connections™</li> <li>• Client Security Solution™</li> <li>• ThinkVantage Productivity Center with Away Manager</li> <li>• ThinkVantage System Update</li> <li>• Symantec® Client Security™</li> <li>• Diskkeeper Lite</li> <li>• PC-Doctor™ (diagnostics)</li> <li>• ThinkPad Utilities (Power Manager and Presentation Director)</li> <li>• Adobe® Reader</li> <li>• Google Toolbar</li> <li>• Fingerprint Software (fingerprint models)</li> <li>• Multimedia Center for Think Offerings</li> <li>• Sonic RecordNOW and Drive Letter Access (DVD±RW models)</li> <li>• InterVideo WinDVD (DVD±RW)</li> <li>• InterVideo WinDVD Creator (DVD±RW models)</li> </ul> <p><b>CD included</b></p> <ul style="list-style-type: none"> <li>• Microsoft Office OneNote 2003</li> </ul> <p><b>License</b> - CD not included</p> <ul style="list-style-type: none"> <li>- Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client</li> </ul> <p>Supports ThinkVantage® technologies</p> <p>90-watt AC adapter (discrete graphics) ThinkPad Roll Cage (one-piece magnesium frame) RoHS-compliant International Warranty Service<sup>17</sup> 24 hour x 7 day<sup>18</sup> toll-free warranty support during the warranty<sup>12</sup></p> <p>ThinkPlus™<sup>22</sup> 1-year LOR 9x5 NBD 41C9166</p> <p>ThinkPlus 2-year LOR 9x5 NBD 41C9167</p> <p>ThinkPlus 3-year LOR 9x5 NBD 41C9168</p> <p>ThinkPlus 4-year LOR 9x5 NBD 41C9171</p> <p>ThinkPlus 5-year LOR 9x5 NBD 41C9173</p> <p>ThinkPlus 2-year P&amp;L P/U Depot 41C9169</p> <p>ThinkPlus 3-year P&amp;L P/U Depot 41C9170</p> <p>ThinkPlus 4-year P&amp;L P/U Depot 41C9172</p> <p>ThinkPlus 5-year P&amp;L P/U Depot 41C9174</p> <p>Post-warranty annual maintenance agreements at <a href="http://lenovo.com/thinkplus/warranty">lenovo.com/thinkplus/warranty</a></p>											

See footnotes for important warranty information  
US models announced October 17 or November 21, 2006  
US models withdrawn effective July 2007

\*Powered by Intel Centrino® Duo processor technology

© Lenovo  
(RC2-A) August 2007

# ThinkPad® R60 (9462) - ATI® graphics - withdrawn

Created by Lenovo Training Solutions  
Personal Systems Reference (PSREF)

Type-model	Processor	Speed GHz	Memory	Anti-glare screen	Discrete graphics memory	Disk SATA GB <sup>3</sup>	EIDE rpm	EIDE optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN wireless	Finger-Blue-tooth	S-Video port	Lim- mited warranty <sup>12</sup>	Workhorse Gbl Avail date	
9462-62U	Core Duo T2400	1.83	512MB	14.1" SXGA+	64MB	80GB	5400	DVD±RW	* Intel 11a/b/g <sup>32</sup>				3-yr W	May 06	
9462-68U	Core Duo T2300E	1.66	512MB	14.1" SXGA+	64MB	60GB	5400	Combo	* Intel 11a/b/g				3-yr	May 06	
9462-6AU	Core Duo T2400	1.83	512MB	14.1" XGA	128MB	60GB	5400	Combo	* Intel 11a/b/g				3-yr W	May 06	
9462-6DU	Core Solo T1300	1.66	512MB	14.1" XGA	64MB	40GB	5400	Combo	* Intel 11a/b/g				3-yr	May 06	
9462-92U	Core Duo T2300E	1.66	512MB	14.1" XGA	64MB	60GB	5400	Combo	* Intel 11a/b/g				3-yr	Gbl May 06	
9462-93U	Core Duo T2300E	1.66	512MB	14.1" XGA	64MB	60GB	5400	Combo	* Intel 11a/b/g		Finger		3-yr	Gbl May 06	
9462-94U	Core Duo T2300E	1.66	512MB	14.1" XGA	64MB	60GB	5400	Combo	* Intel 11a/b/g		Blue		3-yr	Gbl May 06	
9462-92U	Core Duo T2300E	1.66	512MB	14.1" XGA	64MB	60GB	5400	Combo	* Intel 11a/b/g	Verizon			3-yr	May 06	
9462-6RU	Core Duo T2400	1.83	512MB	14.1" XGA	64MB	80GB	5400	DVD±RW	* Intel 11a/b/g	Verizon			3-yr W	May 06	
9462-72U	Core Duo T2400	1.83	512MB	15.0" SXGA+	128MB	80GB	5400	DVD±RW	* Intel 11a/b/g		Finger	S-Vid	3-yr W	May 06	
9462-78U	Core Duo T2300E	1.66	512MB	15.0" SXGA+	64MB	60GB	5400	Combo	* Intel 11a/b/g			S-Vid	3-yr	May 06	
9462-7AU	Core Duo T2400	1.83	512MB	15.0" XGA	128MB	60GB	5400	Combo	* Intel 11a/b/g		Finger	S-Vid	3-yr W	May 06	
9462-7DU	Core Solo T1300	1.66	512MB	15.0" XGA	64MB	40GB	5400	Combo	* Intel 11a/b/g			S-Vid	3-yr	May 06	
9462-97U	Core Duo T2300E	1.66	512MB	15.0" XGA	64MB	60GB	5400	Combo	* Intel 11a/b/g			S-Vid	3-yr	Gbl May 06	
9462-7EU	Core Duo T2300E	1.66	512MB	15.0" XGA	64MB	60GB	5400	DVD±RW	* Intel 11a/b/g			S-Vid	3-yr	May 06	
9462-7XU	Core Duo T2300E	1.66	512MB	15.0" XGA	64MB	80GB	5400	Combo	* Intel 11a/b/g		Blue Finger	S-Vid	3-yr	Gbl May 06	
9462-95U	Core Duo T2400	1.83	512MB	15.0" XGA	64MB	60GB	5400	Combo	* Intel 11a/b/g			S-Vid	3-yr W	Gbl May 06	
9462-96U	Core Duo T2400	1.83	512MB	15.0" XGA	64MB	60GB	5400	Combo	* Intel 11a/b/g			Finger	S-Vid	3-yr W	Gbl May 06
9462-98U	Core Duo T2400	1.83	512MB	15.0" XGA	64MB	80GB	5400	Combo	* Intel 11a/b/g		Blue Finger	S-Vid	3-yr W	Gbl May 06	
Positioning	Everyday computing; two spindles											<b>SOFTWARE<sup>14</sup></b>			
Processor	Intel® Core™ Solo processor T1300 with single-core, Enhanced Intel SpeedStep™ technology <sup>1</sup> , Execute Disable Bit, 667MHz bus, and 2MB L2 cache or Intel Core Duo processor T2300E or T2400 with dual-core, Enhanced Intel SpeedStep™ technology <sup>1</sup> , Execute Disable Bit, 667MHz system bus, and 2MB shared L2 cache											<b>Windows XP Professional</b> - Microsoft® Windows® XP Professional <sup>20</sup> (Service Pack 2) ↳ Disk-to-Disk Recovery			
Memory	512MB std / 4GB max <sup>31</sup> / PC2-5300 667MHz DDR2 / non-parity / CL5 / dual-channel capable / two 200-pin SO-DIMM sockets / standard memory in one socket / one socket available											<b>Preloaded</b> • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center with Away Manager • ThinkVantage System Update • Symantec® Client Security™ • DiskKeeper Lite • PC-Doctor™ (diagnostics) • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader • Google Toolbar • Google Desktop • Picasa from Google • Fingerprint Software (fingerprint models)			
Diskette drive	None standard / use optional USB-based diskette drive											• Multimedia Center for Think Offerings			
EIDE Combo	Some: DVD-ROM/CD-RW / 24X/24X/24X/8X <sup>21</sup> speed / removable from Ultrabay™ Enh											• Sonic RecordNOW and Drive Letter Access (combo, DVD±RW)			
EIDE DVD±RW	Some: DVD burner / Super Multi-Burner (40Y8624) dual-layer, removable Ultrabay Enh											• InterVideo WinDVD (combo, DVD±RW models)			
Ultrabay Enhanced	One bay for removable devices / Ultrabay Slim-compatible / 12.7mm high / curved bezel											• InterVideo WinDVD Creator (DVD±RW models)			
Serial ATA disk (SATA150)	40GB <sup>8</sup> (5400 rpm), 60GB (5400 rpm), or 80GB (5400 rpm) / 9.5mm high / removable, upgradable / 9.5mm high bay / supports 2nd disk with optional 'Second HDD Adapter for Ultrabay Slim' / <b>Hard Disk Drive Shock Absorber / Active Protection System</b>											<b>License</b> - CD not included - Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client			
Display	Some: 14.1" (358.1mm) XGA (1024x768) TFT color / 150 nits / anti-glare / 4:3 aspect Some: 14.1" (358.1mm) SXGA+ (1400x1050) TFT color / 150 nits / anti-glare / 4:3 aspect Some: 15.0" (381.0mm) XGA (1024x768) TFT color / 150 nits / anti-glare / 4:3 aspect Some: 15.0" (381.0mm) SXGA+ (1400x1050) TFT color / 200 nits / anti-glare / 4:3 aspect											Supports ThinkVantage® technologies			
Graphics	Some: ATI® MOBILITY™ Radeon™ X1300 M52 / PCI Express x16 / 64MB GDDR1 Some: ATI MOBILITY Radeon X1400 M54 / PCI Express x16 / 128MB GDDR1											90 watt AC adapter (discrete graphics) ThinkPad Roll Cage (one-piece magnesium frame) RoHS-compliant			
Keyboard	89-key / ThinkVantage button / spill-resistant / multimedia Fn keys / Windows, Appl keys											International Warranty Service <sup>17</sup> 24 hour x 7 day <sup>18</sup> toll-free warranty support during the warranty <sup>12</sup>			
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar <sup>13</sup> , magnifying glass											ThinkPlus™.22 2-year LOR 9x5 NBD 41C9175			
Touch pad	UltraNav™ multi-pointing system / touch pad below keyboard / Tap Zones											ThinkPlus 3-year LOR 9x5 NBD 41C9176			
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions											ThinkPlus 4-year LOR 9x5 NBD 41C9177			
Dimensions <sup>3</sup>	14.1" models (WxDxH): 12.4" x 10.2" x 1.35-1.46"; 314mm x 260mm x 34.3-37.2mm 15.0" models (WxDxH): 13.1" x 10.6" x 1.47-1.58"; 332mm x 269mm x 37.3-40.2mm											ThinkPlus 5-year LOR 9x5 NBD 41C9179			
Weight <sup>2</sup>	with optical and 6-cell battery: 14.1" models: up to 6.2 lb (2.8kg); 15": up to 6.8 lb (3.1 kg)											ThinkPlus 4-year P&L P/U Depot 41C9178			
Case material	Color: black; All: Acrylonitrile-Butadiene-Styrene (ABS) plastic											ThinkPlus 5-year P&L P/U Depot 41C9180			
Battery - type	Lithium Ion 6-cell / supports unique 2nd battery in Ultrabay Enhanced														
Battery - life <sup>10</sup>	6-cell: up to 3.1 hr; optional 9-cell: up to 4.6 hr; 9-cell plus Ultrabay battery: up to 6.6 hr														
Architecture	Mobile Intel 945PM Express Chipset / 82945PM Memory Controller Hub / 82801GBM ICH7-M I/O Controller Hub (SATA300, ATA-100 EIDE, PCI Express x1, PCI bus, USB, LPC interface, [Bluetooth], [fingerprint]) / PCI bus (TI® PCI4512 CardBus controller) / LPC bus (National Semiconductor® PC87382 Super I/O, Atmel® 97SC3203)														
PC Card Std slot	One Type I or Type II slot / CardBus 32-bit / integrated door														
ExpressCard slot	One ExpressCard/34 or ExpressCard/54 / PCI Express x1 or USB 2.0 / integrated door														
Ports	Three USB 2.0 / external DB-15 monitor / RJ-11 (modem) / RJ-45 (ethernet) / 1394 FireWire 400 (4-pin connector; 1394a-2000 standard) / 15" models: S-video out / no keyboard, mouse, serial, parallel, or infrared port (use USB)														
Wireless antenna	UltraConnect™ Antenna built into the display cover / on-off switch for all wireless radios														
Mini PCI Express	Two Mini PCI Express slots / only 802.11 wireless is customer upgradable														
Intel 11a/b/g <sup>32</sup>	11a/b/g wireless <sup>4</sup> , Mini PCI Express adapter, Intel PRO/Wireless 3945ABG														
WWAN <sup>16</sup>	Some: Wireless WAN, Sierra Wireless 1xEV-DO Network Adapter, Mini PCIe Adapter, EV-DO/1xRTT, WWAN antenna on display, service contract reqd with Verizon® Wireless														
Modem	56K <sup>6</sup> V.90 (V.92-designed <sup>23</sup> ) modem in Communications Daughter Card socket														
Bluetooth™	Some: Bluetooth 2.0 wireless / USB 2.0 interface via ICH7-M / LED indicator														
Ethernet	Gigabit ethernet on systemboard / Broadcom® BCM5751M (MAC/PHY) / PCIe x1 / PXE														
Audio support	High Definition (HD) Audio / AD1981HD codec / stereo speakers, 1 watt / volume up, down, mute buttons / mono microphone / microphone input jack / headphone jack														
Security	Power-on password / hard disk password / supervisor password / security keyhole														
Security chip	Trusted Platform Module / Atmel chip / TCG 1.2-compliant														
Fingerprint reader	Some: Fingerprint reader on palm rest / swipe sensor / supports the security chip														
Limited warranty <sup>12</sup>	3-year/1-yr battery - EasyServ™.19 onsite pickup and delivery / service upgrades <sup>22</sup> available														

See footnotes for important warranty information  
US models announced May 16 or May 30, 2006  
US models withdrawn effective September 2007

\* Powered by Intel Centrino® mobile technology  
\* Powered by Intel Centrino® Duo mobile technology

© Lenovo  
(RC1-B) September 2007

# ThinkPad® R60 (9462) - ATI® graphics (October 2006) - withdrawn

Created by Lenovo Training Solutions  
Personal Systems Reference (PSREF)

Type-model	Processor	Speed GHz	Memory	Anti-glare screen	Discrete graphics memory	Disk SATA GB <sup>a</sup>	EIDE optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN wireless	Finger-S-Video print out port	Bat- tery cells	Lim- Workhorse warranty <sup>12</sup>	Global/Avail date
9462-G9U	Core 2 Duo T7200	2.00	1GB	14.1" XGA	128MB	80GB	Combo	*Intel 11a/b/g <sup>32</sup>	None	Finger	S-Vid	6	3-yr Gbl Oct 06
9462-GAU	Core 2 Duo T7200	2.00	512MB	15.0" SXGA+	128MB	100GB	DVD±RW	*Intel 11a/b/g	None	Finger	S-Vid	9	3-yr Gbl Oct 06
Positioning Processor	<i>Everyday computing; two spindles</i> <b>Intel® Core™ 2 Duo processor T7200</b> with dual-core, Intel 64 Technology, Enhanced Intel SpeedStep™ technology <sup>1</sup> , Execute Disable Bit, 667MHz system bus, and 4MB shared L2 cache										<b>SOFTWARE<sup>14</sup></b>		
Memory	512MB or 1GB std / 4GB max <sup>31</sup> / PC2-5300 667MHz DDR2 / non-parity / CL5 / dual channel / two 200-pin SO-DIMM sockets / standard memory in one socket / one socket available										<b>Windows XP Professional</b> - Microsoft® Windows® XP Professional <sup>20</sup> (Service Pack 2) ⇨ Disk-to-Disk Recovery  <b>Preloaded</b> • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center with Away Manager • ThinkVantage System Update • Symantec® Client Security™ • Diskeeper Lite • PC-Doctor™ (diagnostics) • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader • Google Toolbar • Google Desktop • Picasa from Google • Fingerprint Software (fingerprint models) • Multimedia Center for Think Offerings • Sonic RecordNOW and Drive Letter Access (combo, DVD±RW) • InterVideo WinDVD (combo, DVD±RW models) • InterVideo WinDVD Creator (DVD±RW models)		
Diskette drive	None standard / use optional USB-based diskette drive										<b>License - CD not included</b> - Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client		
EIDE Combo	<i>Some:</i> DVD-ROM/CD-RW / 24X/24X/24X/8X <sup>21</sup> speed / removable from Ultrabay™ Enh												
EIDE DVD±RW	<i>Some:</i> DVD burner / Super Multi-Burner (40Y8624) dual-layer, removable Ultrabay Enh										<b>License - CD not included</b> - Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client		
Ultrabay Enhanced Serial ATA disk (SATA150)	One bay for removable devices / Ultrabay Slim-compatible / 12.7mm high / curved bezel 80GB <sup>8</sup> (5400 rpm) or 100GB (5400 rpm) / 9.5mm high / removable, upgradable / 9.5mm high bay / supports 2nd disk with optional 'Second HDD Adapter for Ultrabay Slim' / <b>Hard Disk Drive Shock Absorber / Active Protection System</b>												
Display	<i>Some:</i> 14.1" (358.1mm) XGA (1024x768) TFT color / 150 nits / anti-glare / 4:3 aspect <i>Some:</i> 15.0" (381.0mm) SXGA+ (1400x1050) TFT color / 200 nits / anti-glare / 4:3										<b>License - CD not included</b> - Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client		
Graphics	<b>ATI® MOBILITY™ Radeon™ X1400 M54</b> / PCI Express x16 / 128MB GDDR1												
Keyboard	89-key / ThinkVantage button / spill-resistant / multimedia Fn keys / Windows, Appl keys										<b>License - CD not included</b> - Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client		
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar <sup>13</sup> , magnifying glass												
Touch pad	UltraNav™ multi-pointing system / touch pad below keyboard / Tap Zones										<b>License - CD not included</b> - Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client		
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions												
Dimensions <sup>3</sup>	14.1" models (WxDxH): 12.4" x 10.2" x 1.35-1.46"; 314mm x 260mm x 34.3-37.2mm 15.0" models (WxDxH): 13.1" x 10.6" x 1.47-1.58"; 332mm x 269mm x 37.3-40.2mm										<b>License - CD not included</b> - Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client		
Weight <sup>2</sup>	with optical and 6-cell battery: 14.1" models: up to 6.2 lb (2.8kg); 15": up to 6.8 lb (3.1 kg)												
Case material	Color: black; All: Acrylonitrile-Butadiene-Styrene (ABS) plastic										<b>License - CD not included</b> - Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client		
Battery - type	Lithium Ion 6-cell or 9-cell / supports unique 2nd battery in Ultrabay Enhanced												
Battery - life <sup>10</sup>	6-cell: up to 3.1 hr; 9-cell: up to 4.6 hr; 9-cell plus Ultrabay battery: up to 6.6 hr										<b>License - CD not included</b> - Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client		
Architecture	<b>Mobile Intel 945PM Express Chipset</b> / 82945PM Memory Controller Hub / 82801GBM ICH7-M I/O Controller Hub (SATA300, ATA-100 EIDE, PCI Express x1, PCI bus, USB, LPC interface, [Bluetooth], [fingerprint]) / PCI bus (TI® PCI4512 CardBus controller) / LPC bus (National Semiconductor® PC87382 Super I/O, Atmel® 97SC3203)												
PC Card Std slot	One Type I or Type II slot / CardBus 32-bit / integrated door										<b>License - CD not included</b> - Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client		
ExpressCard slot	One ExpressCard/34 or ExpressCard/54 / PCI Express x1 or USB 2.0 / integrated door												
Ports	Three USB 2.0 / external DB-15 monitor / RJ-11 (modem) / RJ-45 (ethernet) / 1394 FireWire 400 (4-pin connector; 1394a-2000 standard) / 15" models: S-video out / no keyboard, mouse, serial, parallel, or infrared port (use USB)										<b>License - CD not included</b> - Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client		
Wireless antenna	UltraConnect™ Antenna built into the display cover / on-off switch for all wireless radios												
Mini PCI Express	Two Mini PCI Express slots / only 802.11 wireless is customer upgradable										<b>License - CD not included</b> - Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client		
Intel 11a/b/g <sup>32</sup>	11a/b/g wireless <sup>4</sup> , Mini PCI Express adapter, Intel PRO/Wireless 3945ABG												
WWAN <sup>16</sup>	None										<b>License - CD not included</b> - Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client		
Modem	56K <sup>6</sup> V.90 (V.92-designed <sup>29</sup> ) modem in Communications Daughter Card socket												
Bluetooth™	Bluetooth 2.0 wireless / USB 2.0 interface via ICH7-M / LED indicator										<b>License - CD not included</b> - Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client		
Ethernet	Gigabit ethernet on systemboard / Broadcom® BCM5751M (MAC/PHY) / PCIe x1 / PXE												
Audio support	High Definition (HD) Audio / AD1981HD codec / stereo speakers, 1 watt / volume up, down, mute buttons / mono microphone / microphone input jack / headphone jack										<b>License - CD not included</b> - Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client		
Security	Power-on password / hard disk password / supervisor password / security keyhole												
Security chip	<b>Trusted Platform Module</b> / Atmel chip / TCG 1.2-compliant										<b>License - CD not included</b> - Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client		
Fingerprint reader	<i>Some:</i> <b>Fingerprint reader on palm rest</b> / swipe sensor / supports the security chip												
Limited warranty <sup>12</sup>	3-year/1-yr battery - EasyServ™ <sup>19</sup> onsite pickup and delivery / service upgrades <sup>22</sup> avail										<b>License - CD not included</b> - Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client		
512MB PC2-5300 DDR2 CL5 SODIMM	40Y7733	T60/R60 Series Li-Ion Battery 6-cell	40Y6799	Supports ThinkVantage® technologies  90 watt AC adapter (discrete graphics) ThinkPad Roll Cage (one-piece magnesium frame) RoHS-compliant International Warranty Service <sup>17</sup> 24 hour x 7 day <sup>18</sup> toll-free warranty support during the warranty <sup>12</sup>  ThinkPlus™ <sup>22</sup> 2-year LOR 9x5 NBD 41C9175 ThinkPlus 3-year LOR 9x5 NBD 41C9176 ThinkPlus 4-year LOR 9x5 NBD 41C9177 ThinkPlus 5-year LOR 9x5 NBD 41C9179 ThinkPlus 4-year P&L P/U Depot 41C9178 ThinkPlus 5-year P&L P/U Depot 41C9180 Post-warranty annual maintenance agreements at <a href="http://lenovo.com/thinkplus/warranty">lenovo.com/thinkplus/warranty</a>									
1GB PC2-5300 DDR2 CL5 SODIMM	40Y7734	Z60m/T60/R60 Li-Ion Battery 9-cell	40Y6797										
2GB PC2-5300 DDR2 SODIMM	40Y7735	Advanced Ultrabay Battery 3-cell	40Y6789										
Serial Hard Drive Ultrabay Slim Adapter (flat)	40Y8725	ThinkPad External Battery Charger	40Y7625										
Combo II Ultrabay Slim Drive (flat bezel)	40Y8621	ThinkPad 90W AC Adapter	40Y7659										
ThinkPad DVD Ultrabay Slim Burner (flat)	41N5643	ThinkPad 90W AC/DC Combo Adapter	40Y7630										
160GB Disk 9.5mm SATA150 (5400 rpm)	41N5692	Lenovo M500 Projector	0037A05										
USB Portable Diskette Drive	05K9276	Lenovo C500 Projector	0039A05										
USB 2.0 Lenovo Multimedia Headset	40Y8518	ThinkPad Carrying Case - Organizer	73P3598										
USB 2.0 Lenovo Webcam	40Y8519	Premiere Leather Carrying Case	10K0209										
USB 2.0 Security Memory Key 2GB	41U5119	ThinkPad Convertible Carrying Case	22P8860										
USB 2.0 Security Memory Key 4GB	41U5120	USB Fingerprint Reader	73P4774										
USB 2.0 Portable 120GB Hard Disk	41N8379	ThinkPad Adjustable Notebook Stand	40Y7676										
USB 2.0 Super Multi-Burner Drive	41N5665	ThinkPad Convertible Monitor Stand	40Y7620										
ExpressCard Gemplus Smart Card Reader	41N3043	Lenovo L192 Wide 19" Monitor (black)	6920AB1										
11a/b/g Wireless Mini PCI Express Adapter	40Y7026	ThinkVision® L192p 19" Monitor (black)	9419HC2										
ThinkPad Essential Port Replicator	250510W	ThinkVision L201p 20.1" Monitor (black)	9220HB1										
ThinkPad Advanced Mini Dock	250410U	TrackPoint Cap Collection	73P2698										
ThinkPad Advanced Dock	250310U	Lenovo Laser Mouse (USB, PS/2)	41U3074										
Other accessories on O-R60 sheet		Other accessories at <a href="http://lenovo.com/accessories">lenovo.com/accessories</a>											

See footnotes for important warranty information  
US models announced October 17, 2006  
US models withdrawn effective July 2007

\* Powered by Intel Centrino® Duo processor technology

© Lenovo  
(RC2-B) August 2007

# ThinkPad® R60 (9462) - ATI® graphics (Education) - withdrawn

Created by Lenovo Training Solutions  
Personal Systems Reference (PSREF)

Type-model	Processor	Speed GHz	Memory	Anti-glare screen	Discrete graphics memory	Disk SATA GB <sup>8</sup>	rpm	EIDE optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN Blue-tooth	Finger-print reader	S-Video out port	3-year limited warranty <sup>12</sup>	Avail date
9462-63U	Core Duo T2500	2.00	512MB	14.1" SXGA+	64MB	80GB	5400	DVD±RW	* Intel 11a/b/g <sup>32</sup>	None	None	Finger	EasyServ	May 06
9462-69U	Core Duo T2400	1.83	512MB	14.1" SXGA+	64MB	60GB	5400	Combo	* Intel 11a/b/g	None	None	Finger	EasyServ	May 06
9462-73U	Core Duo T2500	2.00	1GB	15.0" SXGA+	128MB	100GB	<b>7200</b>	DVD±RW	* Intel 11a/b/g	None	None	Finger S-Vid	EasyServ	May 06
9462-7BU	Core Duo T2400	1.83	512MB	15.0" XGA	128MB	60GB	5400	Combo	* Intel 11a/b/g	None	None	S-Vid	EasyServ	May 06
9462-6WU	Core Duo T2400	1.83	512MB	14.1" XGA	64MB	60GB	5400	Combo	* Intel 11a/b/g	None	None	Finger	EasyServ	May 06

• **These models have an EasyServ™<sup>19</sup> onsite pickup and delivery 3-year limited warranty**

These educational models are available only to public or private K-12 (or higher) accredited schools organized and operated exclusively for educational purposes for use by qualified students and teachers.

Positioning Processor	<i>Everyday computing; two-spindle system</i> <b>Intel® Core™ Duo processor T2400 or T2500</b> with dual-core, Enhanced Intel SpeedStep™ technology <sup>1</sup> , Execute Disable Bit, 667MHz system bus, and 2MB shared L2 cache										<b>SOFTWARE<sup>14</sup></b>				
Memory	<b>512MB or 1GB</b> std / 4GB max <sup>31</sup> / PC2-5300 667MHz DDR2 / non-parity / CL5 / dual-channel capable / two 200-pin SO-DIMM sockets / standard memory in one socket / one socket available										<b>Windows XP Professional</b> - Microsoft® Windows® XP Professional <sup>20</sup> (Service Pack 2) ↔ Disk-to-Disk Recovery				
Diskette drive EIDE DVD±RW Ultrabay Enhanced Serial ATA disk (SATA150)	None standard / use optional USB-based diskette drive <i>Some:</i> DVD-ROM/CD-RW / 24X/24X/24X/8X <sup>21</sup> speed / removable from Ultrabay Enh <i>Some:</i> DVD burner / Super Multi-Burner (40Y8624) dual-layer, removable Ultrabay Enh One bay for removable devices / Ultrabay Slim-compatible / 12.7mm high / curved bezel <b>60GB<sup>8</sup></b> (5400 rpm), <b>80GB</b> (5400 rpm), or <b>100GB</b> (7200 rpm) / 9.5mm high / removable, upgradable / 9.5mm high bay / supports 2nd disk with optional 'Second HDD Adapter for Ultrabay Slim' / <b>Hard Disk Drive Shock Absorber / Active Protection System</b>										<b>Preloaded</b> • VitalSource Library education software • Adobe® Photoshop® Elements plus Adobe Premiere® Elements • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center with Away Manager • ThinkVantage System Update • Symantec® Client Security™ • Diskeeper® Lite • PC-Doctor™ (diagnostics) • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader • Google Toolbar • Google Desktop • Picasa from Google • Fingerprint Software (fingerprint models) • Multimedia Center for Think Offerings • Sonic RecordNOW and Drive Letter Access (combo, DVD±RW) • InterVideo WinDVD (combo, DVD±RW models) • InterVideo WinDVD Creator (DVD±RW models)				
Display	<i>Some:</i> <b>14.1"</b> (358.1mm) <b>XGA (1024x768) TFT color</b> / 150 nits / anti-glare / 4:3 aspect <i>Some:</i> <b>14.1"</b> (358.1mm) <b>SXGA+ (1400x1050) TFT color</b> / 150 nits / anti-glare / 4:3 aspect <i>Some:</i> <b>15.0"</b> (381.0mm) <b>XGA (1024x768) TFT color</b> / 150 nits / anti-glare / 4:3 aspect <i>Some:</i> <b>15.0"</b> (381.0mm) <b>SXGA+ (1400x1050) TFT color</b> / 200 nits / anti-glare / 4:3 aspect										• ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader • Google Toolbar • Google Desktop • Picasa from Google • Fingerprint Software (fingerprint models) • Multimedia Center for Think Offerings • Sonic RecordNOW and Drive Letter Access (combo, DVD±RW) • InterVideo WinDVD (combo, DVD±RW models) • InterVideo WinDVD Creator (DVD±RW models)				
Graphics	<i>Some:</i> <b>ATI® MOBILITY™ Radeon™ X1300 M52</b> / PCI Express x16 / <b>64MB</b> GDDR1 <i>Some:</i> <b>ATI MOBILITY Radeon X1400 M54</b> / PCI Express x16 / <b>128MB</b> GDDR1										<b>CD</b> • Adobe Photoshop Elements plus Adobe Premiere Elements				
Keyboard TrackPoint® Touch pad ThinkLight™	89-key / ThinkVantage button / spill-resistant / multimedia Fn keys / Windows, Appl keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar <sup>13</sup> , magnifying glass UltraNav™ multi-pointing system / touch pad below keyboard / Tap Zones Illuminates the keyboard to improve visibility in low-light conditions										<b>License</b> - CD not included - Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client				
Dimensions <sup>3</sup>	<b>14.1" models (WxDxH):</b> 12.4" x 10.2" x 1.35-1.46"; 314mm x 260mm x 34.3-37.2mm <b>15.0" models (WxDxH):</b> 13.1" x 10.6" x 1.47-1.58"; 332mm x 269mm x 37.3-40.2mm with optical and 6-cell battery: <b>14.1" models:</b> up to 6.2 lb (2.8kg); <b>15":</b> up to 6.8 lb (3.1 kg) <i>Color:</i> black; <i>All:</i> Acrylonitrile-Butadiene-Styrene (ABS) plastic										<b>Supports ThinkVantage® technologies</b>				
Weight <sup>2</sup>	Lithium Ion <b>6-cell</b> / supports unique 2nd battery in Ultrabay Enhanced <b>6-cell:</b> up to 3.1 hr; <b>optional 9-cell:</b> up to 4.6 hr; <b>9-cell plus Ultrabay battery:</b> up to 6.6 hr										90-watt AC adapter (discrete graphics) ThinkPad Roll Cage (one-piece magnesium frame) RoHS-compliant International Warranty Service <sup>17</sup> 24 hour x 7 day <sup>18</sup> toll-free warranty support during the warranty <sup>12</sup>				
Case material	Lithium Ion <b>6-cell</b> / supports unique 2nd battery in Ultrabay Enhanced														
Battery - type	Lithium Ion <b>6-cell</b> / supports unique 2nd battery in Ultrabay Enhanced														
Battery - life <sup>10</sup>	<b>6-cell:</b> up to 3.1 hr; <b>optional 9-cell:</b> up to 4.6 hr; <b>9-cell plus Ultrabay battery:</b> up to 6.6 hr														
Architecture	<b>Mobile Intel 945PM Express Chipset</b> / 82945PM Memory Controller Hub / 82801GBM ICH7-M I/O Controller Hub (SATA300, ATA-100 EIDE, PCI Express x1, PCI bus, USB, LPC interface, [Bluetooth], [fingerprint]) / PCI bus (TI® PCI14512 CardBus controller) / LPC bus (National Semiconductor® PC87382 Super I/O, Atmel® 97SC3203)														
PC Card Std slot ExpressCard slot Ports	One Type I or Type II slot / CardBus 32-bit / integrated door One ExpressCard/34 or ExpressCard/54 / PCI Express x1 or USB 2.0 / integrated door Three USB 2.0 / external DB-15 monitor / RJ-11 (modem) / RJ-45 (ethernet) / 1394 FireWire 400 (4-pin connector; 1394a-2000 standard) / <b>15" models:</b> S-video out / no keyboard, mouse, serial, parallel, or infrared port (use USB)														
Wireless antenna	UltraConnect™ Antenna built into the display cover / on-off switch for all wireless radios														
Mini PCI Express	Two Mini PCI Express slots / only 802.11 wireless is customer upgradable														
Intel 11a/b/g <sup>32</sup>	11a/b/g wireless <sup>4</sup> , Mini PCI Express adapter, Intel PRO/Wireless 3945ABG														
WWAN <sup>16</sup>	None														
Modem	56K <sup>6</sup> V.90 (V.92-designed <sup>29</sup> ) modem in Communications Daughter Card socket														
Bluetooth™	None														
Ethernet	Gigabit ethernet on systemboard / Broadcom® BCM5751M (MAC/PHY) / PCIe x1 / PXE														
Audio support	High Definition (HD) Audio / AD1981HD codec / stereo speakers, 1 watt / volume up, down, mute buttons / mono microphone / microphone input jack / headphone jack														
Security	Power-on password / hard disk password / supervisor password / security keyhole														
Security chip	<b>Trusted Platform Module</b> / Atmel chip / TCG 1.2-compliant														
Fingerprint reader	<i>Some:</i> <b>Fingerprint reader on palm rest</b> / swipe sensor / supports the security chip														
Limited warranty <sup>12</sup>	<b>3-year/1-yr battery</b> - EasyServ™ <sup>19</sup> onsite pickup and delivery / service upgrades <sup>22</sup> avail										ThinkPlus™ <sup>22</sup> 2-year LOR 9x5 NBD 41C9175				
512MB PC2-5300 DDR2 CL5 SODIMM	40Y7733	T60/R60 Series Li-Ion Battery 6-cell	40Y6799												
1GB PC2-5300 DDR2 CL5 SODIMM	40Y7734	Z60m/T60/R60 Li-Ion Battery 9-cell	40Y6797												
2GB PC2-5300 DDR2 SODIMM	40Y7735	Advanced Ultrabay Battery 3-cell	40Y6789												
Serial Hard Drive Ultrabay Slim Adapter (flat)	40Y8725	ThinkPad External Battery Charger	40Y7625												
ThinkPad DVD Ultrabay Slim Burner (flat)	41N5643	ThinkPad 90W AC/DC Combo Adapter	40Y7630												
100GB Disk 9.5mm SATA150 (7200 rpm)	41N3013	Lenovo M500 Projector	0037A05												
USB 2.0 Lenovo Multimedia Headset	40Y8518	Lenovo C500 Projector	0039A05												
USB 2.0 Webcam	40Y8519	ThinkPad Convertible Carrying Case	22P8860												
USB 2.0 Security Memory Key 4GB	41U5120	ThinkPad Adjustable Notebook Stand	40Y7676												
USB 2.0 Super Multi-Burner Drive	41N5565	ThinkPad Convertible Monitor Stand	40Y7620												
11a/b/g Wireless Mini PCI Express Adapter	40Y7026	Lenovo L192 Wide 19" Monitor (black)	6920AB1												
ThinkPad Essential Port Replicator	250510W	ThinkVision® L201p 20.1" Monitor (blk)	9220HB1												
ThinkPad Advanced Mini Dock	250410U	TrackPoint Cap Collection	73P2698												
ThinkPad Advanced Dock	250310U	Other accessories at <a href="http://lenovo.com/accessories">lenovo.com/accessories</a>													

See footnotes for important warranty information  
US models announced May 16, 2006  
US models withdrawn effective September 2007

\* Powered by Intel Centrino® Duo processor technology

© Lenovo  
(RC1-C) September 2007

# ThinkPad® R60 (9463) - ATI® graphics (TopSeller and Educ) - withdrawn

Created by Lenovo Training Solutions  
Personal Systems Reference (PSREF)

Type-model	Processor	Speed GHz	Memory	Anti-glare screen	Discrete graphics memory	Disk SATA GB <sup>3</sup>	rpm	EIDE optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN wireless	Blue-tooth	Finger-print reader	S-Video out port	3-year limited warranty <sup>12</sup>	Avail date
9463-82U	Core Duo T2400	1.83	512MB	14.1" XGA	64MB	60GB	5400	Combo	* Intel 11a/b/g <sup>32</sup>	None	None	None	None	EasyServ	May 06
9463-7RU	Core Duo T2400	1.83	512MB	15.0" XGA	64MB	60GB	5400	Combo	* Intel 11a/b/g	None	None	None	S-Vid	EasyServ	May 06

- **These small and medium business (SMB) models are part of the US TopSeller™ Program**
- **These models have an EasyServ™<sup>19</sup> onsite pickup and delivery 3-year limited warranty**

These educational models are available only to public or private K-12 (or higher) accredited schools organized and operated exclusively for educational purposes for use by qualified students and teachers.

Positioning Processor	<i>Everyday computing; two spindles</i> <b>Intel® Core™ Duo processor T2400</b> with dual-core, Enhanced Intel SpeedStep™ technology <sup>1</sup> , Execute Disable Bit, 667MHz system bus, and 2MB shared L2 cache										<b>SOFTWARE<sup>14</sup></b> <b>Windows XP Professional</b> - Microsoft® Windows® XP Professional <sup>20</sup> (Service Pack 2) ⇨ Disk-to-Disk Recovery				
Memory	<b>512MB</b> std / 4GB max <sup>31</sup> / PC2-5300 667MHz DDR2 / non-parity / CL5 / dual-channel capable / two 200-pin SO-DIMM sockets / standard memory in one socket / one socket available										<b>Preloaded</b> • VitalSource Library education software • Adobe® Photoshop® Elements plus Adobe Premiere® Elements • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center with Away Manager • ThinkVantage System Update • Symantec® Client Security™ • Diskeeper Lite • PC-Doctor™ (diagnostics) • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader • Google Toolbar • Google Desktop • Picasa from Google • Multimedia Center for Think Offerings • Sonic RecordNOW and Drive Letter Access (combo models) • InterVideo WinDVD (combo models)				
Diskette drive EIDE Combo	None standard / use optional USB-based diskette drive										<b>CD</b> • Adobe Photoshop Elements plus Adobe Premiere Elements  <b>License - CD not included</b> - Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client				
UltraBay Enhanced Serial ATA disk (SATA150)	DVD-ROM/CD-RW / 24X/24X/24X/8X <sup>21</sup> speed / removable from Ultrabay Enhanced One bay for removable devices / Ultrabay Slim-compatible / 12.7mm high / curved bezel <b>60GB<sup>8</sup></b> (5400 rpm) / 9.5mm high / removable, upgradable / 9.5mm high bay / supports 2nd disk with optional 'Second HDD Adapter for Ultrabay Slim' / <b>Hard Disk Drive Shock Absorber / Active Protection System</b>														
Display	Some: <b>14.1"</b> (358.1mm) <b>XGA (1024x768) TFT color</b> / 150 nits / anti-glare / 4:3 aspect Some: <b>15.0"</b> (381.0mm) <b>XGA (1024x768) TFT color</b> / 150 nits / anti-glare / 4:3 aspect										<b>90-watt AC adapter (discrete graphics)</b> ThinkPad Roll Cage (one-piece magnesium frame) RoHS-compliant International Warranty Service <sup>17</sup> 24 hour x 7 day <sup>18</sup> toll-free warranty support during the warranty <sup>12</sup>  ThinkPlus™. <sup>22</sup> 2-year LOR 9x5 NBD 41C9175 ThinkPlus 3-year LOR 9x5 NBD 41C9176 ThinkPlus 4-year LOR 9x5 NBD 41C9177 ThinkPlus 5-year LOR 9x5 NBD 41C9179 ThinkPlus 4-year P&L P/U Depot 41C9178 ThinkPlus 5-year P&L P/U Depot 41C9180 Post-warranty annual maintenance agreements at <b>lenovo.com/thinkplus/warranty</b>				
Graphics	<b>ATI® MOBILITY™ Radeon™ X1300 M52</b> / PCI Express x16 / <b>64MB</b> GDDR1														
Keyboard TrackPoint®	89-key / ThinkVantage button / spill-resistant / multimedia Fn keys / Windows, Appl keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar <sup>13</sup> , magnifying glass														
Touch pad ThinkLight™	UltraNav™ multi-pointing system / touch pad below keyboard / Tap Zones Illuminates the keyboard to improve visibility in low-light conditions														
Dimensions <sup>3</sup>	14.1" models (WxDxH): 12.4" x 10.2" x 1.35-1.46"; 314mm x 260mm x 34.3-37.2mm 15.0" models (WxDxH): 13.1" x 10.6" x 1.47-1.58"; 332mm x 269mm x 37.3-40.2mm														
Weight <sup>2</sup>	with optical and 6-cell battery: 14.1" models: up to 6.2 lb (2.8kg); 15": up to 6.8 lb (3.1 kg)														
Case material	Color: black; All: Acrylonitrile-Butadiene-Styrene (ABS) plastic														
Battery - type	Lithium Ion <b>6-cell</b> / supports unique 2nd battery in Ultrabay Enhanced														
Battery - life <sup>10</sup>	6-cell: up to 3.1 hr; optional 9-cell: up to 4.6 hr; 9-cell plus Ultrabay battery: up to 6.6 hr														
Architecture	<b>Mobile Intel 945PM Express Chipset</b> / 82945PM Memory Controller Hub / 82801GBM ICH7-M I/O Controller Hub (SATA300, ATA-100 EIDE, PCI Express x1, PCI bus, USB, LPC interface, [Bluetooth], [fingerprint]) / PCI bus (TI® PCI4512 CardBus controller) / LPC bus (National Semiconductor® PC87382 Super I/O, Atmel® 97SC3203)														
PC Card Std slot ExpressCard slot	One Type I or Type II slot / CardBus 32-bit / integrated door One ExpressCard/34 or ExpressCard/54 / PCI Express x1 or USB 2.0 / integrated door														
Ports	Three USB 2.0 / external DB-15 monitor / RJ-11 (modem) / RJ-45 (ethernet) / 1394 FireWire 400 (4-pin connector; 1394a-2000 standard) / 15" models: S-video out / no keyboard, mouse, serial, parallel, or infrared port (use USB)														
Wireless antenna	UltraConnect™ Antenna built into the display cover / on-off switch for all wireless radios														
Mini PCI Express Intel 11a/b/g <sup>32</sup> WWAN <sup>16</sup>	Two Mini PCI Express slots / only 802.11 wireless is customer upgradable 11a/b/g wireless <sup>4</sup> , Mini PCI Express adapter, Intel PRO/Wireless 3945ABG None														
Modem	56K <sup>6</sup> V.90 (V.92-designed <sup>29</sup> ) modem in Communications Daughter Card socket														
Bluetooth™	None														
Ethernet	Gigabit ethernet on systemboard / Broadcom® BCM5751M (MAC/PHY) / PCIe x1 / PXE														
Audio support	High Definition (HD) Audio / AD1981HD codec / stereo speakers, 1 watt / volume up, down, mute buttons / mono microphone / microphone input jack / headphone jack														
Security	Power-on password / hard disk password / supervisor password / security keyhole														
Security chip	<b>Trusted Platform Module</b> / Atmel chip / TCG 1.2-compliant														
Fingerprint reader	None														
Limited warranty <sup>12</sup>	3-year/1-yr battery - EasyServ™ <sup>19</sup> onsite pickup and delivery / service upgrades <sup>22</sup> avail														
512MB PC2-5300 DDR2 CL5 SODIMM	40Y7733	T60/R60 Series Li-Ion Battery 6-cell	40Y6799	Supports ThinkVantage® technologies  ThinkPad Roll Cage (one-piece magnesium frame) RoHS-compliant International Warranty Service <sup>17</sup> 24 hour x 7 day <sup>18</sup> toll-free warranty support during the warranty <sup>12</sup>  ThinkPlus™. <sup>22</sup> 2-year LOR 9x5 NBD 41C9175 ThinkPlus 3-year LOR 9x5 NBD 41C9176 ThinkPlus 4-year LOR 9x5 NBD 41C9177 ThinkPlus 5-year LOR 9x5 NBD 41C9179 ThinkPlus 4-year P&L P/U Depot 41C9178 ThinkPlus 5-year P&L P/U Depot 41C9180 Post-warranty annual maintenance agreements at <b>lenovo.com/thinkplus/warranty</b>											
1GB PC2-5300 DDR2 CL5 SODIMM	40Y7734	Z60m/T60/R60 Li-Ion Battery 9-cell	40Y6797												
2GB PC2-5300 DDR2 SODIMM	40Y7735	Advanced Ultrabay Battery 3-cell	40Y6789												
Serial Hard Drive Ultrabay Slim Adapter (flat)	40Y8725	ThinkPad External Battery Charger	40Y7625												
Combo II Ultrabay Slim Drive (flat bezel)	40Y8621	ThinkPad 90W AC Adapter	40Y7659												
ThinkPad DVD Ultrabay Slim Burner (flat)	41N5643	ThinkPad 90W AC/DC Combo Adapter	40Y7630												
80GB Disk 9.5mm SATA150 (5400 rpm)	41N5662	Lenovo M500 Projector	0037A05												
100GB Disk 9.5mm SATA150 (7200 rpm)	41N3013	Lenovo C500 Projector	0039A05												
USB Portable Diskette Drive	05K9276	ThinkPad Carrying Case - Organizer	73P3598												
USB 2.0 Lenovo Multimedia Headset	40Y8518	Premiere Leather Carrying Case	10K0209												
USB 2.0 Lenovo Webcam	40Y8519	ThinkPad Convertible Carrying Case	22P8860												
USB 2.0 Security Memory Key 4GB	41U5120	USB Fingerprint Reader	73P4774												
USB 2.0 Portable 120GB Hard Disk	41N8379	ThinkPad Adjustable Notebook Stand	40Y7676												
USB 2.0 Super Multi-Burner Drive	41N5565	ThinkPad Convertible Monitor Stand	40Y7620												
ExpressCard Gemplus Smart Card Reader	41N3043	Lenovo L192 Wide 19" Monitor (black)	6920AB1												
11a/b/g Wireless Mini PCI Express Adapter	40Y7026	ThinkVision® L171p 17" Monitor (black)	9417HC2												
ThinkPad Essential Port Replicator	250510W	ThinkVision L192p 19" Monitor (black)	9419HC2												
ThinkPad Advanced Mini Dock	250410U	ThinkVision L201p 20.1" Monitor (black)	9220HB1												
ThinkPad Advanced Dock	250310U	TrackPoint Cap Collection	73P2698												
Lenovo Laser Mouse (USB, PS/2)	41U3074	Other accessories at <b>lenovo.com/accessories</b>													

See footnotes for important warranty information  
US models announced May 16, 2006  
US models withdrawn effective September 2007

\* Powered by Intel Centrino® Duo processor technology



**Partial list of accessories supported on ThinkPad R60 originally announced on May 16, 2006**

**Memory**

512MB PC2-5300 DDR2 CL5 SODIMM	40Y7733	ann 01/05/06
1GB PC2-5300 DDR2 CL5 SODIMM	40Y7734	ann 01/05/06
2GB PC2-5300 DDR2 SODIMM	40Y7735	ann 11/28/06

**Ultrabay Slim 9.5mm** (best to use curved bezel options)

Serial Hard Drive Ultrabay Slim Adapter (flat) <sup>40</sup>	40Y8725	ann 09/20/05
<sup>40</sup> Supported, but not recommended because flat bezel.		
DVD-ROM Ultrabay Slim Drive (curved bezel)	73P3270	ann 10/07/03
Combo II Ultrabay Slim Drive (flat bezel)	40Y8621	ann 09/20/05
ThinkPad DVD Ultrabay Slim Burner (flat)	41N5643	ann 05/31/07

**Ultrabay Enhanced 12.7mm** (best to use curved bezel options)

DVD-ROM Ultrabay Enhanced Drive (curved)	39X2642	ann 03/14/06
CD-RW/DVD Combo Ultrabay Enhanced (cur)	73P3275	ann 10/07/03

**Storage and removable storage**

60GB Disk 9.5mm SATA150 (7200 rpm) <sup>41</sup>	41N3012	ann 01/05/06
80GB Disk 9.5mm SATA150 (5400 rpm) <sup>41</sup>	41N5662	ann 08/15/06
100GB Disk 9.5mm SATA150 (7200 rpm) <sup>41</sup>	41N3013	ann 01/05/06
120GB Disk 9.5mm SATA150 (5400 rpm) <sup>41</sup>	41N5691	ann 03/20/07
160GB Disk 9.5mm SATA150 (5400 rpm) <sup>41</sup>	41N5692	ann 03/20/07

<sup>41</sup> Can be used as the main HDD or with ThinkPad Serial ATA Hard Drive Ultrabay Slim Adapter 40Y8725 in the Ultrabay or in the ThinkPad Advanced Dock 250310U.

USB 2.0 Essential Memory Key 1GB	41U4940	ann 01/23/07
USB 2.0 Essential Memory Key 2GB	41U4944	ann 01/23/07
USB 2.0 Security Memory Key 1GB	41U5118	ann 07/17/07
USB 2.0 Security Memory Key 2GB	41U5119	ann 07/17/07
USB 2.0 Security Memory Key 4GB	41U5120	ann 07/17/07

USB Portable Diskette Drive	05K9276	ann 06/05/00
USB 2.0 CD-RW/DVD-ROM Combo II Drive	40Y8637	ann 01/05/06
USB 2.0 Portable 80GB Hard Disk	41N8378	ann 04/17/07
USB 2.0 Portable 120GB Hard Disk	41N8379	ann 04/17/07
USB 2.0 Super Multi-Burner Drive	41N5565	ann 01/23/07

**Wireless LAN (Mini PCI Express)**

11a/b/g Wireless Mini PCI Express Adpr <sup>42</sup>	40Y7026	ann 09/20/05
Intel PRO/Wireless 3945ABG Mini PCIe Ad <sup>42</sup>	41N3008	ann 01/05/06
<sup>42</sup> System must be wireless upgradable.		
Kensington WiFi Finder Plus	40Y7717	

**ThinkPad Expansion**

USB Serial Parallel Adapter	22P5298	ann 10/09/01
ThinkPad Adjustable Notebook Stand	40Y7676	ann 09/20/05
ThinkPad Essential Port Replicator	250510W	ann 09/20/05
ThinkPad Advanced Mini Dock	250410U	ann 09/20/05
ThinkPad Advanced Dock <sup>47</sup>	250310U	ann 09/20/05
<sup>47</sup> ThinkPad Advanced Dock supports dual-head graphics adapters:		
- ATI® X1300 256MB Dual Head/TV-out	41U5028	
- ATI Radeon™ X300 SE 128MB Dual Head	41U4813	

**External Keyboard**

TrackPoint Cap Collection	73P2698	ann 12/16/03
USB Numeric Keypad	33L3225	ann 05/01/00
Preferred Pro USB Keyboard	73P5220	ann 06/21/05
Enhanced Performance USB Keyboard	73P2620	ann 03/23/04
Enh Perf Wireless Keyboard and Mouse	73P4067	ann 12/07/04
USB Keyboard with UltraNav	31P8950	ann 01/28/03
USB Travel Keyboard with UltraNav	31P9490	ann 04/27/04
Preferred Pro USB Fingerprint Keyboard	73P4730	ann 02/22/05

**External Mouse**

USB Optical Wheel Mouse	06P4069	ann 05/21/03
Optical 3-Button ScrollPoint® Mouse	31P7405	ann 08/27/02
Optical 3-Button ScrollPoint Pro Mouse	31P8700	ann 10/01/02
Optical 3-Button Travel Wheel Mouse	31P7410	
Lenovo Laser Mouse (USB, PS/2)	41U3074	ann 01/23/07

**Batteries**

T60/R60 Series Li-Ion Battery 6-cell	40Y6799	ann 01/05/06
Z60m/T60/R60 Li-Ion Battery 9-cell	40Y6797	ann 09/20/05
ThinkPad Advanced Ultrabay Battery 3-cell <sup>43</sup>	40Y6789	ann 09/20/05
<sup>43</sup> Used in Ultrabay Enhanced bay.		
ThinkPad External Battery Charger <sup>44</sup>	40Y7625	ann 09/20/05
<sup>44</sup> Requires the ThinkPad 90W AC Adapter 40Y7659 (adapter provided with some systems).		
ThinkPad 65W AC Adapter <sup>45</sup>	40Y7696	
<sup>45</sup> Only compatible with the 945GM and GM965 chipset models.		
ThinkPad 90W AC Adapter	40Y7659	ann 09/20/05
ThinkPad 90W AC/DC Combo Adapter	40Y7630	ann 12/13/05
Belkin 1 Outlet Notebook Surge	31P7658	
Belkin Universal Notebook Travel Surge	22P7127	
Belkin 8-outlet 6-foot Surge Protector	31P7659	

**Data/Video Projectors**

Lenovo M500 Projector	0037A05	ann 02/28/06
Lenovo C500 Projector	0039A05	ann 07/11/06

**Carrying Cases**

Lenovo Carrying Case - Messenger Max	41U5253	ann 05/01/07
Lenovo Carry Case - Performance Backpack	41U5254	ann 05/01/07
ThinkPad Nylon Carrying Case	10K0207	
ThinkPad Carrying Case - Expander	73P3597	
ThinkPad Carrying Case - Backpack	73P3599	
ThinkPad Premiere Leather Carrying Case	10K0209	
ThinkPad Convertible Carrying Case	22P8860	

**Security**

Kensington® Cable Lock from Lenovo	73P2582	ann 12/29/03
USB Gemplus GemPC Smart Card Reader	41N3040	ann 02/21/06
PC Card Gemplus Smart Card Reader	41N3004	ann 12/13/05
ExpressCard Gemplus Smart Card Reader	41N3043	ann 06/27/06
USB Fingerprint Reader	41U3167	ann 10/24/06

**Monitors**

Lenovo E75 17" CRT Monitor (16.0" vis) blk	6307BTN	ann 01/16/07
Lenovo L151 15" Monitor (black)	9165AB6	ann 02/28/06
Lenovo L171 17" Monitor (black)	9227AC1	ann 11/07/06
Lenovo L191 19" Monitor (black)	6135AB1	ann 06/27/06
Lenovo L192 Wide 19" Monitor (black)	6920AB1	ann 09/19/06
Lenovo D221 Wide 22" Monitor (black)	6622HB1	ann 11/21/06
ThinkVision® L171p 17" Monitor (black)	9417HC2	ann 10/31/06
ThinkVision L192p 19" Monitor (black)	9419HC2	ann 10/31/06
ThinkVision L201p 20.1" Monitor (black)	9220HB1	ann 10/31/06

**Monitor Accessories<sup>46</sup>**

ThinkVision USB Soundbar	40Y7616	ann 08/23/05
Kensington Cable Lock from Lenovo	73P2582	ann 12/29/03
ThinkPad Convertible Monitor Stand	40Y7620	ann 01/05/06
Radial Arm	19K4464	ann 05/05/00
<sup>46</sup> Compatible on selected Lenovo and ThinkVision monitors.		

**Multimedia**

USB 2.0 Lenovo Multimedia Headset	40Y8518	ann 06/27/06
USB 2.0 Lenovo Webcam	40Y8519	ann 08/29/06

Other accessories at [lenovo.com/accessories](http://lenovo.com/accessories)

Need to buy accessories no longer marketed by Lenovo? See [www.itxchange.com/lenovo](http://www.itxchange.com/lenovo) for the Options Continuation Program.

# ThinkPad® R61e 15W 7650 (GMA) - 1-year (TopSeller) - withdrawn

Personal Systems Reference (PSREF)

Type-model	Processor	GHz	Memory	Wide-screen display	Graphics controller	Disk SATA GB <sup>8</sup> rpm	EIDE optical	Mini PCIe 802.11 wireless	Finger print reader	Bat-tery tooth cells	Preload	Workhorse (W) Global (G)	Avail date
7650-84U	Celeron 540	1.86	512MB	15.4" WXGA	GMA	80GB 5400	Combo	11b/g <sup>32</sup>	None	None	6 XP Pro	No	July 07
7650-82U	Celeron 540	1.86	512MB	15.4" WXGA	GMA	80GB 5400	Combo	11b/g	None	None	6 Business 32	No	July 07
7650-BPU	Celeron 540	1.86	1GB	15.4" WXGA	GMA	80GB 5400	Combo	11b/g	None	None	6 Business 32	No	Oct 07
7650-EEU	Celeron 550	2.00	1GB	15.4" WXGA	GMA	80GB 5400	Combo	Intel 11a/b/g <sup>32</sup>	None	None	6 Business 32	No	Apr 08
7650-03U	T5670	1.80	1GB	15.4" WXGA	GMA	80GB 5400	Combo	* Intel 4965AG <sup>32</sup>	None	None	6 XP Pro	No	July 08

**• These small and medium business (SMB) models are part of the US TopSeller™ Program**  
**• These models have a 1-year limited warranty<sup>12</sup>**

Positioning Processor	Everyday computing; two spindles Intel® Celeron® Processor 540 or 550 with single-core, Intel 64 Technology, Execute Disable Bit, 533MHz system bus, and 1MB L2 cache or Intel® Core™ 2 Duo processor T5670 with dual-core, 800MHz system bus, and 2MB L2 cache	Preloaded operating system <sup>20</sup> - Some: Microsoft® Windows® XP Professional with Vista® COA - Some: Microsoft Windows Vista Business Edition (32-bit) ◇ Vista models: Vista Basic logo
Memory	512MB or 1GB std / 4GB max <sup>31</sup> / PC2-5300 667MHz DDR2, non-parity, dual-channel capable, two 200-pin SO-DIMM sockets; Non-italics: standard memory in one socket; one socket available	Preloaded applications <sup>14</sup> (all OSes) • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • ThinkVantage System Update • System Migration Assistant • Norton Internet Security™ (90 days of virus definitions) • Diskeeper® Home • PC-Doctor™ (diagnostics) • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader • Windows Live™ Toolbar • Windows Live Search • Picasa from Google • Microsoft Office 2007 Trial (60-day) • Sonic RecordNow and Drive Letter Access (combo, DVD±RW) • Corel® WinDVD® (combo, DVD±RW) • Corel WinDVD Creator (XP Pro DVD±RW models)
Diskette drive	None (use optional USB-based diskette drive)	
EIDE Combo	DVD-ROM/CD-RW, 24X/24X/24X/8X <sup>21</sup> , fixed, not removable, 12.7mm high	
Ultrabay Enhanced	None (no support for removable Ultrabay™ options)	
Serial ATA disk	80GB <sup>8</sup> (5400 rpm) / SATA 1.5Gb/s, 9.5mm high, removable, upgradable, 9.5mm high bay, supports 2nd disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™	
Widescreen display	15.4" (391mm) WXGA (1280x800) color, anti-glare, 200 nits, 16:10 aspect ratio, 300:1 contrast ratio	
Camera	None	
Graphics	Intel Graphics Media Accelerator X3100 (GMA X3100), integrated in GM965, no DVI pass-through (no port replicator or docking station support)	
Keyboard	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys, Windows/Appl keys	
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar <sup>13</sup> (no touch pad)	
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions	
Dimensions <sup>3</sup>	6-cell 15.4W" (WxDxH): 14.1" x 10.2" x 1.39–1.52"; 358.5 x 260.0mm x 35.3–38.5mm	
Weight <sup>2</sup>	6-cell: starting at 6.4 lb (2.9kg); 9-cell: starting at 6.7 lb (3.1kg)	
Case material	Black color, Polycarbonate/Acrylonitrile-Butadiene-Styrene (PC/ABS) plastic	
Battery - type	Lithium Ion 6-cell	
Battery - life <sup>10</sup>	6-cell Celeron: up to 2.1 hr	
Chipset	Mobile Intel GM965 Express Chipset (Graphics Memory Controller Hub); ICH8M I/O Controller Hub (SATA 3.0Gb/s, ATA-100 EIDE, PCI Express® x1, PCI bus, USB, LPC bus, [Bluetooth], / PCI bus (Ricoh® R5C804 Cardbus)	
PC Card Std slot	One Type I or Type II slot, CardBus 32-bit	
ExpressCard slot	None	
Smart Card Read	None	
Multicard Reader	None	
Ports	Three USB 2.0, DB-15 (external VGA monitor), RJ-11 (modem), RJ-45 (ethernet)	
Wireless antenna	UltraConnect™ II antenna / on-off switch for all wireless radios	Supports ThinkVantage® technologies
Mini PCI Express	One Mini PCI Express slot / not customer upgradable Some: 11b/g wireless <sup>4</sup> , ThinkPad 11b/g Mini PCIe Adapter II, Atheros AR5007EG Some: 11a/b/g wireless <sup>4</sup> , Mini PCIe adapter, Intel PRO/Wireless 3945ABG Some: 11a/b/g wireless <sup>4</sup> , Mini PCIe adapter, Intel Wireless WiFi Link 4965AG	65-watt (GMA graphics) ThinkPad Roll Cage (one-piece magnesium frame) RoHS-compliant International Warranty Service <sup>17</sup> 24 hour x 7 day <sup>18</sup> toll-free support during the warranty period <sup>12</sup> via 800-426-7378
11b/g <sup>32</sup>		
Intel 11a/b/g <sup>32</sup>		
Intel 4965AG <sup>32</sup>		
WWAN	None	
Modem	56K <sup>6</sup> V.92 <sup>29</sup> modem, on systemboard, Conexant® CX20548	
Bluetooth™	None	
Ethernet	Gigabit ethernet on systemboard, Broadcom® BCM5787M (MAC/PHY), PCIe x1, PXE	
Intel AMT	None	
Audio support	High Definition (HD) Audio, CX20549 codec / stereo speakers, 1 watt / volume up, down, mute buttons / microphone input jack, headphone jack	
Security	Power-on password, hard disk password, supervisor password, security keyhole	ThinkPlus™ 2-year LOR <sup>24</sup> 9x5 NBD 41C9167
Security chip	None	ThinkPlus 3-year LOR 9x5 NBD 41C9168
Fingerprint reader	None	ThinkPlus 4-year LOR 9x5 NBD 41C9171
Limited warranty <sup>12</sup>	1-year - EasyServ™ <sup>19</sup> depot repair service / service upgrades <sup>22</sup> available	ThinkPlus 5-year LOR 9x5 NBD 41C9173
1GB PC2-5300 DDR2 SODIMM (TopSeller)	43R1999	T/R/W/SL Series Li-Ion Battery 6-cell 40Y6799
2GB PC2-5300 DDR2 SODIMM (TopSeller)	43R2000	T/R/W/SL Series Li-Ion Battery 9-cell 40Y6797
160GB Disk 9.5mm SATA 1.5Gb/s (7200)	41N5737	ThinkPad 90W AC Adapter 40Y7659
200GB Disk FDE SATA 1.5Gb/s (7200 rpm)	41N5738	90W Slim AC/DC Combo Adapter 41N8460
320GB Disk SATA 1.5Gb/s (5400 rpm)	43N3403	ThinkPad Business Topload Case 43R2476
USB 2.0 Lenovo Multimedia Headset	40Y8518	ThinkPad Business Backpack 43R2482
USB 2.0 Ultra Secure Memory Key 8GB	45J5918	ThinkPad Deluxe Expander Case 43R2478
USB 2.0 Super Multi-Burner Drive	41N5565	ThinkVision® L1940p Wide 19" Monitor 4424HB6
USB 2.0 Lenovo Enhanced Port Replicator	43R8770	ThinkVision L2240p Wide 22" Monitor 4422HB6
ThinkPad Convertible Monitor Stand	40Y7620	ThinkVision L2440x Wide 24" Monitor 4421HB2
Other accessories on O-R61E sheet		Other accessories at <a href="http://lenovo.com/accessories">lenovo.com/accessories</a>

See footnotes for important warranty information

\* Intel Centrino® processor technology

US models announced July 10 or October 30, 2007; or April 8 or July 9, 2008

US models withdrawn effective December 2007 or November 2008

© Lenovo (KON11-1) November 2008

# ThinkPad® R61 14W 7732 (GMA) - TopSeller - withdrawn

Personal Systems Reference (PSREF)

Proc- Type-model	essor GHz	Memory	Wide- screen display	Graphics controller	Disk SATA GB <sup>2</sup>	EIDE rpm	EIDE optical	Mini PCIe 802.11 wireless	Mini PCIe Intel Turbo	Card slot	Cam- era	Bat- tery port cells	Workhorse (W) Vista Global (G) preload Entry (E)	Avail date
7732-19U T7100	1.80	1GB	14.1" WXGA	GMA	80G	5400	Combo	*Intel 11a/b/g <sup>32</sup>	None	Smart	No	No	4 Business64 W	May 07
<ul style="list-style-type: none"> <li>• <b>This small and medium business (SMB) model is part of the US TopSeller™ Program</b></li> <li>• <b>This model has a 1-year limited warranty<sup>12</sup></b></li> </ul>														
Positioning Processor	<i>Everyday computing; two spindles</i> <b>Intel® Core™ 2 Duo processor T7100 with dual-core,</b> Intel 64 Technology, Enhanced Intel SpeedStep® technology <sup>1</sup> , Intel Dynamic Acceleration, Execute Disable Bit, Virtualization Technology, 800MHz system bus, and 2MB shared L2 cache											<b>Preloaded operating system<sup>20</sup></b> - Microsoft® Windows® Vista™ Business Edition (64-bit) ◇ Vista Basic logo		
Memory	<b>1GB</b> std / 4GB max <sup>31</sup> / PC2-5300 667MHz DDR2, non-parity, dual-channel capable, two 200-pin SO-DIMM sockets; <i>Non-italics:</i> standard memory in 1 socket; 1 socket available											<b>Preloaded applications<sup>14</sup></b> • Microsoft Office OneNote® 2007 (and CD) • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • ThinkVantage System Update • System Migration Assistant • Norton Internet Security™ (90 days of virus definitions) • Diskeeper® Home • PC-Doctor™ (diagnostics) • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader • Windows Live™ Toolbar • Windows Live Search • Picasa from Google • Fingerprint Software (fingerprint models)		
Diskette drive	None (use optional USB-based diskette drive)													
EIDE Combo	DVD-ROM/CD-RW (73P3288), 24X/24X/24X/8X <sup>21</sup> , removable Ultrabay™ Enhanced													
Ultrabay Enhanced	One bay for removable devices, Ultrabay Slim-compatible, 12.7mm high, flat or curved													
Serial ATA disk	<b>80GB<sup>9</sup></b> (5400 rpm) / SATA 1.5Gb/s, 9.5mm high, removable, upgradable, 9.5mm high bay, supports 2nd disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™													
Widescreen display	<b>14.1"</b> (358.1mm) <b>WXGA (1280x800) color</b> , anti-glare, 185 nits, 16:10 aspect ratio, 300:1 contrast ratio													
Camera	None													
Graphics	<b>Intel Graphics Media Accelerator X3100 (GMA X3100)</b> , integrated in GM965, DVI pass-through support to optional Advanced Mini Dock or Advanced Dock													
Keyboard	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys, Windows/Appl keys													
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar <sup>13</sup> , magnifying glass													
Touch pad	UltraNav™ multi-pointing system, touch pad below keyboard, Tap Zones													
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions													
Dimensions <sup>3</sup>	<i>4-cell 14.1W"</i> (WxDxH): 13.2" x 9.3" x 1.2–1.37"; 335mm x 237mm x 30.6–34.9mm													
Weight <sup>2</sup>	<i>4-cell:</i> starting at 5.2 lb (2.4kg)													
Case material	<i>Top:</i> Super-Elastic PolyCarbonate (SEPC); <i>Bottom:</i> Carbon-Fiber Reinforced Plastic													
Battery - type	Lithium Ion <b>4-cell</b> , supports unique 2nd battery in Ultrabay Slim													
Battery - life <sup>10</sup>	<i>4-cell:</i> up to 3.6 hr; <i>optional 6-cell:</i> up to 5.7 hr; <i>6-cell plus Ultrabay battery:</i> up to 7.2 hr													
Chipset	<b>Mobile Intel GM965 Express Chipset</b> (Graphics Memory Controller Hub); <b>ICH8M-Enhanced</b> I/O Controller Hub (SATA 3.0Gb/s, ATA-100 EIDE, PCI Express x1, PCI bus, USB, LPC bus, [Bluetooth], [fingerprint]) / PCI bus (Ricoh® R5C847 Cardbus/1394/Multicard) / LPC bus (WPCN385 Super I/O, Atmel® 97SC3203 TPM)													
PC Card Std slot	One Type I or Type II slot, CardBus 32-bit													
ExpressCard slot	None													
Smart Card Read	Smart Card Reader													
Multicard Reader	None													
Ports	Three USB 2.0, DB-15 (external VGA monitor), RJ-11 (modem), RJ-45 (ethernet)											Supports ThinkVantage® technologies		
Wireless antenna	UltraConnect™ II antenna / on-off switch for all wireless radios													
Mini PCI Express	Two Mini PCI Express slots / only 802.11 wireless is customer upgradable													
Intel 11a/b/g <sup>32</sup>	11a/b/g wireless <sup>4</sup> , Mini PCIe adapter, Intel PRO/Wireless 3945ABG													
WWAN	None													
Turbo Memory	None													
Modem	56K <sup>6</sup> V.90 (V.92-designed <sup>29</sup> ) modem in Communications Daughter Card socket													
Bluetooth™	Bluetooth 2.0 wireless, USB 2.0 interface via ICH8M, LED indicator													
Ethernet	Gigabit ethernet on systemboard, Intel 82566MM Nineveh (PHY), PCIe x1 (GLCI), PXE													
Intel AMT	None													
Audio support	High Definition (HD) Audio, AD1984HD codec / stereo speakers, 1 watt / volume up, down, mute buttons / internal microphone, microphone input jack, headphone jack													
Security	Power-on password, hard disk password, supervisor password, security keyhole													
Security chip	<b>Trusted Platform Module</b> , Atmel chip, TCG 1.2-compliant													
Fingerprint reader	<b>Fingerprint reader on palm rest</b> , swipe sensor, supports the security chip													
Limited warranty <sup>12</sup>	<b>1-year</b> - EasyServ™ <sup>19</sup> depot repair service / service upgrades <sup>22</sup> available													
1GB PC2-5300 DDR2 SODIMM (TopSeller)	43R1999	T61/R61 14W Standard Battery 4-cell	41U3196	ThinkPlus™.22 1-year LOR 9x5 NBD	41C9166									
2GB PC2-5300 DDR2 SODIMM (TopSeller)	43R2000	T61/R61 14W Enhanced Battery 6-cell	41U3198	ThinkPlus 2-year LOR 9x5 NBD	41C9167									
ThinkPad DVD Ultrabay Slim Burner (flat)	41N5643	T61/R61 14W High Capacity Batt 7-cell	41U3197	ThinkPlus 3-year LOR 9x5 NBD	41C9168									
Serial Hard Drive Ultrabay Slim Adapter (flat)	40Y8725	Advanced Ultrabay Battery II 3-cell	43R9250	ThinkPlus 4-year LOR 9x5 NBD	41C9171									
200GB Disk FDE SATA 1.5Gb/s (7200 rpm)	41N5738	ThinkPad External Battery Charger	40Y7625	ThinkPlus 5-year LOR 9x5 NBD	41C9173									
USB 2.0 Security Memory Key 4GB	41U5120	ThinkPad 90W AC Adapter	40Y7659	ThinkPlus 2-year P&L P/U Depot	41C9169									
USB 2.0 Portable 120GB Hard Disk	41N8379	90W Slim AC/DC Combo Adapter	41N8460	ThinkPlus 3-year P&L P/U Depot	41C9170									
USB 2.0 Super Multi-Burner Drive	41N5565	ThinkPad Basic Case	43R9113	ThinkPlus 4-year P&L P/U Depot	41C9172									
USB 2.0 Lenovo Enhanced Port Replicator	43R8770	ThinkPad Business Topload Case	43R2476	ThinkPlus 5-year P&L P/U Depot	41C9174									
11a/b/g Wireless Mini PCI Express Adpr	40Y7026	ThinkPad Business Backpack	43R2482	Post-warranty annual maintenance agreements at										
ThinkPad Convertible Monitor Stand	40Y7620	ThinkVision® L190x 19" LCD Monitor	4439HB2											
ThinkPad Essential Port Replicator	250510W	ThinkVision L193p 19" LCD Monitor	4431HB2											
ThinkPad Advanced Mini Dock	250410U	ThinkVision L197 Wide 19" LCD	4434HE1											
ThinkPad Advanced Dock	250310U	ThinkVision L220x Wide 22" LCD	4433HB2											
Other accessories on O-R61-14W sheet		Other accessories at <a href="http://lenovo.com/accessories">lenovo.com/accessories</a>												

See footnotes for important warranty information  
 US model announced May 9, 2007  
 US model withdrawn effective June 2008

\* Intel Centrino® processor technology

# ThinkPad® R61 14W 7734 (GMA) - 3-year (TopSeller) - withdrawn

Personal Systems Reference (PSREF)

Type-model	Processor	GHz	Memory	Wide-screen display	Cam-era	Graphics controller	Disk SATA GB <sup>2</sup> rpm	EIDE optical	Mini PCIe 802.11 wireless	Mini PCIe Intel Turbo	Card slot	Bat-tery 1394 port	Workhorse (W) Global (G) Avail date
7734-11U	T7100	1.80	1GB	14.1" WXGA		GMA	120G 5400	DVD±RW	* Intel 11a/b/g <sup>32</sup>	None	/54	1394 4	Bus 32 Aug 07
7734-12U	T7100	1.80	1GB	14.1" WXGA		GMA	120G 5400	DVD±RW	* Intel 11a/b/g	None	/54	1394 4	XP Pro Aug 07
7734-14U	T7250	2.00	1GB	14.1" WXGA		GMA	160G 5400	DVD±RW	* Intel 11a/b/g	None	/54	1394 4	Bus 32 Sep 07
7734-N3U	T8100	2.10	1GB	14.1" WXGA		GMA	160G 5400	DVD±RW	* Intel 11a/b/g	None	/54	1394 4	XP Pro Jan 08
7734-01U	T5670	1.80	2GB	14.1" WXGA	Cam	GMA	160G 5400	DVD±RW	* Intel 4965AG <sup>32</sup>	None	4-in-1	1394 6	Bus 32 Educ Aug 08
<ul style="list-style-type: none"> <li>• <b>These small and medium business (SMB) models are part of the US TopSeller™ Program</b></li> <li>• <b>These models have a 3-year limited warranty<sup>12</sup></b></li> </ul>													
Positioning Processor	<b>Everyday computing; two spindles</b> <b>Intel® Core™ 2 Duo processor T5670, T7100, T7250, or T8100 with dual-core,</b> 800MHz system bus; T5670/T7100/T7250: 2MB shared L2 cache; T8100: 3MB L2											<b>Preloaded operating system<sup>20</sup></b> - Some: Microsoft® Windows® XP Professional - Some: Microsoft Windows Vista® Business Edition (32-bit) ♦ Vista models: Vista Basic logo	
Memory	<b>1GB or 2GB</b> std / 4GB max <sup>31</sup> / PC2-5300 667MHz DDR2, non-parity, dual-channel capable, two 200-pin SO-DIMM sockets; <i>Non-italics:</i> standard memory in 1 socket; 1 socket available											<b>Preloaded applications<sup>14</sup> (all OSes)</b> • Some: Education software - Microsoft Office OneNote™ 2007 (and CD) - VitalSource Library College Edition - Adobe® Instructor Resource Cntr - Adobe Digital School Collection - Photoshop Elements (and CD) - Premier Elements (and DVD) - Acrobat 8 Professional (and CD) - Contribute 4 (and CD)	
Diskette drive	None (use optional USB-based diskette drive)											<ul style="list-style-type: none"> <li>• <b>Rescue and Recovery™</b></li> <li>• <b>Access Connections™</b></li> <li>• <b>Client Security Solution™</b></li> <li>• <b>ThinkVantage Productivity Center</b></li> <li>• <b>ThinkVantage System Update</b></li> <li>• <b>System Migration Assistant</b></li> <li>• <b>Norton Internet Security™</b> (90 days of virus definitions)</li> <li>• <b>Diskeeper® Home</b></li> <li>• <b>PC-Doctor™</b> (diagnostics)</li> <li>• <b>ThinkPad Utilities (Power Manager and Presentation Director)</b></li> <li>• <b>Adobe® Reader</b></li> <li>• <b>Windows Live™ Toolbar</b></li> <li>• <b>Windows Live Search</b></li> <li>• <b>Picasa from Google</b></li> <li>• <b>Fingerprint Software (fingerprint models)</b></li> <li>• <b>Microsoft Office 2007 Trial (60-day)</b></li> <li>• <b>Sonic RecordNow and Drive Letter Access (DVD±RW)</b></li> <li>• <b>Corel® WinDVD® (DVD±RW)</b></li> <li>• <b>Corel WinDVD Creator (XP Pro DVD±RW models)</b></li> </ul>	
EIDE DVD±RW	DVD burner, Super Multi-Burner (40Y8624) dual-layer, removable Ultrabay™ Enhanced												
Ultrabay Enhanced	One bay for removable devices, Ultrabay Slim-compatible, 12.7mm high, flat or curved												
Serial ATA disk	<b>120GB<sup>8</sup></b> (5400 rpm) or <b>160GB</b> (5400 rpm) / SATA 1.5Gb/s, 9.5mm high, removable, upgradable, 9.5mm high bay, supports 2nd disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™												
Widescreen display	<b>14.1"</b> (358.1mm) <b>WXGA (1280x800) color</b> , anti-glare, 185 nits, 16:10 aspect ratio, 300:1 contrast ratio												
Camera	Some: integrated camera on top of screen, 1.3-megapixel, fixed focus, USB 2.0												
Graphics	<b>Intel Graphics Media Accelerator X3100 (GMA X3100)</b> , integrated in GM965, DVI pass-through support to optional Advanced Mini Dock or Advanced Dock												
Keyboard	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys, Windows/Appl keys												
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar <sup>13</sup> , magnifying glass												
Touch pad	UltraNav™ multi-pointing system, touch pad below keyboard, Tap Zones												
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions												
Dimensions <sup>3</sup>	4-cell 14.1W" (WxDxH): 13.2" x 9.3" x 1.2–1.37"; 335mm x 237mm x 30.6–34.9mm												
Weight <sup>2</sup>	4-cell: starting at 5.2 lb (2.4kg)												
Case material	Top: Super-Elastic PolyCarbonate (SEPC); Bottom: Carbon-Fiber Reinforced Plastic												
Battery - type	Lithium Ion 4-cell or 6-cell, supports unique 2nd battery in Ultrabay Slim												
Battery - life <sup>10</sup>	4-cell: up to 3.6 hr; optional 6-cell: up to 5.7 hr; 6-cell plus Ultrabay battery: up to 7.2 hr												
Chipset	<b>Mobile Intel GM965 Express Chipset</b> (Graphics Memory Controller Hub); <b>ICH8M-Enhanced I/O Controller Hub</b> (SATA 3.0Gb/s, ATA-100 EIDE, PCI Express® x1, PCI bus, USB, LPC bus, [Bluetooth], [fingerprint]) / PCI bus (Ricoch® R5C847 Cardbus/1394/Multicard) / LPC bus (WPCN385 Super I/O, Atmel® 97SC3203 TPM)												
PC Card Std slot	One Type I or Type II slot, CardBus 32-bit												
ExpressCard slot	Some: [/54] One ExpressCard/34 or ExpressCard/54												
Smart Card Read	None												
Multicard Reader	Some: 4-in-1 reader (MultiMediaCard, Mem Stick® PRO, Sec Digital, xD-Picture Card™)												
Ports	Three USB 2.0, DB-15 (external VGA monitor), RJ-11 (modem), RJ-45 (ethernet), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)												
Wireless antenna	UltraConnect™ II antenna / on-off switch for all wireless radios												
Mini PCI Express	Two Mini PCI Express slots / only 802.11 wireless is customer upgradable												
Intel 11a/b/g <sup>32</sup>	Some: 11a/b/g wireless <sup>4</sup> , Mini PCIe adapter, Intel PRO/Wireless 3945ABG												
Intel 4965AG <sup>32</sup>	Some: 11a/b/g wireless <sup>4</sup> , Mini PCIe adapter, Intel Wireless WiFi Link 4965AG												
WWAN	None												
Turbo Memory	None												
Modem	56K <sup>6</sup> V.92 <sup>29</sup> modem in Communications Daughter Card socket												
Bluetooth™	Bluetooth 2.0 wireless, USB 2.0 interface via ICH8M, LED indicator												
Ethernet	Gigabit ethernet on systemboard, Intel 82566MM Nineveh (PHY), PCIe x1 (GLCI), PXE												
Intel AMT	None												
Audio support	High Definition (HD) Audio, AD1984HD codec / stereo speakers, 1 watt / volume up, down, mute buttons / internal microphone, microphone input jack, headphone jack												
Security	Power-on password, hard disk password, supervisor password, security keyhole												
Security chip	<b>Trusted Platform Module</b> , Atmel chip, TCG 1.2-compliant												
Fingerprint reader	<b>Fingerprint reader on palm rest</b> , swipe sensor, supports the security chip												
Limited warranty <sup>12</sup>	3-years/1-yr battery - EasyServ™ <sup>19</sup> depot repair service / service upgrades <sup>22</sup> available												
1GB PC2-5300 DDR2 SODIMM (TopSeller)	43R1999	T/R 14W Standard Battery 4-cell	41U3196										
2GB PC2-5300 DDR2 SODIMM (TopSeller)	43R2000	T/R 14W Enhanced Battery 6-cell	41U3198										
ThinkPad DVD Ultrabay Slim Burner (flat)	41N5643	T/R 14W High Capacity Batt 9-cell	43R2499										
Serial Hard Drive Ultrabay Slim Adapter (flat)	40Y8725	Advanced Ultrabay Battery II 3-cell	43R9250										
200GB Disk FDE SATA 1.5Gb/s (7200 rpm)	41N5738	ThinkPad External Battery Charger	40Y7625										
USB 2.0 Security Memory Key 4GB	41U5120	ThinkPad 90W AC Adapter	40Y7659										
USB 2.0 Ultra Secure Memory Key 8GB	45J5918	90W Slim AC/DC Combo Adapter	41N8460										
USB 2.0 Portable 160GB Hard Disk	43R1784	ThinkPad Business Topload Case	43R2476										
USB 2.0 Super Multi-Burner Drive	41N5565	ThinkPad Business Backpack	43R2482										
USB 2.0 Lenovo Enhanced Port Replicator	43R8770	ThinkVision® L1700p 17" Monitor	9417HE2										
ThinkPad Convertible Monitor Stand	40Y7620	ThinkVision L1940p Wide 19" Monitor	4424HB6										
ThinkPad Advanced Mini Dock	250410U	ThinkVision L2240p Wide 22" Monitor	4422HB6										
ThinkPad Advanced Dock	250310U	ThinkVision L2440p Wide 24" Monitor	4420HB2										
Other accessories on O-R61-14W sheet		Other accessories at <a href="http://lenovo.com/accessories">lenovo.com/accessories</a>											
													ThinkPlus™.22 2-year LOR <sup>24</sup> 9x5 NBD 41C9175 ThinkPlus 3-year LOR 9x5 NBD 41C9176 ThinkPlus 4-year LOR 9x5 NBD 41C9177 ThinkPlus 5-year LOR 9x5 NBD 41C9179 ThinkPlus 4-year P&L P/U Depot 41C9178 ThinkPlus 5-year P&L P/U Depot 41C9180 Post-warranty annual maintenance agreements at <a href="http://lenovo.com/thinkplus/warranty">lenovo.com/thinkplus/warranty</a>

See footnotes for important warranty information \* Intel Centrino® processor technology  
 US models announced Aug 7 or Sep 18, 2007; or Jan 8 or Aug 1, 2008  
 US models withdrawn effective Dec 2007, June 2008, or Nov 2008

# ThinkPad® R61 14W 7734 (GMA) - 3-year (Linux) - TopSeller - withdrawn

Personal Systems Reference (PSREF)

Type-model	Proc- essor	GHz	Memory	Wide- screen display	Graphics controller	Disk SATA GB <sup>3</sup> rpm	EIDE optical	Mini PCIe 802.11 wireless	Mini PCIe Intel Turbo	Card slot	Cam- era	1394 port	Bat- tery cells	Linux Preload	Workhorse (W) Global (G) Entry (E)	Avail date
7734-15U	T7250	2.00	1GB	14.1" WXGA	GMA	120G 5400	DVD±RW	*Intel 11a/b/g	None	/54	No	1394	4	SLED10	No	Jan 08
Positioning Processor	<i>Everyday computing; two spindles</i> <b>Intel® Core™ 2 Duo processor T7250 with dual-core,</b> Intel 64 Technology, Enhanced Intel SpeedStep technology <sup>1</sup> , Intel Dynamic Acceleration, Execute Disable Bit, Virtualization Technology, 800MHz system bus, and 2MB shared L2 cache											<b>Preloaded operating system<sup>20</sup></b> - SUSE® Linux™ Enterprise Desktop10 Service Pack 1  <b>Preloaded applications<sup>14</sup></b> • None				
Memory	<b>1GB</b> std / 4GB max <sup>31</sup> / PC2-5300 667MHz DDR2, non-parity, dual-channel capable, two 200-pin SO-DIMM sockets; <i>Non-italics:</i> standard memory in 1 socket; 1 socket available											<b>Supported devices</b> (only some listed) • HD Audio • Intel 3945ABG wireless • Intel Graphics Media Accelerator X3100 (GMA X3100) • NVIDIA Quadro NVS 140M • Fingerprint reader • Bluetooth • Function keys • ThinkPad Advanced Dock				
Diskette drive EIDE DVD±RW Ultrabay Enhanced Serial ATA disk	None (use optional USB-based diskette drive) DVD burner, Super Multi-Burner (40Y8624) dual-layer, removable Ultrabay™ Enhanced One bay for removable devices, Ultrabay Slim-compatible, 12.7mm high, flat or curved <b>120GB<sup>8</sup></b> (5400 rpm) / SATA 1.5Gb/s, 9.5mm high, removable, upgradable, 9.5mm high bay, supports 2nd disk, ThinkPad Shock Mounted Hard Drive											<b>Non-supported devices</b> (only some listed) • Intel 4965AG, Intel 4965AGN, ThinkPad 11a/b/g, ThinkPad 11n wireless • WWAN • Active Protection System™ • ThinkVantage® button • Security chip • Intel Turbo Memory • Intel AMT technology • Integrated camera				
Widescreen display Camera	<b>14.1"</b> (358.1mm) <b>WXGA (1280x800) color</b> , anti-glare, 185 nits, 16:10 aspect ratio, 300:1 contrast ratio None											<b>Non-supported applications</b> (only some listed) • ThinkPad Utilities • ThinkVantage technologies • Presentation Director • Encrypted DVD playback • Keyboard Customizer				
Graphics	<b>Intel Graphics Media Accelerator X3100 (GMA X3100)</b> , integrated in GM965															
Keyboard TrackPoint® Touch pad ThinkLight™	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys, Windows/Appl keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar <sup>13</sup> , magnifying glass UltraNav™ multi-pointing system, touch pad below keyboard, Tap Zones Illuminates the keyboard to improve visibility in low-light conditions															
Dimensions <sup>3</sup> Weight <sup>2</sup>	<i>4-cell 14.1W" (WxDxH):</i> 13.2" x 9.3" x 1.2–1.37"; 335mm x 237mm x 30.6–34.9mm <i>4-cell:</i> starting at 5.2 lb (2.4kg)															
Case material Battery - type Battery - life <sup>10</sup>	Top: Super-Elastic PolyCarbonate (SEPC); Bottom: Carbon-Fiber Reinforced Plastic Lithium Ion <b>4-cell</b> , supports unique 2nd battery in Ultrabay Slim Not published															
Chipset	<b>Mobile Intel GM965 Express Chipset</b> (Graphics Memory Controller Hub); <b>ICH8M-Enhanced</b> I/O Controller Hub (SATA 3.0Gb/s, ATA-100 EIDE, PCI Express® x1, PCI bus, USB, LPC bus, [Bluetooth], [fingerprint]) / PCI bus (Ricoch® R5C847 Cardbus/1394/Multicard) / LPC bus (WPCN385 Super I/O, Atmel® 97SC3203 TPM)											<b>Non-supported applications</b> (only some listed) • ThinkPad Utilities • ThinkVantage technologies • Presentation Director • Encrypted DVD playback • Keyboard Customizer				
PC Card Std slot ExpressCard slot Smart Card Read Multicard Reader Ports	One Type I or Type II slot, CardBus 32-bit [54] One ExpressCard/34 or ExpressCard/54 None None Three USB 2.0, DB-15 (external VGA monitor), RJ-11 (modem), RJ-45 (ethernet), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)															
Wireless antenna Mini PCI Express Intel 11a/b/g <sup>32</sup> WWAN Turbo Memory Modem Bluetooth™ Ethernet Intel AMT Audio support	UltraConnect™ II antenna / on-off switch for all wireless radios Two Mini PCI Express slots / only 802.11 wireless is customer upgradable 11a/b/g wireless <sup>4</sup> , Mini PCIe adapter, Intel PRO/Wireless 3945ABG None None 56K <sup>6</sup> V.92 <sup>29</sup> modem in Communications Daughter Card socket None Gigabit ethernet on systemboard, Intel 82566MM Nineveh (PHY), PCIe x1 (GLCI), PXE None High Definition (HD) Audio, AD1984HD codec / stereo speakers, 1 watt / volume up, down, mute buttons / internal microphone, microphone input jack, headphone jack Power-on password, hard disk password, supervisor password, security keyhole											65-watt (GMA graphics) AC adapter ThinkPad Roll Cage and Top Cover Roll Cage (one-piece magnesium) RoHS-compliant International Warranty Service <sup>17</sup> 24 hour x 7 day <sup>18</sup> toll-free support during the warranty period <sup>12</sup> via 800-426-7378				
Security Security chip Fingerprint reader	None <b>Trusted Platform Module</b> , Atmel chip, TCG 1.2-compliant <b>Fingerprint reader on palm rest</b> , swipe sensor, supports the security chip											ThinkPlus™.22 2-year LOR <sup>24</sup> 9x5 NBD 41C9175 ThinkPlus 3-year LOR 9x5 NBD 41C9176 ThinkPlus 4-year LOR 9x5 NBD 41C9177 ThinkPlus 5-year LOR 9x5 NBD 41C9179 ThinkPlus 4-year P&L P/U Depot 41C9178 ThinkPlus 5-year P&L P/U Depot 41C9180				
Limited warranty <sup>12</sup>	<b>3-years/1-yr battery - EasyServ™.19</b> depot repair service / service upgrades <sup>22</sup> available											Post-warranty annual maintenance agreements at <b>lenovo.com/thinkplus/warranty</b>				
1GB PC2-5300 DDR2 SODIMM (TopSeller)	43R1999	T/R 14W Standard Battery 4-cell	41U3196													
2GB PC2-5300 DDR2 SODIMM (TopSeller)	43R2000	T/R 14W Enhanced Battery 6-cell	41U3198													
ThinkPad DVD Ultrabay Slim Burner (flat)	41N5643	T/R 14W High Capacity Batt 9-cell	43R2499													
Serial Hard Drive Ultrabay Slim Adapter (flat)	40Y8725	Advanced Ultrabay Battery II 3-cell	43R9250													
320GB Disk SATA 1.5Gb/s (5400 rpm)	43N3403	ThinkPad External Battery Charger	40Y7625													
USB 2.0 Security Memory Key 4GB	41U5120	90W Slim AC/DC Combo Adapter	41N8460													
USB 2.0 Lenovo Enhanced Port Replicator	43R8770	ThinkPad Business Topload Case	43R2476													
ThinkPad Essential Port Replicator	250510W	ThinkPad Business Backpack	43R2482													
ThinkPad Advanced Mini Dock	250410U	ThinkVision® L2240p Wide 22" Monitor	4422HB6													
ThinkPad Advanced Dock	250310U	ThinkVision L2440p Wide 24" Monitor	4420HB2													
Check Linux compatibility for other accessories		Other accessories at <b>lenovo.com/accessories</b>														

See footnotes for important warranty information  
 US model announced January 8, 2008  
 US model withdrawn effective November 2008

\* Intel Centrino® processor technology

© Lenovo  
 (LAG1-8) November 2008

# ThinkPad® R61 14W 7744 (NVIDIA® Graphics) - TopSeller - withdrawn

Personal Systems Reference (PSREF)

Type-model	Proc- essor	GHz	Memory	Wide- screen display	Graphics controller memory	Disk SATA GB <sup>3</sup>	EIDE rpm	EIDE optical	Mini PCIe 802.11 wireless	Mini PCIe Intel Turbo	Card slot	Cam- era	Bat- tery cells	Workhorse (W) Vista Global (G) Avail Entry (E) date
7744-1AU	T7500	2.20	1GB	14.1" WXGA+	128MB	160GB	5400	DVD±RW	*Intel 11a/b/g <sup>32</sup>	None	/54	Cam	1394	6 Business32 No Sep 07

- These small and medium business (SMB) models are part of the US TopSeller™ Program
- These models have a 3-year limited warranty<sup>12</sup>

Positioning Processor	<i>Everyday computing; two spindles</i> <b>Intel® Core™ 2 Duo processor T7500 with dual-core.</b> Intel 64 Technology, Enhanced Intel SpeedStep® technology <sup>1</sup> , Intel Dynamic Acceleration, Execute Disable Bit, Virtualization Technology, 800MHz system bus, and 4MB shared L2 cache											Preloaded operating system <sup>20</sup> - Microsoft® Windows® Vista™ Business Edition (32-bit) ◇ Vista Premium logo
Memory	<b>1GB</b> std / 4GB max <sup>31</sup> / PC2-5300 667MHz DDR2, non-parity, dual-channel capable, two 200-pin SO-DIMM sockets; <i>Non-italics:</i> standard memory in 1 socket; 1 socket available											Preloaded applications <sup>14</sup> • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • ThinkVantage System Update • System Migration Assistant • Norton Internet Security™ (90 days of virus definitions) • Diskeeper® Home • PC-Doctor™ (diagnostics) • ThinkPad Utilities (Power Manager and Presentation Director) • Windows Live™ Toolbar • Windows Live Search • Picasa from Google • Fingerprint Software • Microsoft Office 2007 Trial (60-day) • Sonic RecordNow and Drive Letter Access (DVD±RW) • InterVideo WinDVD (DVD±RW)
Diskette drive	None (use optional USB-based diskette drive)											Supports ThinkVantage® technologies  90-watt (NVIDIA graphics) AC adapter ThinkPad Roll Cage and Top Cover Roll Cage (one-piece magnesium) ENERGY STAR® 4.0-compliant RoHS-compliant International Warranty Service <sup>17</sup> 24 hour x 7 day <sup>18</sup> toll-free support during the warranty period <sup>12</sup> via 800-426-7378  ThinkPlus™.22 2-year LOR 9x5 NBD 41C9175 ThinkPlus 3-year LOR 9x5 NBD 41C9176 ThinkPlus 4-year LOR 9x5 NBD 41C9177 ThinkPlus 5-year LOR 9x5 NBD 41C9179 ThinkPlus 4-year P&L P/U Depot 41C9178 ThinkPlus 5-year P&L P/U Depot 41C9180
EIDE DVD±RW	DVD burner, Super Multi-Burner (40Y8624) dual-layer, removable Ultrabay™ Enhanced											
Ultrabay Enhanced	One bay for removable devices, Ultrabay Slim-compatible, 12.7mm high, flat or curved											
Serial ATA disk	<b>160GB<sup>8</sup></b> (5400 rpm) / SATA 1.5Gb/s, 9.5mm high, removable, upgradable, 9.5mm high bay, supports 2nd disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™											
Widescreen display	<b>14.1"</b> (358.1mm) <b>WXGA+ (1440x900) color</b> , anti-glare, 200 nits, 16:10 aspect ratio, 300:1 contrast ratio											
Camera	Integrated camera on top of screen, 1.3-megapixel, fixed focus, USB 2.0											
Graphics	<b>NVIDIA® Quadro® NVS 140M</b> , PCI Express x16, <b>128MB</b> memory, TurboCache, DVI pass-through support to optional Advanced Mini Dock or Advanced Dock											
Keyboard	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys, Windows/Appl keys											
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar <sup>13</sup> , magnifying glass											
Touch pad	UltraNav™ multi-pointing system, touch pad below keyboard, Tap Zones											
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions											
Dimensions <sup>3</sup>	<i>6-cell 14.1W" (WxDxH):</i> 13.2" x 10.2" x 1.2–1.37"; 335 x 261mm x 30.6–34.9mm											
Weight <sup>2</sup>	<i>6-cell:</i> starting at 5.5 lb (2.5kg)											
Case material	<i>Top:</i> Super-Elastic PolyCarbonate (SEPC); <i>Bottom:</i> Carbon-Fiber Reinforced Plastic											
Battery - type	Lithium Ion <b>6-cell</b> , supports unique 2nd battery in Ultrabay Slim											
Battery - life <sup>10</sup>	<i>6-cell:</i> up to 3.7 hr; <i>6-cell plus Ultrabay battery:</i> up to 5.2 hr											
Chipset	<b>Mobile Intel PM965 Express Chipset</b> (Memory Controller Hub); <b>ICH8M-Enhanced</b> I/O Controller Hub (SATA 3.0Gb/s, ATA-100 EIDE, PCI Express x1, PCI bus, USB, LPC bus, [Bluetooth], [fingerprint]) / PCI bus (Ricoh® R5C847 Cardbus/1394/Multicard) / LPC bus (WPCN385 Super I/O, Atmel® 97SC3203 TPM)											
PC Card Std slot	One Type I or Type II slot, CardBus 32-bit											
ExpressCard slot	[/54] One ExpressCard/34 or ExpressCard/54, PCI Express x1 or USB 2.0											
Smart Card Read	None											
Multicard Reader	None											
Ports	Three USB 2.0, DB-15 (external VGA monitor), RJ-11 (modem), RJ-45 (ethernet), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)											
Wireless antenna	UltraConnect™ II antenna / on-off switch for all wireless radios											
Mini PCI Express	Two Mini PCI Express slots / only 802.11 wireless is customer upgradable											
Intel 11a/b/g <sup>32</sup>	11a/b/g wireless <sup>4</sup> , Mini PCIe adapter, Intel PRO/Wireless 3945ABG											
WWAN	None											
Turbo Memory	None											
Modem	56K <sup>6</sup> V.90 (V.92-designed <sup>29</sup> ) modem in Communications Daughter Card socket											
Bluetooth™	Bluetooth 2.0 wireless, USB 2.0 interface via ICH8M, LED indicator											
Ethernet	Gigabit ethernet on systemboard, Intel 82566MM Nineveh (PHY), PCIe x1 (GLCI), PXE											
Intel AMT	None											
Audio support	High Definition (HD) Audio, AD1984HD codec / stereo speakers, 1 watt / volume up, down, mute buttons / internal microphone, microphone input jack, headphone jack											
Security	Power-on password, hard disk password, supervisor password, security keyhole											
Security chip	<b>Trusted Platform Module</b> , Atmel chip, TCG 1.2-compliant											
Fingerprint reader	<b>Fingerprint reader on palm rest</b> , swipe sensor, supports the security chip											
Limited warranty <sup>12</sup>	<b>3-years/1-yr battery</b> - EasyServ™.19 depot repair service / service upgrades <sup>22</sup> available											

See footnotes for important warranty information  
US model announced September 18, 2007  
US model withdrawn effective June 2008

\* Intel Centrino® processor technology

© Lenovo  
(LAG1-7) July 2008

# ThinkPad® R61 14W 7743 (NVIDIA® Graphics) - withdrawn

Created by Lenovo Training Solutions  
Personal Systems Reference (PSREF)

Type-model	Processor	GHz	Memory	Wide-screen display	Graphics controller	memory	Disk SATA GB <sup>3</sup>	rpm	EIDE optical	Mini PCIe 802.11 wireless	Mini PCIe Intel Turbo	Card slot	Camera	1394 port	Battery cells	Workhorse (W) Vista Global (G) Avail Entry (E) date
7743-1GU	T7300	2.00	1GB	14.1" WXGA+	128MB	80GB	5400	Combo	*Intel 11a/b/g <sup>32</sup>		Smart	1394 4	Business32	W G Jun 07		
7743-1HU	T7300	2.00	1GB	14.1" WXGA+	128MB	80GB	5400	Combo	*Intel 11a/b/g	1G Turbo	Smart	1394 4	Business32	W G Jun 07		
7743-11U	T7300	2.00	1GB	14.1" WXGA+	128MB	80GB	5400	Combo	*Intel 11a/b/g		Smart	1394 4	Business64	W G May 07		
7743-19U	T7300	2.00	1GB	14.1" WXGA+	128MB	80GB	5400	Combo	*Intel 11a/b/g	1G Turbo	Smart	1394 4	Business64	W G Jul 07		
7743-01U	T7300	2.00	1GB	14.1" WXGA	128MB	100GB	7200	Combo	*Intel 11a/b/g		/54	1394 6	XP Pro	Aug 07		
7743-02U	T7500	2.20	1GB	14.1" WXGA	128MB	100GB	7200	Combo	*Intel 11a/b/g		/54	1394 6	Business32	W Aug 07		
7743-03U	T7500	2.20	1GB	14.1" WXGA+	128MB	120GB	5400	DVD±RW	*Intel 11a/b/g		4-in-1	Cam 1394 6	Business32	W Aug 07		
7743-1JU	T7300	2.00	1GB	14.1" WXGA+	128MB	80GB	5400	Combo	*Intel 11a/b/g		Smart	1394 4	XP Pro	G Sep 07		

*Italic MTM:* not a base model for building a custom model

Positioning Processor	<i>Everyday computing; two spindles</i> <b>Intel® Core™ 2 Duo processor T7300 or T7500 with dual-core,</b> Intel 64 Technology, Enhanced Intel SpeedStep® technology <sup>1</sup> , Intel Dynamic Acceleration, Execute Disable Bit, Virtualization Technology, 800MHz system bus, and 4MB shared L2 cache	<b>Preloaded operating system<sup>20</sup></b> - <i>Some:</i> Microsoft® Windows® XP Professional - <i>Some:</i> Microsoft Windows Vista® Business Edition (32-bit) - <i>Some:</i> Microsoft Windows Vista Business Edition (64-bit) ◇ <i>Vista models:</i> Vista Premium logo
Memory	<b>1GB</b> std / 4GB max <sup>31</sup> / PC2-5300 667MHz DDR2, non-parity, dual-channel capable, two 200-pin SO-DIMM sockets; <i>Non-italics:</i> standard memory in 1 socket; 1 socket available	<b>Preloaded applications<sup>14</sup></b> (all OSes) • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • ThinkVantage System Update • System Migration Assistant • Norton Internet Security (90 days of virus definitions) • Diskeeper® Home • PC-Doctor™ (diagnostics) • ThinkPad Utilities (Power Manager and Presentation Director) • Windows Live™ Toolbar • Windows Live Search • Picasa from Google • Fingerprint Software • Multimedia Center for Think Offerings (XP) • Microsoft Office 2007 Trial (60-day) • Sonic RecordNow and Drive Letter Access (combo, DVD±RW) • Corel® WinDVD® (combo, DVD±RW)
Diskette drive	None (use optional USB-based diskette drive)	
EIDE Combo	<i>Some:</i> DVD-ROM/CD-RW (73P3288), 24X/24X/24X/8X <sup>21</sup> , removable Ultrabay™ Enh	
EIDE DVD±RW	<i>Some:</i> DVD burner, Super Multi-Burner (40Y8624) dual-layer, removable Ultrabay Enh	
Ultrabay Enhanced	One bay for removable devices, Ultrabay Slim-compatible, 12.7mm high, flat or curved	
Serial ATA disk	<b>80GB<sup>3</sup></b> (5400 rpm), <b>100GB</b> (7200 rpm), or <b>120GB</b> (5400 rpm) / SATA 1.5Gb/s, 9.5mm high, removable, upgradable, 9.5mm high bay, supports 2nd disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™	
Widescreen display	<i>Some:</i> <b>14.1"</b> (358.1mm) <b>WXGA (1280x800) color</b> , anti-glare, 185 nits, 16:10, 300:1 <i>Some:</i> <b>14.1"</b> (358.1mm) <b>WXGA+ (1440x900) color</b> , anti-glare, 200 nits, 16:10, 300:1	
Camera	<i>Some:</i> integrated camera on top of screen, 1.3-megapixel, fixed focus, USB 2.0	
Graphics	<b>NVIDIA® Quadro® NVS 140M</b> , PCI Express x16, <b>128MB</b> memory, TurboCache, DVI pass-through support to optional Advanced Mini Dock or Advanced Dock	
Keyboard	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys, Windows/Appl keys	
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar <sup>13</sup> , magnifying glass	
Touch pad	UltraNav™ multi-pointing system, touch pad below keyboard, Tap Zones	
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions	
Dimensions <sup>3</sup>	<i>4-cell 14.1W"</i> (WxDxH): 13.2" x 9.3" x 1.2–1.37"; 335mm x 237mm x 30.6–34.9mm <i>6-cell 14.1W"</i> (WxDxH): 13.2" x 10.2" x 1.2–1.37"; 335 x 261mm x 30.6–34.9mm	
Weight <sup>2</sup>	<i>4-cell:</i> starting at 5.2 lb (2.4kg); <i>6-cell:</i> starting at 5.5 lb (2.5kg)	
Case material	<i>Top:</i> Super-Elastic PolyCarbonate (SEPC); <i>Bottom:</i> Carbon-Fiber Reinforced Plastic	
Battery - type	Lithium Ion <b>4-cell</b> or <b>6-cell</b> , supports unique 2nd battery in Ultrabay Slim	
Battery - life <sup>10</sup>	<i>4-cell:</i> up to 2.5 hr; <i>6-cell:</i> up to 3.7 hr; <i>6-cell plus Ultrabay battery:</i> up to 5.2 hr	
Chipset	<b>Mobile Intel PM965 Express Chipset</b> (Memory Controller Hub); <b>ICH8M-Enhanced</b> I/O Controller Hub (SATA 3.0Gb/s, ATA-100 EIDE, PCI Express® x1, PCI bus, USB, LPC bus, [Bluetooth], [fingerprint]) / PCI bus (Ricoh® R5C847 Cardbus/1394/Multicard) / LPC bus (WPCN385 Super I/O, Atmel® 97SC3203 TPM)	Supports ThinkVantage® technologies
PC Card Std slot	One Type I or Type II slot, CardBus 32-bit	
ExpressCard slot	<i>Some:</i> [/54] One ExpressCard/34 or ExpressCard/54	90-watt (NVIDIA graphics) AC adapter ThinkPad Roll Cage and Top Cover Roll Cage (one-piece magnesium) ENERGY STAR® 4.0-compliant RoHS-compliant International Warranty Service <sup>17</sup> 24 hour x 7 day <sup>18</sup> toll-free support during the warranty period <sup>12</sup> via 800-426-7378
Smart Card Read	<i>Some:</i> Smart Card Reader	
Multicard Reader	<i>Some:</i> 4-in-1 reader (MultiMediaCard, Mem Stick® PRO, Sec Digital, xD-Picture Card™)	
Ports	Three USB 2.0, DB-15 (external VGA monitor), RJ-11 (modem), RJ-45 (ethernet), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)	
Wireless antenna	UltraConnect™ II antenna / on-off switch for all wireless radios	
Mini PCI Express	Two Mini PCI Express slots / only 802.11 wireless is customer upgradable	
Intel 11a/b/g <sup>32</sup>	11a/b/g wireless <sup>4</sup> , Mini PCIe adapter, Intel PRO/Wireless 3945ABG	
WWAN	None	
1G Turbo	<i>Some:</i> Intel Turbo Memory, Mini PCIe adapter, 1GB flash, disk-cache accelerator	ThinkPlus™.22 2-year LOR <sup>24</sup> 9x5 NBD 41C9175
Modem	56K <sup>6</sup> V.92 <sup>29</sup> modem in Communications Daughter Card socket	ThinkPlus 3-year LOR 9x5 NBD 41C9176
Bluetooth™	Bluetooth 2.0 wireless, USB 2.0 interface via ICH8M, LED indicator	ThinkPlus 4-year LOR 9x5 NBD 41C9177
Ethernet	Gigabit ethernet on systemboard, Intel 82566MM Nineveh (PHY), PCIe x1 (GLCI), PXE	ThinkPlus 5-year LOR 9x5 NBD 41C9179
Intel AMT	None	
Audio support	High Definition (HD) Audio, AD1984HD codec / stereo speakers, 1 watt / volume up, down, mute buttons / internal microphone, microphone input jack, headphone jack	ThinkPlus 4-year P&L P/U Depot 41C9178
Security	Power-on password, hard disk password, supervisor password, security keyhole	ThinkPlus 5-year P&L P/U Depot 41C9180
Security chip	<b>Trusted Platform Module</b> , Atmel chip, TCG 1.2-compliant	
Fingerprint reader	<b>Fingerprint reader on palm rest</b> , swipe sensor, supports the security chip	
Limited warranty <sup>12</sup>	<b>3-years/1-yr battery</b> - EasyServ™.19 depot repair service / service upgrades <sup>22</sup> available	

See footnotes for important warranty information \* Intel Centrino® processor technology  
US models announced May 9, June 19, Aug 21, or Sept 4, 2007  
US models withdrawn effective May or November 2008

© Lenovo  
(LAG1-4) November 2008

# ThinkPad® R61 14W 7743 (NVIDIA®) - Linux - withdrawn

Personal Systems Reference (PSREF)

Proc- Type-model	essor GHz Memory	Wide- screen display	Graphics controller memory	Disk SATA GB <sup>3</sup> rpm	EIDE optical	Mini PCIe 802.11 wireless	Mini PCIe Intel Turbo	Card slot	Cam- era	Bat- tery 1394 port cells	Workhorse (W) Linux Global (G) Avail preload Entry (E) date
7743-2JU	T7500 2.20 1GB 14.1"	WXGA+	128MB	120GB 5400	DVD±RW	*Intel 11a/b/g	None	/54	None	1394 6	SLED10 W/G Jan 08
Positioning Processor	<i>Everyday computing; two spindles</i> <b>Intel® Core™ 2 Duo processor T7500 with dual-core,</b> Intel 64 Technology, Enhanced Intel SpeedStep technology <sup>1</sup> , Intel Dynamic Acceleration, Execute Disable Bit, Virtualization Technology, 800MHz system bus, and 4MB shared L2 cache									<b>Preloaded operating system<sup>20</sup></b> - SUSE® Linux™ Enterprise Desktop10 Service Pack 1  <b>Preloaded applications<sup>14</sup></b> • None	
Memory	<b>1GB</b> std / 4GB max <sup>31</sup> / PC2-5300 667MHz DDR2, non-parity, dual-channel capable, two 200-pin SO-DIMM sockets; <i>Non-italics:</i> standard memory in 1 socket; 1 socket available									<b>Supported devices</b> (only some listed) • HD Audio • Intel 3945ABG wireless • Intel Graphics Media Accelerator X3100 (GMA X3100) • NVIDIA Quadro NVS 140M • Fingerprint reader • Bluetooth • Function keys • ThinkPad Advanced Dock	
Diskette drive EIDE DVD±RW Ultrabay Enhanced Serial ATA disk	None (use optional USB-based diskette drive) DVD burner, Super Multi-Burner (40Y8624) dual-layer, removable Ultrabay Enh One bay for removable devices, Ultrabay Slim-compatible, 12.7mm high, flat or curved <b>120GB</b> (5400 rpm) / SATA 1.5Gb/s, 9.5mm high, removable, upgradable, 9.5mm high bay, supports 2nd disk, ThinkPad Shock Mounted Hard Drive									<b>Non-supported devices</b> (only some listed) • Intel 4965AG, Intel 4965AGN, ThinkPad 11a/b/g, ThinkPad 11n wireless • WWAN • Active Protection System™ • ThinkVantage® button • Security chip • Intel Turbo Memory • Intel AMT technology • Integrated camera	
Widescreen display Camera	<b>14.1"</b> (358.1mm) <b>WXGA+ (1440x900) color</b> , anti-glare, 200 nits, 16:10 aspect ratio, 300:1 contrast ratio None									<b>Non-supported applications</b> (only some listed) • ThinkPad Utilities • ThinkVantage technologies • Presentation Director • Encrypted DVD playback • Keyboard Customizer	
Graphics	<b>NVIDIA® Quadro® NVS 140M</b> , PCI Express x16, <b>128MB</b> memory, TurboCache, DVI pass-through support to optional Advanced Mini Dock or Advanced Dock										
Keyboard TrackPoint® Touch pad ThinkLight™	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys, Windows/Apl keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar <sup>13</sup> , magnifying glass UltraNav™ multi-pointing system, touch pad below keyboard, Tap Zones Illuminates the keyboard to improve visibility in low-light conditions										
Dimensions <sup>3</sup> Weight <sup>2</sup> Case material Battery - type Battery - life <sup>10</sup>	<b>6-cell 14.1W"</b> (WxDxH): 13.2" x 10.2" x 1.2–1.37"; 335 x 261mm x 30.6–34.9mm <b>6-cell:</b> starting at 5.5 lb (2.5kg) <i>Top:</i> Super-Elastic PolyCarbonate (SEPC); <i>Bottom:</i> Carbon-Fiber Reinforced Plastic Lithium Ion <b>6-cell</b> , supports unique 2nd battery in Ultrabay Slim Not published										
Chipset	<b>Mobile Intel PM965 Express Chipset</b> (Memory Controller Hub); <b>ICH8M-Enhanced</b> I/O Controller Hub (SATA 3.0Gb/s, ATA-100 EIDE, PCI Express® x1, PCI bus, USB, LPC bus, [Bluetooth], [fingerprint]) / PCI bus (Ricoch® R5C847 Cardbus/1394/Multicard) / LPC bus (WPCN385 Super I/O, Atmel® 97SC3203 TPM)										
PC Card Std slot ExpressCard slot Smart Card Read Multicard Reader	One Type I or Type II slot, CardBus 32-bit [54] One ExpressCard/34 or ExpressCard/54 None None										
Ports	Three USB 2.0, DB-15 (external VGA monitor), RJ-11 (modem), RJ-45 (ethernet), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)										
Wireless antenna Mini PCI Express Intel 11a/b/g <sup>32</sup> WWAN Turbo Memory	UltraConnect™ II antenna / on-off switch for all wireless radios Two Mini PCI Express slots / only 802.11 wireless is customer upgradable 11a/b/g wireless <sup>4</sup> , Mini PCIe adapter, Intel PRO/Wireless 3945ABG None None										
Modem Bluetooth™ Ethernet Intel AMT Audio support	56K <sup>6</sup> V.92 <sup>29</sup> modem in Communications Daughter Card socket Bluetooth 2.0 wireless, USB 2.0 interface via ICH8M, LED indicator Gigabit ethernet on systemboard, Intel 82566MM Nineveh (PHY), PCIe x1 (GLCI), PXE None High Definition (HD) Audio, AD1984HD codec / stereo speakers, 1 watt / volume up, down, mute buttons / internal microphone, microphone input jack, headphone jack									90-watt (NVIDIA graphics) AC adapter ThinkPad Roll Cage and Top Cover Roll Cage (one-piece magnesium) RoHS-compliant International Warranty Service <sup>17</sup> 24 hour x 7 day <sup>18</sup> toll-free support during the warranty period <sup>12</sup> via 800-426-7378	
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole <b>Trusted Platform Module</b> , Atmel chip, TCG 1.2-compliant <b>Fingerprint reader on palm rest</b> , swipe sensor, supports the security chip										
Limited warranty <sup>12</sup> <b>3-years/1-yr battery</b> - EasyServ™ <sup>19</sup> depot repair service / service upgrades <sup>22</sup> available											
512MB PC2-5300 DDR2 SODIMM 1GB PC2-5300 DDR2 SODIMM 2GB PC2-5300 DDR2 SODIMM ThinkPad DVD Ultrabay Slim Burner (flat) Serial Hard Drive Ultrabay Slim Adapter (flat) 320GB Disk SATA 1.5Gb/s (5400 rpm) USB 2.0 Security Memory Key 4GB ThinkPad Essential Port Replicator ThinkPad Advanced Mini Dock ThinkPad Advanced Dock Check Linux compatibility for other accessories	40Y7733 40Y7734 40Y7735 41N5643 40Y8725 43N3403 41U5120 250510W 250410U 250310U	T/R 14W Standard Battery 4-cell T/R 14W Enhanced Battery 6-cell T/R 14W High Capacity Batt 9-cell Advanced Ultrabay Battery II 3-cell ThinkPad External Battery Charger 90W Slim AC/DC Combo Adapter ThinkPad Business Topload Case	41U3196 41U3198 43R2499 43R9250 40Y7625 41N8460 43R2476	ThinkPlus™.22 2-year LOR <sup>24</sup> 9x5 NBD 41C9175 ThinkPlus 3-year LOR 9x5 NBD 41C9176 ThinkPlus 4-year LOR 9x5 NBD 41C9177 ThinkPlus 5-year LOR 9x5 NBD 41C9179 ThinkPlus 4-year P&L P/U Depot 41C9178 ThinkPlus 5-year P&L P/U Depot 41C9180							

See footnotes for important warranty information  
 US model announced January 15, 2008  
 US model withdrawn effective November 2008

\* Intel Centrino® processor technology

© Lenovo  
 (LAG1-10) November 2008



# ThinkPad® R61 14W 7751 (NVIDIA®) - Onsite - withdrawn

Personal Systems Reference (PSREF)

Type-model	Proc- essor	GHz	Memory	Wide- screen display	Graphics controller memory	Disk SATA GB <sup>3</sup>	EIDE rpm	EIDE optical	Mini PCIe 802.11 wireless	Mini PCIe Intel Turbo	Card slot	Blue- tooth	1394 port	Bat- tery cells	Preload	Workhorse (W) Global (G) Avail GMP (P) date
7751-1GU	T7300	2.00	1GB	14.1" WXGA+	128MB	80GB	5400	Combo	*Intel 11a/b/g <sup>32</sup>	1G Turbo	Smart	Blue	1394	4	Business32	W G P Jun 07
7751-1HU	T7300	2.00	1GB	14.1" WXGA+	128MB	80GB	5400	Combo	*Intel 11a/b/g	1G Turbo	Smart	Blue	1394	4	Business32	W G P Jun 07
7751-11U	T7300	2.00	1GB	14.1" WXGA+	128MB	80GB	5400	Combo	*Intel 11a/b/g		Smart	Blue	1394	4	Business64	W G P May 07
7751-1JU	T7300	2.00	1GB	14.1" WXGA+	128MB	80GB	5400	Combo	*Intel 11a/b/g		Smart	Blue	1394	4	XP Pro	W G P Sep 07

• These models are part of the Global Models Plus program with limited onsite service<sup>24</sup> 3-year limited warranty

Positioning Processor	Everyday computing; two spindles <b>Intel® Core™ 2 Duo processor T7300 with dual-core,</b> Intel 64 Technology, Enhanced Intel SpeedStep® technology <sup>1</sup> , Intel Dynamic Acceleration, Execute Disable Bit, Virtualization Technology, 800MHz system bus, and 4MB shared L2 cache										<b>Preloaded operating system<sup>20</sup></b> - Some: Microsoft® Windows® XP Professional - Some: Microsoft Windows Vista® Business Edition (32-bit) - Some: Microsoft Windows Vista Business Edition (64-bit) ◇ Vista models: Vista Premium logo					
Memory	1GB std / 4GB max <sup>31</sup> / PC2-5300 667MHz DDR2, non-parity, dual-channel capable, two 200-pin SO-DIMM sockets; <i>Non-italics:</i> standard memory in 1 socket; 1 socket available										<b>Preloaded applications<sup>14</sup></b> (all OSes) • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • ThinkVantage System Update • System Migration Assistant • Norton Internet Security (90 days of virus definitions) • Diskeeper® Home • PC-Doctor™ (diagnostics) • ThinkPad Utilities (Power Manager and Presentation Director) • Windows Live™ Toolbar • Windows Live Search • Picasa from Google • Fingerprint Software • Multimedia Center for Think Offerings (XP) • Microsoft Office 2007 Trial (60-day) • Sonic RecordNow and Drive Letter Access (combo) • Corel® WinDVD® (combo)					
Diskette drive	None (use optional USB-based diskette drive)															
EIDE Combo	Some: DVD-ROM/CD-RW (73P3288), 24X/24X/24X/8X <sup>21</sup> , removable Ultrabay™ Enh															
Ultrabay Enhanced	One bay for removable devices, Ultrabay Slim-compatible, 12.7mm high, flat or curved															
Serial ATA disk	80GB <sup>8</sup> (5400 rpm) / SATA 1.5Gb/s, 9.5mm high, removable, upgradable, 9.5mm high bay, supports 2nd disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™															
Widescreen display	14.1" (358.1mm) <b>WXGA+ (1440x900) color</b> , anti-glare, 200 nits, 16:10 aspect ratio, 300:1 contrast ratio															
Camera	None															
Graphics	<b>NVIDIA® Quadro® NVS 140M</b> , PCI Express® x16, <b>128MB</b> memory, TurboCache, DVI pass-through support to optional Advanced Mini Dock or Advanced Dock															
Keyboard	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys, Windows/Appl keys															
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar <sup>13</sup> , magnifying glass															
Touch pad	UltraNav™ multi-pointing system, touch pad below keyboard, Tap Zones															
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions															
Dimensions <sup>3</sup>	4-cell 14.1W" (WxDxH): 13.2" x 9.3" x 1.2-1.37"; 335mm x 237mm x 30.6-34.9mm															
Weight <sup>2</sup>	4-cell: starting at 5.2 lb (2.4kg); 6-cell: starting at 5.5 lb (2.5kg)															
Case material	Top: Super-Elastic PolyCarbonate (SEPC); Bottom: Carbon-Fiber Reinforced Plastic															
Battery - type	Lithium Ion 4-cell, supports unique 2nd battery in Ultrabay Slim															
Battery - life <sup>10</sup>	4-cell: up to 2.5 hr; 6-cell: up to 3.7 hr; 6-cell plus Ultrabay battery: up to 5.2 hr															
Chipset	<b>Mobile Intel PM965 Express Chipset</b> (Memory Controller Hub); <b>ICH8M-Enhanced</b> I/O Controller Hub (SATA 3.0Gb/s, ATA-100 EIDE, PCI Express x1, PCI bus, USB, LPC bus, [Bluetooth], [fingerprint]) / PCI bus (Ricoh® R5C847 Cardbus/1394/Multicard) / LPC bus (WPCN385 Super I/O, Atmel® 97SC3203 TPM)															
PC Card Std slot	One Type I or Type II slot, CardBus 32-bit															
ExpressCard slot	None															
Smart Card Read	Smart Card Reader															
Multicard Reader	None															
Ports	Three USB 2.0, DB-15 (external VGA monitor), RJ-11 (modem), RJ-45 (ethernet), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)															
Wireless antenna	UltraConnect™ II antenna / on-off switch for all wireless radios															
Mini PCI Express	Two Mini PCI Express slots / only 802.11 wireless is customer upgradable															
Intel 11a/b/g <sup>32</sup>	11a/b/g wireless <sup>4</sup> , Mini PCIe adapter, Intel PRO/Wireless 3945ABG															
WWAN	None															
1G Turbo	Some: Intel Turbo Memory, Mini PCIe adapter, 1GB flash, disk-cache accelerator															
Modem	56K <sup>6</sup> V.92 <sup>29</sup> modem in Communications Daughter Card socket															
Bluetooth™	Bluetooth 2.0 wireless, USB 2.0 interface via ICH8M, LED indicator															
Ethernet	Gigabit ethernet on systemboard, Intel 82566MM Nineveh (PHY), PCIe x1 (GLCI), PXE															
Intel AMT	None															
Audio support	High Definition (HD) Audio, AD1984HD codec / stereo speakers, 1 watt / volume up, down, mute buttons / internal microphone, microphone input jack, headphone jack										Supports ThinkVantage® technologies					
Security	Power-on password, hard disk password, supervisor password, security keyhole										90-watt (NVIDIA graphics) AC adapter					
Security chip	<b>Trusted Platform Module</b> , Atmel chip, TCG 1.2-compliant										ThinkPad Roll Cage and Top Cover					
Fingerprint reader	<b>Fingerprint reader on palm rest</b> , swipe sensor, supports the security chip										Roll Cage (one-piece magnesium)					
Limited warranty <sup>12</sup>	3-years/1-year battery, <b>limited onsite service<sup>24</sup></b> , 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time / service upgrades <sup>22</sup> available										ENERGY STAR® 4.0-compliant					
1GB PC2-5300 DDR2 SODIMM	40Y7734				T/R 14W Standard Battery 4-cell				41U3196				RoHS-compliant			
2GB PC2-5300 DDR2 SODIMM	40Y7735				T/R 14W Enhanced Battery 6-cell				41U3198				International Warranty Service <sup>17</sup>			
ThinkPad DVD Ultrabay Slim Burner (flat)	41N5643				T/R 14W High Capacity Batt 9-cell				43R2499				24 hour x 7 day <sup>18</sup> toll-free support during the warranty period <sup>12</sup> via 800-426-7378			
Serial Hard Drive Ultrabay Slim Adapter (flat)	40Y8725				Advanced Ultrabay Battery II 3-cell				43R9250				ThinkPlus™.22 4-year LOR <sup>24</sup> 9x5 NBD 12X5630			
200GB Disk FDE SATA 1.5Gb/s (7200 rpm)	41N5738				90W Slim AC/DC Combo Adapter				41N8460				ThinkPlus 5-year LOR 9x5 NBD 43R2162			
USB 2.0 Ultra Secure Memory Key 8GB	45J5918				ThinkPad Business Topload Case				43R2476				Post-warranty annual maintenance agreements at			
USB 2.0 Portable 160GB Hard Disk	43R1784				ThinkVision® L2240p Wide 22" Monitor				4422HB6				lenovo.com/thinkplus/warranty			
ThinkPad Advanced Mini Dock	250410U				ThinkVision L2440x Wide 24" Monitor				4421HB2							
Other accessories on O-R61-14W sheet											Other accessories at <a href="http://lenovo.com/accessories">lenovo.com/accessories</a>					

See footnotes for important warranty information

\* Intel Centrino® processor technology

© Lenovo

US models announced May 9, June 19, or September 4, 2007

(LAG1-12) November 2008

US models withdrawn effective May or November 2008

# ThinkPad® R61 15W (GMA Graphics) - 1-year (TopSeller) - withdrawn

Personal Systems Reference (PSREF)

Proc- Type-model	essor GHz Memory	Wide- screen display	Cam- era	Graphics controller	Disk SATA GB <sup>2</sup> rpm	EIDE optical	Mini PCIe 802.11 wireless	Card slot	Finger print reader	Bat- tery Blue- tooth cells	Workhorse (W) Vista Global (G) Avail preload date
8932-A8U T7100	1.80 1GB	15.4" WXGA	None	GMA	120G 5400	DVD±RW	*Intel 11a/b/g <sup>32</sup>	Smart	Finger	Blue	6 Business64 No Jul 07
<ul style="list-style-type: none"> <li>• <b>This small and medium business (SMB) model is part of the US TopSeller™ Program</b></li> <li>• <b>This model has a 1-year limited warranty<sup>12</sup></b></li> </ul>											
Positioning Processor	<i>Everyday computing; two spindles</i> <b>Intel® Core™ 2 Duo processor T7100 with dual-core,</b> Intel 64 Technology, Enhanced Intel SpeedStep technology <sup>1</sup> , Intel Dynamic Acceleration, Execute Disable Bit, Virtualization Technology, 800MHz system bus, and 2MB shared L2 cache										<b>Preloaded operating system<sup>20</sup></b> - Microsoft® Windows® Vista™ Business Edition (64-bit) ⇨ Vista Basic logo
Memory	<b>1GB</b> std / 4GB max <sup>31</sup> / PC2-5300 667MHz DDR2, non-parity, dual-channel capable, two 200-pin SO-DIMM sockets; <i>Non-italics:</i> standard memory in one socket; one socket available										<b>Preloaded applications<sup>14</sup></b> • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • ThinkVantage System Update • System Migration Assistant • Norton Internet Security (90 days of virus definitions) • Diskeeper™ Home • PC-Doctor™ (diagnostics) • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader • Windows Live™ Toolbar • Windows Live Search • Picasa from Google • Fingerprint Software (fingerprint models) • Microsoft Office 2007 Trial • Sonic RecordNow and Drive Letter Access (DVD±RW) • InterVideo WinDVD (DVD±RW)
Diskette drive DVD burner UltraBay Enhanced Serial ATA disk (SATA150)	None (use optional USB-based diskette drive) DVD burner, Super Multi-Burner (40Y8624) dual-layer, removable UltraBay™ Enhanced One bay for removable devices, UltraBay Slim-compatible, 12.5mm high, flat or curved <b>120GB<sup>8</sup></b> (5400 rpm) / 9.5mm high, removable, upgradable, 9.5mm high bay, supports 2nd disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™										
Widescreen display Camera	<b>15.4"</b> (391mm) <b>WXGA (1280x800) color</b> , 200 nits, 16:10 aspect ratio, 300:1 contrast ratio, anti-glare None										
Graphics	<b>Intel Graphics Media Accelerator X3100 (GMA X3100)</b> , integrated in GM965, no DVI pass-through support to optional Advanced Mini Dock or Advanced Dock										
Keyboard TrackPoint® Touch pad ThinkLight™	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys, Windows/Appl keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar <sup>13</sup> , magnifying glass UltraNav™ multi-pointing system, touch pad below keyboard, Tap Zones Illuminates the keyboard to improve visibility in low-light conditions										
Dimensions <sup>3</sup> Weight <sup>2</sup> Case material Battery - type Battery - life <sup>10</sup>	<b>6-cell 15.4W"</b> (WxDxH): 14.1" x 10.2" x 1.39–1.52"; 358.5 x 260.0mm x 35.3–38.5mm <b>6-cell:</b> starting at 6.4 lb (2.9kg); <b>9-cell:</b> starting at 6.7 lb (3.1kg) Black color, Polycarbonate/Acrylonitrile-Butadiene-Styrene (PC/ABS) plastic Lithium Ion <b>6-cell</b> , supports unique 2nd battery in UltraBay Enhanced <b>6-cell:</b> up to 5.0 hr; <b>9-cell:</b> up to 7.0 hr; <b>6-cell plus UltraBay battery:</b> up to 8.5 hr										<b>License</b> - CD not included - Lotus® Notes® Stand-alone Client
Architecture	<b>Mobile Intel GM965 Express Chipset</b> (Graphics Memory Controller Hub); ICH8M I/O Controller Hub (SATA300, ATA-100 EIDE, PCI Express x1, PCI bus, USB, LPC interface, [Bluetooth], [fingerprint]) / PCI bus (Ricoh® R5C847 Cardbus/1394/Multicard) / LPC bus (WPCN385 Super I/O, Atmel® 97SC3203 TPM)										
PC Card Std slot ExpressCard slot Smart Card Read Multicard Reader Ports	One Type I or Type II slot, CardBus 32-bit None Smart Card Reader 4-in-1 reader (MultiMediaCard, Mem Stick PRO, Secure Digital, xD-Picture Card™) Three USB 2.0, external DB-15 monitor, RJ-11 (modem), RJ-45 (ethernet), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard), S-Video out										
Wireless antenna Mini PCI Express Intel 11a/b/g <sup>32</sup> WWAN <sup>16</sup> Turbo Memory Modem Bluetooth™ Ethernet Intel AMT Audio support	UltraConnect™ II antenna / on-off switch for all wireless radios One Mini PCI Express slot / 802.11 wireless is customer upgradable 11a/b/g wireless <sup>4</sup> , Mini PCIe adapter, Intel PRO/Wireless 3945ABG None None 56K <sup>6</sup> V.90 (V.92-designed <sup>29</sup> ) modem, on systemboard, Conexant® CX20548 Bluetooth 2.0 wireless, USB 2.0 interface via ICH8M, LED indicator Gigabit ethernet on systemboard, Broadcom® BCM5787M (MAC/PHY), PCIe x1, PXE None High Definition (HD) Audio, CX20549 codec / stereo speakers, 1 watt / volume up, down, mute buttons / internal microphone, microphone input jack, headphone jack										Supports ThinkVantage® technologies  65-watt (GMA graphics) ThinkPad Roll Cage (one-piece magnesium frame) ENERGY STAR® 4.0-compliant RoHS-compliant International Warranty Service <sup>17</sup> 24 hour x 7 day <sup>18</sup> toll-free warranty support during the warranty <sup>12</sup>
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole <b>Trusted Platform Module</b> , Atmel chip, TCG 1.2-compliant <b>Fingerprint reader on palm rest</b> , swipe sensor, supported with security chip										ThinkPlus™.22 1-year LOR 9x5 NBD 41C9166 ThinkPlus 2-year LOR 9x5 NBD 41C9167 ThinkPlus 3-year LOR 9x5 NBD 41C9168 ThinkPlus 4-year LOR 9x5 NBD 41C9171 ThinkPlus 5-year LOR 9x5 NBD 41C9173 ThinkPlus 2-year P&L P/U Depot 41C9169 ThinkPlus 3-year P&L P/U Depot 41C9170 ThinkPlus 4-year P&L P/U Depot 41C9172 ThinkPlus 5-year P&L P/U Depot 41C9174 Post-warranty annual maintenance agreements at <b>lenovo.com/thinkplus/warranty</b>
Limited warranty <sup>12</sup>	<b>1-year</b> - EasyServ™.19 onsite pickup and delivery / service upgrades <sup>22</sup> available										
512MB PC2-5300 DDR2 CL5 SODIMM 1GB PC2-5300 DDR2 CL5 SODIMM 2GB PC2-5300 DDR2 SODIMM Serial Hard Drive UltraBay Slim Adapter (flat) ThinkPad DVD UltraBay Slim Burner (flat) 160GB Disk 9.5mm SATA150 (5400 rpm) 160GB Disk 9.5mm SATA150 (7200 rpm) 200GB Disk FDE SATA150 (7200 rpm) USB 2.0 Super Multi-Burner Drive ThinkPad Convertible Monitor Stand ThinkPad Essential Port Replicator ThinkPad Advanced Mini Dock ThinkPad Advanced Dock Other accessories on O-R61-15W sheet	40Y7733 40Y7734 40Y7735 40Y8725 41N5643 41N5692 41N5737 41N5738 41N5565 40Y7620 250510W 250410U 250310U	T60/R60 Series Li-Ion Battery 6-cell Z60m/T60/R60 Li-Ion Battery 9-cell Advanced UltraBay Battery 3-cell ThinkPad External Battery Charger ThinkPad 90W AC Adapter ThinkPad 90W AC/DC Combo Adapter ThinkPad Carrying Case - Expander ThinkPad Carrying Case - Backpack ThinkVision® L171p 17" LCD Monitor ThinkVision L190x 19" LCD Monitor ThinkVision L193p 19" LCD Monitor ThinkVision L220x Wide 22" LCD Lenovo M500 Projector Other accessories at <b>lenovo.com/accessories</b>	40Y6799 40Y6797 40Y6789 40Y7625 40Y7659 40Y7630 73P3597 73P3599 9417HC2 4439HB2 4431HB2 4433HB2 0037A05								

See footnotes for important warranty information  
 US model announced July 10, 2007  
 US model withdrawn effective December 2007

\* Powered by Intel Centrino® Duo processor technology

# ThinkPad® R61 15W (NVIDIA Graphics) - 3-year (TopSeller) - withdrawn

Personal Systems Reference (PSREF)

Type-model	Proc- essor	GHz	Memory	Wide- screen display	Graphics controller memory	Disk SATA GB <sup>3</sup> rpm	EIDE optical	Mini PCIe 802.11 wireless	Finger print reader	Cam- era	Bat- tery port cells	Vista preload	Whorse (W) Gbl (G)	Avail date
8920-8RU	T7300	2.00	1GB	15.4" WSXGA+	128MB	160G 5400	DVD±RW	*Intel 11a/b/g <sup>32</sup>	Finger		1394 6	Business32	No	Jun 07
8920-B6U	T7500	2.20	1GB	15.4" WSXGA+	128MB	160G 5400	DVD±RW	*Intel 11a/b/g	Finger	Cam	1394 6	Business32	No	Sep 07

- These small and medium business (SMB) models are part of the US TopSeller™ Program
- These models have a 3-year limited warranty<sup>12</sup>

Positioning Processor	<i>Everyday computing; two spindles</i> <b>Intel® Core™ 2 Duo processor T7300 or T7500 with dual-core,</b> Intel 64 Technology, Enhanced Intel SpeedStep® technology <sup>1</sup> , Intel Dynamic Acceleration, Execute Disable Bit, Virtualization Technology, 800MHz system bus, and 4MB shared L2 cache										<b>Preloaded operating system<sup>20</sup></b> - Microsoft® Windows® Vista™ Business Edition (32-bit) ♦ Vista Premium logo			
Memory	<b>1GB</b> std / 4GB max <sup>31</sup> / PC2-5300 667MHz DDR2, non-parity, dual-channel capable, two 200-pin SO-DIMM sockets; <i>Non-italics:</i> standard memory in one socket; one socket available										<b>Preloaded applications<sup>14</sup></b> • Microsoft Office OneNote® 2007 (and CD) • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • ThinkVantage System Update • System Migration Assistant • Norton Internet Security™ (90 days of virus definitions) • Diskeeper® Home • PC-Doctor™ (diagnostics) • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader • Windows Live™ Toolbar • Windows Live Search • Picasa from Google • Fingerprint Software (fingerprint models) • Microsoft Office 2007 Trial (60-day) • Sonic RecordNow and Drive Letter Access (DVD±RW) • Corel® WinDVD® (DVD±RW)			
Diskette drive	None (use optional USB-based diskette drive)													
EIDE DVD±RW	DVD burner, Super Multi-Burner (40Y8624) dual-layer, removable from Ultrabay Enhanced													
Ultrabay Enhanced	One bay for removable devices, Ultrabay Slim-compatible, 12.7mm high, flat or curved													
Serial ATA disk	<b>160GB<sup>8</sup></b> (5400 rpm) / SATA 1.5Gb/s, 9.5mm high, removable, upgradable, 9.5mm high bay, supports 2nd disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™													
Widescreen display	<b>15.4"</b> (391mm) <b>WSXGA+ (1680x1050) color</b> , anti-glare, 200 nits, 16:10 aspect ratio, 500:1 contrast ratio													
Camera	Some: integrated camera on top of screen, 1.3-megapixel, fixed focus, USB 2.0													
Graphics	<b>NVIDIA® Quadro® NVS 140M</b> , PCI Express® x16, <b>128MB</b> memory, TurboCache, DVI pass-through support to optional Advanced Mini Dock or Advanced Dock													
Keyboard	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys, Windows/Appl keys													
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar <sup>13</sup> , magnifying glass													
Touch pad	UltraNav™ multi-pointing system, touch pad below keyboard, Tap Zones													
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions													
Dimensions <sup>3</sup>	<b>6-cell 15.4W" (WxDxH):</b> 14.1" x 10.2" x 1.39–1.52"; 358.5 x 260.0mm x 35.3–38.5mm													
Weight <sup>2</sup>	<b>6-cell:</b> starting at 6.4 lb (2.9kg); <b>9-cell:</b> starting at 6.7 lb (3.1kg)													
Case material	Black color; Polycarbonate/Acrylonitrile-Butadiene-Styrene (PC/ABS) plastic													
Battery - type	Lithium Ion <b>6-cell</b> 2.4 Ah, supports unique 2nd battery in Ultrabay Enhanced													
Battery - life <sup>10</sup>	<b>6-cell:</b> up to 5.0 hr; <b>9-cell:</b> up to 7.0 hr; <b>6-cell plus Ultrabay battery:</b> up to 8.5 hr													
Chipset	<b>Mobile Intel PM965 Express Chipset</b> (Memory Controller Hub); ICH8M I/O Controller Hub (SATA 3.0Gb/s, ATA-100 EIDE, PCI Express x1, PCI bus, USB, LPC bus, [Bluetooth], [fingerprint]) / PCI bus (Ricoh® R5C847 Cardbus/1394/Multicard) / LPC bus (WPCN385 Super I/O, Atmel® 97SC3203 TPM)													
PC Card Std slot	One Type I or Type II slot, CardBus 32-bit													
ExpressCard slot	One ExpressCard/34 or ExpressCard/54													
Smart Card Read	None													
Multicard Reader	4-in-1 reader (MultiMediaCard, Memory Stick® PRO™, Secure Digital, xD-Picture Card™)													
Ports	Three USB 2.0, DB-15 (external VGA monitor), RJ-11 (modem), RJ-45 (ethernet), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard), S-Video out													
Wireless antenna	UltraConnect™ II antenna / on-off switch for all wireless radios													
Mini PCI Express	One Mini PCI Express slot / 802.11 wireless is customer upgradable													
Intel 11a/b/g <sup>32</sup>	11a/b/g wireless <sup>4</sup> , Mini PCIe adapter, Intel PRO/Wireless 3945ABG													
WWAN	None													
Turbo Memory	None										Supports ThinkVantage® technologies			
Modem	56K <sup>6</sup> V.92 <sup>29</sup> modem in Communications Daughter Card socket													
Bluetooth™	Bluetooth 2.0 wireless, USB 2.0 interface via ICH8M, LED indicator													
Ethernet	Gigabit ethernet on systemboard, Intel 82566MC Nineveh (PHY), PCIe x1 (GLCI), PXE													
Intel AMT	None													
Audio support	High Definition (HD) Audio, AD1984JCP codec / stereo speakers, 1 watt / volume up, down, mute buttons / internal microphone, microphone input jack, headphone jack													
Security	Power-on password, hard disk password, supervisor password, security keyhole													
Security chip	<b>Trusted Platform Module</b> , Atmel chip, TCG 1.2-compliant													
Fingerprint reader	<b>Fingerprint reader on palm rest</b> , swipe sensor, supported with security chip													
Limited warranty <sup>12</sup>	<b>3-years/1-yr battery</b> - EasyServ™ <sup>19</sup> depot repair service / service upgrades <sup>22</sup> available													
1GB PC2-5300 DDR2 SODIMM (TopSeller)	43R1999	T/R/W/SL Series Li-Ion Battery 6-cell	40Y6799											
2GB PC2-5300 DDR2 SODIMM (TopSeller)	43R2000	T/R/W/SL Series Li-Ion Battery 9-cell	40Y6797											
Serial Hard Drive Ultrabay Slim Adapter (flat)	40Y8725	Advanced Ultrabay Battery II 3-cell	43R9250											
ThinkPad DVD Ultrabay Slim Burner (flat)	41N5643	ThinkPad External Battery Charger	40Y7625											
200GB Disk FDE SATA 1.5Gb/s (7200 rpm)	41N5738	ThinkPad 90W AC Adapter	40Y7659											
250GB Disk 9.5mm SATA 1.5Gb/s (5400 rpm)	43R8152	90W Slim AC/DC Combo Adapter	41N8460											
320GB Disk SATA 1.5Gb/s (5400 rpm)	43N3403	ThinkPad Business Topload Case	43R2476											
USB 2.0 Essential Memory Key 8GB	45J7905	ThinkPad Business Backpack	43R2482											
USB 2.0 Ultra Secure Memory Key 8GB	45J5918	ThinkVision® L1700p 17" Monitor	9417HE2											
USB 2.0 Super Multi-Burner Drive	41N5565	ThinkVision L1940p Wide 19" Monitor	4424HB6											
ThinkPad Convertible Monitor Stand	40Y7620	ThinkVision L2240p Wide 22" Monitor	4422HB6											
ThinkPad Advanced Mini Dock	250410U	ThinkVision L2440p Wide 24" Monitor	4420HB2											
ThinkPad Advanced Dock	250310U	ThinkVision L2440x Wide 24" Monitor	4421HB2											
Other accessories on O-R61-15W sheet											Other accessories at <b>lenovo.com/accessories</b>			
										ThinkPlus™ <sup>22</sup> 2-year LOR <sup>24</sup> 9x5 NBD 41C9175				
										ThinkPlus 3-year LOR 9x5 NBD 41C9176				
										ThinkPlus 4-year LOR 9x5 NBD 41C9177				
										ThinkPlus 5-year LOR 9x5 NBD 41C9179				
										ThinkPlus 4-year P&L P/U Depot 41C9178				
										ThinkPlus 5-year P&L P/U Depot 41C9180				
										Post-warranty annual maintenance agreements at <b>lenovo.com/thinkplus/warranty</b>				

See footnotes for important warranty information  
 US models announced June 26 or September 18, 2007  
 US models withdrawn effective Dec 2007 or Nov 2008

\* Intel Centrino® processor technology

© Lenovo  
 (WKK1-3) November 2008

# ThinkPad® R61 15W (GMA Graphics) - 1-year - withdrawn

Personal Systems Reference (PSREF)

Type-model	Proc- essor	GHz	Memory	Wide- screen display	Cam- era	Graphics controller	Disk SATA GB <sup>2</sup>	EIDE rpm	EIDE optical	Mini PCIe 802.11 wireless	Card slot	Finger print reader	Blue- tooth	Bat- tery cells	Workhorse (W) Vista Global (G) preload	Avail date
8930-23U	T7300	2.00	1GB	15.4" WXGA	None	GMA	80GB	5400	Combo	*Intel 11a/b/g <sup>32</sup>	Smart	None	None	6	Business32 G	Jul 07

• *This model has a 1-year limited warranty<sup>2</sup>*

Positioning Processor	<i>Everyday computing; two spindles</i> <b>Intel® Core™ 2 Duo processor T7300 with dual-core,</b> Intel 64 Technology, Enhanced Intel SpeedStep technology <sup>1</sup> , Intel Dynamic Acceleration, Execute Disable Bit, Virtualization Technology, 800MHz system bus, and 4MB shared L2 cache										<b>Preloaded operating system<sup>20</sup></b> - Microsoft® Windows® Vista™ Business Edition (32-bit) ♦ Vista Premium logo					
Memory	<b>1GB</b> std / 4GB max <sup>31</sup> / PC2-5300 667MHz DDR2, non-parity, dual-channel capable, two 200-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available;										<b>Preloaded applications<sup>14</sup></b> • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center with Away Manager • ThinkVantage System Update • System Migration Assistant • Norton Internet Security (90 days of virus definitions) • Diskeeper™ Home • PC-Doctor™ (diagnostics) • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader • Windows Live™ Toolbar • Windows Live Search • Picasa from Google • Microsoft Office 2007 Trial • Sonic RecordNow and Drive Letter Access (combo) • InterVideo WinDVD (combo)					
Diskette drive	None (use optional USB-based diskette drive)										<b>License - CD not included</b> - Lotus® Notes® Stand-alone Client					
EIDE Combo	DVD-ROM/CD-RW (73P3288), 24X/24X/24X/8X <sup>21</sup> , removable from Ultrabay Enhanced															
Ultrabay Enhanced	One bay for removable devices, Ultrabay Slim-compatible, 12.5mm high, flat or curved															
Serial ATA disk (SATA150)	<b>80GB<sup>8</sup></b> (5400 rpm) / 9.5mm high, removable, upgradable, 9.5mm high bay, supports 2nd disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™															
Widescreen display	<b>15.4"</b> (391mm) <b>WXGA (1280x800) color</b> , 200 nits, 16:10 aspect ratio, 300:1 contrast ratio, anti-glare															
Camera	None															
Graphics	<b>Intel Graphics Media Accelerator X3100 (GMA X3100)</b> , integrated in GM965, no DVI pass-through support to optional Advanced Mini Dock or Advanced Dock															
Keyboard	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys, Windows/Appl keys															
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar <sup>13</sup> , magnifying glass															
Touch pad	UltraNav™ multi-pointing system, touch pad below keyboard, Tap Zones															
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions															
Dimensions <sup>3</sup>	<i>6-cell 15.4W" (WxDxH):</i> 14.1" x 10.2" x 1.39–1.52"; 358.5 x 260.0mm x 35.3–38.5mm															
Weight <sup>2</sup>	<i>6-cell:</i> starting at 6.4 lb (2.9kg); <i>9-cell:</i> starting at 6.7 lb (3.1kg)															
Case material	Black color, Polycarbonate/Acrylonitrile-Butadiene-Styrene (PC/ABS) plastic															
Battery - type	Lithium Ion <b>6-cell</b> , supports unique 2nd battery in Ultrabay Enhanced															
Battery - life <sup>10</sup>	<i>6-cell:</i> up to 5.0 hr; <i>9-cell:</i> up to 7.0 hr; <i>6-cell plus Ultrabay battery:</i> up to 8.5 hr															
Architecture	<b>Mobile Intel GM965 Express Chipset</b> (Graphics Memory Controller Hub); ICH8M I/O Controller Hub (SATA300, ATA-100 EIDE, PCI Express x1, PCI bus, USB, LPC interface, [Bluetooth], [fingerprint]) / PCI bus (Ricoh® R5C847 Cardbus/1394/Multicard) / LPC bus (WPCN385 Super I/O, Atmel® 97SC3203 TPM)															
PC Card Std slot	One Type I or Type II slot, CardBus 32-bit															
ExpressCard slot	None															
Smart Card Read	Smart Card Reader															
Multicard Reader	4-in-1 reader (MultiMediaCard, Mem Stick PRO, Secure Digital, xD-Picture Card™)															
Ports	Three USB 2.0, external DB-15 monitor, RJ-11 (modem), RJ-45 (ethernet), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard), S-Video out										Supports ThinkVantage® technologies					
Wireless antenna	UltraConnect™ II antenna / on-off switch for all wireless radios										65-watt (GMA graphics) ThinkPad Roll Cage (one-piece magnesium frame) ENERGY STAR® 4.0-compliant RoHS-compliant International Warranty Service <sup>17</sup> 24 hour x 7 day <sup>18</sup> toll-free warranty support during the warranty <sup>12</sup>					
Mini PCI Express	One Mini PCI Express slot / 802.11 wireless is customer upgradable															
Intel 11a/b/g <sup>32</sup>	11a/b/g wireless <sup>4</sup> , Mini PCIe adapter, Intel PRO/Wireless 3945ABG															
WWAN <sup>16</sup>	None															
Turbo Memory	None															
Modem	56K <sup>6</sup> V.90 (V.92-designed <sup>29</sup> ) modem, on systemboard, Conexant® CX20548															
Bluetooth™	None															
Ethernet	Gigabit ethernet on systemboard, Broadcom® BCM5787M (MAC/PHY), PCIe x1, PXE															
Intel AMT	None															
Audio support	High Definition (HD) Audio, CX20549 codec / stereo speakers, 1 watt / volume up, down, mute buttons / internal microphone, microphone input jack, headphone jack															
Security	Power-on password, hard disk password, supervisor password, security keyhole															
Security chip	<b>Trusted Platform Module</b> , Atmel chip, TCG 1.2-compliant															
Fingerprint reader	None															
Limited warranty <sup>12</sup>	<b>1-year</b> - EasyServ™ <sup>19</sup> onsite pickup and delivery / service upgrades <sup>22</sup> available															
512MB PC2-5300 DDR2 CL5 SODIMM	40Y7733			T60/R60 Series Li-Ion Battery 6-cell			40Y6799									
1GB PC2-5300 DDR2 CL5 SODIMM	40Y7734			Z60m/T60/R60 Li-Ion Battery 9-cell			40Y6797									
2GB PC2-5300 DDR2 SODIMM	40Y7735			Advanced Ultrabay Battery 3-cell			40Y6789									
Serial Hard Drive Ultrabay Slim Adapter (flat)	40Y8725			ThinkPad External Battery Charger			40Y7625			ThinkPlus 2-year P&L P/U Depot						
ThinkPad DVD Ultrabay Slim Burner (flat)	41N5643			ThinkPad 90W AC Adapter			40Y7659			41C9169						
160GB Disk 9.5mm SATA150 (5400 rpm)	41N5692			ThinkPad 90W AC/DC Combo Adapter			40Y7630			ThinkPlus 3-year P&L P/U Depot						
160GB Disk 9.5mm SATA150 (7200 rpm)	41N5737			ThinkPad Carrying Case - Expander			73P3597			41C9170						
200GB Disk FDE SATA150 (7200 rpm)	41N5738			ThinkPad Carrying Case - Backpack			73P3599			ThinkPlus 4-year P&L P/U Depot						
USB 2.0 Super Multi-Burner Drive	41N5565			ThinkVision® L171p 17" LCD Monitor			9417HC2			41C9172						
ThinkPad Convertible Monitor Stand	40Y7620			ThinkVision L193p 19" LCD Monitor			4431HB2			ThinkPlus 5-year P&L P/U Depot						
ThinkPad Essential Port Replicator	250510W			ThinkVision L194 Wide 19" LCD			4434HB6			41C9174						
ThinkPad Advanced Mini Dock	250410U			ThinkVision L220x Wide 22" LCD			4433HB2			Post-warranty annual maintenance agreements at						
ThinkPad Advanced Dock	250310U			Lenovo M500 Projector			0037A05			<b>lenovo.com/thinkplus/warranty</b>						
Other accessories on O-R61-15W sheet				Other accessories at <b>lenovo.com/accessories</b>												

See footnotes for important warranty information  
 US model announced July 10, 2007  
 US model withdrawn effective December 2007

\* Powered by Intel Centrino® Duo processor technology

© Lenovo  
 (WKK11-3) December 2007

# ThinkPad® R61 15W (GMA Graphics) - 3-year - withdrawn

Personal Systems Reference (PSREF)

Type-model	Processor	GHz	Memory	Wide-screen display	Camera	Graphics controller	Disk SATA GB <sup>3</sup>	rpm	EIDE optical	Mini PCIe 802.11 wireless	Card slot	Finger print reader	Blue-tooth	Battery cells	Workhorse (W) Vista Global (G) Avail date
8933-22U	T7300	2.00	1GB	15.4" WXGA	None	GMA	80GB	5400	Combo	*Intel 11a/b/g <sup>32</sup>	Smart	Finger	Blue	6	Business64 W G Jul 07
8933-ACU	T7300	2.00	1GB	15.4" WXGA	None	GMA	80GB	5400	Combo	*Intel 11a/b/g	Smart	Finger	6	Business32	Jul 07
8933-B7U	540	1.86	1GB	15.4" WXGA	None	GMA	80GB	5400	Combo	Intel 11a/b/g	Smart	Finger	6	Business32	Sep07

• These models have a 3-year limited warranty<sup>12</sup>

Positioning Processor	<p><i>Everyday computing; two spindles</i>  <b>Intel® Celeron® Processor 540</b> with single-core, Intel 64 Technology, Execute Disable Bit, 533MHz system bus, and 1MB L2 cache or <b>Intel Core™ 2 Duo processor T7300</b> with dual-core, Intel 64 Technology, Enhanced Intel SpeedStep® technology<sup>1</sup>, Intel Dynamic Acceleration, Execute Disable Bit, Virtualization Technology, and 800MHz system bus; 4MB shared L2 cache</p>										<p><b>Preloaded operating system</b><sup>20</sup>                      - Some: Microsoft® Windows® Vista® Business Edition (32-bit)                      - Some: Microsoft Windows Vista Business Edition (64-bit)                      ♦ Vista Basic logo</p>				
Memory	<p><b>1GB</b> std / 4GB max<sup>31</sup> / PC2-5300 667MHz DDR2, non-parity, dual-channel capable, two 200-pin SO-DIMM sockets;  <i>Non-italics:</i> standard memory in one socket; one socket available</p>										<p><b>Preloaded applications</b><sup>14</sup> (all OSes)                      • Rescue and Recovery™                      • Access Connections™                      • Client Security Solution™                      • ThinkVantage Productivity Center                      • ThinkVantage System Update                      • System Migration Assistant                      • Norton Internet Security™ (90 days of virus definitions)                      • Diskeeper® Home                      • PC-Doctor™ (diagnostics)                      • ThinkPad Utilities (Power Manager and Presentation Director)                      • Adobe® Reader                      • Windows Live™ Toolbar                      • Windows Live Search                      • Picasa from Google                      • Fingerprint Software (fingerprint models)                      • Microsoft Office 2007 Trial (60-day)                      • Sonic RecordNow and Drive Letter Access (combo)                      • Corel® WinDVD® (combo)</p>				
Diskette drive	None (use optional USB-based diskette drive)														
EIDE Combo	DVD-ROM/CD-RW (73P3288), 24X/24X/24X/8X <sup>21</sup> , removable from Ultrabay™ Enhanced														
Ultrabay Enhanced	One bay for removable devices, Ultrabay Slim-compatible, 12.7mm high, flat or curved														
Serial ATA disk	<b>80GB<sup>8</sup></b> (5400 rpm) / SATA 1.5Gb/s, 9.5mm high, removable, upgradable, 9.5mm high bay, supports 2nd disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™														
Widescreen display	<b>15.4"</b> (391mm) <b>WXGA (1280x800) color</b> , anti-glare, 200 nits, 16:10 aspect ratio, 300:1 contrast ratio														
Camera	None														
Graphics	<b>Intel Graphics Media Accelerator X3100 (GMA X3100)</b> , integrated in GM965, no DVI pass-through support to optional Advanced Mini Dock or Advanced Dock														
Keyboard	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys, Windows/Appl keys														
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar <sup>13</sup> , magnifying glass														
Touch pad	UltraNav™ multi-pointing system, touch pad below keyboard, Tap Zones														
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions														
Dimensions <sup>3</sup>	<i>6-cell 15.4W"</i> (WxDxH): 14.1" x 10.2" x 1.39–1.52"; 358.5 x 260.0mm x 35.3–38.5mm														
Weight <sup>2</sup>	starting at 6.4 lb (2.9kg)														
Case material	Black color, Polycarbonate/Acrylonitrile-Butadiene-Styrene (PC/ABS) plastic														
Battery - type	Lithium Ion <b>6-cell</b> , supports unique 2nd battery in Ultrabay Enhanced														
Battery - life <sup>10</sup>	<i>6-cell:</i> up to 5.0 hr; <i>6-cell plus Ultrabay battery:</i> up to 8.5 hr														
Chipset	<p><b>Mobile Intel GM965 Express Chipset</b> (Graphics Memory Controller Hub); ICH8M I/O Controller Hub (SATA 3.0Gb/s, ATA-100 EIDE, PCI Express® x1, PCI bus, USB, LPC bus, [Bluetooth], [fingerprint]) / PCI bus (Ricoh® R5C847 Cardbus/1394/Multicard) / LPC bus (WPCN385 Super I/O, Atmel® 97SC3203 TPM)</p>														
PC Card Std slot	One Type I or Type II slot, CardBus 32-bit														
ExpressCard slot	None														
Smart Card Read	Smart Card Reader														
Multicard Reader	4-in-1 reader (MultiMediaCard, Memory Stick® PRO™, Secure Digital, xD-Picture Card™)														
Ports	Three USB 2.0, DB-15 (external VGA monitor), RJ-11 (modem), RJ-45 (ethernet), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard), S-Video out														
Wireless antenna	UltraConnect™ II antenna / on-off switch for all wireless radios														
Mini PCI Express	One Mini PCI Express slot / 802.11 wireless is customer upgradable														
Intel 11a/b/g <sup>32</sup>	11a/b/g wireless <sup>4</sup> , Mini PCIe adapter, Intel PRO/Wireless 3945ABG										Supports ThinkVantage® technologies				
WWAN	None														
Turbo Memory	None														
Modem	56K <sup>6</sup> V.92 <sup>29</sup> modem, on systemboard, Conexant® CX20548										65-watt (GMA graphics) ThinkPad Roll Cage (one-piece magnesium frame) ENERGY STAR® 4.0-compliant RoHS-compliant International Warranty Service <sup>17</sup> 24 hour x 7 day <sup>18</sup> toll-free support during the warranty period <sup>12</sup> via 800-426-7378				
Bluetooth™	Some: Bluetooth 2.0 wireless, USB 2.0 interface via ICH8M, LED indicator														
Ethernet	Gigabit ethernet on systemboard, Broadcom® BCM5787M (MAC/PHY), PCIe x1, PXE														
Intel AMT	None														
Audio support	High Definition (HD) Audio, CX20549 codec / stereo speakers, 1 watt / volume up, down, mute buttons / internal microphone, microphone input jack, headphone jack														
Security	Power-on password, hard disk password, supervisor password, security keyhole														
Security chip	<b>Trusted Platform Module</b> , Atmel chip, TCG 1.2-compliant														
Fingerprint reader	<b>Fingerprint reader on palm rest</b> , swipe sensor, supported with security chip														
Limited warranty <sup>12</sup>	<b>3-years/1-yr battery - EasyServ™.19</b> depot repair service / service upgrades <sup>22</sup> available										ThinkPlus™.22 2-year LOR <sup>24</sup> 9x5 NBD 41C9175				
1GB PC2-5300 DDR2 SODIMM	40Y7734			T/R/W/SL Series Li-Ion Battery 6-cell			40Y6799			ThinkPlus 3-year LOR 9x5 NBD					
2GB PC2-5300 DDR2 SODIMM	40Y7735			T/R/W/SL Series Li-Ion Battery 9-cell			40Y6797			41C9176					
Serial Hard Drive Ultrabay Slim Adapter (flat)	40Y8725			Advanced Ultrabay Battery II 3-cell			43R9250			ThinkPlus 4-year LOR 9x5 NBD					
ThinkPad DVD Ultrabay Slim Burner (flat)	41N5643			ThinkPad External Battery Charger			40Y7625			41C9177					
200GB Disk FDE SATA 1.5Gb/s (7200 rpm)	41N5738			ThinkPad 90W AC Adapter			40Y7659			41C9179					
250GB Disk 9.5mm SATA 1.5Gb/s (5400 rpm)	43R8152			90W Slim AC/DC Combo Adapter			41N8460			ThinkPlus 4-year P&L P/U Depot					
320GB Disk SATA 1.5Gb/s (5400 rpm)	43N3403			ThinkPad Business Topload Case			43R2476			41C9178					
USB 2.0 Super Multi-Burner Drive	41N5565			ThinkPad Business Backpack			43R2482			ThinkPlus 5-year P&L P/U Depot					
ThinkPad Essential Port Replicator	250510W			ThinkVision® L1940p Wide 19" Monitor			4424HB6			41C9180					
ThinkPad Advanced Mini Dock	250410U			ThinkVision L2240p Wide 22" Monitor			4422HB6			Post-warranty annual maintenance agreements at					
ThinkPad Advanced Dock	250310U			ThinkVision L2440p Wide 24" Monitor			4420HB2			<b>lenovo.com/thinkplus/warranty</b>					
Other accessories on O-R61-15W sheet	Other accessories at <b>lenovo.com/accessories</b>														

See footnotes for important warranty information  
 US models announced July 10, July 24, or September 18, 2007  
 US models withdrawn effective November 2008

\* Intel Centrino® processor technology

# ThinkPad® R61 15W (NVIDIA Graphics) - 1-year - withdrawn

Personal Systems Reference (PSREF)

Type-model	Processor	GHz	Memory	Wide-screen display	Graphics controller	memory	Disk SATA GB <sup>3</sup>	rpm	EIDE optical	Mini PCIe 802.11 wireless	Finger print reader	Blue-tooth	Battery 1394 port cells	Vista preload	Whorse (W) Global (G) Avail date
8914-23U	T7300	2.00	1GB	15.4" WXGA	128MB	80GB	5400	Combo	*Intel 11a/b/g <sup>32</sup>	None	None	1394	6	Business32	G Jun 07

• **This model has a 1-year limited warranty<sup>2</sup>**

Positioning Processor	<i>Everyday computing; two spindles</i> <b>Intel® Core™ 2 Duo processor T7300 with dual-core,</b> Intel 64 Technology, Enhanced Intel SpeedStep technology <sup>1</sup> , Intel Dynamic Acceleration, Execute Disable Bit, Virtualization Technology, 800MHz system bus, and 4MB shared L2 cache										<b>Preloaded operating system<sup>20</sup></b> - Microsoft® Windows® Vista™ Business Edition (32-bit) ◇ Vista Premium logo				
Memory	<b>1GB</b> std / 4GB max <sup>31</sup> / PC2-5300 667MHz DDR2, non-parity, dual-channel capable, two 200-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available										<b>Preloaded applications<sup>14</sup></b> • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • ThinkVantage System Update • System Migration Assistant • Norton Internet Security (90 days of virus definitions) • Diskeeper™ Home • PC-Doctor™ (diagnostics) • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader • Windows Live™ Toolbar • Windows Live Search • Picasa from Google • Fingerprint Software (fingerprint models) • Microsoft Office 2007 Trial • Sonic RecordNow and Drive Letter Access (combo) • InterVideo WinDVD (combo)				
Diskette drive	None (use optional USB-based diskette drive)										<b>License</b> - CD not included - Lotus® Notes® Stand-alone Client				
EIDE Combo	DVD-ROM/CD-RW (73P3288), 24X/24X/24X/8X <sup>21</sup> , removable Ultrabay™ Enh, curved														
Ultrabay Enhanced	One bay for removable devices, Ultrabay Slim-compatible, 12.5mm high, flat or curved														
Serial ATA disk (SATA150)	<b>80GB<sup>8</sup></b> (5400 rpm) / 9.5mm high, removable, upgradable, 9.5mm high bay, supports 2nd disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™														
Widescreen display	<b>15.4"</b> (391mm) <b>WXGA (1280x800) color</b> , 200 nits, 16:10 aspect ratio, 300:1 contrast ratio, anti-glare														
Camera	None														
Graphics	<b>NVIDIA® Quadro® NVS 140M</b> , PCI Express x16, <b>128MB</b> memory, TurboCache, DVI pass-through support to optional Advanced Mini Dock or Advanced Dock														
Keyboard	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys, Windows/Appl keys														
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar <sup>13</sup> , magnifying glass														
Touch pad	UltraNav™ multi-pointing system, touch pad below keyboard, Tap Zones														
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions														
Dimensions <sup>3</sup>	<b>6-cell 15.4W" (WxDxH):</b> 14.1" x 10.2" x 1.39–1.52"; 358.5 x 260.0mm x 35.3–38.5mm														
Weight <sup>2</sup>	<b>6-cell:</b> starting at 6.4 lb (2.9kg); <b>9-cell:</b> starting at 6.7 lb (3.1kg)														
Case material	Black color; Polycarbonate/Acrylonitrile-Butadiene-Styrene (PC/ABS) plastic														
Battery - type	Lithium Ion <b>6-cell</b> 2.4 Ah, supports unique 2nd battery in Ultrabay Enhanced														
Battery - life <sup>10</sup>	<b>6-cell:</b> up to 5.0 hr; <b>9-cell:</b> up to 7.0 hr; <b>6-cell plus Ultrabay battery:</b> up to 8.5 hr														
Architecture	<b>Mobile Intel PM965 Express Chipset</b> (Memory Controller Hub); ICH8M I/O Controller Hub (SATA300, ATA-100 EIDE, PCI Express x1, PCI bus, USB, LPC interface, [Bluetooth], [fingerprint]) / PCI bus (Ricoh® R5C847 Cardbus/1394/Multicard) / LPC bus (WPCN385 Super I/O, Atmel® 97SC3203 TPM)														
PC Card Std slot	One Type I or Type II slot, CardBus 32-bit														
ExpressCard slot	None														
Smart Card Read	Smart Card Reader (under PC Card slot)														
Multicard Reader	4-in-1 reader (MultiMediaCard, Mem Stick PRO, Secure Digital, xD-Picture Card™)														
Ports	Three USB 2.0, external DB-15 monitor, RJ-11 (modem), RJ-45 (ethernet), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard), S-Video out										Supports ThinkVantage® technologies				
Wireless antenna	UltraConnect™ II antenna / on-off switch for all wireless radios										90-watt (NVIDIA graphics)				
Mini PCI Express	One Mini PCI Express slot / 802.11 wireless is customer upgradable										ThinkPad Roll Cage (one-piece magnesium frame)				
Intel 11a/b/g <sup>32</sup>	11a/b/g wireless <sup>4</sup> , Mini PCIe adapter, Intel PRO/Wireless 3945ABG										ENERGY STAR® 4.0-compliant				
WWAN <sup>16</sup>	None										RoHS-compliant				
Turbo Memory	None										International Warranty Service <sup>17</sup>				
Modem	56K <sup>6</sup> V.90 (V.92-designed <sup>29</sup> ) modem in Communications Daughter Card socket										24 hour x 7 day <sup>18</sup> toll-free warranty support during the warranty <sup>12</sup>				
Bluetooth™	None										ThinkPlus™.22 1-year LOR 9x5 NBD 41C9166				
Ethernet	Gigabit ethernet on systemboard, Intel 82566MC Ninevah (PHY), PCIe x1 (GLCI), PXE										ThinkPlus 2-year LOR 9x5 NBD 41C9167				
Intel AMT	None										ThinkPlus 3-year LOR 9x5 NBD 41C9168				
Audio support	High Definition (HD) Audio, AD1984JCP codec / stereo speakers, 1 watt / volume up, down, mute buttons / internal microphone, microphone input jack, headphone jack										ThinkPlus 4-year LOR 9x5 NBD 41C9171				
Security	Power-on password, hard disk password, supervisor password, security keyhole										ThinkPlus 5-year LOR 9x5 NBD 41C9173				
Security chip	<b>Trusted Platform Module</b> , Atmel chip, TCG 1.2-compliant										ThinkPlus 2-year P&L P/U Depot 41C9169				
Fingerprint reader	None										ThinkPlus 3-year P&L P/U Depot 41C9170				
Limited warranty <sup>12</sup>	<b>1-year</b> - EasyServ™.19 onsite pickup and delivery / service upgrades <sup>22</sup> available										ThinkPlus 4-year P&L P/U Depot 41C9172				
512MB PC2-5300 DDR2 CL5 SODIMM	40Y7733				T60/R60 Series Li-Ion Battery 6-cell				40Y6799				ThinkPlus 5-year LOR 9x5 NBD		
1GB PC2-5300 DDR2 CL5 SODIMM	40Y7734				Z60m/T60/R60 Li-Ion Battery 9-cell				40Y6797				41C9173		
2GB PC2-5300 DDR2 SODIMM	40Y7735				Advanced Ultrabay Battery 3-cell				40Y6789				ThinkPlus 2-year P&L P/U Depot		
ThinkPad DVD Ultrabay Slim Burner (flat)	41N5643				ThinkPad External Battery Charger				40Y7625				41C9169		
Serial Hard Drive Ultrabay Slim Adapter (flat)	40Y8725				ThinkPad 90W AC Adapter				40Y7659				ThinkPlus 3-year P&L P/U Depot		
160GB Disk 9.5mm SATA150 (5400 rpm)	41N5692				ThinkPad 90W AC/DC Combo Adapter				40Y7630				41C9170		
160GB Disk 9.5mm SATA150 (7200 rpm)	41N5737				ThinkPad Carrying Case - Expander				73P3597				ThinkPlus 4-year P&L P/U Depot		
200GB Disk FDE SATA150 (7200 rpm)	41N5738				ThinkPad Carrying Case - BackPack				73P3599				41C9172		
USB 2.0 Super Multi-Burner Drive	41N5565				ThinkVision® L171p 17" LCD Monitor				9417HC2				ThinkPlus 5-year P&L P/U Depot		
ThinkPad Convertible Monitor Stand	40Y7620				ThinkVision L190x 19" LCD Monitor				4439HB2				41C9174		
ThinkPad Essential Port Replicator	250510W				ThinkVision L194 Wide 19" LCD				4434HB6				Post-warranty annual maintenance agreements at		
ThinkPad Advanced Mini Dock	250410U				ThinkVision L220x Wide 22" LCD				4433HB2				lenovo.com/thinkplus/warranty		
ThinkPad Advanced Dock	250310U				Lenovo M500 Projector				0037A05						
Other accessories on O-R61-15W sheet											Other accessories at <b>lenovo.com/accessories</b>				

See footnotes for important warranty information  
US model announced May 31, 2007  
US model withdrawn effective December 2007

\* Powered by Intel Centrino® Duo processor technology

© Lenovo  
(WKK1-1) December 2007

# ThinkPad® R61 15W (NVIDIA Graphics) - 3-year - withdrawn

Personal Systems Reference (PSREF)

Type-model	Proc-essor	GHz	Memory	Wide-screen display	Graphics controller	memory	Disk SATA GB <sup>3</sup>	rpm	EIDE optical	Mini PCIe 802.11 wireless	Finger print reader	Blue-tooth	Bat-tery port cells	1394	Vista pre-load	Workhorse (W) Global (G) Avail date
8919-22U	T7300	2.00	1GB	15.4" WSXGA+	128MB	80GB	5400	Combo	*Intel 11a/b/g <sup>32</sup>	Finger	Blue	1394	6	Business32	W G Jun 07	

- *This model has a 3-year limited warranty*<sup>12</sup>

Positioning Processor	<i>Everyday computing; two spindles</i> <b>Intel® Core™ 2 Duo processor T7300 with dual-core.</b> Intel 64 Technology, Enhanced Intel SpeedStep® technology <sup>1</sup> , Intel Dynamic Acceleration, Execute Disable Bit, Virtualization Technology, 800MHz system bus, and 4MB shared L2 cache											Preloaded operating system <sup>20</sup> - Microsoft® Windows® Vista™ Business Edition (32-bit) ◇ Vista Premium logo
Memory	<b>1GB</b> std / 4GB max <sup>31</sup> / PC2-5300 667MHz DDR2, non-parity, dual-channel capable, two 200-pin SO-DIMM sockets; <i>Non-italics:</i> standard memory in one socket; one socket available											Preloaded applications <sup>14</sup> • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • ThinkVantage System Update • System Migration Assistant • Norton Internet Security (90 days of virus definitions) • Diskeeper™ Home • PC-Doctor™ (diagnostics) • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader • Windows Live™ Toolbar • Windows Live Search • Picasa from Google • Fingerprint Software (fingerprint models) • Microsoft Office 2007 Trial (60-day) • Sonic RecordNow and Drive Letter Access (combo) • InterVideo WinDVD (combo)
Diskette drive	None (use optional USB-based diskette drive)											
EIDE Combo	DVD-ROM/CD-RW (73P3288), 24X/24X/24X/8X <sup>21</sup> , removable Ultrabay™ Enh, curved											
Ultrabay Enhanced	One bay for removable devices, Ultrabay Slim-compatible, 12.7mm high, flat or curved											
Serial ATA disk	<b>80GB<sup>8</sup></b> (5400 rpm) / SATA 1.5Gb/s, 9.5mm high, removable, upgradable, 9.5mm high bay, supports 2nd disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™											
Widescreen display	<b>15.4"</b> (391mm) <b>WSXGA+ (1680x1050) color</b> , anti-glare, 200 nits, 16:10 aspect ratio, 500:1 contrast ratio											
Camera	None											
Graphics	<b>NVIDIA® Quadro® NVS 140M</b> , PCI Express x16, <b>128MB</b> memory, TurboCache, DVI pass-through support to optional Advanced Mini Dock or Advanced Dock											
Keyboard	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys, Windows/Appl keys											
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar <sup>13</sup> , magnifying glass											
Touch pad	UltraNav™ multi-pointing system, touch pad below keyboard, Tap Zones											
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions											
Dimensions <sup>3</sup>	<b>6-cell 15.4W" (WxDxH):</b> 14.1" x 10.2" x 1.39–1.52"; 358.5 x 260.0mm x 35.3–38.5mm											
Weight <sup>2</sup>	<b>6-cell:</b> starting at 6.4 lb (2.9kg); <b>9-cell:</b> starting at 6.7 lb (3.1kg)											
Case material	Black color; Polycarbonate/Acrylonitrile-Butadiene-Styrene (PC/ABS) plastic											
Battery - type	Lithium Ion <b>6-cell</b> 2.4 Ah, supports unique 2nd battery in Ultrabay Enhanced											
Battery - life <sup>10</sup>	<b>6-cell:</b> up to 5.0 hr; <b>9-cell:</b> up to 7.0 hr; <b>6-cell plus Ultrabay battery:</b> up to 8.5 hr											
Chipset	<b>Mobile Intel PM965 Express Chipset</b> (Memory Controller Hub); ICH8M I/O Controller Hub (SATA 3.0Gb/s, ATA-100 EIDE, PCI Express x1, PCI bus, USB, LPC bus, [Bluetooth], [fingerprint]) / PCI bus (Ricoh® R5C847 Cardbus/1394/Multicard) / LPC bus (WPCN385 Super I/O, Atmel® 97SC3203 TPM)											
PC Card Std slot	One Type I or Type II slot, CardBus 32-bit											
ExpressCard slot	None											
Smart Card Reader	Smart Card Reader (under PC Card slot)											
Multicard Reader	4-in-1 reader (MultiMediaCard, Memory Stick® PRO™, Secure Digital, xD-Picture Card™)											
Ports	Three USB 2.0, DB-15 (external VGA monitor), RJ-11 (modem), RJ-45 (ethernet), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard), S-Video out											
Wireless antenna	UltraConnect™ II antenna / on-off switch for all wireless radios											
Mini PCI Express	One Mini PCI Express slot / 802.11 wireless is customer upgradable											
Intel 11a/b/g <sup>32</sup>	11a/b/g wireless <sup>4</sup> , Mini PCIe adapter, Intel PRO/Wireless 3945ABG											
WWAN	None											
Turbo Memory	None											Supports ThinkVantage® technologies
Modem	56K <sup>6</sup> V.90 (V.92-designed <sup>29</sup> ) modem in Communications Daughter Card socket											
Bluetooth™	Bluetooth 2.0 wireless, USB 2.0 interface via ICH8M, LED indicator											90-watt (NVIDIA graphics) ThinkPad Roll Cage (one-piece magnesium frame) ENERGY STAR® 4.0-compliant RoHS-compliant International Warranty Service <sup>17</sup> 24 hour x 7 day <sup>18</sup> toll-free support during the warranty period <sup>12</sup> via 800-426-7378
Ethernet	Gigabit ethernet on systemboard, Intel 82566MC Nineveh (PHY), PCIe x1 (GLCI), PXE											
Intel AMT	None											
Audio support	High Definition (HD) Audio, AD1984JCP codec / stereo speakers, 1 watt / volume up, down, mute buttons / internal microphone, microphone input jack, headphone jack											
Security	Power-on password, hard disk password, supervisor password, security keyhole											
Security chip	<b>Trusted Platform Module</b> , Atmel chip, TCG 1.2-compliant											
Fingerprint reader	<b>Fingerprint reader on palm rest</b> , swipe sensor, supported with security chip											
Limited warranty <sup>12</sup>	<b>3-years/1-yr battery</b> - EasyServ™ <sup>19</sup> depot repair service / service upgrades <sup>22</sup> avail											ThinkPlus™. <sup>22</sup> 2-year LOR 9x5 NBD 41C9175
1GB PC2-5300 DDR2 SODIMM	40Y7734					T60/R60 Series Li-Ion Battery 6-cell	40Y6799					
2GB PC2-5300 DDR2 SODIMM	40Y7735					Z60m/T60/R60 Li-Ion Battery 9-cell	40Y6797					ThinkPlus 3-year LOR 9x5 NBD
Serial Hard Drive Ultrabay Slim Adapter (flat)	40Y8725					Advanced Ultrabay Battery II 3-cell	43R9250					41C9176
ThinkPad DVD Ultrabay Slim Burner (flat)	41N5643					ThinkPad External Battery Charger	40Y7625					ThinkPlus 4-year LOR 9x5 NBD
160GB Disk 9.5mm SATA 1.5Gb/s (7200 rpm)	41N5737					ThinkPad 90W AC Adapter	40Y7659					41C9177
200GB Disk FDE SATA 1.5Gb/s (7200 rpm)	41N5738					90W Slim AC/DC Combo Adapter	41N8460					ThinkPlus 5-year LOR 9x5 NBD
250GB Disk 9.5mm SATA 1.5Gb/s (5400 rpm)	43R8152					ThinkPad Basic Case	43R9113					41C9179
Blu-ray™ Burner Ultrabay Enhanced (curved)	43N3200					ThinkPad Business Backpack	43R2482					ThinkPlus 4-year P&L P/U Depot
USB 2.0 Super Multi-Burner Drive	41N5565					ThinkVision® L174 17" LCD Monitor	9227AE1					41C9178
USB 2.0 Lenovo Enhanced Port Replicator	43R8770					ThinkVision L171p 17" LCD Monitor	9417HC2					ThinkPlus 5-year P&L P/U Depot
ThinkPad Convertible Monitor Stand	40Y7620					ThinkVision L190x 19" LCD Monitor	4439HB2					41C9180
ThinkPad Advanced Mini Dock	250410U					ThinkVision L193p 19" LCD Monitor	4431HB2					Post-warranty annual maintenance agreements at
ThinkPad Advanced Dock	250310U					ThinkVision L220x Wide 22" LCD	4433HB2					<b>lenovo.com/thinkplus/warranty</b>
Other accessories on O-R61-15W sheet	Other accessories at <b>lenovo.com/accessories</b>											

See footnotes for important warranty information  
US model announced May 31, 2007  
US model withdrawn effective June 2008

\* Intel Centrino® processor technology

© Lenovo  
(WKK1-2) July 2008

# ThinkPad® R61 15W 8935 (GMA) - 3-year (Onsite) - withdrawn

Personal Systems Reference (PSREF)

Proc- Type-model	essor GHz	Memory	Wide- screen display	Cam- era	Graphics controller	Disk SATA GB <sup>5</sup> rpm	EIDE optical	Mini PCIe 802.11 wireless	Card slot	Finger print reader	Bat- tery Blue- tooth cells	Vista preload	Workhorse (W) Global (G) Avail GMP (P) date
8935-22U	T7300	2.00 1GB	15.4" WXGA	None	GMA	80GB 5400	Combo	*Intel 11a/b/g <sup>32</sup>	Smart	Finger	Blue	6	Business64 W G P Jul 07

• This model is part of the Global Models Plus program with limited onsite service<sup>24</sup> 3-year limited warranty

Positioning Processor	<p><i>Everyday computing; two spindles</i>  <b>Intel Core™ 2 Duo processor T7300</b> with dual-core, Intel 64 Technology, Enhanced Intel SpeedStep® technology<sup>1</sup>, Intel Dynamic Acceleration, Execute Disable Bit, Virtualization Technology, and 800MHz system bus; 4MB shared L2 cache</p>											
Memory	<p><b>1GB</b> std / 4GB max<sup>31</sup> / PC2-5300 667MHz DDR2, non-parity, dual-channel capable, two 200-pin SO-DIMM sockets;  <i>Non-italics:</i> standard memory in one socket; one socket available</p>											
Diskette drive	None (use optional USB-based diskette drive)											
EIDE Combo	DVD-ROM/CD-RW (73P3288), 24X/24X/24X/8X <sup>21</sup> , removable from Ultrabay™ Enhanced											
Ultrabay Enhanced	One bay for removable devices, Ultrabay Slim-compatible, 12.7mm high, flat or curved											
Serial ATA disk	<p><b>80GB<sup>8</sup></b> (5400 rpm) / SATA 1.5Gb/s, 9.5mm high, removable, upgradable, 9.5mm high bay, supports 2nd disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™</p>											
Widescreen display	<b>15.4"</b> (391mm) <b>WXGA (1280x800) color</b> , anti-glare, 200 nits, 16:10 aspect ratio, 300:1 contrast ratio											
Camera	None											
Graphics	<b>Intel Graphics Media Accelerator X3100 (GMA X3100)</b> , integrated in GM965, no DVI pass-through support to optional Advanced Mini Dock or Advanced Dock											
Keyboard	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys, Windows/Appl keys											
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar <sup>13</sup> , magnifying glass											
Touch pad	UltraNav™ multi-pointing system, touch pad below keyboard, Tap Zones											
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions											
Dimensions <sup>3</sup>	<i>6-cell 15.4W"</i> (WxDxH): 14.1" x 10.2" x 1.39–1.52"; 358.5 x 260.0mm x 35.3–38.5mm											
Weight <sup>2</sup>	starting at 6.4 lb (2.9kg)											
Case material	Black color, Polycarbonate/Acrylonitrile-Butadiene-Styrene (PC/ABS) plastic											
Battery - type	Lithium Ion <b>6-cell</b> , supports unique 2nd battery in Ultrabay Enhanced											
Battery - life <sup>10</sup>	<i>6-cell:</i> up to 5.0 hr; <i>6-cell plus Ultrabay battery:</i> up to 8.5 hr											
Chipset	<b>Mobile Intel GM965 Express Chipset</b> (Graphics Memory Controller Hub); ICH8M I/O Controller Hub (SATA 3.0Gb/s, ATA-100 EIDE, PCI Express® x1, PCI bus, USB, LPC bus, [Bluetooth], [fingerprint]) / PCI bus (Ricoch® R5C847 Cardbus/1394/Multicard) / LPC bus (WPCN385 Super I/O, Atmel® 97SC3203 TPM)											
PC Card Std slot	One Type I or Type II slot, CardBus 32-bit											
ExpressCard slot	None											
Smart Card Read	Smart Card Reader											
Multicard Reader	4-in-1 reader (MultiMediaCard, Memory Stick® PRO™, Secure Digital, xD-Picture Card™)											
Ports	Three USB 2.0, DB-15 (external VGA monitor), RJ-11 (modem), RJ-45 (ethernet), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard), S-Video out											
Wireless antenna	UltraConnect™ II antenna / on-off switch for all wireless radios											
Mini PCI Express	One Mini PCI Express slot / 802.11 wireless is customer upgradable											
Intel 11a/b/g <sup>32</sup>	11a/b/g wireless <sup>4</sup> , Mini PCIe adapter, Intel PRO/Wireless 3945ABG											
WWAN	None											
Turbo Memory	None											
Modem	56K <sup>6</sup> V.92 <sup>29</sup> modem, on systemboard, Conexant® CX20548											
Bluetooth™	Bluetooth 2.0 wireless, USB 2.0 interface via ICH8M, LED indicator											
Ethernet	Gigabit ethernet on systemboard, Broadcom® BCM5787M (MAC/PHY), PCIe x1, PXE											
Intel AMT	None											
Audio support	High Definition (HD) Audio, CX20549 codec / stereo speakers, 1 watt / volume up, down, mute buttons / internal microphone, microphone input jack, headphone jack											
Security	Power-on password, hard disk password, supervisor password, security keyhole											
Security chip	<b>Trusted Platform Module</b> , Atmel chip, TCG 1.2-compliant											
Fingerprint reader	<b>Fingerprint reader on palm rest</b> , swipe sensor, supported with security chip											
Limited warranty <sup>12</sup>	<b>3-years</b> /1-year battery, <b>limited onsite service</b> <sup>24</sup> , 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time / service upgrades <sup>22</sup> available											
1GB PC2-5300 DDR2 SODIMM	40Y7734	T/R/W/SL Series Li-Ion Battery 6-cell										40Y6799
2GB PC2-5300 DDR2 SODIMM	40Y7735	T/R/W/SL Series Li-Ion Battery 9-cell										40Y6797
Serial Hard Drive Ultrabay Slim Adapter (flat)	40Y8725	Advanced Ultrabay Battery II 3-cell										43R9250
ThinkPad DVD Ultrabay Slim Burner (flat)	41N5643	ThinkPad External Battery Charger										40Y7625
200GB Disk FDE SATA 1.5Gb/s (7200 rpm)	41N5738	ThinkPad 90W AC Adapter										40Y7659
250GB Disk 9.5mm SATA 1.5Gb/s (5400 rpm)	43R8152	90W Slim AC/DC Combo Adapter										41N8460
320GB Disk SATA 1.5Gb/s (5400 rpm)	43N3403	ThinkPad Business Topload Case										43R2476
USB 2.0 Super Multi-Burner Drive	41N5565	ThinkPad Business Backpack										43R2482
USB 2.0 Lenovo Enhanced Port Replicator	43R8770	ThinkPad Deluxe Expander Case										43R2478
ThinkPad Convertible Monitor Stand	40Y7620	ThinkVision® L1700p 17" Monitor										9417HE2
ThinkPad Essential Port Replicator	250510W	ThinkVision L1940p Wide 19" Monitor										4424HB6
ThinkPad Advanced Mini Dock	250410U	ThinkVision L2240p Wide 22" Monitor										4422HB6
ThinkPad Advanced Dock	250310U	ThinkVision L2440x Wide 24" Monitor										4421HB2
Other accessories on O-R61-15W sheet	Other accessories at <a href="http://lenovo.com/accessories">lenovo.com/accessories</a>											
											Supports ThinkVantage® technologies	
											65-watt (GMA graphics) ThinkPad Roll Cage (one-piece magnesium frame) ENERGY STAR® 4.0-compliant RoHS-compliant International Warranty Service <sup>17</sup> 24 hour x 7 day <sup>18</sup> toll-free support during the warranty period <sup>12</sup> via 800-426-7378	
											ThinkPlus™. <sup>22</sup> 4-year LOR <sup>24</sup> 9x5 NBD 12X5630	
											ThinkPlus 5-year LOR 9x5 NBD 43R2162	
											Post-warranty annual maintenance agreements at <a href="http://lenovo.com/thinkplus/warranty">lenovo.com/thinkplus/warranty</a>	

See footnotes for important warranty information  
 US model announced July 10, 2007  
 US model withdrawn effective November 2008

\* Intel Centrino® processor technology

© Lenovo  
 (WKK11-5) November 2008



# ThinkPad® R61 15W 8927 (NVIDIA) - 3-year (Onsite) - withdrawn

Personal Systems Reference (PSREF)

Proc- Type-model	essor GHz	Memory	Wide- screen display	Graphics controller memory	Disk SATA GB <sup>3</sup> rpm	EIDE optical	Mini PCIe 802.11 wireless	Finger print reader	Blue- tooth	Bat- tery port cells	Workhorse (W) Vista Global (G) Avail date				
8927-22U	T7300	2.00	1GB	15.4" WSXGA+	128MB	80GB	5400	Combo	*Intel 11a/b/g <sup>32</sup>	Finger	Blue	1394	6	Business32	W G Jun 07

• This model is part of the Global Models Plus program with limited onsite service<sup>24</sup> 3-year limited warranty

Positioning Processor	<i>Everyday computing; two spindles</i> <b>Intel® Core™ 2 Duo processor T7300 with dual-core,</b> Intel 64 Technology, Enhanced Intel SpeedStep® technology <sup>1</sup> , Intel Dynamic Acceleration, Execute Disable Bit, Virtualization Technology, 800MHz system bus, and 4MB shared L2 cache										<b>Preloaded operating system<sup>20</sup></b> - Microsoft® Windows® Vista® Business Edition (32-bit) ◇ Vista Premium logo
Memory	<b>1GB</b> std / 4GB max <sup>31</sup> / PC2-5300 667MHz DDR2, non-parity, dual-channel capable, two 200-pin SO-DIMM sockets; <i>Non-italics:</i> standard memory in one socket; one socket available										<b>Preloaded applications<sup>14</sup></b> • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • ThinkVantage System Update • System Migration Assistant • Norton Internet Security (90 days of virus definitions) • Diskeeper™ Home • PC-Doctor™ (diagnostics) • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader • Windows Live™ Toolbar • Windows Live Search • Picasa from Google • Fingerprint Software (fingerprint models) • Microsoft Office 2007 Trial (60-day) • Sonic RecordNow and Drive Letter Access (combo) • InterVideo WinDVD (combo)
Diskette drive	None (use optional USB-based diskette drive)										
EIDE Combo	DVD-ROM/CD-RW (73P3288), 24X/24X/24X/8X <sup>21</sup> , removable Ultrabay™ Enh, curved										
Ultrabay Enhanced	One bay for removable devices, Ultrabay Slim-compatible, 12.7mm high, flat or curved										
Serial ATA disk	<b>80GB<sup>8</sup></b> (5400 rpm) / SATA 1.5Gb/s, 9.5mm high, removable, upgradable, 9.5mm high bay, supports 2nd disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™										
Widescreen display	<b>15.4"</b> (391mm) <b>WSXGA+ (1680x1050) color</b> , anti-glare, 200 nits, 16:10 aspect ratio, 500:1 contrast ratio										
Camera	None										
Graphics	<b>NVIDIA® Quadro® NVS 140M</b> , PCI Express x16, <b>128MB</b> memory, TurboCache, DVI pass-through support to optional Advanced Mini Dock or Advanced Dock										
Keyboard	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys, Windows/Apl keys										
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar <sup>13</sup> , magnifying glass										
Touch pad	UltraNav™ multi-pointing system, touch pad below keyboard, Tap Zones										
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions										
Dimensions <sup>3</sup>	<i>6-cell 15.4W"</i> (WxDxH): 14.1" x 10.2" x 1.39–1.52"; 358.5 x 260.0mm x 35.3–38.5mm										
Weight <sup>2</sup>	<i>6-cell:</i> starting at 6.4 lb (2.9kg); <i>9-cell:</i> starting at 6.7 lb (3.1kg)										
Case material	Black color; Polycarbonate/Acrylonitrile-Butadiene-Styrene (PC/ABS) plastic										
Battery - type	Lithium Ion <b>6-cell</b> 2.4 Ah, supports unique 2nd battery in Ultrabay Enhanced										
Battery - life <sup>10</sup>	<i>6-cell:</i> up to 5.0 hr; <i>9-cell:</i> up to 7.0 hr; <i>6-cell plus Ultrabay battery:</i> up to 8.5 hr										
Chipset	<b>Mobile Intel PM965 Express Chipset</b> (Memory Controller Hub); ICH8M I/O Controller Hub (SATA 3.0Gb/s, ATA-100 EIDE, PCI Express x1, PCI bus, USB, LPC bus, [Bluetooth], [fingerprint]) / PCI bus (Ricoh® R5C847 Cardbus/1394/Multicard) / LPC bus (WPCN385 Super I/O, Atmel® 97SC3203 TPM)										
PC Card Std slot	One Type I or Type II slot, CardBus 32-bit										
ExpressCard slot	None										
Smart Card Read	Smart Card Reader (under PC Card slot)										
Multicard Reader	4-in-1 reader (MultiMediaCard, Memory Stick® PRO™, Secure Digital, xD-Picture Card™)										
Ports	Three USB 2.0, DB-15 (external VGA monitor), RJ-11 (modem), RJ-45 (ethernet), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard), S-Video out										
Wireless antenna	UltraConnect™ II antenna / on-off switch for all wireless radios										
Mini PCI Express	One Mini PCI Express slot / 802.11 wireless is customer upgradable										
Intel 11a/b/g <sup>32</sup>	11a/b/g wireless <sup>4</sup> , Mini PCIe adapter, Intel PRO/Wireless 3945ABG										
WWAN	None										
Turbo Memory	None										
Modem	56K <sup>6</sup> V.90 (V.92-designed <sup>29</sup> ) modem in Communications Daughter Card socket										
Bluetooth™	Bluetooth 2.0 wireless, USB 2.0 interface via ICH8M, LED indicator										
Ethernet	Gigabit ethernet on systemboard, Intel 82566MC Nineveh (PHY), PCIe x1 (GLCI), PXE										
Intel AMT	None										
Audio support	High Definition (HD) Audio, AD1984JCP codec / stereo speakers, 1 watt / volume up, down, mute buttons / internal microphone, microphone input jack, headphone jack										
Security	Power-on password, hard disk password, supervisor password, security keyhole										
Security chip	<b>Trusted Platform Module</b> , Atmel chip, TCG 1.2-compliant										
Fingerprint reader	<b>Fingerprint reader on palm rest</b> , swipe sensor, supported with security chip										Supports ThinkVantage® technologies
Limited warranty <sup>12</sup>	<b>3-years</b> /1-year battery, <b>limited onsite service<sup>24</sup></b> , 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time / service upgrades <sup>22</sup> available										90-watt (NVIDIA graphics) ThinkPad Roll Cage (one-piece magnesium frame) ENERGY STAR® 4.0-compliant RoHS-compliant International Warranty Service <sup>17</sup> 24 hour x 7 day <sup>18</sup> toll-free support during the warranty period <sup>12</sup> via 800-426-7378
512MB PC2-5300 DDR2 SODIMM	40Y7733				T60/R60 Series Li-Ion Battery 6-cell	40Y6799					
1GB PC2-5300 DDR2 SODIMM	40Y7734				Z60m/T60/R60 Li-Ion Battery 9-cell	40Y6797					
2GB PC2-5300 DDR2 SODIMM	40Y7735				Advanced Ultrabay Battery II 3-cell	43R9250					
Serial Hard Drive Ultrabay Slim Adapter (flat)	40Y8725				ThinkPad External Battery Charger	40Y7625					
ThinkPad DVD Ultrabay Slim Burner (flat)	41N5643				ThinkPad 90W AC Adapter	40Y7659					
160GB Disk 9.5mm SATA 1.5Gb/s (7200 rpm)	41N5737				90W Slim AC/DC Combo Adapter	41N8460					
200GB Disk FDE SATA 1.5Gb/s (7200 rpm)	41N5738				ThinkPad Basic Case	43R9113					
250GB Disk 9.5mm SATA 1.5Gb/s (5400 rpm)	43R8152				ThinkPad Business Topload Case	43R2476					
Blu-ray™ Burner Ultrabay Enhanced (curved)	43N3200				ThinkPad Business Backpack	43R2482				ThinkPlus™.22 4-year LOR 9x5 NBD 12X5630	
USB 2.0 Super Multi-Burner Drive	41N5565				ThinkVision® L171p 17" LCD Monitor	9417HC2				ThinkPlus 5-year LOR 9x5 NBD 43R2162	
ThinkPad Convertible Monitor Stand	40Y7620				ThinkVision L190x 19" LCD Monitor	4439HB2					
ThinkPad Advanced Mini Dock	250410U				ThinkVision L193p 19" LCD Monitor	4431HB2				Post-warranty annual maintenance agreements at	
ThinkPad Advanced Dock	250310U				ThinkVision L220x Wide 22" LCD	4433HB2				<b>lenovo.com/thinkplus/warranty</b>	
Other accessories on O-R61-15W sheet	Other accessories at <b>lenovo.com/accessories</b>										

See footnotes for important warranty information  
US model announced May 31, 2007  
US model withdrawn effective June 2008

\* Intel Centrino® processor technology

© Lenovo  
(WKK1-4) July 2008

# ThinkPad® R61i 14W 7732 (GMA) - TopSeller - withdrawn

Personal Systems Reference (PSREF)

Type-model	Processor	GHz	Memory	Wide-screen display	Screen type	Camera	Graphics controller	Disk SATA GB <sup>3</sup> rpm	EIDE optical	Mini PCIe 802.11 wireless	Card slot	1394 port	Battery cells	Preload	Workhorse (W) Global (G) Avail
7732-7BU	T5250	1.50	1GB	14.1"	WXGA		GMA	120G 5400	DVD±RW	* Intel 11a/b/g <sup>32</sup>	/54	1394	4	XP Pro	No Jul 07
7732-7CU	T5250	1.50	1GB	14.1"	WXGA		GMA	120G 5400	DVD±RW	* Intel 11a/b/g	/54	1394	4	Business 32	No Jul 07
7732-8AU	T2330	1.60	1GB	14.1"	WXGA		GMA	120G 5400	DVD±RW	Intel 11a/b/g	/54	1394	4	XP Pro	No Oct 07
7732-8BU	T2330	1.60	1GB	14.1"	WXGA	Glossy Cam	GMA	160G 5400	DVD±RW	Intel 11a/b/g	/54	1394	4	Business 32	No Oct 07
7732-8CU	T5450	1.66	1GB	14.1"	WXGA	Glossy Cam	GMA	160G 5400	DVD±RW	* Intel 11a/b/g	/54	1394	4	XP Pro	No Oct 07
7732-8DU	T5450	1.66	1GB	14.1"	WXGA	Glossy Cam	GMA	160G 5400	DVD±RW	* Intel 11a/b/g	/54	1394	4	Business 32	No Oct 07
7732-2FU	T5450	1.66	1GB	14.1"	WXGA		GMA	120G 5400	DVD±RW	* Intel 11a/b/g	/54	1394	4	XP Pro	No Jan 08

• These small and medium business (SMB) models are part of the US TopSeller™ Program  
 • These models have a 1-year limited warranty<sup>12</sup>

Positioning Processor	Everyday computing; two spindles <b>Intel® Pentium® Dual-Core Processor T2330</b> with dual-core, Intel 64 Technology, Enhanced Intel SpeedStep® technology <sup>1</sup> , Execute Disable Bit, 533MHz system bus, and 1MB shared L2 cache or <b>Intel Core™ 2 Duo processor T5250 or T5450</b> with dual-core, Intel 64 Technology, Enhanced Intel SpeedStep technology <sup>1</sup> , Execute Disable Bit, 667MHz system bus, and 2MB shared L2 cache	<b>Preloaded operating system<sup>20</sup></b> - Some: Microsoft® Windows® XP Professional with Vista® COA - Some: Microsoft Windows Vista Business Edition (32-bit) ◇ Vista models: Vista Basic log
Memory	<b>1GB</b> std / 4GB max <sup>31</sup> / PC2-5300 667MHz DDR2, non-parity, dual-channel capable, two 200-pin SO-DIMM sockets; <i>Non-italics:</i> standard memory in 1 socket; 1 socket available	<b>Preloaded applications<sup>14</sup></b> (all OSes) • Lenovo Care <sup>SM</sup> for Think (Oct Vista models) • Rescue and Recovery <sup>TM</sup> • Access Connections <sup>TM</sup> • Client Security Solution <sup>TM</sup> • ThinkVantage System Update • System Migration Assistant • Norton Internet Security • Diskkeeper <sup>TM</sup> Home • PC-Doctor <sup>TM</sup> (diagnostics) • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader • Multimedia Center for Think Offerings (XP Pro model) • Windows Live <sup>TM</sup> Toolbar • Windows Live Search • Picasa from Google • Microsoft Office 2007 Trial (60-day) • Network Magic <sup>TM</sup> (Oct Vista models) • Corel® Small Business Center <sup>TM</sup> with WordPerfect® Office 12 (Oct Vista models) • QuickBooks Financial Center (Oct Vista models) • Sonic RecordNow and Drive Letter Access (DVD±RW) • Corel® WinDVD® (DVD±RW) • Corel WinDVD Creator (XP Pro DVD±RW model)
Diskette drive	None (use optional USB-based diskette drive)	
EIDE DVD±RW	DVD burner, Super Multi-Burner (40Y8624) dual-layer, removable Ultrabay™ Enhanced	
Ultrabay Enhanced	One bay for removable devices, Ultrabay Slim-compatible, 12.7mm high, flat or curved	
Serial ATA disk	<b>120GB<sup>8</sup></b> (5400 rpm) or <b>160GB</b> (5400 rpm) / SATA 1.5Gb/s, 9.5mm high, removable, upgradable, 9.5mm high bay, supports 2nd disk, ThinkPad Shock Mounted Hard Drive, Active Protection System <sup>TM</sup>	
Widescreen display	<i>Some:</i> <b>14.1"</b> (358.1mm) <b>WXGA (1280x800) TFT color</b> , anti-glare, 185 nits, 16:10 aspect ratio, 300:1 contrast ratio <i>Some:</i> <b>14.1"</b> (358.1mm) <b>WXGA (1280x800) TFT color, VibrantView</b> (glossy), 185 nits, 16:10 aspect ratio, 300:1 contrast ratio	
Camera	<i>Some:</i> integrated camera on top of screen, 1.3-megapixel, fixed focus, USB 2.0	
Graphics	<b>Intel Graphics Media Accelerator X3100 (GMA X3100)</b> , integrated in GM965, DVI pass-through support to optional Advanced Mini Dock or Advanced Dock	
Keyboard	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys, Windows/Apl keys	
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar <sup>13</sup> , magnifying glass	
Touch pad	UltraNav™ multi-pointing system, touch pad below keyboard, Tap Zones	
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions	
Dimensions <sup>3</sup>	<i>4-cell 14.1W"</i> (WxDxH): 13.2" x 9.3" x 1.2–1.37"; 335mm x 237mm x 30.6–34.9mm	
Weight <sup>2</sup>	<i>4-cell:</i> starting at 5.2 lb (2.4kg)	
Case material	<i>Top:</i> Super-Elastic PolyCarbonate (SEPC); <i>Bottom:</i> Carbon-Fiber Reinforced Plastic	
Battery - type	Lithium Ion <b>4-cell</b> , supports unique 2nd battery in Ultrabay Slim	
Battery - life <sup>10</sup>	<i>4-cell:</i> up to 3.6 hr; <i>optional 6-cell:</i> up to 5.7 hr; <i>6-cell plus Ultrabay battery:</i> up to 7.2 hr	
Chipset	<b>Mobile Intel GM965 Express Chipset</b> (Graphics Memory Controller Hub); <b>ICH8M-Enhanced</b> I/O Controller Hub (SATA 3.0Gb/s, ATA-100 EIDE, PCI Express <sup>®</sup> x1, PCI bus, USB, LPC bus, [Bluetooth], [fingerprint]) / PCI bus (Ricoh® R5C847 Cardbus/1394/Multicard) / LPC bus (WPCN385 Super I/O, Atmel® 97SC3203 TPM)	
PC Card Std slot	One Type I or Type II slot, CardBus 32-bit	
ExpressCard slot	[/54] One ExpressCard/34 or ExpressCard/54	
Smart Card Read	None	
Multicard Reader	None	
Ports	Three USB 2.0, DB-15 (external VGA monitor), RJ-11 (modem), RJ-45 (ethernet), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)	
Wireless antenna	UltraConnect™ II antenna / on-off switch for all wireless radios	
Mini PCI Express	Two Mini PCI Express slots / only 802.11 wireless is customer upgradable	
Intel 11a/b/g <sup>32</sup>	11a/b/g wireless <sup>4</sup> , Mini PCIe adapter, Intel PRO/Wireless 3945ABG	
WWAN	None	
Turbo Memory	None	
Modem	56K <sup>6</sup> V.92 <sup>29</sup> modem in Communications Daughter Card socket	
Bluetooth™	Bluetooth 2.0 wireless, USB 2.0 interface via ICH8M, LED indicator	
Ethernet	Gigabit ethernet on systemboard, Intel 82566MM Nineveh (PHY), PCIe x1 (GLCI), PXE	
Intel AMT	None	
Audio support	High Definition (HD) Audio, AD1984HD codec / stereo speakers, 1 watt / volume up, down, mute buttons / internal microphone, microphone input jack, headphone jack	
Security	Power-on password, hard disk password, supervisor password, security keyhole	
Security chip	<b>Trusted Platform Module</b> , Atmel chip, TCG 1.2-compliant	
Fingerprint reader	<b>Fingerprint reader on palm rest</b> , swipe sensor, supports the security chip	
Limited warranty <sup>12</sup>	<b>1-year</b> - EasyServ™ <sup>19</sup> depot repair service / service upgrades <sup>22</sup> available	

1GB PC2-5300 DDR2 SODIMM (TopSeller)	43R1999	T/R 14W Standard Battery 4-cell	41U3196
2GB PC2-5300 DDR2 SODIMM (TopSeller)	43R2000	T/R 14W Enhanced Battery 6-cell	41U3198
Serial Hard Drive Ultrabay Slim Adapter (flat)	40Y8725	T/R 14W High Capacity Batt 9-cell	43R2499
200GB Disk FDE SATA 1.5Gb/s (7200 rpm)	41N5738	Advanced Ultrabay Battery II 3-cell	43R9250
USB 2.0 Super Multi-Burner Drive	41N5565	90W Slim AC/DC Combo Adapter	41N8460
ThinkPad Advanced Mini Dock	250410U	ThinkPad Business Topload Case	43R2476
ThinkPad Advanced Dock	250310U	ThinkVision® L2440x Wide 24" Monitor	4421HB2
Other accessories on O-R61-14W sheet		Other accessories at <a href="http://lenovo.com/accessories">lenovo.com/accessories</a>	

ThinkPlus 2-year P&L P/U Depot	41C9166
ThinkPlus 2-year LOR 9x5 NBD	41C9167
ThinkPlus 3-year LOR 9x5 NBD	41C9168
ThinkPlus 4-year LOR 9x5 NBD	41C9171
ThinkPlus 5-year LOR 9x5 NBD	41C9173
ThinkPlus 2-year P&L P/U Depot	41C9169
ThinkPlus 3-year P&L P/U Depot	41C9170
ThinkPlus 4-year P&L P/U Depot	41C9172
ThinkPlus 5-year P&L P/U Depot	41C9174

See footnotes for important warranty information \* Intel Centrino® processor technology  
 US models announced July 3 or October 2, 2007 or January 8, 2008  
 US models withdrawn effective Dec 2007, May 2008, or Nov 2008

© Lenovo  
 (B-LAG1-1) November 2008

# ThinkPad® R61i 15W 8932 (GMA) - TopSeller - withdrawn

Personal Systems Reference (PSREF)

Type-model	Proc- essor GHz	Memory	Wide- screen display	Screen type	Cam- era	Graphics controller	Disk SATA GB <sup>3</sup> rpm	EIDE optical	Mini PCIe 802.11 wireless	Card slot	Bat- tery cells	Workhorse (W) Global (G) Avail date
8932-9WU	T5250 1.50	1GB	15.4"	WXGA		GMA	120G 5400	DVD±RW	* Intel 11a/b/g <sup>32</sup>	/54	6	Business 32 No Jul 07
8932-9XU	T5250 1.50	1GB	15.4"	WXGA		GMA	120G 5400	DVD±RW	* Intel 11a/b/g	/54	6	XP Pro No Jul 07
8932-BWU	T2330 1.60	1GB	15.4"	WXGA		GMA	120G 5400	DVD±RW	Intel 11a/b/g	/54	6	XP Pro No Oct 07
8932-APU	T2330 1.60	1GB	15.4"	WXGA	GlossyCam	GMA	160G 5400	DVD±RW	Intel 11a/b/g	/54	Blue 6	Business 32 No Oct 07
8932-BXU	T5250 1.50	1GB	15.4"	WXGA	GlossyCam	GMA	160G 5400	DVD±RW	* Intel 11a/b/g	/54	Blue 6	XP Pro No Oct 07
8932-AQU	T5250 1.50	1GB	15.4"	WXGA	GlossyCam	GMA	160G 5400	DVD±RW	* Intel 11a/b/g	/54	Blue 6	Business 32 No Oct 07
<ul style="list-style-type: none"> <li>• These small and medium business (SMB) models are part of the US TopSeller™ Program</li> <li>• These models have a 1-year limited warranty<sup>12</sup></li> </ul>												
Positioning Processor	<b>Everyday computing; two spindles</b> <b>Intel® Pentium® Dual-Core Processor T2330</b> with dual-core, Intel 64 Technology, Enhanced Intel SpeedStep® technology <sup>1</sup> , Execute Disable Bit, 533MHz system bus, and 1MB shared L2 cache or <b>Intel Core™ 2 Duo processor T5250</b> with dual-core, Intel 64 Technology, Enhanced Intel SpeedStep technology <sup>1</sup> , Execute Disable Bit, 667MHz system bus, and 2MB shared L2 cache										Preloaded operating system <sup>20</sup> - Some: Microsoft® Windows® XP Professional with Vista® COA - Some: Microsoft Windows Vista Business Edition (32-bit) ◇ Vista models: Vista Basic logo	
Memory	<b>1GB</b> std / 4GB max <sup>31</sup> / PC2-5300 667MHz DDR2, non-parity, dual-channel capable, two 200-pin SO-DIMM sockets; <i>Non-italics:</i> standard memory in one socket; one socket available										Preloaded applications <sup>14</sup> (all OSes) • Lenovo Care <sup>SM</sup> for Think (Oct Vista models) • Rescue and Recovery <sup>TM</sup> • Access Connections <sup>TM</sup> • Client Security Solution <sup>TM</sup> • ThinkVantage System Update • System Migration Assistant • Norton Internet Security • Diskeeper <sup>TM</sup> Home • PC-Doctor <sup>TM</sup> (diagnostics) • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader • Multimedia Center for Think Offerings (XP Pro model) • Windows Live <sup>TM</sup> Toolbar • Windows Live Search • Picasa from Google • Microsoft Office 2007 Trial (60-day) • Network Magic <sup>TM</sup> (Oct Vista models)	
Diskette drive	None (use optional USB-based diskette drive)										• Corel® Small Business Center <sup>TM</sup> with WordPerfect® Office 12 (Oct Vista models) • QuickBooks Financial Center (Oct Vista models) • Sonic RecordNow and Drive Letter Access (DVD±RW) • Corel WinDVD® (DVD±RW) • Corel WinDVD Creator (XP Pro DVD±RW model)	
EIDE DVD±RW	DVD burner, Super Multi-Burner (40Y8624) dual-layer, removable Ultrabay™ Enhanced One bay for removable devices, Ultrabay Slim-compatible, 12.7mm high, flat or curved											
Serial ATA disk	<b>120GB<sup>8</sup></b> (5400 rpm) or <b>160GB</b> (5400 rpm) / SATA 1.5Gb/s, 9.5mm high, removable, upgradable, 9.5mm high bay, supports 2nd disk, ThinkPad Shock Mounted Hard Drive, Active Protection System <sup>TM</sup>											
Widescreen display	<i>Some:</i> <b>15.4"</b> (391mm) <b>WXGA (1280x800) TFT color</b> , anti-glare, 200 nits, 16:10 aspect ratio, 300:1 contrast ratio <i>Some:</i> <b>15.4"</b> (391mm) <b>WXGA (1280x800) TFT color, VibrantView</b> (glossy), 200 nits, 16:10 aspect ratio											
Camera	<i>Some:</i> integrated camera on top of screen, 1.3-megapixel, fixed focus, USB 2.0											
Graphics	<b>Intel Graphics Media Accelerator X3100 (GMA X3100)</b> , integrated in GM965, no DVI pass-through support to optional Advanced Mini Dock or Advanced Dock											
Keyboard	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys, Windows/Appl keys											
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar <sup>13</sup> , magnifying glass											
Touch pad	UltraNav™ multi-pointing system, touch pad below keyboard, Tap Zones											
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions											
Dimensions <sup>3</sup>	<b>6-cell 15.4W"</b> (WxDxH): 14.1" x 10.2" x 1.39–1.52"; 358.5 x 260.0mm x 35.3–38.5mm											
Weight <sup>2</sup>	<b>6-cell:</b> starting at 6.4 lb (2.9kg); <b>9-cell:</b> starting at 6.7 lb (3.1kg)											
Case material	Black color, Polycarbonate/Acrylonitrile-Butadiene-Styrene (PC/ABS) plastic											
Battery - type	Lithium Ion <b>6-cell</b> , supports unique 2nd battery in Ultrabay Enhanced											
Battery - life <sup>10</sup>	<b>6-cell:</b> up to 5.0 hr; <b>9-cell:</b> up to 7.0 hr; <b>6-cell plus Ultrabay battery:</b> up to 8.5 hr											
Chipset	<b>Mobile Intel GM965 Express Chipset</b> (Graphics Memory Controller Hub); ICH8M I/O Controller Hub (SATA 3.0Gb/s, ATA-100 EIDE, PCI Express® x1, PCI bus, USB, LPC bus, [Bluetooth], [fingerprint]) / PCI bus (Ricoh® R5C847 Cardbus/1394/Multicard) / LPC bus (WPCN385 Super I/O, Atmel® 97SC3203 TPM)											
PC Card Std slot	One Type I or Type II slot, CardBus 32-bit											
ExpressCard slot	[54] One ExpressCard/34 or ExpressCard/54											
Smart Card Read	None											
Multicard Reader	4-in-1 reader (MultiMediaCard, Memory Stick® PRO™, Secure Digital, xD-Picture Card™)										Supports ThinkVantage® technologies	
Ports	Three USB 2.0, DB-15 (external VGA monitor), RJ-11 (modem), RJ-45 (ethernet), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard), S-Video out										65-watt (GMA graphics) ThinkPad Roll Cage (one-piece magnesium frame) ENERGY STAR® 4.0-compliant RoHS-compliant International Warranty Service <sup>17</sup> 24 hour x 7 day <sup>18</sup> toll-free support during the warranty period <sup>12</sup> via 800-426-7378	
Wireless antenna	UltraConnect™ II antenna / on-off switch for all wireless radios											
Mini PCI Express	One Mini PCI Express slot / 802.11 wireless is customer upgradable											
Intel 11a/b/g <sup>32</sup>	11a/b/g wireless <sup>4</sup> , Mini PCIe adapter, Intel PRO/Wireless 3945ABG											
WWAN	None											
Turbo Memory	None											
Modem	56K <sup>6</sup> V.92 <sup>29</sup> modem, on systemboard, Conexant® CX20548											
Bluetooth™	<i>Some:</i> Bluetooth 2.0 wireless, USB 2.0 interface via ICH8M, LED indicator											
Ethernet	Gigabit ethernet on systemboard, Broadcom® BCM5787M (MAC/PHY), PCIe x1, PXE											
Intel AMT	None											
Audio support	High Definition (HD) Audio, CX20549 codec / stereo speakers, 1 watt / volume up, down, mute buttons / internal microphone, microphone input jack, headphone jack										ThinkPlus™.22 1-year LOR <sup>24</sup> 9x5 NBD 41C9166	
Security	Power-on password, hard disk password, supervisor password, security keyhole										ThinkPlus 2-year LOR 9x5 NBD 41C9167	
Security chip	<b>Trusted Platform Module</b> , Atmel chip, TCG 1.2-compliant										ThinkPlus 3-year LOR 9x5 NBD 41C9168	
Fingerprint reader	<b>Fingerprint reader on palm rest</b> , swipe sensor, supported with security chip										ThinkPlus 4-year LOR 9x5 NBD 41C9171	
Limited warranty <sup>12</sup>	<b>1-year</b> - EasyServ™.19 depot repair service / service upgrades <sup>22</sup> available										ThinkPlus 5-year LOR 9x5 NBD 41C9173	
1GB PC2-5300 DDR2 SODIMM (TopSeller)	43R1999	T/R/W/SL Series Li-Ion Battery 6-cell		40Y6799	ThinkPlus 2-year P&L P/U Depot							
2GB PC2-5300 DDR2 SODIMM (TopSeller)	43R2000	T/R/W/SL Series Li-Ion Battery 9-cell		40Y6797	ThinkPlus 3-year P&L P/U Depot							
Serial Hard Drive Ultrabay Slim Adapter (flat)	40Y8725	Advanced Ultrabay Battery II 3-cell		43R9250	ThinkPlus 3-year P&L P/U Depot							
200GB Disk FDE SATA 1.5Gb/s (7200 rpm)	41N5738	90W Slim AC/DC Combo Adapter		41N8460	ThinkPlus 4-year P&L P/U Depot							
ThinkPad Essential Port Replicator	250510W	ThinkPad Business Topload Case		43R2476	ThinkPlus 4-year P&L P/U Depot							
ThinkPad Advanced Mini Dock	250410U	ThinkVision® L2240p Wide 22" Monitor		4422HB6	ThinkPlus 5-year P&L P/U Depot							
ThinkPad Advanced Dock	250310U	ThinkVision L2440x Wide 24" Monitor		4421HB2	ThinkPlus 5-year P&L P/U Depot							
Other accessories on O-R61-15W sheet	Other accessories at <a href="http://lenovo.com/accessories">lenovo.com/accessories</a>										41C9174	

See footnotes for important warranty information  
 US models announced July 10 or October 2, 2007  
 US models withdrawn effective December 2007 or November 2008

\* Intel Centrino® processor technology

Type-model	Processor	Speed GHz	Memory	Screen	Graphics controller	Disk GB <sup>9</sup>	Optical	Mini PCI Comm Bay wireless	CDC modem/Bluetooth™	Ethernet on planar chip	Battery Security cells	Workhorse (W) or Global (G) Entry (E)	Avail date	
2373-1HU	Pentium® M	1.4	256MB	14.1" XGA	7500	30GB	DVD	* Intel 11b Wi-Fi <sup>32</sup>	Modem	Gigabit	Yes	6	XP Pro G E	Oct 2003
2373-1FU	Pentium M	1.4	256MB	14.1" XGA	7500	30GB	Combo	* Intel 11b Wi-Fi	Modem	Gigabit	Yes	6	XP Pro G E	Oct 2003
2373-7FU	Pentium M	1.6	512MB	14.1" XGA	7500	40HS	Combo	* Intel 11b Wi-Fi	Modem	Gigabit	Yes	6	XP Pro W G	Oct 2003
2373-7JU	Pentium M	1.6	512MB	14.1" XGA	7500	40HS	Combo	Cisco® 802.11b <sup>32</sup>	Modem	Gigabit	Yes	6	XP Pro W G	Oct 2003
2373-3HU	Pentium M	1.6	512MB	14.1" SXGA+	9000	40HS	Combo	* Intel 11b Wi-Fi	Modem	Gigabit	Yes	6	XP Pro W G	Oct 2003
2373-8RU	Pentium M	1.6	256MB	14.1" XGA	7500	40HS	DVD	Open; wireless upg <sup>36</sup>	Modem	Gigabit	Yes	6	XP Pro W G	Oct 2003
2373-8SU	Pentium M	1.6	512MB	14.1" XGA	7500	40HS	DVD	Open; wireless upg	Modem	Gigabit	Yes	6	XP Pro W	Oct 2003
2373-4GU	Pentium M	1.6	512MB	14.1" XGA	7500	40HS	Combo	11a/b/g Wi-Fi <sup>32</sup>	Mod/Blue	Gigabit	Yes	6	XP Pro W	Oct 2003
2373-9EU	Pentium M	1.7	512MB	14.1" SXGA+	9000	60U	Combo	Open; wireless upg	Modem	Gigabit	Yes	6	XP Pro No	Oct 2003
2373-9FU	Pentium M	1.7	512MB	14.1" SXGA+	9000	60U	Combo	11a/b/g Wi-Fi	Mod/Blue	Gigabit	Yes	6	XP Pro No	Oct 2003
2373-9HU	Pentium M	1.7	1GB	14.1" SXGA+	9000	60U	Combo	* Intel 11b Wi-Fi	Mod/Blue	Gigabit	Yes	6	XP Pro No	Oct 2003
2373-9KU	Pentium M	1.7	512MB	14.1" SXGA+	9000	60U	Combo	Cisco® 802.11b	Mod/Blue	Gigabit	Yes	6	XP Pro No	Oct 2003
Positioning Processor	Perfect balance of performance and portability; two-spindle system											<b>SOFTWARE<sup>14</sup></b> <b>Windows XP Professional</b> - Microsoft® Windows® XP Professional <sup>20</sup> ⇨ Disk-to-Disk Recovery (in hidden protected area) <b>Preloaded</b> • Access IBM • Access Connections • Adobe Reader • Rapid Restore™ Ultra • RecordNOW and Drive Letter Access (combo models) • InterVideo WinDVD (combo models) • Norton AntiVirus (OEM edition) • PC-Doctor™ • ThinkPad Utilities • Update Connector™.15 <b>Downloadable</b> • IBM Director Agent • Software Delivery Assistant • System Migration Assistant • Client Security Software (for security chip) <b>License (CD not included)</b> - Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client		
L2 cache	enhanced Intel SpeedStep™ technology <sup>1</sup> and 400MHz system bus													
Memory	1MB / on die (at processor speed) / ECC													
Diskette drive	None standard / use optional USB-based diskette drive													
DVD	Some: DVD-ROM / 24X-8X <sup>9</sup> speed / single-layer / removable from Ultrabay™ Slim													
Combo	Some: DVD-ROM/CD-RW / 16X/10X/24X/8X <sup>21</sup> speed / removable from Ultrabay Slim													
Ultrabay Slim	One modular bay for interchangeable devices (right side) / 9.5mm high bay													
Disk	30GB <sup>8</sup> (4200 rpm), 40GB HS (5400 rpm), or 60GB Ultra HS (7200 rpm) / 9.5mm high / removable and upgradable / 9.5mm high bay / supports 2nd disk with optional HDD Adapter in Ultrabay Slim / <b>Hard Disk Drive Shock Absorber / Active Protection System™</b> (shock protection)													
Display	Some: 14.1" (358.1mm) XGA (1024x768) TFT color / Active Matrix / 150 nits													
Graphics	Some: ATI® MOBILITY™ RADEON® 7500 / AGP 4X / 32MB DDR1 (DDR-SDRAM)													
Graphics external	Some: ATI MOBILITY RADEON 9000 / AGP 4X / 32MB DDR1 (DDR-SDRAM)													
Keyboard	External monitor support via analog DB-15 connector / up to 2048x1536x16.7M at 75Hz													
TrackPoint®	87-key / Access IBM button / palm rest / pitch: 19mm; stroke: 2.5mm (std-size keys)													
Touch pad	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar <sup>13</sup> , magnifying glass / UltraNav® multi-pointing system / touch pad below keyboard / Tap Zones													
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions													
Dimensions <sup>3</sup>	(WxDxH): 12.2" x 10.0" x 1.0-1.2"; 311mm x 255mm x 26.6-31.4mm													
Weight <sup>2</sup>	with optical drive and battery: 4.9 to 5.0 lb (2.2 to 2.3 kg)													
Case material	Magnesium composite in the top cover, titanium-reinforced CFRP in bottom cover													
Battery - type	Lithium Ion 6-cell / intelligent / supports unique 2nd battery in Ultrabay Slim													
Battery - life <sup>10</sup>	6-cell models: 4.1 to 5.0 hr; Optional 9-cell: 7 hr; 9-cell plus Ultrabay Slim battery: 9 hr													
Architecture	Intel 855PM chipset / 82855PM Memory Controller Hub (MCH-M) / 82801DBM ICH4-M I/O Controller Hub (ATA-100 EIDE, PCI bus, ethernet MAC, Low Pin Count [LPC] interface, USB, [Bluetooth]) / PCI bus 2.2 32-bit, 33MHz (TI® PCI4520A CardBus and 1394 controller, Mini PCI, external expansion) / LPC bus 33MHz (security chip; PC87392 Super I/O for diskette, parallel, infrared, [docking-based ports])													
PC Card Std slots	2 Type I, 2 Type II, or 1 Type III / CardBus 32-bit / PCMCIA 2.1 / integrated door													
Ports	Two USB (Version 2.0) / parallel / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / no keyboard or mouse or serial ports (use USB)													
Video out	S-video out port (TV out) / one 4-pin industry standard connector													
Wireless antenna	UltraConnect™ Antenna built into the display cover for optimal wireless signal reception													
Mini PCI	One Mini PCI type III slot (Communications Bay) / customer upgradable													
Wireless upg <sup>36</sup>	Some: wireless upgradable with wireless Mini PCI options													
Intel 11b Wi-Fi <sup>32</sup>	Some: 11b Wi-Fi <sup>32</sup> wireless <sup>4</sup> , Mini PCI, Intel PRO/Wireless 2100 Network Connection													
Cisco 802.11b <sup>32</sup>	802.11b, Intel 82531 chipset													
11a/b/g Wi-Fi <sup>32</sup>	Some: 802.11b wireless <sup>4</sup> , Mini PCI, Cisco® Aironet® Wireless 802.11b													
CDC	Some: 11a/b/g Wi-Fi <sup>32</sup> wireless <sup>4</sup> , Mini PCI, Atheros™ AR5001X+ chipset													
Modem	One Communications Daughter Card (CDC) socket / customer accessible													
Bluetooth™	56K <sup>6</sup> V.90 (V.92-designed <sup>25</sup> ) modem in CDC / Agere® chipset													
Ethernet	Some: Bluetooth wireless technology / in CDC (with modem)													
Audio support	Gigabit ethernet on systemboard / Intel 82540EP chipset (MAC/PHY) / PXE													
Security	Soft audio / ICH AC97 controller / DirectSound™ support / AD1981B AC97 codec / stereo speakers / 1 watt / volume up, down, mute buttons / internal mic / microphone input jack (3.5 mm; pink) / headphone jack (3.5 mm; green)													
Security chip	Power-on password / hard disk password / supervisor password / security keyhole													
Limited warranty <sup>12</sup>	Embedded Security Subsystem 2.0 <sup>33</sup> / hardware key storage / multi-factor authentication / local file encryption / Atmel® chip / TCG-compliant													
128MB PC2700 DDR-SDRAM CL2.5 SOD	31P9828	ThinkPad T40/R50 Li-Ion Battery 6-cell	92P1101											
256MB PC2700 DDR-SDRAM CL2.5 SOD	31P9830	ThinkPad T40/R50 Li-Ion Battery 9-cell	92P1102											
512MB PC2700 DDR-SDRAM CL2.5 SOD	31P9832	Ultrabay Slim Li-Polymer Battery 3-cell	08K8190	ServicePac 4yr P&L P/U Depot										
1GB PC2700 DDR-SDRAM CL2.5 SOD	31P9834	ThinkPad 72W AC/DC Combo Adapter	22P9010	69P9199										
40GB HS Hard Disk 9.5mm (5400 rpm)	08K9816	11a/b/g Wireless CardBus Adapter	31P9101	ServicePac 5yr P&L P/U Depot										
80GB HS Hard Disk 9.5mm (5400 rpm)	09N4273	11a/b/g Wireless Mini PCI Adapter II	73P4301	69P9201										
ThinkPad Port Replicator II	74P6733	ThinkVision® L192p 19" Monitor (black)	9419HB2	Post-warranty annual maintenance agreements at										
ThinkPad Mini Dock	287810U	M400 Projector	0037A04	ibm.com/services/its/us/source/maspspleu.pdf										
ThinkPad Dock II	287710U	Other options at lenovo.com/options												

See footnotes for important warranty information  
US models announced October 7, 2003  
US models withdrawn effective July 2004, November 2004, January 2005, May 2005, or December 2005

\* Powered by Intel Centrino™ mobile technology

# ThinkPad® T41 (2379) - Express - withdrawn

Created by Lenovo Training Solutions  
Personal Systems Reference (PSREF)

Type-model	Processor	Speed GHz	Memory	Screen	Graphics controller	Disk GB <sup>a</sup>	Optical	Mini PCI Comm Bay wireless	CDC modem/Bluetooth™	Ethernet on planar chip	Battery Security cells	Limited Warranty	Avail date																																																																							
2379-DJU	Pentium® M	1.6	256MB	14.1" SXGA+	9000	40HS	Combo	*Intel 11b Wi-Fi <sup>32</sup>	Modem	Gigabit	Yes	6-cell XP Pro	3 yrs Oct 2003																																																																							
2379-DKU	Pentium M	1.6	512MB	14.1" XGA	7500	40HS	Combo	11a/b/g Wi-Fi <sup>32</sup>	Modem	Gigabit	Yes	6-cell XP Pro	3 yrs Oct 2003																																																																							
<ul style="list-style-type: none"> <li>• <b>These small and medium business (SMB) models are part of the US Think Express Program</b></li> <li>• <b>The 2379 has a 3 year limited warranty (other ThinkPad T41 2378 models have a 1 year limited warranty)</b></li> </ul>																																																																																				
Positioning Processor	Perfect balance of performance and portability; two-spindle system <b>Intel® Pentium® M Processor 1.6GHz</b> with enhanced Intel SpeedStep™ technology <sup>1</sup> and 400MHz system bus											<b>SOFTWARE<sup>14</sup></b>																																																																								
L2 cache	1MB / on die (at processor speed) / ECC											<b>Windows XP Professional</b>																																																																								
Memory	<b>256MB</b> or <b>512MB</b> standard / 2GB max <sup>7</sup> / PC2700 333MHz DDR1 / non-parity / CL2.5 / two 200-pin SO-DIMM sockets / std mem in one socket / one socket available											- Microsoft® Windows® XP Professional <sup>20</sup> ↳ Disk-to-Disk Recovery (in hidden protected area)																																																																								
Diskette drive	None standard / use optional USB-based diskette drive											<b>Preloaded</b>																																																																								
Combo	DVD-ROM/CD-RW / 16X/10X/24X/8X <sup>21</sup> speed / removable from Ultrabay™ Slim											• Access IBM																																																																								
Ultrabay Slim	One modular bay for interchangeable devices (right side) / 9.5mm high bay											• Access Connections™																																																																								
Disk	<b>40GB HS</b> (5400 rpm), 9.5mm high / removable and upgradable / 9.5mm high bay / supports 2nd disk with optional HDD Adapter in Ultrabay Slim / <b>Hard Disk Drive Shock Absorber</b> / <b>Active Protection System™</b> (shock protection)											• Adobe Reader																																																																								
Display	Some: <b>14.1"</b> (358.1mm) <b>XGA (1024x768) TFT color</b> / Active Matrix / 150 nits Some: <b>14.1"</b> (358.1mm) <b>SXGA+ (1400x1050) TFT color</b> / Active Matrix / 150 nits All: one latch to unlatch and open with one hand											• Rapid Restore™ Ultra																																																																								
Graphics	Some: <b>ATI® MOBILITY™ RADEON® 7500 / AGP 4X / 32MB DDR1</b> (DDR-SDRAM) Some: <b>ATI MOBILITY RADEON 9000 / AGP 4X / 32MB DDR1</b> (DDR-SDRAM)											• RecordNOW and Drive Letter Access (combo models)																																																																								
Graphics external	External monitor support via analog DB-15 connector / up to 2048x1536x16.7M at 75Hz											• InterVideo WinDVD (combo mdl)																																																																								
Keyboard	87-key / Access IBM button / palm rest / pitch: 19mm; stroke: 2.5mm (std-size keys)											• Norton AntiVirus (OEM edition)																																																																								
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar <sup>13</sup> , magnifying glass /											• PC-Doctor™																																																																								
Touch pad	UltraNav® multi-pointing system / touch pad below keyboard / Tap Zones											• ThinkPad Utilities																																																																								
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions											• Update Connector™ <sup>15</sup>																																																																								
Dimensions <sup>3</sup>	(WxDxH): 12.2" x 10.0" x 1.0-1.2"; 311mm x 255mm x 26.6-31.4mm											<b>Downloadable</b>																																																																								
Weight <sup>2</sup>	with optical drive and battery: <i>DKU</i> : 4.9 lb (2.2 kg); <i>DJU</i> : 5.0 lb (2.3kg)											• IBM Director Agent																																																																								
Case material	Magnesium composite in the top cover, titanium-reinforced CFRP in bottom cover											• Software Delivery Assistant																																																																								
Battery - type	Lithium Ion 6-cell or 9-cell / intelligent / supports unique 2nd battery in Ultrabay Slim											• System Migration Assistant																																																																								
Battery - life <sup>10</sup>	6-cell models: 4.4 to 4.7 hr; <i>Optional 9-cell</i> : 7 hr; <i>9-cell plus Ultrabay Slim battery</i> : 9 hr											• Client Security Software (for security chip)																																																																								
Architecture	<b>Intel 855PM</b> chipset / 82855PM Memory Controller Hub (MCH-M) / 82801DBM ICH4-M I/O Controller Hub (ATA-100 EIDE, PCI bus, ethernet MAC, Low Pin Count [LPC] interface, USB, [Bluetooth]) / PCI bus 2.2 32-bit, 33MHz (TI® PCI4520A CardBus controller, Mini PCI, external expansion) / LPC bus 33MHz (security chip; PC87392 Super I/O for diskette, parallel, infrared, [docking-based ports]) 2 Type I, 2 Type II, or 1 Type III / CardBus 32-bit / PCMCIA 2.1											<b>License</b> (CD not included) - Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client																																																																								
PC Card Std slots	Two USB (Version 2.0) / parallel / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / no keyboard or mouse or serial ports (use USB)																																																																																			
Ports	S-video out port (TV out) / one 4-pin industry standard connector											ThinkPad notebooks implement ThinkVantage™ technologies and design; visit <a href="http://thinkpad.com/thinkvantage">thinkpad.com/thinkvantage</a>																																																																								
Video out	UltraConnect™ Antenna built into the display cover for optimal wireless signal reception																																																																																			
Wireless antenna	One Mini PCI type III slot (Communications Bay) / customer upgradable																																																																																			
Mini PCI	Some: 11b Wi-Fi <sup>32</sup> wireless <sup>4</sup> , Mini PCI, Intel PRO/Wireless 2100 Network Connection 802.11b, Intel 82531 chipset											Universal 72 watt AC adapter Asset ID™ <sup>34</sup> (system-specific info in chip accessed over network)																																																																								
11b Wi-Fi <sup>32</sup>	Some: 11a/b/g Wi-Fi <sup>32</sup> wireless <sup>4</sup> , Mini PCI, Atheros™ AR5001X+ chipset											PC 2001-compliant ACPI 1.0b and 2.0-compliant CIM and DMI 2.0-compliant PXE 2.0-compliant ENERGY STAR®-compliant ImageUltra™ Services available International Warranty Service <sup>17</sup> 24 hour x 7 day <sup>18</sup> toll-free warranty support during the warranty <sup>12</sup> via 800-IBM-SERV (426-7378)																																																																								
11a/b/g Wi-Fi <sup>32</sup>	One Communications Daughter Card (CDC) socket / customer accessible																																																																																			
CDC	56K <sup>6</sup> V.90 (V.92-designed <sup>29</sup> ) modem in CDC / Agere® chipset																																																																																			
Modem	None																																																																																			
Bluetooth™	Gigabit ethernet on systemboard / Intel 82540EP chipset (MAC/PHY) / PXE																																																																																			
Ethernet	Soft audio / ICH AC97 controller / DirectSound® support / AD1981B AC97 codec / stereo speakers / 1 watt / volume up, down, mute buttons / internal mic / microphone input jack (3.5 mm; pink) / headphone jack (3.5 mm; green)																																																																																			
Audio support	Power-on password / hard disk password / supervisor password / security keyhole authentication / local file encryption / Atmel® chip / TCG-compliant																																																																																			
Security	<b>Embedded Security Subsystem 2.0<sup>33</sup></b> / hardware key storage / multi-factor authentication																																																																																			
Security chip	3 years/1 yr battery - EasyServ™ <sup>19</sup> onsite pickup and delivery / service upgrades <sup>22</sup> avail																																																																																			
Limited warranty <sup>12</sup>	<table border="1"> <tr> <td>128MB PC2700 DDR-SDRAM CL2.5 SOD</td> <td>31P9828</td> <td>ThinkPad T40/R50 Li-Ion Battery 6-cell</td> <td>92P1101</td> </tr> <tr> <td>256MB PC2700 DDR-SDRAM CL2.5 SOD</td> <td>31P9830</td> <td>ThinkPad T40/R50 Li-Ion Battery 9-cell</td> <td>92P1102</td> </tr> <tr> <td>512MB PC2700 DDR-SDRAM CL2.5 SOD</td> <td>31P9832</td> <td>Ultrabay Slim Li-Polymer Battery 3-cell</td> <td>08K8190</td> </tr> <tr> <td>1GB PC2700 DDR-SDRAM CL2.5 SOD</td> <td>31P9834</td> <td>ThinkPad Multiple Battery Charger II</td> <td>22P9040</td> </tr> <tr> <td>USB Portable Diskette Drive</td> <td>05K9276</td> <td>ThinkPad 72W AC Adapter</td> <td>02K6699</td> </tr> <tr> <td>USB 2.0 Combo Drive</td> <td>73P4515</td> <td>ThinkPad 72W AC/DC Combo Adapter</td> <td>22P9010</td> </tr> <tr> <td>USB 2.0 Portable Multi-Burner Drive</td> <td>22P9163</td> <td>11a/b/g Wireless CardBus Adapter</td> <td>31P9101</td> </tr> <tr> <td>USB 2.0 Memory Key 512MB</td> <td>22P9230</td> <td>11a/b/g Wireless Mini PCI Adptr II</td> <td>73P4301</td> </tr> <tr> <td>CD-RW/DVD II Combo Ultrabay Slim Drive</td> <td>73P3288</td> <td>ThinkVision® L192p 19" Monitor (black)</td> <td>9419HB2</td> </tr> <tr> <td>Multi-Burner Plus Ultrabay Slim Drive</td> <td>73P3342</td> <td>ThinkVision E500 Projector</td> <td>0038A05</td> </tr> <tr> <td>Second HDD Adapter for Ultrabay Slim</td> <td>62P4554</td> <td>C400 Projector</td> <td>0039A04</td> </tr> <tr> <td>60GB HS Hard Disk 9.5mm (5400 rpm)</td> <td>73P3357</td> <td>M400 Projector</td> <td>0037A04</td> </tr> <tr> <td>80GB HS Hard Disk 9.5mm (5400 rpm)</td> <td>09N4273</td> <td>GemPC400 Smart Card Reader/Writer</td> <td>31P8901</td> </tr> <tr> <td>100GB Hard Disk 9.5mm PATA (5400 rpm)</td> <td>40Y8716</td> <td>ThinkPad Port Replicator II</td> <td>74P6733</td> </tr> <tr> <td>Enh Perf Wireless Keyboard and Mouse</td> <td>73P4067</td> <td>ThinkPad Mini Dock</td> <td>287810U</td> </tr> <tr> <td>USB Travel Keyboard with UltraNav</td> <td>31P9490</td> <td>ThinkPad Dock II</td> <td>287710U</td> </tr> <tr> <td>ThinkPad Carrying Case - Expander</td> <td>73P3597</td> <td>Kensington® MicroSaver® Security Cable</td> <td>73P2582</td> </tr> <tr> <td>ThinkPad Carrying Case - BackPack</td> <td>73P3599</td> <td>Other options at <a href="http://lenovo.com/options">lenovo.com/options</a></td> <td></td> </tr> </table>											128MB PC2700 DDR-SDRAM CL2.5 SOD	31P9828	ThinkPad T40/R50 Li-Ion Battery 6-cell	92P1101	256MB PC2700 DDR-SDRAM CL2.5 SOD	31P9830	ThinkPad T40/R50 Li-Ion Battery 9-cell	92P1102	512MB PC2700 DDR-SDRAM CL2.5 SOD	31P9832	Ultrabay Slim Li-Polymer Battery 3-cell	08K8190	1GB PC2700 DDR-SDRAM CL2.5 SOD	31P9834	ThinkPad Multiple Battery Charger II	22P9040	USB Portable Diskette Drive	05K9276	ThinkPad 72W AC Adapter	02K6699	USB 2.0 Combo Drive	73P4515	ThinkPad 72W AC/DC Combo Adapter	22P9010	USB 2.0 Portable Multi-Burner Drive	22P9163	11a/b/g Wireless CardBus Adapter	31P9101	USB 2.0 Memory Key 512MB	22P9230	11a/b/g Wireless Mini PCI Adptr II	73P4301	CD-RW/DVD II Combo Ultrabay Slim Drive	73P3288	ThinkVision® L192p 19" Monitor (black)	9419HB2	Multi-Burner Plus Ultrabay Slim Drive	73P3342	ThinkVision E500 Projector	0038A05	Second HDD Adapter for Ultrabay Slim	62P4554	C400 Projector	0039A04	60GB HS Hard Disk 9.5mm (5400 rpm)	73P3357	M400 Projector	0037A04	80GB HS Hard Disk 9.5mm (5400 rpm)	09N4273	GemPC400 Smart Card Reader/Writer	31P8901	100GB Hard Disk 9.5mm PATA (5400 rpm)	40Y8716	ThinkPad Port Replicator II	74P6733	Enh Perf Wireless Keyboard and Mouse	73P4067	ThinkPad Mini Dock	287810U	USB Travel Keyboard with UltraNav	31P9490	ThinkPad Dock II	287710U	ThinkPad Carrying Case - Expander	73P3597	Kensington® MicroSaver® Security Cable	73P2582	ThinkPad Carrying Case - BackPack	73P3599	Other options at <a href="http://lenovo.com/options">lenovo.com/options</a>		ServicePac® <sup>22</sup> 2yr IOR 9x5 NBD 30L9190
128MB PC2700 DDR-SDRAM CL2.5 SOD	31P9828	ThinkPad T40/R50 Li-Ion Battery 6-cell	92P1101																																																																																	
256MB PC2700 DDR-SDRAM CL2.5 SOD	31P9830	ThinkPad T40/R50 Li-Ion Battery 9-cell	92P1102																																																																																	
512MB PC2700 DDR-SDRAM CL2.5 SOD	31P9832	Ultrabay Slim Li-Polymer Battery 3-cell	08K8190																																																																																	
1GB PC2700 DDR-SDRAM CL2.5 SOD	31P9834	ThinkPad Multiple Battery Charger II	22P9040																																																																																	
USB Portable Diskette Drive	05K9276	ThinkPad 72W AC Adapter	02K6699																																																																																	
USB 2.0 Combo Drive	73P4515	ThinkPad 72W AC/DC Combo Adapter	22P9010																																																																																	
USB 2.0 Portable Multi-Burner Drive	22P9163	11a/b/g Wireless CardBus Adapter	31P9101																																																																																	
USB 2.0 Memory Key 512MB	22P9230	11a/b/g Wireless Mini PCI Adptr II	73P4301																																																																																	
CD-RW/DVD II Combo Ultrabay Slim Drive	73P3288	ThinkVision® L192p 19" Monitor (black)	9419HB2																																																																																	
Multi-Burner Plus Ultrabay Slim Drive	73P3342	ThinkVision E500 Projector	0038A05																																																																																	
Second HDD Adapter for Ultrabay Slim	62P4554	C400 Projector	0039A04																																																																																	
60GB HS Hard Disk 9.5mm (5400 rpm)	73P3357	M400 Projector	0037A04																																																																																	
80GB HS Hard Disk 9.5mm (5400 rpm)	09N4273	GemPC400 Smart Card Reader/Writer	31P8901																																																																																	
100GB Hard Disk 9.5mm PATA (5400 rpm)	40Y8716	ThinkPad Port Replicator II	74P6733																																																																																	
Enh Perf Wireless Keyboard and Mouse	73P4067	ThinkPad Mini Dock	287810U																																																																																	
USB Travel Keyboard with UltraNav	31P9490	ThinkPad Dock II	287710U																																																																																	
ThinkPad Carrying Case - Expander	73P3597	Kensington® MicroSaver® Security Cable	73P2582																																																																																	
ThinkPad Carrying Case - BackPack	73P3599	Other options at <a href="http://lenovo.com/options">lenovo.com/options</a>																																																																																		
				ServicePac 3yr IOR 9x5 NBD 30L9197																																																																																
				ServicePac 4yr IOR 9x5 NBD 69P9198																																																																																
				ServicePac 5yr IOR 9x5 NBD 69P9200																																																																																
				ServicePac 4yr P&L P/U Depot 69P9199																																																																																
				ServicePac 5yr P&L P/U Depot 69P9201																																																																																
				Other ServicePac options at <a href="http://ibm.com/services/its/us/source/wamomxeu.pdf">ibm.com/services/its/us/source/wamomxeu.pdf</a> Post-warranty annual maintenance agreements at <a href="http://ibm.com/services/its/us/source/maspspleu.pdf">ibm.com/services/its/us/source/maspspleu.pdf</a>																																																																																

See footnotes for important warranty information

\* Powered by Intel Centrino™ mobile technology

© Lenovo

US models announced October 7, 2003

(T41B3) October 2005

US models withdrawn effective October 2004 or December 2005

# ThinkPad® T41p (2373) - withdrawn

Created by Lenovo Training Solutions  
Personal Systems Reference (PSREF)

Type-model	Processor	Speed GHz	Memory	Screen	Graphics controller	Disk memory GB <sup>8</sup>	Optical	Mini PCI Comm Bay wireless	CDC modem/Bluetooth™	Ethernet on planar chip	Battery Security cells	Workhorse (W) Global (G) Preload Entry (E)	Avail date
2373-GEU	Pentium® M	1.7	512MB	14.1" SXGA+	128MB	60U	Combo	11a/b/g Wi-Fi <sup>32</sup>	Mod/Blue	Gigabit	Yes	9-cell XP Pro W	Nov 2003
2373-GGU	Pentium M	1.7	512MB	14.1" SXGA+	128MB	60U	Combo	*Intel 11b Wi-Fi <sup>32</sup>	Mod/Blue	Gigabit	Yes	9-cell XP Pro W G	Nov 2003
Positioning Processor	Perfect balance of performance and portability; two-spindle system												
L2 cache	Intel® Pentium® M Processor 1.7GHz with enhanced Intel SpeedStep™ technology <sup>1</sup> and 400MHz system bus												
Memory	1MB / on die (at processor speed) / ECC												
Diskette drive	None standard / use optional USB-based diskette drive												
Combo	DVD-ROM/CD-RW / 16X/10X/24X/8X <sup>21</sup> speed / removable from Ultrabay™ Slim												
Ultrabay Slim	One modular bay for interchangeable devices (right side) / 9.5mm high bay												
Disk	60GB Ultra HS (7200 rpm), 9.5mm high / removable and upgradable / 9.5mm high bay / supports 2nd disk with optional HDD Adapter in Ultrabay Slim / <b>Hard Disk Drive Shock Absorber / Active Protection System™</b> (shock protection)												
Display	14.1" (358.1mm) SXGA+ (1400x1050) TFT color / Active Matrix / 150 nits / 200:1 contrast ratio / one latch to unlatch and open with one hand												
Graphics	ATI® Mobility™ FireGL™ T2 / AGP 4X / 128MB DDR1 / OpenGL® support												
Graphics external	External monitor support via analog DB-15 connector / up to 2048x1536x16.7M at 75Hz												
Keyboard	87-key / Access IBM button / palm rest / pitch: 19mm; stroke: 2.5mm (std-size keys)												
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar <sup>13</sup> , magnifying glass / UltraNav® multi-pointing system / touch pad below keyboard / Tap Zones												
Touch pad	Illuminates the keyboard to improve visibility in low-light conditions												
ThinkLight™													
Dimensions <sup>3</sup>	(WxDxH): 12.2" x 10.0" x 1.0-1.2"; 311mm x 255mm x 26.6-31.4mm												
Weight <sup>2</sup>	with optical drive and battery: 5.4 lb (2.4 kg)												
Case material	Magnesium composite in the top cover, titanium-reinforced CFRP in bottom cover												
Battery - type	Lithium Ion 9-cell / intelligent / supports unique 2nd battery in Ultrabay Slim												
Battery - life <sup>10</sup>	9-cell: 6.3 to 6.4 hr; 9-cell plus Ultrabay Slim battery: up to 8.6 hr												
Architecture	Intel 855PM chipset / 82855PM Memory Controller Hub (MCH-M) / 82801DBM ICH4-M I/O Controller Hub (ATA-100 EIDE, PCI bus, ethernet MAC, Low Pin Count [LPC] interface, USB, [Bluetooth]) / PCI bus 2.2 32-bit, 33MHz (TI® PCI4520A CardBus and 1394 controller, Mini PCI, external expansion) / LPC bus 33MHz (security chip; PC87392 Super I/O for diskette, parallel, infrared, [docking-based ports])												
PC Card Std slots	2 Type I, 2 Type II, or 1 Type III / CardBus 32-bit / PCMCIA 2.1												
Ports	Two USB (Version 2.0) / parallel / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / no keyboard or mouse or serial ports (use USB)												
Video out	S-video out port (TV out) / one 4-pin industry standard connector												
Wireless antenna	UltraConnect™ Antenna built into the display cover for optimal wireless signal reception												
Mini PCI	One Mini PCI type III slot (Communications Bay) / customer upgradable												
11b Wi-Fi <sup>32</sup>	Some: 11b Wi-Fi <sup>32</sup> wireless <sup>4</sup> , Mini PCI, Intel PRO/Wireless 2100 Network Connection 802.11b, Intel 82531 chipset												
11a/b/g Wi-Fi <sup>32</sup>	Some: 11a/b/g Wi-Fi <sup>32</sup> wireless <sup>4</sup> , Mini PCI, Atheros™ AR5001X+ chipset												
CDC	One Communications Daughter Card (CDC) socket / customer accessible												
Modem	56K <sup>6</sup> V.90 (V.92-designed <sup>29</sup> ) modem in CDC / Agere® chipset												
Bluetooth™	Bluetooth wireless technology / in CDC (with modem)												
Ethernet	Gigabit ethernet on systemboard / Intel 82540EP chipset (MAC/PHY) / PXE												
Audio support	Soft audio / ICH AC97 controller / DirectSound® support / AD1981B AC97 codec / stereo speakers / 1 watt / volume up, down, mute buttons / internal mic / microphone input jack (3.5 mm; pink) / headphone jack (3.5 mm; green)												
Security	Power-on password / hard disk password / supervisor password / security keyhole												
Security chip	<b>Embedded Security Subsystem 2.0<sup>33</sup></b> / hardware key storage / multi-factor authentication / local file encryption / Atmel® chip / TCG-compliant												
Limited warranty <sup>12</sup>	3 years/1 yr battery - EasyServ™ <sup>19</sup> onsite pickup and delivery / service upgrades <sup>22</sup> avail												
128MB PC2700 DDR-SDRAM CL2.5 SOD	31P9828	ThinkPad T40/R50 Li-Ion Battery 6-cell	92P1101										
256MB PC2700 DDR-SDRAM CL2.5 SOD	31P9830	ThinkPad T40/R50 Li-Ion Battery 9-cell	92P1102										
512MB PC2700 DDR-SDRAM CL2.5 SOD	31P9832	Ultrabay Slim Li-Polymer Battery 3-cell	08K8190										
1GB PC2700 DDR-SDRAM CL2.5 SOD	31P9834	ThinkPad Multiple Battery Charger II	22P9040										
USB Portable Diskette Drive	05K9276	ThinkPad 72W AC Adapter	02K6699										
USB Serial Parallel Adapter	22P5298	ThinkPad 72W AC/DC Combo Adapter	22P9010										
USB 2.0 Portable CD-RW Drive	22P5297	11a/b/g Wireless CardBus Adapter	31P9101										
USB 2.0 Combo Drive	73P4515	11a/b/g Wireless Mini PCI Adptr II	73P4301										
USB 2.0 Portable Multi-Burner Drive	22P9163	SonyEricsson® GC83 EDGE PC Card	26K3393										
USB 2.0 Memory Key 256MB	22P9228	ThinkVision® L192p 19" Monitor (black)	9419HB2										
USB 2.0 Memory Key 512MB	22P9230	ThinkVision E500 Projector	0038A05										
USB 2.0 Portable 80GB Hard Disk	40Y8726	M400 Projector	0037A04										
CD-RW/DVD Combo II Ultrabay Slim Drive	73P3288	C400 Projector	0039A04										
ThinkPad DVD-ROM Ultrabay Slim Drive	73P3270	GemPC400 Smart Card Reader/Writer	31P8901										
Second HDD Adapter for Ultrabay Slim	62P4554	ThinkPad Port Replicator II	74P6733										
60GB HS Hard Disk 9.5mm (5400 rpm)	73P3357	ThinkPad Mini Dock	287810U										
80GB Hard Disk 9.5mm (4200 rpm)	08K9869	ThinkPad Dock II	287710U										
100GB Hard Disk 9.5mm PATA (5400 rpm)	40Y8716	ThinkPad Monitor Stand 2001	22P5265										
Enh Perf Wireless Keyboard and Mouse	73P4067	ThinkPad Carrying Case - Expander	73P3597										
Optical 3-Button Travel Wheel Mouse	31P7410	Other options at <a href="http://lenovo.com/options">lenovo.com/options</a>											
<b>SOFTWARE<sup>14</sup></b>													
<b>Windows XP Professional</b>													
- Microsoft® Windows® XP Professional <sup>20</sup>													
↳ Disk-to-Disk Recovery (in hidden protected area)													
<b>Preloaded</b>													
• Access IBM													
• Access Connections™													
• Adobe Reader													
• Rapid Restore™ Ultra													
• RecordNOW and Drive Letter Access (combo models)													
• InterVideo WinDVD (combo mdl)													
• Norton AntiVirus (OEM edition)													
• PC-Doctor™													
• ThinkPad Utilities													
• Update Connector™ <sup>15</sup>													
<b>Downloadable</b>													
• IBM Director Agent													
• Software Delivery Assistant													
• System Migration Assistant													
• Client Security Software (for security chip)													
<b>License</b> (CD not included)													
- Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client													
ThinkPad notebooks implement ThinkVantage™ technologies and design; visit <a href="http://thinkpad.com/thinkvantage">thinkpad.com/thinkvantage</a>													
Universal 72 watt AC adapter Asset ID™ <sup>34</sup> (system-specific info in chip accessed over network)													
PC 2001-compliant													
ACPI 1.0b and 2.0-compliant													
CIM and DMI 2.0-compliant													
PXE 2.0-compliant													
ENERGY STAR®-compliant													
ImageUltra™ Services available													
International Warranty Service <sup>17</sup>													
24 hour x 7 day <sup>18</sup> toll-free hardware support during the warranty <sup>12</sup>													
ServicePac® <sup>22</sup> 2yr IOR 9x5 NBD													
30L9190													
ServicePac 3yr IOR 9x5 NBD													
69P9198													
ServicePac 4yr IOR 9x5 NBD													
69P9200													
ServicePac 5yr IOR 9x5 NBD													
69P9199													
ServicePac 4yr P&L P/U Depot													
69P9199													
ServicePac 5yr P&L P/U Depot													
69P9201													
Other ServicePac options at <a href="http://ibm.com/services/its/us/source/wamomxeu.pdf">ibm.com/services/its/us/source/wamomxeu.pdf</a>													
Post-warranty annual maintenance agreements at <a href="http://ibm.com/services/its/us/source/maspspleu.pdf">ibm.com/services/its/us/source/maspspleu.pdf</a>													

See footnotes for important warranty information  
US models announced October 28, 2003  
US models withdrawn effective October 2005

\* Powered by Intel Centrino™ mobile technology

© Lenovo  
(T41P) October 2005

# ThinkPad® T42 (Entry) - withdrawn

Created by Lenovo Training Solutions  
Personal Systems Reference (PSREF)

Type-model	Processor	Speed GHz	Memory	Screen	Graphics controller	Disk GB <sup>3</sup>	Optical	Mini PCI Comm Bay wireless	CDC modem/Bluetooth™	Ethernet on planar chip	Battery Security cells	Workhorse (W) or Global (G) Entry (E)	Avail date
2373-1UU	Pentium® M	1.5	256MB	14.1" XGA	7500	30GB	DVD	* Intel 11b Wi-Fi <sup>32</sup>	Modem	Gigabit	Yes	6 XP Pro E	May 2004
2373-1YU	Pentium M	1.5	256MB	14.1" XGA	7500	30GB	DVD	* Intel 11b/g <sup>32</sup>	Modem	Gigabit	Yes	6 XP Pro E	May 2004
2373-1WU	Pentium M	1.5	256MB	14.1" XGA	7500	30GB	Combo	* Intel 11b Wi-Fi	Modem	Gigabit	Yes	6 XP Pro E G	May 2004
2373-5TU	Pentium M	725 1.6	512MB	14.1" XGA	9000	40HS	Combo	* Intel 11b/g	Modem	Gigabit	Yes	6 XP Pro E	Aug 2004
Positioning Processor	Perfect balance of performance and portability; two-spindle system <b>Intel® Pentium® M Processor 1.5GHz or Intel Pentium M Processor 725 (1.6GHz)</b> with Enhanced Intel SpeedStep™ technology <sup>1</sup> and 400MHz system bus												
L2 cache	1.5GHz: <b>1MB</b> ; 1.6GHz: <b>2MB</b> ; All: on die (at processor speed) / ECC												
Memory	<b>256MB or 512MB</b> std / 2GB max <sup>7</sup> / PC2700 333MHz DDR1 / non-parity / CL2.5 / two 200-pin SO-DIMM sockets / std mem in one socket / one socket available												
Diskette drive	None standard / use optional USB-based diskette drive												
DVD	Some: DVD-ROM / 24X-8X <sup>9</sup> speed / single-layer / removable from Ultrabay™ Slim												
Combo	Some: DVD-ROM/CD-RW / 24X/24X/24X/8X <sup>21</sup> speed / removable from Ultrabay Slim												
Ultrabay Slim	One modular bay for interchangeable devices (right side) / 9.5mm high bay												
Disk	<b>30GB<sup>8</sup></b> (4200 rpm) or <b>40GB HS</b> (5400 rpm) / 9.5mm high / removable and upgradable / 9.5mm high bay / supports 2nd disk with optional HDD Adapter in Ultrabay Slim / <b>Hard Disk Drive Shock Absorber / Active Protection System™</b>												
Display	<b>14.1"</b> (358.1mm) <b>XGA (1024x768) TFT color</b> / Active Matrix / 150 nits												
Graphics	Some: <b>ATI® MOBILITY™ RADEON® 7500 / AGP 4X / 32MB</b> DDR1 (DDR-SDRAM) Some: <b>ATI MOBILITY RADEON 9000 / AGP 4X / 64MB</b> DDR1 (DDR-SDRAM)												
Graphics external	External monitor support via analog DB-15 connector / up to 2048x1536x16.7M / DDC2B												
Keyboard	87-key / Access IBM button / palm rest / pitch: 19mm; stroke: 2.5mm (std-size keys)												
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar <sup>13</sup> , magnifying glass												
Touch pad	UltraNav® multi-pointing system / touch pad below keyboard / Tap Zones												
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions												
Dimensions <sup>3</sup>	<b>14.1" models (WxDxH): 12.2" x 10.0" x 1.0-1.2"</b> ; 311mm x 255mm x 26.6-31.4mm												
Weight <sup>2</sup>	with optical drive and battery: 4.9 lb (2.2kg)												
Case material	Magnesium composite in the top cover, titanium-reinforced CFRP in bottom cover												
Battery - type	Lithium Ion 6-cell / intelligent / supports unique 2nd battery in Ultrabay Slim												
Battery - life <sup>10</sup>	<b>6-cell models:</b> up to 5.0 hr; <i>Optional 9-cell:</i> 7 hr; <i>9-cell plus Ultrabay Slim battery:</i> 9 hr												
Architecture	<b>Intel 855PM</b> chipset / 82855PM Memory Controller Hub (MCH-M) / 82801DBM ICH4-M I/O Controller Hub (ATA-100 EIDE, PCI bus, ethernet MAC, Low Pin Count [LPC] interface, USB, [Bluetooth]) / PCI bus 2.2 32-bit, 33MHz (TI® PCI4520A CardBus controller, Mini PCI, external expansion) / LPC bus 33MHz (security chip; PC87392 Super I/O for diskette, parallel, infrared, [docking-based ports])												
PC Card Std slots	2 Type I, 2 Type II, or 1 Type III / CardBus 32-bit / integrated door												
Ports	Two USB (Version 2.0) / parallel / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / no keyboard or mouse or serial ports (use USB)												
Video out	S-video out port (TV out) / one 4-pin industry standard connector												
Wireless antenna	UltraConnect™ Antenna built into the display cover for optimal wireless signal reception												
Mini PCI	One Mini PCI type III slot (Communications Bay) / customer upgradable												
Intel 11b Wi-Fi <sup>32</sup>	Some: 11b Wi-Fi <sup>32</sup> wireless <sup>4</sup> , Mini PCI, Intel PRO/Wireless 2100 Network Connection 802.11b, Intel 82531 chipset												
Intel 11b/g <sup>32</sup>	Some: 11b/g wireless <sup>4</sup> , Mini PCI, Intel PRO/Wireless 2200BG, Intel 82532 chipset												
CDC	One Communications Daughter Card (CDC) socket / customer accessible												
Modem	56K <sup>6</sup> V.90 (V.92-designed <sup>29</sup> ) modem in CDC / Conexant® chipset												
Bluetooth™	None												
Ethernet	Gigabit ethernet on systemboard / Intel 82540EP chipset (MAC/PHY) / PXE												
Audio support	Soft audio / ICH AC97 controller / DirectSound® support / AD1981B AC97 codec / stereo speakers, 1 watt / volume up, down, mute buttons / internal mic / microphone input jack (3.5 mm; pink) / headphone jack (3.5 mm; green)												
Security	Power-on password / hard disk password / supervisor password / security keyhole												
Security chip	<b>Embedded Security Subsystem 2.0<sup>33</sup></b> / hardware key storage / multi-factor authentication / local file encryption / Atmel® chip / TCG-compliant												
Limited warranty <sup>12</sup>	<b>3-year/1-yr battery</b> - EasyServ™ <sup>19</sup> onsite pickup and delivery / service upgrades <sup>22</sup> avail												
256MB PC2700 DDR-SDRAM CL2.5 SOD	31P9830	ThinkPad T40/R50 Li-Ion Battery 6-cell	92P1101										
512MB PC2700 DDR-SDRAM CL2.5 SOD	31P9832	ThinkPad T40/R50 Li-Ion Battery 9-cell	92P1102										
1GB PC2700 DDR-SDRAM CL2.5 SOD	31P9834	Ultrabay Slim Li-Polymer Battery 3-cell	08K8190										
USB Portable Diskette Drive	05K9276	ThinkPad Multiple Battery Charger II	22P9040										
USB Fingerprint Reader	73P4774	ThinkPad 72W AC Adapter	02K6699										
USB 2.0 CD-RW/DVD-ROM Combo II Drive	40Y8637	72W Slim AC/DC Combo Adapter	73P4485										
USB 2.0 Memory Key 1GB	40Y7421	11a/b/g Wireless Mini PCI Adptr II	73P4301										
USB 2.0 Portable 80GB Hard Disk	40Y8726	Intel PRO/Wireless 2915ABG Mini PCI	41N2990										
CD-RW/DVD Combo II Ultrabay Slim Drive	73P3288	Kensington® MicroSaver® Security Cable	73P2582										
ThinkPad DVD-ROM Ultrabay Slim Drive	73P3270	TrackPoint Cap Collection	73P2698										
Super Multi-Burner Ultrabay Slim Drv (curve)	40Y8622	Lenovo M500 Projector	0037A05										
Second HDD Adapter for Ultrabay Slim	41U3148	ThinkVision® E500 Projector	0038A05										
40GB HS Hard Disk 9.5mm (5400 rpm)	08K9816	ThinkVision L151p 15" Monitor (black)	9205HB2										
80GB HS Hard Disk 9.5mm (5400 rpm)	09N4273	ThinkVision L201p 20.1" Monitor (black)	9320HB1										
USB Travel Keyboard with UltraNav	31P9490	PC Card Gemplus Smart Card Reader	41N3004										
Preferred Pro USB Fingerprint Keyboard	73P4730	ThinkPad Port Replicator II	74P6733										
SonyEricsson® GC83 EDGE PC Card	26K3393	ThinkPad Mini Dock	287810U										
ThinkPad Carrying Case - Leather	73P3600	ThinkPad Dock II	287710U										
ThinkPad Convertible Monitor Stand	40Y7620	Other options at <a href="http://lenovo.com/options">lenovo.com/options</a>											
<b>SOFTWARE<sup>14</sup></b>													
<b>Windows XP Professional</b>													
- Microsoft® Windows® XP Professional <sup>20</sup>													
↳ Disk-to-Disk Recovery (in hidden protected area)													
<b>Preloaded</b>													
• Access Program													
• Access Connections													
• Rescue and Recovery™													
• RecordNOW and Drive Letter Access powered by Sonic products (combo models)													
• InterVideo WinDVD (combo models)													
• Norton AntiVirus (OEM edition)													
• PC-Doctor™													
• ThinkPad Utilities													
• Adobe Reader													
• Update Connector™ <sup>15</sup>													
<b>Downloadable</b>													
• IBM Director Agent													
• Software Delivery Assistant													
• System Migration Assistant													
• Client Security Software (for security chip)													
<b>License</b> (CD not included)													
- Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client													
ThinkPad notebooks implement ThinkVantage™ technologies and design; visit <a href="http://thinkpad.com/thinkvantage">thinkpad.com/thinkvantage</a>													
Universal 72 watt AC adapter Asset ID™ <sup>34</sup> (system-specific info in chip accessed over network)													
PC 2001-compliant ACPI 1.0b and 2.0-compliant CIM and DMI 2.0-compliant PXE 2.0-compliant ENERGY STAR®-compliant ImageUltra™ Services available International Warranty Service <sup>17</sup> 24 hour x 7 day <sup>18</sup> toll-free warranty support during the warranty <sup>12</sup> via 800-IBM-SERV (426-7378)													
The Ultrabay Slim supports:													
• standard or optional CD-RW/DVD combo drive													
• optional DVD or DVD-RW drive													
• optional second battery													
• optional HDD adapter (for 2nd disk)													
• optional travel bezel													
ThinkPlus™ <sup>22</sup> 2-year LOR 9x5 NBD 41C9175													
ThinkPlus 3-year LOR 9x5 NBD 41C9176													
ThinkPlus 4-year LOR 9x5 NBD 41C9177													
ThinkPlus 5-year LOR 9x5 NBD 41C9179													
ThinkPlus 4-year P&L P/U Depot 41C9178													
ThinkPlus 5-year P&L P/U Depot 41C9180													
Post-warranty annual maintenance agreements at <a href="http://lenovo.com/thinkplus/warranty">lenovo.com/thinkplus/warranty</a>													

See footnotes for important warranty information  
US models announced May 11 or August 17, 2004  
US models withdrawn effective August 2005 or October 2006

\* Powered by Intel Centrino® mobile technology

# ThinkPad® T42 (14.1" display) - withdrawn

Created by Lenovo Training Solutions  
Personal Systems Reference (PSREF)

Type-model	Processor	Speed GHz	Memory	Screen	Graphics controller	Disk GB <sup>5</sup>	Optical	Mini PCI Comm Bay wireless	CDC modem/ Bluetooth™	Security chip	Workhorse (W) or Global (G) Preload or Entry (E)	Avail date
2373-3UU	Pentium® M 735	1.7	512MB	14.1" SXGA+	9600	40HS	Combo	11a/b/g Wi-Fi <sup>32</sup>	Mod/Blue	Yes	XP Pro W	May 2004
2373-4WU	Pentium M 735	1.7	512MB	14.1" XGA	7500	40HS	Combo	* Intel 11b Wi-Fi <sup>32</sup>	Modem	Yes	XP Pro W G	May 2004
2373-8XU	Pentium M 735	1.7	512MB	14.1" SXGA+	9600	40HS	Combo	* Intel 11b Wi-Fi	Modem	Yes	XP Pro W	May 2004
2373-8ZU	Pentium M 735	1.7	512MB	14.1" SXGA+	9600	40HS	Combo	* Intel 11b/g <sup>32</sup>	Modem	Yes	XP Pro W	May 2004
2373-8TU	Pentium M 735	1.7	256MB	14.1" XGA	7500	40HS	DVD	Open; wireless upg <sup>36</sup>	Modem	Yes	XP Pro W G	May 2004
2373-6UU	Pentium M 735	1.7	512MB	14.1" XGA	7500	40HS	DVD	Open; wireless upg	Modem	Yes	XP Pro W	May 2004
2373-6ZU	Pentium M 735	1.7	512MB	14.1" XGA	7500	40HS	Combo	11a/b/g Wi-Fi	Mod/Blue	Yes	XP Pro W	May 2004
2373-4TU	Pentium M 735	1.7	512MB	14.1" XGA	7500	40HS	Combo	Open; wireless upg	Modem	Yes	XP Pro W	May 2004
2373-JTU	Pentium M 735	1.7	512MB	14.1" XGA	7500	40HS	Combo	11b/g <sup>32</sup>	Modem	Yes	XP Pro W	May 2004
2373-9XU	Pentium M 745	1.8	512MB	14.1" SXGA+	9600	80HS	Combo	11a/b/g Wi-Fi	Mod/Blue	Yes	XP Pro	May 2004
2373-9VU	Pentium M 745	1.8	1GB	14.1" SXGA+	9600	80HS	Combo	* Intel 11b/g	Mod/Blue	Yes	XP Pro	May 2004
2373-9ZU	Pentium M 745	1.8	512MB	14.1" SXGA+	9600	80HS	DVD-RW	11a/b/g Wi-Fi	Mod/Blue	Yes	XP Pro	May 2004
Positioning Processor	Perfect balance of performance and portability; two-spindle system <b>Intel® Pentium® M Processor 735 (1.7GHz) or 745 (1.8GHz)</b> with Enhanced Intel SpeedStep™ technology <sup>1</sup> and 400MHz system bus										<b>SOFTWARE<sup>14</sup></b>	
L2 cache	<b>2MB</b> / on die (at processor speed) / ECC										<b>Windows XP Professional</b>	
Memory	<b>256MB, 512MB or 1GB</b> std / 2GB max <sup>7</sup> / PC2700 333MHz DDR1 / non-parity / CL2.5 / two 200-pin SO-DIMM sockets / std mem in one socket / one socket available										- Microsoft® Windows® XP Professional <sup>20</sup> ↘ Disk-to-Disk Recovery (in hidden protected area)	
Diskette drive	None standard / use optional USB-based diskette drive										<b>Preloaded</b>	
DVD	Some: DVD-ROM / 24X-8X <sup>9</sup> speed / single-layer / removable from Ultrabay™ Slim										• Access Program	
Combo	Some: DVD-ROM/CD-RW / 24X/24X/24X/8X <sup>21</sup> speed / removable from Ultrabay Slim										• Access Connections	
DVD-RW	Some: CD-RW/DVD-RW Multi-Burner / removable from Ultrabay Slim										• Rescue and Recovery™	
Ultrabay Slim	One modular bay for interchangeable devices (right side) / 9.5mm high bay										• RecordNOW and Drive Letter	
Disk	<b>40GB<sup>8</sup> HS</b> (5400 rpm) or <b>80GB HS</b> (5400 rpm) / 9.5mm high / removable, upgradable / 9.5mm high bay / supports 2nd disk with optional HDD Adapter in Ultrabay Slim / <b>Hard Disk Drive Shock Absorber / Active Protection System™</b>										• Access powered by Sonic products (combo, DVD-RW models)	
Display	Some: <b>14.1"</b> (358.1mm) <b>XGA (1024x768) TFT color</b> / Active Matrix / 150 nits Some: <b>14.1"</b> (358.1mm) <b>SXGA+ (1400x1050) TFT color</b> / Active Matrix / 150 nits										• InterVideo WinDVD (combo, DVD, DVD-RW models)	
Graphics	Some: <b>ATI® MOBILITY™ RADEON® 7500 / AGP 4X / 32MB</b> DDR1 (DDR-SDRAM) Some: <b>ATI MOBILITY RADEON 9600 / AGP 4X / 64MB</b> DDR1 (DDR-SDRAM)										• InterVideo WinDVD Creator (DVD-RW models)	
Graphics external	External monitor support via analog DB-15 connector / up to 2048x1536x16.7M / DDC2B										• Norton AntiVirus (OEM edition)	
Keyboard	87-key / Access IBM button / palm rest / pitch: 19mm; stroke: 2.5mm (std-size keys)										• PC-Doctor™	
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar <sup>13</sup> , magnifying glass										• ThinkPad Utilities	
Touch pad	UltraNav® multi-pointing system / touch pad below keyboard / Tap Zones										• Adobe Reader	
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions										• Update Connector™ <sup>15</sup>	
Dimensions <sup>3</sup>	14.1" models (WxDxH): 12.2" x 10.0" x 1.0-1.2"; 311mm x 255mm x 26.6-31.4mm										<b>Downloadable</b>	
Weight <sup>2</sup>	with optical drive and battery: XGA models: 4.9 lb (2.2kg); SXGA+ mod: 5.0 lb (2.3kg)										• IBM Director Agent	
Battery - type	Lithium Ion 6-cell / intelligent / supports unique 2nd battery in Ultrabay Slim										• Software Delivery Assistant	
Battery - life <sup>10</sup>	Up to 4.6 hr; <i>Optional 9-cell</i> : up to 7.5 hr; <i>9-cell plus Ultrabay Slim battery</i> : up to 9.5 hr										• System Migration Assistant	
Architecture	Intel <b>855PM</b> chipset / 82855PM Memory Controller Hub (MCH-M) / 82801DBM ICH4-M I/O Controller Hub (ATA-100 EIDE, PCI bus, ethernet MAC, Low Pin Count [LPC] interface, USB, [Bluetooth]) / PCI bus 2.2 32-bit, 33MHz (TI® PCI4520A CardBus controller, Mini PCI, external expansion) / LPC bus 33MHz (security chip; PC87392 Super I/O for diskette, parallel, infrared, [docking-based ports])										• Client Security Software (for security chip)	
PC Card Std slots	2 Type I, 2 Type II, or 1 Type III / CardBus 32-bit / integrated door										<b>License</b> (CD not included)	
Ports	Two USB (Version 2.0) / parallel / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / no keyboard or mouse or serial ports (use USB)										- Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client	
Video out	S-video out port (TV out) / one 4-pin industry standard connector										ThinkPad notebooks implement ThinkVantage™ technologies and design; visit <a href="http://thinkpad.com/thinkvantage">thinkpad.com/thinkvantage</a>	
Wireless antenna	UltraConnect™ Antenna built into the display cover for optimal wireless signal reception										Universal 72 watt AC adapter	
Mini PCI	One Mini PCI type III slot (Communications Bay) / customer upgradable										Asset ID™ <sup>34</sup> (system-specific info in chip accessed over network)	
Wireless upg <sup>36</sup>	Some: wireless upgradable with wireless Mini PCI options										PC 2001-compliant	
Intel 11b Wi-Fi <sup>32</sup>	Some: 11b Wi-Fi <sup>32</sup> wireless <sup>4</sup> , Mini PCI, Intel PRO/Wireless 2100 Network Connection 802.11b, Intel 82531 chipset										ACPI 1.0b and 2.0-compliant	
Intel 11b/g <sup>32</sup>	Some: 11b/g wireless <sup>4</sup> , Mini PCI, Intel PRO/Wireless 2200BG, Intel 82532 chip										CIM and DMI 2.0-compliant	
11a/b/g Wi-Fi <sup>32</sup>	Some: 11a/b/g Wi-Fi <sup>32</sup> wireless <sup>4</sup> , Mini PCI, Atheros™ AR5001X+ chipset										PXE 2.0-compliant	
11b/g <sup>32</sup>	Some: 11b/g Wi-Fi <sup>32</sup> wireless <sup>4</sup> , Mini PCI, Atheros™ AR5004G chipset										ENERGY STAR®-compliant	
CDC	One Communications Daughter Card (CDC) socket / customer accessible										ImageUltra™ Services available	
Modem	56K <sup>6</sup> V.90 (V.92-designed <sup>29</sup> ) modem in CDC / Conexant® chipset										International Warranty Service <sup>17</sup>	
Bluetooth™	Some: Bluetooth wireless technology / in CDC (with modem)										24 hour x 7 day <sup>18</sup> toll-free warranty support during the warranty <sup>12</sup>	
Ethernet	Gigabit ethernet on systemboard / Intel 82540EP chipset (MAC/PHY) / PXE										ThinkPlus™ <sup>22</sup> 2-year LOR 9x5 NBD	
Audio support	Soft audio / ICH AC97 controller / DirectSound® support / AD1981B AC97 codec / stereo speakers, 1 watt / volume up, down, mute buttons / internal mic / microphone input jack (3.5 mm; pink) / headphone jack (3.5 mm; green)										41C9175	
Security	Power-on password / hard disk password / supervisor password / security keyhole										ThinkPlus 3-year LOR 9x5 NBD	
Security chip	<b>Embedded Security Subsystem 2.0<sup>33</sup></b> / hardware key storage / multi-factor authentication / local file encryption / Atmel® chip / TCG-compliant										41C9176	
Limited warranty <sup>12</sup>	<b>3-year/1-yr battery - EasyServ™<sup>19</sup></b> onsite pickup and delivery / service upgrades <sup>22</sup> avail										ThinkPlus 4-year LOR 9x5 NBD	
256MB PC2700 DDR-SDRAM CL2.5 SOD	31P9830	ThinkPad T40/R50 Li-Ion Battery 6-cell	92P1101									
512MB PC2700 DDR-SDRAM CL2.5 SOD	31P9832	ThinkPad T40/R50 Li-Ion Battery 9-cell	92P1102									
1GB PC2700 DDR-SDRAM CL2.5 SOD	31P9834	Ultrabay Slim Li-Polymer Battery 3-cell	08K8190									
USB Portable Diskette Drive	05K9276	11a/b/g Wireless Mini PCI Adapter II	73P4301									
USB 2.0 CD-RW/DVD-ROM Combo II Drive	40Y8637	Intel PRO/Wireless 2915ABG Mini PCI	41N2990									
Super Multi-Burner Ultrabay Slim Drv (curve)	40Y8627	ThinkPad Port Replicator II	74P6733									
Second HDD Adapter for Ultrabay Slim	62P4554	ThinkPad Mini Dock	287810U									
ThinkPad Carrying Case - Leather	73P3600	ThinkPad Dock II	287710U									
80GB HS Hard Disk 9.5mm (5400 rpm)	09N4273	ThinkVision® L201p 20.1" Monitor (black)	9320HB1									
ThinkPad Convertible Monitor Stand	40Y7620	Other options at <a href="http://lenovo.com/options">lenovo.com/options</a>										

See footnotes for important warranty information  
US models announced May 11, 2004  
US models withdrawn effective May 2005 or May 2006

\* Powered by Intel Centrino® mobile technology





# ThinkPad® T42 (15" display) - withdrawn

Created by Lenovo Training Solutions  
Personal Systems Reference (PSREF)

Type-model	Processor	Speed GHz	Memory	Screen	Graphics controller	Disk GB <sup>5</sup>	Optical	Mini PCI Comm Bay wireless	CDC modem/Bluetooth™	Security chip	Workhorse (W) or Global (G) Preload or Entry (E)	Avail date
2373-6YU	Pentium® M 735	1.7	512MB	15.0" XGA	7500	40HS	Combo	* Intel 11b Wi-Fi <sup>32</sup>	Modem	Yes	XP Pro	W G May 2004
2373-JXU	Pentium M 735	1.7	512MB	15.0" SXGA+	9600	40HS	Combo	11b/g <sup>32</sup>	Modem	Yes	XP Pro	W May 2004
2373-CWU	Pentium M 745	1.8	512MB	15.0" SXGA+	9600	80HS	Combo	11a/b/g Wi-Fi <sup>32</sup>	Mod/Blue	Yes	XP Pro	May 2004
2373-CXU	Pentium M 745	1.8	512MB	15.0" SXGA+	9600	80HS	Combo	* Intel 11b/g <sup>32</sup>	Mod/Blue	Yes	XP Pro	May 2004
2373-CVU	Pentium M 745	1.8	1GB	15.0" SXGA+	9600	80HS	Combo	11a/b/g Wi-Fi	Mod/Blue	Yes	XP Pro	May 2004
2373-CYU	Pentium M 745	1.8	512MB	15.0" SXGA+	9600	80HS	DVD-RW	11a/b/g Wi-Fi	Mod/Blue	Yes	XP Pro	May 2004
Positioning Processor	<i>Perfect balance of performance and portability; two-spindle system</i>											
L2 cache	<b>Intel® Pentium® M Processor 735 (1.7GHz) or 745 (1.8GHz)</b> with Enhanced Intel SpeedStep™ technology <sup>1</sup> and 400MHz system bus											
Memory	<b>2MB</b> / on die (at processor speed) / ECC <b>512MB</b> or <b>1GB</b> std / 2GB max <sup>7</sup> / PC2700 333MHz DDR1 / non-parity / CL2.5 / two 200-pin SO-DIMM sockets / std memory in one socket / one socket available											
Diskette drive	None standard / use optional USB-based diskette drive											
Combo DVD-RW	<i>Some:</i> DVD-ROM/CD-RW / 24X/24X/24X/8X <sup>21</sup> speed / removable from Ultrabay™ Slim											
Ultrabay Slim Disk	<i>Some:</i> CD-RW/DVD-RW Multi-Burner / removable from Ultrabay Slim											
Display	One modular bay for interchangeable devices (right side) / 9.5mm high bay <b>40GB<sup>8</sup> HS</b> (5400 rpm) or <b>80GB HS</b> (5400 rpm) / 9.5mm high / removable, upgradable / 9.5mm high bay / supports 2nd disk with optional HDD Adapter in Ultrabay Slim / <b>Hard Disk Drive Shock Absorber / Active Protection System™</b> (shock protection)											
Graphics	<i>Some:</i> <b>ATI® MOBILITY™ RADEON® 7500 / AGP 4X / 32MB</b> DDR1 (DDR-SDRAM) <i>Some:</i> <b>ATI MOBILITY RADEON 9600 / AGP 4X / 64MB</b> DDR1 (DDR-SDRAM)											
Graphics external	External monitor support via analog DB-15 connector / up to 2048x1536x16.7M / DDC2B											
Keyboard	87-key / Access IBM button / palm rest / pitch: 19mm; stroke: 2.5mm (std-size keys)											
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar <sup>13</sup> , magnifying glass											
Touch pad	UltraNav® multi-pointing system / touch pad below keyboard / Tap Zones											
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions											
Dimensions <sup>3</sup>	<i>(WxDxH):</i> 13.0" x 10.6" x 1.2-1.4"; 329mm x 268mm x 31-36mm											
Weight <sup>2</sup>	with optical drive and battery: <i>XGA models:</i> 5.7 lb (2.6kg); <i>SXGA+ mod:</i> 5.8 lb (2.7kg)											
Case material	Magnesium composite in the top cover, titanium-reinforced CFRP in bottom cover											
Battery - type	Lithium Ion 6-cell / intelligent / supports unique 2nd battery in Ultrabay Slim											
Battery - life <sup>10</sup>	Up to 4.4 hr; <i>Optional 9-cell:</i> up to 7 hr; <i>9-cell plus Ultrabay Slim battery:</i> up to 9 hr											
Architecture	<b>Intel 855PM</b> chipset / 82855PM Memory Controller Hub (MCH-M) / 82801DBM ICH4-M I/O Controller Hub (ATA-100 EIDE, PCI bus, ethernet MAC, Low Pin Count [LPC] interface, USB, [Bluetooth]) / PCI bus 2.2 32-bit, 33MHz (TI® PCI4520A CardBus controller, Mini PCI, external expansion) / LPC bus 33MHz (security chip; PC87392 Super I/O for diskette, parallel, infrared, [docking-based ports])											
PC Card Std slots	2 Type I, 2 Type II, or 1 Type III / CardBus 32-bit / integrated door											
Ports	Two USB (Version 2.0) / parallel / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / no keyboard or mouse or serial ports (use USB)											
Video out	S-video out port (TV out) / one 4-pin industry standard connector											
Wireless antenna	UltraConnect™ Antenna built into the display cover for optimal wireless signal reception											
Mini PCI	One Mini PCI type III slot (Communications Bay) / customer upgradable											
Intel 11b Wi-Fi <sup>32</sup>	<i>Some:</i> 11b Wi-Fi <sup>32</sup> wireless <sup>4</sup> , Mini PCI, Intel PRO/Wireless 2100 Network Connection 802.11b, Intel 82531 chipset											
Intel 11b/g <sup>32</sup>	<i>Some:</i> 11b/g wireless <sup>4</sup> , Mini PCI, Intel PRO/Wireless 2200BG, Intel 82532 chipset											
11a/b/g Wi-Fi <sup>32</sup>	<i>Some:</i> 11a/b/g Wi-Fi <sup>32</sup> wireless <sup>4</sup> , Mini PCI, Atheros™ AR5001X+ chipset											
11b/g <sup>32</sup>	<i>Some:</i> 11b/g Wi-Fi <sup>32</sup> wireless <sup>4</sup> , Mini PCI, Atheros™ AR5004G chipset											
CDC	One Communications Daughter Card (CDC) socket / customer accessible											
Modem	56K <sup>6</sup> V.90 (V.92-designed <sup>29</sup> ) modem in CDC / Conexant® chipset											
Bluetooth™	<i>Some:</i> Bluetooth wireless technology / in CDC (with modem)											
Ethernet	Gigabit ethernet on systemboard / Intel 82540EP chipset (MAC/PHY) / PXE											
Audio support	Soft audio / ICH AC97 controller / DirectSound® support / AD1981B AC97 codec / stereo speakers, 1 watt / volume up, down, mute buttons / internal mic / microphone input jack (3.5 mm; pink) / headphone jack (3.5 mm; green)											
Security	Power-on password / hard disk password / supervisor password / security keyhole											
Security chip	<b>Embedded Security Subsystem 2.0<sup>33</sup></b> / hardware key storage / multi-factor authentication / local file encryption / Atmel® chip / TCG-compliant											
Limited warranty <sup>12</sup>	<b>3-year/1-yr battery</b> - EasyServ™ <sup>19</sup> onsite pickup and delivery / service upgrades <sup>22</sup> avail											
256MB PC2700 DDR-SDRAM CL2.5 SOD	31P9830	ThinkPad T40/R50 Li-Ion Battery 6-cell	92P1101	ThinkPlus™ <sup>22</sup> 2-year LOR 9x5 NBD								
512MB PC2700 DDR-SDRAM CL2.5 SOD	31P9832	ThinkPad T40/R50 Li-Ion Battery 9-cell	92P1102		41C9175							
1GB PC2700 DDR-SDRAM CL2.5 SOD	31P9834	Ultrabay Slim Li-Polymer Battery 3-cell	08K8190	ThinkPlus 3-year LOR 9x5 NBD								
USB Portable Diskette Drive	05K9276	ThinkPad 72W AC Adapter	02K6699		41C9176							
USB Gemplus GemPC Smart Card Reader	41N3040	72W Slim AC/DC Combo Adapter	73P4485	ThinkPlus 4-year LOR 9x5 NBD								
USB 2.0 CD-RW/DVD-ROM Combo II Drive	40Y8637	11a/b/g Wireless Mini PCI Adapter II	73P4301		41C9177							
CD-RW/DVD Combo II Ultrabay Slim Drive	73P3288	Kensington® MicroSaver® Security Cable	73P2582	ThinkPlus 5-year LOR 9x5 NBD								
Super Multi-Burner Ultrabay Slim Drv (curve)	40Y8622	Lenovo M500 Projector	0037A05		41C9179							
Second HDD Adapter for Ultrabay Slim	62P4554	ThinkVision® L151p 15" Monitor (black)	9205HB2	ThinkPlus 4-year P&L P/U Depot								
80GB HS Hard Disk 9.5mm (5400 rpm)	09N4273	ThinkVision L201p 20.1" Monitor (black)	9320HB1		41C9178							
100GB Hard Disk 9.5mm PATA (5400 rpm)	40Y8716	ThinkPad Port Replicator II	74P6733	ThinkPlus 5-year P&L P/U Depot								
ThinkPad Premiere Leather Carrying Case	10K0209	ThinkPad Mini Dock	287810U		41C9180							
USB Travel Keyboard with UltraNav	31P9490	ThinkPad Dock II	287710U	Post-warranty annual maintenance agreements at								
SonyEricsson® GC83 EDGE PC Card	26K3393	TrackPoint Cap Collection	73P2698									
ThinkPad Convertible Monitor Stand	40Y7620	Other options at <a href="http://lenovo.com/options">lenovo.com/options</a>										

See footnotes for important warranty information  
US models announced May 11, 2004  
US models withdrawn effective May 2005 or May 2006

\* Powered by Intel Centrino® mobile technology

# ThinkPad® T42 (15" display) - October 2004 - withdrawn

Created by Lenovo Training Solutions  
Personal Systems Reference (PSREF)

Type-model	Processor	Speed GHz	Memory	Screen	Graphics controller	Disk GB <sup>5</sup>	Optical	Mini PCI Comm Bay wireless	CDC modem/ Bluetooth™	Finger print reader	Secu- rity chip	Bat- tery life <sup>10</sup>	Workhorse (W) or Global (G) Avail Entry (E) date
2373-L1U	Pentium® M 735	1.7	512MB	15.0" XGA	7500	40HS	Combo	* Intel 11b/g <sup>32</sup>	Mod/Blue	Finger	Yes	5.0 hr	W G Oct 04
2373-LAU	Pentium M 735	1.7	512MB	15.0" XGA	7500	40HS	Combo	* Intel 11b/g	Modem	Finger	Yes	5.0 hr	W G Nov 04
2373-L4U	Pentium M 735	1.7	512MB	15.0" SXGA+	9600	40HS	Combo	* Intel 11b/g	Modem	Finger	Yes	3.9 hr	W Oct 04
2373-L5U	Pentium M 735	1.7	512MB	15.0" SXGA+	9600	40HS	Combo	* Intel 11b Wi-Fi <sup>32</sup>	Modem	Finger	Yes	3.9 hr	W Oct 04
2373-L6U	Pentium M 735	1.7	512MB	15.0" SXGA+	9600	40HS	Combo	11b/g <sup>32</sup>	Modem	Finger	Yes	3.9 hr	W Oct 04
2373-L7U	Pentium M 735	1.7	512MB	15.0" SXGA+	9600	40HS	Combo	* Intel 11a/b/g <sup>32</sup>	Modem	Finger	Yes	3.9 hr	W Feb 05
2373-N1U	Pentium M 745	1.8	512MB	15.0" SXGA+	9600	80HS	Combo	11a/b/g II <sup>32</sup>	Mod/Blue	Finger	Yes	3.9 hr	W Oct 04
2373-N2U	Pentium M 745	1.8	512MB	15.0" SXGA+	9600	80HS	Combo	* Intel 11a/b/g	Mod/Blue	Finger	Yes	3.9 hr	W Feb 05
2373-N3U	Pentium M 745	1.8	512MB	15.0" SXGA+	9600	60U	Combo	* Intel 11b/g	Mod/Blue	Finger	Yes	3.9 hr	W Oct 04
2373-LCU	Pentium M 735	1.7	512MB	15.0" XGA	9600	40HS	Combo	* Intel 11b/g	Modem	Finger	Yes	4.1 hr	W Nov 05
Positioning Processor	Perfect balance of performance and portability; two-spindle system <b>Intel® Pentium® M Processor 735 (1.7GHz) or 745 (1.8GHz)</b> with Enhanced Intel SpeedStep™ technology <sup>1</sup> and 400MHz system bus												
L2 cache	2MB / on die (at processor speed) / ECC												
Memory	512MB std / 2GB max <sup>7</sup> / PC2700 333MHz DDR1 / non-parity / CL2.5 / two 200-pin SO-DIMM sockets / std memory in one socket / one socket available												
Diskette drive	None standard / use optional USB-based diskette drive												
Combo	DVD-ROM/CD-RW / 24X/24X/24X/8X <sup>21</sup> speed / removable from Ultrabay™ Slim												
Ultrabay Slim	One modular bay for interchangeable devices (right side) / 9.5mm high bay												
Disk	40GB <sup>8</sup> HS (5400rpm), 80GB HS (5400 rpm), or 60GB Ultra HS (7200 rpm) / 9.5mm high / removable, upgradable / 9.5mm high bay / supports 2nd disk in Ultrabay Slim / <b>Hard Disk Drive Shock Absorber / Active Protection System™</b>												
Display	Some: 15.0" (381.0mm) XGA (1024x768) TFT color / Active Matrix / 200 nits Some: 15.0" (381.0mm) SXGA+ (1400x1050) TFT color / Active Matrix / 200 nits / FlexView display with wide viewing angle and high density using IPS technology												
Graphics	Some: ATI® MOBILITY™ RADEON® 7500 / AGP 4X / 32MB DDR1 (DDR-SDRAM) Some: ATI MOBILITY RADEON 9600 / AGP 4X / 64MB DDR1 (DDR-SDRAM)												
Graphics external	External monitor support via analog DB-15 connector / up to 2048x1536x16.7M / DDC2B												
Keyboard	87-key / Access IBM button / palm rest / pitch: 19mm; stroke: 2.5mm (std-size keys)												
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar <sup>13</sup> , magnifying glass												
Touch pad	UltraNav® multi-pointing system / touch pad below keyboard / Tap Zones												
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions												
Dimensions <sup>3</sup>	15.0" models (WxDxH): 13.0" x 10.6" x 1.2-1.4"; 329mm x 268mm x 31-36mm												
Weight <sup>2</sup>	with optical drive and battery: XGA models: 5.7 lb (2.6kg); SXGA+ mod: 5.8 lb (2.7kg)												
Case material	Magnesium composite in the top cover, titanium-reinforced CFRP in bottom cover												
Battery - type	Lithium Ion 6-cell / intelligent / supports unique 2nd battery in Ultrabay Slim												
Battery - life <sup>10</sup>	Up to 4.9 hr; Optional 9-cell: up to 7.0 hr; 9-cell plus Ultrabay Slim battery: up to 9.0 hr												
Architecture	Intel 855PM chipset / 82855PM Memory Controller Hub (MCH-M) / 82801DBM ICH4-M I/O Controller Hub (ATA-100 EIDE, PCI bus, ethernet MAC, Low Pin Count [LPC] interface, USB, [Bluetooth], fingerprint) / PCI bus 2.2 32-bit, 33MHz (T)® PCI4520A CardBus controller, Mini PCI, external expansion) / LPC bus 33MHz (security chip; PC87392 Super I/O for diskette, parallel, infrared, [docking-based ports])												
PC Card Std slots	2 Type I, 2 Type II, or 1 Type III / CardBus 32-bit / integrated door												
Ports	Two USB (Version 2.0) / parallel / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / no keyboard or mouse or serial ports (use USB)												
Video out	S-video out port (TV out) / one 4-pin industry standard connector												
Wireless antenna	UltraConnect™ Antenna built into the display cover for optimal wireless signal reception												
Mini PCI	One Mini PCI Type III slot (Communications Bay) / customer upgradable												
Intel 11b Wi-Fi <sup>32</sup>	Some: 11b Wi-Fi <sup>32</sup> wireless <sup>4</sup> , Mini PCI, Intel PRO/Wireless 2100, Intel 82531 chipset												
Intel 11b/g <sup>32</sup>	Some: 11b/g wireless <sup>4</sup> , Mini PCI, Intel PRO/Wireless 2200BG, Intel 82532 chipset												
Intel 11a/b/g <sup>32</sup>	Some: 11a/b/g wireless <sup>4</sup> , Mini PCI, Intel PRO/Wireless 2915ABG, 82533 chipset												
11b/g <sup>32</sup>	Some: 11b/g Wi-Fi <sup>32</sup> wireless <sup>4</sup> , Mini PCI, Atheros™ AR5004G chipset												
11a/b/g II <sup>32</sup>	Some: 11a/b/g wireless <sup>4</sup> , ThinkPad 11a/b/g Mini PCI Adapter II, Atheros AR5004X chip												
CDC	One Communications Daughter Card (CDC) socket / customer accessible												
Modem	56K <sup>6</sup> V.90 (V.92-designed <sup>29</sup> ) modem in CDC / Conexant® chipset												
Bluetooth™	Some: Bluetooth wireless technology / in CDC (with modem)												
Ethernet	Gigabit ethernet on systemboard / Intel 82540EP chipset (MAC/PHY) / PXE												
Audio support	Soft audio / ICH AC97 controller / DirectSound® support / AD1981B AC97 codec / stereo speakers, 1 watt / volume up, down, mute buttons / internal mic / microphone input jack (3.5 mm; pink) / headphone jack (3.5 mm; green)												
Security	Power-on password / hard disk password / supervisor password / security keyhole												
Security chip	Embedded Security Subsystem 2.0 <sup>33</sup> / Atmel® chip / TCG-compliant												
Fingerprint reader	Some: Fingerprint reader on palm rest / swipe sensor / integrated with security chip												
Limited warranty <sup>12</sup>	3-year/1-yr battery - EasyServ™ <sup>19</sup> onsite pickup and delivery / service upgrades <sup>22</sup> avail												
256MB PC2700 DDR-SDRAM CL2.5 SOD	31P9830	ThinkPad T40/R50 Li-Ion Battery 6-cell	92P1101	ThinkPlus™ <sup>22</sup> 2-year LOR 9x5 NBD	41C9175								
512MB PC2700 DDR-SDRAM CL2.5 SOD	31P9832	ThinkPad T40/R50 Li-Ion Battery 9-cell	92P1102	ThinkPlus 3-year LOR 9x5 NBD	41C9176								
1GB PC2700 DDR-SDRAM CL2.5 SOD	31P9834	Ultrabay Slim Li-Polymer Battery 3-cell	08K8190	ThinkPlus 4-year LOR 9x5 NBD	41C9177								
USB Fingerprint Reader	73P4774	ThinkPad Multiple Battery Charger II	22P9040	ThinkPlus 5-year LOR 9x5 NBD	41C9179								
USB 2.0 CD-RW/DVD-ROM Combo II Drive	40Y8637	72W Slim AC/DC Combo Adapter	73P4485	ThinkPlus 4-year P&L P/U Depot	41C9178								
Super Multi-Burner Ultrabay Slim Drv (curve)	40Y8622	11a/b/g Wireless Mini PCI Adapter II	73P4301	ThinkPlus 5-year P&L P/U Depot	41C9180								
Second HDD Adapter for Ultrabay Slim	62P4554	Intel PRO/Wireless 2915ABG Mini PCI	41N2990	Post-warranty annual maintenance agreements at	lenovo.com/thinkplus/warranty								
80GB HS Hard Disk 9.5mm (5400 rpm)	09N4273	ThinkPad Port Replicator II	74P6733										
USB 2.0 Memory Key 512MB	22P9230	ThinkPad Mini Dock	287810U										
ThinkPad Carrying Case - Expander	73P3597	ThinkPad Dock II	287710U										
Preferred Pro USB Fingerprint Keyboard	73P4730	ThinkVision® L201p 20.1" Monitor (black)	9320HB1										
ThinkPad Convertible Monitor Stand	40Y7620	Other options at lenovo.com/options											

See footnotes for important warranty information  
US models announced October 5 or November 30, 2004 or January 11 or November 15, 2005  
US models withdrawn effective May 2006

\* Powered by Intel Centrino™ mobile technology  
© Lenovo (T4215O) April 2006

# ThinkPad® T42 (2378) - TopSeller - withdrawn

Created by Lenovo Training Solutions  
Personal Systems Reference (PSREF)

Type-model	Processor	Speed GHz	Memory	Screen	Graphics controller	Disk GB <sup>8</sup>	Optical	Mini PCI Comm Bay wireless	CDC modem/ Bluetooth™	Security chip	Workhorse (W) Global (G) Limited Avail Entry (E) warranty <sup>12</sup>	date		
2378-DTU	Pentium® M	1.5	256MB	14.1" XGA	7500	30GB	DVD	* Intel 11b/g <sup>32</sup>	Modem	Yes	XP Pro	No	1-yr	May 2004
2378-DUU	Pentium M	1.5	256MB	14.1" XGA	7500	40HS	Combo	* Intel 11b/g	Modem	Yes	XP Pro	No	1-yr	May 2004
2378-FTU	Pentium M 735	1.7	256MB	14.1" XGA	7500	40HS	Combo	* Intel 11b/g	Modem	Yes	XP Pro	No	1-yr	May 2004
2378-FVU	Pentium M 735	1.7	256MB	14.1" SXGA+	9600	40HS	Combo	* Intel 11b/g	Modem	Yes	XP Pro	No	1-yr	May 2004
2378-FZU	Pentium M 735	1.7	512MB	15.0" XGA	7500	40HS	Combo	* Intel 11b/g	Modem	Yes	XP Pro	No	1-yr	May 2004
2378-DVU	Pentium M 735	1.7	256MB	15.0" XGA	7500	30GB	DVD	* Intel 11b/g	Modem	Yes	XP Pro	No	1-yr	May 2004
2378-DWU	Pentium M	1.5	256MB	15.0" XGA	7500	40HS	Combo	* Intel 11b/g	Modem	Yes	XP Pro	No	1-yr	May 2004
2378-DXU	Pentium M 735	1.7	512MB	15.0" SXGA+	9600	60U	Combo	* Intel 11b/g	Mod/Blue	Yes	XP Pro	No	1-yr	May 2004
2378-2ZU	Pentium M	1.5	256MB	15.0" XGA	7500	30GB	DVD	* Intel 11b Wi-Fi <sup>32</sup>	Modem	Yes	XP Pro	No	1-yr	May 2004
2378-5UU	Pentium M 725	1.6	256MB	14.1" XGA	9000	40HS	Combo	* Intel 11b/g	Modem	Yes	XP Pro	No	1-yr	Aug 2004
<ul style="list-style-type: none"> <li>• These small and medium business (SMB) models are part of the US TopSeller™ Program</li> <li>• The 2378 has a 1-year limited warranty (other ThinkPad T42 2379 TopSeller models have a 3-year limited warranty)</li> </ul>														
Positioning	Perfect balance of performance and portability; two-spindle system													
Processor	Intel® Pentium® M Processor 1.5GHz or Intel Pentium M Processor 725 (1.6GHz) or 735 (1.7GHz) with Enhanced Intel SpeedStep™ technology <sup>1</sup> and 400MHz system bus													
L2 cache	1.5GHz: 1MB; 1.6/1.7GHz: 2MB; All: on die (at processor speed) / ECC													
Memory	256MB or 512MB std / 2GB max <sup>7</sup> / PC2700 333MHz DDR1 / non-parity / CL2.5 / two 200-pin SO-DIMM sockets / std mem in one socket / one socket available													
Diskette drive	None standard / use optional USB-based diskette drive													
DVD	Some: DVD-ROM / 24X-8X <sup>9</sup> speed / single-layer / removable from Ultrabay™ Slim													
Combo	Some: DVD-ROM/CD-RW / 24X/24X/24X/8X <sup>21</sup> speed / removable from Ultrabay Slim													
Ultrabay Slim	One modular bay for interchangeable devices (right side) / 9.5mm high bay													
Disk	30GB <sup>8</sup> (4200 rpm), 40GB HS (5400 rpm), 60GB Ultra HS (7200 rpm) / 9.5mm high / removable, upgradable / 9.5mm high bay / supports 2nd disk with optional HDD Adapter in Ultrabay Slim / <b>Hard Disk Drive Shock Absorber / Active Protection System</b>													
Display	Some: 14.1" (358.1mm) XGA (1024x768) TFT color / Active Matrix / 150 nits Some: 14.1" (358.1mm) SXGA+ (1400x1050) TFT color / Active Matrix / 150 nits Some: 15.0" (381.0mm) XGA (1024x768) TFT color / Active Matrix / 200 nits Some: 15.0" (381.0mm) SXGA+ (1400x1050) TFT color / Active Matrix / 200 nits / FlexView display with wide viewing angle and high density using IPS technology													
Graphics	Some: ATI® MOBILITY™ RADEON® 7500 / AGP 4X / 32MB DDR1 (DDR-SDRAM) Some: ATI MOBILITY RADEON 9000 / AGP 4X / 64MB DDR1 (DDR-SDRAM) Some: ATI MOBILITY RADEON 9600 / AGP 4X / 64MB DDR1 (DDR-SDRAM)													
Graphics external	External monitor support via analog DB-15 connector / up to 2048x1536x16.7M / DDC2B													
Keyboard	87-key / Access IBM button / palm rest / pitch: 19mm; stroke: 2.5mm (std-size keys)													
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar <sup>13</sup> , magnifying glass													
Touch pad	UltraNav™ multi-pointing system / touch pad below keyboard / Tap Zones													
Dimensions <sup>3</sup>	14.1" models (WxDxH): 12.2" x 10.0" x 1.0-1.2"; 311mm x 255mm x 26.6-31.4mm; 15.0" models (WxDxH): 13.0" x 10.6" x 1.2-1.4"; 329mm x 268mm x 31-36mm with optical drive and battery: 14.1" XGA models: 4.9 lb (2.2kg); 14.1" SXGA+: 5.0 lb (2.3kg); 15.0" XGA: 5.7 lb (2.6kg); 15.0" SXGA+: 5.8 lb (2.7kg)													
Weight <sup>2</sup>	Lithium Ion 6-cell / intelligent / supports unique 2nd battery in Ultrabay Slim													
Battery - type	4.0 to 5.0 hr; <i>Optional 9-cell</i> : up to 7.0 hr; <i>9-cell plus Ultrabay Slim battery</i> : up to 9.0 hr													
Battery - life <sup>10</sup>														
Architecture	Intel 855PM chipset / 82855PM Memory Controller Hub (MCH-M) / 82801DBM ICH4-M I/O Controller Hub (ATA-100 EIDE, PCI bus, ethernet MAC, Low Pin Count [LPC] interface, USB, [Bluetooth]) / PCI bus 2.2 32-bit, 33MHz (TI® PCI4520A CardBus controller, Mini PCI, external expansion) / LPC bus 33MHz (security chip; PC87392 Super I/O for diskette, parallel, infrared, [docking-based ports])													
PC Card Std slots	2 Type I, 2 Type II, or 1 Type III / CardBus 32-bit / integrated door													
Ports	Two USB (Version 2.0) / parallel / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / no keyboard or mouse or serial ports (use USB)													
Video out	S-video out port (TV out) / one 4-pin industry standard connector													
Wireless antenna	UltraConnect™ Antenna built into the display cover for optimal wireless signal reception													
Mini PCI	One Mini PCI type III slot (Communications Bay) / customer upgradable													
Intel 11b Wi-Fi <sup>32</sup>	Some: 11b Wi-Fi <sup>32</sup> wireless <sup>4</sup> , Mini PCI, Intel PRO/Wireless 2100 Network Connection 802.11b, Intel 82531 chipset													
Intel 11b/g <sup>32</sup>	Some: 11b/g wireless <sup>4</sup> , Mini PCI, Intel PRO/Wireless 2200BG, Intel 82532 chipset													
CDC	One Communications Daughter Card (CDC) socket / customer accessible													
Modem	56K <sup>6</sup> V.90 (V.92-designed <sup>29</sup> ) modem in CDC / Conexant® chipset													
Bluetooth™	Some: Bluetooth wireless technology / in CDC (with modem)													
Ethernet	Gigabit ethernet on systemboard / Intel 82540EP chipset (MAC/PHY) / PXE													
Audio support	Soft audio / ICH AC97 controller / DirectSound® support / AD1981B AC97 codec / stereo speakers, 1 watt / volume up, down, mute buttons / internal mic / microphone input jack (3.5 mm; pink) / headphone jack (3.5 mm; green)													
Security	Power-on password / hard disk password / supervisor password / security keyhole													
Security chip	<b>Embedded Security Subsystem 2.0<sup>33</sup></b> / hardware key storage / multi-factor authentication / local file encryption / Atmel® chip / TCG-compliant													
Limited warranty <sup>12</sup>	1-year - EasyServ™ <sup>19</sup> onsite pickup and delivery / service upgrades <sup>22</sup> avail													
256MB PC2700 DDR-SDRAM CL2.5 SOD	31P9830	ThinkPad T40/R50 Li-Ion Battery 6-cell	92P1101	ThinkPlus 2-year P&L P/U Depot										
512MB PC2700 DDR-SDRAM CL2.5 SOD	31P9832	ThinkPad T40/R50 Li-Ion Battery 9-cell	92P1102	41C9169										
1GB PC2700 DDR-SDRAM CL2.5 SOD	31P9834	Ultrabay Slim Li-Polymer Battery 3-cell	08K8190	ThinkPlus 3-year P&L P/U Depot										
USB Portable Diskette Drive	05K9276	11a/b/g Wireless Mini PCI Adptr II	73P4301	41C9170										
USB 2.0 Super Multi-Burner Drive	40Y8638	ThinkPad Port Replicator II	74P6733	ThinkPlus 4-year P&L P/U Depot										
Super Multi-Burner Ultrabay Slim Drv (curve)	40Y8622	ThinkPad Mini Dock	287810U	41C9172										
100GB Hard Disk 9.5mm PATA (5400 rpm)	40Y8716	ThinkPad Dock II	287710U	ThinkPlus 5-year P&L P/U Depot										
ThinkPad Convertible Monitor Stand	40Y7620	Other options at <a href="http://lenovo.com/options">lenovo.com/options</a>		41C9174										

See footnotes for important warranty information

\* Powered by Intel Centrino® mobile technology

© Lenovo

US models announced May 11 or August 17, 2004

(T42B) October 2006

US models withdrawn effective June 2005, August 2005, or October 2006



# ThinkPad® T42 (2379) - TopSeller - withdrawn

Created by Lenovo Training Solutions  
Personal Systems Reference (PSREF)

Type-model	Processor	Speed GHz	Memory	Screen	Graphics controller	Disk GB <sup>2</sup>	Optical	Mini PCI Comm Bay wireless	CDC modem/Bluetooth™	Security chip	Workhorse (W) Global (G) Preload Entry (E)	Limited warranty <sup>12</sup>	Avail date
2379-DWU	Pentium® M	1.5	256MB	15.0" XGA	7500	40HS	Combo	* Intel 11b/g <sup>32</sup>	Modem	Yes	XP Pro	No	3-yr May 2004
2379-5VU	Pentium M 725	1.6	512MB	14.1" XGA	9000	40HS	Combo	* Intel 11b/g	Modem	Yes	XP Pro	No	3-yr Aug 2004
2379-DXU	Pentium M 735	1.7	512MB	15.0" SXGA+	9600	60U	Combo	* Intel 11b/g	Mod/Blue	Yes	XP Pro	No	3-yr May 2004

- **These small and medium business (SMB) models are part of the US TopSeller™ Program**
- **The 2379 has a 3-year limited warranty (other ThinkPad T42 2378 TopSeller models have a 1-year limited warranty)**

Positioning Processor	<b>Perfect balance of performance and portability; two-spindle system</b>										<b>SOFTWARE<sup>14</sup></b>		
L2 cache	<b>Intel® Pentium® M Processor 1.5GHz or Intel Pentium M Processor 725 (1.6GHz) or 735 (1.7GHz)</b> with Enhanced Intel SpeedStep™ technology <sup>1</sup> and 400MHz system bus 1.5GHz: <b>1MB</b> ; 1.6/1.7GHz: <b>2MB</b> ; All: on die (at processor speed) / ECC										<b>Windows XP Professional</b>		
Memory	<b>256MB or 512MB</b> std / 2GB max <sup>7</sup> / PC2700 333MHz DDR1 / non-parity / CL2.5 / two 200-pin SO-DIMM sockets / std mem in one socket / one socket available										- Microsoft® Windows® XP Professional <sup>20</sup> ↔ Disk-to-Disk Recovery (in hidden protected area)		
Diskette drive	None standard / use optional USB-based diskette drive										<b>Preloaded</b>		
Combo	DVD-ROM/CD-RW / 24X/24X/24X/8X <sup>21</sup> speed / removable from Ultrabay™ Slim										• Access Program		
Ultrabay Slim	One modular bay for interchangeable devices (right side) / 9.5mm high bay										• Access Connections™		
Disk	<b>40GB<sup>8</sup> HS</b> (5400 rpm) or <b>60GB Ultra HS</b> (7200 rpm) / 9.5mm high / removable, upgradable / 9.5mm high bay / supports 2nd disk with optional HDD Adapter in Ultrabay Slim / <b>Hard Disk Drive Shock Absorber / Active Protection System™</b>										• Rescue and Recovery™		
Display	Some: <b>14.1"</b> (358.1mm) <b>XGA (1024x768) TFT color</b> / Active Matrix / 150 nits Some: <b>15.0"</b> (381.0mm) <b>XGA (1024x768) TFT color</b> / Active Matrix / 200 nits Some: <b>15.0"</b> (381.0mm) <b>SXGA+ (1400x1050) TFT color</b> / Active Matrix / 200 nits / FlexView display with wide viewing angle and high density using IPS technology										• RecordNOW and Drive Letter Access powered by Sonic products (combo models)		
Graphics	Some: <b>ATI® MOBILITY™ RADEON® 7500 / AGP 4X / 32MB</b> DDR1 (DDR-SDRAM) Some: <b>ATI MOBILITY RADEON 9000 / AGP 4X / 64MB</b> DDR1 (DDR-SDRAM) Some: <b>ATI MOBILITY RADEON 9600 / AGP 4X / 64MB</b> DDR1 (DDR-SDRAM)										• InterVideo WinDVD (combo models)		
Graphics external	External monitor support via analog DB-15 connector / up to 2048x1536x16.7M / DDC2B										• Norton AntiVirus (OEM edition)		
Keyboard	87-key / Access IBM button / palm rest / pitch: 19mm; stroke: 2.5mm (std-size keys)										• PC-Doctor™		
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar <sup>13</sup> , magnifying glass										• ThinkPad Utilities		
Touch pad	UltraNav® multi-pointing system / touch pad below keyboard / Tap Zones										• Adobe® Reader		
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions										• Update Connector™ <sup>15</sup>		
Dimensions <sup>3</sup>	14.1" models (WxDxH): 12.2" x 10.0" x 1.0-1.2"; 311mm x 255mm x 26.6-31.4mm; 15.0" models (WxDxH): 13.0" x 10.6" x 1.2-1.4"; 329mm x 268mm x 31-36mm										<b>Downloadable</b>		
Weight <sup>2</sup>	with optical drive and battery: 14.1" XGA model: 4.9 lb (2.2kg); 15.0" XGA model: 5.7 lb (2.6kg); 15.0" SXGA+ model: 5.8 lb (2.7kg)										• IBM Director Agent		
Case material	Magnesium composite in the top cover, titanium-reinforced CFRP in bottom cover										• Software Delivery Assistant		
Battery - type	Lithium Ion 6-cell / intelligent / supports unique 2nd battery in Ultrabay Slim										• System Migration Assistant		
Battery - life <sup>10</sup>	Up to 4.7 hr; <i>Optional 9-cell</i> : up to 7.0 hr; <i>9-cell plus Ultrabay Slim battery</i> : up to 9.0 hr										• Client Security Software (for security chip)		
Architecture	<b>Intel 855PM</b> chipset / 82855PM Memory Controller Hub (MCH-M) / 82801DBM ICH4-M I/O Controller Hub (ATA-100 EIDE, PCI bus, ethernet MAC, Low Pin Count [LPC] interface, USB, [Bluetooth]) / PCI bus 2.2 32-bit, 33MHz (TI® PCI4520A CardBus controller, Mini PCI, external expansion) / LPC bus 33MHz (security chip; PC87392 Super I/O for diskette, parallel, infrared, [docking-based ports])										<b>License</b> (CD not included)		
PC Card Std slots	2 Type I, 2 Type II, or 1 Type III / CardBus 32-bit / integrated door										- Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client		
Ports	Two USB (Version 2.0) / parallel / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / no keyboard or mouse or serial ports (use USB)										ThinkPad notebooks implement ThinkVantage™ technologies and design; visit <a href="http://thinkpad.com/thinkvantage">thinkpad.com/thinkvantage</a>		
Video out	S-video out port (TV out) / one 4-pin industry standard connector										Universal 72 watt AC adapter		
Wireless antenna	UltraConnect™ Antenna built into the display cover for optimal wireless signal reception										Asset ID™ <sup>34</sup> (system-specific info in chip accessed over network)		
Mini PCI	One Mini PCI type III slot (Communications Bay) / customer upgradable										PC 2001-compliant		
Intel 11b/g <sup>32</sup>	11b/g wireless <sup>4</sup> , Mini PCI, Intel PRO/Wireless 2200BG, Intel 82532 chipset										ACPI 1.0b and 2.0-compliant		
CDC	One Communications Daughter Card (CDC) socket / customer accessible										CIM and DMI 2.0-compliant		
Modem	56K <sup>6</sup> V.90 (V.92-designed <sup>29</sup> ) modem in CDC / Conexant® chipset										PXE 2.0-compliant		
Bluetooth™	Some: Bluetooth wireless technology / in CDC (with modem)										ENERGY STAR®-compliant		
Ethernet	Gigabit ethernet on systemboard / Intel 82540EP chipset (MAC/PHY) / PXE										ImageUltra™ Services available		
Audio support	Soft audio / ICH AC97 controller / DirectSound® support / AD1981B AC97 codec / stereo speakers, 1 watt / volume up, down, mute buttons / internal mic / microphone input jack (3.5 mm; pink) / headphone jack (3.5 mm; green)										International Warranty Service <sup>17</sup>		
Security	Power-on password / hard disk password / supervisor password / security keyhole										24 hour x 7 day <sup>18</sup> toll-free warranty support during the warranty <sup>12</sup> via 800-IBM-SERV (426-7378)		
Security chip	<b>Embedded Security Subsystem 2.0<sup>33</sup></b> / hardware key storage / multi-factor authentication / local file encryption / Atmel® chip / TCG-compliant										ThinkPlus™. <sup>22</sup> 2-year LOR 9x5 NBD		
Limited warranty <sup>12</sup>	<b>3-year/1-yr battery - EasyServ™<sup>19</sup></b> onsite pickup and delivery / service upgrades <sup>22</sup> avail										41C9175		
256MB PC2700 DDR-SDRAM CL2.5 SOD	31P9830	ThinkPad T40/R50 Li-Ion Battery 6-cell	92P1101										
512MB PC2700 DDR-SDRAM CL2.5 SOD	31P9832	ThinkPad T40/R50 Li-Ion Battery 9-cell	92P1102										
1GB PC2700 DDR-SDRAM CL2.5 SOD	31P9834	Ultrabay Slim Li-Polymer Battery 3-cell	08K8190										
USB Portable Diskette Drive	05K9276	ThinkPad Multiple Battery Charger II	22P9040										
USB Fingerprint Reader	73P4774	72W Slim AC/DC Combo Adapter	73P4485										
USB 2.0 Memory Key 1GB	40Y7421	11a/b/g Wireless Mini PCI Adapter II	73P4301										
USB 2.0 Super Multi-Burner Drive	40Y8638	Intel PRO/Wireless 2915ABG Mini PCI	41N2990										
CD-RW/DVD Combo II Ultrabay Slim Drive	73P3288	Kensington® MicroSaver® Security Cable	73P2582										
Super Multi-Burner Ultrabay Slim Drv (curve)	40Y8622	ThinkVision® E500 Projector	0038A05										
Second HDD Adapter for Ultrabay Slim	41U3148	Lenovo M500 Projector	0037A05										
60GB HS Hard Disk 9.5mm (5400 rpm)	73P3357	ThinkVision C400 Wireless Projector	0039WA1										
80GB HS Hard Disk 9.5mm (5400 rpm)	09N4273	ThinkVision L201p 20.1" Monitor (black)	9320HB1										
ThinkPad Carrying Case - Expander	73P3597	ThinkPad Port Replicator II	74P6733										
Preferred Pro USB Fingerprint Keyboard	73P4730	ThinkPad Mini Dock	287810U										
TrackPoint Cap Collection	73P2698	ThinkPad Dock II	287710U										
ThinkPad Convertible Monitor Stand	40Y7620	Other options at <a href="http://lenovo.com/options">lenovo.com/options</a>											
Post-warranty annual maintenance agreements at <a href="http://lenovo.com/thinkplus/warranty">lenovo.com/thinkplus/warranty</a>													

See footnotes for important warranty information

\* Powered by Intel Centrino® mobile technology

© Lenovo

US models announced May 11 or August 17, 2004

(T42B3) October 2006

US models withdrawn effective August 2005 or October 2006

# ThinkPad® T42 (2379) - TopSeller (October 2004) - withdrawn

Created by Lenovo Training Solutions  
Personal Systems Reference (PSREF)

Type-model	Processor	Speed GHz	Memory	Screen	Graphics controller	Disk GB <sup>6</sup>	Optical	Mini PCI Comm Bay wireless	CDC modem/Bluetooth™	Finger print reader	Security chip	Bat-tery life <sup>10</sup>	Bat-tery cells	Limited war-ranty <sup>12</sup>	Avail date
2379-R1U	Pentium® M 725	1.6	256MB	14.1" XGA	7500	40HS	Combo	* Intel 11b/g <sup>32</sup>	Modem	Finger	Yes	5.1 hr	6	3-yr	Oct 04
2379-R5U	Pentium M 745	1.8	256MB	14.1" SXGA+	7500	40HS	Combo	* Intel 11b/g	Modem	Finger	Yes	7.2 hr	9	3-yr	Oct 04
2379-R6U	Pentium M 725	1.6	512MB	15.0" XGA	7500	40HS	Combo	* Intel 11b/g	Modem	No	Yes	5.0 hr	6	3-yr	Oct 04
2379-R8U	Pentium M 745	1.8	512MB	15.0" XGA	7500	40HS	Combo	* Intel 11b/g	Modem	Finger	Yes	5.0 hr	6	3-yr	Oct 04
2379-R9U	Pentium M 745	1.8	512MB	15.0" SXGA+	9600	60U	Combo	* Intel 11b/g	Mod/Blue	Finger	Yes	5.9 hr	9	3-yr	Oct 04
2379-RFU	Pentium M 745	1.8	512MB	14.1" XGA	9000	60HS	Combo	* 11a/b/g II <sup>32</sup>	Modem	Finger	Yes	4.9 hr	6	3-yr	Sep05
2379-RHU	Pentium M 745	1.8	512MB	14.1" XGA	9600	60HS	Combo	* Intel 11a/b/g <sup>32</sup>	Modem	Finger	Yes	4.3 hr	6	3-yr	Nov05

- These small and medium business (SMB) models are part of the US TopSeller™ Program
- The 2379 has a 3-year limited warranty (other ThinkPad T42 2378 TopSeller models have a 1-year limited warranty)

Positioning Processor	Perfect balance of performance and portability; two-spindle system <b>Intel® Pentium® M Processor 725 (1.6GHz) or 745 (1.8GHz)</b> with Enhanced Intel SpeedStep™ technology <sup>1</sup> and 400MHz system bus										<b>SOFTWARE<sup>14</sup></b> <b>Windows XP Professional</b> - Microsoft® Windows® XP Professional <sup>20</sup> (Service Pack 2) ↔ Disk-to-Disk Recovery (in hidden protected area)				
L2 cache Memory	<b>2MB</b> / on die (at processor speed) / ECC <b>256MB</b> or <b>512MB</b> std / 2GB max <sup>7</sup> / PC2700 333MHz DDR1 / non-parity / CL2.5 / two 200-pin SO-DIMM sockets / std memory in one socket / one socket available										<b>Preloaded</b> • Rescue and Recovery™ • Access Program • Access Connections™ • Norton AntiVirus (with 90 days of virus definitions) • PC-Doctor™ • ThinkPad Utilities • Adobe® Reader • Update Connector™ <sup>15</sup> • RecordNOW and Drive Letter Access powered by Sonic products (combo models) • InterVideo WinDVD (combo models) • Fingerprint Software (fingerprint models) • Client Security Software (for security chip)				
Diskette drive Combo Ultrabay Slim Disk	None standard / use optional USB-based diskette drive DVD-ROM/CD-RW / 24X/24X/24X/8X <sup>21</sup> speed / removable from Ultrabay Slim One modular bay for interchangeable devices (right side) / 9.5mm high bay <b>40GB<sup>8</sup> HS</b> (5400 rpm), <b>60GB HS</b> (5400 rpm), or <b>60GB Ultra HS</b> (7200 rpm) / 9.5mm high / removable, upgradable / 9.5mm high bay / supports 2nd disk in Ultrabay Slim / <b>Hard Disk Drive Shock Absorber / Active Protection System</b> (shock protection)										<b>Downloadable</b> • IBM Director Agent • Software Delivery Assistant • System Migration Assistant <b>License</b> (CD not included) - Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client				
Display	Some: <b>14.1"</b> (358.1mm) <b>XGA (1024x768) TFT color</b> / Active Matrix / 150 nits Some: <b>14.1"</b> (358.1mm) <b>SXGA+ (1400x1050) TFT color</b> / Active Matrix / 150 nits Some: <b>15.0"</b> (381.0mm) <b>XGA (1024x768) TFT color</b> / Active Matrix / 200 nits Some: <b>15.0"</b> (381.0mm) <b>SXGA+ (1400x1050) TFT color</b> / Active Matrix / 200 nits / FlexView display with wide viewing angle and high density using IPS technology														
Graphics	Some: <b>ATI® MOBILITY™ RADEON® 7500 / AGP 4X / 32MB DDR1 (DDR-SDRAM)</b> Some: <b>ATI MOBILITY RADEON 9000 / AGP 4X / 32MB DDR1 (DDR-SDRAM)</b> Some: <b>ATI MOBILITY RADEON 9600 / AGP 4X / 64MB DDR1 (DDR-SDRAM)</b>														
Keyboard TrackPoint® Touch pad ThinkLight™	87-key / Access IBM button / palm rest / pitch: 19mm; stroke: 2.5mm (std-size keys) TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar <sup>13</sup> , magnifying glass UltraNav® multi-pointing system / touch pad below keyboard / Tap Zones Illuminates the keyboard to improve visibility in low-light conditions														
Dimensions <sup>3</sup> Weight <sup>2</sup>	14.1" models (WxDxH): 12.2" x 10.0" x 1.0-1.2"; 311mm x 255mm x 26.6-31.4mm; 15.0" models (WxDxH): 13.0" x 10.6" x 1.2-1.4"; 329mm x 268mm x 31-36mm with optical drive and battery: 14.1" XGA models: 4.9 lb (2.2kg); 14.1" SXGA+: 5.4 lb (2.4kg); 15.0" XGA: 5.7 lb (2.6kg); 15.0" SXGA+: 6.2 lb (2.8kg)														
Case material Battery - type Battery - life <sup>10</sup>	Magnesium composite in the top cover, titanium-reinforced CFRP in bottom cover Lithium Ion 6- or 9-cell / intelligent / supports unique 2nd battery in Ultrabay Slim 6-cell: up to 4.9 hr; 9-cell: up to 7.0 hr; 9-cell plus Ultrabay Slim battery: up to 9.0 hr														
Architecture	<b>Intel 855PM</b> chipset / 82855PM Memory Controller Hub (MCH-M) / 82801DBM ICH4-M I/O Controller Hub (ATA-100 EIDE, PCI bus, ethernet MAC, Low Pin Count [LPC] interface, USB, [Bluetooth], [fingerprint]) / PCI bus 2.2 32-bit, 33MHz (TI® PCI4520A CardBus controller, Mini PCI, external expansion) / LPC bus 33MHz (security chip; PC87392 Super I/O for diskette, parallel, infrared, [docking-based ports])														
PC Card Std slots Ports	2 Type I, 2 Type II, or 1 Type III / CardBus 32-bit / integrated door Two USB (Version 2.0) / parallel / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / no keyboard or mouse or serial ports (use USB)														
Video out Wireless antenna Mini PCI	S-video out port (TV out) / one 4-pin industry standard connector UltraConnect™ Antenna built into the display cover for optimal wireless signal reception One Mini PCI type III slot (Communications Bay) / customer upgradable Some: 11b/g wireless <sup>4</sup> , Mini PCI, Intel PRO/Wireless 2200BG, Intel 82532 chipset Some: 11a/b/g wireless <sup>4</sup> , Mini PCI, Intel PRO/Wireless 2915ABG, 82533 chipset Some: 11a/b/g wireless <sup>4</sup> , ThinkPad 11a/b/g Mini PCI Adapter II, Atheros AR5004X chip										ThinkPad notebooks implement ThinkVantage™ technologies and design; visit <a href="http://thinkpad.com/thinkvantage">thinkpad.com/thinkvantage</a>				
CDC Modem Bluetooth™ Ethernet Audio support	One Communications Daughter Card (CDC) socket / customer accessible 56K <sup>6</sup> V.90 (V.92-designed <sup>29</sup> ) modem in CDC / Conexant® chipset Some: Bluetooth wireless technology / in CDC (with modem) Gigabit ethernet on systemboard / Intel 82540EP chipset (MAC/PHY) / PXE Soft audio / ICH AC97 controller / DirectSound® support / AD1981B AC97 codec / stereo speakers, 1 watt / volume up, down, mute buttons / internal mic / microphone input jack (3.5 mm; pink) / headphone jack (3.5 mm; green)										Universal 72 watt AC adapter Asset ID™ <sup>34</sup> (system-specific info in chip accessed over network) PC 2001-compliant ACPI 1.0b and 2.0-compliant CIM and DMI 2.0-compliant PXE 2.1-compliant ENERGY STAR®-compliant International Warranty Service <sup>17</sup> 24 hour x 7 day <sup>18</sup> toll-free warranty support during the warranty <sup>12</sup> via 800-IBM-SERV (426-7378)				
Security Security chip Fingerprint reader	Power-on password / hard disk password / supervisor password / security keyhole <b>Embedded Security Subsystem 2.0<sup>33</sup></b> / Atmel® chip / TCG-compliant Some: <b>Fingerprint reader on palm rest</b> / swipe sensor / integrated with security chip / can replace multiple passwords / UPEK® TCD41B controller with TCS3B sensor														
Limited warranty <sup>12</sup>	<b>3-year/1-yr battery - EasyServ™<sup>19</sup></b> onsite pickup and delivery / service upgrades <sup>22</sup> avail										ThinkPlus™ <sup>22</sup> 2-year LOR 9x5 NBD 41C9175				
	256MB PC2700 DDR-SDRAM CL2.5 SOD	31P9830	ThinkPad T40/R50 Li-Ion Battery 6-cell	92P1101	ThinkPlus 3-year LOR 9x5 NBD	41C9176									
	512MB PC2700 DDR-SDRAM CL2.5 SOD	31P9832	ThinkPad T40/R50 Li-Ion Battery 9-cell	92P1102	ThinkPlus 4-year LOR 9x5 NBD	41C9177									
	1GB PC2700 DDR-SDRAM CL2.5 SOD	31P9834	Ultrabay Slim Li-Polymer Battery 3-cell	08K8190	ThinkPlus 5-year LOR 9x5 NBD	41C9179									
	USB 2.0 Memory Key 1GB	40Y7421	72W Slim AC/DC Combo Adapter	73P4485	ThinkPlus 5-year P&L P/U Depot	41C9178									
	USB 2.0 Super Multi-Burner Drive	40Y8638	11a/b/g Wireless Mini PCI Adapter II	73P4301	ThinkPlus 5-year P&L P/U Depot	41C9178									
	CD-RW/DVD Combo II Ultrabay Slim Drive	73P3288	ThinkPad Port Replicator II	74P6733	Other options at <a href="http://lenovo.com/options">lenovo.com/options</a>	41C9180									
	Super Multi-Burner Ultrabay Slim Drv (curve)	40Y8622	ThinkPad Mini Dock	287810U											
	Second HDD Adapter for Ultrabay Slim	62P4554	ThinkPad Dock II	287710U											
	100GB Hard Disk 9.5mm PATA (5400 rpm)	40Y8716	ThinkPad Carrying Case - Leather	73P3600											
	ThinkPad Convertible Monitor Stand	40Y7620	Other options at <a href="http://lenovo.com/options">lenovo.com/options</a>												

# ThinkPad® T42 (2373) - Education - withdrawn

Created by Lenovo Training Solutions  
Personal Systems Reference (PSREF)

Type-model	Processor	Speed GHz	Memory	Screen	Graphics controller	Disk GB <sup>8</sup>	Optical	Mini PCI Comm Bay wireless	CDC modem/ Bluetooth™	Security chip	Preload	Limited warranty <sup>12</sup>	Avail date
2373-6VU	Pentium® M 735	1.7	512MB	14.1" XGA	7500	40HS	Combo	* Intel 11b/g <sup>32</sup>	Modem	Yes	XP Pro	EasyServ	May 2004
2373-3VU	Pentium M 735	1.7	512MB	14.1" SXGA+	9600	80HS	DVD-RW	* Intel 11b/g	Modem	Yes	XP Pro	EasyServ	May 2004
2373-3XU	Pentium M 735	1.7	512MB	15.0" SXGA+	9600	40HS	Combo	* Intel 11b/g	Modem	Yes	XP Pro	EasyServ	May 2004

• **The 2373 has an EasyServ™<sup>19</sup> onsite pickup and delivery 3-year limited warranty**

These educational models of the ThinkPad notebook are available only to public or private K-12 (or higher) accredited schools organized and operated exclusively for educational purposes for use by qualified students and/or teachers.

This model for education is for sale direct from Lenovo or through an Authorized Education Reseller.

The model or models for education are not available for resale to any other organization or individual.

Positioning Processor	<i>Perfect balance of performance and portability; two-spindle system</i> <b>Intel® Pentium® M Processor 735 (1.7GHz)</b> with Enhanced Intel SpeedStep™ technology <sup>1</sup> and 400MHz system bus											<b>SOFTWARE<sup>14</sup></b>
L2 cache	<b>2MB</b> / on die (at processor speed) / ECC											<b>Windows XP Professional</b> - Microsoft® Windows® XP Professional <sup>20</sup> ↳ Disk-to-Disk Recovery (in hidden protected area)
Memory	<b>512MB</b> std / 2GB max <sup>7</sup> / PC2700 333MHz DDR1 (DDR-SDRAM) / non-parity / CL2.5 / two 200-pin SO-DIMM sockets / standard memory in one socket / one socket available											
Diskette drive	None standard / use optional USB-based diskette drive											<b>Preloaded</b> • Education software from Vital Source Technologies®: vitalsource KEY™ and Personal Portable library™ • Access Program • Access Connections™ • Rescue and Recovery™ • Sonic RecordNOW and Drive Letter Access (combo, DVD-RW) • InterVideo WinDVD (combo, DVD-RW models) • InterVideo WinDVD Creator (DVD-RW models) • Norton AntiVirus (OEM edition) • PC-Doctor™ • ThinkPad Utilities • Adobe® Reader • Update Connector™. <sup>15</sup>
Combo DVD-RW	<i>Some:</i> DVD-ROM/CD-RW / 24X/24X/24X/8X <sup>21</sup> speed / removable from Ultrabay™ Slim <i>Some:</i> CD-RW/DVD-RW Multi-Burner / removable from Ultrabay Slim											
Ultrabay Slim Disk	One modular bay for interchangeable devices (right side) / 9.5mm high bay <b>40GB<sup>8</sup> HS</b> (5400 rpm) or <b>80GB HS</b> (5400 rpm) / 9.5mm high / removable, upgradable / 9.5mm high bay / supports 2nd disk with optional HDD Adapter in Ultrabay Slim / <b>Hard Disk Drive Shock Absorber / Active Protection System™</b>											<b>Downloadable</b> • IBM Director Agent • Software Delivery Assistant • System Migration Assistant • Client Security Software (for security chip)  <b>License</b> (CD not included) - Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client
Display	<i>Some:</i> <b>14.1"</b> (358.1mm) <b>XGA (1024x768) TFT color</b> / Active Matrix / 150 nits <i>Some:</i> <b>14.1"</b> (358.1mm) <b>SXGA+ (1400x1050) TFT color</b> / Active Matrix / 150 nits <i>Some:</i> <b>15.0"</b> (381.0mm) <b>SXGA+ (1400x1050) TFT color</b> / Active Matrix / 200 nits / FlexView display with wide viewing angle and high density using IPS technology											
Graphics	<i>Some:</i> <b>ATI® MOBILITY™ RADEON® 7500 / AGP 4X / 32MB</b> DDR1 (DDR-SDRAM) <i>Some:</i> <b>ATI MOBILITY RADEON 9600 / AGP 4X / 64MB</b> DDR1 (DDR-SDRAM)											ThinkPad notebooks implement ThinkVantage™ technologies and design; visit <a href="http://thinkpad.com/thinkvantage">thinkpad.com/thinkvantage</a>  Universal 72 watt AC adapter Asset ID™. <sup>34</sup> (system-specific info in chip accessed over network) PC 2001-compliant ACPI 1.0b and 2.0-compliant CIM and DMI 2.0-compliant PXE 2.0-compliant ENERGY STAR®-compliant International Warranty Service <sup>17</sup> 24 hour x 7 day <sup>18</sup> toll-free warranty support during the warranty <sup>12</sup> via 800-IBM-SERV (426-7378)
Graphics external	External monitor support via analog DB-15 connector / up to 2048x1536x16.7M / DDC2B											
Keyboard	87-key / Access IBM button / palm rest / pitch: 19mm; stroke: 2.5mm (std-size keys)											
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar <sup>13</sup> , magnifying glass											
Touch pad	UltraNav® multi-pointing system / touch pad below keyboard / Tap Zones											
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions											
Dimensions <sup>3</sup>	<i>14.1" models (WxDxH):</i> 12.2" x 10.0" x 1.0-1.2"; 311mm x 255mm x 26.6-31.4mm; <i>15.0" models (WxDxH):</i> 13.0" x 10.6" x 1.2-1.4"; 329mm x 268mm x 31-36mm with optical drive and battery: <i>14.1" XGA model:</i> 4.9 lb (2.2kg); <i>14.1" SXGA+ model:</i> 5.0 lb (2.3kg); <i>15.0" model:</i> 5.8 lb (2.7 kg)											
Weight <sup>2</sup>	Magnesium composite in the top cover, titanium-reinforced CFRP in bottom cover											
Case material	Lithium Ion 6-cell / intelligent / supports unique 2nd battery in Ultrabay Slim											
Battery - type	Up to 4.5 hr; <i>Optional 9-cell:</i> up to 7.0 hr; <i>9-cell plus Ultrabay Slim battery:</i> up to 9.0 hr											
Battery - life <sup>10</sup>	<b>Intel 855PM</b> chipset / 82855PM Memory Controller Hub (MCH-M) / 82801DBM ICH4-M I/O Controller Hub (ATA-100 EIDE, PCI bus, ethernet MAC, Low Pin Count [LPC] interface, USB, [Bluetooth]) / PCI bus 2.2 32-bit, 33MHz (TI® PCI4520A CardBus controller, Mini PCI, external expansion) / LPC bus 33MHz (security chip; PC87392 Super I/O for diskette, parallel, infrared, [docking-based ports])											
Architecture	2 Type I, 2 Type II, or 1 Type III / CardBus 32-bit / integrated door											
PC Card Std slots	Two USB (Version 2.0) / parallel / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / no keyboard or mouse or serial ports (use USB)											
Ports	S-video out port (TV out) / one 4-pin industry standard connector											
Video out	UltraConnect™ Antenna built into the display cover for optimal wireless signal reception											
Wireless antenna	One Mini PCI type III slot (Communications Bay) / customer upgradable											
Mini PCI	11b/g wireless <sup>4</sup> , Mini PCI, Intel PRO/Wireless 2200BG, Intel 82532 chipset											
Intel 11b/g <sup>32</sup>	One Communications Daughter Card (CDC) socket / customer accessible											
CDC	56K <sup>6</sup> V.90 (V.92-designed <sup>29</sup> ) modem in CDC / Conexant® chipset											
Modem	None											
Bluetooth™	Gigabit ethernet on systemboard / Intel 82540EP chipset (MAC/PHY) / PXE											
Ethernet	Soft audio / ICH AC97 controller / DirectSound® support / AD1981B AC97 codec / stereo speakers, 1 watt / volume up, down, mute buttons / internal mic / microphone input jack (3.5 mm; pink) / headphone jack (3.5 mm; green)											
Audio support	Power-on password / hard disk password / supervisor password / security keyhole											
Security	<b>Embedded Security Subsystem 2.0<sup>33</sup></b> / hardware key storage / multi-factor authentication / local file encryption / Atmel® chip / TCG-compliant											
Security chip	Limited warranty <sup>12</sup> <b>3-year/1-yr battery</b> - EasyServ™. <sup>19</sup> onsite pickup and delivery / service upgrades <sup>22</sup> avail											
Limited warranty <sup>12</sup>	256MB PC2700 DDR-SDRAM CL2.5 SOD 31P9830 ThinkPad T40/R50 Li-Ion Battery 6-cell 92P1101 ThinkPlus 3-year LOR 9x5 NBD 41C9175											
	512MB PC2700 DDR-SDRAM CL2.5 SOD 31P9832 ThinkPad T40/R50 Li-Ion Battery 9-cell 92P1102 ThinkPlus 3-year LOR 9x5 NBD 41C9176											
	1GB PC2700 DDR-SDRAM CL2.5 SOD 31P9834 Ultrabay Slim Li-Polymer Battery 3-cell 08K8190 ThinkPlus 4-year LOR 9x5 NBD 41C9177											
	USB Portable Diskette Drive 05K9276 72W Slim AC/DC Combo Adapter 73P4485 ThinkPlus 5-year LOR 9x5 NBD 41C9179											
	USB 2.0 Memory Key 1GB 40Y7421 11a/b/g Wireless Mini PCI Adapter II 73P4301 ThinkPlus 5-year LOR 9x5 NBD 41C9178											
	USB 2.0 Super Multi-Burner Drive 40Y8638 Intel PRO/Wireless 2915ABG Mini PCI 41N2990 ThinkPlus 4-year P&L P/U Depot 41C9179											
	CD-RW/DVD Combo II Ultrabay Slim Drive 73P3288 Kensington® MicroSaver® Security Cable 73P2582 ThinkPlus 4-year P&L P/U Depot 41C9178											
	Super Multi-Burner Ultrabay Slim Drv (curve) 40Y8622 ThinkPad Port Replicator II 74P6733 ThinkPlus 5-year P&L P/U Depot 41C9180											
	Second HDD Adapter for Ultrabay Slim 62P4554 ThinkPad Mini Dock 287810U ThinkPlus 5-year P&L P/U Depot 41C9180											
	80GB HS Hard Disk 9.5mm (5400 rpm) 73P3357 ThinkPad Dock II 287710U Post-warranty annual maintenance agreements at lenovo.com/thinkplus/warranty											
	80GB HS Hard Disk 9.5mm (5400 rpm) 09N4273 TrackPoint Cap Collection 73P2698											
	ThinkPad Carrying Case - Backpack 73P3599 ThinkVision® L201p 20.1" Monitor (black) 9320HB1											
	ThinkPad Convertible Monitor Stand 40Y7620 Other options at <a href="http://lenovo.com/options">lenovo.com/options</a>											

See footnotes for important warranty information  
US models announced May 11, 2004  
US models withdrawn effective May 2006

\* Powered by Intel Centrino® mobile technology

© Lenovo  
(T42E) April 2006



# ThinkPad® T42 (2374) - Education - withdrawn

Created by Lenovo Training Solutions  
Personal Systems Reference (PSREF)

Type-model	Processor	Speed GHz	Memory	Screen	Graphics controller	Disk GB <sup>8</sup>	Optical	Mini PCI Comm Bay wireless	CDC modem/Bluetooth™	Security chip	Preload	Limited warranty <sup>12</sup>	Avail date
2374-6VU	Pentium® M 735	1.7	512MB	14.1" XGA	7500	40HS	Combo	* Intel 11b/g <sup>32</sup>	Modem	Yes	XP Pro	Onsite	May 2004
2374-3VU	Pentium M 735	1.7	512MB	14.1" SXGA+	9600	80HS	DVD-RW	* Intel 11b/g	Modem	Yes	XP Pro	Onsite	May 2004
2374-3XU	Pentium M 735	1.7	512MB	15.0" SXGA+	9600	40HS	Combo	* Intel 11b/g	Modem	Yes	XP Pro	Onsite	May 2004

• **The 2374 has a limited onsite service<sup>24</sup> 3-year limited warranty**

These educational models of the ThinkPad notebook are available only to public or private K-12 (or higher) accredited schools organized and operated exclusively for educational purposes for use by qualified students and/or teachers.

Positioning Processor	<i>Perfect balance of performance and portability; two-spindle system</i>										<b>SOFTWARE<sup>14</sup></b>		
L2 cache	Intel® Pentium® M Processor 735 (1.7GHz) with Enhanced Intel SpeedStep™ technology <sup>1</sup> and 400MHz system bus										Windows XP Professional		
Memory	2MB / on die (at processor speed) / ECC										- Microsoft® Windows® XP Professional <sup>20</sup>		
Diskette drive	None standard / use optional USB-based diskette drive										↳ Disk-to-Disk Recovery (in hidden protected area)		
Combo	<i>Some: DVD-ROM/CD-RW / 24X/24X/24X/8X<sup>21</sup> speed / removable from Ultrabay™ Slim</i>										<b>Preloaded</b>		
DVD-RW	<i>Some: CD-RW/DVD-RW Multi-Burner / removable from Ultrabay Slim</i>										• Education software from Vital Source Technologies®: vitalsource KEY™ and Personal Portable library™		
Ultrabay Slim	One modular bay for interchangeable devices (right side) / 9.5mm high bay										• Access Program		
Disk	<b>40GB<sup>9</sup> HS</b> (5400 rpm) or <b>80GB HS</b> (5400 rpm) / 9.5mm high / removable, upgradable / 9.5mm high bay / supports 2nd disk with optional HDD Adapter in Ultrabay Slim / <b>Hard Disk Drive Shock Absorber / Active Protection System™</b>										• Access Connections™		
Display	<i>Some: 14.1" (358.1mm) XGA (1024x768) TFT color / Active Matrix / 150 nits</i> <i>Some: 14.1" (358.1mm) SXGA+ (1400x1050) TFT color / Active Matrix / 150 nits</i> <i>Some: 15.0" (381.0mm) SXGA+ (1400x1050) TFT color / Active Matrix / 200 nits / FlexView display with wide viewing angle and high density using IPS technology</i>										• Rescue and Recovery™		
Graphics	<i>Some: ATI® MOBILITY™ RADEON® 7500 / AGP 4X / 32MB DDR1 (DDR-SDRAM)</i> <i>Some: ATI MOBILITY RADEON 9600 / AGP 4X / 64MB DDR1 (DDR-SDRAM)</i>										• RecordNOW and Drive Letter Access powered by Sonic products (combo, DVD-RW models)		
Graphics external	External monitor support via analog DB-15 connector / up to 2048x1536x16.7M / DDC2B										• InterVideo WinDVD (combo, DVD-RW models)		
Keyboard	87-key / Access IBM button / palm rest / pitch: 19mm; stroke: 2.5mm (std-size keys)										• InterVideo WinDVD Creator (DVD-RW models)		
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar <sup>13</sup> , magnifying glass										• Norton AntiVirus (OEM edition)		
Touch pad	UltraNav® multi-pointing system / touch pad below keyboard / Tap Zones										• PC-Doctor™		
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions										• ThinkPad Utilities		
Dimensions <sup>3</sup>	14.1" models (WxDxH): 12.2" x 10.0" x 1.0-1.2"; 311mm x 255mm x 26.6-31.4mm; 15.0" models (WxDxH): 13.0" x 10.6" x 1.2-1.4"; 329mm x 268mm x 31-36mm										• Adobe® Reader		
Weight <sup>2</sup>	with optical drive and battery: 14.1 XGA model: 4.9 lb (2.2kg); 14.1" SXGA+ model: 5.0 lb (2.3kg); 15.0" model: 5.8 lb (2.7 kg)										• Update Connector™ <sup>15</sup>		
Case material	Magnesium composite in the top cover, titanium-reinforced CFRP in bottom cover										<b>Downloadable</b>		
Battery - type	Lithium Ion 6-cell / intelligent / supports unique 2nd battery in Ultrabay Slim										• IBM Director Agent		
Battery - life <sup>10</sup>	Up to 4.5 hr; <i>Optional 9-cell: up to 7.0 hr; 9-cell plus Ultrabay Slim battery: up to 9.0 hr</i>										• Software Delivery Assistant		
Architecture	Intel 855PM chipset / 82855PM Memory Controller Hub (MCH-M) / 82801DBM ICH4-M I/O Controller Hub (ATA-100 EIDE, PCI bus, ethernet MAC, Low Pin Count [LPC] interface, USB, [Bluetooth]) / PCI bus 2.2 32-bit, 33MHz (TI® PCI4520A CardBus controller, Mini PCI, external expansion) / LPC bus 33MHz (security chip; PC87392 Super I/O for diskette, parallel, infrared, [docking-based ports])										• System Migration Assistant		
PC Card Std slots	2 Type I, 2 Type II, or 1 Type III / CardBus 32-bit / integrated door										• Client Security Software (for security chip)		
Ports	Two USB (Version 2.0) / parallel / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / no keyboard or mouse or serial ports (use USB)										<b>License</b> (CD not included)		
Video out	S-video out port (TV out) / one 4-pin industry standard connector										- Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client		
Wireless antenna	UltraConnect™ Antenna built into the display cover for optimal wireless signal reception												
Mini PCI	One Mini PCI type III slot (Communications Bay) / customer upgradable												
Intel 11b/g <sup>32</sup>	11b/g wireless <sup>4</sup> , Mini PCI, Intel PRO/Wireless 2200BG, Intel 82532 chipset												
CDC	One Communications Daughter Card (CDC) socket / customer accessible												
Modem	56K <sup>6</sup> V.90 (V.92-designed <sup>29</sup> ) modem in CDC / Conexant® chipset												
Bluetooth™	None												
Ethernet	Gigabit ethernet on systemboard / Intel 82540EP chipset (MAC/PHY) / PXE												
Audio support	Soft audio / ICH AC97 controller / DirectSound® support / AD1981B AC97 codec / stereo speakers, 1 watt / volume up, down, mute buttons / internal mic / microphone input jack (3.5 mm; pink) / headphone jack (3.5 mm; green)										ThinkPad notebooks implement ThinkVantage™ technologies and design; visit <a href="http://thinkpad.com/thinkvantage">thinkpad.com/thinkvantage</a>		
Security	Power-on password / hard disk password / supervisor password / security keyhole												
Security chip	<b>Embedded Security Subsystem 2.0<sup>33</sup></b> / hardware key storage / multi-factor authentication / local file encryption / Atmel® chip / TCG-compliant												
Limited warranty <sup>12</sup>	<b>3-year/1-year battery, limited onsite service<sup>24</sup>, 8 am - 5 pm, Mon - Fri coverage</b> excluding holidays, next business day response time										Universal 72 watt AC adapter Asset ID™ <sup>34</sup> (system-specific info in chip accessed over network)		
256MB PC2700 DDR-SDRAM CL2.5 SOD	31P9830	ThinkPad T40/R50 Li-Ion Battery 6-cell	92P1101	PC 2001-compliant									
512MB PC2700 DDR-SDRAM CL2.5 SOD	31P9832	ThinkPad T40/R50 Li-Ion Battery 9-cell	92P1102	ACPI 1.0b and 2.0-compliant									
1GB PC2700 DDR-SDRAM CL2.5 SOD	31P9834	Ultrabay Slim Li-Polymer Battery 3-cell	08K8190	CIM and DMI 2.0-compliant									
USB Portable Diskette Drive	05K9276	72W Slim AC/DC Combo Adapter	73P4485	PXE 2.0-compliant									
USB 2.0 CD-RW/DVD-ROM Combo II Drive	40Y8637	11a/b/g Wireless Mini PCI Adapter II	73P4301	ENERGY STAR®-compliant									
USB 2.0 Memory Key 1GB	40Y7421	Intel PRO/Wireless 2915ABG Mini PCI	41N2990	ImageUltra™ Services available									
CD-RW/DVD Combo II Ultrabay Slim Drive	73P3288	Enh Perf Wireless Keyboard and Mouse	73P4067	International Warranty Service <sup>17</sup>									
Super Multi-Burner Ultrabay Slim Drv (curve)	40Y8622	ThinkPad Port Replicator II	74P6733	24 hour x 7 day <sup>18</sup> toll-free warranty support during the warranty <sup>12</sup> via 800-IBM-SERV (426-7378)									
Second HDD Adapter for Ultrabay Slim	62P4554	ThinkPad Mini Dock	287810U										
80GB HS Hard Disk 9.5mm (5400 rpm)	09N4273	ThinkPad Dock II	287710U										
100GB Hard Disk 9.5mm PATA (5400 rpm)	40Y8716	TrackPoint Cap Collection	73P2698										
ThinkPad Premiere Leather Carrying Case	10K0209	ThinkVision® L201p 20.1" Monitor (black)	9320HB1										
ThinkPad Convertible Monitor Stand	40Y7620	Other options at <a href="http://lenovo.com/options">lenovo.com/options</a>											

See footnotes for important warranty information  
US models announced May 11, 2004  
US models withdrawn effective May 2006

\* Powered by Intel Centrino® mobile technology

© Lenovo  
(2374) April 2006

# ThinkPad® T42p (14.1" display) - withdrawn

Created by Lenovo Training Solutions  
Personal Systems Reference (PSREF)

Type-model	Processor	Speed GHz	Memory	Screen	Graphics	Disk controller	Disk GB <sup>5</sup>	Optical	Mini PCI Comm Bay wireless	CDC modem/ Bluetooth™	Security chip	Battery cells	Workhorse (W) or Global (G) or Entry (E)	Avail date
2373-GVU	Pentium® M 745	1.8	512M	14.1" SXGA+	FireGL 60U	60U	Combo	11a/b/g Wi-Fi <sup>32</sup>	Mod/Blue	Yes	9	XP Pro	No	May 2004
2373-GUU	Pentium M 745	1.8	1GB	14.1" SXGA+	FireGL 60U	60U	DVD-RW	11a/b/g Wi-Fi	Mod/Blue	Yes	9	XP Pro	No	May 2004
2373-GTU	Pentium M 745	1.8	512M	14.1" SXGA+	FireGL 60U	60U	DVD-RW	* Intel 11b Wi-Fi <sup>32</sup>	Mod/Blue	Yes	9	XP Pro	No	May 2004
2373-GRU	Pentium M 745	1.8	512M	14.1" SXGA+	FireGL 60U	60U	DVD-RW	* Intel 11b/g <sup>32</sup>	Mod/Blue	Yes	9	XP Pro	No	May 2004
2373-KTU	Pentium M 755	2.0	1GB	14.1" SXGA+	FireGL 60U	60U	DVD-RW	11a/b/g Wi-Fi	Mod/Blue	Yes	9	XP Pro	No	May 2004
2373-KUU	Pentium M 755	2.0	512M	14.1" SXGA+	FireGL 60U	60U	Combo	* Intel 11b/g	Mod/Blue	Yes	9	XP Pro	No	May 2004
Positioning Processor	<i>Perfect balance of performance and portability; two-spindle system</i>											<b>SOFTWARE<sup>14</sup></b>		
L2 cache Memory	<b>Intel® Pentium® M Processor 745 (1.8GHz) or 755 (2.0GHz)</b> with Enhanced Intel SpeedStep™ technology <sup>1</sup> and 400MHz system bus 2MB / on die (at processor speed) / ECC 512MB or 1GB std / 2GB max <sup>7</sup> / PC2700 333MHz DDR1 (DDR-SDRAM) / non-parity / CL2.5 / two 200-pin SO-DIMM sockets / std mem in one socket / one socket available											<b>Windows XP Professional</b> - Microsoft® Windows® XP Professional <sup>20</sup> ⇨ Disk-to-Disk Recovery (in hidden protected area)		
Diskette drive	None standard / use optional USB-based diskette drive											<b>Preloaded</b>		
Combo DVD-RW	Some: DVD-ROM/CD-RW / 24X/24X/24X/8X <sup>21</sup> speed / removable from Ultrabay™ Slim											<ul style="list-style-type: none"> <li>• Access Program</li> <li>• Access Connections™</li> <li>• Rescue and Recovery™</li> <li>• RecordNOW and Drive Letter</li> </ul>		
Ultrabay Slim Disk	One modular bay for interchangeable devices (right side) / 9.5mm high bay											Access powered by Sonic products (combo models)		
	60GB <sup>8</sup> Ultra HS (7200 rpm) / 9.5mm high / removable and upgradable / 9.5mm high bay / supports 2nd disk with optional HDD Adapter in Ultrabay Slim / Hard Disk Drive Shock Absorber / Active Protection System™											<ul style="list-style-type: none"> <li>• InterVideo WinDVD (combo models)</li> <li>• Norton AntiVirus (OEM edition)</li> <li>• PC-Doctor™</li> <li>• ThinkPad Utilities</li> <li>• Adobe® Reader</li> <li>• Update Connector™<sup>15</sup></li> </ul>		
Display	14.1" (358.1mm) SXGA+ (1400x1050) TFT color / Active Matrix / 150 nits											<b>Downloadable</b> <ul style="list-style-type: none"> <li>• IBM Director Agent</li> <li>• Software Delivery Assistant</li> <li>• System Migration Assistant</li> <li>• Client Security Software (for security chip)</li> </ul>		
Graphics	ATI® MOBILITY™ FireGL™ T2 / AGP 4X / 128MB DDR1 / OpenGL® support											<b>License (CD not included)</b> - Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client		
Graphics external	External monitor support via analog DB-15 connector / up to 2048x1536x16.7M / DDC2B											ThinkPad notebooks implement ThinkVantage™ technologies and design; visit <a href="http://thinkpad.com/thinkvantage">thinkpad.com/thinkvantage</a>		
Keyboard	87-key / Access IBM button / palm rest / pitch: 19mm; stroke: 2.5mm (std-size keys)											Universal 72 watt AC adapter Asset ID™ <sup>34</sup> (system-specific info in chip accessed over network) PC 2001-compliant ACPI 1.0b and 2.0-compliant CIM and DMI 2.0-compliant PXE 2.0-compliant ENERGY STAR®-compliant ImageUltra™ Services available International Warranty Service <sup>17</sup> 24 hour x 7 day <sup>18</sup> toll-free warranty support during the warranty <sup>12</sup>		
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar <sup>13</sup> , magnifying glass											The Ultrabay Slim supports: <ul style="list-style-type: none"> <li>• standard or optional CD-RW/DVD combo drive or DVD-RW drive</li> <li>• optional DVD</li> <li>• optional second battery</li> <li>• optional HDD adapter (for 2nd disk)</li> <li>• optional travel bezel</li> </ul>		
Touch pad	UltraNav® multi-pointing system / touch pad below keyboard / Tap Zones													
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions													
Dimensions <sup>3</sup>	14.1" models (WxDxH): 12.2" x 10.0" x 1.0-1.2"; 311mm x 255mm x 26.6-31.4mm													
Weight <sup>2</sup>	with optical drive and battery: 5.4 lb (2.4kg)													
Case material	Magnesium composite in the top cover, titanium-reinforced CFRP in bottom cover													
Battery - type	Lithium Ion 9-cell / intelligent / supports unique 2nd battery in Ultrabay Slim													
Battery - life <sup>10</sup>	9-cell models: up to 6.4 hr; 9-cell plus Ultrabay Slim battery: 8.4 hr													
Architecture	Intel 855PM chipset / 82855PM Memory Controller Hub (MCH-M) / 82801DBM ICH4-M I/O Controller Hub (ATA-100 EIDE, PCI bus, ethernet MAC, Low Pin Count [LPC] interface, USB, [Bluetooth]) / PCI bus 2.2 32-bit, 33MHz (TI® PCI4520A CardBus controller, Mini PCI, external expansion) / LPC bus 33MHz (security chip; PC87392 Super I/O for diskette, parallel, infrared, [docking-based ports])													
PC Card Std slots	Two Type I, 2 Type II, or 1 Type III / CardBus 32-bit / integrated door													
Ports	Two USB (Version 2.0) / parallel / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / no keyboard or mouse or serial ports (use USB)													
Video out	S-video out port (TV out) / one 4-pin industry standard connector													
Wireless antenna	UltraConnect™ Antenna built into the display cover for optimal wireless signal reception													
Mini PCI	One Mini PCI type III slot (Communications Bay) / customer upgradable													
Intel 11b Wi-Fi <sup>32</sup>	Some: 11b Wi-Fi <sup>32</sup> wireless <sup>4</sup> , Mini PCI, Intel PRO/Wireless 2100 Network Connection 802.11b, Intel 82531 chipset													
Intel 11b/g <sup>32</sup>	Some: 11b/g wireless <sup>4</sup> , Mini PCI, Intel PRO/Wireless 2200BG, Intel 82532 chipset													
11a/b/g Wi-Fi <sup>32</sup>	Some: 11a/b/g Wi-Fi <sup>32</sup> wireless <sup>4</sup> , Mini PCI, Atheros™ AR5001X+ chipset													
CDC	One Communications Daughter Card (CDC) socket / customer accessible													
Modem	56K <sup>6</sup> V.90 (V.92-designed <sup>29</sup> ) modem in CDC / Conexant® chipset													
Bluetooth™	Bluetooth wireless technology / in CDC (with modem)													
Ethernet	Gigabit ethernet on systemboard / Intel 82540EP chipset (MAC/PHY) / PXE													
Audio support	Soft audio / ICH AC97 controller / DirectSound® support / AD1981B AC97 codec / stereo speakers, 1 watt / volume up, down, mute buttons / internal mic / microphone input jack (3.5 mm; pink) / headphone jack (3.5 mm; green)													
Security	Power-on password / hard disk password / supervisor password / security keyhole													
Security chip	<b>Embedded Security Subsystem 2.0<sup>33</sup></b> / hardware key storage / multi-factor authentication / local file encryption / Atmel® chip / TCG-compliant													
Limited warranty <sup>12</sup>	3-year/1-yr battery - EasyServ™ <sup>19</sup> onsite pickup and delivery / service upgrades <sup>22</sup> avail													
256MB PC2700 DDR-SDRAM CL2.5 SOD	31P9830	ThinkPad T40/R50 Li-Ion Battery 6-cell	92P1101											
512MB PC2700 DDR-SDRAM CL2.5 SOD	31P9832	ThinkPad T40/R50 Li-Ion Battery 9-cell	92P1102											
1GB PC2700 DDR-SDRAM CL2.5 SOD	31P9834	Ultrabay Slim Li-Polymer Battery 3-cell	08K8190											
USB Portable Diskette Drive	05K9276	ThinkPad Multiple Battery Charger II	22P9040											
USB Fingerprint Reader	73P4774	ThinkPad 72W AC Adapter	02K6699											
USB Gemplus GemPC Smart Card Reader	41N3040	72W Slim AC/DC Combo Adapter	73P4485											
USB 2.0 CD-RW/DVD-ROM Combo II Drive	40Y8637	11a/b/g Wireless Mini PCI Adapter II	73P4301											
USB 2.0 Memory Key 1GB	40Y7421	Intel PRO/Wireless 2915ABG Mini PCI	41N2990											
CD-RW/DVD Combo II Ultrabay Slim Drive	73P3288	SonyEricsson® GC83 EDGE PC Card	26K3393											
Super Multi-Burner Ultrabay Slim (curve)	40Y8622	Lenovo M500 Projector	0037A05											
Second HDD Adapter for Ultrabay Slim	62P4554	ThinkVision® C400 Wireless Projector	0039WA1											
80GB HS Hard Disk 9.5mm (5400 rpm)	09N4273	ThinkVision L201p 20.1" Monitor (black)	9320HB1											
100GB Hard Disk 9.5mm PATA (5400 rpm)	40Y8716	ThinkPad Port Replicator II	74P6733											
ThinkPad Carrying Case - Leather	73P3600	ThinkPad Mini Dock	287810U											
Enh Perf Wireless Keyboard and Mouse	73P4067	ThinkPad Dock II	287710U											
USB Travel Keyboard with UltraNav	31P9490	ThinkPad Monitor Stand	22P5265											
Preferred Pro USB Fingerprint Keyboard	73P4730	TrackPoint Cap Collection	73P2698											
ThinkPad Convertible Monitor Stand	40Y7620	Other options at <a href="http://lenovo.com/options">lenovo.com/options</a>												

See footnotes for important warranty information  
US models announced May 11, 2004  
US models withdrawn effective May 2006

\* Powered by Intel Centrino® mobile technology

# ThinkPad® T42p (15" display) - withdrawn

Created by Lenovo Training Solutions  
Personal Systems Reference (PSREF)

Type-model	Processor	Speed GHz	Memory	Screen	Graphics controller	Disk GB <sup>8</sup>	Optical	Mini PCI Comm Bay wireless	CDC modem/Bluetooth™	Security chip	Battery cells	Workhorse (W) or Global (G) or Entry (E)	Avail date																																																										
2373-HVU	Pentium® M 745	1.8	1GB	15.0" UXGA	FireGL 60U	Combo		11a/b/g Wi-Fi <sup>32</sup>	Mod/Blue	Yes	9	XP Pro	May 2004																																																										
2373-HTU	Pentium M 745	1.8	1GB	15.0" UXGA	FireGL 60U	DVD-RW		* Intel 11b Wi-Fi <sup>32</sup>	Mod/Blue	Yes	9	XP Pro G	May 2004																																																										
2373-KXU	Pentium M 755	2.0	1GB	15.0" UXGA	FireGL 60U	DVD-RW		11a/b/g Wi-Fi	Mod/Blue	Yes	9	XP Pro	May 2004																																																										
2373-KYU	Pentium M 755	2.0	1GB	15.0" UXGA	FireGL 60U	Combo		* Intel 11b/g <sup>32</sup>	Mod/Blue	Yes	9	XP Pro	May 2004																																																										
Positioning Processor	<i>Perfect balance of performance and portability; two-spindle system</i>																																																																						
L2 cache Memory	<b>Intel® Pentium® M Processor 745 (1.8GHz) or 755 (2.0GHz)</b> with Enhanced Intel SpeedStep™ technology <sup>1</sup> and 400MHz system bus <b>2MB</b> / on die (at processor speed) / ECC <b>1GB</b> std / 2GB max <sup>7</sup> / PC2700 333MHz DDR1 (DDR-SDRAM) / non-parity / CL2.5 / two 200-pin SO-DIMM sockets / std mem in one socket / one socket available																																																																						
Diskette drive Combo DVD-RW Ultrabay Slim Disk	None standard / use optional USB-based diskette drive <i>Some:</i> DVD-ROM/CD-RW / 24X/24X/24X/8X <sup>21</sup> speed / removable from Ultrabay™ Slim <i>Some:</i> CD-RW/DVD-RW Multi-Burner / removable from Ultrabay Slim One modular bay for interchangeable devices (right side) / 9.5mm high bay <b>60GB<sup>8</sup> Ultra HS</b> (7200 rpm) / 9.5mm high / removable and upgradable / 9.5mm high bay / supports 2nd disk with optional HDD Adapter in Ultrabay Slim / <b>Hard Disk Drive Shock Absorber / Active Protection System™</b>																																																																						
Display	<b>15.0"</b> (381.0mm) <b>UXGA (1600x1200) TFT color</b> / Active Matrix / 200 nits / FlexView display with wide viewing angle and high density using IPS technology																																																																						
Graphics Graphics external	<b>ATI® MOBILITY™ FireGL™ T2 / AGP 4X / 128MB</b> DDR1 / OpenGL® support External monitor support via analog DB-15 connector / up to 2048x1536x16.7M / DDC2B																																																																						
Keyboard TrackPoint® Touch pad ThinkLight™	87-key / Access IBM button / palm rest / pitch: 19mm; stroke: 2.5mm (std-size keys) TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar <sup>13</sup> , magnifying glass UltraNav® multi-pointing system / touch pad below keyboard / Tap Zones Illuminates the keyboard to improve visibility in low-light conditions																																																																						
Dimensions <sup>3</sup> Weight <sup>2</sup> Case material Battery - type Battery - life <sup>10</sup>	15.0" models (WxDxH): 13.0" x 10.6" x 1.2-1.4"; 329mm x 268mm x 31-36mm with optical drive and battery: 5.4 lb (2.4kg) Magnesium composite in the top cover, titanium-reinforced CFRP in bottom cover Lithium Ion <b>9-cell</b> / intelligent / supports unique 2nd battery in Ultrabay Slim 9-cell models: up to 5.7 hr; 9-cell plus Ultrabay Slim battery: 7.7 hr																																																																						
Architecture	<b>Intel 855PM</b> chipset / 82855PM Memory Controller Hub (MCH-M) / 82801DBM ICH4-M I/O Controller Hub (ATA-100 EIDE, PCI bus, ethernet MAC, Low Pin Count [LPC] interface, USB, [Bluetooth]) / PCI bus 2.2 32-bit, 33MHz (TI® PCI4520A CardBus controller, Mini PCI, external expansion) / LPC bus 33MHz (security chip; PC87392 Super I/O for diskette, parallel, infrared, [docking-based ports]) 2 Type I, 2 Type II, or 1 Type III / CardBus 32-bit / integrated door Two USB (Version 2.0) / parallel / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / no keyboard or mouse or serial ports (use USB)																																																																						
PC Card Std slots Ports	S-video out port (TV out) / one 4-pin industry standard connector UltraConnect™ Antenna built into the display cover for optimal wireless signal reception One Mini PCI type III slot (Communications Bay) / customer upgradable <i>Some:</i> 11b Wi-Fi <sup>32</sup> wireless <sup>4</sup> , Mini PCI, Intel PRO/Wireless 2100 Network Connection 802.11b, Intel 82531 chipset <i>Some:</i> 11b/g wireless <sup>4</sup> , Mini PCI, Intel PRO/Wireless 2200BG, Intel 82532 chipset <i>Some:</i> 11a/b/g Wi-Fi <sup>32</sup> wireless <sup>4</sup> , Mini PCI, Atheros™ AR5001X+ chipset One Communications Daughter Card (CDC) socket / customer accessible 56K <sup>6</sup> V.90 (V.92-designed <sup>29</sup> ) modem in CDC / Conexant® chipset Bluetooth™ Bluetooth wireless technology / in CDC (with modem) Gigabit ethernet on systemboard / Intel 82540EP chipset (MAC/PHY) / PXE Soft audio / ICH AC97 controller / DirectSound® support / AD1981B AC97 codec / stereo speakers, 1 watt / volume up, down, mute buttons / internal mic / microphone input jack (3.5 mm; pink) / headphone jack (3.5 mm; green) Power-on password / hard disk password / supervisor password / security keyhole <b>Embedded Security Subsystem 2.0<sup>33</sup></b> / hardware key storage / multi-factor authentication / local file encryption / Atrm® chip / TCG-compliant																																																																						
Video out Wireless antenna Mini PCI Intel 11b Wi-Fi <sup>32</sup> Intel 11b/g <sup>32</sup> 11a/b/g Wi-Fi <sup>32</sup> CDC Modem Bluetooth™ Ethernet Audio support	ThinkPad notebooks implement ThinkVantage™ technologies and design; visit <a href="http://thinkpad.com/thinkvantage">thinkpad.com/thinkvantage</a> Universal 72 watt AC adapter Asset ID™ <sup>34</sup> (system-specific info in chip accessed over network) PC 2001-compliant ACPI 1.0b and 2.0-compliant CIM and DMI 2.0-compliant PXE 2.0-compliant ENERGY STAR®-compliant ImageUltra™ Services available International Warranty Service <sup>17</sup> 24 hour x 7 day <sup>18</sup> toll-free warranty support during the warranty <sup>12</sup> via 800-IBM-SERV (426-7378)																																																																						
Security Security chip	The Ultrabay Slim supports: • standard or optional CD-RW/DVD combo drive or DVD-RW drive • optional DVD • optional second battery • optional HDD adapter (for 2nd disk) • optional travel bezel																																																																						
Limited warranty <sup>12</sup>	3-years/1-yr battery - EasyServ™ <sup>19</sup> onsite pickup and delivery / service upgrades <sup>22</sup> avail																																																																						
256MB PC2700 DDR-SDRAM CL2.5 SOD	31P9830	ThinkPad T40/R50 Li-Ion Battery 6-cell	92P1101	512MB PC2700 DDR-SDRAM CL2.5 SOD	31P9832	ThinkPad T40/R50 Li-Ion Battery 9-cell	92P1102	1GB PC2700 DDR-SDRAM CL2.5 SOD	31P9834	Ultrabay Slim Li-Polymer Battery 3-cell	08K8190	USB Portable Diskette Drive	05K9276	ThinkPad Multiple Battery Charger II	22P9040	USB Gemplus GemPC Smart Card Reader	41N3040	ThinkPad 72W AC Adapter	02K6699	USB 2.0 Memory Key 1GB	40Y7421	72W Slim AC/DC Combo Adapter	73P4485	USB 2.0 Super Multi-Burner Drive	40Y8638	11a/b/g Wireless Mini PCI Adapter II	73P4301	CD-RW/DVD Combo II Ultrabay Slim Drive	73P3288	Intel PRO/Wireless 2915ABG Mini PCI	41N2990	Super Multi-Burner Ultrabay Slim Drv (curve)	40Y8622	Lenovo M500 Projector	0037A05	Second HDD Adapter for Ultrabay Slim	62P4554	ThinkVision® C400 Wireless Projector	0039WA1	80GB HS Hard Disk 9.5mm (5400 rpm)	09N4273	ThinkVision E500 Projector	0038A05	100GB Hard Disk 9.5mm PATA (5400 rpm)	40Y8716	ThinkVision L201p 20.1" Monitor (black)	9320HB1	ThinkPad Nylon Carrying Case	10K0207	Gemplus GemPC Smart Card Reader	41N3004	ThinkPad Carrying Case - Backpack	73P3599	ThinkPad Port Replicator II	74P6733	Enh Perf Wireless Keyboard and Mouse	73P4067	ThinkPad Mini Dock	287810U	USB Travel Keyboard with UltraNav	31P9490	ThinkPad Dock II	287710U	TrackPoint Cap Collection	73P2698	ThinkPad Monitor Stand	22P5265	ThinkPad Convertible Monitor Stand	40Y7620	Other options at <a href="http://lenovo.com/options">lenovo.com/options</a>	

See footnotes for important warranty information  
US models announced May 11, 2004  
US models withdrawn effective May 2006

\* Powered by Intel Centrino® mobile technology

© Lenovo  
(T42P15) April 2006



# ThinkPad® T42p (2378 and 2379) - TopSeller - withdrawn

Created by Lenovo Training Solutions  
Personal Systems Reference (PSREF)

Type-model	Processor	Speed GHz	Memory	Screen	Graphics controller	Disk GB <sup>5</sup>	Optical	Mini PCI Comm Bay wireless	CDC modem/Bluetooth™	Finger print reader	Security chip	Limited warranty <sup>12</sup>	Avail date
2378-DYU	Pentium® M 745	1.8	512MB	15.0" UXGA	FireGL	80GB	DVD-RW	11a/b/g Wi-Fi <sup>32</sup>	Mod/Blue		Yes	XP Pro 1-year	May 2004
2379-RKU	Pentium M 755	2.0	1GB	15.0" UXGA	FireGL	60GB	DVD-RW	Intel 11a/b/g <sup>32</sup>	Mod/Blue	Finger	Yes	XP Pro 3-year	Nov 2005
<ul style="list-style-type: none"> <li>• These small and medium business (SMB) models are part of the US TopSeller™ Program</li> <li>• The 2378 has a 1-year limited warranty; the 2379 has a 3-year limited warranty</li> </ul>													
Positioning Processor	Perfect balance of performance and portability; two-spindle system <b>Intel® Pentium® M Processor 745 (1.8GHz) or 755 (2.0GHz)</b> with Enhanced Intel SpeedStep™ technology <sup>1</sup> and 400MHz system bus										<b>SOFTWARE<sup>14</sup></b>		
L2 cache	2MB / on die (at processor speed) / ECC										<b>Windows XP Professional</b>		
Memory	512MB std / 2GB max <sup>7</sup> / PC2700 333MHz DDR1 (DDR-SDRAM) / non-parity / CL2.5 / two 200-pin SO-DIMM sockets / std memory in one socket / one socket available										- Microsoft® Windows® XP Professional <sup>20</sup> ↔ Disk-to-Disk Recovery (in hidden protected area)		
Diskette drive DVD-RW	None standard / use optional USB-based diskette drive CD-RW/DVD-RW Multi-Burner / writes to CD-R, CD-RW, DVD-RAM, DVD-R, DVD-RW / reads CD-ROM, CD-R, CD-RW, CD-Audio, DVD-ROM, DVD-R, DVD+R, DVD+RW, DVD-RW, DVD-Video, DVD-RAM / same as optional ThinkPad Multi-Burner Ultrabay Slim Drive Option / removable from Ultrabay™ Slim										<b>Preloaded</b>		
Ultrabay Slim Disk	One modular bay for interchangeable devices (right side) / 9.5mm high bay <b>60GB<sup>8</sup></b> (7200 rpm) or <b>80GB</b> (5400 rpm) / 9.5mm high / removable, upgradable / 9.5mm high bay / supports 2nd disk with optional HDD Adapter in Ultrabay Slim / <b>Hard Disk Drive Shock Absorber / Active Protection System™</b> (shock protection)										<ul style="list-style-type: none"> <li>• Access Program</li> <li>• Access Connections™</li> <li>• Rescue and Recovery™</li> <li>• RecordNOW and Drive Letter Access powered by Sonic products (DVD-RW)</li> <li>• InterVideo WinDVD (DVD-RW)</li> <li>• InterVideo WinDVD Creator (DVD-RW)</li> <li>• Norton AntiVirus (OEM edition)</li> <li>• PC-Doctor™</li> <li>• ThinkPad Utilities</li> <li>• Adobe® Reader</li> <li>• Update Connector™.15</li> </ul>		
Display	15.0" (381.0mm) <b>UXGA (1600x1200) TFT color</b> / Active Matrix / 200 nits / FlexView display with wide viewing angle and high density using IPS technology										<ul style="list-style-type: none"> <li>• IBM Director Agent</li> <li>• Software Delivery Assistant</li> <li>• System Migration Assistant</li> <li>• Client Security Software (for security chip)</li> </ul>		
Graphics Graphics external	<b>ATI® MOBILITY™ FireGL™ T2 / AGP 4X / 128MB</b> DDR1 / OpenGL® support External monitor support via analog DB-15 connector / up to 2048x1536 at 75Hz / DDC2B										<b>Downloadable</b>		
Keyboard	87-key / Access IBM button / palm rest / pitch: 19mm; stroke: 2.5mm (std-size keys)										<ul style="list-style-type: none"> <li>• IBM Director Agent</li> <li>• Software Delivery Assistant</li> <li>• System Migration Assistant</li> <li>• Client Security Software (for security chip)</li> </ul>		
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar <sup>13</sup> , magnifying glass												
Touch pad	UltraNav® multi-pointing system / touch pad below keyboard / Tap Zones												
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions												
Dimensions <sup>3</sup>	15.0" models (WxDxH): 13.0" x 10.6" x 1.2-1.4"; 329mm x 268mm x 31-36mm												
Weight <sup>2</sup>	with optical drive and battery: 5.9 lb (2.7kg)												
Case material	Magnesium composite in the top cover, titanium-reinforced CFRP in bottom cover												
Battery - type	Lithium Ion 6-cell / intelligent / supports unique 2nd battery in Ultrabay Slim												
Battery - life <sup>10</sup>	Up to 3.5 hr; <i>Optional 9-cell</i> : up to 5.7 hr; <i>9-cell plus Ultrabay Slim battery</i> : up to 7.7 hr										<b>License</b> (CD not included)		
Architecture	Intel 855PM chipset / 82855PM Memory Controller Hub (MCH-M) / 82801DBM ICH4-M I/O Controller Hub (ATA-100 EIDE, PCI bus, ethernet MAC, Low Pin Count [LPC] interface, USB, [Bluetooth]) / PCI bus 2.2 32-bit, 33MHz (TI® PCI4520A CardBus controller, Mini PCI, external expansion) / LPC bus 33MHz (security chip; PC87392 Super I/O for diskette, parallel, infrared, [docking-based ports])										- Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client		
PC Card Std slots	2 Type I, 2 Type II, or 1 Type III / CardBus 32-bit / integrated door												
Ports	Two USB (Version 2.0) / parallel / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / no keyboard or mouse or serial ports (use USB)										ThinkPad notebooks implement ThinkVantage™ technologies and design; visit <a href="http://thinkpad.com/thinkvantage">thinkpad.com/thinkvantage</a>		
Video out	S-video out port (TV out) / one 4-pin industry standard connector												
Wireless antenna	UltraConnect™ Antenna built into the display cover for optimal wireless signal reception												
Mini PCI	One Mini PCI type III slot (Communications Bay) / customer upgradable										Universal 72 watt AC adapter		
Intel 11a/b/g <sup>32</sup>	Some: 11a/b/g wireless <sup>4</sup> , Mini PCI, Intel PRO/Wireless 2915ABG, 82533 chipset										Asset ID™.34 (system-specific info in chip accessed over network)		
11a/b/g Wi-Fi <sup>32</sup>	Some: 11a/b/g Wi-Fi <sup>32</sup> wireless <sup>4</sup> , Mini PCI, Atheros™ AR5001X+ chipset										PC 2001-compliant		
CDC	One Communications Daughter Card (CDC) socket / customer accessible										ACPI 1.0b and 2.0-compliant		
Modem	56K <sup>6</sup> V.90 (V.92-designed <sup>29</sup> ) modem in CDC / Conexant® chipset										CIM and DMI 2.0-compliant		
Bluetooth™	Bluetooth wireless technology / in CDC (with modem)										PXE 2.0-compliant		
Ethernet	Gigabit ethernet on systemboard / Intel 82540EP chipset (MAC/PHY) / PXE										ENERGY STAR®-compliant		
Audio support	Soft audio / ICH AC97 controller / DirectSound® support / AD1981B AC97 codec / stereo speakers, 1 watt / volume up, down, mute buttons / internal mic / microphone input jack (3.5 mm; pink) / headphone jack (3.5 mm; green)										ImageUltra™ Services available		
Security	Power-on password / hard disk password / supervisor password / security keyhole										International Warranty Service <sup>17</sup>		
Security chip	<b>Embedded Security Subsystem 2.0<sup>33</sup></b> / hardware key storage / multi-factor authentication / local file encryption / Atmel® chip / TCG-compliant										24 hour x 7 day <sup>18</sup> toll-free warranty support during the warranty <sup>12</sup> via 800-IBM-SERV (426-7378)		
Fingerprint reader	Some: <b>Fingerprint reader on palm rest</b> / swipe sensor / integrated with security chip												
Limited warranty <sup>12</sup>	Some: <b>1-year</b> - EasyServ™.19 onsite pickup and delivery / service upgrades <sup>22</sup> avail Some: <b>3-year</b> - EasyServ onsite pickup and delivery / service upgrades avail										2378: ThinkPlus™.22 1yr LOR 9x5 NBD 41C9166		
256MB PC2700 DDR-SDRAM CL2.5 SOD	31P9830	ThinkPad T40/R50 Li-Ion Battery 6-cell	92P1101										
512MB PC2700 DDR-SDRAM CL2.5 SOD	31P9832	ThinkPad T40/R50 Li-Ion Battery 9-cell	92P1102										
1GB PC2700 DDR-SDRAM CL2.5 SOD	31P9834	Ultrabay Slim Li-Polymer Battery 3-cell	08K8190										
USB Portable Diskette Drive	05K9276	ThinkPad Multiple Battery Charger II	22P9040										
USB Serial Parallel Adapter	22P5298	72W Slim AC/DC Combo Adapter	73P4485										
USB Fingerprint Reader	73P4774	11a/b/g Wireless Mini PCI Adapter II	73P4301										
USB 2.0 Memory Key 1GB	40Y7421	Intel PRO/Wireless 2915ABG Mini PCI	41N2990										
USB 2.0 Super Multi-Burner Drive	40Y8638	Kensington® MicroSaver® Security Cable	73P2582										
CD-RW/DVD Combo II Ultrabay Slim Drive	73P3288	Lenovo M500 Projector	0037A05										
ThinkPad DVD-ROM Ultrabay Slim Drive	73P3270	ThinkVision® E500 Projector	0038A05										
Super Multi-Burner Ultrabay Slim Drv (curve)	40Y8622	Lenovo C500 Projector	0039A05										
Second HDD Adapter for Ultrabay Slim	41U3148	ThinkVision C400 Wireless Projector	0039WA1										
80GB HS Hard Disk 9.5mm (5400 rpm)	09N4273	ThinkPad Port Replicator II	74P6733										
Enh Perf Wireless Keyboard and Mouse	73P4067	ThinkPad Mini Dock	287810U										
USB Keyboard with UltraNav	31P8950	ThinkPad Dock II	287710U										
Preferred Pro USB Fingerprint Keyboard	73P4730	ThinkPad Monitor Stand 2001	22P5265										
ThinkPad Convertible Monitor Stand	40Y7620	Other options at <a href="http://lenovo.com/options">lenovo.com/options</a>											

See footnotes for important warranty information \* Powered by Intel Centrino™ mobile technology  
US models announced May 11, 2004 or November 15, 2005  
US models withdrawn effective May or October 2006

# ThinkPad® T42p (2379) - Express - withdrawn

Created by Lenovo Training Solutions  
Personal Systems Reference (PSREF)

Type-model	Processor	Speed GHz	Memory	Screen	Graphics controller	Disk GB <sup>8</sup>	Optical	Mini PCI Comm Bay wireless	CDC modem/ Bluetooth™	Security chip	Workhorse (W) Global (G) Limited warranty <sup>12</sup>	Avail date
2379-DYU	Pentium® M	745	1.8	512MB	15.0" UXGA	FireGL 80HS	DVD-RW	11a/b/g Wi-Fi <sup>32</sup>	Mod/Blue	Yes	XP Pro No	3 year May 2004
<ul style="list-style-type: none"> <li>• <b>These small and medium business (SMB) models are part of the US Think Express Program</b></li> <li>• <b>The 2379 has a 3 year limited warranty (other ThinkPad T42p 2378 Express models have a 1 year limited warranty)</b></li> </ul>												
Positioning Processor	<b>Perfect balance of performance and portability; two-spindle system</b> <b>Intel® Pentium® M Processor 745 (1.8GHz)</b> with enhanced Intel SpeedStep™ technology <sup>1</sup> and 400MHz system bus											
L2 cache	<b>2MB</b> / on die (at processor speed) / ECC											
Memory	<b>512MB</b> std / 2GB max <sup>7</sup> / PC2700 333MHz DDR1 (DDR-SDRAM) / non-parity / CL2.5 / two 200-pin SO-DIMM sockets / std memory in one socket / one socket available											
Diskette drive	None standard / use optional USB-based diskette drive											
DVD-RW	CD-RW/DVD-RW Multi-Burner / writes to CD-R, CD-RW, DVD-RAM, DVD-R, DVD-RW / reads CD-ROM, CD-R, CD-RW, CD-Audio, DVD-ROM, DVD-R, DVD+R, DVD+RW, DVD-RW, DVD-Video, DVD-RAM / same as optional ThinkPad Multi-Burner Ultrabay Slim Drive Option / removably from Ultrabay™ Slim											
Ultrabay Slim Disk	One modular bay for interchangeable devices (right side) / 9.5mm high bay <b>80GB<sup>8</sup> HS</b> (5400 rpm) / 9.5mm high / removable, upgradable / 9.5mm high bay / supports 2nd disk with optional HDD Adapter in Ultrabay Slim / <b>Hard Disk Drive Shock Absorber / Active Protection System</b> (shock protection)											
Display	<b>15.0"</b> (381.0mm) <b>UXGA (1600x1200) TFT color</b> / Active Matrix / 200 nits / FlexView display with wide viewing angle and high density using IPS technology											
Graphics	<b>ATI® MOBILITY™ FireGL™ T2 / AGP 4X / 128MB</b> DDR1 / OpenGL® support											
Graphics external	External monitor support via analog DB-15 connector / up to 2048x1536 at 75Hz / DDC2B											
Keyboard	87-key / Access IBM button / palm rest / pitch: 19mm; stroke: 2.5mm (std-size keys)											
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar <sup>13</sup> , magnifying glass /											
Touch pad	UltraNav™ multi-pointing system / touch pad below keyboard / Tap Zones											
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions											
Dimensions <sup>3</sup>	15.0" models (WxDxH): 13.0" x 10.6" x 1.2-1.4"; 329mm x 268mm x 31-36mm											
Weight <sup>2</sup>	with optical drive and battery: 5.9 lb (2.7kg)											
Case material	Magnesium composite in the top cover, titanium-reinforced CFRP in bottom cover											
Battery - type	Lithium Ion 6-cell / intelligent / supports unique 2nd battery in Ultrabay Slim											
Battery - life <sup>10</sup>	Up to 3.5 hr; <i>Optional 9-cell</i> : up to 5.7 hr; <i>9-cell plus Ultrabay Slim battery</i> : up to 7.7 hr											
Architecture	<b>Intel 855PM</b> chipset / 82855PM Memory Controller Hub (MCH-M) / 82801DBM ICH4-M I/O Controller Hub (ATA-100 EIDE, PCI bus, ethernet MAC, Low Pin Count [LPC] interface, USB, [Bluetooth]) / PCI bus 2.2 32-bit, 33MHz (TI® PCI4520A CardBus controller, Mini PCI, external expansion) / LPC bus 33MHz (security chip; PC87392 Super I/O for diskette, parallel, infrared, [docking-based ports]) 2 Type I, 2 Type II, or 1 Type III / CardBus 32-bit / integrated door											
PC Card Std slots	Two USB (Version 2.0) / parallel / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / no keyboard or mouse or serial ports (use USB)											
Ports												
Video out	S-video out port (TV out) / one 4-pin industry standard connector											
Wireless antenna	UltraConnect™ Antenna built into the display cover for optimal wireless signal reception											
Mini PCI	One Mini PCI type III slot (Communications Bay) / customer upgradable											
11a/b/g Wi-Fi <sup>32</sup>	11a/b/g Wi-Fi <sup>32</sup> wireless <sup>4</sup> , Mini PCI, Atheros™ AR5001X+ chipset											
CDC	One Communications Daughter Card (CDC) socket / customer accessible											
Modem	56K <sup>6</sup> V.90 (V.92-designed <sup>29</sup> ) modem in CDC / Conexant® chipset											
Bluetooth™	Bluetooth wireless technology / in CDC (with modem)											
Ethernet	Gigabit ethernet on systemboard / Intel 82540EP chipset (MAC/PHY) / PXE											
Audio support	Soft audio / ICH AC97 controller / DirectSound® support / AD1981B AC97 codec / stereo speakers / 1 watt / volume up, down, mute buttons / internal mic / microphone input jack (3.5 mm; pink) / headphone jack (3.5 mm; green)											
Security	Power-on password / hard disk password / supervisor password / security keyhole											
Security chip	<b>Embedded Security Subsystem 2.0<sup>33</sup></b> / hardware key storage / multi-factor authentication / local file encryption / Atmel® chip / TCG-compliant											
Limited warranty <sup>12</sup>	<b>3 years/1 yr battery - EasyServ™.19</b> onsite pickup and delivery / service upgrades <sup>22</sup> avail											
128MB PC2700 DDR-SDRAM CL2.5 SOD	31P9828	ThinkPad T40 Li-Ion Battery 6-cell	08K8214									
256MB PC2700 DDR-SDRAM CL2.5 SOD	31P9830	T40 High Capacity Li-Ion Battery 9-cell	08K8197									
512MB PC2700 DDR-SDRAM CL2.5 SOD	31P9832	Ultrabay Slim Li-Polymer Battery 3-cell	08K8190									
1GB PC2700 DDR-SDRAM CL2.5 SOD	31P9834	ThinkPad Multiple Battery Charger II	22P9040									
USB Portable Diskette Drive	05K9276	ThinkPad 72W AC Adapter	02K6699									
USB Serial Parallel Adapter	22P5298	ThinkPad 72W AC/DC Combo Adapter	22P9010									
USB 2.0 Combo Drive	73P4515	11a/b/g Wireless CardBus Adapter	31P9101									
USB 2.0 Portable Multi-Burner Drive	22P9163	11a/b/g Wireless Mini PCI Adptr II	73P4301									
USB 2.0 Memory Key 512MB	22P9230	SonyEricsson® GC83 EDGE PC Card	26K3393									
CD-RW/DVD Combo II Ultrabay Slim Drive	73P3288	Intel PRO/Wireless 2200BG Mini PCI	73P2801									
ThinkPad DVD-ROM Ultrabay Slim Drive	73P3270	Kensington® MicroSaver® Security Cable	73P2582									
Multi-Burner Plus Ultrabay Slim Drive	73P3342	M400 Projector	0037A04									
Second HDD Adapter for Ultrabay Slim	62P4554	E400 Projector	0038A04									
60GB HS Hard Disk 9.5mm (5400 rpm)	73P3357	C400 Projector	0039A04									
80GB HS Hard Disk 9.5mm (5400 rpm)	09N4273	GemPC400 Smart Card Reader/Writer	31P8901									
ThinkPad Carrying Case - Backpack	73P3599	ThinkPad Port Replicator II	74P6733									
ThinkPad Carrying Case - Leather	73P3600	ThinkPad Mini Dock	287810U									
ThinkPad Carrying Case - Organizer	73P3598	ThinkPad Dock II	287710U									
4GB Microdrive™ with PC Card	09N4280	ThinkPad Monitor Stand 2001	22P5265									
USB Keyboard with UltraNav	31P8950	TrackPoint Cap Collection	73P2698									
USB Travel Keyboard with UltraNav	31P9490	Other options at <a href="http://lenovo.com/options">lenovo.com/options</a>										

**SOFTWARE<sup>14</sup>**

**Windows XP Professional**

- Microsoft® Windows® XP Professional<sup>20</sup>
- ↳ Disk-to-Disk Recovery (in hidden protected area)

**Preloaded**

- Access IBM
- Access Connections
- Rescue and Recovery™
- RecordNOW and Drive Letter Access powered by Sonic products (DVD-RW)
- InterVideo WinDVD (DVD-RW)
- InterVideo WinDVD Creator (DVD-RW)
- Norton AntiVirus (OEM edition)
- PC-Doctor™
- ThinkPad Utilities
- Adobe Reader
- Update Connector™.15

**Downloadable**

- IBM Director Agent
- Software Delivery Assistant
- System Migration Assistant
- Client Security Software (for security chip)

**License** (CD not included)

- Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client

ThinkPad notebooks implement ThinkVantage™ technologies and design; visit [thinkpad.com/thinkvantage](http://thinkpad.com/thinkvantage)

Universal 72 watt AC adapter Asset ID™.34 (system-specific info in chip accessed over network)

PC 2001-compliant ACPI 1.0b and 2.0-compliant CIM and DMI 2.0-compliant PXE 2.0-compliant ENERGY STAR®-compliant ImageUltra™ Services available International Warranty Service<sup>17</sup>

24 hour x 7 day<sup>18</sup> toll-free warranty support during the warranty<sup>12</sup> via 800-IBM-SERV (426-7378)

ServicePac®.22 2yr IOR 9x5 NBD 30L9190

ServicePac 3yr IOR 9x5 NBD 30L9197

ServicePac 4yr IOR 9x5 NBD 69P9198

ServicePac 5yr IOR 9x5 NBD 69P9200

ServicePac 4yr P&L P/U Depot 69P9199

ServicePac 5yr P&L P/U Depot 69P9201

Post-warranty annual maintenance agreements at [ibm.com/services/its/us/source/maspspleu.pdf](http://ibm.com/services/its/us/source/maspspleu.pdf)

See footnotes for important warranty information  
US model announced May 11, 2004  
US model withdrawn effective August 2005

\* Powered by Intel Centrino™ mobile technology

# ThinkPad® T42p (2373) - Education - withdrawn

Created by Lenovo Training Solutions  
Personal Systems Reference (PSREF)

Type-model	Processor	Speed GHz	Memory	Screen	Graphics controller	Disk GB <sup>6</sup>	Optical	Mini PCI Comm Bay wireless	CDC modem/Bluetooth™	Security chip	Preload	Limited warranty <sup>12</sup>	Avail date
2373-7XU	Pentium® M 745	1.8	512MB	15.0" UXGA	FireGL	80HS	DVD-RW	*Intel 11b/g <sup>32</sup>	Modem	Yes	XP Pro	EasyServ	May 2004

• **The 2373 has an EasyServ™,<sup>19</sup> onsite pickup and delivery 3-year limited warranty**

These educational models of the ThinkPad notebook are available only to public or private K-12 (or higher) accredited schools organized and operated exclusively for educational purposes for use by qualified students and/or teachers.

Positioning Processor	Perfect balance of performance and portability; two-spindle system												
L2 cache	Intel® Pentium® M Processor 745 (1.8GHz) with Enhanced Intel SpeedStep™ technology <sup>1</sup> and 400MHz system bus												
Memory	2MB / on die (at processor speed) / ECC 512MB std / 2GB max <sup>7</sup> / PC2700 333MHz DDR1 (DDR-SDRAM) / non-parity / CL2.5 / two 200-pin SO-DIMM sockets / standard memory in one socket / one socket available												
Diskette drive	None standard / use optional USB-based diskette drive												
DVD-RW	CD-RW/DVD-RW Multi-Burner / writes to CD-R, CD-RW, DVD-RAM, DVD-R, DVD-RW / reads CD-ROM, CD-R, CD-RW, CD-Audio, DVD-ROM, DVD-R, DVD+R, DVD+RW, DVD-RW, DVD-Video, DVD-RAM / removable from Ultrabay™ Slim												
Ultrabay Slim Disk	One modular bay for interchangeable devices (right side) / 9.5mm high bay 80GB <sup>8</sup> HS (5400 rpm) / 9.5mm high / removable, upgradable / 9.5mm high bay / supports 2nd disk with optional HDD Adapter in Ultrabay Slim / <b>Hard Disk Drive Shock Absorber / Active Protection System™</b>												
Display	15.0" (381.0mm) UXGA (1600x1200) TFT color / Active Matrix / 200 nits / FlexView display with wide viewing angle and high density using IPS technology												
Graphics	ATI® MOBILITY™ FireGL™ T2 / AGP 4X / 128MB DDR1 / OpenGL® support												
Graphics external	External monitor support via analog DB-15 connector / up to 2048x1536x16.7M / DDC2B												
Keyboard	87-key / Access IBM button / palm rest / pitch: 19mm; stroke: 2.5mm (std-size keys)												
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar <sup>13</sup> , magnifying glass												
Touch pad	UltraNav® multi-pointing system / touch pad below keyboard / Tap Zones												
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions												
Dimensions <sup>3</sup>	15.0" models (WxDxH): 13.0" x 10.6" x 1.2-1.4"; 329mm x 268mm x 31-36mm												
Weight <sup>2</sup>	with optical drive and battery: 5.9 lb (2.7kg)												
Case material	Magnesium composite in the top cover, titanium-reinforced CFRP in bottom cover												
Battery - type	Lithium Ion 6-cell / intelligent / supports unique 2nd battery in Ultrabay Slim												
Battery - life <sup>10</sup>	Up to 3.5 hr; <i>Optional 9-cell</i> : up to 5.7 hr; <i>9-cell plus Ultrabay Slim battery</i> : up to 7.7 hr												
Architecture	Intel 855PM chipset / 82855PM Memory Controller Hub (MCH-M) / 82801DBM ICH4-M I/O Controller Hub (ATA-100 EIDE, PCI bus, ethernet MAC, Low Pin Count [LPC] interface, USB, [Bluetooth]) / PCI bus 2.2 32-bit, 33MHz (TI® PCI4520A CardBus controller, Mini PCI, external expansion) / LPC bus 33MHz (security chip; PC87392 Super I/O for diskette, parallel, infrared, [docking-based ports])												
PC Card Std slots	2 Type I, 2 Type II, or 1 Type III / CardBus 32-bit / integrated door												
Ports	Two USB (Version 2.0) / parallel / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / no keyboard or mouse or serial ports (use USB)												
Video out	S-video out port (TV out) / one 4-pin industry standard connector												
Wireless antenna	UltraConnect™ Antenna built into the display cover for optimal wireless signal reception												
Mini PCI	One Mini PCI type III slot (Communications Bay) / customer upgradable												
Intel 11b/g <sup>32</sup>	11b/g wireless <sup>4</sup> , Mini PCI, Intel PRO/Wireless 2200BG, Intel 82532 chipset												
CDC	One Communications Daughter Card (CDC) socket / customer accessible												
Modem	56K <sup>6</sup> V.90 (V.92-designed <sup>29</sup> ) modem in CDC / Conexant® chipset												
Bluetooth™	None												
Ethernet	Gigabit ethernet on systemboard / Intel 82540EP chipset (MAC/PHY) / PXE												
Audio support	Soft audio / ICH AC97 controller / DirectSound™ support / AD1981B AC97 codec / stereo speakers, 1 watt / volume up, down, mute buttons / internal mic / microphone input jack (3.5 mm; pink) / headphone jack (3.5 mm; green)												
Security	Power-on password / hard disk password / supervisor password / security keyhole												
Security chip	<b>Embedded Security Subsystem 2.0<sup>33</sup></b> / hardware key storage / multi-factor authentication / local file encryption / Atmel® chip / TCG-compliant												
Limited warranty <sup>12</sup>	3-year/1-yr battery - EasyServ™, <sup>19</sup> onsite pickup and delivery / service upgrades <sup>22</sup> avail												
256MB PC2700 DDR-SDRAM CL2.5 SOD	31P9830	ThinkPad T40/R50 Li-Ion Battery 6-cell	92P1101										
512MB PC2700 DDR-SDRAM CL2.5 SOD	31P9832	ThinkPad T40/R50 Li-Ion Battery 9-cell	92P1102										
1GB PC2700 DDR-SDRAM CL2.5 SOD	31P9834	Ultrabay Slim Li-Polymer Battery 3-cell	08K8190										
USB Portable Diskette Drive	05K9276	ThinkPad Multiple Battery Charger II	22P9040										
USB Gemplus GemPC Smart Card Reader	41N3040	ThinkPad 72W AC Adapter	02K6699										
USB 2.0 CD-RW/DVD-ROM Combo II Drive	40Y8637	72W Slim AC/DC Combo Adapter	73P4485										
USB 2.0 Memory Key 1GB	40Y7421	11a/b/g Wireless Mini PCI Adapter II	73P4301										
CD-RW/DVD Combo II Ultrabay Slim Drive	73P3288	Intel PRO/Wireless 2915ABG Mini PCI	41N2990										
Super Multi-Burner Ultrabay Slim Drv (curve)	40Y8622	SonyEricsson® GC83 EDGE PC Card	26K3393										
Second HDD Adapter for Ultrabay Slim	62P4554	Kensington® MicroSaver™ Security Cable	73P2582										
40GB HS Hard Disk 9.5mm (5400 rpm)	08K9816	Lenovo M500 Projector	0037A05										
60GB HS Hard Disk 9.5mm (5400 rpm)	73P3357	ThinkVision® E500 Projector	0038A05										
80GB HS Hard Disk 9.5mm (5400 rpm)	09N4273	ThinkVision L201p 20.1" Monitor (black)	9320HB1										
ThinkPad Premiere Leather Carrying Case	10K0209	Gemplus GemPC Smart Card Reader	41N3004										
ThinkPad Carrying Case - Backpack	73P3599	ThinkPad Port Replicator II	74P6733										
ThinkPad Carrying Case - Organizer	73P3598	ThinkPad Mini Dock	287810U										
Enh Perf Wireless Keyboard and Mouse	73P4067	ThinkPad Dock II	287710U										
TrackPoint Cap Collection	73P2698	ThinkPad Monitor Stand	22P5265										
ThinkPad Convertible Monitor Stand	40Y7620	Other options at <a href="http://lenovo.com/options">lenovo.com/options</a>											

SOFTWARE <sup>14</sup>	
<b>Windows XP Professional</b>	- Microsoft® Windows® XP Professional <sup>20</sup> ↔ Disk-to-Disk Recovery (in hidden protected area)
<b>Preloaded</b>	<ul style="list-style-type: none"> <li>• Education software from Vital Source Technologies®: vItalsource KEY™ and Personal Portable library™</li> <li>• Access Program</li> <li>• Access Connections™</li> <li>• Rescue and Recovery™</li> <li>• RecordNOW and Drive Letter Access powered by Sonic products (DVD-RW models)</li> <li>• InterVideo WinDVD (DVD-RW)</li> <li>• InterVideo WinDVD Creator (DVD-RW models)</li> <li>• Norton AntiVirus (OEM edition)</li> <li>• PC-Doctor™</li> <li>• ThinkPad Utilities</li> <li>• Adobe® Reader</li> <li>• Update Connector™.15</li> </ul>
<b>Downloadable</b>	<ul style="list-style-type: none"> <li>• IBM Director Agent</li> <li>• Software Delivery Assistant</li> <li>• System Migration Assistant</li> <li>• Client Security Software (for security chip)</li> </ul>
<b>License (CD not included)</b>	- Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client

ThinkPad notebooks implement ThinkVantage™ technologies and design; visit <a href="http://thinkpad.com/thinkvantage">thinkpad.com/thinkvantage</a>
Universal 72 watt AC adapter Asset ID™.34 (system-specific info in chip accessed over network) PC 2001-compliant ACPI 1.0b and 2.0-compliant CIM and DMI 2.0-compliant PXE 2.0-compliant ENERGY STAR®-compliant ImageUltra™ Services available International Warranty Service <sup>17</sup> 24 hour x 7 day <sup>18</sup> toll-free warranty support during the warranty <sup>12</sup> via 800-IBM-SERV (426-7378)
ThinkPlus™.22 2-year LOR 9x5 NBD 41C9175
ThinkPlus 3-year LOR 9x5 NBD 41C9176
ThinkPlus 4-year LOR 9x5 NBD 41C9177
ThinkPlus 5-year LOR 9x5 NBD 41C9179
ThinkPlus 4-year P&L P/U Depot 41C9178
ThinkPlus 5-year P&L P/U Depot 41C9180
Post-warranty annual maintenance agreements at <a href="http://lenovo.com/thinkplus/warranty">lenovo.com/thinkplus/warranty</a>

See footnotes for important warranty information  
US model announced May 11, 2004  
US model withdrawn effective May 2006

\* Powered by Intel Centrino® mobile technology

# ThinkPad® T42p (2374) - Education - withdrawn

Created by Lenovo Training Solutions  
Personal Systems Reference (PSREF)

Type-model	Processor	Speed GHz	Memory	Screen	Graphics controller	Disk GB <sup>8</sup>	Optical	Mini PCI Comm Bay wireless	CDC modem/Bluetooth™	Security chip	Preload	Limited warranty <sup>12</sup>	Avail date
2374-7XU	Pentium® M 745	1.8	512MB	15.0" UXGA	FireGL	80HS	DVD-RW	*Intel 11b/g <sup>32</sup>	Modem	Yes	XP Pro	Onsite	May 2004

**• This model has a limited onsite service<sup>24</sup> 3-year limited warranty**

These educational models of the ThinkPad notebook are available only to public or private K-12 (or higher) accredited schools organized and operated exclusively for educational purposes for use by qualified students and/or teachers.

This model for education is for sale direct from Lenovo or through an Authorized Education Reseller. The model or models for education are not available for resale to any other organization or individual.

Positioning Processor	<i>Perfect balance of performance and portability; two-spindle system</i> <b>Intel® Pentium® M Processor 745 (1.8GHz)</b> with Enhanced Intel SpeedStep™ technology <sup>1</sup> and 400MHz system bus										<b>SOFTWARE<sup>14</sup></b>		
L2 cache	<b>2MB</b> / on die (at processor speed) / ECC										<b>Windows XP Professional</b>		
Memory	<b>512MB</b> std / <b>2GB</b> max <sup>7</sup> / PC2700 333MHz DDR1 (DDR-SDRAM) / non-parity / CL2.5 / two 200-pin SO-DIMM sockets / standard memory in one socket / one socket available										- Microsoft® Windows® XP Professional <sup>20</sup> ↔ Disk-to-Disk Recovery (in hidden protected area)		
Diskette drive	None standard / use optional USB-based diskette drive										<b>Preloaded</b>		
DVD-RW	CD-RW/DVD-RW Multi-Burner / writes to CD-R, CD-RW, DVD-RAM, DVD-R, DVD-RW / reads CD-ROM, CD-R, CD-RW, CD-Audio, DVD-ROM, DVD-R, DVD+R, DVD+RW, DVD-RW, DVD-Video, DVD-RAM / removable from Ultrabay™ Slim										• Education software from Vital Source Technologies®: vitalsource KEY™ and Personal Portable library™		
Ultrabay Slim Disk	One modular bay for interchangeable devices (right side) / 9.5mm high bay <b>80GB<sup>8</sup> HS</b> (5400 rpm) / 9.5mm high / removable, upgradable / 9.5mm high bay / supports 2nd disk with optional HDD Adapter in Ultrabay Slim / <b>Hard Disk Drive Shock Absorber / Active Protection System™</b> (shock protection)										• Access Program • Access Connections™ • Rescue and Recovery™ • RecordNOW and Drive Letter Access powered by Sonic products (DVD-RW models) • InterVideo WinDVD (DVD-RW) • InterVideo WinDVD Creator (DVD-RW models) • Norton AntiVirus (OEM edition) • PC-Doctor™ • ThinkPad Utilities • Adobe® Reader • Update Connector™ <sup>15</sup>		
Display	<b>15.0"</b> (381.0mm) <b>UXGA (1600x1200) TFT color</b> / Active Matrix / 200 nits / FlexView display with wide viewing angle and high density using IPS technology										<b>Downloadable</b>		
Graphics	<b>ATI® MOBILITY™ FireGL™ T2 / AGP 4X / 128MB</b> DDR1 / OpenGL® support										• IBM Director Agent • Software Delivery Assistant • System Migration Assistant • Client Security Software (for security chip)		
Graphics external	External monitor support via analog DB-15 connector / up to 2048x1536x16.7M / DDC2B										<b>License</b> (CD not included) - Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client		
Keyboard	87-key / Access IBM button / palm rest / pitch: 19mm; stroke: 2.5mm (std-size keys)												
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar <sup>13</sup> , magnifying glass												
Touch pad	UltraNav® multi-pointing system / touch pad below keyboard / Tap Zones												
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions												
Dimensions <sup>3</sup>	<b>15.0" models (WxDxH):</b> 13.0" x 10.6" x 1.2-1.4"; 329mm x 268mm x 31-36mm												
Weight <sup>2</sup>	with optical drive and battery: 5.9 lb (2.7kg)												
Case material	Magnesium composite in the top cover, titanium-reinforced CFRP in bottom cover												
Battery - type	Lithium Ion 6-cell / intelligent / supports unique 2nd battery in Ultrabay Slim												
Battery - life <sup>10</sup>	Up to 3.5 hr; <i>Optional 9-cell:</i> up to 5.7 hr; <i>9-cell plus Ultrabay Slim battery:</i> up to 7.7 hr												
Architecture	<b>Intel 855PM</b> chipset / 82855PM Memory Controller Hub (MCH-M) / 82801DBM ICH4-M I/O Controller Hub (ATA-100 EIDE, PCI bus, ethernet MAC, Low Pin Count [LPC] interface, USB, [Bluetooth]) / PCI bus 2.2 32-bit, 33MHz (TI® PC14520A CardBus controller, Mini PCI, external expansion) / LPC bus 33MHz (security chip; PC87392 Super I/O for diskette, parallel, infrared, [docking-based ports])												
PC Card Std slots	2 Type I, 2 Type II, or 1 Type III / CardBus 32-bit / integrated door												
Ports	Two USB (Version 2.0) / parallel / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / no keyboard or mouse or serial ports (use USB)												
Video out	S-video out port (TV out) / one 4-pin industry standard connector												
Wireless antenna	UltraConnect™ Antenna built into the display cover for optimal wireless signal reception												
Mini PCI	One Mini PCI type III slot (Communications Bay) / customer upgradable												
Intel 11b/g <sup>32</sup>	11b/g wireless <sup>4</sup> , Mini PCI, Intel PRO/Wireless 2200BG, Intel 82532 chipset												
CDC	One Communications Daughter Card (CDC) socket / customer accessible												
Modem	56K <sup>6</sup> V.90 (V.92-designed <sup>29</sup> ) modem in CDC / Conexant® chipset												
Bluetooth™	None												
Ethernet	Gigabit ethernet on systemboard / Intel 82540EP chipset (MAC/PHY) / PXE												
Audio support	Soft audio / ICH AC97 controller / DirectSound® support / AD1981B AC97 codec / stereo speakers, 1 watt / volume up, down, mute buttons / internal mic / microphone input jack (3.5 mm; pink) / headphone jack (3.5 mm; green)												
Security	Power-on password / hard disk password / supervisor password / security keyhole												
Security chip	<b>Embedded Security Subsystem 2.0<sup>33</sup></b> / hardware key storage / multi-factor authentication / local file encryption / Atmel® chip / TCG-compliant										ThinkPad notebooks implement ThinkVantage™ technologies and design; visit <a href="http://thinkpad.com/thinkvantage">thinkpad.com/thinkvantage</a>		
Limited warranty <sup>12</sup>	<b>3-year/1-year battery, limited onsite service<sup>24</sup></b> , 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time												
256MB PC2700 DDR-SDRAM CL2.5 SOD	31P9830	ThinkPad T40/R50 Li-Ion Battery 6-cell	92P1101	Universal 72 watt AC adapter									
512MB PC2700 DDR-SDRAM CL2.5 SOD	31P9832	ThinkPad T40/R50 Li-Ion Battery 9-cell	92P1102	Asset ID™ <sup>34</sup> (system-specific info in chip accessed over network)									
1GB PC2700 DDR-SDRAM CL2.5 SOD	31P9834	Ultrabay Slim Li-Polymer Battery 3-cell	08K8190	PC 2001-compliant									
USB Portable Diskette Drive	05K9276	ThinkPad Multiple Battery Charger II	22P9040	ACPI 1.0b and 2.0-compliant									
USB Gemplus GemPC Smart Card Reader	41N3040	72W Slim AC/DC Combo Adapter	73P4485	CIM and DMI 2.0-compliant									
USB 2.0 CD-RW/DVD-ROM Combo II Drive	40Y8637	11a/b/g Wireless Mini PCI Adptr II	73P4301	PXE 2.0-compliant									
USB 2.0 Memory Key 1GB	40Y7421	Intel PRO/Wireless 2915ABG Mini PCI	41N2990	ENERGY STAR®-compliant									
CD-RW/DVD Combo II Ultrabay Slim Drive	73P3288	Kensington® MicroSaver® Security Cable	73P2582	ImageUltra™ Services available									
Super Multi-Burner Ultrabay Slim Drv (curve)	40Y8622	Lenovo M500 Projector	0037A05	International Warranty Service <sup>17</sup>									
Second HDD Adapter for Ultrabay Slim	62P4554	ThinkVision® E500 Projector	0038A05	24 hour x 7 day <sup>18</sup> toll-free warranty support during the warranty <sup>12</sup> via 800-IBM-SERV (426-7378)									
60GB HS Hard Disk 9.5mm (5400 rpm)	73P3357	ThinkVision C400 Wireless Projector	0039WA1										
80GB HS Hard Disk 9.5mm (5400 rpm)	09N4273	ThinkVision L201p 20.1" Monitor (black)	9320HB1										
100GB Hard Disk 9.5mm PATA (5400 rpm)	40Y8716	ThinkPad Port Replicator II	74P6733										
ThinkPad Carrying Case - Leather	73P3600	ThinkPad Mini Dock	287810U										
Enhanced Performance USB Keyboard	73P2620	ThinkPad Dock II	287710U										
TrackPoint Cap Collection	73P2698	ThinkPad Monitor Stand	22P5265	Post-warranty annual maintenance agreements at <a href="http://lenovo.com/thinkplus/warranty">lenovo.com/thinkplus/warranty</a>									
ThinkPad Convertible Monitor Stand	40Y7620	Other options at <a href="http://lenovo.com/options">lenovo.com/options</a>											

See footnotes for important warranty information  
US model announced May 11, 2004  
US model withdrawn effective May 2006

\* Powered by Intel Centrino® mobile technology

© Lenovo  
(2374P) April 2006



# ThinkPad® T43 (Entry) - withdrawn

Created by Lenovo Training Solutions  
Personal Systems Reference (PSREF)

Type-model	Processor	Speed GHz	Memory	Screen	Graphics controller memory	Disk GB <sup>8</sup>	Optical	Mini PCI Comm Bay wireless	CDC modem/Bluetooth™	Finger print reader	Security chip	Workhorse (W) or Global (G) Avail or Entry (E) date
1871-11U	Pentium® M 730	1.60	256MB	14.1" XGA	GMA 900	40HS	DVD	* Intel 11b/g <sup>32</sup>	Modem	No	Yes	XP Pro Entry Feb 05
1871-12U	Pentium M 730	1.60	256MB	14.1" XGA	GMA 900	40HS	Combo	* Intel 11b/g	Modem	No	Yes	XP Pro Entry Feb 05
1871-13U	Pentium M 730	1.60	256MB	14.1" XGA	GMA 900	40HS	Combo	* Intel 11b/g	Modem	Finger	Yes	XP Home Entry Feb 05
1871-16U	Pentium M 730	1.60	256MB	14.1" XGA	GMA 900	40HS	Combo	* Intel 11b/g	Modem	Finger	Yes	XP Pro Entry Feb 05
1871-22U	Pentium M 730	1.60	256MB	15.0" XGA	GMA 900	40HS	Combo	* Intel 11b/g	Modem	No	Yes	XP Pro Entry Feb 05
1871-24U	Pentium M 730	1.60	256MB	15.0" XGA	GMA 900	40HS	Combo	* Intel 11b/g	Modem	Finger	Yes	XP Pro Entry Feb 05
Positioning Processor	<i>Perfect balance of performance and portability; two-spindle system</i>											
L2 cache	<b>Intel® Pentium® M Processor 730 (1.60GHz)</b> with enhanced Intel SpeedStep™ technology <sup>1</sup> , Execute Disable Bit, and 533MHz system bus											
Memory	<b>2MB</b> / on die (at processor speed) / ECC <b>256MB</b> std / 2GB max <sup>7</sup> / PC2-4200 533MHz DDR2 / non-parity / CL4 / dual channel capable / two 200-pin SO-DIMM sockets / std mem in one socket / one socket available											
Diskette drive	None standard / use optional USB-based diskette drive											
DVD	<i>Some:</i> DVD-ROM / 24X-8X <sup>9</sup> speed / single-layer / removable from Ultrabay™ Slim											
Combo	<i>Some:</i> DVD-ROM/CD-RW / 24X/24X/24X/8X <sup>21</sup> speed / removable from Ultrabay Slim											
Ultrabay Slim	One modular bay for interchangeable devices (right side) / 9.5mm high bay											
Disk	<b>40GB<sup>8</sup> HS</b> (5400 rpm) / 9.5mm high / removable, upgradable / 9.5mm high bay / supports 2nd disk / <b>Hard Disk Drive Shock Absorber</b> / <b>Active Protection System™</b>											
Display	<i>Some:</i> <b>14.1"</b> (358.1mm) <b>XGA (1024x768) TFT color</b> / Active Matrix / 150 nits <i>Some:</i> <b>15.0"</b> (381.0mm) <b>XGA (1024x768) TFT color</b> / Active Matrix / 200 nits											
Graphics	<b>Intel Graphics Media Accelerator 900 (GMA 900)</b> / integrated graphics in 915GM GMCH / uses main memory (up to 128MB with 256MB+) / 200MHz											
Keyboard	87-key / Access IBM button / palm rest / pitch: 19mm; stroke: 2.5mm (std-size keys)											
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar <sup>13</sup> , magnifying glass /											
Touch pad	UltraNav® multi-pointing system / touch pad below keyboard / Tap Zones											
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions											
Dimensions <sup>3</sup>	<b>14.1" models (WxDxH):</b> 12.2" x 10.0" x 1.0-1.2"; 311mm x 255mm x 26.6-31.4mm <b>15.0" models (WxDxH):</b> 13.0" x 10.6" x 1.2-1.4"; 329mm x 268mm x 31-36mm											
Weight <sup>2</sup>	with optical drive and battery: <b>14.1" models:</b> up to 5.1 lb (2.3kg); <b>15":</b> up to 5.8 lb (2.6 kg)											
Case material	Magnesium composite in the top cover, titanium-reinforced CFRP in bottom cover											
Battery - type	Lithium Ion <b>6-cell</b> / intelligent / supports unique 2nd battery in Ultrabay Slim											
Battery - life <sup>10</sup>	Up to 4.0 hr; <i>Optional 9-cell:</i> up to 5.9 hr; <i>9-cell plus Ultrabay Slim battery:</i> up to 7.7 hr											
Architecture	<b>Mobile Intel 915GM Express Chipset</b> / 82915GM Graph Mem Cont Hub (GMCH-M) / 82801FBM ICH6-M I/O Controller Hub (SATA150, ATA-100 EIDE, PCI Express x1, PCI bus, ethernet MAC, USB, Low Pin Count [LPC] interface, [Bluetooth], [fingerprint]) / PCI bus (TI® PCI1510 CardBus controller, Mini PCI, external expansion) / LPC bus (National Semiconductor® PC8394T Super I/O for security chip (TPM), Asset ID, hardware event log, parallel, infrared, [docking-based ports (serial, diskette)])											
PC Card Std slot	One Type I or Type II slot / CardBus 32-bit / integrated door											
ExpressCard slot	One ExpressCard/34 or ExpressCard/54 / PCI Express x1 or USB 2.0 / integrated door											
Ports	Two USB (Version 2.0) / parallel / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / no keyboard or mouse or serial ports (use USB)											
Video out	S-video out port (TV out) / one 4-pin industry standard connector											
Wireless antenna	UltraConnect™ Antenna built into the display cover for optimal wireless signal reception											
Mini PCI	One Mini PCI type III slot (Communications Bay) / customer upgradable											
Intel 11b/g <sup>32</sup>	11b/g wireless <sup>4</sup> , Mini PCI, Intel PRO/Wireless 2200BG, Intel 82532 chip											
CDC	One Communications Daughter Card (CDC) socket / customer accessible											
Modem	56K <sup>6</sup> V.90 (V.92-designed <sup>29</sup> ) modem in CDC / Conexant® chipset											
Bluetooth™	None											
Ethernet	Gigabit ethernet on systemboard / Broadcom BCM5751M (MAC/PHY) / PCIe x1 / PXE											
Audio support	Soft audio / ICH AC97 controller / DirectSound® support / AD1981B AC97 codec / stereo speakers / 1 watt / volume up, down, mute buttons / internal microphone / microphone input jack (3.5 mm; pink) / headphone jack (3.5 mm; green)											
Security	Power-on password / hard disk password / supervisor password / security keyhole											
Security chip	<b>Embedded Security Subsystem 2.0<sup>33</sup></b> / in NS PC8394T chip / TCG-compliant											
Fingerprint reader	<i>Some:</i> <b>Fingerprint reader on palm rest</b> / swipe sensor / integrated with security chip											
Limited warranty <sup>12</sup>	<b>3 years/1 yr battery</b> - EasyServ™ <sup>19</sup> onsite pickup and delivery / service upgrades <sup>22</sup> avail											
256MB PC2-4200 DDR2 NP CL4 SOD	73P3840	ThinkPad T40/R50 Li-Ion Battery 6-cell	92P1101									
512MB PC2-4200 DDR2 NP CL4 SOD	73P3842	ThinkPad T40/R50 Li-Ion Battery 9-cell	92P1102									
1GB PC2-4200 DDR2 NP CL4 SOD	73P3844	Ultrabay Slim Li-Polymer Battery 3-cell	08K8190									
USB 2.0 Portable Multi-Burner Drive	22P9163	ThinkPad Multi-Battery Charger II	22P9040									
USB 2.0 Memory Key 512MB	22P9230	72W Slim AC/DC Combo Adapter	73P4485									
USB 2.0 Memory Key 1GB	40Y7421	11a/b/g Wireless Mini PCI Adapter II	73P4301									
USB 2.0 Portable 80GB Hard Disk	40Y8726	Intel PRO/Wireless 2915ABG Mini PCI	41N2990									
80GB HS Hard Disk 9.5mm (5400 rpm)	09N4273	11a/b/g Wireless CardBus Adapter	31P9101									
100GB Hard Disk 9.5mm PATA (5400 rpm)	40Y8716	ThinkPad Port Replicator II	74P6733									
USB Portable Diskette Drive	05K9276	ThinkPad Mini Dock	287810U									
Second HDD Adapter for Ultrabay Slim	62P4554	ThinkPad Dock II	287710U									
Multi-Burner Plus Ultrabay Slim Drive	73P3342	ThinkPad Carrying Case - Backpack	73P3599									
Enh Perf Wireless Keyboard and Mouse	73P4067	ThinkPad Carrying Case - Leather	73P3600									
USB Travel Keyboard with UltraNav	31P9490	ThinkPad Carrying Case - Organizer	73P3598									
Optical 3-Button Travel Wheel Mouse	31P7410	ThinkVision® E500 Projector	0038A05									
Kensington® MicroSaver® Security Cable	73P2582	M400 Projector	0037A04									
SonyEricsson® GC83 EDGE PC Card	26K3393	TrackPoint Cap Collection	73P2698									
Verizon Wireless V620 WWAN PC Card <sup>25</sup>	40Y9137	Other options at <a href="http://lenovo.com/options">lenovo.com/options</a>										

**SOFTWARE<sup>14</sup>**  
**Windows XP Professional models**  
 - Microsoft® Windows® XP Professional<sup>20</sup> (Service Pack 2)  
 ⇨ Disk-to-Disk Recovery (in hidden protected area)  
**Windows XP Home models**  
 - Microsoft Windows XP Home Edition<sup>20</sup> (Service Pack 2)  
 ⇨ Disk-to-Disk Recovery (in hidden protected area)  
**Preloaded (all)**  
 • Rescue and Recovery™  
 • Access Program  
 • Access Connections™  
 • Norton AntiVirus  
 • PC-Doctor™  
 • ThinkPad Utilities  
 • Adobe Reader  
 • Update Connector™<sup>15</sup>  
 • RecordNOW and Drive Letter Access powered by Sonic products (combo models)  
 • InterVideo WinDVD (combo, DVD models)  
 • Fingerprint Software (fingerprint models)  
 • Client Security Software (for security chip)  
**Downloadable (all)**  
 • IBM Director Agent  
 • Software Delivery Assistant  
 • System Migration Assistant  
**License (CD not included)**  
 - Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client

ThinkPad notebooks implement ThinkVantage™ technologies and design; visit [thinkpad.com/thinkvantage](http://thinkpad.com/thinkvantage)  
 Universal 72 watt AC adapter PC 2001-compliant ACPI 1.0b and 2.0-compliant CIM and DMI 2.0-compliant PXE 2.1-compliant ENERGY STAR®-compliant International Warranty Service<sup>17</sup> 24 hour x 7 day<sup>18</sup> toll-free warranty support during the warranty<sup>12</sup>  
 ThinkPlus™<sup>22</sup> 2yr LOR 9x5 NBD 41C9175  
 ThinkPlus 3yr LOR 9x5 NBD 41C9176  
 ThinkPlus 4yr LOR 9x5 NBD 41C9177  
 ThinkPlus 5yr LOR 9x5 NBD 41C9179  
 ThinkPlus 4yr P&L P/U Depot 41C9178  
 ThinkPlus 5yr P&L P/U Depot 41C9180  
 Post-warranty annual maintenance agreements at [lenovo.com/thinkplus/warranty](http://lenovo.com/thinkplus/warranty)

See footnotes for important warranty information  
 US models announced January 19, 2005  
 US models withdrawn effective January 2006

\* Powered by Intel Centrino® mobile technology

# ThinkPad® T43 (Entry) - August 2005 - withdrawn

Created by Lenovo Training Solutions  
Personal Systems Reference (PSREF)

Type-model	Processor	Speed GHz	Memory	Screen	Graphics controller memory	Disk GB <sup>8</sup>	Optical	Mini PCI Comm Bay wireless	CDC modem/Bluetooth™	Finger print reader	Security chip	Workhorse (W) or Global (G) Avail Preload or Entry (E) date
1871-31U	Pentium® M 740	1.73	256MB	14.1" XGA	GMA 900	40HS	DVD	* Intel 11b/g <sup>32</sup>	Modem	No	Yes	XP Pro Entry Aug 05
1871-32U	Pentium M 740	1.73	256MB	14.1" XGA	GMA 900	40HS	Combo	* Intel 11b/g	Modem	No	Yes	XP Pro E Gbl Aug 05
1871-33U	Pentium M 740	1.73	256MB	14.1" XGA	GMA 900	40HS	Combo	* Intel 11b/g	Modem	Finger	Yes	XP Home Entry Aug 05
1871-36U	Pentium M 740	1.73	256MB	14.1" XGA	GMA 900	40HS	Combo	* Intel 11b/g	Modem	Finger	Yes	XP Pro Entry Aug 05
1871-51U	Pentium M 740	1.73	256MB	15.0" XGA	GMA 900	40HS	Combo	* Intel 11b/g	Modem	Finger	Yes	XP Pro Entry Aug 05
Positioning Processor	<i>Perfect balance of performance and portability; two-spindle system</i> <b>Intel® Pentium® M Processor 740 (1.73GHz)</b> with Enhanced Intel SpeedStep™ technology <sup>1</sup> , Execute Disable Bit, and 533MHz system bus										<b>SOFTWARE<sup>14</sup></b>	
L2 cache	<b>2MB</b> / on die (at processor speed) / ECC										<b>Windows XP Professional models</b>	
Memory	<b>256MB</b> std / 2GB max <sup>7</sup> / PC2-4200 533MHz DDR2 / non-parity / CL4 / dual channel capable / two 200-pin SO-DIMM sockets / std mem in one socket / one socket available										- Microsoft® Windows® XP Professional <sup>20</sup> (Service Pack 2) ↔ Disk-to-Disk Recovery (in hidden protected area)	
Diskette drive	None standard / use optional USB-based diskette drive										<b>Windows XP Home models</b>	
DVD	<i>Some:</i> DVD-ROM / 24X-8X <sup>9</sup> speed / single-layer / removable from Ultrabay™ Slim										- Microsoft Windows XP Home Edition <sup>20</sup> (Service Pack 2) ↔ Disk-to-Disk Recovery (in hidden protected area)	
Combo	<i>Some:</i> DVD-ROM/CD-RW / 24X/24X/24X/8X <sup>21</sup> speed / removable from Ultrabay Slim											
Ultrabay Slim	One modular bay for interchangeable devices (right side) / 9.5mm high bay											
Disk	<b>40GB<sup>8</sup> HS</b> (5400 rpm) / 9.5mm high / removable, upgradable / 9.5mm high bay / supports 2nd disk / <b>Hard Disk Drive Shock Absorber</b> / <b>Active Protection System™</b>											
Display	<i>Some:</i> <b>14.1"</b> (358.1mm) <b>XGA (1024x768) TFT color</b> / Active Matrix / 150 nits <i>Some:</i> <b>15.0"</b> (381.0mm) <b>XGA (1024x768) TFT color</b> / Active Matrix / 200 nits										<b>Preloaded (all)</b>	
Graphics	<b>Intel Graphics Media Accelerator 900 (GMA 900)</b> / integrated graphics in 915GM GMCH / uses main memory (up to 128MB with 256MB+) / 200MHz										• Rescue and Recovery™ • Access Program • Access Connections™ • Norton AntiVirus • PC-Doctor™ • ThinkPad Utilities • Adobe® Reader • RecordNOW and Drive Letter Access powered by Sonic products (combo models) • InterVideo WinDVD (combo, DVD models) • Fingerprint Software (fingerprint models) • Client Security Software (for security chip)	
Keyboard	87-key / Access IBM button / palm rest / pitch: 19mm; stroke: 2.5mm (std-size keys)										<b>Downloadable (all)</b>	
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar <sup>13</sup> , magnifying glass										• IBM Director Agent • Software Delivery Assistant • System Migration Assistant	
Touch pad	UltraNav® multi-pointing system / touch pad below keyboard / Tap Zones										<b>License (CD not included)</b>	
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions										- Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client	
Dimensions <sup>3</sup>	<b>14.1" models (WxDxH):</b> 12.2" x 10.0" x 1.0-1.2"; 311mm x 255mm x 26.6-31.4mm <b>15.0" models (WxDxH):</b> 13.0" x 10.6" x 1.2-1.4"; 329mm x 268mm x 31-36mm											
Weight <sup>2</sup>	with optical drive and battery: <b>14.1" models:</b> up to 5.1 lb (2.3kg); <b>15":</b> up to 5.8 lb (2.6 kg)											
Case material	Magnesium composite in the top cover, titanium-reinforced CFRP in bottom cover											
Battery - type	Lithium Ion <b>6-cell</b> / intelligent / supports unique 2nd battery in Ultrabay Slim											
Battery - life <sup>10</sup>	Up to 4.0 hr; <i>Optional 9-cell:</i> up to 5.9 hr; <i>9-cell plus Ultrabay Slim battery:</i> up to 7.7 hr											
Architecture	<b>Mobile Intel 915GM Express Chipset</b> / 82915GM Graph Mem Cont Hub (GMCH-M) / 82801FBM ICH6-M I/O Controller Hub (SATA150, ATA-100 EIDE, PCI Express x1, PCI bus, ethernet MAC, USB, Low Pin Count [LPC] interface, [Bluetooth], [fingerprint]) / PCI bus (TI® PCI1510 CardBus controller, Mini PCI, external expansion) / LPC bus (National Semiconductor® PC8394T Super I/O for security chip (TPM), Asset ID, hardware event log, parallel, infrared, [docking-based ports (serial, diskette)])											
PC Card Std slot	One Type I or Type II slot / CardBus 32-bit / integrated door											
ExpressCard slot	One ExpressCard/34 or ExpressCard/54 / PCI Express x1 or USB 2.0 / integrated door											
Ports	Two USB (Version 2.0) / parallel / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / no keyboard or mouse or serial ports (use USB)											
Video out	S-video out port (TV out) / one 4-pin industry standard connector											
Wireless antenna	UltraConnect™ Antenna built into the display cover for optimal wireless signal reception											
Mini PCI	One Mini PCI type III slot (Communications Bay) / customer upgradable											
Intel 11b/g <sup>32</sup>	11b/g wireless <sup>4</sup> , Mini PCI, Intel PRO/Wireless 2200BG, Intel 82532 chip											
CDC	One Communications Daughter Card (CDC) socket / customer accessible											
Modem	56K <sup>6</sup> V.90 (V.92-designed <sup>29</sup> ) modem in CDC / Conexant® chipset											
Bluetooth™	None										ThinkPad notebooks implement ThinkVantage® technologies and design; visit <a href="http://thinkpad.com/thinkvantage">thinkpad.com/thinkvantage</a>	
Ethernet	Gigabit ethernet on systemboard / Broadcom BCM5751M (MAC/PHY) / PCIe x1 / PXE											
Audio support	Soft audio / ICH AC97 controller / DirectSound® support / AD1981B AC97 codec / stereo speakers, 1 watt / volume up, down, mute buttons / internal microphone / microphone input jack (3.5 mm; pink) / headphone jack (3.5 mm; green)										Universal 72-watt AC adapter PC 2001-compliant ACPI 1.0b and 2.0-compliant CIM and DMI 2.0-compliant PXE 2.1-compliant ENERGY STAR®-compliant International Warranty Service <sup>17</sup> 24 hour x 7 day <sup>18</sup> toll-free warranty support during the warranty <sup>12</sup>	
Security	Power-on password / hard disk password / supervisor password / security keyhole											
Security chip	<b>Embedded Security Subsystem 2.0<sup>33</sup></b> / in NS PC8394T chip / TCG-compliant											
Fingerprint reader	<i>Some:</i> <b>Fingerprint reader on palm rest</b> / swipe sensor / integrated with security chip											
Limited warranty <sup>12</sup> <b>3-year/1-yr battery</b> - EasyServ™ <sup>19</sup> onsite pickup and delivery / service upgrades <sup>22</sup> avail												
256MB PC2-4200 DDR2 NP CL4 SOD	73P3840	ThinkPad T40/R50 Li-Ion Battery 6-cell	92P1101									
512MB PC2-4200 DDR2 NP CL4 SOD	73P3842	ThinkPad T40/R50 Li-Ion Battery 9-cell	92P1102									
1GB PC2-4200 DDR2 NP CL4 SOD	73P3844	Ultrabay Slim Li-Polymer Battery 3-cell	08K8190									
USB Portable Diskette Drive	05K9276	ThinkPad Multi-Battery Charger II	22P9040									
USB 2.0 Memory Key 1GB	40Y7421	72W Slim AC/DC Combo Adapter	73P4485									
USB 2.0 Portable 80GB Hard Disk	40Y8726	11a/b/g Wireless Mini PCI Adapter II	73P4301									
USB 2.0 Super Multi-Burner Drive	40Y8638	Intel PRO/Wireless 2915ABG Mini PCI	41N2990									
80GB HS Hard Disk 9.5mm (5400 rpm)	09N4273	ThinkPad Port Replicator II	74P6733									
100GB Hard Disk 9.5mm PATA (5400 rpm)	40Y8716	ThinkPad Mini Dock	287810U									
Second HDD Adapter for Ultrabay Slim	41U3148	ThinkPad Dock II	287710U									
Super Multi-Burner Ultrabay Slim Drv (curved)	40Y8622	ThinkPad Carrying Case - Backpack	73P3599									
Enh Perf Wireless Keyboard and Mouse	73P4067	ThinkPad Carrying Case - Leather	73P3600									
USB Travel Keyboard with UltraNav	31P9490	ThinkPad Carrying Case - Organizer	73P3598									
Kensington® MicroSaver® Security Cable	73P2582	ThinkVision® E500 Projector	0038A05									
ExpressCard Gemplus Smart Card Reader	41N3043	ThinkVision C400 Wireless Projector	0039WA1									
SonyEricsson® GC83 EDGE PC Card	26K3393	ThinkVision L201p 20.1" Monitor (black)	9220HB1									
ThinkPad Monitor Stand	22P5265	TrackPoint Cap Collection	73P2698									
ThinkPad Convertible Monitor Stand	40Y7620	Other options at <a href="http://lenovo.com/options">lenovo.com/options</a>										

See footnotes for important warranty information  
US models announced August 2, 2005  
US models withdrawn effective May or November 2006

\* Powered by Intel Centrino® mobile technology

# ThinkPad® T43 (14.1" display) - withdrawn

Created by Lenovo Training Solutions  
Personal Systems Reference (PSREF)

Type-model	Processor	Speed GHz	Memory	Screen	Graphics controller	Disk GB <sup>5</sup>	Optical	Mini PCI Comm Bay wireless	CDC modem/Bluetooth™	Finger print reader	Security chip set	Workhorse (W) or Global (G) Entry (E)	Avail date
1871-48U	Pentium® M 750	1.86	512MB	14.1"	XGA	GMA 40HS	DVD	* Intel 11a/b/g <sup>32</sup>	Modem	No	Yes	915GM	W Feb 05
1871-4AU	Pentium M 750	1.86	512MB	14.1"	XGA	GMA 40HS	Combo	* Intel 11b/g <sup>32</sup>	Modem	No	Yes	915GM	W G Feb 05
1871-4BU	Pentium M 750	1.86	512MB	14.1"	XGA	GMA 40HS	Combo	* Intel 11a/b/g	Mod/Blue	Finger	Yes	915GM	W Feb 05
1871-4CU	Pentium M 750	1.86	512MB	14.1"	XGA	GMA 40HS	Combo	* Intel 11a/b/g	Mod/Blue	No	Yes	915GM	W Feb 05
1871-4PU	Pentium M 750	1.86	512MB	14.1"	XGA	GMA 40HS	DVD	Open; wireless upg <sup>36</sup>	Modem	No	Yes	915GM	W Mar 05
2668-41U	Pentium M 750	1.86	256MB	14.1"	XGA	X300 40HS	DVD	Open; wireless upg	Modem	No	Yes	915PM	W Feb 05
2668-42U	Pentium M 750	1.86	512MB	14.1"	XGA	X300 40HS	DVD	Open; wireless upg	Modem	No	Yes	915PM	W G Feb 05
2668-43U	Pentium M 750	1.86	512MB	14.1"	XGA	X300 40HS	DVD	* Intel 11b/g	Modem	No	Yes	915PM	W G Feb 05
2668-49U	Pentium M 750	1.86	512MB	14.1"	XGA	X300 40HS	Combo	* Intel 11a/b/g	Modem	No	Yes	915PM	W Feb 05
2668-44U	Pentium M 750	1.86	512MB	14.1"	XGA	X300 40HS	Combo	* Intel 11b/g	Modem	Finger	Yes	915PM	W G Feb 05
2668-45U	Pentium M 750	1.86	512MB	14.1"	XGA	X300 40HS	Combo	* Intel 11a/b/g	Mod/Blue	Finger	Yes	915PM	W Feb 05
2668-46U	Pentium M 750	1.86	512MB	14.1"	SXGA+	X300 40HS	Combo	* Intel 11b/g	Modem	No	Yes	915PM	W G Feb 05
2668-4DU	Pentium M 750	1.86	512MB	14.1"	SXGA+	X300 40HS	Combo	* Intel 11b/g	Modem	Finger	Yes	915PM	W G Feb 05
2668-4EU	Pentium M 750	1.86	512MB	14.1"	SXGA+	X300 40HS	Combo	* Intel 11a/b/g	Mod/Blue	Finger	Yes	915PM	W Feb 05
2668-71U	Pentium M 760	2.00	512MB	14.1"	SXGA+	X300 80HS	Combo	* Intel 11a/b/g	Mod/Blue	Finger	Yes	915PM	Feb 05
2668-72U	Pentium M 760	2.00	512MB	14.1"	SXGA+	X300 80HS	DVD±RW	* Intel 11a/b/g	Mod/Blue	Finger	Yes	915PM	Feb 05
2668-73U	Pentium M 760	2.00	512MB	14.1"	SXGA+	X300 80HS	Combo	* Intel 11a/b/g	Mod/Blue	No	Yes	915PM	Feb 05
2668-74U	Pentium M 760	2.00	512MB	14.1"	SXGA+	X300 80HS	Combo	11a/b/g II <sup>32</sup>	Mod/Blue	Finger	Yes	915PM	Feb 05
2668-75U	Pentium M 760	2.00	512MB	14.1"	SXGA+	X300 80HS	DVD±RW	11a/b/g II	Mod/Blue	Finger	Yes	915PM	Feb 05
2668-76U	Pentium M 760	2.00	512MB	14.1"	SXGA+	X300 80HS	Combo	11a/b/g II	Mod/Blue	No	Yes	915PM	Feb 05
Positioning Processor	<i>Perfect balance of performance and portability; two-spindle system</i> <b>Intel® Pentium® M Processor 750 (1.86GHz) or 760 (2.00GHz)</b> with Enhanced Intel SpeedStep™ technology <sup>1</sup> , Execute Disable Bit, and 533MHz system bus								<b>SOFTWARE</b> <sup>14</sup> <b>Windows XP Professional</b> - Microsoft® Windows® XP Professional <sup>20</sup> (Service Pack 2) ↔ Disk-to-Disk Recovery (in hidden protected area) <b>Preloaded</b> • Rescue and Recovery™ • Access Program • Access Connections™ • Norton AntiVirus • PC-Doctor™ • ThinkPad Utilities • Adobe® Reader • Update Connector™.15 • RecordNow and Drive Letter Access powered by Sonic products (combo, DVD±RW) • InterVideo WinDVD (combo, DVD±RW models) • InterVideo WinDVD Creator (DVD±RW models) • Simple Backup (DVD±RW) • Fingerprint Software (fingerprint models) • Client Security Software (for security chip) <b>Downloadable</b> • IBM Director Agent • Software Delivery Assistant • System Migration Assistant				
L2 cache	2MB / on die (at processor speed) / ECC												
Memory	<b>256MB</b> or <b>512MB</b> std / 2GB max <sup>7</sup> / PC2-4200 533MHz DDR2 / non-parity / CL4 / dual channel capable / two 200-pin SO-DIMM sockets / std mem in 1 socket / 1 socket avail												
Diskette drive	None standard / use optional USB-based diskette drive								<b>Downloadable</b> • IBM Director Agent • Software Delivery Assistant • System Migration Assistant				
DVD	<i>Some:</i> DVD-ROM / 24X-8X <sup>9</sup> speed / single-layer / removable from Ultrabay™ Slim												
Combo	<i>Some:</i> DVD-ROM/CD-RW / 24X/24X/24X/8X <sup>21</sup> speed / removable from Ultrabay Slim												
DVD±RW	<i>Some:</i> DVD and CD burner / Multi-Burner Plus / removable from Ultrabay Slim												
Ultrabay Slim	One modular bay for interchangeable devices (right side) / 9.5mm high bay												
Disk	<b>40GB<sup>8</sup> HS</b> (5400 rpm) or <b>80GB HS</b> (5400 rpm) / 9.5mm high / removable, upgradable / 9.5mm high bay / supports 2nd disk / <b>Hard Disk Drive Shock Absorber / Active Protection System</b>												
Display	<i>Some:</i> <b>14.1"</b> (358.1mm) <b>XGA (1024x768) TFT color</b> / Active Matrix / 150 nits <i>Some:</i> <b>14.1"</b> (358.1mm) <b>SXGA+ (1400x1050) TFT color</b> / Active Matrix / 150 nits								<b>ThinkPad notebooks implement ThinkVantage® technologies and design; visit <a href="http://thinkpad.com/thinkvantage">thinkpad.com/thinkvantage</a></b>  Universal 72 watt AC adapter PC 2001-compliant ACPI 1.0b and 2.0-compliant CIM and DMI 2.0-compliant PXE 2.1-compliant ENERGY STAR®-compliant International Warranty Service <sup>17</sup> 24 hour x 7 day <sup>18</sup> toll-free warranty support during the warranty <sup>12</sup>  ThinkPlus™.22 2-year LOR 9x5 NBD 41C9175 ThinkPlus 3-year LOR 9x5 NBD 41C9176 ThinkPlus 4-year LOR 9x5 NBD 41C9177 ThinkPlus 5-year LOR 9x5 NBD 41C9179 ThinkPlus 4-year P&L P/U Depot 41C9178 ThinkPlus 5-year P&L P/U Depot 41C9180				
Graphics	<i>Some:</i> <b>Intel Graphics Media Accelerator 900 (GMA 900)</b> / integrated graphics in 915GM GMCH / uses main memory (up to 128MB with 256MB+) / 200MHz <i>Some:</i> <b>ATI® MOBILITY™ RADEON® X300</b> / PCI Express x16 / <b>64MB</b> GDDR1 memory												
Keyboard	87-key / Access IBM button / palm rest / pitch: 19mm; stroke: 2.5mm (std-size keys)												
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar <sup>13</sup> , magnifying glass												
Touch pad	UltraNav™ multi-pointing system / touch pad below keyboard / Tap Zones												
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions												
Dimensions <sup>3</sup>	14.1" models (WxDxH): 12.2" x 10.0" x 1.0-1.2"; 311mm x 255mm x 26.6-31.4mm												
Weight <sup>2</sup>	with optical drive and battery: up to 5.2 lb (2.3kg)												
Case material	Magnesium composite in the top cover, titanium-reinforced CFRP in bottom cover												
Battery - type	Lithium Ion <b>6-cell</b> / intelligent / supports unique 2nd battery in Ultrabay Slim												
Battery - life <sup>10</sup>	Up to 4.0 hr; <i>Optional 9-cell:</i> up to 6.0 hr; <i>9-cell plus Ultrabay Slim battery:</i> up to 7.8 hr												
Architecture	<i>Some:</i> <b>Mobile Intel 915GM Express Chipset</b> / 82915GM Graphics Mem Cont Hub <i>Some:</i> <b>Mobile Intel 915PM Express Chipset</b> / 82915PM Memory Controller Hub <i>All:</i> 82801FBM ICH6-M I/O Controller Hub (SATA150, ATA-100 EIDE, PCI Express x1, PCI bus, ethernet MAC, USB, Low Pin Count [LPC] interface, [Bluetooth], [fingerprint]) / PCI bus (CardBus controller, Mini PCI, external expansion) / LPC bus (NS PC8394T Super I/O for security chip (TPM), Asset ID, hardware event log, parallel, infrared, [docking-based ports (serial, diskette)])												
PC Card Std slot	One Type I or Type II slot / CardBus 32-bit / integrated door												
ExpressCard slot	One ExpressCard/34 or ExpressCard/54 / PCI Express x1 or USB 2.0 / integrated door												
Ports	Two USB (Version 2.0) / parallel / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / no keyboard or mouse or serial ports (use USB)												
Video out	S-video out port (TV out) / one 4-pin industry standard connector												
Wireless antenna	UltraConnect™ Antenna built into the display cover for optimal wireless signal reception												
Mini PCI	One Mini PCI Type III slot (Communications Bay) / customer upgradable												
Wireless upg <sup>36</sup>	<i>Some:</i> wireless upgradable with wireless Mini PCI options												
Intel 11b/g <sup>32</sup>	<i>Some:</i> 11b/g wireless <sup>4</sup> , Mini PCI, Intel PRO/Wireless 2200BG, Intel 82532 chip												
Intel 11a/b/g <sup>32</sup>	<i>Some:</i> 11a/b/g wireless <sup>4</sup> , Mini PCI, Intel PRO/Wireless 2915ABG, 82533 chipset												
11a/b/g II <sup>32</sup>	<i>Some:</i> 11a/b/g wireless <sup>4</sup> , ThinkPad 11a/b/g Mini PCI Adapter II, Atheros AR5004X chip												
CDC	One Communications Daughter Card (CDC) socket / customer accessible												
Modem	56K <sup>6</sup> V.90 (V.92-designed <sup>29</sup> ) modem in CDC / Conexant® chipset												
Bluetooth™	<i>Some:</i> Bluetooth wireless technology / in CDC (with modem)												
Ethernet	Gigabit ethernet on systemboard / Broadcom BCM5751M (MAC/PHY) / PCIe x1 / PXE												
Audio support	Soft audio / ICH AC97 controller / DirectSound® support / AD1981B AC97 codec / stereo speakers / 1 watt / volume up, down, mute buttons / internal microphone / microphone input jack (3.5 mm; pink) / headphone jack (3.5 mm; green)												
Security	Power-on password / hard disk password / supervisor password / security keyhole												
Security chip	<b>Embedded Security Subsystem 2.0<sup>33</sup></b> / in NS PC8394T chip / TCG-compliant												
Fingerprint reader	<i>Some:</i> <b>Fingerprint reader on palm rest</b> / swipe sensor / integrated with security chip												
Limited warranty <sup>12</sup>	<b>3-year/1-yr battery - EasyServ™.19</b> onsite pickup and delivery / service upgrades <sup>22</sup> avail												

See footnotes for important warranty information \* Powered by Intel Centrino® mobile technology  
US models announced January 19 or March 15, 2005  
US models withdrawn effective December 2005 or November 2006

# ThinkPad® T43 (14.1" display) - August 2005 - withdrawn

Created by Lenovo Training Solutions  
Personal Systems Reference (PSREF)

Type-model	Processor	Speed GHz	Memory	Screen	Graphics controller	Disk GB <sup>5</sup>	Optical	Mini PCI Comm Bay wireless	CDC modem/Bluetooth™	Finger print reader	Security chip set	Workhorse (W) or Global (G) Entry (E)	Avail date
1871-62U	Pentium® M 760	2.00	512MB	14.1" XGA	GMA 40HS	DVD	* Intel 11a/b/g <sup>32</sup>	Modem	No	Yes	915GM	W	Aug 05
1871-63U	Pentium M 760	2.00	512MB	14.1" XGA	GMA 40HS	Combo	* Intel 11b/g <sup>32</sup>	Modem	No	Yes	915GM	W G	Aug 05
1871-64U	Pentium M 760	2.00	512MB	14.1" XGA	GMA 40HS	Combo	* Intel 11b/g	Modem	Finger	Yes	915GM	W G	Aug 05
1871-65U	Pentium M 760	2.00	512MB	14.1" XGA	GMA 40HS	Combo	* Intel 11a/b/g	Modem	Finger	Yes	915GM	W	Aug 05
1871-66U	Pentium M 760	2.00	512MB	14.1" XGA	GMA 40HS	DVD	Open; wireless upg <sup>36</sup>	Modem	No	Yes	915GM	W	Aug 05
2668-68U	Pentium M 760	2.00	512MB	14.1" XGA	X300 40HS	DVD	Open; wireless upg	Modem	No	Yes	915PM	W G	Aug 05
2668-6AU	Pentium M 760	2.00	512MB	14.1" XGA	X300 40HS	DVD	* Intel 11b/g	Modem	No	Yes	915PM	W G	Aug 05
2668-6BU	Pentium M 760	2.00	512MB	14.1" XGA	X300 40HS	Combo	* Intel 11a/b/g	Modem	No	Yes	915PM	W	Aug 05
2668-61U	Pentium M 760	2.00	512MB	14.1" XGA	X300 40HS	Combo	* Intel 11b/g	Modem	Finger	Yes	915PM	W G	Aug 05
2668-6CU	Pentium M 760	2.00	512MB	14.1" XGA	X300 60HS	Combo	* Intel 11a/b/g	Mod/Blue	Finger	Yes	915PM	W	Aug 05
2668-6DU	Pentium M 760	2.00	512MB	14.1" SXGA+	X300 40HS	Combo	* Intel 11a/b/g	Modem	No	Yes	915PM	W	Aug 05
2668-6EU	Pentium M 760	2.00	512MB	14.1" SXGA+	X300 40HS	Combo	* Intel 11b/g	Modem	Finger	Yes	915PM	W G	Aug 05
2668-6ZU	Pentium M 750	1.86	512MB	14.1" XGA	X300 40HS	Combo	* Intel 11b/g	Modem	No	Yes	915PM	W G	Aug 05
2668-R1U	Pentium M 750	1.86	512MB	14.1" XGA	X300 40HS	Combo	* Intel 11a/b/g	Mod/Blue	No	Yes	915PM	W G	Sep 05
2668-6FU	Pentium M 760	2.00	512MB	14.1" SXGA+	X300 60HS	Combo	* Intel 11a/b/g	Modem	Finger	Yes	915PM	W	Aug 05
2668-6GU	Pentium M 760	2.00	512MB	14.1" SXGA+	X300 80HS	Combo	* Intel 11a/b/g	Mod/Blue	Finger	Yes	915PM	W	Aug 05
2668-J1U	Pentium M 770	2.13	512MB	14.1" SXGA+	X300 80U	Combo	* Intel 11a/b/g	Mod/Blue	Finger	Yes	915PM		Aug 05
2668-J2U	Pentium M 770	2.13	1GB	14.1" SXGA+	X300 80U	DVD±RW	* Intel 11a/b/g	Mod/Blue	Finger	Yes	915PM		Aug 05
2668-J3U	Pentium M 770	2.13	512MB	14.1" SXGA+	X300 100GBD	DVD±RW	* Intel 11a/b/g	Mod/Blue	Finger	Yes	915PM		Aug 05

Positioning Processor	<i>Perfect balance of performance and portability; two spindles</i> <b>Intel® Pentium® M Processor 750 (1.86GHz), 760 (2.00GHz), or 770 (2.13GHz)</b> with Enhanced Intel SpeedStep™ technology <sup>1</sup> , Execute Disable Bit, and 533MHz system bus	<b>SOFTWARE</b> <sup>14</sup> <b>Windows XP Professional</b> - Microsoft® Windows® XP Professional <sup>20</sup> (Service Pack 2) ⇨ Disk-to-Disk Recovery (in hidden protected area)
L2 cache Memory	<b>2MB</b> / on die (at processor speed) / ECC <b>512MB</b> or <b>1GB</b> std / <b>2GB</b> max <sup>7</sup> / PC2-4200 533MHz DDR2 / non-parity / CL4 / dual channel capable / two 200-pin SO-DIMM sockets / std mem in 1 socket / 1 socket avail	
Diskette drive DVD Combo DVD±RW Ultrabay Slim Disk	None standard / use optional USB-based diskette drive <i>Some:</i> DVD-ROM / 24X-8X <sup>9</sup> speed / single-layer / removable from Ultrabay™ Slim <i>Some:</i> DVD-ROM/CD-RW / 24X/24X/24X/8X <sup>21</sup> speed / removable from Ultrabay Slim <i>Some:</i> DVD and CD burner / Multi-Burner Plus / removable from Ultrabay Slim One modular bay for interchangeable devices (right side) / 9.5mm high bay <b>40GB<sup>8</sup> HS</b> (5400 rpm), <b>60GB HS</b> (5400 rpm), <b>80GB HS</b> (5400 rpm), <b>80GB Ultra HS</b> (7200 rpm), <b>100GB</b> (5400 rpm) / 9.5mm high / removable, upgrade / 9.5mm high bay / supports 2nd disk / <b>Hard Disk Drive Shock Absorber / Active Protection System</b>	<b>Preloaded</b> • Rescue and Recovery™ • Access Program • Access Connections™ • Norton AntiVirus • PC-Doctor™ • ThinkPad Utilities • Adobe® Reader • RecordNOW and Drive Letter Access powered by Sonic products (combo, DVD±RW) • InterVideo WinDVD (combo, DVD±RW models) • InterVideo WinDVD Creator (DVD±RW models) • Fingerprint Software (fingerprint models) • Client Security Software (for security chip)
Display	<i>Some:</i> <b>14.1"</b> (358.1mm) <b>XGA (1024x768)</b> TFT color / Active Matrix / 150 nits <i>Some:</i> <b>14.1"</b> (358.1mm) <b>SXGA+ (1400x1050)</b> TFT color / Active Matrix / 150 nits	
Graphics	<i>Some:</i> <b>Intel Graphics Media Accelerator 900 (GMA 900)</b> / integrated graphics in 915GM GMCH / uses main memory (up to 128MB with 256MB+) / 200MHz <i>Some:</i> <b>ATI® MOBILITY™ Radeon™ X300</b> / PCI Express x16 / <b>64MB</b> GDDR1 memory	
Keyboard TrackPoint® Touch pad ThinkLight™	87-key / Access IBM button / palm rest / pitch: 19mm; stroke: 2.5mm (std-size keys) TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar <sup>13</sup> , magnifying glass UltraNav™ multi-pointing system / touch pad below keyboard / Tap Zones Illuminates the keyboard to improve visibility in low-light conditions	
Dimensions <sup>3</sup> Weight <sup>2</sup> Case material Battery - type Battery - life <sup>10</sup>	<b>14.1" models (WxDxH):</b> 12.2" x 10.0" x 1.0-1.2"; 311mm x 255mm x 26.6-31.4mm with optical drive and battery: up to 5.2 lb (2.3kg) Magnesium composite in the top cover, titanium-reinforced CFRP in bottom cover Lithium Ion <b>6-cell</b> / intelligent / supports unique 2nd battery in Ultrabay Slim Up to 4.0 hr; <i>Optional 9-cell:</i> up to 6.0 hr; <i>9-cell plus Ultrabay Slim battery:</i> up to 7.8 hr	
Architecture	<i>Some:</i> <b>Mobile Intel 915GM Express Chipset</b> / 82915GM Graphics Mem Cont Hub <i>Some:</i> <b>Mobile Intel 915PM Express Chipset</b> / 82915PM Memory Controller Hub <i>All:</i> 82801FBM ICH6-M I/O Controller Hub (SATA150, ATA-100 EIDE, PCI Express x1, PCI bus, ethernet MAC, USB, Low Pin Count [LPC] interface, [Bluetooth], [fingerprint]) / PCI bus (CardBus controller, Mini PCI, external expansion) / LPC bus (NS PC8394T Super I/O for security chip (TPM), Asset ID, hardware event log, parallel, infrared, [docking-based ports (serial, diskette)])	<b>Downloadable</b> • IBM Director Agent • Software Delivery Assistant • System Migration Assistant
PC Card Std slot ExpressCard slot Ports	One Type I or Type II slot / CardBus 32-bit / integrated door One ExpressCard/34 or ExpressCard/54 / PCI Express x1 or USB 2.0 / integrated door Two USB (Version 2.0) / parallel / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / no keyboard or mouse or serial ports (use USB)	<b>License</b> (CD not included) - Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client
Video out Wireless antenna Mini PCI Wireless upg <sup>36</sup> Intel 11b/g <sup>32</sup> Intel 11a/b/g <sup>32</sup> CDC Modem Bluetooth™ Ethernet Audio support	S-video out port (TV out) / one 4-pin industry standard connector UltraConnect™ Antenna built into the display cover for optimal wireless signal reception One Mini PCI Type III slot (Communications Bay) / customer upgradable <i>Some:</i> wireless upgradable with wireless Mini PCI options <i>Some:</i> 11b/g wireless <sup>4</sup> , Mini PCI, Intel PRO/Wireless 2200BG, Intel 82532 chip <i>Some:</i> 11a/b/g wireless <sup>4</sup> , Mini PCI, Intel PRO/Wireless 2915ABG, 82533 chipset One Communications Daughter Card (CDC) socket / customer accessible 56K <sup>6</sup> V.90 (V.92-designed <sup>29</sup> ) modem in CDC / Conexant® chipset <i>Some:</i> Bluetooth wireless technology / in CDC (with modem) Gigabit ethernet on systemboard / Broadcom BCM5751M (MAC/PHY) / PCIe x1 / PXE Soft audio / ICH AC97 controller / DirectSound® support / AD1981B AC97 codec / stereo speakers / 1 watt / volume up, down, mute buttons / internal microphone / microphone input jack (3.5 mm; pink) / headphone jack (3.5 mm; green)	ThinkPad notebooks implement ThinkVantage® technologies and design; visit <a href="http://thinkpad.com/thinkvantage">thinkpad.com/thinkvantage</a> Universal 72 watt AC adapter PC 2001-compliant ACPI 1.0b and 2.0-compliant CIM and DMI 2.0-compliant PXE 2.1-compliant International Warranty Service <sup>17</sup> 24 hour x 7 day <sup>18</sup> toll-free warranty support during the warranty <sup>12</sup> ThinkPlus™.22 2-year LOR 9x5 NBD 41C9175 ThinkPlus 3-year LOR 9x5 NBD 41C9176 ThinkPlus 4-year LOR 9x5 NBD 41C9177 ThinkPlus 5-year LOR 9x5 NBD 41C9179 ThinkPlus 4-year P&L P/U Depot 41C9178 ThinkPlus 5-year P&L P/U Depot 41C9180
Security Security chip Fingerprint reader	Power-on password / hard disk password / supervisor password / security keyhole <b>Embedded Security Subsystem 2.0</b> <sup>33</sup> / in NS PC8394T chip / TCG-compliant <i>Some:</i> <b>Fingerprint reader on palm rest</b> / swipe sensor / supports the security chip	
Limited warranty <sup>12</sup>	<b>3-year/1-year battery - EasyServ™.19</b> onsite pickup and delivery / service upgrades <sup>22</sup> available	

See footnotes for important warranty information  
US models announced August 2 or August 30, 2005  
US models withdrawn effective November 2006 or August 2007

# ThinkPad® T43 (15.0" display) - withdrawn

Created by Lenovo Training Solutions  
Personal Systems Reference (PSREF)

Type-model	Processor	Speed GHz	Memory	Screen	Graphics controller	Disk GB <sup>8</sup>	Optical	Mini PCI Comm Bay wireless	CDC modem/Bluetooth™	Finger-print reader	Secu-rity chip	Workhorse (W) or Global (G) set	Chip or Entry (E) Avail date
1871-86U	Pentium® M 750	1.86	512MB	15.0"	XGA	GMA	40HS Combo	* Intel 11a/b/g <sup>32</sup>	Modem	Finger	Yes	915GM W	Feb 05
2668-87U	Pentium M 750	1.86	512MB	15.0"	XGA	X300	40HS Combo	* Intel 11a/b/g	Modem	No	Yes	915PM W	Feb 05
2668-83U	Pentium M 750	1.86	512MB	15.0"	XGA	X300	40HS Combo	* Intel 11b/g <sup>32</sup>	Modem	Finger	Yes	915PM W G	Feb 05
2668-84U	Pentium M 750	1.86	512MB	15.0"	SXGA+	X300	40HS Combo	* Intel 11b/g	Mod/Blue	No	Yes	915PM W G	Feb 05
2668-88U	Pentium M 750	1.86	512MB	15.0"	SXGA+	X300	40HS Combo	* Intel 11a/b/g	Modem	No	Yes	915PM W	Feb 05
2668-85U	Pentium M 750	1.86	512MB	15.0"	SXGA+	X300	40HS Combo	* Intel 11a/b/g	Modem	Finger	Yes	915PM W	Feb 05
2668-89U	Pentium M 750	1.86	512MB	15.0"	SXGA+	X300	80HS Combo	* Intel 11a/b/g	Modem	Finger	Yes	915PM W	Feb 05
2668-91U	Pentium M 760	2.00	512MB	15.0"	SXGA+	X300	80HS Combo	* Intel 11a/b/g	Mod/Blue	No	Yes	915PM	Feb 05
2668-93U	Pentium M 760	2.00	512MB	15.0"	SXGA+	X300	80HS Combo	* Intel 11a/b/g	Mod/Blue	Finger	Yes	915PM	Feb 05
2668-92U	Pentium M 760	2.00	512MB	15.0"	SXGA+	X300	80HS DVD±RW	* Intel 11a/b/g	Mod/Blue	Finger	Yes	915PM	Feb 05
2668-94U	Pentium M 760	2.00	512MB	15.0"	SXGA+	X300	60U Combo	* Intel 11a/b/g	Mod/Blue	Finger	Yes	915PM	Feb 05
2668-95U	Pentium M 760	2.00	512MB	15.0"	SXGA+	X300	80HS Combo	11a/b/g II <sup>32</sup>	Mod/Blue	No	Yes	915PM	Feb 05
2668-96U	Pentium M 760	2.00	512MB	15.0"	SXGA+	X300	80HS Combo	11a/b/g II	Mod/Blue	Finger	Yes	915PM	Feb 05
2668-97U	Pentium M 760	2.00	512MB	15.0"	SXGA+	X300	80HS DVD±RW	11a/b/g II	Mod/Blue	Finger	Yes	915PM	Feb 05
2668-98U	Pentium M 760	2.00	512MB	15.0"	SXGA+	X300	60U Combo	11a/b/g II	Mod/Blue	Finger	Yes	915PM	Feb 05
Positioning Processor	<i>Perfect balance of performance and portability; two-spindle system</i>												
L2 cache	Intel® Pentium® M Processor 750 (1.86GHz) or 760 (2.00GHz) with Enhanced Intel SpeedStep™ technology <sup>1</sup> , Execute Disable Bit, and 533MHz system bus												
Memory	2MB / on die (at processor speed) / ECC 512MB std / 2GB max <sup>7</sup> / PC2-4200 533MHz DDR2 / non-parity / CL4 / dual channel capable / two 200-pin SO-DIMM sockets / std mem in one socket / one socket available												
Diskette drive	None standard / use optional USB-based diskette drive												
Combo DVD±RW	<i>Some:</i> DVD-ROM/CD-RW / 24X/24X/24X/8X <sup>21</sup> speed / removable from Ultrabay Slim												
Ultrabay Slim	<i>Some:</i> DVD and CD burner / Multi-Burner Plus / removable from Ultrabay Slim												
Disk	One modular bay for interchangeable devices (right side) / 9.5mm high bay 40GB <sup>8</sup> HS (5400 rpm), 60GB <sup>8</sup> Ultra HS (7200 rpm), or 80GB HS (5400 rpm) / 9.5mm high / removable, upgradable / 9.5mm high bay / supports 2nd disk / <b>Hard Disk Drive Shock Absorber / Active Protection System</b>												
Display	<i>Some:</i> 15.0" (381.0mm) XGA (1024x768) TFT color / Active Matrix / 200 nits <i>Some:</i> 15.0" (381.0mm) SXGA+ (1400x1050) TFT color / Active Matrix / 200 nits / FlexView display with wide viewing angle and high density using IPS technology												
Graphics	<i>Some:</i> Intel Graphics Media Accelerator 900 (GMA 900) / integrated graphics in 915GM GMCH / uses main memory (up to 128MB with 256MB+) / 200MHz <i>Some:</i> ATI® MOBILITY™ RADEON® X300 / PCI Express x16 / 64MB GDDR1 memory												
Keyboard	87-key / Access IBM button / palm rest / pitch: 19mm; stroke: 2.5mm (std-size keys)												
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar <sup>13</sup> , magnifying glass												
Touch pad	UltraNav™ multi-pointing system / touch pad below keyboard / Tap Zones												
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions												
Dimensions <sup>3</sup>	15.0" models (WxDxH): 13.0" x 10.6" x 1.2-1.4"; 329mm x 268mm x 31-36mm												
Weight <sup>2</sup>	with optical drive and battery: up to 5.9 lb (2.7kg)												
Case material	Magnesium composite in the top cover, titanium-reinforced CFRP in bottom cover												
Battery - type	Lithium Ion 6-cell / intelligent / supports unique 2nd battery in Ultrabay Slim												
Battery - life <sup>10</sup>	Up to 3.9 hr; <i>Optional 9-cell:</i> up to 5.9 hr; <i>9-cell plus Ultrabay Slim battery:</i> up to 7.7 hr												
Architecture	<i>Some:</i> Mobile Intel 915GM Express Chipset / 82915GM Graphics Mem Cont Hub <i>Some:</i> Mobile Intel 915PM Express Chipset / 82915PM Memory Controller Hub <i>All:</i> 82801FBM ICH6-M I/O Controller Hub (SATA150, ATA-100 EIDE, PCI Express x1, PCI bus, ethernet MAC, USB, Low Pin Count [LPC] interface, [Bluetooth], [fingerprint]) / PCI bus (CardBus controller, Mini PCI, external expansion) / LPC bus (NS PC8394T Super I/O for security chip (TPM), Asset ID, hardware event log, parallel, infrared, [docking-based ports (serial, diskette)])												
PC Card Std slot	One Type I or Type II slot / CardBus 32-bit / integrated door												
ExpressCard slot	One ExpressCard/34 or ExpressCard/54 / PCI Express x1 or USB 2.0 / integrated door												
Ports	Two USB (Version 2.0) / parallel / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / no keyboard or mouse or serial ports (use USB)												
Video out	S-video out port (TV out) / one 4-pin industry standard connector												
Wireless antenna	UltraConnect™ Antenna built into the display cover for optimal wireless signal reception												
Mini PCI	One Mini PCI type III slot (Communications Bay) / customer upgradable												
Intel 11b/g <sup>32</sup>	<i>Some:</i> 11b/g wireless <sup>4</sup> , Mini PCI, Intel PRO/Wireless 2200BG, Intel 82532 chip												
Intel 11a/b/g <sup>32</sup>	<i>Some:</i> 11a/b/g wireless <sup>4</sup> , Mini PCI, Intel PRO/Wireless 2915ABG, 82533 chipset												
11a/b/g II <sup>32</sup>	<i>Some:</i> 11a/b/g wireless <sup>4</sup> , ThinkPad 11a/b/g Mini PCI Adapter II, Atheros AR5004X chip												
CDC	One Communications Daughter Card (CDC) socket / customer accessible												
Modem	56K <sup>6</sup> V.90 (V.92-designed <sup>29</sup> ) modem in CDC / Conexant® chipset												
Bluetooth™	<i>Some:</i> Bluetooth wireless technology / in CDC (with modem)												
Ethernet	Gigabit ethernet on systemboard / Broadcom BCM5751M (MAC/PHY) / PCIe x1 / PXE												
Audio support	Soft audio / ICH AC97 controller / DirectSound® support / AD1981B AC97 codec / stereo speakers, 1 watt / volume up, down, mute buttons / internal microphone / microphone input jack (3.5 mm; pink) / headphone jack (3.5 mm; green)												
Security	Power-on password / hard disk password / supervisor password / security keyhole												
Security chip	Embedded Security Subsystem 2.0 <sup>33</sup> / in NS PC8394T chip / TCG-compliant												
Fingerprint reader	<i>Some:</i> Fingerprint reader on palm rest / swipe sensor / integrated with security chip												
Limited warranty <sup>12</sup>	3-year/1-yr battery - EasyServ™ <sup>19</sup> onsite pickup and delivery / service upgrades <sup>22</sup> avail												
256MB PC2-4200 DDR2 NP CL4 SOD	73P3840	ThinkPad T40/R50 Li-Ion Battery 6-cell											
512MB PC2-4200 DDR2 NP CL4 SOD	73P3842	ThinkPad T40/R50 Li-Ion Battery 9-cell											
1GB PC2-4200 DDR2 NP CL4 SOD	73P3844	11a/b/g Wireless Mini PCI Adapter II											
80GB HS Hard Disk 9.5mm (5400 rpm)	09N4273	ThinkPad Port Replicator II											
Other options at <a href="http://lenovo.com/options">lenovo.com/options</a>		ThinkPad Dock II											
		92P1101	ThinkPlus™ <sup>22</sup> 2-year LOR 9x5 NBD										
		92P1102	41C9175										
		73P4301	ThinkPlus 3-year LOR 9x5 NBD										
		74P6733	41C9176										
		287710U	ThinkPlus 4-year LOR 9x5 NBD										
			41C9177										
			ThinkPlus 5-year LOR 9x5 NBD										
			41C9179										
			ThinkPlus 4-year P&L P/U Depot										
			41C9178										
			ThinkPlus 5-year P&L P/U Depot										
			41C9180										
			Post-warranty annual maintenance agreements at <a href="http://lenovo.com/thinkplus/warranty">lenovo.com/thinkplus/warranty</a>										

See footnotes for important warranty information  
US models announced January 19, 2005  
US models withdrawn effective May or November 2006

\* Powered by Intel Centrino® mobile technology

© Lenovo  
(T4) December 2006

# ThinkPad® T43 (15.0" display) - August 2005 - withdrawn

Created by Lenovo Training Solutions  
Personal Systems Reference (PSREF)

Type-model	Processor	Speed GHz	Memory	Screen	Graphics controller	Disk GB <sup>8</sup>	Optical	Mini PCI Comm Bay wireless	CDC modem/Bluetooth™	Finger-print reader	Secu-rity chip	Workhorse (W) or Global (G) or Entry (E)	Avail date
1871-K1U	Pentium® M 760	2.00	512MB	15.0"	XGA	GMA 40HS	Combo	* Intel 11a/b/g <sup>32</sup>	Modem	Finger	Yes	915GM W	Aug 05
1871-K2U	Pentium M 760	2.00	512MB	15.0"	XGA	GMA 40HS	Combo	* Intel 11b/g <sup>32</sup>	Modem	Finger	Yes	915GM W G	Aug 05
2668-K5U	Pentium M 760	2.00	512MB	15.0"	XGA	X300 40HS	Combo	* Intel 11a/b/g	Modem	No	Yes	915PM W	Aug 05
2668-K6U	Pentium M 760	2.00	512MB	15.0"	XGA	X300 40HS	Combo	* Intel 11b/g	Modem	Finger	Yes	915PM W G	Aug 05
2668-K7U	Pentium M 760	2.00	512MB	15.0"	SXGA+	X300 40HS	Combo	* Intel 11b/g	Modem	Finger	Yes	915PM W G	Aug 05
2668-K8U	Pentium M 760	2.00	512MB	15.0"	SXGA+	X300 60HS	Combo	* Intel 11a/b/g	Modem	Finger	Yes	915PM W	Aug 05
2668-K9U	Pentium M 760	2.00	512MB	15.0"	SXGA+	X300 80HS	Combo	* Intel 11a/b/g	Modem	Finger	Yes	915PM W	Aug 05
2668-L2U	Pentium M 780	2.26	1GB	15.0"	SXGA+	X300 100GB	DVD±RW	* Intel 11a/b/g	Mod/Blue	Finger	Yes	915PM	Aug 05
2668-L3U	Pentium M 770	2.13	1GB	15.0"	SXGA+	X300 80U	DVD±RW	* Intel 11a/b/g	Mod/Blue	Finger	Yes	915PM	Aug 05
2668-L4U	Pentium M 770	2.13	512MB	15.0"	SXGA+	X300 100GB	DVD±RW	* Intel 11a/b/g	Mod/Blue	Finger	Yes	915PM	Aug 05
Positioning Processor	Perfect balance of performance and portability; two spindles <b>Intel® Pentium® M Processor 760 (2.00GHz), 770 (2.13GHz), or 780 (2.26GHz)</b> with Enhanced Intel SpeedStep™ technology <sup>1</sup> , Execute Disable Bit, and 533MHz system bus											<b>SOFTWARE<sup>14</sup></b> <b>Windows XP Professional</b> - Microsoft® Windows® XP Professional <sup>20</sup> (Service Pack 2) ⇨ Disk-to-Disk Recovery (in hidden protected area) <b>Preloaded</b> • Rescue and Recovery™ • Access Program • Access Connections™ • Norton AntiVirus • PC-Doctor™ • ThinkPad Utilities • Adobe® Reader • RecordNOW and Drive Letter Access powered by Sonic products (combo, DVD±RW) • InterVideo WinDVD (combo, DVD±RW models) • InterVideo WinDVD Creator (DVD±RW models) • Fingerprint Software (fingerprint models) • Client Security Software (for security chip) <b>Downloadable</b> • IBM Director Agent • Software Delivery Assistant • System Migration Assistant	
L2 cache	2MB / on die (at processor speed) / ECC												
Memory	512MB or 1GB std / 2GB max <sup>7</sup> / PC2-4200 533MHz DDR2 / non-parity / CL4 / dual channel capable / two 200-pin SO-DIMM sockets / std mem in 1 socket / 1 socket avail												
Diskette drive	None standard / use optional USB-based diskette drive												
Combo DVD±RW	Some: DVD-ROM/CD-RW / 24X/24X/24X/8X <sup>21</sup> speed / removable from Ultrabay Slim												
Ultrabay Slim Disk	Some: DVD and CD burner / Multi-Burner Plus / removable from Ultrabay Slim One modular bay for interchangeable devices (right side) / 9.5mm high bay 40GB <sup>8</sup> HS (5400 rpm), 60GB HS (5400 rpm), 80GB HS (5400 rpm), 80GB Ultra HS (7200 rpm), 100GB (5400 rpm) / 9.5mm high / removable, upgrade / 9.5mm high bay / supports 2nd disk / <b>Hard Disk Drive Shock Absorber / Active Protection System™</b>												
Display	Some: 15.0" (381.0mm) XGA (1024x768) TFT color / Active Matrix / 200 nits Some: 15.0" (381.0mm) SXGA+ (1400x1050) TFT color / Active Matrix / 200 nits / FlexView display with wide viewing angle and high density using IPS technology												
Graphics	Some: Intel Graphics Media Accelerator 900 (GMA 900) / integrated graphics in 915GM GMCH / uses main memory (up to 128MB with 256MB+) / 200MHz Some: ATI® MOBILITY™ Radeon™ X300 / PCI Express x16 / 64MB GDDR1 memory												
Keyboard	87-key / Access IBM button / palm rest / pitch: 19mm; stroke: 2.5mm (std-size keys)												
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar <sup>13</sup> , magnifying glass												
Touch pad	UltraNav® multi-pointing system / touch pad below keyboard / Tap Zones												
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions												
Dimensions <sup>3</sup>	15.0" models (WxDxH): 13.0" x 10.6" x 1.2-1.4"; 329mm x 268mm x 31-36mm												
Weight <sup>2</sup>	with optical drive and battery: up to 5.9 lb (2.7kg)												
Case material	Magnesium composite in the top cover, titanium-reinforced CFRP in bottom cover												
Battery - type	Lithium Ion 6-cell / intelligent / supports unique 2nd battery in Ultrabay Slim												
Battery - life <sup>10</sup>	Up to 3.9 hr; Optional 9-cell: up to 5.9 hr; 9-cell plus Ultrabay Slim battery: up to 7.7 hr												
Architecture	Some: Mobile Intel 915GM Express Chipset / 82915GM Graphics Mem Cont Hub Some: Mobile Intel 915PM Express Chipset / 82915PM Memory Controller Hub All: 82801FBM ICH6-M I/O Controller Hub (SATA150, ATA-100 EIDE, PCI Express x1, PCI bus, ethernet MAC, USB, Low Pin Count [LPC] interface, [Bluetooth], [fingerprint]) / PCI bus (CardBus controller, Mini PCI, external expansion) / LPC bus (NS PC8394T Super I/O for security chip (TPM), Asset ID, hardware event log, parallel, infrared, [docking-based ports (serial, diskette)])												
PC Card Std slot	One Type I or Type II slot / CardBus 32-bit / integrated door												
ExpressCard slot	One ExpressCard/34 or ExpressCard/54 / PCI Express x1 or USB 2.0 / integrated door												
Ports	Two USB (Version 2.0) / parallel / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / no keyboard or mouse or serial ports (use USB)												
Video out	S-video out port (TV out) / one 4-pin industry standard connector												
Wireless antenna	UltraConnect™ Antenna built into the display cover for optimal wireless signal reception												
Mini PCI	One Mini PCI type III slot (Communications Bay) / customer upgradable												
Intel 11b/g <sup>32</sup>	Some: 11b/g wireless <sup>4</sup> , Mini PCI, Intel PRO/Wireless 2200BG, Intel 82532 chip												
Intel 11a/b/g <sup>32</sup>	Some: 11a/b/g wireless <sup>4</sup> , Mini PCI, Intel PRO/Wireless 2915ABG, 82533 chipset												
CDC	One Communications Daughter Card (CDC) socket / customer accessible												
Modem	56K <sup>6</sup> V.90 (V.92-designed <sup>29</sup> ) modem in CDC / Conexant® chipset												
Bluetooth™	Some: Bluetooth wireless technology / in CDC (with modem)												
Ethernet	Gigabit ethernet on systemboard / Broadcom BCM5751M (MAC/PHY) / PCIe x1 / PXE												
Audio support	Soft audio / ICH AC97 controller / DirectSound® support / AD1981B AC97 codec / stereo speakers, 1 watt / volume up, down, mute buttons / internal microphone / microphone input jack (3.5 mm; pink) / headphone jack (3.5 mm; green)												
Security	Power-on password / hard disk password / supervisor password / security keyhole												
Security chip	Embedded Security Subsystem 2.0 <sup>33</sup> / in NS PC8394T chip / TCG-compliant												
Fingerprint reader	Some: Fingerprint reader on palm rest / swipe sensor / supports the security chip												
Limited warranty <sup>12</sup>	3-years/1-yr battery - EasyServ™ <sup>19</sup> onsite pickup and delivery / service upgrades <sup>22</sup> avail												
512MB PC2-5300 DDR2 CL5 SODIMM	40Y7733	ThinkPad T40/R50 Li-Ion Battery 6-cell	92P1101	ThinkPlus™ 2-year LOR 9x5 NBD	41C9175								
1GB PC2-5300 DDR2 CL5 SODIMM	40Y7734	ThinkPad T40/R50 Li-Ion Battery 9-cell	92P1102	ThinkPlus 3-year LOR 9x5 NBD	41C9176								
2GB PC2-5300 DDR2 SODIMM	40Y7735	Ultrabay Slim Li-Polymer Battery 3-cell	08K8190	ThinkPlus 4-year LOR 9x5 NBD	41C9177								
USB 2.0 Security Memory Key 2GB	41U5119	ThinkPad Multiple Battery Charger II	22P9040	ThinkPlus 5-year LOR 9x5 NBD	41C9179								
USB 2.0 Security Memory Key 4GB	41U5120	11a/b/g Wireless Mini PCI Adapter II	73P4301	ThinkPlus 4-year P&L P/U Depot	41C9178								
100GB Hard Disk 9.5mm PATA (5400 rpm)	40Y8716	ThinkPad Port Replicator II	74P6733	ThinkPlus 5-year P&L P/U Depot	41C9180								
Second HDD Adapter for Ultrabay Slim	41U3148	ThinkPad Mini Dock	287810U										
ThinkPad DVD Ultrabay Slim Burner (flat)	41N5643	ThinkPad Dock II	287710U										
Enh Perf Wireless Keyboard and Mouse	73P4067	Lenovo M500 Projector	0037A05										
USB Travel Keyboard with UltraNav	31P9490	ThinkVision® L201p 20.1" Monitor (blk)	9220HB1										
ExpressCard Gemplus Smart Card Reader	41N3043	Other accessories at <a href="http://lenovo.com/accessories">lenovo.com/accessories</a>											

See footnotes for important warranty information  
US models announced August 2, 2005  
US models withdrawn effective May 2006, Nov 2006, or Aug 2007

\* Powered by Intel Centrino® mobile technology

ThinkPad® T43p - withdrawn

Type-model	Processor	Speed GHz	Memory	Screen	Graphics controller memory	Disk GB <sup>1</sup>	Optical	Mini PCI Comm Bay wireless	CDC modem/ Bluetooth™	Finger print reader	Security chip	Battery life <sup>10</sup>	Workhorse (W) or Global (G) Entry (E)	Avail date
2668-G1U	Pentium® M 770	2.13	1GB	14.1" SXGA+	128MB	60U	Combo	* Intel 11a/b/g <sup>32</sup>	Mod/Blue	Finger	Yes	5.2 hr		Apr 05
2668-G3U	Pentium M 770	2.13	1GB	14.1" SXGA+	128MB	60U	Combo	* Intel 11a/b/g	Mod/Blue	No	Yes	5.2 hr		Apr 05
2668-G2U	Pentium M 770	2.13	1GB	14.1" SXGA+	128MB	60U	DVD±RW	* Intel 11a/b/g	Mod/Blue	Finger	Yes	5.1 hr		Apr 05
2668-G5U	Pentium M 770	2.13	1GB	14.1" SXGA+	128MB	60U	Combo	11a/b/g II <sup>32</sup>	Mod/Blue	Finger	Yes	5.2 hr		Apr 05
2668-G6U	Pentium M 770	2.13	1GB	14.1" SXGA+	128MB	60U	Combo	11a/b/g II	Mod/Blue	No	Yes	5.2 hr		Apr 05
2668-G7U	Pentium M 770	2.13	1GB	14.1" SXGA+	128MB	60U	DVD±RW	11a/b/g II	Mod/Blue	Finger	Yes	5.1 hr		Apr 05
2668-GDU	Pentium M 770	2.13	1GB	14.1" SXGA+	128MB	60U	Combo	* Intel 11b/g <sup>32</sup>	Mod/Blue	Finger	Yes	5.1 hr	Global	Jul 05
2668-GEU	Pentium M 770	2.13	1GB	14.1" SXGA+	128MB	60U	Combo	* Intel 11b/g	Mod/Blue	No	Yes	5.1 hr	Global	Jul 05
2668-H1U	Pentium M 770	2.13	1GB	15.0" UXGA	128MB	60U	Combo	* Intel 11a/b/g	Mod/Blue	Finger	Yes	4.8 hr		Apr 05
2668-H3U	Pentium M 770	2.13	1GB	15.0" UXGA	128MB	60U	Combo	11a/b/g II	Mod/Blue	Finger	Yes	4.8 hr		Apr 05
2668-H2U	Pentium M 770	2.13	1GB	15.0" UXGA	128MB	60U	DVD±RW	* Intel 11b/g	Mod/Blue	Finger	Yes	4.7 hr	Global	Apr 05
2668-H4U	Pentium M 770	2.13	1GB	15.0" UXGA	128MB	60U	Combo	* Intel 11a/b/g	Mod/Blue	No	Yes	4.8 hr		Apr 05
2668-H5U	Pentium M 770	2.13	1GB	15.0" UXGA	128MB	60U	DVD±RW	* Intel 11a/b/g	Mod/Blue	No	Yes	4.7 hr		Apr 05
2668-H7U	Pentium M 770	2.13	1GB	15.0" UXGA	128MB	60U	Combo	11a/b/g II	Mod/Blue	No	Yes	4.8 hr		Apr 05
2668-H8U	Pentium M 770	2.13	1GB	15.0" UXGA	128MB	60U	DVD±RW	11a/b/g II	Mod/Blue	No	Yes	4.7 hr		Apr 05
Positioning Processor	Perfect balance of performance and portability; two-spindle system													
L2 cache	Intel® Pentium® M Processor 770 (2.13GHz) with Enhanced Intel SpeedStep™ technology <sup>1</sup> . Execute Disable Bit, and 533MHz system bus													
Memory	2MB / on die (at processor speed) / ECC													
Diskette drive	None standard / use optional USB-based diskette drive													
DVD	Some: DVD-ROM / 24X-8X <sup>9</sup> speed / single-layer / removable from Ultrabay™ Slim													
Combo	Some: DVD-ROM/CD-RW / 24X/24X/24X/8X <sup>21</sup> speed / removable from Ultrabay Slim													
DVD±RW	Some: DVD and CD burner / Multi-Burner Plus / removable from Ultrabay Slim													
Ultrabay Slim	One modular bay for interchangeable devices (right side) / 9.5mm high bay													
Disk	60GB <sup>3</sup> Ultra HS (7200 rpm) / 9.5mm high / removable, upgradable / 9.5mm high bay / supports 2nd disk / Hard Disk Drive Shock Absorber / Active Protection System													
Display	Some: 14.1" (358.1mm) SXGA+ (1400x1050) TFT color / Active Matrix / 150 nits Some: 15.0" (381.0mm) UXGA (1600x1200) TFT color / Active Matrix / 200 nits / FlexView display with wide viewing angle and high density using IPS technology													
Graphics	ATI® MOBILITY™ FireGL™ V3200 / PCI Express x16 / 128MB GDDR1 memory													
Keyboard	87-key / Access IBM button / palm rest / pitch: 19mm; stroke: 2.5mm (std-size keys)													
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar <sup>13</sup> , magnifying glass													
Touch pad	UltraNav™ multi-pointing system / touch pad below keyboard / Tap Zones													
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions													
Dimensions <sup>3</sup>	14.1" models (WxDxH): 12.2" x 10.0" x 1.0-1.2"; 311mm x 255mm x 26.6-31.4mm 15.0" models (WxDxH): 13.0" x 10.6" x 1.2-1.4"; 329mm x 268mm x 31-36mm													
Weight <sup>2</sup>	with optical drive and battery: 14.1" models: up to 5.5 lb (2.5kg); 15": up to 6.3 lb (2.9 kg)													
Case material	Magnesium composite in the top cover, titanium-reinforced CFRP in bottom cover													
Battery - type	Lithium Ion 9-cell / intelligent / supports unique 2nd battery in Ultrabay Slim													
Battery - life <sup>10</sup>	9-cell: up to 5.2 hr; 9-cell plus Ultrabay Slim battery: up to 7.7 hr													
Architecture	Mobile Intel 915PM Express Chipset / 82915PM Memory Controller Hub (MCH-M) / 82801FBM ICH6-M I/O Controller Hub (SATA150, ATA-100 EIDE, PCI Express x1, PCI bus, ethernet MAC, USB, Low Pin Count [LPC] interface, [Bluetooth], [fingerprint]) / PCI bus (Ricoh® R5C811 CardBus controller, Mini PCI, external expansion) / LPC bus (National Semiconductor® PC8394T Super I/O for security chip (TPM), Asset ID, hardware event log, parallel, infrared, [docking-based ports (serial, diskette)])													
PC Card Std slot	One Type I or Type II slot / CardBus 32-bit / integrated door													
ExpressCard slot	One ExpressCard/34 or ExpressCard/54 / PCI Express x1 or USB 2.0 / integrated door													
Ports	Two USB (Version 2.0) / parallel / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / no keyboard or mouse or serial ports (use USB)													
Video out	S-video out port (TV out) / one 4-pin industry standard connector													
Wireless antenna	UltraConnect™ Antenna built into the display cover for optimal wireless signal reception													
Mini PCI	One Mini PCI type III slot (Communications Bay) / customer upgradable													
Intel 11b/g <sup>32</sup>	Some: 11b/g wireless <sup>4</sup> , Mini PCI, Intel PRO/Wireless 2200BG, Intel 82532 chip													
Intel 11a/b/g <sup>32</sup>	Some: 11a/b/g wireless <sup>4</sup> , Mini PCI, Intel PRO/Wireless 2915ABG, 82533 chipset													
11a/b/g II <sup>32</sup>	Some: 11a/b/g wireless <sup>4</sup> , ThinkPad 11a/b/g Mini PCI Adapter II, Atheros AR5004X chip													
CDC	One Communications Daughter Card (CDC) socket / customer accessible													
Modem	56K <sup>6</sup> V.90 (V.92-designed <sup>29</sup> ) modem in CDC / Conexant® chipset													
Bluetooth™	Bluetooth wireless technology / in CDC (with modem)													
Ethernet	Gigabit ethernet on systemboard / Broadcom BCM5751M (MAC/PHY) / PCIe x1 / PXE													
Audio support	Soft audio / ICH AC97 controller / DirectSound® support / AD1981B AC97 codec / stereo speakers, 1 watt / volume up, down, mute buttons / internal microphone / microphone input jack (3.5 mm; pink) / headphone jack (3.5 mm; green)													
Security	Power-on password / hard disk password / supervisor password / security keyhole													
Security chip	Embedded Security Subsystem 2.0 <sup>33</sup> / in NS PC8394T chip / TCG-compliant													
Fingerprint reader	Some: Fingerprint reader on palm rest / swipe sensor / integrated with security chip													
Limited warranty <sup>12</sup>	3-year/1-yr battery - EasyServ™ <sup>19</sup> onsite pickup and delivery / service upgrades <sup>22</sup> avail													
256MB PC2-4200 DDR2 NP CL4 SOD	73P3840	ThinkPad T40/R50 Li-Ion Battery 6-cell		92P1101										
512MB PC2-4200 DDR2 NP CL4 SOD	73P3842	ThinkPad T40/R50 Li-Ion Battery 9-cell		92P1102										
1GB PC2-4200 DDR2 NP CL4 SOD	73P3844	11a/b/g Wireless Mini PCI Adapter II		73P4301										
ExpressCard Gemplus Smart Card Reader	41N3043	ThinkPad Port Replicator II		74P6733										
100GB Hard Disk 9.5mm PATA (5400 rpm)	40Y8716	ThinkPad Dock II		287710U										
Super Multi-Burner Ultrabay Slim Drv (curve)	40Y8622	Other options at <a href="http://lenovo.com/options">lenovo.com/options</a>												
										<b>SOFTWARE<sup>14</sup></b> <b>Windows XP Professional</b> - Microsoft® Windows® XP Professional <sup>20</sup> (Service Pack 2) ⇨ Disk-to-Disk Recovery (in hidden protected area) <b>Preloaded</b> • Rescue and Recovery™ • Access Program • Access Connections™ • Norton AntiVirus • PC-Doctor™ • ThinkPad Utilities • Adobe® Reader • RecordNOW and Drive Letter Access powered by Sonic products (combo, DVD±RW) • InterVideo WinDVD (combo, DVD±RW models) • InterVideo WinDVD Creator (DVD±RW models) • Simple Backup (DVD±RW) • Fingerprint Software (fingerprint models) • Client Security Software (for security chip) <b>Downloadable</b> • IBM Director Agent • Software Delivery Assistant • System Migration Assistant <b>License (CD not included)</b> - Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client				
										ThinkPad notebooks implement ThinkVantage™ technologies an design; visit <a href="http://thinkpad.com/thinkvantage">thinkpad.com/thinkvantage</a>				
										Universal 72 watt AC adapter PC 2001-compliant ACPI 1.0b and 2.0-compliant CIM and DMI 2.0-compliant PXE 2.1-compliant ENERGY STAR®-compliant International Warranty Service <sup>17</sup> 24 hour x 7 day <sup>18</sup> toll-free warranty support during the warranty <sup>12</sup>				
										ThinkPlus™. <sup>22</sup> 2-year LOR 9x5 NBD 41C9175				
										ThinkPlus 3-year LOR 9x5 NBD 41C9176				
										ThinkPlus 4-year LOR 9x5 NBD 41C9177				
										ThinkPlus 5-year LOR 9x5 NBD 41C9179				
										ThinkPlus 4-year P&L P/U Depot 41C9178				
										ThinkPlus 5-year P&L P/U Depot 41C9180				
										Post-warranty annual maintenance agreements at <a href="http://lenovo.com/thinkplus/warranty">lenovo.com/thinkplus/warranty</a>				

See footnotes for important warranty information  
US models announced January 19 or July 19, 2005  
US models withdrawn effective November 2006

\* Powered by Intel Centrino® mobile technology

# ThinkPad® T43p (August 2005) - withdrawn

Created by Lenovo Training Solutions  
Personal Systems Reference (PSREF)

Type-model	Processor	Speed GHz	Memory	Screen	Graphics controller memory	Disk GB <sup>8</sup> and rpm	Optical	Mini PCI Comm Bay wireless	CDC modem/ Bluetooth™	Finger print reader	Secu- rity chip	Bat- tery cells	Workhorse or Global Entry	Avail date
2668-P3U	Pentium® M 780	2.26	1GB	14.1" SXGA+	128MB 80GB	7200	Combo	* Intel 11a/b/g <sup>32</sup>	Mod/Blue	Finger	Yes	9-cell		Aug 05
2668-P1U	Pentium M 780	2.26	1GB	14.1" SXGA+	128MB 80GB	7200	Combo	* Intel 11b/g <sup>32</sup>	Mod/Blue	No	Yes	9-cell	Global	Aug 05
2668-P4U	Pentium M 780	2.26	1GB	14.1" SXGA+	128MB 80GB	7200	DVD±RW	* Intel 11a/b/g	Mod/Blue	Finger	Yes	9-cell		Aug 05
2668-P2U	Pentium M 780	2.26	1GB	14.1" SXGA+	128MB 100G	7200	DVD±RW	* Intel 11a/b/g	Mod/Blue	Finger	Yes	9-cell		Aug 05
2668-Q3U	Pentium M 780	2.26	1GB	15.0" UXGA	128MB 80GB	7200	Combo	* Intel 11a/b/g	Mod/Blue	Finger	Yes	9-cell		Aug 05
2668-Q1U	Pentium M 780	2.26	1GB	15.0" UXGA	128MB 80GB	7200	DVD±RW	* Intel 11b/g	Mod/Blue	Finger	Yes	9-cell	Global	Aug 05
2668-Q2U	Pentium M 780	2.26	1GB	15.0" UXGA	128MB 100G	7200	DVD±RW	* Intel 11a/b/g	Mod/Blue	Finger	Yes	9-cell		Aug 05
2668-Q6U	Pentium M 780	2.26	1GB	15.0" UXGA	128MB 80GB	7200	Combo	* Intel 11a/b/g	Mod/Blue	No	Yes	9-cell		Aug 05
2668-Q7U	Pentium M 780	2.26	1GB	15.0" UXGA	128MB 80GB	7200	DVD±RW	* Intel 11a/b/g	Mod/Blue	No	Yes	9-cell		Aug 05
2668-PDU	Pentium M 780	2.26	1GB	14.1" SXGA+	128MB 100G	7200	DVD±RW	* Intel 11b/g	Mod/Blue	Finger	Yes	9-cell	Global	Oct 05
Positioning Processor	Perfect balance of performance and portability; two-spindle system <b>Intel® Pentium® M Processor 780 (2.26GHz)</b> with Enhanced Intel SpeedStep™ technology <sup>1</sup> , Execute Disable Bit, and 533MHz system bus													
L2 cache	<b>2MB</b> / on die (at processor speed) / ECC													
Memory	<b>1GB</b> std / <b>2GB</b> max <sup>7</sup> / PC2-4200 533MHz DDR2 / non-parity / CL4 / dual channel capable / two 200-pin SO-DIMM sockets / std mem in one socket / one socket available													
Diskette drive	None standard / use optional USB-based diskette drive													
DVD	Some: DVD-ROM / 24X-8X <sup>9</sup> speed / single-layer / removable from Ultrabay™ Slim													
Combo	Some: DVD-ROM/CD-RW / 24X/24X/24X/8X <sup>21</sup> speed / removable from Ultrabay Slim													
DVD±RW	Some: DVD and CD burner / Multi-Burner Plus / removable from Ultrabay Slim													
Ultrabay Slim	One modular bay for interchangeable devices (right side) / 9.5mm high bay													
Disk	<b>80GB<sup>8</sup></b> (7200 rpm) or <b>100GB<sup>8</sup></b> (7200 rpm) / 9.5mm high / removable, upgradable / 9.5mm high bay / supports 2nd disk / <b>Hard Disk Drive Shock Absorber / Active Protection System</b>													
Display	Some: <b>14.1"</b> (358.1mm) <b>SXGA+ (1400x1050) TFT color</b> / Active Matrix / 150 nits Some: <b>15.0"</b> (381.0mm) <b>UXGA (1600x1200) TFT color</b> / Active Matrix / 200 nits / FlexView display with wide viewing angle and high density using IPS technology													
Graphics	<b>ATI® MOBILITY™ FireGL™ V3200</b> / PCI Express x16 / <b>128MB</b> GDDR1 memory													
Keyboard	87-key / Access IBM button / palm rest / pitch: 19mm; stroke: 2.5mm (std-size keys)													
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar <sup>13</sup> , magnifying glass													
Touch pad	UltraNav™ multi-pointing system / touch pad below keyboard / Tap Zones													
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions													
Dimensions <sup>3</sup>	<b>14.1" models (WxDxH):</b> 12.2" x 10.0" x 1.0-1.2"; 311mm x 255mm x 26.6-31.4mm <b>15.0" models (WxDxH):</b> 13.0" x 10.6" x 1.2-1.4"; 329mm x 268mm x 31-36mm with optical drive and battery: <b>14.1" models:</b> up to 5.3 lb (2.4kg); <b>15.0":</b> up to 6.1 lb (2.8 kg)													
Weight <sup>2</sup>														
Case material	Magnesium composite in the top cover, titanium-reinforced CFRP in bottom cover													
Battery - type	Lithium Ion <b>9-cell</b> / intelligent / supports unique 2nd battery in Ultrabay Slim													
Battery - life <sup>10</sup>	<b>9-cell:</b> up to 5.0 hr; <b>9-cell plus Ultrabay Slim battery:</b> up to 7.5 hr													
Architecture	<b>Mobile Intel 915PM Express Chipset</b> / 82915PM Memory Controller Hub (MCH-M) / 82801FBM ICH6-M I/O Controller Hub (SATA150, ATA-100 EIDE, PCI Express x1, PCI bus, ethernet MAC, USB, Low Pin Count [LPC] interface, [Bluetooth], [fingerprint]) / PCI bus (Ricoh® R5C811 CardBus controller, Mini PCI, external expansion) / LPC bus (National Semiconductor® PC8394T Super I/O for security chip (TPM), Asset ID, hardware event log, parallel, infrared, [docking-based ports (serial, diskette)])													
PC Card Std slot	One Type I or Type II slot / CardBus 32-bit / integrated door													
ExpressCard slot	One ExpressCard/34 or ExpressCard/54 / PCI Express x1 or USB 2.0 / integrated door													
Ports	Two USB (Version 2.0) / parallel / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / no keyboard or mouse or serial ports (use USB)													
Video out	S-video out port (TV out) / one 4-pin industry standard connector													
Wireless antenna	UltraConnect™ Antenna built into the display cover for optimal wireless signal reception													
Mini PCI	One Mini PCI type III slot (Communications Bay) / customer upgradable													
Intel 11b/g <sup>32</sup>	Some: 11b/g wireless <sup>4</sup> , Mini PCI, Intel PRO/Wireless 2200BG, Intel 82532 chip													
Intel 11a/b/g <sup>32</sup>	Some: 11a/b/g wireless <sup>4</sup> , Mini PCI, Intel PRO/Wireless 2915ABG, 82533 chipset													
CDC	One Communications Daughter Card (CDC) socket / customer accessible													
Modem	56K <sup>6</sup> V.90 (V.92-designed <sup>29</sup> ) modem in CDC / Conexant® chipset													
Bluetooth™	Bluetooth wireless technology / in CDC (with modem)													
Ethernet	Gigabit ethernet on systemboard / Broadcom BCM5751M (MAC/PHY) / PCIe x1 / PXE													
Audio support	Soft audio / ICH AC97 controller / DirectSound™ support / AD1981B AC97 codec / stereo speakers, 1 watt / volume up, down, mute buttons / internal microphone / microphone input jack (3.5 mm; pink) / headphone jack (3.5 mm; green)													
Security	Power-on password / hard disk password / supervisor password / security keyhole													
Security chip	<b>Embedded Security Subsystem 2.0<sup>33</sup></b> / in NS PC8394T chip / TCG-compliant													
Fingerprint reader	Some: <b>Fingerprint reader on palm rest</b> / swipe sensor / integrated with security chip													
Limited warranty <sup>12</sup>	<b>3-year/1-yr battery</b> - EasyServ™ <sup>19</sup> onsite pickup and delivery / service upgrades <sup>22</sup> avail													
256MB PC2-4200 DDR2 NP CL4 SOD	73P3840	ThinkPad T40/R50 Li-Ion Battery 6-cell	92P1101	ThinkPlus™ <sup>22</sup> 2-year LOR 9x5 NBD	41C9175									
512MB PC2-4200 DDR2 NP CL4 SOD	73P3842	ThinkPad T40/R50 Li-Ion Battery 9-cell	92P1102	ThinkPlus 3-year LOR 9x5 NBD	41C9176									
1GB PC2-4200 DDR2 NP CL4 SOD	73P3844	Ultrabay Slim Li-Polymer Battery 3-cell	08K8190	ThinkPlus 4-year LOR 9x5 NBD	41C9177									
USB 2.0 Memory Key 1GB	40Y7421	ThinkPad Multiple Battery Charger II	22P9040	ThinkPlus 5-year LOR 9x5 NBD	41C9179									
USB 2.0 Portable 80GB Hard Disk	40Y8726	72W Slim AC/DC Combo Adapter	73P4485	ThinkPlus 4-year P&L P/U Depot	41C9178									
80GB HS Hard Disk 9.5mm (5400 rpm)	09N4273	11a/b/g Wireless Mini PCI Adapter II	73P4301	ThinkPlus 5-year P&L P/U Depot	41C9180									
100GB Hard Disk 9.5mm PATA (5400 rpm)	40Y8716	ThinkPad Port Replicator II	74P6733	Post-warranty annual maintenance agreements at	lenovo.com/thinkplus/warranty									
Second HDD Adapter for Ultrabay Slim	41U3148	ThinkPad Mini Dock	287810U											
Super Multi-Burner Ultrabay Slim Drv (curve)	40Y8622	ThinkPad Dock II	287710U											
Enh Perf Wireless Keyboard and Mouse	73P4067	ThinkVision® E500 Projector	0038A05											
USB Travel Keyboard with UltraNav	31P9490	ThinkVision L201p 20.1" Monitor (black)	9220HB1											
Optical 3-Button Travel Wheel Mouse	31P7410	Other options at <a href="http://lenovo.com/options">lenovo.com/options</a>												

See footnotes for important warranty information  
US models announced August 2 or October 11, 2005  
US models withdrawn effective November 2006

\* Powered by Intel Centrino® mobile technology

© Lenovo  
(T15) December 2006



# ThinkPad® T43 and T43p (1871 and 2668) - Education - withdrawn

Created by Lenovo Training Solutions  
Personal Systems Reference (PSREF)

Type-model	Processor	Speed GHz	Memory	Screen	Graphics controller	Disk GB <sup>8</sup>	Optical	Mini PCI Comm Bay wireless	CDC modem/Bluetooth™	Finger print reader	Chip set	Limited warranty <sup>12</sup>	Avail date
<b>T43</b> 1871-C1U	Pentium® M 750	1.86	512MB	14.1" XGA	GMA	40HS	Combo	* Intel 11a/b/g <sup>32</sup>	Modem	No	915GM	EasyServ	Feb 05
<b>T43</b> 2668-C5U	Pentium M 760	2.00	512MB	14.1" XGA	X300	60HS	DVD±RW	* Intel 11a/b/g	Modem	No	915PM	EasyServ	Feb 05
<b>T43</b> 2668-C2U	Pentium M 760	2.00	512MB	14.1" SXGA+	X300	80HS	Combo	* Intel 11a/b/g	Modem	No	915PM	EasyServ	Feb 05
<b>T43</b> 2668-C6U	Pentium M 760	2.00	512MB	14.1" SXGA+	X300	80HS	DVD±RW	* Intel 11a/b/g	Modem	No	915PM	EasyServ	Feb 05
<b>T43</b> 2668-C3U	Pentium M 760	2.00	512MB	15.0" SXGA+	X300	60HS	Combo	* Intel 11a/b/g	Modem	No	915PM	EasyServ	Feb 05
<b>T43p</b> 2668-C4U	Pentium M 770	2.13	1GB	15.0" UXGA	V3200	80HS	DVD±RW	* Intel 11a/b/g	Modem	No	915PM	EasyServ	Apr 05
<b>T43</b> 1871-CBU	Pentium M 750	1.86	512MB	14.1" XGA	GMA	40HS	Combo	11a/b/g II <sup>32</sup>	Modem	No	915GM	EasyServ	Aug 05
<b>T43</b> 2668-CCU	Pentium M 760	2.00	512MB	14.1" XGA	X300	60HS	DVD±RW	11a/b/g II	Modem	No	915PM	EasyServ	Aug 05
<b>T43</b> 2668-CDU	Pentium M 760	2.00	512MB	14.1" SXGA+	X300	80HS	Combo	11a/b/g II	Modem	No	915PM	EasyServ	Aug 05
<b>T43</b> 2668-CEU	Pentium M 760	2.00	512MB	14.1" SXGA+	X300	80HS	DVD±RW	11a/b/g II	Modem	No	915PM	EasyServ	Aug 05
<b>T43</b> 2668-CFU	Pentium M 760	2.00	512MB	15.0" SXGA+	X300	60HS	Combo	11a/b/g II	Modem	No	915PM	EasyServ	Aug 05
<b>T43p</b> 2668-CGU	Pentium M 770	2.13	1GB	15.0" UXGA	V3200	80HS	DVD±RW	11a/b/g II	Modem	No	915PM	EasyServ	Aug 05

• **These models have an EasyServ™<sup>19</sup> onsite pickup and delivery 3-year limited warranty**

These educational models are available only to public or private K-12 (or higher) accredited schools organized and operated exclusively for educational purposes for use by qualified students and teachers.

Positioning Processor	<i>Perfect balance of performance and portability; two-spindle system</i> <b>Intel® Pentium® M Processor 750 (1.86GHz), 760 (2.00GHz), or 770 (2.13GHz)</b> with Enhanced Intel SpeedStep™ technology <sup>1</sup> , Execute Disable Bit, and 533MHz bus	<b>SOFTWARE<sup>14</sup></b> <b>Windows XP Professional</b> - Microsoft® Windows® XP Professional <sup>20</sup> (Service Pack 2) ⇨ Disk-to-Disk Recovery (in hidden protected area)  <b>Preloaded</b> • Education software from Vital Source Technologies®: vidualsource KEY™ and Personal Portable library™ • Rescue and Recovery™ • Access Program • Access Connections™ • Norton AntiVirus • PC-Doctor™ • ThinkPad Utilities • Adobe® Reader • RecordNOW and Drive Letter Access powered by Sonic products (combo, DVD±RW) • InterVideo WinDVD (combo, DVD±RW models) • InterVideo WinDVD Creator (DVD±RW models) • Simple Backup (DVD±RW) • Client Security Software (for security chip)  <b>Downloadable</b> • IBM Director Agent • Software Delivery Assistant • System Migration Assistant  ThinkPad notebooks implement ThinkVantage™ technologies and design; visit <a href="http://thinkpad.com/thinkvantage">thinkpad.com/thinkvantage</a>  Universal 72 watt AC adapter PC 2001-compliant ACPI 1.0b and 2.0-compliant CIM and DMI 2.0-compliant PXE 2.1-compliant ENERGY STAR®-compliant International Warranty Service <sup>17</sup> 24 hour x 7 day <sup>18</sup> toll-free warranty support during the warranty <sup>12</sup>  ThinkPlus™ <sup>22</sup> 2-year LOR 9x5 NBD 41C9175 ThinkPlus 3-year LOR 9x5 NBD 41C9176 ThinkPlus 4-year LOR 9x5 NBD 41C9177 ThinkPlus 5-year LOR 9x5 NBD 41C9179 ThinkPlus 4-year P&L P/U Depot 41C9178 ThinkPlus 5-year P&L P/U Depot 41C9180 Post-warranty annual maintenance agreements at <a href="http://lenovo.com/thinkplus/warranty">lenovo.com/thinkplus/warranty</a>
L2 cache	<b>512MB</b> / on die (at processor speed) / ECC	
Memory	<b>2GB</b> std / 2GB max <sup>7</sup> / PC2-4200 533MHz DDR2 / non-parity / CL4 / dual channel capable / two 200-pin SO-DIMM sockets / std mem in 1 socket / 1 socket avail	
Diskette drive	None standard / use optional USB-based diskette drive	
Combo DVD±RW	<i>Some:</i> DVD-ROM/CD-RW / 24X/24X/24X/8X <sup>21</sup> speed / removable from Ultrabay Slim	
Ultrabay Slim	<i>Some:</i> DVD and CD burner / Multi-Burner Plus / removable from Ultrabay Slim	
Disk	One modular bay for interchangeable devices (right side) / 9.5mm high bay <b>40GB<sup>8</sup> HS</b> (5400 rpm), <b>60GB<sup>8</sup> HS</b> (5400 rpm), or <b>80GB HS</b> (5400 rpm) / 9.5mm high / removable, upgradable / 9.5mm high bay / supports 2nd disk / <b>Hard Disk Drive Shock Absorber / Active Protection System</b>	
Display	<i>Some:</i> <b>14.1"</b> (358.1mm) <b>XGA (1024x768) TFT color</b> / Active Matrix / 150 nits <i>Some:</i> <b>14.1"</b> (358.1mm) <b>SXGA+ (1400x1050) TFT color</b> / Active Matrix / 150 nits <i>Some:</i> <b>15.0"</b> (381.0mm) <b>SXGA+ (1400x1050) TFT color</b> / Active Matrix / 200 nits / FlexView display with wide viewing angle and high density using IPS technology <i>Some:</i> <b>15.0"</b> (381.0mm) <b>UXGA (1600x1200) TFT color</b> / Active Matrix / 200 nits / FlexView display with wide viewing angle and high density using IPS technology	
Graphics	<i>Some:</i> <b>Intel Graphics Media Accelerator 900 (GMA 900)</b> / integrated graphics in 915GM GMCH / uses main memory (up to 128MB with 256MB+) / 200MHz <i>Some:</i> <b>ATI® MOBILITY™ RADEON® X300</b> / PCI Express x16 / <b>64MB GDDR1</b> memory <i>Some:</i> <b>ATI MOBILITY FireGL™ V3200</b> / PCI Express x16 / <b>128MB GDDR1</b> memory	
Keyboard	87-key / Access IBM button / palm rest / pitch: 19mm; stroke: 2.5mm (std-size keys)	
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar <sup>13</sup> , magnifying glass	
Touch pad	UltraNav™ multi-pointing system / touch pad below keyboard / Tap Zones	
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions	
Dimensions <sup>3</sup>	<b>14.1" models (WxDxH):</b> 12.2" x 10.0" x 1.0-1.2"; 311mm x 255mm x 26.6-31.4mm <b>15.0" models (WxDxH):</b> 13.0" x 10.6" x 1.2-1.4"; 329mm x 268mm x 31-36mm	
Weight <sup>2</sup>	with optical drive and battery: <b>14.1" models:</b> up to 5.2 lb (2.3kg); <b>15":</b> up to 5.9 lb (2.7 kg)	
Case material	Magnesium composite in the top cover, titanium-reinforced CFRP in bottom cover	
Battery - type	Lithium Ion <b>6-cell</b> / intelligent / supports unique 2nd battery in Ultrabay Slim	
Battery - life <sup>10</sup>	Up to 4 hr; <i>Optional 9-cell:</i> up to 5.9 hr; <i>9-cell plus Ultrabay Slim battery:</i> up to 7.7 hr	
Architecture	<i>Some:</i> <b>Mobile Intel 915GM Express Chipset</b> / 82915GM Graphics Mem Cont Hub <i>Some:</i> <b>Mobile Intel 915PM Express Chipset</b> / 82915PM Memory Controller Hub <i>All:</i> 82801FBM ICH6-M I/O Controller Hub (SATA150, ATA-100 EIDE, PCI Express x1, PCI bus, ethernet MAC, USB, Low Pin Count [LPC] interface, [Bluetooth], [fingerprint]) / PCI bus (CardBus controller, Mini PCI, external expansion) / LPC bus (NS PC8394T Super I/O for security chip (TPM), Asset ID, hardware event log, parallel, infrared, [docking-based ports (serial, diskette)])	
PC Card Std slot	One Type I or Type II slot / CardBus 32-bit / integrated door	
ExpressCard slot	One ExpressCard/34 or ExpressCard/54 / PCI Express x1 or USB 2.0 / integrated door	
Ports	Two USB (Version 2.0) / parallel / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / no keyboard or mouse or serial ports (use USB)	
Video out	S-video out port (TV out) / one 4-pin industry standard connector	
Wireless antenna	UltraConnect™ Antenna built into the display cover for optimal wireless signal reception	
Mini PCI	One Mini PCI type III slot (Communications Bay) / customer upgradable	
Intel 11a/b/g <sup>32</sup>	<i>Some:</i> 11a/b/g wireless <sup>4</sup> , Mini PCI, Intel PRO/Wireless 2915ABG, 82533 chipset	
11a/b/g II <sup>32</sup>	<i>Some:</i> 11a/b/g wireless <sup>4</sup> , ThinkPad 11a/b/g Mini PCI Adapter II, Atheros AR5004X chip	
CDC	One Communications Daughter Card (CDC) socket / customer accessible	
Modem	56K <sup>6</sup> V.90 (V.92-designed <sup>29</sup> ) modem in CDC / Conexant® chipset	
Bluetooth™	None	
Ethernet	Gigabit ethernet on systemboard / Broadcom BCM5751M (MAC/PHY) / PCIe x1 / PXE	
Audio support	Soft audio / ICH AC97 controller / DirectSound™ support / AD1981B AC97 codec / stereo speakers / 1 watt / volume up, down, mute buttons / internal microphone / microphone input jack (3.5 mm; pink) / headphone jack (3.5 mm; green)	
Security	Power-on password / hard disk password / supervisor password / security keyhole	
Security chip	<b>Embedded Security Subsystem 2.0<sup>33</sup></b> / in NS PC8394T chip / TCG-compliant	
Fingerprint reader	None	
Limited warranty <sup>12</sup>	<b>3-year/1-yr battery - EasyServ™<sup>19</sup> onsite pickup and delivery / service upgrades<sup>22</sup> avail</b>	

See footnotes for important warranty information \* Powered by Intel Centrino® mobile technology

US models announced January 19, 2005 or August 16, 2005

US models withdrawn effective March, October, or November 2006

© Lenovo  
(T6) October 2006

# ThinkPad® T43 and T43p (1871 and 2668) - Education (Aug 05) - withdrawn Created by Lenovo Training Solutions Personal Systems Reference (PSREF)

Type-model	Processor	Speed GHz	Memory	Screen	Graphics controller	Disk GB <sup>8</sup>	Optical	Mini PCI Comm Bay wireless	CDC modem/Bluetooth™	Finger print reader	Chip set	Limited warranty <sup>12</sup>	Avail date
<b>T43</b> 1871-CJU	Pentium® M 760	2.00	512MB	14.1" XGA	GMA	40HS	Combo	* Intel 11a/b/g <sup>32</sup>	Modem	Finger	915GM	EasyServ	Aug 05
<b>T43</b> 2668-CKU	Pentium M 770	2.13	512MB	14.1" XGA	X300	60HS	DVD±RW	* Intel 11a/b/g	Modem	Finger	915PM	EasyServ	Aug 05
<b>T43</b> 2668-CLU	Pentium M 770	2.13	512MB	14.1" SXGA+	X300	80HS	Combo	* Intel 11a/b/g	Modem	Finger	915PM	EasyServ	Aug 05
<b>T43</b> 2668-CMU	Pentium M 770	2.13	512MB	14.1" SXGA+	X300	80HS	DVD±RW	* Intel 11a/b/g	Modem	Finger	915PM	EasyServ	Aug 05
<b>T43</b> 2668-CNU	Pentium M 770	2.13	512MB	15.0" SXGA+	X300	60HS	Combo	* Intel 11a/b/g	Modem	Finger	915PM	EasyServ	Aug 05
<b>T43p</b> 2668-CPU	Pentium M 780	2.26	1GB	15.0" UXGA	V3200	80HS	DVD±RW	* Intel 11a/b/g	Modem	Finger	915PM	EasyServ	Aug 05

• **These models have an EasyServ™.19 onsite pickup and delivery 3-year limited warranty**

These educational models are available only to public or private K-12 (or higher) accredited schools organized and operated exclusively for educational purposes for use by qualified students and teachers.

Positioning Processor	<i>Perfect balance of performance and portability; two-spindle system</i>										<b>SOFTWARE<sup>14</sup></b>		
L2 cache	Intel® Pentium® M Processor 760 (2.00GHz), 770 (2.13GHz), or 780 (2.26GHz) with Enhanced Intel SpeedStep™ technology <sup>1</sup> , Execute Disable Bit, and 533MHz bus										Windows XP Professional		
Memory	2MB / on die (at processor speed) / ECC										- Microsoft® Windows® XP Professional <sup>20</sup> (Service Pack 2)		
Diskette drive	None standard / use optional USB-based diskette drive										↔ Disk-to-Disk Recovery (in hidden protected area)		
Combo DVD±RW	Some: DVD-ROM/CD-RW / 24X/24X/24X/8X <sup>21</sup> speed / removable from Ultrabay Slim										<b>Preloaded</b>		
Ultrabay Slim	Some: DVD and CD burner / Multi-Burner Plus / removable from Ultrabay Slim										• Education software from Vital Source Technologies®: vitalsource KEY™ and Personal Portable library™		
Disk	One modular bay for interchangeable devices (right side) / 9.5mm high bay										• Rescue and Recovery™		
	40GB <sup>8</sup> HS (5400 rpm), 60GB <sup>8</sup> HS (5400 rpm), or 80GB HS (5400 rpm) / 9.5mm high / removable, upgradable / 9.5mm high bay / supports 2nd disk /										• Access Program		
	<b>Hard Disk Drive Shock Absorber / Active Protection System</b>										• Access Connections™		
Display	Some: 14.1" (358.1mm) XGA (1024x768) TFT color / Active Matrix / 150 nits										• Norton AntiVirus		
	Some: 14.1" (358.1mm) SXGA+ (1400x1050) TFT color / Active Matrix / 150 nits										• PC-Doctor™		
	Some: 15.0" (381.0mm) SXGA+ (1400x1050) TFT color / Active Matrix / 200 nits / FlexView display with wide viewing angle and high density using IPS technology										• ThinkPad Utilities		
	Some: 15.0" (381.0mm) UXGA (1600x1200) TFT color / Active Matrix / 200 nits / FlexView display with wide viewing angle and high density using IPS technology										• Adobe® Reader		
Graphics	Some: Intel Graphics Media Accelerator 900 (GMA 900) / integrated graphics in 915GM GMCH / uses main memory (up to 128MB with 256MB+) / 200MHz										• RecordNOW and Drive Letter Access powered by Sonic products (combo, DVD±RW)		
	Some: ATI® MOBILITY™ RADEON® X300 / PCI Express x16 / 64MB GDDR1 memory										• InterVideo WinDVD (combo, DVD±RW models)		
	Some: ATI MOBILITY FireGL™ V3200 / PCI Express x16 / 128MB GDDR1 memory										• InterVideo WinDVD Creator (DVD±RW models)		
Keyboard	87-key / Access IBM button / palm rest / pitch: 19mm; stroke: 2.5mm (std-size keys)										• Fingerprint Software		
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar <sup>13</sup> , magnifying glass										• Client Security Software (for security chip)		
Touch pad	UltraNav™ multi-pointing system / touch pad below keyboard / Tap Zones										<b>Downloadable</b>		
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions										• IBM Director Agent		
Dimensions <sup>3</sup>	14.1" models (WxDxH): 12.2" x 10.0" x 1.0-1.2"; 311mm x 255mm x 26.6-31.4mm										• Software Delivery Assistant		
Weight <sup>2</sup>	15.0" models (WxDxH): 13.0" x 10.6" x 1.2-1.4"; 329mm x 268mm x 31-36mm										• System Migration Assistant		
Case material	with optical drive and battery: 14.1" models: up to 5.2 lb (2.3kg); 15": up to 6.0 lb (2.7 kg)												
Battery - type	Magnesium composite in the top cover, titanium-reinforced CFRP in bottom cover												
Battery - life <sup>10</sup>	Lithium Ion 6-cell / intelligent / supports unique 2nd battery in Ultrabay Slim												
Architecture	Up to 4 hr; Optional 9-cell: up to 5.9 hr; 9-cell plus Ultrabay Slim battery: up to 7.7 hr												
	Some: Mobile Intel 915GM Express Chipset / 82915GM Graphics Mem Cont Hub												
	Some: Mobile Intel 915PM Express Chipset / 82915PM Memory Controller Hub												
	All: 82801FBM ICH6-M I/O Controller Hub (SATA150, ATA-100 EIDE, PCI Express x1, PCI bus, ethernet MAC, USB, Low Pin Count [LPC] interface, [Bluetooth], [fingerprint]) / PCI bus (CardBus controller, Mini PCI, external expansion) / LPC bus (NS PC8394T Super I/O for security chip (TPM), Asset ID, hardware event log, parallel, infrared, [docking-based ports (serial, diskette)])										ThinkPad notebooks implement ThinkVantage™ technologies and design; visit <a href="http://thinkpad.com/thinkvantage">thinkpad.com/thinkvantage</a>		
PC Card Std slot	One Type I or Type II slot / CardBus 32-bit / integrated door										Universal 72 watt AC adapter		
ExpressCard slot	One ExpressCard/34 or ExpressCard/54 / PCI Express x1 or USB 2.0 / integrated door										PC 2001-compliant		
Ports	Two USB (Version 2.0) / parallel / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / no keyboard or mouse or serial ports (use USB)										ACPI 1.0b and 2.0-compliant		
Video out	S-video out port (TV out) / one 4-pin industry standard connector										CIM and DMI 2.0-compliant		
Wireless antenna	UltraConnect™ Antenna built into the display cover for optimal wireless signal reception										PXE 2.1-compliant		
Mini PCI	One Mini PCI type III slot (Communications Bay) / customer upgradable										ENERGY STAR®-compliant		
Intel 11a/b/g <sup>32</sup>	11a/b/g wireless <sup>4</sup> , Mini PCI, Intel PRO/Wireless 2915ABG, 82533 chipset										International Warranty Service <sup>17</sup>		
CDC	One Communications Daughter Card (CDC) socket / customer accessible										24 hour x 7 day <sup>18</sup> toll-free warranty support during the warranty <sup>12</sup>		
Modem	56K <sup>6</sup> V.90 (V.92-designed <sup>29</sup> ) modem in CDC / Conexant® chipset												
Bluetooth™	None												
Ethernet	Gigabit ethernet on systemboard / Broadcom BCM5751M (MAC/PHY) / PCIe x1 / PXE												
Audio support	Soft audio / ICH AC97 controller / DirectSound® support / AD1981B AC97 codec / stereo speakers, 1 watt / volume up, down, mute buttons / internal microphone / microphone input jack (3.5 mm; pink) / headphone jack (3.5 mm; green)										ThinkPlus™.22 2-year LOR 9x5 NBD 41C9175		
Security	Power-on password / hard disk password / supervisor password / security keyhole										ThinkPlus 3-year LOR 9x5 NBD 41C9176		
Security chip	<b>Embedded Security Subsystem 2.0<sup>33</sup></b> / in NS PC8394T chip / TCG-compliant										ThinkPlus 4-year LOR 9x5 NBD 41C9177		
Fingerprint reader	<b>Fingerprint reader on palm rest</b> / swipe sensor / integrated with security chip										ThinkPlus 5-year LOR 9x5 NBD 41C9179		
Limited warranty <sup>12</sup>	<b>3-year/1-yr battery - EasyServ™.19 onsite pickup and delivery / service upgrades<sup>22</sup> avail</b>										ThinkPlus 4-year P&L P/U Depot 41C9178		
256MB PC2-4200 DDR2 NP CL4 SOD	73P3840		ThinkPad T40/R50 Li-Ion Battery 6-cell		92P1101		ThinkPlus 5-year P&L P/U Depot 41C9180						
512MB PC2-4200 DDR2 NP CL4 SOD	73P3842		ThinkPad T40/R50 Li-Ion Battery 9-cell		92P1102		Post-warranty annual maintenance agreements at <a href="http://lenovo.com/thinkplus/warranty">lenovo.com/thinkplus/warranty</a>						
1GB PC2-4200 DDR2 NP CL4 SOD	73P3844		11a/b/g Wireless Mini PCI Adapter II		73P4301								
USB Fingerprint Reader	73P4774		ThinkPad Port Replicator II		74P6733								
100GB Hard Disk 9.5mm PATA (5400 rpm)	40Y8716		ThinkPad Dock II		287710U								
Second HDD Adapter for Ultrabay Slim	41U3148		ThinkVision® L201p 20.1" Monitor (black)		9320HB1								
Enh Perf Wireless Keyboard and Mouse	73P4067		Other options at <a href="http://lenovo.com/options">lenovo.com/options</a>										

See footnotes for important warranty information

\* Powered by Intel Centrino® mobile technology

© Lenovo

US models announced August 2, 2005

(T16) October 2006

US models withdrawn effective May, October, or November 2006

# ThinkPad® T43 and T43p (1872 and 2669) - Education - withdrawn

Created by Lenovo Training Solutions  
Personal Systems Reference (PSREF)

Type-model	Processor	Speed GHz	Memory	Screen	Graphics controller	Disk GB <sup>8</sup>	Optical	Mini PCI Comm Bay wireless	CDC modem/Bluetooth™	Finger print reader	Chip set	Limited warranty <sup>12</sup>	Avail date
T43	1872-C1U	Pentium® M 750	1.86 512MB	14.1" XGA	GMA	40HS	Combo	* Intel 11a/b/g <sup>32</sup>	Modem	No	915GM	Onsite	Feb 05
T43	2669-C5U	Pentium M 760	2.00 512MB	14.1" XGA	X300	60HS	DVD±RW	* Intel 11a/b/g	Modem	No	915PM	Onsite	Feb 05
T43	2669-C2U	Pentium M 760	2.00 512MB	14.1" SXGA+	X300	80HS	Combo	* Intel 11a/b/g	Modem	No	915PM	Onsite	Feb 05
T43	2669-C6U	Pentium M 760	2.00 512MB	14.1" SXGA+	X300	80HS	DVD±RW	* Intel 11a/b/g	Modem	No	915PM	Onsite	Feb 05
T43	2669-C3U	Pentium M 760	2.00 512MB	15.0" SXGA+	X300	60HS	Combo	* Intel 11a/b/g	Modem	No	915PM	Onsite	Feb 05
T43p	2669-C4U	Pentium M 770	2.13 1GB	15.0" UXGA	V3200	80HS	DVD±RW	* Intel 11a/b/g	Modem	No	915PM	Onsite	Apr 05
T43	2669-C7U	Pentium M 750	1.86 512MB	14.1" XGA	X300	40HS	Combo	* Intel 11b/g <sup>32</sup>	Modem	No	915PM	Onsite	Feb 05
T43	2669-C8U	Pentium M 750	1.86 512MB	14.1" SXGA+	X300	80HS	Combo	* Intel 11b/g	Modem	No	915PM	Onsite	Feb 05
T43	2669-C9U	Pentium M 750	1.86 512MB	15.0" SXGA+	X300	40HS	DVD±RW	* Intel 11b/g	Modem	No	915PM	Onsite	Feb 05
T43p	2669-CAU	Pentium M 750	1.86 512MB	15.0" UXGA	V3200	80HS	DVD±RW	* Intel 11b/g	Mod/Blue	No	915PM	Onsite	Apr 05
T43	1872-CBU	Pentium M 750	1.86 512MB	14.1" XGA	GMA	40HS	Combo	* Intel 11a/b/g II <sup>32</sup>	Modem	No	915GM	Onsite	Aug 05
T43	2669-CCU	Pentium M 760	2.00 512MB	14.1" XGA	X300	60HS	DVD±RW	11a/b/g II	Modem	No	915PM	Onsite	Aug 05
T43	2669-CDU	Pentium M 760	2.00 512MB	14.1" SXGA+	X300	80HS	Combo	11a/b/g II	Modem	No	915PM	Onsite	Aug 05
T43	2669-CEU	Pentium M 760	2.00 512MB	14.1" SXGA+	X300	80HS	DVD±RW	11a/b/g II	Modem	No	915PM	Onsite	Aug 05
T43	2669-CFU	Pentium M 760	2.00 512MB	15.0" SXGA+	X300	60HS	Combo	11a/b/g II	Modem	No	915PM	Onsite	Aug 05
T43p	2669-CGU	Pentium M 770	2.13 1GB	15.0" UXGA	V3200	80HS	DVD±RW	11a/b/g II	Modem	No	915PM	Onsite	Aug 05

• **These models have a limited onsite service<sup>24</sup> 3-year limited warranty**

These educational models are available only to public or private K-12 (or higher) accredited schools organized and operated exclusively for educational purposes for use by qualified students and teachers.

Processor	Intel® Pentium® M Processor 750 (1.86GHz), 760 (2.00GHz), or 770 (2.13GHz) with Enhanced Intel SpeedStep™ technology <sup>1</sup> , Execute Disable Bit, and 533MHz bus	<p><b>SOFTWARE<sup>14</sup></b></p> <p><b>Windows XP Professional</b></p> <ul style="list-style-type: none"> <li>- Microsoft® Windows® XP Professional<sup>20</sup> (Service Pack 2)</li> <li>↔ Disk-to-Disk Recovery (in hidden protected area)</li> </ul> <p><b>Preloaded</b></p> <ul style="list-style-type: none"> <li>• Education software from Vital Source Technologies®: vitalsource KEY™ and Personal Portable library™</li> <li>• Rescue and Recovery™</li> <li>• Access Program</li> <li>• Access Connections™</li> <li>• Norton AntiVirus</li> <li>• PC-Doctor™</li> <li>• ThinkPad Utilities</li> <li>• Adobe® Reader</li> <li>• Update Connector™<sup>15</sup></li> <li>• RecordNOW and Drive Letter Access powered by Sonic products (combo, DVD±RW)</li> <li>• InterVideo WinDVD (combo, DVD±RW models)</li> <li>• InterVideo WinDVD Creator (DVD±RW models)</li> <li>• Simple Backup (DVD±RW)</li> <li>• Client Security Software (for security chip)</li> </ul> <p><b>Downloadable</b></p> <ul style="list-style-type: none"> <li>• IBM Director Agent</li> <li>• Software Delivery Assistant</li> <li>• System Migration Assistant</li> </ul> <p><b>License</b> (CD not included)</p> <ul style="list-style-type: none"> <li>- Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client</li> </ul>
L2 cache	2MB / on die (at processor speed) / ECC	
Memory	512MB or 1GB std / 2GB max <sup>7</sup> / PC2-4200 533MHz DDR2 / non-parity / CL4 / dual channel capable / two 200-pin SO-DIMM sockets / std mem in 1 socket / 1 socket avail	
Combo DVD±RW	Some: DVD-ROM/CD-RW / 24X/24X/24X/8X <sup>21</sup> speed / removable from Ultrabay Slim Some: DVD and CD burner / Multi-Burner Plus / removable from Ultrabay Slim	
Ultrabay Slim Disk	One modular bay for interchangeable devices (right side) / 9.5mm high bay 40GB <sup>8</sup> HS (5400 rpm), 60GB <sup>8</sup> HS (5400 rpm), or 80GB HS (5400 rpm) / 9.5mm high / removable, upgradable / 9.5mm high bay / supports 2nd disk / <b>Hard Disk Drive Shock Absorber / Active Protection System</b>	
Display	Some: 14.1" (358.1mm) XGA (1024x768) TFT color / Active Matrix / 150 nits Some: 14.1" (358.1mm) SXGA+ (1400x1050) TFT color / Active Matrix / 150 nits Some: 15.0" (381.0mm) SXGA+ (1400x1050) TFT color / Active Matrix / 200 nits / FlexView display with wide viewing angle and high density using IPS technology Some: 15.0" (381.0mm) UXGA (1600x1200) TFT color / Active Matrix / 200 nits / FlexView display with wide viewing angle and high density using IPS technology	
Graphics	Some: Intel Graphics Media Accelerator 900 (GMA 900) / integrated graphics in 915GM GMCH / uses main memory (up to 128MB with 256MB+) / 200MHz Some: ATI® MOBILITY™ RADEON® X300 / PCI Express x16 / 64MB GDDR1 memory Some: ATI® MOBILITY FireGL™ V3200 / PCI Express x16 / 128MB GDDR1 memory	
Keyboard	87-key / Access IBM button / palm rest / pitch: 19mm; stroke: 2.5mm (std-size keys)	
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar <sup>13</sup> , magnifying glass	
Touch pad	UltraNav™ multi-pointing system / touch pad below keyboard / Tap Zones	
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions	
Dimensions <sup>3</sup>	14.1" models (WxDxH): 12.2" x 10.0" x 1.0-1.2"; 311mm x 255mm x 26.6-31.4mm 15.0" models (WxDxH): 13.0" x 10.6" x 1.2-1.4"; 329mm x 268mm x 31-36mm with optical drive and battery: 14.1" models: up to 5.2 lb (2.3kg); 15": up to 5.9 lb (2.7 kg)	
Weight <sup>2</sup>		
Case material	Magnesium composite in the top cover, titanium-reinforced CFRP in bottom cover	
Battery - type	Lithium Ion 6-cell / intelligent / supports unique 2nd battery in Ultrabay Slim	
Battery - life <sup>10</sup>	Up to 3.9 hr; Optional 9-cell: up to 5.9 hr; 9-cell plus Ultrabay Slim battery: up to 7.7 hr	
Architecture	Some: Mobile Intel 915GM Express Chipset / 82915GM Graphics Mem Cont Hub Some: Mobile Intel 915PM Express Chipset / 82915PM Memory Controller Hub All: 82801FBM ICH6-M I/O Controller Hub (SATA150, ATA-100 EIDE, PCI Express x1, PCI bus, ethernet MAC, USB, Low Pin Count [LPC] interface, [Bluetooth], [fingerprint]) / PCI bus (CardBus controller, Mini PCI, external expansion) / LPC bus (NS PC8394T Super I/O for security chip (TPM), Asset ID, hardware event log, parallel, infrared, [docking-based ports (serial, diskette)])	
PC Card Std slot	One Type I or Type II slot / CardBus 32-bit / integrated door	
ExpressCard slot	One ExpressCard/34 or ExpressCard/54 / PCI Express x1 or USB 2.0 / integrated door	
Ports	Two USB (Version 2.0) / parallel / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / no keyboard or mouse or serial ports (use USB)	
Video out	S-video out port (TV out) / one 4-pin industry standard connector	
Mini PCI	One Mini PCI type III slot (Communications Bay) / customer upgradable	
Intel 11b/g <sup>32</sup>	Some: 11b/g wireless <sup>4</sup> , Mini PCI, Intel PRO/Wireless 2200BG, Intel 82532 chip	
Intel 11a/b/g <sup>32</sup>	Some: 11a/b/g wireless <sup>4</sup> , Mini PCI, Intel PRO/Wireless 2915ABG, 82533 chipset	
11a/b/g II <sup>32</sup>	Some: 11a/b/g wireless <sup>4</sup> , ThinkPad 11a/b/g Mini PCI Adapter II, Atheros AR5004X chip	
CDC	One Communications Daughter Card (CDC) socket / customer accessible	
Modem	56K <sup>6</sup> V.90 (V.92-designed <sup>29</sup> ) modem in CDC / Conexant® chipset	
Bluetooth™	Some: Bluetooth wireless technology / in CDC (with modem)	
Ethernet	Gigabit ethernet on systemboard / Broadcom BCM5751M (MAC/PHY) / PCIe x1 / PXE	
Audio support	Soft audio / ICH AC97 controller / DirectSound® support / AD1981B AC97 codec / stereo speakers / 1 watt / volume up, down, mute buttons / internal microphone / microphone input jack (3.5 mm; pink) / headphone jack (3.5 mm; green)	
Security	Power-on password / hard disk password / supervisor password / security keyhole	
Security chip	Embedded Security Subsystem 2.0 <sup>33</sup> / in NS PC8394T chip / TCG-compliant	
Limited warranty <sup>12</sup>	3-year/1-year battery, limited onsite service <sup>24</sup> , 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time	
	ThinkPad notebooks implement ThinkVantage™ technologies and design; visit <a href="http://thinkpad.com/thinkvantage">thinkpad.com/thinkvantage</a>	
	Universal 72 watt AC adapter PC 2001-compliant ACPI 1.0b and 2.0-compliant CIM and DMI 2.0-compliant PXE 2.1-compliant ENERGY STAR®-compliant International Warranty Service <sup>17</sup> 24 hour x 7 day <sup>18</sup> toll-free warranty support during the warranty <sup>12</sup>	
	Post-warranty annual maintenance agreements at <a href="http://lenovo.com/thinkplus/warranty">lenovo.com/thinkplus/warranty</a>	

See footnotes for important warranty information \* Powered by Intel Centrino® mobile technology  
US models announced January 19, 2005 or August 16, 2005  
US models withdrawn effective March, October, or November 2006

# ThinkPad® T43 and T43p (1872 and 2669) - Education (Aug 05) - withdrawn Created by Lenovo Training Solutions Personal Systems Reference (PSREF)

Type-model	Processor	Speed GHz	Memory	Screen	Graphics controller	Disk GB <sup>8</sup>	Optical	Mini PCI Comm Bay wireless	GDC modem/Bluetooth™	Finger print reader	Chip set	Limited warranty <sup>12</sup>	Avail date
<b>T43</b> 1872-CJU	Pentium® M 760	2.00	512MB	14.1" XGA	GMA	40HS	Combo	* Intel 11a/b/g <sup>32</sup>	Modem	Finger	915GM	Onsite	Aug 05
<b>T43</b> 2669-CKU	Pentium M 770	2.13	512MB	14.1" XGA	X300	60HS	DVD±RW	* Intel 11a/b/g	Modem	Finger	915PM	Onsite	Aug 05
<b>T43</b> 2669-CLU	Pentium M 770	2.13	512MB	14.1" SXGA+	X300	80HS	Combo	* Intel 11a/b/g	Modem	Finger	915PM	Onsite	Aug 05
<b>T43</b> 2669-CMU	Pentium M 770	2.13	512MB	14.1" SXGA+	X300	80HS	DVD±RW	* Intel 11a/b/g	Modem	Finger	915PM	Onsite	Aug 05
<b>T43</b> 2669-CNU	Pentium M 770	2.13	512MB	15.0" SXGA+	X300	60HS	Combo	* Intel 11a/b/g	Modem	Finger	915PM	Onsite	Aug 05
<b>T43p</b> 2669-CPU	Pentium M 780	2.26	1GB	15.0" UXGA	V3200	80HS	DVD±RW	* Intel 11a/b/g	Modem	Finger	915PM	Onsite	Aug 05
<b>T43</b> 2669-CQU	Pentium M 760	2.00	512MB	14.1" XGA	X300	40HS	Combo	* Intel 11b/g <sup>32</sup>	Modem	Finger	915PM	Onsite	Aug 05
<b>T43</b> 2669-CRU	Pentium M 760	2.00	512MB	14.1" SXGA+	X300	80HS	Combo	* Intel 11b/g	Modem	Finger	915PM	Onsite	Aug 05
<b>T43</b> 2669-CSU	Pentium M 760	2.00	512MB	15.0" SXGA+	X300	40HS	DVD±RW	* Intel 11b/g	Modem	Finger	915PM	Onsite	Aug 05
<b>T43p</b> 2669-CTU	Pentium M 760	2.00	512MB	15.0" UXGA	V3200	80HS	DVD±RW	* Intel 11b/g	Mod/Blue	Finger	915PM	Onsite	Aug 05

• **These models have a limited onsite service<sup>24</sup> 3-year limited warranty**

These educational models are available only to public or private K-12 (or higher) accredited schools organized and operated exclusively for educational purposes for use by qualified students and teachers.

Positioning Processor	<i>Perfect balance of performance and portability; two-spindle system</i> <b>Intel® Pentium® M Processor 760 (2.00GHz), 770 (2.13GHz), or 780 (2.26GHz)</b> with Enhanced Intel SpeedStep™ technology <sup>1</sup> , Execute Disable Bit, and 533MHz bus	<b>SOFTWARE<sup>14</sup></b> <b>Windows XP Professional</b> - Microsoft® Windows® XP Professional <sup>20</sup> (Service Pack 2) ↔ Disk-to-Disk Recovery (in hidden protected area)
L2 cache	<b>2MB</b> / on die (at processor speed) / ECC	<b>Preloaded</b> • Education software from Vital Source Technologies®: vitalsource KEY™ and Personal Portable library™ • Rescue and Recovery™ • Access Program • Access Connections™ • Norton AntiVirus • PC-Doctor™ • ThinkPad Utilities • Adobe® Reader • RecordNOW and Drive Letter access powered by Sonic products (combo, DVD±RW) • InterVideo WinDVD (combo, DVD±RW models) • InterVideo WinDVD Creator (DVD±RW models) • Fingerprint Software • Client Security Software (for security chip)
Memory	<b>512MB</b> or <b>1GB</b> std / 2GB max <sup>7</sup> / PC2-4200 533MHz DDR2 / non-parity / CL4 / dual channel capable / two 200-pin SO-DIMM sockets / std mem in 1 socket / 1 socket avail	
Diskette drive	None standard / use optional USB-based diskette drive	<b>Downloadable</b> • IBM Director Agent • Software Delivery Assistant • System Migration Assistant
Combo DVD±RW Ultrabay Slim Disk	<i>Some:</i> DVD-ROM/CD-RW / 24X/24X/24X/8X <sup>21</sup> speed / removable from Ultrabay Slim <i>Some:</i> DVD and CD burner / Multi-Burner Plus / removable from Ultrabay Slim One modular bay for interchangeable devices (right side) / 9.5mm high bay <b>40GB<sup>8</sup> HS</b> (5400 rpm), <b>60GB<sup>8</sup> HS</b> (5400 rpm), or <b>80GB HS</b> (5400 rpm) / 9.5mm high / removable, upgradable / 9.5mm high bay / supports 2nd disk / <b>Hard Disk Drive Shock Absorber / Active Protection System</b>	
Display	<i>Some:</i> <b>14.1"</b> (358.1mm) <b>XGA (1024x768) TFT color</b> / Active Matrix / 150 nits <i>Some:</i> <b>14.1"</b> (358.1mm) <b>SXGA+ (1400x1050) TFT color</b> / Active Matrix / 150 nits <i>Some:</i> <b>15.0"</b> (381.0mm) <b>SXGA+ (1400x1050) TFT color</b> / Active Matrix / 200 nits / FlexView display with wide viewing angle and high density using IPS technology <i>Some:</i> <b>15.0"</b> (381.0mm) <b>UXGA (1600x1200) TFT color</b> / Active Matrix / 200 nits / FlexView display with wide viewing angle and high density using IPS technology	<b>License (CD not included)</b> - Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client
Graphics	<i>Some:</i> <b>Intel Graphics Media Accelerator 900 (GMA 900)</b> / integrated graphics in 915GM GMCH / uses main memory (up to 128MB with 256MB+) / 200MHz <i>Some:</i> <b>ATI® MOBILITY™ RADEON® X300</b> / PCI Express x16 / <b>64MB</b> GDDR1 memory <i>Some:</i> <b>ATI® MOBILITY FireGL™ V3200</b> / PCI Express x16 / <b>128MB</b> GDDR1 memory	
Keyboard TrackPoint® Touch pad ThinkLight™	87-key / Access IBM button / palm rest / pitch: 19mm; stroke: 2.5mm (std-size keys) TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar <sup>13</sup> , magnifying glass UltraNav™ multi-pointing system / touch pad below keyboard / Tap Zones Illuminates the keyboard to improve visibility in low-light conditions	
Dimensions <sup>3</sup>	<i>14.1" models (WxDxH):</i> 12.2" x 10.0" x 1.0-1.2"; 311mm x 255mm x 26.6-31.4mm <i>15.0" models (WxDxH):</i> 13.0" x 10.6" x 1.2-1.4"; 329mm x 268mm x 31-36mm with optical drive and battery: <i>14.1" models:</i> up to 5.2 lb (2.3kg); <i>15":</i> up to 6.0 lb (2.7 kg)	
Weight <sup>2</sup>	Magnesium composite in the top cover, titanium-reinforced CFRP in bottom cover	
Battery - type	Lithium Ion <b>6-cell</b> / intelligent / supports unique 2nd battery in Ultrabay Slim	
Battery - life <sup>10</sup>	Up to 3.9 hr; <i>Optional 9-cell:</i> up to 5.9 hr; <i>9-cell plus Ultrabay Slim battery:</i> up to 7.7 hr	
Architecture	<i>Some:</i> <b>Mobile Intel 915GM Express Chipset</b> / 82915GM Graphics Mem Cont Hub <i>Some:</i> <b>Mobile Intel 915PM Express Chipset</b> / 82915PM Memory Controller Hub <i>All:</i> 82801FBM ICH6-M I/O Controller Hub (SATA150, ATA-100 EIDE, PCI Express x1, PCI bus, ethernet MAC, USB, Low Pin Count [LPC] interface, [Bluetooth], [fingerprint]) / PCI bus (CardBus controller, Mini PCI, external expansion) / LPC bus (NS PC8394T Super I/O for security chip (TPM), Asset ID, hardware event log, parallel, infrared, [docking-based ports (serial, diskette)])	
PC Card Std slot ExpressCard slot Ports	One Type I or Type II slot / CardBus 32-bit / integrated door One ExpressCard/34 or ExpressCard/54 / PCI Express x1 or USB 2.0 / integrated door Two USB (Version 2.0) / parallel / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / no keyboard or mouse or serial ports (use USB)	
Video out	S-video out port (TV out) / one 4-pin industry standard connector	ThinkPad notebooks implement ThinkVantage™ technologies and design; visit <a href="http://thinkpad.com/thinkvantage">thinkpad.com/thinkvantage</a>
Wireless antenna	UltraConnect™ Antenna built into the display cover for optimal wireless signal reception	Universal 72 watt AC adapter PC 2001-compliant ACPI 1.0b and 2.0-compliant CIM and DMI 2.0-compliant PXE 2.1-compliant ENERGY STAR®-compliant International Warranty Service <sup>17</sup> 24 hour x 7 day <sup>18</sup> toll-free warranty support during the warranty <sup>12</sup>
Mini PCI	One Mini PCI type III slot (Communications Bay) / customer upgradable <i>Some:</i> 11b/g wireless <sup>4</sup> , Mini PCI, Intel PRO/Wireless 2200BG, Intel 82532 chip <i>Some:</i> 11a/b/g wireless <sup>4</sup> , Mini PCI, Intel PRO/Wireless 2915ABG, 82533 chipset	
Intel 11b/g <sup>32</sup>	One Communications Daughter Card (CDC) socket / customer accessible	
Intel 11a/b/g <sup>32</sup>	56K <sup>6</sup> V.90 (V.92-designed <sup>29</sup> ) modem in CDC / Conexant® chipset	
CDC	<i>Some:</i> Bluetooth wireless technology / in CDC (with modem)	
Modem	Gigabit ethernet on systemboard / Broadcom BCM5751M (MAC/PHY) / PCIe x1 / PXE	
Bluetooth™	Soft audio / ICH AC97 controller / DirectSound® support / AD1981B AC97 codec / stereo speakers, 1 watt / volume up, down, mute buttons / internal microphone / microphone input jack (3.5 mm; pink) / headphone jack (3.5 mm; green)	
Ethernet	Power-on password / hard disk password / supervisor password / security keyhole	
Audio support	<b>Embedded Security Subsystem 2.0<sup>33</sup></b> / in NS PC8394T chip / TCG-compliant	
Security	<b>Fingerprint reader on palm rest</b> / swipe sensor / integrated with security chip	Post-warranty annual maintenance agreements at <a href="http://lenovo.com/thinkplus/warranty">lenovo.com/thinkplus/warranty</a>
Security chip		
Fingerprint reader		
Limited warranty <sup>12</sup>	<b>3-year/1-year battery, limited onsite service<sup>24</sup>, 8 am - 5 pm, Mon - Fri coverage</b> excluding holidays, next business day response time	

See footnotes for important warranty information  
US models announced August 2, 2005  
US models withdrawn effective May or October 2006

\* Powered by Intel Centrino® mobile technology



# ThinkPad® T43 (1876 and 2687) - TopSeller and Education - withdrawn

Created by Lenovo Training Solutions  
Personal Systems Reference (PSREF)

Type-model	Processor	Speed GHz	Memory	Screen	Graphics controller	Disk GB <sup>5</sup>	Optical	Mini PCI Comm Bay wireless	CDC modem/Bluetooth™	Finger print reader	Security chip	Chip set	Limited warranty <sup>12</sup>	Avail date
1876-DBU	Pentium® M 750	1.86	512MB	14.1" XGA	GMA 60HS	60HS	Combo	* Intel 11a/b/g <sup>32</sup>	Modem	No	Yes	915GM	3-yr EasyServ	Mar 05
2687-DCU	Pentium M 760	2.00	512MB	14.1" XGA	X300	60HS	Combo	* Intel 11a/b/g	Modem	No	Yes	915PM	3-yr EasyServ	Mar 05

- These small and medium business (SMB) models are part of the US TopSeller™ Program
- These models have a 3-year limited warranty (other ThinkPad T43 1875 TopSeller models have a 1-year limited warranty)
- These models have an EasyServ™,<sup>19</sup> onsite pickup and delivery 3-year limited warranty

Positioning Processor	Perfect balance of performance and portability; two-spindle system <b>Intel® Pentium® M Processor 750 (1.86GHz) or 760 (2.00GHz)</b> with Enhanced Intel SpeedStep™ technology <sup>1</sup> , Execute Disable Bit, and 533MHz system bus												
L2 cache	<b>2MB</b> / on die (at processor speed) / ECC												
Memory	512MB std / 2GB max <sup>7</sup> / PC2-4200 533MHz DDR2 / non-parity / CL4 / dual channel capable / two 200-pin SO-DIMM sockets / std mem in one socket / one socket available												
Diskette drive	None standard / use optional USB-based diskette drive												
Combo	DVD-ROM/CD-RW / 24X/24X/24X/8X <sup>21</sup> speed / removable from Ultrabay Slim												
Ultrabay Slim	One modular bay for interchangeable devices (right side) / 9.5mm high bay												
Disk	<b>60GB<sup>8</sup> HS</b> (5400 rpm) / 9.5mm high / removable, upgradable / 9.5mm high bay / supports 2nd disk / <b>Hard Disk Drive Shock Absorber / Active Protection System™</b> (shock protection)												
Display	<b>14.1"</b> (358.1mm) <b>XGA (1024x768) TFT color</b> / Active Matrix / 150 nits												
Graphics	Some: <b>Intel Graphics Media Accelerator 900 (GMA 900)</b> / integrated graphics in 915GM GMCH / uses main memory (up to 128MB with 256MB+) / 200MHz Some: <b>ATI® MOBILITY™ RADEON® X300</b> / PCI Express x16 / <b>64MB</b> GDDR1 memory												
Keyboard	87-key / Access IBM button / palm rest / pitch: 19mm; stroke: 2.5mm (std-size keys)												
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar <sup>13</sup> , magnifying glass												
Touch pad	UltraNav® multi-pointing system / touch pad below keyboard / Tap Zones												
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions												
Dimensions <sup>3</sup>	14.1" models (WxDxH): 12.2" x 10.0" x 1.0-1.2"; 311mm x 255mm x 26.6-31.4mm												
Weight <sup>2</sup>	with optical drive and battery: up to 5.1 lb (2.3kg)												
Case material	Magnesium composite in the top cover, titanium-reinforced CFRP in bottom cover												
Battery - type	Lithium Ion <b>6-cell</b> / intelligent / supports unique 2nd battery in Ultrabay Slim												
Battery - life <sup>10</sup>	Up to 3.9 hr; <i>Optional 9-cell</i> : up to 5.9 hr; <i>9-cell plus Ultrabay Slim battery</i> : up to 7.7 hr												
Architecture	Some: <b>Mobile Intel 915GM Express Chipset</b> / 82915GM Graphics Mem Cont Hub Some: <b>Mobile Intel 915PM Express Chipset</b> / 82915PM Memory Controller Hub All: 82801FBM ICH6-M I/O Controller Hub (SATA150, ATA-100 EIDE, PCI Express x1, PCI bus, ethernet MAC, USB, Low Pin Count [LPC] interface, [Bluetooth], [fingerprint]) / PCI bus (CardBus controller, Mini PCI, external expansion) / LPC bus (NS PC8394T Super I/O for security chip (TPM), Asset ID, hardware event log, parallel, infrared, [docking-based ports (serial, diskette)])												
PC Card Std slot	One Type I or Type II slot / CardBus 32-bit / integrated door												
ExpressCard slot	One ExpressCard/34 or ExpressCard/54 / PCI Express x1 or USB 2.0 / integrated door												
Ports	Two USB (Version 2.0) / parallel / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / no keyboard or mouse or serial ports (use USB)												
Video out	S-video out port (TV out) / one 4-pin industry standard connector												
Wireless antenna	UltraConnect™ Antenna built into the display cover for optimal wireless signal reception												
Mini PCI	One Mini PCI type III slot (Communications Bay) / customer upgradable												
Intel 11a/b/g <sup>32</sup>	11a/b/g wireless <sup>4</sup> , Mini PCI, Intel PRO/Wireless 2915ABG, 82533 chipset												
CDC	One Communications Daughter Card (CDC) socket / customer accessible												
Modem	56K <sup>6</sup> V.90 (V.92-designed <sup>29</sup> ) modem in CDC / Conexant® chipset												
Bluetooth™	None												
Ethernet	Gigabit ethernet on systemboard / Broadcom BCM5751M (MAC/PHY) / PCIe x1 / PXE												
Audio support	Soft audio / ICH AC97 controller / DirectSound™ support / AD1981B AC97 codec / stereo speakers, 1 watt / volume up, down, mute buttons / internal microphone / microphone input jack (3.5 mm; pink) / headphone jack (3.5 mm; green)												
Security	Power-on password / hard disk password / supervisor password / security keyhole												
Security chip	<b>Embedded Security Subsystem 2.0<sup>33</sup></b> / in NS PC8394T chip / TCG-compliant												
Fingerprint reader	None												
Limited warranty <sup>12</sup>	<b>3-year/1-yr battery</b> - EasyServ™, <sup>19</sup> onsite pickup and delivery / service upgrades <sup>22</sup> avail												
256MB PC2-4200 DDR2 NP CL4 SOD	73P3840	ThinkPad T40/R50 Li-Ion Battery 6-cell	92P1101										
512MB PC2-4200 DDR2 NP CL4 SOD	73P3842	ThinkPad T40/R50 Li-Ion Battery 9-cell	92P1102										
1GB PC2-4200 DDR2 NP CL4 SOD	73P3844	Ultrabay Slim Li-Polymer Battery 3-cell	08K8190										
Second HDD Adapter for Ultrabay Slim	41U3148	ThinkPad Multiple Battery Charger II	22P9040										
USB Portable Diskette Drive	05K9276	72W Slim AC/DC Combo Adapter	73P4485										
USB 2.0/Analog Headset by Sennheiser	40Y8518	11a/b/g Wireless Mini PCI Adapter II	73P4301										
USB 2.0 Memory Key 1GB	40Y7421	Intel PRO/Wireless 2915ABG Mini PCI	41N2990										
USB 2.0 Super Multi-Burner Drive	40Y8638	ThinkPad Port Replicator II	74P6733										
100GB Hard Disk 9.5mm PATA (5400 rpm)	40Y8716	ThinkPad Mini Dock	287810U										
Super Multi-Burner Ultrabay Slim Drv (curved)	40Y8622	ThinkPad Dock II	287710U										
Enh Perf Wireless Keyboard and Mouse	73P4067	ThinkPad Carrying Case - Backpack	73P3599										
USB Travel Keyboard with UltraNav	31P9490	ThinkPad Carrying Case - Organizer	73P3598										
Kensington® MicroSaver® Security Cable	73P2582	Lenovo M500 Projector	0037A05										
ExpressCard Gemplus Smart Card Reader	41N3043	TrackPoint Cap Collection	73P2698										
Verizon Wireless V620 WWAN PC Card <sup>25</sup>	40Y9137	ThinkVision® L201p 20.1" Monitor (black)	9220HB1										
ThinkPad Convertible Monitor Stand	40Y7620	Other options at <a href="http://lenovo.com/options">lenovo.com/options</a>											
				<b>SOFTWARE<sup>14</sup></b> <b>Windows XP Professional</b> - Microsoft® Windows® XP Professional <sup>20</sup> (Service Pack 2) ↗ Disk-to-Disk Recovery (in hidden protected area) <b>Preloaded</b> • Education software from Vital Source Technologies®: vitalsource KEY™ and Personal Portable library™ • Rescue and Recovery™ • Access Program • Access Connections™ • Norton AntiVirus • PC-Doctor™ • ThinkPad Utilities • Adobe® Reader • Update Connector™, <sup>15</sup> • RecordNOW and Drive Letter Access powered by Sonic products (combo) • InterVideo WinDVD (combo) • Client Security Software (for security chip) <b>Downloadable</b> • IBM Director Agent • Software Delivery Assistant • System Migration Assistant <b>License</b> (CD not included) - Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client									
				ThinkPad notebooks implement ThinkVantage® technologies and design; visit <a href="http://thinkpad.com/thinkvantage">thinkpad.com/thinkvantage</a> Universal 72-watt AC adapter PC 2001-compliant ACPI 1.0b and 2.0-compliant CIM and DMI 2.0-compliant PXE 2.1-compliant ENERGY STAR®-compliant International Warranty Service <sup>17</sup> 24 hour x 7 day <sup>18</sup> toll-free warranty support during the warranty <sup>12</sup> ThinkPlus™, <sup>22</sup> 2-year LOR 9x5 NBD 41C9175 ThinkPlus 3-year LOR 9x5 NBD 41C9176 ThinkPlus 4-year LOR 9x5 NBD 41C9177 ThinkPlus 5-year LOR 9x5 NBD 41C9179 ThinkPlus 4-year P&L P/U Depot 41C9178 ThinkPlus 5-year P&L P/U Depot 41C9180 Post-warranty annual maintenance agreements at <a href="http://lenovo.com/thinkplus/warranty">lenovo.com/thinkplus/warranty</a>									

See footnotes for important warranty information  
US models announced January 19, 2005  
US models withdrawn effective October or December 2006

\* Powered by Intel Centrino® mobile technology

# ThinkPad® T43 (2686) - TopSeller - withdrawn

Created by Lenovo Training Solutions  
Personal Systems Reference (PSREF)

Type-model	Processor	Speed GHz	Memory	Screen	Discrete graphics controller	Disk GB <sup>8</sup> and rpm	Optical	Mini PCI Comm Bay wireless	CDC modem/ <sup>9</sup> Bluetooth™	Finger print reader	Battery cells	Limited warranty <sup>12</sup>	Avail date
2686-DHU	Pentium® M 740	1.73	512MB	15.0" XGA	X300 64MB	60GB 5400	Combo	* Intel 11b/g <sup>32</sup>	Modem	Finger	6-cell	1-yr	Jun 05
2686-DFU	Pentium M 740	1.73	512MB	14.1" XGA	X300 64MB	60GB 5400	Combo	* Intel 11b/g	Modem	Finger	6-cell	1-yr	Aug 05
2686-DGU	Pentium M 750	1.86	512MB	14.1" SXGA+	X300 64MB	60GB 7200	DVD±RW	* Intel 11b/g	Modem	Finger	6-cell	1-yr	Aug 05
2686-DJU	Pentium M 750	1.86	512MB	15.0" SXGA+	X300 64MB	80GB 5400	DVD±RW	* Intel 11b/g	Modem	Finger	6-cell	1-yr	Aug 05
2686-M4U	Pentium M 750	1.86	512MB	14.1" XGA	X300 64MB	60GB 5400	Combo	* Intel 11b/g	Modem	Finger	6-cell	1-yr	Aug 05
2686-M5U	Pentium M 760	2.00	512MB	14.1" SXGA+	X300 64MB	60GB 5400	DVD±RW	* Intel 11b/g	Modem	Finger	6-cell	1-yr	Aug 05
2686-M6U	Pentium M 750	1.86	512MB	15.0" XGA	X300 64MB	60GB 5400	Combo	* Intel 11b/g	Modem	Finger	6-cell	1-yr	Aug 05
2686-M7U	Pentium M 760	2.00	512MB	15.0" SXGA+	X300 64MB	80GB 5400	DVD±RW	* Intel 11b/g	Modem	Finger	6-cell	1-yr	Aug 05
<ul style="list-style-type: none"> <li>• These small and medium business (SMB) models are part of the US TopSeller Program</li> <li>• These 2686 models have a 1-year limited warranty (other ThinkPad T43 1867 and 2687 TopSeller models have a 3-year limited warranty)</li> </ul>													
Processor	Intel® Pentium® M Processor 740 (1.73GHz), 750 (1.86GHz), or 760 (2.00GHz) with Enhanced Intel SpeedStep™ technology <sup>1</sup> , Execute Disable Bit, and 533MHz system bus										<b>SOFTWARE<sup>14</sup></b>		
L2 cache	2MB / on die (at processor speed) / ECC										<b>Windows XP Professional</b>		
Memory	512MB std / 2GB max <sup>7</sup> / PC2-4200 533MHz DDR2 / non-parity / CL4 / dual channel capable / two 200-pin SO-DIMM sockets / std mem in one socket / one socket available										- Microsoft® Windows® XP Professional <sup>20</sup> (Service Pack 2) ↔ Disk-to-Disk Recovery (in hidden protected area)		
Diskette drive	None standard / use optional USB-based diskette drive										<b>Preloaded</b>		
Combo DVD±RW	DVD-ROM/CD-RW / 24X/24X/24X/8X <sup>21</sup> speed / removable from Ultrabay Slim										• Rescue and Recovery™		
Ultrabay Slim	Some: DVD and CD burner / Multi-Burner Plus / removable from Ultrabay Slim										• Access Program		
Disk	One modular bay for interchangeable devices (right side) / 9.5mm high bay										• Access Connections™		
	60GB <sup>8</sup> (5400 or 7200 rpm) or 80GB (5400 rpm) / 9.5mm high / removable, upgradable / 9.5mm high bay / supports 2nd disk / <b>Hard Disk Drive Shock Absorber</b> / <b>Active Protection System</b>										• Norton AntiVirus		
Display	Some: 14.1" (358.1mm) XGA (1024x768) TFT color / Active Matrix / 150 nits										• PC-Doctor™		
	Some: 14.1" (358.1mm) SXGA+ (1400x1050) TFT color / Active Matrix / 150 nits										• ThinkPad Utilities		
	Some: 15.0" (381.0mm) XGA (1024x768) TFT color / Active Matrix / 200 nits										• Adobe® Reader		
	Some: 15.0" (381.0mm) SXGA+ (1400x1050) TFT color / Active Matrix / 200 nits / FlexView display with wide viewing angle and high density using IPS technology										• RecordNOW and Drive Letter Access powered by Sonic products (combo, DVD±RW)		
Graphics	ATI® MOBILITY™ RADEON® X300 / PCI Express x16 / 64MB GDDR1 memory										• InterVideo WinDVD (combo, DVD±RW models)		
Keyboard	87-key / Access IBM button / palm rest / pitch: 19mm; stroke: 2.5mm (std-size keys)										• InterVideo WinDVD Creator (DVD±RW models)		
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar <sup>13</sup> , magnifying glass										• Simple Backup (DVD±RW)		
Touch pad	UltraNav™ multi-pointing system / touch pad below keyboard / Tap Zones										• Fingerprint Software		
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions										• Client Security Software		
Dimensions <sup>3</sup>	14.1" models (WxDxH): 12.2" x 10.0" x 1.0-1.2"; 311mm x 255mm x 26.6-31.4mm										<b>Downloadable</b>		
Weight <sup>2</sup>	15.0" model (WxDxH): 13.0" x 10.6" x 1.2-1.4"; 329mm x 268mm x 31-36mm										• IBM Director Agent		
Case material	Magnesium composite in the top cover, titanium-reinforced CFRP in bottom cover										• Software Delivery Assistant		
Battery - type	Lithium Ion 6-cell / intelligent / supports unique 2nd battery in Ultrabay Slim										• System Migration Assistant		
Battery - life <sup>10</sup>	6-cell: up to 3.3 hr; 9-cell: up to 5.6 hr; 9-cell plus Ultrabay Slim battery: up to 7.4 hr												
Architecture	Mobile Intel 915PM Express Chipset / 82915PM Memory Controller Hub (MCH-M) / 82801FBM ICH6-M I/O Controller Hub (SATA150, ATA-100 EIDE, PCI Express x1, PCI bus, ethernet MAC, USB, Low Pin Count [LPC] interface, [Bluetooth], [fingerprint]) / PCI bus (Ricoch® R5C811 CardBus controller, Mini PCI, external expansion) / LPC bus (National Semiconductor® PC8394T Super I/O for security chip (TPM), Asset ID, hardware event log, parallel, [docking-based ports (serial, diskette)])										ThinkPad notebooks implement ThinkVantage® technologies and design; visit <a href="http://thinkpad.com/thinkvantage">thinkpad.com/thinkvantage</a>		
PC Card Std slot	One Type I or Type II slot / CardBus 32-bit / integrated door										Universal 72-watt AC adapter		
ExpressCard slot	One ExpressCard/34 or ExpressCard/54 / PCI Express x1 or USB 2.0 / integrated door										PC 2001-compliant		
Ports	Two USB (Version 2.0) / parallel / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / no keyboard or mouse or serial ports (use USB)										ACPI 1.0b and 2.0-compliant		
Video out	S-video out port (TV out) / one 4-pin industry standard connector										CIM and DMI 2.0-compliant		
Wireless antenna	UltraConnect™ Antenna built into the display cover for optimal wireless signal reception										PXE 2.1-compliant		
Mini PCI	One Mini PCI type III slot (Communications Bay) / customer upgradable										ENERGY STAR®-compliant		
Intel 11b/g <sup>32</sup>	11b/g wireless <sup>4</sup> , Mini PCI, Intel PRO/Wireless 2200BG, Intel 82532 chip										International Warranty Service <sup>17</sup>		
CDC	One Communications Daughter Card (CDC) socket / customer accessible										24 hour x 7 day <sup>18</sup> toll-free warranty support during the warranty <sup>12</sup>		
Modem	56K <sup>6</sup> V.90 (V.92-designed <sup>29</sup> ) modem in CDC / Conexant® chipset												
Ethernet	Gigabit ethernet on systemboard / Broadcom BCM5751M (MAC/PHY) / PCIe x1 / PXE												
Audio support	Soft audio / ICH AC97 controller / DirectSound™ support / AD1981B AC97 codec / stereo speakers, 1 watt / volume up, down, mute buttons / internal microphone / microphone input jack (3.5 mm; pink) / headphone jack (3.5 mm; green)												
Security	Power-on password / hard disk password / supervisor password / security keyhole										ThinkPlus™.22 1-year LOR 9x5 NBD		
Security chip	<b>Embedded Security Subsystem 2.0<sup>33</sup></b> / in NS PC8394T chip / TCG-compliant										41C9166		
Fingerprint reader	<b>Fingerprint reader on palm rest</b> / swipe sensor / integrated with security chip										ThinkPlus 2-year LOR 9x5 NBD		
Limited warranty <sup>12</sup>	<b>1-year</b> - EasyServ™.19 onsite pickup and delivery / service upgrades <sup>22</sup> available										41C9167		
	256MB PC2-4200 DDR2 NP CL4 SOD	73P3840	ThinkPad T40/R50 Li-Ion Battery 6-cell	92P1101									
	512MB PC2-4200 DDR2 NP CL4 SOD	73P3842	ThinkPad T40/R50 Li-Ion Battery 9-cell	92P1102									
	1GB PC2-4200 DDR2 NP CL4 SOD	73P3844	Ultrabay Slim Li-Polymer Battery 3-cell	08K8190									
	USB 2.0 Memory Key 1GB	40Y7421	72W Slim AC/DC Combo Adapter	73P4485									
	USB 2.0 Super Multi-Burner Drive	40Y8638	11a/b/g Wireless Mini PCI Adapter II	73P4301									
	100GB Hard Disk 9.5mm PATA (5400 rpm)	40Y8716	ThinkPad Port Replicator II	74P6733									
	USB Portable Diskette Drive	05K9276	ThinkPad Mini Dock	287810U									
	Second HDD Adapter for Ultrabay Slim	41U3148	ThinkPad Dock II	287710U									
	Super Multi-Burner Ultrabay Slim Drv (curve)	40Y8622	ThinkPad Carrying Case - BackPack	73P3599									
	Enh Perf Wireless Keyboard and Mouse	73P4067	ThinkPad Carrying Case - Leather	73P3600									
	USB Travel Keyboard with UltraNav	31P9490	ThinkPad Carrying Case - Organizer	73P3598									
	Kensington® MicroSaver® Security Cable	73P2582	ThinkVision® E500 Projector	0038A05									
	ThinkPad Monitor Stand	22P5265	ThinkVision L201p 20.1" Monitor (black)	9220HB1									
	ThinkPad Convertible Monitor Stand	40Y7620	Other options at <a href="http://lenovo.com/options">lenovo.com/options</a>										

See footnotes for important warranty information  
US models announced June 7 or August 9, 2005  
US models withdrawn effective May, October, or December 2006

\* Powered by Intel Centrino® mobile technology

# ThinkPad® T43 and T43p (2687) - TopSeller - withdrawn

Created by Lenovo Training Solutions  
Personal Systems Reference (PSREF)

Type-model	Processor	Speed GHz	Memory	Screen	Graphics controller memory	Disk GB <sup>a</sup>	Optical	Mini PCI Comm Bay wireless	CDC modem/Bluetooth™	Finger print reader	Battery life <sup>10</sup>	Battery Limited cells warranty <sup>12</sup>	Avail date
T43	2687-DEU Pentium® M 750	1.86	512MB	14.1" XGA	64MB	40GB	Combo	* Intel 11a/b/g <sup>32</sup>	Modem	No	3.8 hr	6-cell 3-yr	Feb 05
T43	2687-D7U Pentium M 750	1.86	512MB	14.1" SXGA+	64MB	40GB	Combo	* Intel 11a/b/g	Modem	No	3.6 hr	6-cell 3-yr	Feb 05
T43	2687-D8U Pentium M 750	1.86	512MB	14.1" SXGA+	64MB	60GB	DVD±RW	* Intel 11a/b/g	Modem	No	3.6 hr	6-cell 3-yr	Feb 05
T43	2687-D3U Pentium M 750	1.86	512MB	14.1" SXGA+	64MB	60GB	DVD±RW	* Intel 11a/b/g	Modem	Finger	5.4 hr	9-cell 3-yr	Mar 05
T43	2687-D4U Pentium M 750	1.86	512MB	15.0" SXGA+	64MB	40GB	Combo	* Intel 11a/b/g	Modem	No	3.4 hr	6-cell 3-yr	Feb 05
T43	2687-DDU Pentium M 750	1.86	512MB	15.0" SXGA+	64MB	60GB	DVD±RW	* Intel 11a/b/g	Modem	No	3.4 hr	6-cell 3-yr	Feb 05
T43	2687-DRU Pentium M 750	1.86	512MB	14.1" SXGA+	64MB	60GB	Combo	* Intel 11a/b/g	Modem	Finger	3.6 hr	6-cell 3-yr	Jun 05
T43	2687-DSU Pentium M 760	2.00	512MB	14.1" SXGA+	64MB	80GB	DVD±RW	* Intel 11a/b/g	Mod/Blue	Finger	5.4 hr	9-cell 3-yr	Jun 05
T43	2687-DTU Pentium M 750	1.86	512MB	15.0" SXGA+	64MB	60GB	Combo	* Intel 11a/b/g	Mod/Blue	Finger	5.1 hr	9-cell 3-yr	Jun 05
T43	2687-DUU Pentium M 750	1.86	512MB	15.0" SXGA+	64MB	60GB	DVD±RW	* Intel 11a/b/g	Mod/Blue	Finger	5.1 hr	9-cell 3-yr	Jun 05
T43	2687-DVU Pentium M 760	2.00	512MB	15.0" SXGA+	64MB	80GB	DVD±RW	* Intel 11a/b/g	Mod/Blue	Finger	5.1 hr	9-cell 3-yr	Jun 05
T43p	2687-D5U Pentium M 760	2.00	1GB	15.0" UXGA	128MB	80GB	DVD±RW	* Intel 11a/b/g	Mod/Blue	Finger	4.7 hr	9-cell 3-yr	Apr 05
T43p	2687-M8U Pentium M 760	2.00	1GB	15.0" UXGA	128MB	80GB	DVD±RW	* Intel 11a/b/g	Mod/Blue	Finger	4.7 hr	9-cell 3-yr	Jul 06
T43p	2687-M9U Pentium M 760	2.00	2GB	15.0" UXGA	128MB	100GB	DVD±RW	* Intel 11a/b/g	Mod/Blue	Finger	4.7 hr	9-cell 3-yr	Jul 06

- These small and medium business (SMB) models are part of the US TopSeller™ Program
- These models have a 3-year limited warranty (other ThinkPad T43 1875 TopSeller models have a 1-year limited warranty)

Positioning Processor	Perfect balance of performance and portability; two spindles <b>Intel® Pentium® M Processor 750 (1.86GHz) or 760 (2.00GHz)</b> with Enhanced Intel SpeedStep™ technology <sup>1</sup> , Execute Disable Bit, and 533MHz system bus	<b>SOFTWARE<sup>14</sup></b> <b>Windows XP Professional</b> - Microsoft® Windows® XP Professional <sup>20</sup> (Service Pack 2) <b>Preloaded</b> • Rescue and Recovery™ • Access Program • Access Connections™ • Norton AntiVirus • PC-Doctor™ • ThinkPad Utilities • Adobe® Reader • Update Connector™ <sup>15</sup> • RecordNOW and Drive Letter Access powered by Sonic products (combo, DVD±RW) • InterVideo WinDVD (combo, DVD±RW models) • InterVideo WinDVD Creator (DVD±RW models) • Simple Backup (DVD±RW) • Fingerprint Software (fingerprint models) • Client Security Software (for security chip) <b>Downloadable</b> • IBM Director Agent • Software Delivery Assistant • System Migration Assistant <b>License</b> (CD not included) - Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client
L2 cache Memory	<b>2MB</b> / on die (at processor speed) / ECC <b>512MB, 1GB, or 2GB</b> std / 2GB max <sup>7</sup> / PC2-4200 533MHz DDR2 / non-parity / CL4 / dual channel capable / two 200-pin SO-DIMM sockets / <i>Others:</i> standard memory in 1 socket; 1 socket available; <i>M9U:</i> standard memory in both sockets (1GB in each); no sockets available	
Diskette drive Combo DVD±RW Ultrabay Slim Disk	None standard / use optional USB-based diskette drive <i>Some:</i> DVD-ROM/CD-RW / 24X/24X/24X/8X <sup>21</sup> speed / removable from Ultrabay Slim <i>Some:</i> DVD and CD burner / Multi-Burner Plus / removable from Ultrabay Slim One modular bay for interchangeable devices (right side) / 9.5mm high bay <b>40GB<sup>8</sup></b> (5400 rpm), <b>60GB</b> (5400 rpm), <b>80GB</b> (5400 rpm), or <b>100GB</b> (7200 rpm) / 9.5mm high / removable, upgradable / 9.5mm high bay / supports 2nd disk / <b>Hard Disk Drive Shock Absorber / Active Protection System</b>	
Display	<i>Some:</i> <b>14.1"</b> (358.1mm) <b>XGA (1024x768) TFT color</b> / Active Matrix / 150 nits <i>Some:</i> <b>14.1"</b> (358.1mm) <b>SXGA+ (1400x1050) TFT color</b> / Active Matrix / 150 nits <i>Some:</i> <b>15.0"</b> (381.0mm) <b>SXGA+ (1400x1050) TFT color</b> / Active Matrix / 200 nits / FlexView display with wide viewing angle and high density using IPS technology <i>Some:</i> <b>15.0"</b> (381.0mm) <b>UXGA (1600x1200) TFT color</b> / Active Matrix / 200 nits / FlexView display with wide viewing angle and high density using IPS technology	
Graphics	<i>Some:</i> <b>ATI® MOBILITY™ Radeon™ X300</b> / PCI Express x16 / <b>64MB</b> GDDR1 memory <i>Some:</i> <b>ATI MOBILITY FireGL™ V3200</b> / PCI Express x16 / <b>128MB</b> GDDR1 memory	
Keyboard TrackPoint® Touch pad ThinkLight™	87-key / Access IBM button / palm rest / pitch: 19mm; stroke: 2.5mm (std-size keys) TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar <sup>13</sup> , magnifying glass UltraNav™ multi-pointing system / touch pad below keyboard / Tap Zones Illuminates the keyboard to improve visibility in low-light conditions	
Dimensions <sup>3</sup>	<b>14.1" models (WxDxH):</b> 12.2" x 10.0" x 1.0-1.2"; 311mm x 255mm x 26.6-31.4mm <b>15.0" models (WxDxH):</b> 13.0" x 10.6" x 1.2-1.4"; 329mm x 268mm x 31-36mm with optical drive and battery: <b>14.1" models:</b> up to 5.2 lb (2.3kg); <b>15":</b> up to 6.3 lb (2.8 kg)	
Weight <sup>2</sup> Case material Battery - type Battery - life <sup>10</sup>	Magnesium composite in the top cover, titanium-reinforced CFRP in bottom cover Lithium Ion <b>6-</b> or <b>9-cell</b> / intelligent / supports unique 2nd battery in Ultrabay Slim <b>6-cell:</b> up to 3.9 hr; <b>9-cell:</b> up to 5.9 hr; <b>9-cell plus Ultrabay Slim battery:</b> up to 7.7 hr	
Architecture	<b>Mobile Intel 915PM Express Chipset</b> / 82915PM Memory Controller Hub (MCH-M) / 82801FBM ICH6-M I/O Controller Hub (SATA150, ATA-100 EIDE, PCI Express x1, PCI bus, ethernet MAC, USB, Low Pin Count [LPC] interface, [Bluetooth], [fingerprint]) / PCI bus (Ricoh® R5C811 CardBus controller, Mini PCI, external expansion) / LPC bus (National Semiconductor® PC8394T Super I/O for security chip (TPM), Asset ID, hardware event log, parallel, infrared, [docking-based ports (serial, diskette)]) One Type I or Type II slot / CardBus 32-bit / integrated door One ExpressCard/34 or ExpressCard/54 / PCI Express x1 or USB 2.0 / integrated door Two USB (Version 2.0) / parallel / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / no keyboard or mouse or serial ports (use USB)	
PC Card Std slot ExpressCard slot Ports	S-video out port (TV out) / one 4-pin industry standard connector UltraConnect™ Antenna built into the display cover for optimal wireless signal reception One Mini PCI type III slot (Communications Bay) / customer upgradable 11a/b/g wireless <sup>4</sup> , Mini PCI, Intel PRO/Wireless 2915ABG, 82533 chipset One Communications Daughter Card (CDC) socket / customer accessible <b>56K<sup>6</sup> V.90</b> (V.92-designed <sup>29</sup> ) modem in CDC / Conexant® chipset <i>Some:</i> Bluetooth wireless technology / in CDC (with modem) Gigabit ethernet on systemboard / Broadcom BCM5751M (MAC/PHY) / PCIe x1 / PXE Soft audio / ICH AC97 controller / DirectSound® support / AD1981B AC97 codec / stereo speakers, 1 watt / volume up, down, mute buttons / internal microphone / microphone input jack (3.5 mm; pink) / headphone jack (3.5 mm; green)	
Video out Wireless antenna Mini PCI CDC Modem Bluetooth™ Ethernet Audio support	Power-on password / hard disk password / supervisor password / security keyhole <b>Embedded Security Subsystem 2.0<sup>33</sup></b> / in NS PC8394T chip / TCG-compliant <i>Some:</i> <b>Fingerprint reader on palm rest</b> / swipe sensor / supports the security chip	
Security Security chip Fingerprint reader	Supported ThinkVantage® technologies; visit <a href="http://thinkpad.com/thinkvantage">thinkpad.com/thinkvantage</a> Universal 72-watt AC adapter PC 2001-compliant ACPI 1.0b and 2.0-compliant CIM and DMI 2.0-compliant PXE 2.1-compliant International Warranty Service <sup>17</sup> 24 hour x 7 day <sup>18</sup> toll-free warranty support during the warranty <sup>12</sup> ThinkPlus™.22 2-year LOR 9x5 NBD 41C9175 ThinkPlus 3-year LOR 9x5 NBD 41C9176 ThinkPlus 4-year LOR 9x5 NBD 41C9177 ThinkPlus 5-year LOR 9x5 NBD 41C9179 ThinkPlus 4-year P&L P/U Depot 41C9178 ThinkPlus 5-year P&L P/U Depot 41C9180 Post-warranty annual maintenance agreements at <a href="http://lenovo.com/thinkplus/warranty">lenovo.com/thinkplus/warranty</a>	
Limited warranty <sup>12</sup>	<b>3-year/1-yr battery - EasyServ™.19</b> onsite pickup and delivery / service upgrades <sup>22</sup> available	

See footnotes for important warranty information \* Powered by Intel Centrino® mobile technology  
US models announced January 19, March 15, or June 7, 2005 or June 30, 2006  
US models withdrawn effective October 2006 or August 2007



# ThinkPad® T60 (Entry) - withdrawn

Created by Lenovo Training Solutions  
Personal Systems Reference (PSREF)

Type-model	Processor	Speed GHz	Memory	Screen	Graphics controller	Disk SATA GB <sup>8</sup> rpm	EIDE optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN wireless	Blue-tooth	Finger print reader	Workhorse (W) Chip or Global (G) Avail or Entry (E) date
1951-28U	Core Duo T2300	1.66	512MB	14.1" XGA	GMA 950	40G 5400	Combo *	Intel 11a/b/g <sup>32</sup>	None	None	Finger	945GM E Feb 06
1951-24U	Core Duo T2300	1.66	512MB	14.1" XGA	GMA 950	40G 5400	Combo *	Intel 11a/b/g	None	None	Finger	945GM G E Feb 06
1951-26U	Core Duo T2300	1.66	512MB	14.1" XGA	GMA 950	40G 5400	DVD *	Intel 11a/b/g	None	None	Finger	945GM E Feb 06
1951-29U	Core Solo T1300	1.66	512MB	14.1" XGA	GMA 950	40G 5400	Combo *	Intel 11a/b/g	None	None	Finger	945GM E Feb 06
2007-23U	Core Solo T1300	1.66	512MB	14.1" XGA	X1300	40G 5400	Combo *	Intel 11a/b/g	None	None	Finger	945PM E Feb 06
1951-35U	Core Duo T2300	1.66	512MB	15.0" XGA	GMA 950	40G 5400	Combo *	Intel 11a/b/g	None	None	Finger	945GM E Feb 06
1951-37U	Core Duo T2300	1.66	512MB	15.0" XGA	GMA 950	40G 5400	Combo *	Intel 11a/b/g	None	None	Finger	945GM E Feb 06
1951-2JU	Core Duo T2400	1.83	512MB	14.1" XGA	GMA 950	40G 5400	Combo *	Intel 11a/b/g	None	None	Finger	945GM E July 06
1951-2KU	Core Solo T1400	1.83	512MB	14.1" XGA	GMA 950	40G 5400	Combo *	Intel 11a/b/g	None	None	Finger	945GM E July 06
1951-2LU	Core Duo T2300E	1.66	512MB	14.1" XGA	GMA 950	40G 5400	Combo *	Intel 11a/b/g	None	None	Finger	945GM E July 06
1951-2NU	Core Duo T2300E	1.66	512MB	14.1" XGA	GMA 950	40G 5400	Combo Open; upg <sup>36</sup>	None	None	None	Finger	945GM E July 06
1951-3DU	Core Duo T2300E	1.66	512MB	15.0" XGA	GMA 950	40G 5400	Combo *	Intel 11a/b/g	None	None	Finger	945GM E July 06
Positioning Processor	<i>Premiere performance; two spindles</i> <b>Intel® Core™ Solo processor T1300 or T1400</b> with single-core, Enhanced Intel SpeedStep™ technology <sup>1</sup> , Execute Disable Bit, 667MHz bus, and 2MB L2 cache or <b>Intel Core Duo processor T2300, T2300E or T2400</b> with dual-core, enhanced Intel SpeedStep™ technology <sup>1</sup> , Execute Disable Bit, 667MHz system bus, and 2MB shared L2 cache											
Memory	<b>512MB</b> std / 4GB max <sup>31</sup> / PC2-5300 667MHz DDR2 / non-parity / CL5 / dual-channel capable / two 200-pin SO-DIMM sockets / std mem in 1 socket / 1 socket avail											
Diskette drive	None standard / use optional USB-based diskette drive											
EIDE DVD	<i>Some:</i> DVD-ROM / 24X-8X9 speed / single-layer / removable from Ultrabay™ Slim											
EIDE Combo	<i>Some:</i> DVD-ROM/CD-RW / 24X/24X/24X/8X <sup>21</sup> speed / removable from Ultrabay Slim											
Ultrabay Slim	One modular bay for interchangeable devices (right side) / 9.5mm high bay / flat bezel											
Serial ATA disk (SATA150)	<b>40GB<sup>8</sup></b> (5400 rpm) / 9.5mm high / removable, upgradable / 9.5mm high bay / supports 2nd disk / <b>ThinkPad Shock Mounted Hard Drive / Active Protection System™</b>											
Display	<i>Some:</i> <b>14.1"</b> (358.1mm) <b>XGA (1024x768) TFT color</b> / 150 nits / anti-glare <i>Some:</i> <b>15.0"</b> (381.0mm) <b>XGA (1024x768) TFT color</b> / 150 nits / anti-glare											
Graphics	<i>Some:</i> <b>Intel Graphics Media Accelerator 950</b> / integrated in 945GM / 250MHz <i>Some:</i> <b>ATI® MOBILITY™ Radeon™ X1300 M52</b> / PCI Express x16 / <b>64MB</b> GDDR1 <i>All:</i> DVI pass-through support to optional Advanced Mini Dock or Advanced Dock											
Keyboard	89-key / ThinkVantage button / spill-resistant / multimedia Fn keys / Windows, Appl keys											
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar <sup>13</sup> , magnifying glass											
Touch pad	UltraNav™ multi-pointing system / touch pad below keyboard / Tap Zones											
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions											
Dimensions <sup>3</sup>	<b>14.1" models (WxDxH):</b> 12.2" x 10.0" x 1.0-1.2"; 311mm x 255mm x 26.6-31mm <b>15.0" models (WxDxH):</b> 13.0" x 10.6" x 1.2-1.4"; 329mm x 268mm x 31-36mm											
Weight <sup>2</sup>	with optical drive and battery: <b>14.1" models:</b> up to 5.5 lb (2.5kg); <b>15":</b> up to 6.3 lb (2.8 kg)											
Case material	<b>14.1":</b> magnesium composite in top cover, CFRP bottom cover; <b>15":</b> CFRP in top/bottom											
Battery - type	Lithium Ion <b>6-cell</b> / supports unique 2nd battery in Ultrabay Slim											
Battery - life <sup>10</sup>	<b>6-cell:</b> up to 6.0 hr; <i>opt 9-cell:</i> up to 9.0 hr; <b>9-cell plus Ultrabay battery:</b> up to 11.5 hr											
Architecture	<i>Some:</i> <b>Mobile Intel 945GM Express Chipset</b> / 82945GM Graphics Memory Cont Hub <i>Some:</i> <b>Mobile Intel 945PM Express Chipset</b> / 82945PM Memory Controller Hub <i>All:</i> 82801GBM ICH7-M I/O Controller Hub (SATA300, ATA-100 EIDE, PCI Express x1, PCI bus, USB, LPC interface, [Bluetooth], [fingerprint]) / PCI bus (TI® PCI1512 CardBus controller) / LPC bus (NS PC87382 Super I/O, Atmel® 75C3203)											
PC Card Std slot	One Type I or Type II slot / CardBus 32-bit / integrated door											
ExpressCard slot	One ExpressCard/34 or ExpressCard/54 / PCI Express x1 or USB 2.0 / integrated door											
Ports	Three USB 2.0 / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / no keyboard, mouse, serial ports, parallel port, 1394, or S-video (use USB)											
Wireless antenna	UltraConnect™ Antenna built into the display cover / on-off switch for all wireless radios											
Mini PCI Express	Two Mini PCI Express slots / only 802.11 wireless is customer upgradable											
Wireless upg <sup>36</sup>	<i>Some:</i> wireless upgradable with wireless Mini PCI Express options											
Intel 11a/b/g <sup>32</sup>	<i>Some:</i> 11a/b/g wireless <sup>4</sup> , Mini PCI Express adapter, Intel PRO/Wireless 3945ABG											
WWAN <sup>16</sup>	None											
Modem	56K <sup>6</sup> V.90 (V.92-designed <sup>29</sup> ) modem in Com Daughter Card socket / Conexant® chipset											
Bluetooth™	None											
Ethernet	Gigabit ethernet on systemboard / Intel 82573L (MAC/PHY) / PCIe x1 / PXE											
Audio support	High Definition (HD) Audio / AD1981HD codec / stereo speaker, 1 watt / volume up, down, mute buttons / internal microphone / microphone input jack / headphone jack											
Security	Power-on password / hard disk password / supervisor password / security keyhole											
Security chip	<b>Trusted Platform Module</b> / Atmel chip / TCG 1.2-compliant											
Fingerprint reader	<i>Some:</i> <b>Fingerprint reader on palm rest</b> / swipe sensor / supports the security chip											
Limited warranty <sup>12</sup>	<b>3-years/1-yr battery</b> - EasyServ™ <sup>19</sup> onsite pickup and delivery / service upgrades <sup>22</sup> avail											
512MB PC2-5300 DDR2 CL5 SODIMM	40Y7733	T60 Series Li-Ion Battery 6-cell					40Y6799	Supports ThinkVantage® technologies				
1GB PC2-5300 DDR2 CL5 SODIMM	40Y7734	Z60m/T60/R60 Li-Ion Battery 9-cell					40Y6797	65-watt (1951) or 90-watt (2007) AC adapter				
2GB PC2-5300 DDR2 SODIMM	40Y7735	Advanced Ultrabay Battery 3-cell					40Y6789	ThinkPad Roll Cage (one-piece magnesium frame)				
Serial Hard Drive Ultrabay Slim Adapter(flat)	40Y8725	ThinkPad External Battery Charger					40Y7625	RoHS-compliant				
ThinkPad DVD Ultrabay Slim Burner (flat)	41N5643	ThinkPad 90W AC/DC Combo Adapter					40Y7630	International Warranty Service <sup>17</sup>				
100GB Disk 9.5mm SATA150 (7200 rpm)	41N3013	ThinkPad Carrying Case - Expander					73P3597	24 hour x 7 day <sup>18</sup> toll-free warranty support during the warranty <sup>12</sup>				
Intel PRO/Wireless 3945ABG Mini PCIe Ad	41N3008	ThinkPad Carrying Case - BackPack					73P3599	ThinkPlus™.22 2-year LOR 9x5 NBD				
ThinkPad Essential Port Replicator	250510W	Lenovo D221 Wide 22" Monitor (black)					6622HB1	41C9175				
ThinkPad Advanced Mini Dock	250410U	ThinkVision® L201p 20.1" Monitor (blk)					9220HB1	41C9176				
ThinkPad Advanced Dock	250310U	Lenovo M500 Projector					0037A05	41C9177				
Other accessories on O-T60 sheet	Other accessories at <a href="http://lenovo.com/accessories">lenovo.com/accessories</a>											
	ThinkPlus 5-year LOR 9x5 NBD											
	ThinkPlus 4-year P&L P/U Depot											
	ThinkPlus 5-year P&L P/U Depot											
	41C9180											
	Post-warranty annual maintenance agreements at <a href="http://lenovo.com/thinkplus/warranty">lenovo.com/thinkplus/warranty</a>											

See footnotes for important warranty information  
US models announced January 31 or July 11, 2006  
US models withdrawn effective September 2007

\* Powered by Intel Centrino® mobile technology  
\* Powered by Intel Centrino Duo mobile

© Lenovo  
(DV1-1) September 2007

# ThinkPad® T60 (1951) - 14.1" display - withdrawn

Created by Lenovo Training Solutions  
Personal Systems Reference (PSREF)

Type-model	Processor	Speed GHz	Memory	Screen	Graphics controller	Disk SATA GB <sup>3</sup>	rpm	EIDE optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN wireless	Blue-tooth	Finger-print reader	Workhorse (W) or Global (G) or Entry (E)	Avail date	
1951-43U	Core Duo T2400	1.83	512MB	14.1" XGA	GMA 950	60GB	5400	Combo	* Intel 11a/b/g <sup>32</sup>				W G	Feb 06	
1951-44U	Core Duo T2400	1.83	512MB	14.1" XGA	GMA 950	60GB	5400	Combo	* Intel 11a/b/g			Finger	W G	Feb 06	
1951-45U	Core Duo T2400	1.83	512MB	14.1" XGA	GMA 950	60GB	5400	Combo	* Intel 11a/b/g		Blue	Finger	W	May 06	
1951-46U	Core Duo T2400	1.83	512MB	14.1" XGA	GMA 950	60GB	5400	DVD	* Intel 11a/b/g				W	Feb 06	
1951-47U	Core Duo T2400	1.83	512MB	14.1" XGA	GMA 950	60GB	5400	DVD	Open; upg <sup>36</sup>				W	Feb 06	
1951-48U	Core Duo T2400	1.83	512MB	14.1" XGA	GMA 950	60GB	7200	Combo	* Intel 11a/b/g			Finger	W	Feb 06	
1951-4DU	Core Duo T2400	1.83	512MB	14.1" XGA	GMA 950	60GB	5400	Combo	* Intel 11a/b/g	AT&T		Finger	W	Jun 06	
1951-4TU	Core Duo T2400	1.83	1GB	14.1" XGA	GMA 950	60GB	5400	Combo	* Intel 11a/b/g				W G	Aug 06	
Positioning Processor	<i>Premiere performance; two spindles Intel Core Duo processor T2400 (1.83GHz) with dual-core, Enhanced Intel SpeedStep™ technology<sup>1</sup>, Execute Disable Bit, 667MHz system bus, and 2MB shared L2 cache</i>											<b>SOFTWARE<sup>14</sup></b> <b>Windows XP Professional</b> - Microsoft® Windows® XP Professional <sup>20</sup> (Service Pack 2) ↔ Disk-to-Disk Recovery (in hidden protected area)			
Memory	<b>512MB or 1GB</b> std / 4GB max <sup>31</sup> / PC2-5300 667MHz DDR2 / non-parity / CL5 / dual-channel capable / two 200-pin SO-DIMM sockets / std mem in 1 socket / 1 socket avail														
Diskette drive	None standard / use optional USB-based diskette drive											<b>Preloaded</b> • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center with Away Manager • ThinkVantage System Update • Symantec® Client Security™ • Diskeeper® Lite • PC-Doctor™ (diagnostics) • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader • Google Toolbar • Google Desktop • Picasa from Google • Fingerprint Software (fingerprint models) • Multimedia Center for Think Offerings • Sonic RecordNOW and Drive Letter Access (combo models) • InterVideo WinDVD (combo, DVD, models) <b>License</b> - CD not included - Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client			
EIDE DVD	<i>Some: DVD-ROM / 24X-8X<sup>9</sup> speed / single-layer / removable from Ultrabay™ Slim</i>														
EIDE Combo	<i>Some: DVD-ROM/CD-RW / 24X/24X/24X/8X<sup>21</sup> speed / removable from Ultrabay Slim</i>														
Ultrabay Slim	One modular bay for interchangeable devices (right side) / 9.5mm high bay / flat bezel														
Serial ATA disk (SATA150)	<b>60GB<sup>3</sup></b> (5400 or 7200 rpm) / 9.5mm high / removable,upgradable / 9.5mm high bay / supports 2nd disk / <b>ThinkPad Shock Mounted Hard Drive / Active Protection System™</b>														
Display	<b>14.1"</b> (358.1mm) <b>XGA (1024x768) TFT color</b> / 150 nits / anti-glare														
Graphics	<b>Intel Graphics Media Accelerator 950 (GMA 950)</b> / integrated in 945GM / 250MHz / DVI pass-through support to optional Advanced Mini Dock or Advanced Dock														
Keyboard	89-key / ThinkVantage button / spill-resistant / multimedia Fn keys / Windows, Appl keys														
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar <sup>13</sup> , magnifying glass														
Touch pad	UltraNav™ multi-pointing system / touch pad below keyboard / Tap Zones														
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions														
Dimensions <sup>3</sup>	<b>14.1" models (WxDxH):</b> 12.2" x 10.0" x 1.0-1.2"; 311mm x 255mm x 26.6-31mm														
Weight <sup>2</sup>	with optical drive and battery: up to 5.5 lb (2.5kg)														
Case material	Magnesium composite top cover, Carbon Fiber Reinforced Plastic (CFRP) bottom cover														
Battery - type	Lithium Ion <b>6-cell</b> / supports unique 2nd battery in Ultrabay Slim														
Battery - life <sup>10</sup>	<b>6-cell:</b> up to 6.0 hr; <b>opt 9-cell:</b> up to 9.0 hr; <b>9-cell plus Ultrabay battery:</b> up to 11.5 hr														
Architecture	<b>Mobile Intel 945GM Express Chipset / 82945GM Graphics Memory Controller Hub / 82801GBM ICH7-M I/O Controller Hub (SATA300, ATA-100 EIDE, PCI Express x1, PCI bus, USB, LPC interface, [Bluetooth], [fingerprint]) / PCI bus (TI® PCI1512 CardBus controller) / LPC bus (National Semiconductor® PC87382 Super I/O, Atmel® 97SC3203)</b>														
PC Card Std slot	One Type I or Type II slot / CardBus 32-bit / integrated door														
ExpressCard slot	One ExpressCard/34 or ExpressCard/54 / PCI Express x1 or USB 2.0 / integrated door														
Ports	Three USB 2.0 / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / no keyboard, mouse, serial ports, parallel port, 1394, or S-video (use USB)														
Wireless antenna	UltraConnect™ Antenna built into the display cover / on-off switch for all wireless radios														
Mini PCI Express	Two Mini PCI Express slots / only 802.11 wireless is customer upgradable														
Wireless upg <sup>36</sup>	<i>Some: wireless upgradable with wireless Mini PCI Express options</i>														
Intel 11a/b/g <sup>32</sup>	<i>Some: 11a/b/g wireless<sup>4</sup>, Mini PCI Express adapter, Intel PRO/Wireless 3945ABG</i>														
WWAN <sup>23</sup>	<i>Some: Wireless WAN, GPRS/EDGE/UMTS/HSDPA support, Mini PCIe adapter and SIM, WWAN antenna on display, service contract required with AT&amp;T®</i>														
Modem	56K <sup>6</sup> V.90 (V.92-designed <sup>29</sup> ) modem in Com Daughter Card socket / Conexant® chipset														
Bluetooth™	<i>Some: Bluetooth 2.0 wireless / USB 2.0 interface via ICH7-M / LED indicator</i>														
Ethernet	Gigabit ethernet on systemboard / Intel 82573L (MAC/PHY) / PCIe x1 / PXE														
Audio support	High Definition (HD) Audio / AD1981HD codec / stereo speakers, 1 watt / volume up, down, mute buttons / internal microphone / microphone input jack / headphone jack														
Security	Power-on password / hard disk password / supervisor password / security keyhole														
Security chip	<b>Trusted Platform Module</b> / Atmel chip / TCG 1.2-compliant														
Fingerprint reader	<i>Some: Fingerprint reader on palm rest / swipe sensor / supports the security chip</i>														
Limited warranty <sup>12</sup>	<b>3-years/1-yr battery</b> - EasyServ™ <sup>19</sup> onsite pickup and delivery / service upgrades <sup>22</sup> avail														
512MB PC2-5300 DDR2 CL5 SODIMM	40Y7733	T60 Series Li-Ion Battery 6-cell	40Y6799												
1GB PC2-5300 DDR2 CL5 SODIMM	40Y7734	Z60m/T60/R60 Li-Ion Battery 9-cell	40Y6797												
2GB PC2-5300 DDR2 SODIMM	40Y7735	Advanced Ultrabay Battery 3-cell	40Y6789												
Serial/Parallel Port Bay Adapter (flat bezel)	40Y8121	ThinkPad External Battery Charger	40Y7625												
Serial Hard Drive Ultrabay Slim Adapter (flat)	40Y8725	ThinkPad 65W AC Adapter	40Y7696												
Combo II Ultrabay Slim Drive (flat bezel)	40Y8621	ThinkPad 90W AC Adapter	40Y7659												
ThinkPad DVD Ultrabay Slim Burner (flat)	41N5643	ThinkPad 90W AC/DC Combo Adapter	40Y7630												
160GB Disk 9.5mm SATA150 (5400 rpm)	41N5692	ThinkPad Nylon Carrying Case	10K0207												
USB 2.0 Lenovo Multimedia Headset	40Y8518	ThinkPad Carrying Case - Expander	73P3597												
USB 2.0 Lenovo Webcam	40Y8519	ThinkPad Carrying Case - Organizer	73P3598												
USB 2.0 Security Memory Key 4GB	41U5120	ThinkPad Carrying Case - Backpack	73P3599												
USB 2.0 Super Multi-Burner Drive	41N5565	Carrying Case - Leather Attache	73P3600												
11a/b/g Wireless Mini PCI Express Adpr	40Y7026	ThinkPad Women's Leather Trim Tote	22P8856												
Intel PRO/Wireless 3945ABG Mini PCIe Ad	41N3008	Lenovo L192 Wide 19" Monitor (black)	6920AB1												
ThinkPad Adjustable Notebook Stand	40Y7676	Lenovo D221 Wide 22" Monitor (black)	6622HB1												
ThinkPad Convertible Monitor Stand	40Y7620	ThinkVision® L192p 19" Monitor (black)	9419HC2												
ThinkPad Essential Port Replicator	250510W	ThinkVision L201p 20.1" Monitor (black)	9220HB1												
ThinkPad Advanced Mini Dock	250410U	Lenovo M500 Projector	0037A05												
ThinkPad Advanced Dock	250310U	Lenovo C500 Projector	0039A05												
Other accessories on O-T60 sheet	Other accessories at <a href="http://lenovo.com/accessories">lenovo.com/accessories</a>														
												Supports ThinkVantage® technologies			
												65-watt AC adapter (GMA graphics) ThinkPad Roll Cage (one-piece magnesium frame) RoHS-compliant International Warranty Service <sup>17</sup> 24 hour x 7 day <sup>18</sup> toll-free warranty support during the warranty <sup>12</sup>			
												ThinkPlus™. <sup>22</sup> 2-yr LOR 9x5 NBD 41C9175			
												ThinkPlus 3-yr LOR 9x5 NBD 41C9176			
												ThinkPlus 4-yr LOR 9x5 NBD 41C9177			
												ThinkPlus 5-yr LOR 9x5 NBD 41C9179			
												ThinkPlus 4-yr P&L P/U Depot 41C9178			
												ThinkPlus 5-yr P&L P/U Depot 41C9180			
												Post-warranty annual maintenance agreements at <a href="http://lenovo.com/thinkplus/warranty">lenovo.com/thinkplus/warranty</a>			

See footnotes for important warranty information  
US models announced Jan 5, Jan 31, May 16, June 20, or August 1, 2006  
US models withdrawn effective September 2007

\* Powered by Intel Centrino® Duo mobile technology

© Lenovo  
(DV1-2) September 2007

# ThinkPad® T60 (2007) - 14.1" display - withdrawn

Created by Lenovo Training Solutions  
Personal Systems Reference (PSREF)

Type-model	Processor	Speed GHz	Memory	Screen	Graphics controller memory	Disk SATA GB <sup>8</sup> rpm	EIDE optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN wireless	Blue-tooth	Finger print reader	Workhorse (W) or Global (G) Entry (E)	Avail date
2007-42U	Core Duo T2400	1.83	512MB	14.1" XGA	64MB	60GB 5400	DVD	*Intel 11a/b/g <sup>32</sup>				W G	Feb 06
2007-43U	Core Duo T2400	1.83	512MB	14.1" XGA	64MB	60GB 5400	Combo	*Intel 11a/b/g		Blue	Finger	W G	May 06
2007-46U	Core Duo T2400	1.83	512MB	14.1" XGA	64MB	60GB 5400	Combo	*Intel 11a/b/g			Finger	W G	Feb 06
2007-47U	Core Duo T2400	1.83	512MB	14.1" XGA	64MB	60GB 5400	Combo	*Intel 11a/b/g	Verizon	Blue	Finger	W	Feb 06
2007-49U	Core Duo T2400	1.83	512MB	14.1" SXGA+	64MB	60GB 5400	Combo	*Intel 11a/b/g				W G	Feb 06
2007-4AU	Core Duo T2400	1.83	512MB	14.1" SXGA+	64MB	60GB 5400	Combo	*Intel 11a/b/g			Finger	W G	Feb 06
2007-4CU	Core Duo T2400	1.83	512MB	14.1" SXGA+	64MB	60GB 5400	Combo	*Intel 11a/b/g		Blue	Finger	W	Feb 06
2007-44U	Core Duo T2400	1.83	512MB	14.1" XGA	64MB	60GB 5400	DVD	Open; upg <sup>36</sup>				W G	Feb 06
2007-48U	Core Duo T2400	1.83	512MB	14.1" XGA	64MB	60GB 5400	Combo	*Intel 11a/b/g				W	Feb 06
2007-4BU	Core Duo T2400	1.83	512MB	14.1" SXGA+	64MB	80GB 5400	Combo	*Intel 11a/b/g	Verizon	Blue	Finger	W	Feb 06
2007-4DU	Core Duo T2400	1.83	512MB	14.1" XGA	64MB	80GB 5400	Combo	*Intel 11a/b/g			Finger	W	Feb 06
2007-4EU	Core Duo T2400	1.83	512MB	14.1" SXGA+	64MB	60GB 7200	Combo	*Intel 11a/b/g			Finger	W	Feb 06
2007-62U	Core Duo T2500	2.00	1GB	14.1" SXGA+	128MB	100G 5400	DVD±RW	11a/b/g <sup>32</sup>		Blue	Finger		Feb 06
2007-63U	Core Duo T2500	2.00	1GB	14.1" SXGA+	128MB	100G 5400	DVD±RW	*Intel 11a/b/g		Blue	Finger		Feb 06
2007-64U	Core Duo T2500	2.00	1GB	14.1" SXGA+	128MB	100G 5400	DVD±RW	*Intel 11a/b/g	Verizon	Blue	Finger		Feb 06
2007-67U	Core Duo T2500	2.00	1GB	14.1" SXGA+	128MB	100G 5400	Combo	*Intel 11a/b/g	Verizon	Blue	Finger		Feb 06
2007-66U	Core Duo T2500	2.00	1GB	14.1" SXGA+	128MB	100G 5400	Combo	*Intel 11a/b/g		Blue		G	Feb 06
2007-68U	Core Duo T2500	2.00	1GB	14.1" SXGA+	128MB	100G 7200	DVD±RW	*Intel 11a/b/g		Blue	Finger		Feb 06
2007-05U	Core Duo T2400	1.83	512MB	14.1" XGA	64MB	60GB 5400	Combo	*Intel 11a/b/g		Blue		W	May 06
2007-4WU	Core Duo T2400	1.83	512MB	14.1" XGA	64MB	60GB 5400	Combo	*Intel 11a/b/g	AT&T	Blue	Finger	W	Jun 06
2007-4XU	Core Duo T2400	1.83	512MB	14.1" SXGA+	64MB	80GB 5400	Combo	*Intel 11a/b/g	AT&T	Blue	Finger	W	Jun 06
2007-6GU	Core Duo T2500	2.00	1GB	14.1" SXGA+	128MB	100G 5400	DVD±RW	*Intel 11a/b/g	AT&T	Blue	Finger		Jun 06
2007-6HU	Core Duo T2500	2.00	1GB	14.1" SXGA+	128MB	100G 5400	Combo	*Intel 11a/b/g	AT&T	Blue	Finger		Jun 06

Positioning Processor	<i>Premiere performance; two spindles</i> <b>Intel® Core™ Duo processor T2400 (1.83GHz) or T2500 (2.00GHz)</b> with dual-core, Enhanced Intel SpeedStep™ technology <sup>1</sup> , Execute Disable Bit, 667MHz bus, and 2MB shared L2 cache	<b>SOFTWARE</b> <sup>14</sup> <b>Windows XP Professional</b> - Microsoft® Windows® XP Professional <sup>20</sup> (Service Pack 2) ↳ Disk-to-Disk Recovery (in hidden protected area)  <b>Preloaded</b> (only some listed) • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • ThinkVantage System Update • System Migration Assistant • Symantec® Client Security™ • Diskeeper® Lite • PC-Doctor™ (diagnostics) • ThinkPad Utilities (Power Manager and Presentation Director) • Google Toolbar • Google Desktop • Picasa from Google • Fingerprint Software (fingerprint models) • Multimedia Center for Think Offerings • Sonic RecordNOW and Drive Letter Access (combo, DVD±RW) • InterVideo WinDVD (combo, DVD, DVD±RW models) • InterVideo WinDVD Creator (DVD±RW models)  <b>License</b> - CD not included - Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client
Memory	<b>512MB</b> or <b>1GB</b> std / 4GB max <sup>31</sup> / PC2-5300 667MHz DDR2 / non-parity / CL5 / dual channel capable / two 200-pin SO-DIMM sockets / std mem in 1 socket / 1 socket avail	
Diskette drive	None standard / use optional USB-based diskette drive	
EIDE DVD	<i>Some:</i> DVD-ROM / 24X-8X9 speed / single-layer / removable from Ultrabay™ Slim	
EIDE Combo	<i>Some:</i> DVD-ROM/CD-RW / 24X/24X/24X/8X <sup>21</sup> speed / removable from Ultrabay Slim	
EIDE DVD±RW	<i>Some:</i> DVD burner / Super Multi-Burner (40Y8623) dual-layer, removable Ultrabay Slim	
Ultrabay Slim	One modular bay for interchangeable devices (right side) / 9.5mm high bay / flat bezel	
Serial ATA disk (SATA150)	<b>60GB</b> <sup>8</sup> (5400 or 7200 rpm), <b>80GB</b> (5400 rpm), or <b>100GB</b> (5400 or 7200 rpm) / 9.5mm high / removable, upgradable / 9.5mm high bay / supports 2nd disk / <b>ThinkPad Shock Mounted Hard Drive / Active Protection System</b> <sup>TM</sup>	
Display	<i>Some:</i> <b>14.1"</b> (358.1mm) <b>XGA (1024x768) TFT color</b> / 150 nits / anti-glare <i>Some:</i> <b>14.1"</b> (358.1mm) <b>SXGA+ (1400x1050) TFT color</b> / 150 nits / anti-glare	
Graphics	<i>Some:</i> <b>ATI® MOBILITY™ Radeon™ X1300 M52</b> / PCI Express x16 / <b>64MB</b> GDDR1 <i>Some:</i> <b>ATI MOBILITY Radeon X1400 M54</b> / PCI Express x16 / <b>128MB</b> GDDR1 <i>All:</i> DVI pass-through support to optional Advanced Mini Dock or Advanced Dock	
Keyboard	89-key / ThinkVantage button / spill-resistant / multimedia Fn keys / Windows, Appl keys	
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar <sup>13</sup> , magnifying glass	
Touch pad	UltraNav™ multi-pointing system / touch pad below keyboard / Tap Zones	
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions	
Dimensions <sup>3</sup>	<b>14.1" models (WxDxH):</b> 12.4" x 10.0" x 1.0-1.2"; 316mm x 255mm x 26.6-31mm	
Weight <sup>2</sup>	With optical drive and battery: up to 5.5 lb (2.5kg)	
Case material	Magnesium composite top cover, Carbon Fiber Reinforced Plastic (CFRP) bottom cover	
Battery - type	Lithium Ion <b>6-cell</b> / supports unique 2nd battery in Ultrabay Slim	
Battery - life <sup>10</sup>	<b>6-cell:</b> up to 6.0 hr; <b>opt 9-cell:</b> up to 9.0 hr; <b>9-cell plus Ultrabay battery:</b> up to 11.5 hr	
Architecture	<b>Mobile Intel 945PM Express Chipset</b> / 82945PM Memory Controller Hub / 82801GBM ICH7-M I/O Controller Hub (SATA300, ATA-100 EIDE, PCI Express x1, PCI bus, USB, LPC interface, [Bluetooth], [fingerprint]) / PCI bus (TI® PCI1512 CardBus controller) / LPC bus (National Semiconductor® PC87382 Super I/O, Atmel® 97SC3203)	
PC Card Std slot	One Type I or Type II slot / CardBus 32-bit / integrated door	
ExpressCard slot	One ExpressCard/34 or ExpressCard/54 / PCI Express x1 or USB 2.0 / integrated door	
Ports	Three USB 2.0 / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / no keyboard, mouse, serial ports, parallel port, 1394, or S-video (use USB)	
Wireless antenna	UltraConnect™ Antenna built into the display cover / on-off switch for all wireless radios	
Mini PCI Express	Two Mini PCI Express slots / only 802.11 wireless is customer upgradable	
Wireless upg <sup>36</sup>	<i>Some:</i> wireless upgradable with wireless Mini PCI Express options	
Intel 11a/b/g <sup>32</sup>	<i>Some:</i> 11a/b/g wireless <sup>4</sup> , Mini PCI Express adapter, Intel PRO/Wireless 3945ABG	
11a/b/g <sup>32</sup>	<i>Some:</i> 11a/b/g wireless <sup>4</sup> , ThinkPad 11a/b/g Mini PCIe Adapter, Atheros AR5006EX	
WWAN <sup>16</sup>	<i>Some:</i> Wireless WAN, Sierra Wireless 1xEV-DO Network Adapter, Mini PCIe Adapter, EV-DO/1xRTT, WWAN antenna on display, service contract reqd with Verizon® Wireless	
WWAN <sup>23</sup>	<i>Some:</i> Wireless WAN, GPRS/EDGE/UMTS/HSDPA support, Mini PCIe adapter and SIM, WWAN antenna on display, service contract reqd with AT&T®	Supports ThinkVantage® technologies
Modem	56K <sup>6</sup> V.90 (V.92-designed <sup>29</sup> ) modem in Com Daughter Card socket / Conexant® chipset	90-watt AC adapter (discrete graphics)
Bluetooth™	<i>Some:</i> Bluetooth 2.0 wireless / USB 2.0 interface via ICH7-M / LED indicator	ThinkPad Roll Cage (one-piece magnesium frame)
Ethernet	Gigabit ethernet on systemboard / Intel 82573L (MAC/PHY) / PCIe x1 / PXE	RoHS-compliant
Audio support	High Definition (HD) Audio / AD1981HD codec / stereo speakers, 1 watt / volume up, down, mute buttons / internal microphone / microphone input jack / headphone jack	International Warranty Service <sup>17</sup>
Security	Power-on password / hard disk password / supervisor password / security keyhole	24 hour x 7 day <sup>18</sup> toll-free warranty support during the warranty <sup>12</sup>
Security chip	<b>Trusted Platform Module</b> / Atmel chip / TCG 1.2-compliant	
Fingerprint reader	<i>Some:</i> <b>Fingerprint reader on palm rest</b> / swipe sensor / supports the security chip	ThinkPlus services at <b>lenovo.com/thinkplus/warranty</b>
Limited warranty <sup>12</sup>	<b>3-years/1-yr battery</b> - EasyServ™ <sup>19</sup> onsite pickup and delivery / service upgrades <sup>22</sup> avail	

See footnotes for important warranty information \* Powered by Intel Centrino® Duo mobile technology  
US models announced January 31, May 16, May 25, or June 20, 2006  
US models withdrawn effective September or December 2007

# ThinkPad® T60 (1951 and 2007) - 14.1" display - withdrawn

Created by Lenovo Training Solutions  
Personal Systems Reference (PSREF)

Type-model	Processor	Speed GHz	Memory	Screen	Graphics controller	Disk SATA GB <sup>5</sup>	EIDE rpm	optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN wireless	Blue-tooth	Finger print reader	Chip set	Bat-Whorse (W) tery Cells	Gbl (G) Avail Entry date
1951-4GU	Core Duo T2500	2.00	1GB	14.1" XGA	GMA	60G	5400	Combo	*Intel 11a/b/g <sup>32</sup>				GM	6	W G July 06
1951-4MU	Core Duo T2400	1.83	1GB	14.1" XGA	GMA	60G	7200	Combo	*Intel 11a/b/g				GM	6	W G July 06
2007-GAU	Core Duo T2500	2.00	1GB	14.1" XGA	X1300	60G	5400	Combo	*Intel 11a/b/g				PM	6	W G July 06
1951-4HU	Core Duo T2500	2.00	1GB	14.1" XGA	GMA	60G	5400	Combo	*Intel 11a/b/g			Finger	GM	6	W July 06
1951-4KU	Core Duo T2500	2.00	1GB	14.1" XGA	GMA	60G	5400	Combo	*Intel 11a/b/g	AT&T		Finger	GM	6	W July 06
2007-G3U	Core Duo T2500	2.00	1GB	14.1" SXGA+	X1400	80G	5400	Combo	*Intel 11a/b/g				PM	6	W G July 06
2007-G4U	Core Duo T2500	2.00	1GB	14.1" SXGA+	X1400	80G	5400	Combo	*Intel 11a/b/g			Finger	PM	6	W G July 06
2007-G5U	Core Duo T2500	2.00	512M	14.1" SXGA+	X1400	80G	5400	Combo	*Intel 11a/b/g			Blue Finger	PM	6	W G July 06
2007-GBU	Core Duo T2500	2.00	1GB	14.1" SXGA+	X1400	80G	5400	Combo	*Intel 11a/b/g			Blue Finger	PM	6	W G July 06
1951-4LU	Core Duo T2500	2.00	1GB	14.1" XGA	GMA	60G	5400	DVD	Open; upg <sup>36</sup>				GM	6	W July 06
2007-G9U	Core Duo T2500	2.00	1GB	14.1" XGA	X1300	60G	5400	Combo	*Intel 11a/b/g			Finger	PM	6	W July 06
2007-6KU	Core Duo T2600	2.16	1GB	14.1" SXGA+	X1400	100G	5400	DVD±RW	*Intel 11a/b/g	AT&T		Blue Finger	PM	9	July 06
2007-6LU	Core Duo T2600	2.16	1GB	14.1" SXGA+	X1400	100G	5400	DVD±RW	*Intel 11a/b/g			Blue Finger	PM	9	July 06
2007-6MU	Core Duo T2600	2.16	1GB	14.1" SXGA+	X1400	100G	5400	Combo	*Intel 11a/b/g			Blue	PM	9	July 06
Positioning Processor	<i>Premiere performance; two spindles</i> <b>Intel® Core™ Duo processor T2400, T2500 or T2600</b> with dual-core, Enhanced Intel SpeedStep™ technology <sup>1</sup> , Execute Disable Bit, 667MHz system bus, and 2MB shared L2 cache											<b>SOFTWARE<sup>14</sup></b>			
Memory	<b>512MB</b> or <b>1GB</b> std / <b>4GB</b> max <sup>31</sup> / PC2-5300 667MHz DDR2 / non-parity / CL5 / dual-channel capable / two 200-pin SO-DIMM sockets / <b>4GU, 4MU, 4HU, 4KU, 4LU:</b> standard memory in both sockets; no sockets available; <b>Others:</b> standard memory in 1 socket; 1 socket available											<b>Windows XP Professional</b> - Microsoft® Windows® XP Professional <sup>20</sup> (Service Pack 2) ⇨ Disk-to-Disk Recovery (in hidden protected area)			
Diskette drive	None standard / use optional USB-based diskette drive											<b>Preloaded</b> • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center with Away Manager • ThinkVantage System Update • Symantec® Client Security™ • Diskeeper® Lite • PC-Doctor™ (diagnostics) • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader • Google Toolbar • Google Desktop • Picasa from Google • Fingerprint Software (fingerprint models) • Multimedia Center for Think Offerings • Sonic RecordNOW and Drive Letter Access (combo, DVD±RW) • InterVideo WinDVD (DVD, combo, DVD±RW models) • InterVideo WinDVD Creator (DVD±RW models) <b>License</b> - CD not included - Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client			
EIDE DVD	<i>Some:</i> DVD-ROM / 24X-8X <sup>9</sup> speed / single-layer / removable from Ultrabay™ Slim														
EIDE Combo	<i>Some:</i> DVD-ROM/CD-RW / 24X/24X/24X/8X <sup>21</sup> speed / removable from Ultrabay Slim														
EIDE DVD±RW	<i>Some:</i> DVD burner / Super Multi-Burner (40Y8623) dual-layer, removable Ultrabay Slim														
Ultrabay Slim	One modular bay for interchangeable devices (right side) / 9.5mm high bay / flat bezel														
Serial ATA disk (SATA150)	<b>60GB<sup>8</sup></b> (5400 or 7200 rpm), <b>80GB</b> (5400 rpm), or <b>100GB</b> (5400 or 7200 rpm) / 9.5mm high / removable, upgradable / 9.5mm high bay / supports 2nd disk / <b>ThinkPad Shock Mounted Hard Drive / Active Protection System™</b>														
Display	<i>Some:</i> <b>14.1"</b> (358.1mm) <b>XGA (1024x768) TFT color</b> / 150 nits / anti-glare <i>Some:</i> <b>14.1"</b> (358.1mm) <b>SXGA+ (1400x1050) TFT color</b> / 150 nits / anti-glare														
Graphics	<i>Some:</i> <b>Intel Graphics Media Accelerator 950</b> / integrated in 945GM / 250MHz <i>Some:</i> <b>ATI® MOBILITY™ Radeon™ X1300 M52</b> / PCI Express x16 / <b>64MB</b> GDDR1 <i>Some:</i> <b>ATI MOBILITY Radeon X1400 M54</b> / PCI Express x16 / <b>128MB</b> GDDR1 <i>All:</i> DVI pass-through support to optional Advanced Mini Dock or Advanced Dock														
Keyboard	89-key / ThinkVantage button / spill-resistant / multimedia Fn keys / Windows, Appl keys											<b>Supports ThinkVantage® technologies</b> 65-watt (1951) or 90-watt (2007) AC adapter ThinkPad Roll Cage (one-piece magnesium frame) RoHS-compliant International Warranty Service <sup>17</sup> 24 hour x 7 day <sup>18</sup> toll-free warranty support during the warranty <sup>12</sup>  ThinkPlus™.22 2-yr LOR 9x5 NBD 41C9175 ThinkPlus 3-yr LOR 9x5 NBD 41C9176 ThinkPlus 4-yr LOR 9x5 NBD 41C9177 ThinkPlus 5-yr LOR 9x5 NBD 41C9179 ThinkPlus 4-yr P&L P/U Depot 41C9178 ThinkPlus 5-yr P&L P/U Depot 41C9180			
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar <sup>13</sup> , magnifying glass														
Touch pad	UltraNav™ multi-pointing system / touch pad below keyboard / Tap Zones														
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions														
Dimensions <sup>3</sup>	<b>14.1" models (WxDxH):</b> 12.4" x 10.0" x 1.0-1.2"; 316mm x 255mm x 26.6-31mm														
Weight <sup>2</sup>	With optical drive and battery: up to 5.5 lb (2.5kg)														
Case material	Magnesium composite top cover, Carbon Fiber Reinforced Plastic (CFRP) bottom cover														
Battery - type	Lithium Ion <b>6-cell</b> or <b>9-cell</b> / supports unique 2nd battery in Ultrabay Slim														
Battery - life <sup>10</sup>	<b>6-cell:</b> up to 6.0 hr; <b>9-cell:</b> up to 9.0 hr; <b>9-cell plus Ultrabay battery:</b> up to 11.5 hr														
Architecture	<i>Some:</i> <b>Mobile Intel 945GM Express Chipset</b> / 82945GM Graphics Memory Cont Hub <i>Some:</i> <b>Mobile Intel 945PM Express Chipset</b> / 82945PM Memory Controller Hub <i>All:</i> 82801GBM ICH7-M I/O Controller Hub (SATA300, ATA-100 EIDE, PCI Express x1, PCI bus, USB, LPC interface, [Bluetooth], [fingerprint]) / PCI bus (TI® PCI1512 CardBus controller) / LPC bus (NS PC87382 Super I/O, Atmel® 7SC3203)														
PC Card Std slot	One Type I or Type II slot / CardBus 32-bit / integrated door														
ExpressCard slot	One ExpressCard/34 or ExpressCard/54 / PCI Express x1 or USB 2.0 / integrated door														
Ports	Three USB 2.0 / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / no keyboard, mouse, serial ports, parallel port, 1394, or S-video (use USB)														
Wireless antenna	UltraConnect™ Antenna built into the display cover / on-off switch for all wireless radios														
Mini PCI Express	Two Mini PCI Express slots / only 802.11 wireless is customer upgradable														
Wireless upg	<i>Some:</i> wireless upgradable with wireless Mini PCI Express options														
Intel 11a/b/g <sup>32</sup>	<i>Some:</i> 11a/b/g wireless <sup>4</sup> , Mini PCI Express adapter, Intel PRO/Wireless 3945ABG														
WWAN <sup>23</sup>	<i>Some:</i> Wireless WAN, GPRS/EDGE/UMTS/HSDPA support, Mini PCIe adapter and SIM, WWAN antenna on display, service contract required with AT&T®														
Modem	56K <sup>6</sup> V.90 (V.92-designed <sup>29</sup> ) modem in Com Daughter Card socket / Conexant® chipset														
Bluetooth™	<i>Some:</i> Bluetooth 2.0 wireless / USB 2.0 interface via ICH7-M / LED indicator														
Ethernet	Gigabit ethernet on systemboard / Intel 82573L (MAC/PHY) / PCIe x1 / PXE														
Audio support	High Definition (HD) Audio / AD1981HD codec / stereo speakers, 1 watt / volume up, down, mute buttons / internal microphone / microphone input jack / headphone jack														
Security	Power-on password / hard disk password / supervisor password / security keyhole														
Security chip	<b>Trusted Platform Module</b> / Atmel chip / TCG 1.2-compliant														
Fingerprint reader	<b>Fingerprint reader on palm rest</b> / swipe sensor / supports the security chip														
Limited warranty <sup>12</sup>	<b>3-years/1-yr battery</b> - EasyServ™.19 onsite pickup and delivery / service upgrades <sup>22</sup> avail														
512MB PC2-5300 DDR2 CL5 SODIMM	40Y7733	T60 Series Li-Ion Battery 6-cell				40Y6799									
1GB PC2-5300 DDR2 CL5 SODIMM	40Y7734	Z60m/T60/R60 Li-Ion Battery 9-cell				40Y6797									
2GB PC2-5300 DDR2 SODIMM	40Y7735	Advanced Ultrabay Battery 3-cell				40Y6789									
ThinkPad DVD Ultrabay Slim Burner (flat)	41N5643	ThinkPad 90W AC Adapter				40Y7659									
100GB Disk 9.5mm SATA150 (7200 rpm)	41N3013	ThinkPad 90W AC/DC Combo Adapter				40Y7630									
11a/b/g Wireless Mini PCI Express Adpr	40Y7026	ThinkPad Carrying Case - Expander				73P3597									
Other accessories on O-T60 sheet	Other accessories at <a href="http://lenovo.com/accessories">lenovo.com/accessories</a>														

See footnotes for important warranty information  
US models announced July 11, 2006  
US models withdrawn effective September 2007

\* Powered by Intel Centrino® Duo mobile technology

© Lenovo  
(DV11-1) September 2007

# ThinkPad® T60 (1951 and 2007) - 14.1" display (October 2006) - withdrawn Personal Systems Reference (PSREF)

Type-model	Processor	Speed GHz	Memory	Screen	Graphics controller	Disk SATA GB <sup>8</sup> rpm	EIDE optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN wireless	Finger print reader	Bat- tery Cells	Workhorse Global Entry date
1951-2QU	Core™ 2 Duo T5500	1.66	512M	14.1" XGA	GMA	40G 5400	Combo	*Intel 11a/b/g <sup>32</sup>	None		GM 6	Entry Oct 06
1951-2RU	Core 2 Duo T5600	1.83	512M	14.1" XGA	GMA	40G 5400	Combo	*Intel 11a/b/g	None	Finger	GM 6	Entry Oct 06
1951-2SU	Core 2 Duo T5500	1.66	512M	14.1" XGA	GMA	60G 5400	Combo	*Intel 11a/b/g	None	Blue Finger	GM 6	Entry Oct 06
1951-4NU	Core 2 Duo T7200	2.00	1GB	14.1" XGA	GMA	60G 5400	Combo	*Intel 11a/b/g	None		GM 6	Gbl Oct 06
2007-GCU	Core 2 Duo T7200	2.00	1GB	14.1" SXGA+	X1300	80G 5400	Combo	*Intel 11a/b/g	None	Finger	PM 6	Gbl Oct 06
2007-GDU	Core 2 Duo T7200	2.00	1GB	14.1" XGA	X1300	80G 5400	Combo	*Intel 11a/b/g	None	Finger	PM 6	Gbl Oct 06
1951-4PU	Core 2 Duo T5600	1.83	1GB	14.1" XGA	GMA	60G 5400	Combo	*Intel 11a/b/g	None		GM 6	Gbl Nov06
2007-GEU	Core 2 Duo T5600	1.83	1GB	14.1" SXGA+	X1300	80G 5400	Combo	*Intel 11a/b/g	None	Blue Finger	PM 6	Gbl Nov06
2007-6PU	Core 2 Duo T7400	2.16	1GB	14.1" SXGA+	X1400	120G 5400	Combo	*Intel 11a/b/g	None	Blue Finger	PM 9	Oct 06
2007-6QU	Core 2 Duo T7400	2.16	1GB	14.1" SXGA+	X1400	120G 5400	DVD±RW	*Intel 11a/b/g	None	Blue Finger	PM 9	Gbl Nov06

  

Positioning Processor	<i>Premiere performance; two spindles</i> <b>Intel® Core 2 Duo processor T5500, T5600, T7200, or 7400</b> with dual-core, Intel 64 Technology, Enhanced Intel SpeedStep™ technology <sup>1</sup> , Execute Disable Bit, and 667MHz system bus;	<b>SOFTWARE</b> <sup>14</sup> <b>Windows XP Professional</b> - Microsoft® Windows® XP Professional <sup>20</sup> (Service Pack 2) ◇ Disk-to-Disk Recovery (in hidden protected area) <b>Preloaded</b> • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • ThinkVantage System Update • System Migration Assistant • Symantec® Client Security™ • Diskkeeper® Lite • PC-Doctor™ (diagnostics) • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader • Google Toolbar • Google Desktop • Picasa from Google • Fingerprint Software (fingerprint models) • Multimedia Center for Think Offerings • Sonic RecordNOW and Drive Letter Access (combo, DVD±RW) • InterVideo WinDVD (combo, DVD±RW models) • InterVideo WinDVD Creator (DVD±RW models) <b>License</b> - CD not included - Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client
Memory	<b>T5500/T5600:</b> 2MB shared L2 cache; <b>T7200/T7400:</b> 4MB shared L2 cache <b>512MB or 1GB</b> std / 4GB max <sup>31</sup> / PC2-5300 667MHz DDR2 / non-parity / CL5 / dual-channel capable / two 200-pin SO-DIMM sockets / <i>4NU:</i> standard memory in both sockets (512MB each socket); no sockets available; <i>Others:</i> standard memory in 1 socket; 1 socket available	
Diskette drive EIDE Combo EIDE DVD±RW Ultrabay Slim Serial ATA disk (SATA150)	None standard / use optional USB-based diskette drive <i>Some:</i> DVD-ROM/CD-RW / 24X/24X/24X/8X <sup>21</sup> speed / removable from Ultrabay Slim <i>Some:</i> DVD burner / super Multi-Burner (40Y8623) dual layer, removable Ultrabay Slim One modular bay for interchangeable devices (right side) / 9.5mm high bay / flat bezel <b>40GB<sup>8</sup></b> (5400 rpm), <b>60GB</b> (5400 rpm), <b>80GB</b> (5400 rpm), or <b>120GB</b> (5400 rpm) / 9.5mm high / removable, upgradable / 9.5mm high bay / supports 2nd disk / <b>ThinkPad Shock Mounted Hard Drive / Active Protection System™</b>	
Display	<i>Some:</i> <b>14.1"</b> (358.1mm) <b>XGA (1024x768) TFT color</b> / 150 nits / anti-glare <i>Some:</i> <b>14.1"</b> (358.1mm) <b>SXGA+ (1400x1050) TFT color</b> / 150 nits / anti-glare	
Graphics	<i>Some:</i> <b>Intel Graphics Media Accelerator 950</b> / integrated in 945GM / 250MHz <i>Some:</i> <b>ATI® MOBILITY™ Radeon™ X1300 M52</b> / PCI Express x16 / <b>64MB</b> memory <i>Some:</i> <b>ATI MOBILITY Radeon X1400 M54</b> / PCI Express x16 / <b>128MB</b> memory <i>All:</i> DVI pass-through support to optional Advanced Mini Dock or Advanced Dock	
Keyboard TrackPoint® Touch pad ThinkLight™	89-key / ThinkVantage button / spill-resistant / multimedia Fn keys / Windows, Appl keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar <sup>13</sup> , magnifying glass UltraNav™ multi-pointing system / touch pad below keyboard / Tap Zones Illuminates the keyboard to improve visibility in low-light conditions	
Dimensions <sup>3</sup> Weight <sup>2</sup> Case material Battery - type Battery - life <sup>10</sup>	<b>14.1" models (WxDxH):</b> 12.4" x 10.0" x 1.0-1.2"; 316mm x 255mm x 26.6-31mm With optical drive and battery: up to 5.5 lb (2.5kg) Magnesium composite top cover, Carbon Fiber Reinforced Plastic (CFRP) bottom cover Lithium Ion <b>6-cell</b> or <b>9-cell</b> / supports unique 2nd battery in Ultrabay Slim <b>6-cell:</b> up to 5.9 hr; <b>9-cell:</b> up to 6.9 hr; <b>9-cell plus Ultrabay battery:</b> up to 8.5 hr	
Architecture	<i>Some:</i> <b>Mobile Intel 945GM Express Chipset</b> / 82945GM Graphics Memory Cont Hub <i>Some:</i> <b>Mobile Intel 945PM Express Chipset</b> / 82945PM Memory Controller Hub <i>All:</i> 82801GBM ICH7-M I/O Controller Hub (SATA300, ATA-100 EIDE, PCI Express x1, PCI bus, USB, LPC interface, [Bluetooth], [fingerprint]) / PCI bus (TI® PCI1512 CardBus controller) / LPC bus (NS PC87382 Super I/O, Atmel® 75C3203) One Type I or Type II slot / CardBus 32-bit / integrated door	
PC Card Std slot ExpressCard slot Ports	One ExpressCard/34 or ExpressCard/54 / PCI Express x1 or USB 2.0 / integrated door Three USB 2.0 / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / no keyboard, mouse, serial ports, parallel port, 1394, or S-video (use USB)	
Wireless antenna Mini PCI Express Intel 11a/b/g <sup>32</sup> WWAN <sup>16</sup>	UltraConnect™ Antenna built into the display cover / on-off switch for all wireless radios Two Mini PCI Express slots / only 802.11 wireless is customer upgradable 11a/b/g wireless <sup>4</sup> , Mini PCI Express adapter, Intel PRO/Wireless 3945ABG None	
Modem Bluetooth™ Ethernet Audio support	56K <sup>6</sup> V.90 (V.92-designed <sup>29</sup> ) modem in Com Daughter Card socket / Conexant® chipset <i>Some:</i> Bluetooth 2.0 wireless / USB 2.0 interface via ICH7-M / LED indicator Gigabit ethernet on systemboard / Intel 82573L (MAC/PHY) / PCIe x1 / PXE	
Security Security chip Fingerprint reader	High Definition (HD) Audio / AD1981HD codec / stereo speakers, 1 watt / volume up, down, mute buttons / internal microphone / microphone input jack / headphone jack Power-on password / hard disk password / supervisor password / security keyhole <b>Trusted Platform Module</b> / Atmel chip / TCG 1.2-compliant <i>Some:</i> <b>Fingerprint reader on palm rest</b> / swipe sensor / supports the security chip	
Limited warranty <sup>12</sup> <b>3-years/1-yr battery</b> - EasyServ™ <sup>19</sup> onsite pickup and delivery / service upgrades <sup>22</sup> avail		
512MB PC2-5300 DDR2 CL5 SODIMM 1GB PC2-5300 DDR2 CL5 SODIMM 2GB PC2-5300 DDR2 SODIMM ThinkPad DVD Ultrabay Slim Burner (flat) 160GB Disk 9.5mm SATA150 (7200 rpm) 11a/b/g Wireless Mini PCI Express Adpr ThinkPad Essential Port Replicator ThinkPad Advanced Mini Dock ThinkPad Advanced Dock Other accessories on O-T60 sheet	40Y7733 40Y7734 40Y7735 41N5643 41N5737 40Y7026 250510W 250410U 250310U T60 Series Li-Ion Battery 6-cell Z60m/T60/R60 Li-Ion Battery 9-cell Advanced Ultrabay Battery 3-cell ThinkPad External Battery Charger ThinkPad 90W AC/DC Combo Adapter ThinkPad Carrying Case - Expander ThinkPad Carrying Case - Backpack ThinkVision® L193p 19" LCD Monitor Lenovo M500 Projector Other accessories at <b>lenovo.com/accessories</b>	
	40Y6799 40Y6797 40Y6789 40Y7625 40Y7630 73P3597 73P3599 4431HB2 0037A05 41C9175 41C9176 41C9177 41C9179 41C9178 41C9180	

See footnotes for important warranty information  
US models announced October 17 or November 28, 2006  
US models withdrawn effective September or December 2007

\* Powered by Intel Centrino® Duo mobile technology

# ThinkPad® T60 (15.0" display) - withdrawn

Created by Lenovo Training Solutions  
Personal Systems Reference (PSREF)

Type-model	Processor	Speed GHz	Memory	Screen	Graphics controller	Disk SATA GB <sup>5</sup>	EIDE rpm	EIDE optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN wireless	Blue-tooth	Finger print reader	Chip set	Bat-tery Cells	Whorse (W) Gbl (G) Avail date
2007-55U	Core Duo T2400	1.83	512M	15.0"	SXGA+	X1300	60G	5400	Combo	*Intel 11a/b/g <sup>32</sup>		Finger	PM	6	W G Feb 06
1951-52U	Core Duo T2400	1.83	512M	15.0"	XGA	GMA	60G	5400	Combo	*Intel 11a/b/g		Finger	GM	6	W G Feb 06
2007-56U	Core Duo T2400	1.83	512M	15.0"	XGA	X1300	60G	5400	Combo	*Intel 11a/b/g		Finger	PM	6	W G Feb 06
2007-57U	Core Duo T2400	1.83	512M	15.0"	XGA	X1300	60G	5400	Combo	*Intel 11a/b/g			PM	6	W Feb 06
2007-58U	Core Duo T2400	1.83	512M	15.0"	SXGA+	X1300	60G	5400	Combo	*Intel 11a/b/g	Verizon	Blue Finger	PM	6	W Feb 06
2007-59U	Core Duo T2400	1.83	512M	15.0"	XGA	X1300	60G	7200	Combo	*Intel 11a/b/g		Finger	PM	6	W Feb 06
2007-5BU	Core Duo T2400	1.83	512M	15.0"	SXGA+	X1300	60G	7200	Combo	*Intel 11a/b/g		Blue Finger	PM	6	W Feb 06
2007-5CU	Core Duo T2400	1.83	512M	15.0"	XGA	X1300	80G	5400	Combo	*Intel 11a/b/g		Blue Finger	PM	6	W Feb 06
2007-72U	Core Duo T2500	2.00	1GB	15.0"	SXGA+	X1400	100G	5400	DVD±RW	*Intel 11a/b/g		Blue Finger	PM	6	W Feb 06
2007-74U	Core Duo T2500	2.00	1GB	15.0"	SXGA+	X1400	100G	5400	DVD±RW	*Intel 11a/b/g	Verizon	Blue Finger	PM	6	Feb 06
2007-73U	Core Duo T2500	2.00	1GB	15.0"	SXGA+	X1400	100G	5400	Combo	*Intel 11a/b/g		Blue	PM	6	Feb 06
2007-76U	Core Duo T2500	2.00	1GB	15.0"	SXGA+	X1400	100G	7200	DVD±RW	*Intel 11a/b/g		Blue Finger	PM	6	Feb 06
1951-58U	Core Duo T2500	2.00	1GB	15.0"	XGA	GMA	60G	5400	Combo	*Intel 11a/b/g		Finger	GM	6	W G July 06
2007-58U	Core Duo T2500	2.00	1GB	15.0"	SXGA+	X1300	80G	5400	Combo	*Intel 11a/b/g <sup>32</sup>			PM	6	W July 06
2007-5SU	Core Duo T2500	2.00	1GB	15.0"	SXGA+	X1300	80G	5400	Combo	*Intel 11a/b/g	AT&T	Finger	PM	6	W July 06
2007-5TU	Core Duo T2500	2.00	1GB	15.0"	SXGA+	X1400	80G	5400	Combo	*Intel 11a/b/g		Blue Finger	PM	6	W G July 06
2007-7DU	Core Duo T2600	2.16	1GB	15.0"	SXGA+	X1400	100G	5400	DVD±RW	*Intel 11a/b/g		Blue Finger	PM	9	July 06
2007-7GU	Core Duo T2600	2.16	1GB	15.0"	SXGA+	X1400	100G	5400	DVD±RW	*Intel 11a/b/g	AT&T	Blue Finger	PM	9	July 06
Positioning Processor	<i>Premiere performance; two spindles</i> <b>Intel® Core™ Duo processor T2400, T2500 or T2600</b> with dual-core, Enhanced Intel SpeedStep™ technology <sup>1</sup> , Execute Disable Bit, 667MHz system bus, and 2MB shared L2 cache											<b>SOFTWARE<sup>14</sup></b> <b>Windows XP Professional</b> - Microsoft® Windows® XP Professional <sup>20</sup> (Service Pack 2) ↳ Disk-to-Disk Recovery (in hidden protected area)			
Memory	<b>512MB</b> or <b>1GB</b> std / 4GB max <sup>31</sup> / PC2-5300 667MHz DDR2 / non-parity / CL5 / dual channel capable / two 200-pin SO-DIMM sockets / <b>58U:</b> standard memory in both sockets; no sockets available; <b>Others:</b> standard memory in 1 socket; 1 socket available											<b>Preloaded</b> • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center with Away Manager • ThinkVantage System Update • Symantec® Client Security™ • Diskeeper® Lite • PC-Doctor™ (diagnostics) • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader • Google Toolbar • Google Desktop • Picasa from Google • Fingerprint Software (fingerprint models) • Multimedia Center for Think Offerings • Sonic RecordNOW and Drive Letter Access (combo, DVD±RW) • InterVideo WinDVD (combo, DVD±RW models) • InterVideo WinDVD Creator (DVD±RW models)			
Diskette drive EIDE Combo EIDE DVD±RW Ultrabay Slim Serial ATA disk (SATA150)	None standard / use optional USB-based diskette drive <i>Some:</i> DVD-ROM/CD-RW / 24X/24X/24X/8X <sup>21</sup> speed / removable from Ultrabay Slim <i>Some:</i> DVD burner / Super Multi-Burner (40Y8623) dual-layer, removable Ultrabay Slim One modular bay for interchangeable devices (right side) / 9.5mm high bay / flat bezel <b>60GB<sup>8</sup></b> (5400 or 7200 rpm), <b>80GB</b> (5400 rpm), or <b>100GB</b> (5400 or 7200 rpm) / 9.5mm high / removable, upgradable / 9.5mm high bay / supports 2nd disk / <b>ThinkPad Shock Mounted Hard Drive / Active Protection System™</b>														
Display	<i>Some:</i> <b>15.0"</b> (358.1mm) <b>XGA (1024x768) TFT color</b> / 150 nits / anti-glare <i>Some:</i> <b>15.0"</b> (381.0mm) <b>SXGA+ (1400x1050) TFT color</b> / 200 nits / anti-glare / FlexView display with wide viewing angle and high density using IPS technology														
Graphics	<i>Some:</i> <b>Intel Graphics Media Accelerator 950</b> / integrated in 945GM / 250MHz <i>Some:</i> <b>ATI® MOBILITY™ Radeon™ X1300 M52</b> / PCI Express x16 / <b>64MB</b> GDDR1 <i>Some:</i> <b>ATI MOBILITY Radeon X1400 M54</b> / PCI Express x16 / <b>128MB</b> GDDR1 <b>All:</b> DVI pass-through support to optional Advanced Mini Dock or Advanced Dock														
Keyboard TrackPoint® Touch pad ThinkLight™	89-key / ThinkVantage button / spill-resistant / multimedia Fn keys / Windows, Appl keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar <sup>13</sup> , magnifying glass UltraNav™ multi-pointing system / touch pad below keyboard / Tap Zones Illuminates the keyboard to improve visibility in low-light conditions														
Dimensions <sup>3</sup> Weight <sup>2</sup> Case material Battery - type Battery - life <sup>10</sup>	<b>15.0" models (WxDxH):</b> 13.2" x 10.6" x 1.2-1.4"; 334mm x 268mm x 31-36mm with optical drive and battery: up to 6.3 lb (2.8 kg) CFRP in top/bottom Lithium Ion <b>6-cell</b> or <b>9-cell</b> / supports unique 2nd battery in Ultrabay Slim <b>6-cell:</b> up to 6.0 hr; <b>9-cell:</b> up to 9.0 hr; <b>9-cell plus Ultrabay battery:</b> up to 11.5 hr														
Architecture	<i>Some:</i> <b>Mobile Intel 945GM Express Chipset</b> / 82945GM Graphics Memory Cont Hub <i>Some:</i> <b>Mobile Intel 945PM Express Chipset</b> / 82945PM Memory Controller Hub <b>All:</b> 82801GBM ICH7-M I/O Controller Hub (SATA300, ATA-100 EIDE, PCI Express x1, PCI bus, USB, LPC interface, [Bluetooth], [fingerprint]) / PCI bus (TI® PCI1512 CardBus controller) / LPC bus (NS PC87382 Super I/O, Atmel® 75C3203) One Type I or Type II slot / CardBus 32-bit / integrated door														
PC Card Std slot ExpressCard slot Ports	One ExpressCard/34 or ExpressCard/54 / PCI Express x1 or USB 2.0 / integrated door Three USB 2.0 / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / no keyboard, mouse, serial ports, parallel port, 1394, or S-video (use USB)														
Wireless antenna Mini PCI Express Intel 11a/b/g <sup>32</sup> 11a/b/g <sup>32</sup> WWAN <sup>16</sup> WWAN <sup>23</sup>	UltraConnect™ Antenna built into the display cover / on-off switch for all wireless radios Two Mini PCI Express slots / only 802.11 wireless is customer upgradable <i>Some:</i> 11a/b/g wireless <sup>4</sup> , Mini PCI Express adapter, Intel PRO/Wireless 3945ABG <i>Some:</i> 11a/b/g wireless <sup>4</sup> , ThinkPad 11a/b/g Mini PCIe Adapter, Atheros AR5006EX <i>Some:</i> Wireless WAN, Sierra Wireless 1xEV-DO Network Adapter, Mini PCIe Adapter, EV-DO/1xRTT, WWAN antenna on display, service contract reqd with Verizon® <i>Some:</i> Wireless WAN, GPRS/EDGE/UMTS/HSDPA support, Mini PCIe adapter and SIM, WWAN antenna on display, service contract required with AT&T®											Supports ThinkVantage® technologies			
Modem Bluetooth™ Ethernet Audio support Security Security chip	56K <sup>6</sup> V.90 (V.92-designed <sup>29</sup> ) modem in Com Daughter Card socket / Conexant® chipset <i>Some:</i> Bluetooth 2.0 wireless / USB 2.0 interface via ICH7-M / LED indicator Gigabit ethernet on systemboard / Intel 82573L (MAC/PHY) / PCIe x1 / PXE High Definition (HD) Audio / AD1981HD codec / stereo speakers, 1 watt / volume up, down, mute buttons / internal microphone / microphone input jack / headphone jack Power-on password / hard disk password / supervisor password / security keyhole <b>Trusted Platform Module</b> / Atmel chip / TCG 1.2-compliant											65-watt (1951) or 90-watt (2007) AC adapter ThinkPad Roll Cage (one-piece magnesium frame) RoHS-compliant International Warranty Service <sup>17</sup> 24 hour x 7 day <sup>18</sup> toll-free warranty support during the warranty <sup>12</sup>			
Fingerprint reader	<b>Fingerprint reader on palm rest</b> / swipe sensor / supports the security chip											ThinkPlus™.22 2-year LOR 9x5 NBD 41C9175			
Limited warranty <sup>12</sup> 3-years/1-yr battery - EasyServ™.19 onsite pickup and delivery / service upgrades <sup>22</sup> avail												ThinkPlus 3-year LOR 9x5 NBD 41C9176 ThinkPlus 5-year LOR 9x5 NBD 41C9179 Other ThinkPlus services at <a href="http://lenovo.com/thinkplus/warranty">lenovo.com/thinkplus/warranty</a>			

See footnotes for important warranty information \* Powered by Intel Centrino® Duo mobile technology  
US models announced January 31 or July 11, 2006  
US models withdrawn effective October 2006 or September 2007

© Lenovo  
(DV1-4) September 2007

# ThinkPad® T60 (15.0" display) - October 2006 - withdrawn

Created by Lenovo Training Solutions  
Personal Systems Reference (PSREF)

Type-model	Processor	Speed GHz	Memory	Screen	Graphics controller	Disk SATA GB <sup>8</sup> rpm	EIDE optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN Blue-tooth	Finger print reader	Bat- tery Cells	Workhorse Global Avail Entry date
1951-3GU	Core™ 2 Duo T5600	1.83	512M	15.0" XGA	GMA	40GB 5400	Combo	*Intel 11a/b/g <sup>32</sup>	None	Finger GM 6	6	Entry Oct 06
2007-J2U	Core 2 Duo T7200	2.00	1GB	15.0" XGA	X1300	80GB 5400	Combo	*Intel 11a/b/g	None	Finger PM 6	6	Gbl Oct 06
2007-J3U	Core 2 Duo T5600	1.83	1GB	15.0" SXGA+	X1300	80GB 5400	DVD±RW	*Intel 11a/b/g	None	Blue Finger GM 6	6	Gbl Nov 06
2007-7JU	Core 2 Duo T7400	2.16	1GB	15.0" SXGA+	X1400	120G 5400	Combo	*Intel 11a/b/g	None	Blue Finger PM 9	9	Gbl Oct 06
2007-7KU	Core 2 Duo T7400	2.16	1GB	15.0" SXGA+	X1400	120G 5400	DVD±RW	*Intel 11a/b/g	None	Blue Finger PM 9	9	Gbl Nov 06
Positioning Processor	<i>Premiere performance; two spindles</i> <b>Intel® Core 2 Duo processor T5600, T7200, or T7400</b> with dual-core, Intel 64 Technology, Enhanced Intel SpeedStep™ technology <sup>1</sup> , Execute Disable Bit, and 667MHz system bus; <i>T5600: 2MB shared L2 cache; Others: 4MB shared L2 cache</i> <b>512MB or 1GB</b> std / 4GB max <sup>31</sup> / PC2-5300 667MHz DDR2 / non-parity / CL5 / dual-channel capable / two 200-pin SO-DIMM sockets / std memory in 1 socket / 1 socket available											
Memory	<b>512MB or 1GB</b> std / 4GB max <sup>31</sup> / PC2-5300 667MHz DDR2 / non-parity / CL5 / dual-channel capable / two 200-pin SO-DIMM sockets / std memory in 1 socket / 1 socket available											
Diskette drive	None standard / use optional USB-based diskette drive											
EIDE Combo	Some: DVD-ROM/CD-RW / 24X/24X/24X/8X <sup>21</sup> speed / removable from Ultrabay Slim											
EIDE DVD±RW	Some: DVD burner / Super Multi-Burner (40Y8623) dual-layer, removable Ultrabay Slim											
Ultrabay Slim	One modular bay for interchangeable devices (right side) / 9.5mm high bay / flat bezel											
Serial ATA disk (SATA150)	<b>40GB<sup>8</sup></b> (5400 rpm), <b>80GB</b> (5400 rpm), or <b>120GB</b> (5400 rpm) / 9.5mm high / upgradable / 9.5mm high bay / supports 2nd disk / <b>ThinkPad Shock Mounted Hard Drive / Active Protection System™</b>											
Display	Some: <b>15.0"</b> (385.1mm) <b>XGA (1024x768) TFT color</b> / 150 nits / anti-glare Some: <b>15.0"</b> (381.0mm) <b>SXGA+ (1400x1050) TFT color</b> / 200 nits / anti-glare / FlexView display with wide viewing angle and high density using IPS technology											
Graphics	Some: <b>Intel Graphics Media Accelerator 950</b> / integrated in 945GM / 250MHz Some: <b>ATI® MOBILITY™ Radeon™ X1300 M52</b> / PCI Express x16 / <b>64MB</b> memory Some: <b>ATI MOBILITY Radeon X1400 M54</b> / PCI Express x16 / <b>128MB</b> memory All: DVI pass-through support to optional Advanced Mini Dock or Advanced Dock											
Keyboard	89-key / ThinkVantage button / spill-resistant / multimedia Fn keys / Windows, Appl keys											
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar <sup>13</sup> , magnifying glass											
Touch pad	UltraNav™ multi-pointing system / touch pad below keyboard / Tap Zones											
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions											
Dimensions <sup>3</sup>	<i>15.0" models (WxDxH): 13.0" x 10.6" x 1.2-1.4"</i> ; 329mm x 268mm x 31-36mm											
Weight <sup>2</sup>	With optical drive and battery: up to 6.2 lb (2.8kg)											
Case material	Carbon Fiber Reinforced Plastic (CFRP) in top/bottom cover											
Battery - type	Lithium Ion <b>6-cell</b> or <b>9-cell</b> / supports unique 2nd battery in Ultrabay Slim											
Battery - life <sup>10</sup>	<i>6-cell</i> : up to 5.9 hr; <i>9-cell</i> : up to 6.3 hr; <i>9-cell plus Ultrabay battery</i> : up to 8.5 hr											
Architecture	Some: <b>Mobile Intel 945GM Express Chipset</b> / 82945GM Graphics Memory Cont Hub Some: <b>Mobile Intel 945PM Express Chipset</b> / 82945PM Memory Controller Hub All: 82801GBM ICH7-M I/O Controller Hub (SATA300, ATA-100 EIDE, PCI Express x1, PCI bus, USB, LPC interface, [Bluetooth], [fingerprint]) / PCI bus (TI® PCI1512 CardBus controller) / LPC bus (NS PC87382 Super I/O, Atmel® 75C3203)											
PC Card Std slot	One Type I or Type II slot / CardBus 32-bit / integrated door											
ExpressCard slot	One ExpressCard/34 or ExpressCard/54 / PCI Express x1 or USB 2.0 / integrated door											
Ports	Three USB 2.0 / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / no keyboard, mouse, serial ports, parallel port, 1394, or S-video (use USB)											
Wireless antenna	UltraConnect™ Antenna built into the display cover / on-off switch for all wireless radios											
Mini PCI Express	Two Mini PCI Express slots / only 802.11 wireless is customer upgradable											
Intel 11a/b/g <sup>32</sup>	11a/b/g wireless <sup>4</sup> , Mini PCI Express adapter, Intel PRO/Wireless 3945ABG											
WWAN <sup>16</sup>	None											
Modem	56K <sup>6</sup> V.90 (V.92-designed <sup>29</sup> ) modem in Com Daughter Card socket / Conexant® chipset											
Bluetooth™	Some: Bluetooth 2.0 wireless / USB 2.0 interface via ICH7-M / LED indicator											
Ethernet	Gigabit ethernet on systemboard / Intel 82573L (MAC/PHY) / PCIe x1 / PXE											
Audio support	High Definition (HD) Audio / AD1981HD codec / stereo speakers, 1 watt / volume up, down, mute buttons / internal microphone / microphone input jack / headphone jack											
Security	Power-on password / hard disk password / supervisor password / security keyhole											
Security chip	<b>Trusted Platform Module</b> / Atmel chip / TCG 1.2-compliant											
Fingerprint reader	<b>Fingerprint reader on palm rest</b> / swipe sensor / supports the security chip											
Limited warranty <sup>12</sup>	<b>3-years/1-yr battery</b> - EasyServ™ <sup>19</sup> onsite pickup and delivery / service upgrades <sup>22</sup> avail											
512MB PC2-5300 DDR2 CL5 SODIMM	40Y7733	T60 Series Li-Ion Battery 6-cell									40Y6799	
1GB PC2-5300 DDR2 CL5 SODIMM	40Y7734	Z60m/T60/R60 Li-Ion Battery 9-cell									40Y6797	
2GB PC2-5300 DDR2 SODIMM	40Y7735	Advanced Ultrabay Battery 3-cell									40Y6789	
ThinkPad DVD Ultrabay Slim Burner (flat)	41N5643	ThinkPad 90W AC Adapter									40Y7659	
100GB Disk 9.5mm SATA150 (7200 rpm)	41N3013	ThinkPad 90W AC/DC Combo Adapter									40Y7630	
160GB Disk 9.5mm SATA150 (5400 rpm)	41N5692	ThinkPad Carrying Case - Expander									73P3597	
11a/b/g Wireless Mini PCI Express Adpr	40Y7026	ThinkPad External Battery Charger									40Y7625	
Intel PRO/Wireless 3945ABG Mini PCIe Ad	41N3008	ThinkPad Nylon Carrying Case									10K0207	
Serial Hard Drive Ultrabay Slim Adapter (flat)	40Y8725	ThinkPad Carrying Case - Organizer									73P3598	
USB 2.0 Super Multi-Burner Drive	41N5565	ThinkPad Carrying Case - BackPack									73P3599	
ThinkPad Adjustable Notebook Stand	40Y7676	Lenovo L192 Wide 19" Monitor (black)									6920AB1	
ThinkPad Convertible Monitor Stand	40Y7620	Lenovo D221 Wide 22" Monitor									6622HB1	
ThinkPad Essential Port Replicator	250510W	ThinkVision® L201p 20.1" Monitor (blk)									9220HB1	
ThinkPad Advanced Mini Dock	250410U	Lenovo M500 Projector									0037A05	
ThinkPad Advanced Dock	250310U	Lenovo C500 Projector									0039A05	
Other accessories on O-T60 sheet		Other accessories at <a href="http://lenovo.com/accessories">lenovo.com/accessories</a>										
<b>SOFTWARE<sup>14</sup></b>												
<b>Windows XP Professional</b>												
- Microsoft® Windows® XP Professional <sup>20</sup> (Service Pack 2)												
◇ Disk-to-Disk Recovery (in hidden protected area)												
<b>Preloaded</b>												
<ul style="list-style-type: none"> <li>• Rescue and Recovery™</li> <li>• Access Connections™</li> <li>• Client Security Solution™</li> <li>• ThinkVantage Productivity Center with Away Manager</li> <li>• ThinkVantage System Update</li> <li>• Symantec® Client Security™</li> <li>• Diskeeper® Lite</li> <li>• PC-Doctor™ (diagnostics)</li> <li>• ThinkPad Utilities (Power Manager and Presentation Director)</li> <li>• Adobe® Reader</li> <li>• Google Toolbar</li> <li>• Google Desktop</li> <li>• Picasa from Google</li> <li>• Fingerprint Software (fingerprint models)</li> <li>• Multimedia Center for Think Offerings</li> <li>• Sonic RecordNOW and Drive Letter Access (combo, DVD±RW)</li> <li>• InterVideo WinDVD (combo, DVD±RW models)</li> <li>• InterVideo WinDVD Creator (DVD±RW models)</li> </ul>												
<b>License</b> - CD not included												
- Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client												
Supports ThinkVantage® technologies												
65-watt (1951) or 90-watt (2007) AC adapter												
ThinkPad Roll Cage (one-piece magnesium frame)												
RoHS-compliant												
International Warranty Service <sup>17</sup>												
24 hour x 7 day <sup>18</sup> toll-free warranty support during the warranty <sup>12</sup>												
ThinkPlus™. <sup>22</sup> 2-year LOR 9x5 NBD												
41C9175												
ThinkPlus 3-year LOR 9x5 NBD												
41C9176												
ThinkPlus 4-year LOR 9x5 NBD												
41C9177												
ThinkPlus 5-year LOR 9x5 NBD												
41C9179												
ThinkPlus 4-year P&L P/U Depot												
41C9178												
ThinkPlus 5-year P&L P/U Depot												
41C9180												
Post-warranty annual maintenance agreements at												
<a href="http://lenovo.com/thinkplus/warranty">lenovo.com/thinkplus/warranty</a>												

See footnotes for important warranty information  
US models announced October 17 or November 28, 2006  
US models withdrawn effective September 2007

\* Powered by Intel Centrino® Duo mobile technology

# ThinkPad® T60p - withdrawn

Created by Lenovo Training Solutions  
Personal Systems Reference (PSREF)

Type-model	Processor	Speed GHz	Memory	Screen	Graphics controller memory	Disk SATA GB <sup>8</sup> rpm	EIDE optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN wireless	Blue-tooth	Finger print reader	Workhorse (W) or Global (G) or Entry (E)	Avail date
2007-82U	Core Duo T2600	2.16	1GB	14.1" SXGA+	256MB	100G 7200	Combo	* Intel 11a/b/g <sup>32</sup>		Blue	Finger		Feb 06
2007-83U	Core Duo T2600	2.16	1GB	14.1" SXGA+	256MB	100G 7200	DVD±RW	* Intel 11a/b/g		Blue	Finger	G	Feb 06
2007-84U	Core Duo T2600	2.16	1GB	14.1" SXGA+	256MB	100G 7200	DVD±RW	* Intel 11a/b/g	Verizon	Blue	Finger		Feb 06
2007-86U	Core Duo T2600	2.16	1GB	14.1" SXGA+	256MB	100G 7200	DVD±RW	11a/b/g <sup>32</sup>		Blue	Finger		Feb 06
2007-87U	Core Duo T2600	2.16	1GB	14.1" SXGA+	256MB	100G 7200	Combo	* Intel 11a/b/g		Blue	Finger	G	Feb 06
2007-92U	Core Duo T2600	2.16	1GB	15.0" UXGA	256MB	100G 7200	DVD±RW	11a/b/g		Blue	Finger		Feb 06
2007-93U	Core Duo T2600	2.16	1GB	15.0" UXGA	256MB	100G 7200	DVD±RW	* Intel 11a/b/g		Blue	Finger	G	Feb 06
2007-94U	Core Duo T2600	2.16	1GB	15.0" UXGA	256MB	100G 7200	DVD±RW	* Intel 11a/b/g	Verizon	Blue	Finger		Feb 06
2007-95U	Core Duo T2600	2.16	1GB	15.0" UXGA	256MB	100G 7200	Combo	* Intel 11a/b/g		Blue	Finger		Feb 06
2007-96U	Core Duo T2600	2.16	1GB	15.0" UXGA	256MB	100G 7200	Combo	* Intel 11a/b/g		Blue	Finger		Feb 06
2007-8CU	Core Duo T2600	2.16	1GB	14.1" SXGA+	256MB	100G 7200	DVD±RW	* Intel 11a/b/g	AT&T	Blue	Finger		Jun 06
2007-8DU	Core Duo T2700	2.33	1GB	14.1" SXGA+	256MB	100G 7200	DVD±RW	* Intel 11a/b/g		Blue	Finger	G	July 06
2007-8EU	Core Duo T2700	2.33	1GB	14.1" SXGA+	256MB	100G 7200	DVD±RW	* Intel 11a/b/g	AT&T	Blue	Finger		July 06
2007-8FU	Core Duo T2700	2.33	1GB	14.1" SXGA+	256MB	100G 7200	Combo	* Intel 11a/b/g		Blue	Finger		July 06
2007-8GU	Core Duo T2700	2.33	2GB	14.1" SXGA+	256MB	60G 5400	DVD±RW	* Intel 11a/b/g		Blue	Finger		July 06
2007-9EU	Core Duo T2700	2.33	1GB	15.0" UXGA	256MB	100G 7200	DVD±RW	* Intel 11a/b/g		Blue	Finger	G	July 06
2007-9FU	Core Duo T2700	2.33	1GB	15.0" UXGA	256MB	100G 7200	DVD±RW	* Intel 11a/b/g	AT&T	Blue	Finger		July 06
2007-9GU	Core Duo T2700	2.33	1GB	15.0" UXGA	256MB	100G 7200	Combo	* Intel 11a/b/g		Blue	Finger		July 06
Positioning Processor	<i>Premiere performance; two spindles</i> <b>Intel® Core™ Duo processor T2600 or T2700</b> with dual-core, Enhanced Intel SpeedStep™ technology <sup>1</sup> , Execute Disable Bit, 667MHz bus, and 2MB shared L2 cache											<b>SOFTWARE<sup>14</sup></b>	
Memory	<b>1GB or 2GB</b> std / 4GB max <sup>31</sup> / PC2-5300 667MHz DDR2 / non-parity / dual-channel capable / two 200-pin SO-DIMM sockets / std memory in 1 socket / 1 socket available											<b>Windows XP Professional</b> - Microsoft® Windows® XP Professional <sup>20</sup> (Service Pack 2) ↳ Disk-to-Disk Recovery (in hidden protected area)	
Diskette drive	None standard / use optional USB-based diskette drive											<b>Preloaded</b> • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center with Away Manager • ThinkVantage System Update • Symantec® Client Security™ • Diskeeper® Lite • PC-Doctor™ (diagnostics) • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader • Google Toolbar • Google Desktop • Picasa from Google • Fingerprint Software (fingerprint models) • Multimedia Center for Think Offerings • Sonic RecordNOW and Drive Letter Access (combo, DVD±RW) • InterVideo WinDVD (combo, DVD, DVD±RW models) • InterVideo WinDVD Creator (DVD±RW models)	
EIDE Combo	<i>Some:</i> DVD-ROM/CD-RW / 24X/24X/24X/8X <sup>21</sup> speed / removable from Ultrabay Slim												
EIDE DVD±RW	<i>Some:</i> DVD burner / Super Multi-Burner (40Y8623) dual-layer, removable Ultrabay Slim												
Ultrabay Slim	One modular bay for interchangeable devices (right side) / 9.5mm high bay / flat bezel											• Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client	
Serial ATA disk (SATA150)	<b>60GB</b> (5400rpm) or <b>100GB</b> (7200 rpm) / 9.5mm high / removable, upgradable / 9.5mm high bay / supports 2nd disk / <b>ThinkPad Shock Mounted Hard Drive / Active Protection System™</b>												
Display	<i>Some:</i> <b>14.1"</b> (358.1mm) <b>SXGA+</b> ( <b>1400x1050</b> ) <b>TFT color</b> / 150 nits / anti-glare <i>Some:</i> <b>15.0"</b> (381.0mm) <b>UXGA</b> ( <b>1600x1200</b> ) <b>TFT color</b> / 200 nits / anti-glare / FlexView display with wide viewing angle and high density using IPS technology												
Graphics	<b>ATI® MOBILITY™ FireGL™ V5200 M56</b> / PCI Express x16 / <b>256MB</b> GDDR3 / DVI pass-through support to optional Advanced Mini Dock or Advanced Dock												
Keyboard	89-key / ThinkVantage button / spill-resistant / multimedia Fn keys / Windows, Appl keys											• License - CD not included	
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar <sup>13</sup> , magnifying glass												
Touch pad	UltraNav™ multi-pointing system / touch pad below keyboard / Tap Zones												
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions												
Dimensions <sup>3</sup>	<b>14.1" models (WxDxH):</b> 12.4" x 10.0" x 1.0-1.2"; 316mm x 255mm x 26.6-31mm <b>15.0" models (WxDxH):</b> 13.2" x 10.6" x 1.2-1.4"; 334mm x 268mm x 31-36mm												
Weight <sup>2</sup>	with optical drive and battery: <b>14.1" models:</b> up to 5.5 lb (2.5kg); <b>15":</b> up to 6.3 lb (2.8kg)												
Case material	<b>14.1":</b> magnesium composite in top cover, CFRP bottom cover; <b>15":</b> CFRP in top/bottom												
Battery - type	Lithium Ion <b>9-cell</b> / supports unique 2nd battery in Ultrabay Slim												
Battery - life <sup>10</sup>	<b>9-cell:</b> up to 5.4 hr; <b>9-cell plus Ultrabay battery:</b> up to 6.9 hr												
Architecture	<b>Mobile Intel 945PM Express Chipset</b> / 82945PM Memory Controller Hub / 82801GBM ICH7-M I/O Controller Hub (SATA300, ATA-100 EIDE, PCI Express x1, PCI bus, USB, LPC interface, [Bluetooth], [fingerprint]) / PCI bus (TI® PCI1512 CardBus controller) / LPC bus (National Semiconductor® PC87382 Super I/O, Atmel® 97SC3203)												
PC Card Std slot	One Type I or Type II slot / CardBus 32-bit / integrated door												
ExpressCard slot	One ExpressCard/34 or ExpressCard/54 / PCI Express x1 or USB 2.0 / integrated door												
Ports	Three USB 2.0 / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / no keyboard, mouse, serial ports, parallel port, 1394, or S-video (use USB)												
Wireless antenna	UltraConnect™ Antenna built into the display cover / on-off switch for all wireless radios												
Mini PCI Express	Two Mini PCI Express slots / only 802.11 wireless is customer upgradable												
Intel 11a/b/g <sup>32</sup>	<i>Some:</i> 11a/b/g wireless <sup>4</sup> , Mini PCI Express adapter, Intel PRO/Wireless 3945ABG												
11a/b/g <sup>32</sup>	<i>Some:</i> 11a/b/g wireless <sup>4</sup> , ThinkPad 11a/b/g Mini PCIe Adapter, Atheros AR5006EX												
WWAN <sup>16</sup>	<i>Some:</i> Wireless WAN, Sierra Wireless 1xEV-DO Network Adapter, Mini PCIe Adapter, EV-DO/1xRTT, WWAN antenna on display, service contract reqd with Verizon®												
WWAN <sup>23</sup>	<i>Some:</i> Wireless WAN, GPRS/EDGE/UMTS/HSDPA support, Mini PCIe adapter and SIM, WWAN antenna on display, service contract required with AT&T®												
Modem	56K <sup>6</sup> V.90 (V.92-designed <sup>29</sup> ) modem in Com Daughter Card socket / Conexant® chipset												
Bluetooth™	<i>Some:</i> Bluetooth 2.0 wireless / USB 2.0 interface via ICH7-M / LED indicator												
Ethernet	Gigabit ethernet on systemboard / Intel 82573L (MAC/PHY) / PCIe x1 / PXE												
Audio support	High Definition (HD) Audio / AD1981HD codec / stereo speakers, 1 watt / volume up, down, mute buttons / internal microphone / microphone input jack / headphone jack												
Security	Power-on password / hard disk password / supervisor password / security keyhole												
Security chip	<b>Trusted Platform Module</b> / Atmel chip / TCG 1.2-compliant												
Fingerprint reader	<i>Some:</i> <b>Fingerprint reader on palm rest</b> / swipe sensor / supports the security chip												
Limited warranty <sup>12</sup>	<b>3-years/1-yr battery</b> - EasyServ™ <sup>19</sup> onsite pickup and delivery / service upgrades <sup>22</sup> avail												
1GB PC2-5300 DDR2 CL5 SODIMM	40Y7734	T60 Series Li-Ion Battery 6-cell	40Y6799										
2GB PC2-5300 DDR2 SODIMM	40Y7735	Z60m/T60/R60 Li-Ion Battery 9-cell	40Y6797										
ThinkPad Essential Port Replicator	250510W	Advanced Ultrabay Battery 3-cell	40Y6789										
ThinkPad Advanced Mini Dock	250410U	ThinkPad Carrying Case - Backpack	73P3599										
Other accessories on O-T60 sheet	Other accessories at <b>lenovo.com/accessories</b>												

See footnotes for important warranty information \* Powered by Intel Centrino® Duo mobile technology  
US models announced January 31, June 20, or July 11, 2006  
US models withdrawn effective October 2006 or September 2007

© Lenovo  
(DV1-5) September 2007



# ThinkPad® T60p 2007 (October 2006) - withdrawn

Created by Lenovo Training Solutions  
Personal Systems Reference (PSREF)

Type-model	Processor	Speed GHz	Memory	Screen	Graphics controller memory	Disk SATA GB <sup>8</sup> rpm	EIDE optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN wireless	Blue-tooth	Finger print reader	Workhorse or Global Entry	Avail date	
2007-8LU	Core™ 2 Duo T7400	2.16	2GB	14.1" SXGA+	256MB	100G 7200	DVD±RW	* Intel 11a/b/g <sup>32</sup>	None	Blue	Finger	Gbl	Nov 06	
2007-8JU	Core 2 Duo T7600	2.33	1GB	14.1" SXGA+	256MB	100G 7200	DVD±RW	* Intel 11a/b/g	None	Blue	Finger	Gbl	Oct 06	
2007-8HU	Core 2 Duo T7600	2.33	2GB	14.1" SXGA+	256MB	100G 7200	DVD±RW	* Intel 11a/b/g	None	Blue	Finger	Gbl	Nov 06	
Positioning Processor	<i>Premiere performance; two spindles</i> <b>Intel® Core 2 Duo processor T7400 or T7600</b> with dual-core, Intel 64 Technology, Enhanced Intel SpeedStep™ technology <sup>1</sup> , Execute Disable Bit, 667MHz system bus, and 4MB shared L2 cache													
Memory	<b>1GB or 2GB</b> std / 4GB max <sup>31</sup> / non-parity, dual-channel capable, two 200-pin SO-DIMM sockets; <i>Models 8LU/8HU: PC2-4200 533MHz DDR2; Others: PC2-5300 667MHz DDR2; Non-italics: standard memory in one socket; one socket available</i>													
Diskette drive	None standard / use optional USB-based diskette drive													
EIDE DVD±RW	DVD burner / Super Multi-Burner (40Y8623) dual-layer, removable Ultrabay Slim													
Ultrabay Slim	One modular bay for interchangeable devices (right side) / 9.5mm high bay / flat bezel													
Serial ATA disk (SATA150)	<b>100GB</b> (7200 rpm) / 9.5mm high / removable, upgradable / 9.5mm high bay / supports 2nd disk / <b>ThinkPad Shock Mounted Hard Drive / Active Protection System™</b>													
Display	<b>14.1"</b> (358.1mm) <b>SXGA+ (1400x1050) TFT color</b> / 150 nits / anti-glare													
Graphics	<b>ATI® MOBILITY™ FireGL™ V5250 M66GL-256</b> / PCI Express x16 / <b>256MB</b> memory / DVI pass-through support to optional Advanced Mini Dock or Advanced Dock													
Keyboard	89-key / ThinkVantage button / spill-resistant / multimedia Fn keys / Windows, Appl keys													
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar <sup>13</sup> , magnifying glass													
Touch pad	UltraNav™ multi-pointing system / touch pad below keyboard / Tap Zones													
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions													
Dimensions <sup>3</sup>	<b>14.1" models (WxDxH): 12.4" x 10.0" x 1.0-1.2"</b> ; 316mm x 255mm x 26.6-31mm													
Weight <sup>2</sup>	with optical drive and battery: <b>14.1" models: up to 5.5 lb (2.5kg)</b>													
Case material	<b>14.1"</b> : magnesium composite in top cover, CFRP bottom cover													
Battery - type	Lithium Ion <b>9-cell</b> / supports unique 2nd battery in Ultrabay Slim													
Battery - life <sup>10</sup>	<b>9-cell: up to 6.3 hr; 9-cell plus Ultrabay battery: up to 7.8 hr</b>													
Architecture	<b>Mobile Intel 945PM Express Chipset</b> / 82945PM Memory Controller Hub / 82801GBM ICH7-M I/O Controller Hub (SATA300, ATA-100 EIDE, PCI Express x1, PCI bus, USB, LPC interface, [Bluetooth], [fingerprint]) / PCI bus (TI® PCI1512 CardBus controller) / LPC bus (National Semiconductor® PC87382 Super I/O, Atmel® 97SC3203)													
PC Card Std slot	One Type I or Type II slot / CardBus 32-bit / integrated door													
ExpressCard slot	One ExpressCard/34 or ExpressCard/54 / PCI Express x1 or USB 2.0 / integrated door													
Ports	Three USB 2.0 / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / no keyboard, mouse, serial ports, parallel port, 1394, or S-video (use USB)													
Wireless antenna	UltraConnect™ Antenna built into the display cover / on-off switch for all wireless radios													
Mini PCI Express	Two Mini PCI Express slots / only 802.11 wireless is customer upgradable													
Intel 11a/b/g <sup>32</sup>	11a/b/g wireless <sup>4</sup> , Mini PCI Express adapter, Intel PRO/Wireless 3945ABG													
WWAN <sup>16</sup>	None													
Modem	56K <sup>6</sup> V.90 (V.92-designed <sup>29</sup> ) modem in Com Daughter Card socket / Conexant® chipset													
Bluetooth™	Bluetooth 2.0 wireless / USB 2.0 interface via ICH7-M / LED indicator													
Ethernet	Gigabit ethernet on systemboard / Intel 82573L (MAC/PHY) / PCIe x1 / PXE													
Audio support	High Definition (HD) Audio / AD1981HD codec / stereo speakers, 1 watt / volume up, down, mute buttons / internal microphone / microphone input jack / headphone jack													
Security	Power-on password / hard disk password / supervisor password / security keyhole													
Security chip	<b>Trusted Platform Module</b> / Atmel chip / TCG 1.2-compliant													
Fingerprint reader	<b>Fingerprint reader on palm rest</b> / swipe sensor / supports the security chip													
Limited warranty <sup>12</sup>	<b>3-years/1-yr battery</b> - EasyServ™ <sup>19</sup> onsite pickup and delivery / service upgrades <sup>22</sup> avail													
512MB PC2-5300 DDR2 CL5 SODIMM	40Y7733	T60 Series Li-Ion Battery 6-cell						40Y6799	90-watt AC adptr (discrete graphics)					
1GB PC2-5300 DDR2 CL5 SODIMM	40Y7734	Z60m/T60/R60 Li-Ion Battery 9-cell						40Y6797	ThinkPad Roll Cage (one-piece magnesium frame)					
2GB PC2-5300 DDR2 SODIMM	40Y7735	Advanced Ultrabay Battery 3-cell						40Y6789	RoHS-compliant					
Serial/Parallel Port Bay Adapter (flat bezel)	40Y8121	ThinkPad External Battery Charger						40Y7625	International Warranty Service <sup>17</sup>					
Serial Hard Drive Ultrabay Slim Adapter (flat)	40Y8725	ThinkPad 65W AC Adapter						40Y7696	24 hour x 7 day <sup>18</sup> toll-free warranty support during the warranty <sup>12</sup>					
DVD-ROM Ultrabay Slim Drive (curved)	73P3270	ThinkPad 90W AC Adapter						40Y7659	ThinkPlus™ <sup>22</sup> 2-year LOR 9x5 NBD					
Combo II Ultrabay Slim Drive (flat bezel)	40Y8621	ThinkPad 90W AC/DC Combo Adapter						40Y7630	41C9175					
ThinkPad DVD Ultrabay Slim Burner (flat)	41N5643	ThinkPad Nylon Carrying Case						10K0207	ThinkPlus 3-year LOR 9x5 NBD					
160GB Disk 9.5mm SATA150 (5400 rpm)	41N5692	ThinkPad Carrying Case - Expander						73P3597	41C9176					
USB 2.0 Lenovo Multimedia Headset	40Y8518	ThinkPad Carrying Case - Organizer						73P3598	ThinkPlus 4-year LOR 9x5 NBD					
USB 2.0 Lenovo Webcam	40Y8519	ThinkPad Carrying Case - BackPack						73P3599	41C9177					
USB 2.0 Security Memory Key 4GB	41U5120	Carrying Case - Leather Attache						73P3600	ThinkPlus 5-year LOR 9x5 NBD					
USB 2.0 Super Multi-Burner Drive	41N5565	ThinkPad Women's Leather Trim Tote						22P8856	41C9179					
11a/b/g Wireless Mini PCI Express Adpr	40Y7026	Kensington MicroSaver Security Cable						73P2582	ThinkPlus 4-year P&L P/U Depot					
Intel PRO/Wireless 3945ABG Mini PCIe Ad	41N3008	Lenovo L192 Wide 19" Monitor (black)						6920AB1	41C9178					
ThinkPad Adjustable Notebook Stand	40Y7676	Lenovo D221 Wide 22" Monitor						6622HB1	ThinkPlus 5-year P&L P/U Depot					
ThinkPad Convertible Monitor Stand	40Y7620	ThinkVision® L192p 19" Monitor (black)						9419HC2	41C9180					
ThinkPad Essential Port Replicator	250510W	ThinkVision L201p 20.1" Monitor (black)						9220HB1	Post-warranty annual maintenance agreements at					
ThinkPad Advanced Mini Dock	250410U	Lenovo M500 Projector						0037A05	lenovo.com/thinkplus/warranty					
ThinkPad Advanced Dock	250310U	Lenovo C500 Projector						0039A05						
Other accessories on O-T60 sheet	Other accessories at <b>lenovo.com/accessories</b>													

See footnotes for important warranty information  
US models announced October 17 or November 28, 2006  
US models withdrawn effective September 2007

\* Powered by Intel Centrino® Duo mobile technology

© Lenovo  
(DV2-2) September 2007

# ThinkPad® T60p (Linux-ready) - withdrawn

Created by Lenovo Training Solutions  
Personal Systems Reference (PSREF)

Type-model	Processor	Speed GHz	Memory	Screen	Graphics controller memory	Disk SATA GB <sup>8</sup> rpm	EIDE optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN wireless	Blue-tooth	Finger print reader	Workhorse (W) or Global (G) or Entry (E)	Avail date
2007-8ZU	Core Duo T2700	2.33	1GB	14.1" SXGA+	256MB	100G 7200	DVD±RW	* Intel 11a/b/g <sup>32</sup>	None	Blue	Finger	Gbl	Aug 06
2007-9ZU	Core Duo T2700	2.33	1GB	15.0" UXGA	256MB	100G 7200	DVD±RW	* Intel 11a/b/g	None	Blue	Finger	Gbl	Aug 06

• **Linux-ready with DOS entitlement**

Positioning Processor	<i>Premiere performance; two spindles</i> <b>Intel® Core™ Duo processor T2700</b> with dual-core, Enhanced Intel SpeedStep™ technology <sup>1</sup> , Execute Disable Bit, 667MHz system bus, and 2MB shared L2 cache											
Memory	<b>1GB</b> std / 4GB max <sup>31</sup> / PC2-5300 667MHz DDR2 / non-parity / dual-channel capable / two 200-pin SO-DIMM sockets / std memory in 1 socket / 1 socket available											
Diskette drive	None standard / use optional USB-based diskette drive											
EIDE Combo	<i>Some:</i> DVD-ROM/CD-RW / 24X/24X/24X/8X <sup>21</sup> speed / removable from Ultrabay Slim											
EIDE DVD±RW	<i>Some:</i> DVD burner / Super Multi-Burner (40Y8623) dual-layer, removable Ultrabay Slim											
Ultrabay Slim	One modular bay for interchangeable devices (right side) / 9.5mm high bay / flat bezel											
Serial ATA disk (SATA150)	<b>100GB</b> (7200 rpm) / 9.5mm high / removable, upgradable / 9.5mm high bay / supports 2nd disk / <b>ThinkPad Shock Mounted Hard Drive / Active Protection System™</b>											
Display	<i>Some:</i> <b>14.1"</b> (358.1mm) <b>SXGA+ (1400x1050) TFT color</b> / 150 nits / anti-glare <i>Some:</i> <b>15.0"</b> (381.0mm) <b>UXGA (1600x1200) TFT color</b> / 200 nits / anti-glare / FlexView display with wide viewing angle and high density using IPS technology											
Graphics	<b>ATI® MOBILITY™ FireGL™ V5200 M56</b> / PCI Express x16 / <b>256MB</b> GDDR3 / DVI pass-through support to optional Advanced Mini Dock or Advanced Dock											
Keyboard	89-key / ThinkVantage button / spill-resistant / multimedia Fn keys / Windows, Appl keys											
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar <sup>13</sup> , magnifying glass											
Touch pad	UltraNav™ multi-pointing system / touch pad below keyboard / Tap Zones											
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions											
Dimensions <sup>3</sup>	<b>14.1" models (WxDxH):</b> 12.4" x 10.0" x 1.0-1.2"; 316mm x 255mm x 26.6-31mm <b>15.0" models (WxDxH):</b> 13.2" x 10.6" x 1.2-1.4"; 334mm x 268mm x 31-36mm											
Weight <sup>2</sup>	with optical drive and battery: <b>14.1" models:</b> up to 5.5 lb (2.5kg); <b>15":</b> up to 6.3 lb (2.8kg)											
Case material	<b>14.1":</b> magnesium composite in top cover, CFRP bottom cover; <b>15":</b> CFRP in top/bottom											
Battery - type	Lithium Ion <b>9-cell</b> / supports unique 2nd battery in Ultrabay Slim											
Battery - life <sup>10</sup>	<b>9-cell:</b> up to 5.4 hr; <b>9-cell plus Ultrabay battery:</b> up to 6.9 hr											
Architecture	<b>Mobile Intel 945PM Express Chipset</b> / 82945PM Memory Controller Hub / 82801GBM ICH7-M I/O Controller Hub (SATA300, ATA-100 EIDE, PCI Express x1, PCI bus, USB, LPC interface, [Bluetooth], [fingerprint]) / PCI bus (TI® PCI1512 CardBus controller) / LPC bus (National Semiconductor® PC87382 Super I/O, Atmel® 97SC3203)											
PC Card Std slot	One Type I or Type II slot / CardBus 32-bit / integrated door											
ExpressCard slot	One ExpressCard/34 or ExpressCard/54 / PCI Express x1 or USB 2.0 / integrated door											
Ports	Three USB 2.0 / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / no keyboard, mouse, serial ports, parallel port, 1394, or S-video (use USB)											
Wireless antenna	UltraConnect™ Antenna built into the display cover / on-off switch for all wireless radios											
Mini PCI Express	Two Mini PCI Express slots / only 802.11 wireless is customer upgradable											
Intel 11a/b/g <sup>32</sup>	11a/b/g wireless <sup>4</sup> , Mini PCI Express adapter, Intel PRO/Wireless 3945ABG											
WWAN	None											
Modem	56K <sup>6</sup> V.90 (V.92-designed <sup>29</sup> ) modem in Com Daughter Card socket / Conexant® chipset											
Bluetooth™	Bluetooth 2.0 wireless / USB 2.0 interface via ICH7-M / LED indicator											
Ethernet	Gigabit ethernet on systemboard / Intel 82573L (MAC/PHY) / PCIe x1 / PXE											
Audio support	High Definition (HD) Audio / AD1981HD codec / stereo speakers, 1 watt / volume up, down, mute buttons / internal microphone / microphone input jack / headphone jack											
Security	Power-on password / hard disk password / supervisor password / security keyhole											
Security chip	<b>Trusted Platform Module</b> / Atmel chip / TCG 1.2-compliant											
Fingerprint reader	<b>Fingerprint reader on palm rest</b> / swipe sensor / supports the security chip											
Limited warranty <sup>12</sup>	<b>3-years/1-yr battery</b> - EasyServ™ <sup>19</sup> onsite pickup and delivery / service upgrades <sup>22</sup> avail											
512MB PC2-5300 DDR2 CL5 SODIMM	40Y7733	T60 Series Li-Ion Battery 6-cell	40Y6799	ThinkPad Roll Cage (one-piece magnesium frame)								
1GB PC2-5300 DDR2 CL5 SODIMM	40Y7734	Z60m/T60/R60 Li-Ion Battery 9-cell	40Y6797	RoHS-compliant								
2GB PC2-5300 DDR2 SODIMM	40Y7735	Advanced Ultrabay Battery 3-cell	40Y6789	International Warranty Service <sup>17</sup>								
Serial/Parallel Port Bay Adapter (flat bezel)	40Y8121	ThinkPad External Battery Charger	40Y7625	24 hour x 7 day <sup>18</sup> toll-free warranty support during the warranty <sup>12</sup>								
Serial Hard Drive Ultrabay Slim Adapter (flat)	40Y8725	ThinkPad 65W AC Adapter	40Y7696	ThinkPlus™ <sup>22</sup> 2-year LOR 9x5 NBD	41C9175							
DVD-ROM Ultrabay Slim Drive (curved)	73P3270	ThinkPad 90W AC Adapter	40Y7659	ThinkPlus 3-year LOR 9x5 NBD	41C9176							
Combo II Ultrabay Slim Drive (flat bezel)	40Y8621	ThinkPad 90W AC/DC Combo Adapter	40Y7630	ThinkPlus 4-year LOR 9x5 NBD	41C9177							
ThinkPad DVD Ultrabay Slim Burner (flat)	41N5643	ThinkPad Nylon Carrying Case	10K0207	ThinkPlus 5-year LOR 9x5 NBD	41C9179							
160GB Disk 9.5mm SATA150 (5400 rpm)	41N5692	ThinkPad Carrying Case - Expander	73P3597	ThinkPlus 4-year P&L P/U Depot	41C9178							
USB Fingerprint Reader	41U3167	ThinkPad Carrying Case - Organizer	73P3598	ThinkPlus 5-year P&L P/U Depot	41C9180							
USB 2.0 Lenovo Webcam	40Y8519	ThinkPad Carrying Case - BackPack	73P3599	Post-warranty annual maintenance agreements at								
USB 2.0 Security Memory Key 4GB	41U5120	Carrying Case - Leather Attache	73P3600	<b>lenovo.com/thinkplus/warranty</b>								
USB 2.0 Super Multi-Burner Drive	41N5565	Kensington® MicroSaver® Security Cable	73P2582									
ExpressCard Gemplus Smart Card Reader	41N3043	Lenovo L171 17" Monitor (black)	9227AC1									
11a/b/g Wireless Mini PCI Express Adpr	40Y7026	Lenovo L192 Wide 19" Monitor (black)	6920AB1									
ThinkPad Adjustable Notebook Stand	40Y7676	Lenovo D221 Wide 22" Monitor (black)	6622HB1									
ThinkPad Convertible Monitor Stand	40Y7620	ThinkVision® L192p 19" Monitor (black)	9419HC2									
ThinkPad Essential Port Replicator	250510W	ThinkVision L201p 20.1" Monitor (black)	9220HB1									
ThinkPad Advanced Mini Dock	250410U	Lenovo M500 Projector	0037A05									
ThinkPad Advanced Dock	250310U	Lenovo C500 Projector	0039A05									
Other accessories on O-T60 sheet		Other accessories at <b>lenovo.com/accessories</b>										

See footnotes for important warranty information  
US models announced August 15, 2006  
US models withdrawn effective December 2006 or September 2007

\* Powered by Intel Centrino® Duo mobile technology

© Lenovo  
(DV11-2) September 2007

# ThinkPad® T60p (Linux-ready) - TopSeller - withdrawn

Created by Lenovo Training Solutions  
Personal Systems Reference (PSREF)

Type-model	Processor	Speed GHz	Memory	Screen	Graphics controller memory	Disk SATA GB <sup>8</sup> rpm	EIDE optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN wireless	Blue-tooth	Finger print reader	Workhorse or Global Entry	Avail date
2623-8YU	Core Duo T2500	2.00	1GB	14.1" SXGA+	256MB	100G 7200	DVD±RW	* Intel 11a/b/g <sup>32</sup>	None	Blue	Finger	None	Oct 06

- **Linux-ready with DOS entitlement**
- **This small and medium business (SMB) model is part of the US TopSeller™ Program**

Positioning Processor	<i>Premiere performance; two spindles</i> <b>Intel® Core™ Duo processor T2500</b> with dual-core, Enhanced Intel SpeedStep™ technology <sup>1</sup> , Execute Disable Bit, 667MHz system bus, and 2MB shared L2 cache												<b>SOFTWARE</b>
Memory	1GB std / 4GB max <sup>31</sup> / PC2-5300 667MHz DDR2 / non-parity / dual-channel capable / two 200-pin SO-DIMM sockets / std memory in 1 socket / 1 socket available												There is no preloaded software on this Linux-ready system. Linux operating system and software applications are provided by the customer.
Diskette drive	None standard / use optional USB-based diskette drive												Although this system has hardware for the following security features, the Linux operating system does not support them: • Fingerprint reader • Active Protection System • Client Security Solution
EIDE Combo	Some: DVD-ROM/CD-RW / 24X/24X/24X/8X <sup>21</sup> speed / removable from Ultrabay Slim												
EIDE DVD±RW	Some: DVD burner / Super Multi-Burner (40Y8623) dual-layer, removable Ultrabay Slim												
Ultrabay Slim	One modular bay for interchangeable devices (right side) / 9.5mm high bay / flat bezel												See <a href="http://lenovo.com/linux">lenovo.com/linux</a> for more information
Serial ATA disk (SATA150)	<b>100GB</b> (7200 rpm) / 9.5mm high / removable, upgradable / 9.5mm high bay / supports 2nd disk / <b>ThinkPad Shock Mounted Hard Drive / Active Protection System™</b>												
Display	<b>14.1"</b> (358.1mm) <b>SXGA+ (1400x1050) TFT color</b> / 150 nits / anti-glare												
Graphics	<b>ATI® MOBILITY™ FireGL™ V5200 M56</b> / PCI Express x16 / <b>256MB</b> GDDR3 / DVI pass-through support to optional Advanced Mini Dock or Advanced Dock												
Keyboard	89-key / ThinkVantage button / spill-resistant / multimedia Fn keys / Windows, Appl keys												
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar <sup>13</sup> , magnifying glass												
Touch pad	UltraNav™ multi-pointing system / touch pad below keyboard / Tap Zones												
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions												
Dimensions <sup>3</sup>	14.1" models (WxDxH): 12.4" x 10.0" x 1.0-1.2"; 316mm x 255mm x 26.6-31mm												
Weight <sup>2</sup>	with optical drive and battery: 14.1" models: up to 5.5 lb (2.5kg)												
Case material	14.1": magnesium composite in top cover, CFRP bottom cover;												
Battery - type	Lithium Ion <b>9-cell</b> / supports unique 2nd battery in Ultrabay Slim												
Battery - life <sup>10</sup>	9-cell: up to 5.4 hr; 9-cell plus Ultrabay battery: up to 6.9 hr												
Architecture	<b>Mobile Intel 945PM Express Chipset</b> / 82945PM Memory Controller Hub / 82801GBM ICH7-M I/O Controller Hub (SATA300, ATA-100 EIDE, PCI Express x1, PCI bus, USB, LPC interface, [Bluetooth], [fingerprint]) / PCI bus (TI® PCI1512 CardBus controller) / LPC bus (National Semiconductor® PC87382 Super I/O, Atmel® 97SC3203)												
PC Card Std slot	One Type I or Type II slot / CardBus 32-bit / integrated door												
ExpressCard slot	One ExpressCard/34 or ExpressCard/54 / PCI Express x1 or USB 2.0 / integrated door												
Ports	Three USB 2.0 / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / no keyboard, mouse, serial ports, parallel port, 1394, or S-video (use USB)												
Wireless antenna	UltraConnect™ Antenna built into the display cover / on-off switch for all wireless radios												
Mini PCI Express	Two Mini PCI Express slots / only 802.11 wireless is customer upgradable												
Intel 11a/b/g <sup>32</sup>	11a/b/g wireless <sup>4</sup> , Mini PCI Express adapter, Intel PRO/Wireless 3945ABG												
WWAN	None												
Modem	56K <sup>6</sup> V.90 (V.92-designed <sup>29</sup> ) modem in Com Daughter Card socket / Conexant® chipset												
Bluetooth™	Bluetooth 2.0 wireless / USB 2.0 interface via ICH7-M / LED indicator												
Ethernet	Gigabit ethernet on systemboard / Intel 82573L (MAC/PHY) / PCIe x1 / PXE												
Audio support	High Definition (HD) Audio / AD1981HD codec / stereo speakers, 1 watt / volume up, down, mute buttons / internal microphone / microphone input jack / headphone jack												
Security	Power-on password / hard disk password / supervisor password / security keyhole												
Security chip	<b>Trusted Platform Module</b> / Atmel chip / TCG 1.2-compliant												
Fingerprint reader	<b>Fingerprint reader on palm rest</b> / swipe sensor / supports the security chip												
Limited warranty <sup>12</sup>	<b>3-years/1-yr battery - EasyServ™<sup>19</sup> onsite pickup and delivery / service upgrades<sup>22</sup> avail</b>												Supports ThinkVantage® technologies
512MB PC2-5300 DDR2 CL5 SODIMM	40Y7733	T60 Series Li-Ion Battery 6-cell	40Y6799	90-watt AC adapter									
1GB PC2-5300 DDR2 CL5 SODIMM	40Y7734	Z60m/T60/R60 Li-Ion Battery 9-cell	40Y6797	ThinkPad Roll Cage (one-piece magnesium frame)									
2GB PC2-5300 DDR2 SODIMM	40Y7735	Advanced Ultrabay Battery 3-cell	40Y6789	RoHS-compliant									
Serial/Parallel Port Bay Adapter (flat bezel)	40Y8121	ThinkPad External Battery Charger	40Y7625	International Warranty Service <sup>17</sup>									
Serial Hard Drive Ultrabay Slim Adapter (flat)	40Y8725	ThinkPad 90W AC Adapter	40Y7659	24 hour x 7 day <sup>18</sup> toll-free warranty support during the warranty <sup>12</sup>									
DVD-ROM Ultrabay Slim Drive (curved)	73P3270	ThinkPad 90W AC/DC Combo Adapter	40Y7630	ThinkPlus™ <sup>22</sup> 2-year LOR 9x5 NBD									
Combo II Ultrabay Slim Drive (flat bezel)	40Y8621	ThinkPad Nylon Carrying Case	10K0207	41C9175									
ThinkPad DVD Ultrabay Slim Burner (flat)	41N5643	ThinkPad Carrying Case - Expander	73P3597	ThinkPlus 3-year LOR 9x5 NBD									
100GB Hard Disk 9.5mm SATA (7200 rpm)	41N3013	ThinkPad Carrying Case - Organizer	73P3598	41C9176									
USB Portable Diskette Drive	05K9276	ThinkPad Carrying Case - Backpack	73P3599	41C9177									
USB Fingerprint Reader	41U3167	Carrying Case - Leather Attache	73P3600	41C9178									
USB 2.0 Lenovo Webcam	40Y8519	ThinkPad Women's Microfiber Tote	22P8855	ThinkPlus 4-year LOR 9x5 NBD									
USB 2.0 Security Memory Key 4GB	41U5120	Kensington® MicroSaver® Security Cable	73P2582	41C9179									
USB 2.0 Super Multi-Burner Drive	41N5565	Lenovo L171 17" Monitor (black)	9227AC1	ThinkPlus 5-year LOR 9x5 NBD									
ExpressCard Gemplus Smart Card Reader	41N3043	Lenovo L192 Wide 19" Monitor (black)	6920AB1	41C9179									
11a/b/g Wireless Mini PCI Express Adpr	40Y7026	Lenovo D221 Wide 22" Monitor (black)	6622HB1	ThinkPlus 4-year P&L P/U Depot									
ThinkPad Adjustable Notebook Stand	40Y7676	ThinkVision® L192p 19" Monitor (black)	9419HC2	41C9178									
ThinkPad Convertible Monitor Stand	40Y7620	ThinkVision L201p 20.1" Monitor (black)	9220HB1	ThinkPlus 5-year P&L P/U Depot									
ThinkPad Essential Port Replicator	250510W	Lenovo M500 Projector	0037A05	41C9180									
ThinkPad Advanced Mini Dock	250410U	Lenovo C500 Projector	0039A05	Post-warranty annual maintenance agreements at									
ThinkPad Advanced Dock	250310U	Lenovo Laser Mouse (USB, PS/2)	41U3074	<b>lenovo.com/thinkplus/warranty</b>									
Other accessories on O-T60 sheet		Other accessories at <a href="http://lenovo.com/accessories">lenovo.com/accessories</a>											

See footnotes for important warranty information  
US model announced October 17, 2006  
US model withdrawn effective September 2007

\* Powered by Intel Centrino® Duo mobile technology

© Lenovo  
(DV11-3) September 2007

# ThinkPad® T60 and T60p (1951 and 2007) - Education - withdrawn

Created by Lenovo Training Solutions  
Personal Systems Reference (PSREF)

Type-model	Processor	Speed GHz	Memory	Screen	Graphics controller	Disk SATA GB <sup>8</sup> rpm	EIDE optical	Mini PCIe 802.11 wireless	Finger Bat- Blue- tooth reader Cell	Chip set	Limited warranty <sup>12</sup>	Avail date
<b>T60</b> 1951-C2U	Core™ Duo T2400	1.83	512M	14.1" XGA	GMA	60G 5400	Combo	* Intel 11a/b/g <sup>32</sup>	Blue Finger 6	GM EasyServ	Feb 06	
<b>T60</b> 2007-C2U	Core Duo T2400	1.83	512M	14.1" XGA	X1300	60G 5400	DVD±RW	* Intel 11a/b/g	Blue Finger 6	PM EasyServ	Feb 06	
<b>T60</b> 2007-C3U	Core Duo T2400	1.83	512M	14.1" SXGA+	X1300	80G 5400	Combo	* Intel 11a/b/g	Blue Finger 6	PM EasyServ	Feb 06	
<b>T60</b> 2007-C4U	Core Duo T2500	2.00	512M	14.1" SXGA+	X1300	80G 5400	DVD±RW	* Intel 11a/b/g	Blue Finger 6	PM EasyServ	Feb 06	
<b>T60</b> 2007-C5U	Core Duo T2500	2.00	512M	14.1" SXGA+	X1400	80G 5400	DVD±RW	* Intel 11a/b/g	Blue Finger 6	PM EasyServ	Feb 06	
<b>T60</b> 2007-C6U	Core Duo T2400	1.83	512M	15.0" SXGA+	X1300	60G 5400	Combo	* Intel 11a/b/g	Blue Finger 6	PM EasyServ	Feb 06	
<b>T60</b> 2007-C7U	Core Duo T2500	2.00	512M	15.0" SXGA+	X1400	80G 5400	Combo	* Intel 11a/b/g	Blue Finger 6	PM EasyServ	Feb 06	
<b>T60p</b> 2007-C8U	Core Duo T2600	2.16	1GB	15.0" UXGA+	V5200	100G 7200	DVD±RW	* Intel 11a/b/g	Blue Finger 9	PM EasyServ	Feb 06	
<b>T60</b> 1951-01U	Core Duo T2500	2.00	512M	14.1" XGA	GMA	80G 5400	DVD±RW	* Intel 11a/b/g	Blue Finger 6	GM EasyServ	Apr 06	
<b>T60</b> 2007-01U	Core Duo T2500	2.00	512M	14.1" XGA	X1300	80G 5400	DVD±RW	* Intel 11a/b/g	Blue Finger 6	PM EasyServ	Apr 06	
<b>T60</b> 2007-02U	Core Duo T2500	2.00	512M	14.1" SXGA+	X1300	80G 5400	Combo	* Intel 11a/b/g	Blue Finger 6	PM EasyServ	Apr 06	
<b>T60</b> 2007-03U	Core Duo T2500	2.00	512M	14.1" SXGA+	X1400	100G 7200	DVD±RW	* Intel 11a/b/g	Blue Finger 6	PM EasyServ	Apr 06	
<b>T60</b> 2007-04U	Core Duo T2500	2.00	512M	15.0" SXGA+	X1400	100G 5400	Combo	* Intel 11a/b/g	Blue Finger 6	PM EasyServ	Apr 06	

• **These models have an EasyServ™, onsite pickup and delivery 3-year limited warranty**  
These educational models are available only to public or private K-12 (or higher) accredited schools organized and operated exclusively for educational purposes for use by qualified students and teachers.

Positioning Processor	<i>Premiere performance; two spindles</i> <b>Intel® Core™ Duo processor T2400 (1.83GHz), T2500 (2.0GHz), or T2600 (2.16GHz)</b> with dual-core, Enhanced Intel SpeedStep™ technology <sup>1</sup> , Execute Disable Bit, 667MHz system bus, and 2MB shared L2 cache	<b>SOFTWARE<sup>14</sup></b> <b>Windows XP Professional</b> - Microsoft® Windows® XP Professional <sup>20</sup> (Service Pack 2) <b>Preloaded</b> (only some listed) • VitalSource Library education software • Adobe® Photoshop® Elements plus Adobe Premiere® Elements • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • ThinkVantage System Update • Symantec® Client Security™ • Diskeeper® Lite • PC-Doctor™ (diagnostics) • ThinkPad Utilities (Power Manager and Presentation Director) • Fingerprint Software • Multimedia Center for Think Offerings • Sonic RecordNOW and Drive Letter Access (combo, DVD±RW) • InterVideo WinDVD (combo, DVD±RW models) • InterVideo WinDVD Creator (DVD±RW models) <b>CD</b> • Adobe Photoshop Elements plus Adobe Premiere Elements <b>License</b> - CD not included - Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client	
Memory	<b>512MB</b> or <b>1GB</b> std / 4GB max <sup>31</sup> / PC2-5300 667MHz DDR2 / non-parity / CL5 / dual channel capable / two 200-pin SO-DIMM sockets / std mem in 1 socket / 1 socket avail		
Diskette drive	None standard / use optional USB-based diskette drive		
EIDE Combo	<i>Some:</i> DVD-ROM/CD-RW / 24X/24X/24X/8X <sup>21</sup> speed / removable from Ultrabay Slim		
EIDE DVD±RW	<i>Some:</i> DVD burner / Super Multi-Burner (40Y8623) dual-layer, removable Ultrabay Slim		
Ultrabay Slim	One modular bay for interchangeable devices (right side) / 9.5mm high bay / flat bezel		
Serial ATA disk (SATA150)	<b>60GB<sup>8</sup></b> (5400 rpm), <b>80GB</b> (5400 rpm), or <b>100GB</b> (5400 or 7200 rpm) / 9.5mm high / removable, upgradable / 9.5mm high bay / supports 2nd disk / <b>ThinkPad Shock Mounted Hard Drive / Active Protection System™</b>		
Display	<i>Some:</i> <b>14.1"</b> (358.1mm) <b>XGA (1024x768) TFT color</b> / 150 nits / anti-glare <i>Some:</i> <b>14.1"</b> (358.1mm) <b>SXGA+ (1400x1050) TFT color</b> / 150 nits / anti-glare <i>Some:</i> <b>15.0"</b> (381.0mm) <b>SXGA+ (1400x1050) TFT color</b> / 200 nits / anti-glare FlexView display with wide viewing angle and high density using IPS technology <i>Some:</i> <b>15.0"</b> (381.0mm) <b>UXGA (1600x1200) TFT color</b> / 200 nits / anti-glare FlexView display with wide viewing angle and high density using IPS technology		
Graphics	<i>Some:</i> <b>Intel Graphics Media Accelerator 950</b> / integrated in 945GM / 250MHz <i>Some:</i> <b>ATI® MOBILITY™ Radeon™ X1300 M52</b> / PCI Express x16 / <b>64MB</b> GDDR1 <i>Some:</i> <b>ATI MOBILITY Radeon X1400 M54</b> / PCI Express x16 / <b>128MB</b> GDDR1 <i>Some:</i> <b>ATI MOBILITY FireGL™ V5200 M56</b> / PCI Express x16 / <b>256MB</b> GDDR3 <i>All:</i> DVI pass-through support to optional Advanced Mini Dock or Advanced Dock		
Keyboard	89-key / ThinkVantage button / spill-resistant / multimedia Fn keys / Windows, Appl keys		
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar <sup>13</sup> , magnifying glass		
Touch pad	UltraNav™ multi-pointing system / touch pad below keyboard / Tap Zones		
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions		
Dimensions <sup>3</sup>	<b>14.1" models (WxDxH):</b> 12.2" x 10.0" x 1.0-1.2"; 311mm x 255mm x 26.6-31mm <b>15.0" models (WxDxH):</b> 13.0" x 10.6" x 1.2-1.4"; 329mm x 268mm x 31-36mm		
Weight <sup>2</sup>	with optical drive and battery: <b>14.1" models:</b> up to 5.5 lb (2.5kg); <b>15":</b> up to 6.3 lb (2.8 kg)		
Case material	<b>14.1":</b> magnesium composite in top cover, CFRP bottom cover; <b>15":</b> CFRP in top/bottom		
Battery - type	Lithium Ion <b>6-</b> or <b>9-cell</b> / supports unique 2nd battery in Ultrabay Slim		
Battery - life <sup>10</sup>	<b>6-cell:</b> up to 6.0 hr; <b>T60p 9-cell:</b> up to 5.2 hr; <b>T60 9-cell plus Ultrabay battery:</b> up to 11.5		
Architecture	<i>Some:</i> <b>Mobile Intel 945GM Express Chipset</b> / 82945GM Graphics Memory Cont Hub <i>Some:</i> <b>Mobile Intel 945PM Express Chipset</b> / 82945PM Memory Controller Hub <i>All:</i> 82801GBM ICH7-M I/O Controller Hub (SATA300, ATA-100 EIDE, PCI Express x1, PCI bus, USB, LPC interface, [Bluetooth], [fingerprint]) / PCI bus (TI® PCI1512 CardBus controller) / LPC bus (NS PC87382 Super I/O, Atmel® 97SC3203)		
PC Card Std slot	One Type I or Type II slot / CardBus 32-bit / integrated door		
ExpressCard slot	One ExpressCard/34 or ExpressCard/54 / PCI Express x1 or USB 2.0 / integrated door		
Ports	Three USB 2.0 / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / no keyboard, mouse, serial ports, parallel port, 1394, or S-video (use USB)		
Wireless antenna	UltraConnect™ Antenna built into the display cover / on-off switch for all wireless radios		
Mini PCI Express	Two Mini PCI Express slots / only 802.11 wireless is customer upgradable		
Intel 11a/b/g <sup>32</sup>	11a/b/g wireless <sup>4</sup> , Mini PCI Express adapter, Intel PRO/Wireless 3945ABG		
WWAN <sup>16</sup>	None		
Modem	56K <sup>6</sup> V.90 (V.92-designed <sup>29</sup> ) modem in Com Daughter Card socket / Conexant® chipset		
Bluetooth™	Bluetooth 2.0 wireless / USB 2.0 interface via ICH7-M / LED indicator		
Ethernet	Gigabit ethernet on systemboard / Intel 82573L (MAC/PHY) / PCIe x1 / PXE		
Audio support	High Definition (HD) Audio / AD1981HD codec / stereo speaker / 1 watt / volume up, down, mute buttons / internal microphone / microphone input jack / headphone jack		
Security	Power-on password / hard disk password / supervisor password / security keyhole		
Security chip	<b>Trusted Platform Module</b> / Atmel chip / TCG 1.2-compliant		
Fingerprint reader	<b>Fingerprint reader on palm rest</b> / swipe sensor / supports the security chip		
Limited warranty <sup>12</sup>	<b>3-years/1-yr battery - EasyServ™, onsite pickup and delivery / service upgrades<sup>22</sup> avail</b>		
512MB PC2-5300 DDR2 CL5 SODIMM	40Y7733	T60 Series Li-Ion Battery 6-cell	40Y6799
1GB PC2-5300 DDR2 CL5 SODIMM	40Y7734	Z60m/T60/R60 Li-Ion Battery 9-cell	40Y6797
ThinkPad Advanced Dock	250310U	ThinkPad 90W AC/DC Combo Adapter	40Y7630
Other accessories on O-T60 sheet		Other accessories at <a href="http://lenovo.com/accessories">lenovo.com/accessories</a>	

See footnotes for important warranty information  
US models announced January 31 or April 4, 2006  
US models withdrawn effective September 2007

\* Powered by Intel Centrino® Duo mobile technology

© Lenovo  
(DV1-6) September 2007

# ThinkPad® T60 and T60p (1952 and 2008) - Education - withdrawn

Created by Lenovo Training Solutions  
Personal Systems Reference (PSREF)

Type-model	Processor	Speed GHz	Memory	Screen	Graphics controller	Disk SATA GB <sup>8</sup> rpm	EIDE optical	Mini PCIe 802.11 wireless	Blue-tooth	Finger-print reader	Battery Cell	Chip set	Limited warranty <sup>12</sup>	Avail date
T60	1952-C2U Core™ Duo T2400	1.83	512M	14.1" XGA	GMA	60G 5400	Combo	* Intel 11a/b/g <sup>32</sup>	Blue	Finger	6	GM	Onsite	Feb 06
T60	2008-C2U Core Duo T2400	1.83	512M	14.1" XGA	X1300	60G 5400	DVD±RW	* Intel 11a/b/g	Blue	Finger	6	PM	Onsite	Feb 06
T60	2008-C3U Core Duo T2400	1.83	512M	14.1" SXGA+	X1300	80G 5400	Combo	* Intel 11a/b/g	Blue	Finger	6	PM	Onsite	Feb 06
T60	2008-C4U Core Duo T2500	2.00	512M	14.1" SXGA+	X1300	80G 5400	DVD±RW	* Intel 11a/b/g	Blue	Finger	6	PM	Onsite	Feb 06
T60	2008-C5U Core Duo T2500	2.00	512M	14.1" SXGA+	X1400	80G 5400	DVD±RW	* Intel 11a/b/g	Blue	Finger	6	PM	Onsite	Feb 06
T60	2008-C6U Core Duo T2400	1.83	512M	15.0" SXGA+	X1300	60G 5400	Combo	* Intel 11a/b/g	Blue	Finger	6	PM	Onsite	Feb 06
T60	2008-C7U Core Duo T2500	2.00	512M	15.0" SXGA+	X1400	80G 5400	Combo	* Intel 11a/b/g	Blue	Finger	6	PM	Onsite	Feb 06
T60p	2008-C8U Core Duo T2600	2.16	1GB	15.0" UXGA+	V5200	100G 7200	DVD±RW	* Intel 11a/b/g	Blue	Finger	9	PM	Onsite	Feb 06
T60	1952-01U Core Duo T2500	2.00	512M	14.1" XGA	GMA	80G 5400	DVD±RW	* Intel 11a/b/g	Blue	Finger	6	GM	Onsite	Apr 06
T60	2008-01U Core Duo T2500	2.00	512M	14.1" XGA	X1300	80G 5400	DVD±RW	* Intel 11a/b/g	Blue	Finger	6	PM	Onsite	Apr 06
T60	2008-02U Core Duo T2500	2.00	512M	14.1" SXGA+	X1300	80G 5400	Combo	* Intel 11a/b/g	Blue	Finger	6	PM	Onsite	Apr 06
T60	2008-03U Core Duo T2500	2.00	512M	14.1" SXGA+	X1400	100G 7200	DVD±RW	* Intel 11a/b/g	Blue	Finger	6	PM	Onsite	Apr 06
T60	2008-04U Core Duo T2500	2.00	512M	15.0" SXGA+	X1400	100G 5400	Combo	* Intel 11a/b/g	Blue	Finger	6	PM	Onsite	Apr 06

### These models have a limited onsite service<sup>24</sup> 3-year limited warranty

These educational models are available only to public or private K-12 (or higher) accredited schools organized and operated exclusively for educational purposes for use by qualified students and teachers.

Positioning Processor	<i>Premiere performance; two spindles</i> <b>Intel® Core™ Duo processor T2400 (1.83GHz), T2500 (2.0GHz), or T2600 (2.16GHz)</b> with dual-core, Enhanced Intel SpeedStep™ technology <sup>1</sup> , Execute Disable Bit, 667MHz system bus, and 2MB shared L2 cache	<b>SOFTWARE<sup>14</sup></b> <b>Windows XP Professional</b> - Microsoft® Windows® XP Professional <sup>20</sup> (Service Pack 2) ◇ Disk-to-Disk Recovery (in hidden protected area)
Memory	<b>512MB</b> or <b>1GB</b> std / 4GB max <sup>31</sup> / PC2-5300 667MHz DDR2 / non-parity / CL5 / dual channel capable / two 200-pin SO-DIMM sockets / std mem in 1 socket / 1 socket avail	<b>Preloaded</b> • VitalSource Library education software • Adobe® Photoshop® Elements plus Adobe Premiere® Elements • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center with Away Manager • ThinkVantage System Update • Symantec® Client Security™ • Diskeeper® Lite • PC-Doctor™ (diagnostics) • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader • Google Toolbar • Google Desktop • Picasa from Google • Fingerprint Software • Multimedia Center for Think Offerings • Sonic RecordNOW and Drive Letter Access (combo, DVD±RW) • InterVideo WinDVD (combo, DVD±RW models) • InterVideo WinDVD Creator (DVD±RW models)
Diskette drive	None standard / use optional USB-based diskette drive	
EIDE Combo	<i>Some:</i> DVD-ROM/CD-RW / 24X/24X/24X/8X <sup>21</sup> speed / removable from Ultrabay Slim	
EIDE DVD±RW	<i>Some:</i> DVD burner / Super Multi-Burner (40Y8623) dual-layer, removable Ultrabay Slim	
Ultrabay Slim	One modular bay for interchangeable devices (right side) / 9.5mm high bay / flat bezel	
Serial ATA disk (SATA150)	<b>60GB<sup>8</sup></b> (5400 rpm), <b>80GB</b> (5400 rpm), or <b>100GB</b> (5400 or 7200 rpm) / 9.5mm high / removable, upgradable / 9.5mm high bay / supports 2nd disk / <b>ThinkPad Shock Mounted Hard Drive / Active Protection System™</b>	
Display	<i>Some:</i> <b>14.1"</b> (358.1mm) <b>XGA (1024x768) TFT color</b> / 150 nits / anti-glare <i>Some:</i> <b>14.1"</b> (358.1mm) <b>SXGA+ (1400x1050) TFT color</b> / 150 nits / anti-glare <i>Some:</i> <b>15.0"</b> (381.0mm) <b>SXGA+ (1400x1050) TFT color</b> / 200 nits / anti-glare FlexView display with wide viewing angle and high density using IPS technology <i>Some:</i> <b>15.0"</b> (381.0mm) <b>UXGA (1600x1200) TFT color</b> / 200 nits / anti-glare FlexView display with wide viewing angle and high density using IPS technology	
Graphics	<i>Some:</i> <b>Intel Graphics Media Accelerator 950</b> / integrated in 945GM / 250MHz <i>Some:</i> <b>ATI® MOBILITY™ Radeon™ X1300 M52</b> / PCI Express x16 / <b>64MB</b> GDDR1 <i>Some:</i> <b>ATI MOBILITY Radeon X1400 M54</b> / PCI Express x16 / <b>128MB</b> GDDR1 <i>Some:</i> <b>ATI MOBILITY FireGL™ V5200 M56</b> / PCI Express x16 / <b>256MB</b> GDDR3 <i>All:</i> DVI pass-through support to optional Advanced Mini Dock or Advanced Dock	
Keyboard	89-key / ThinkVantage button / spill-resistant / multimedia Fn keys / Windows, Appl keys	
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar <sup>13</sup> , magnifying glass	
Touch pad	UltraNav™ multi-pointing system / touch pad below keyboard / Tap Zones	
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions	
Dimensions <sup>3</sup>	<b>14.1" models (WxDxH):</b> 12.2" x 10.0" x 1.0-1.2"; 311mm x 255mm x 26.6-31mm <b>15.0" models (WxDxH):</b> 13.0" x 10.6" x 1.2-1.4"; 329mm x 268mm x 31-36mm	
Weight <sup>2</sup>	with optical drive and battery: <b>14.1" models:</b> up to 5.5 lb (2.5kg); <b>15":</b> up to 6.3 lb (2.8 kg)	
Case material	<b>14.1":</b> magnesium composite in top cover, CFRP bottom cover; <b>15":</b> CFRP in top/bottom	
Battery - type	Lithium Ion <b>6- or 9-cell</b> / supports unique 2nd battery in Ultrabay Slim	
Battery - life <sup>10</sup>	<b>6-cell:</b> up to 6.0 hr; <b>T60p 9-cell:</b> up to 5.2 hr; <b>T60 9-cell plus Ultrabay battery:</b> up to 11.5	
Architecture	<i>Some:</i> <b>Mobile Intel 945GM Express Chipset</b> / 82945GM Graphics Memory Cont Hub <i>Some:</i> <b>Mobile Intel 945PM Express Chipset</b> / 82945PM Memory Controller Hub <i>All:</i> 82801GBM ICH7-M I/O Controller Hub (SATA300, ATA-100 EIDE, PCI Express x1, PCI bus, USB, LPC interface, [Bluetooth], [fingerprint]) / PCI bus (TI® PC1512 CardBus controller) / LPC bus (NS PC87382 Super I/O, Atmel® 97SC3203)	<b>CD</b> • Adobe Photoshop Elements plus Adobe Premiere Elements
PC Card Std slot	One Type I or Type II slot / CardBus 32-bit / integrated door	<b>License</b> - CD not included - Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client
ExpressCard slot	One ExpressCard/34 or ExpressCard/54 / PCI Express x1 or USB 2.0 / integrated door	
Ports	Three USB 2.0 / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / no keyboard, mouse, serial ports, parallel port, 1394, or S-video (use USB)	
Wireless antenna	UltraConnect™ Antenna built into the display cover / on-off switch for all wireless radios	
Mini PCI Express	Two Mini PCI Express slots / only 802.11 wireless is customer upgradable	
Intel 11a/b/g <sup>32</sup>	11a/b/g wireless <sup>4</sup> , Mini PCI Express adapter, Intel PRO/Wireless 3945ABG	Supports ThinkVantage® technologies
WWAN <sup>16</sup>	None	65-watt (1952) or 90 watt (2008) AC adapter
Modem	56K <sup>6</sup> V.90 (V.92-designed <sup>29</sup> ) modem in Com Daughter Card socket / Conexant® chipset	ThinkPad Roll Cage (one-piece magnesium frame)
Bluetooth™	Bluetooth 2.0 wireless technology / USB 2.0 interface via ICH7-M / LED indicator	RoHS-compliant
Ethernet	Gigabit ethernet on systemboard / Intel 82573L (MAC/PHY) / PCIe x1 / PXE	International Warranty Service <sup>17</sup>
Audio support	High Definition (HD) Audio / AD1981HD codec / stereo speaker / 1 watt / volume up, down, mute buttons / internal microphone / microphone input jack / headphone jack	24 hour x 7 day <sup>18</sup> toll-free warranty support during the warranty <sup>12</sup>
Security	Power-on password / hard disk password / supervisor password / security keyhole	
Security chip	<b>Trusted Platform Module</b> / Atmel chip / TCG 1.2-compliant	
Fingerprint reader	<b>Fingerprint reader on palm rest</b> / swipe sensor / supports the security chip	
Limited warranty <sup>12</sup>	<b>3-year/1-year battery, limited onsite service</b> , 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time <sup>24</sup>	Post-warranty annual maintenance agreements at <b>lenovo.com/thinkplus/warranty</b>

See footnotes for important warranty information  
US models announced January 31 or April 4, 2006  
US models withdrawn effective September 2007

\* Powered by Intel Centrino® Duo mobile technology

© Lenovo  
(DV1-7) September 2007

# ThinkPad® T60 (2007) - Education (Vista™) - withdrawn

Created by Lenovo Training Solutions  
Personal Systems Reference (PSREF)

Type-model	Processor	Speed GHz	Memory	Screen	Graphics controller	Disk SATA GB <sup>3</sup> rpm	EIDE optical	Mini PCIe 802.11 wireless	Finger Bat- print tery reader Cell set	Educ pre- load	Limited warranty <sup>12</sup>	Avail date	
<b>T60</b>	2007-QXU	Core 2 Duo T7200	2.00	1GB	14.1" SXGA+	X1400	100G 7200 DVD±RW	11a/b/g <sup>32</sup>	Finger 9	PM	HE	EasyServ Apr 07	
<p>• <b>This model has an EasyServ™<sup>19</sup> onsite pickup and delivery 3-year limited warranty</b> This educational model is available only to public or private K-12 or higher accredited schools organized and operated exclusively for educational purposes for use by qualified students and teachers.</p>													
Positioning Processor	<i>Premiere performance; two spindles</i> <b>Intel® Core™ 2 Duo processor T7200</b> with dual-core, Intel 64 Technology, Enhanced Intel SpeedStep™ technology <sup>1</sup> , Execute Disable Bit, 667MHz system bus, and 4MB shared L2 cache										<b>Preloaded operating system<sup>20</sup></b> - Microsoft® Windows® Vista™ Business Edition (32-bit) ↳ Vista Basic logo		
Memory	<b>1GB</b> std / 4GB max <sup>31</sup> / PC2-5300 667MHz DDR2 / non-parity / CL5 / dual-channel capable / two 200-pin SO-DIMM sockets / standard memory in one socket / one socket available										<b>Preloaded applications<sup>14</sup></b> • Higher education software - VitalSource Library College Edition - Adobe® Instructor Resource Center - Adobe Photoshop Elements 5 (and CD) - Adobe Premier Elements 3 (and DVD) • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center with Away Manager • ThinkVantage System Update • System Migration Assistant • Norton Internet Security™ (90 days of virus definitions) • Diskeeper® Home • PC-Doctor™ (diagnostics) • ThinkPad Utilities • Adobe Reader • Picasa from Google • Fingerprint Software <b>License</b> - CD not included - Lotus® Notes® Stand-alone Client		
Diskette drive	None standard / use optional USB-based diskette drive										Supports ThinkVantage® technologies		
EIDE DVD±RW	DVD burner / Super Multi-Burner (40Y8623) dual-layer, removable Ultrabay Slim												
Ultrabay Slim	One modular bay for interchangeable devices (right side) / 9.5mm high bay / flat bezel												
Serial ATA disk (SATA150)	<b>100GB<sup>8</sup></b> (7200 rpm) / 9.5mm high / removable, upgradable / 9.5mm high bay / supports 2nd disk / <b>ThinkPad Shock Mounted Hard Drive / Active Protection System™</b>												
Display	<b>14.1"</b> (358.1mm) <b>SXGA+ (1400x1050) TFT color</b> / 150 nits / anti-glare												
Graphics	<b>ATI® MOBILITY™ Radeon™ X1400 M54</b> / PCI Express x16 / <b>128MB</b> GDDR1 / DVI pass-through support to optional Advanced Mini Dock or Advanced Dock												
Keyboard	89-key / ThinkVantage button / spill-resistant / multimedia Fn keys / Windows, Appl keys												
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar <sup>13</sup> , magnifying glass												
Touch pad	UltraNav™ multi-pointing system / touch pad below keyboard / Tap Zones												
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions												
Dimensions <sup>3</sup>	14.1" models (WxDxH): 12.2" x 10.0" x 1.0-1.2"; 311mm x 255mm x 26.6-31mm												
Weight <sup>2</sup>	with optical drive and battery: 14.1" models: up to 5.5 lb (2.5kg)												
Case material	14.1": magnesium composite in top cover, CFRP bottom cover												
Battery - type	Lithium Ion <b>9-cell</b> / supports unique 2nd battery in Ultrabay Slim												
Battery - life <sup>10</sup>	6-cell: up to 6.0 hr; 9-cell: up to 6.8 hr; 9-cell plus <i>Ultrabay battery</i> : up to 11.5												
Architecture	<b>Mobile Intel 945PM Express Chipset</b> / 82945PM Memory Controller Hub / 82801GBM ICH7-M I/O Controller Hub (SATA300, ATA-100 EIDE, PCI Express x1, PCI bus, USB, LPC interface, [Bluetooth], [fingerprint]) / PCI bus (TI® PCI1512 CardBus controller) / LPC bus (NS PC87382 Super I/O, Atmel® 97SC3203)												
PC Card Std slot	One Type I or Type II slot / CardBus 32-bit / integrated door												
ExpressCard slot	One ExpressCard/34 or ExpressCard/54 / PCI Express x1 or USB 2.0 / integrated door												
Ports	Three USB 2.0 / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / no keyboard, mouse, serial ports, parallel port, 1394, or S-video (use USB)												
Wireless antenna	UltraConnect™ Antenna built into the display cover / on-off switch for all wireless radios												
Mini PCI Express	Two Mini PCI Express slots / only 802.11 wireless is customer upgradable												
11a/b/g <sup>32</sup>	11a/b/g wireless <sup>4</sup> , ThinkPad 11a/b/g Mini PCIe Adapter, Atheros AR5006EX												
WWAN <sup>16</sup>	None												
Modem	56K <sup>6</sup> V.90 (V.92-designed <sup>29</sup> ) modem in Com Daughter Card socket / Conexant® chipset												
Bluetooth™	Bluetooth 2.0 wireless / USB 2.0 interface via ICH7-M / LED indicator												
Ethernet	Gigabit ethernet on systemboard / Intel 82573L (MAC/PHY) / PCIe x1 / PXE												
Audio support	High Definition (HD) Audio / AD1981HD codec / stereo speaker / 1 watt / volume up, down, mute buttons / internal microphone / microphone input jack / headphone jack												
Security	Power-on password / hard disk password / supervisor password / security keyhole												
Security chip	<b>Trusted Platform Module</b> / Atmel chip / TCG 1.2-compliant												
Fingerprint reader	<b>Fingerprint reader on palm rest</b> / swipe sensor / supports the security chip												
Limited warranty <sup>12</sup>	<b>3-years/1-yr battery</b> - EasyServ™ <sup>19</sup> onsite pickup and delivery / service upgrades <sup>22</sup> avail												
512MB PC2-5300 DDR2 CL5 SODIMM	40Y7733	T60 Series Li-Ion Battery 6-cell						40Y6799	ThinkPlus™.22 2-year LOR 9x5 NBD				
1GB PC2-5300 DDR2 CL5 SODIMM	40Y7734	Z60m/T60/R60 Li-Ion Battery 9-cell						40Y6797	41C9175				
ThinkPad Advanced Dock	250310U	ThinkPad 90W AC/DC Combo Adapter						40Y7630	41C9176				
Other accessories on O-T60 sheet	Other accessories at <a href="http://lenovo.com/accessories">lenovo.com/accessories</a>											41C9177	
											41C9179		
											41C9178		
											41C9180		

See footnotes for important warranty information  
US model announced April 17, 2007  
US model withdrawn effective September 2007

© Lenovo  
(DV2-6) September 2007

# ThinkPad® T60 (2008) - Education (Vista™) - withdrawn

Created by Lenovo Training Solutions  
Personal Systems Reference (PSREF)

Type-model	Processor	Speed GHz	Memory	Screen	Graphics controller	Disk SATA GB <sup>3</sup> rpm	EIDE optical	Mini PCIe 802.11 wireless	Finger print reader	Bat- tery Cell	Educ pre- load chip set	Limited warranty <sup>12</sup>	Avail date
<b>T60</b>	2008-QXU	Core 2 Duo T7200	2.00	1GB	14.1" SXGA+	X1400	100G 7200 DVD±RW	11a/b/g <sup>32</sup>	Finger	9	PM	HE	Onsite Apr 07
<p><b>This model has a limited onsite service<sup>24</sup> 3-year limited warranty</b> This educational model is available only to public or private K-12 (or higher) accredited schools organized and operated exclusively for educational purposes for use by qualified students and teachers.</p>													
Positioning Processor	<p><i>Premiere performance; two spindles</i> <b>Intel® Core™ 2 Duo processor T7200</b> with dual-core, Intel 64 Technology, Enhanced Intel SpeedStep™ technology<sup>1</sup>, Execute Disable Bit, 667MHz system bus, and 4MB shared L2 cache</p>										<p><b>Preloaded operating system<sup>20</sup></b> - Microsoft® Windows® Vista™ Business Edition (32-bit) ◇ Vista Basic logo</p>		
Memory	<p><b>1GB</b> std / 4GB max<sup>31</sup> / PC2-5300 667MHz DDR2 / non-parity / CL5 / dual-channel capable / two 200-pin SO-DIMM sockets / standard memory in one socket / one socket available</p>										<p><b>Preloaded applications<sup>14</sup></b> • Higher education software - VitalSource Library College Edition - Adobe® Instructor Resource Center - Adobe Photoshop Elements 5 (and CD) - Adobe Premier Elements 3 (and DVD) • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center with Away Manager • ThinkVantage System Update • System Migration Assistant • Norton Internet Security™ (90 days of virus definitions) • Diskeeper® Home • PC-Doctor™ (diagnostics) • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe Reader • Picasa from Google • Fingerprint Software (fingerprint models) • Microsoft Office 2007 Trial</p>		
Diskette drive	None standard / use optional USB-based diskette drive										<p><b>License - CD not included</b> - Lotus® Notes® Stand-alone Client</p>		
EIDE DVD±RW	DVD burner / Super Multi-Burner (40Y8623) dual-layer, removable Ultrabay Slim												
Ultrabay Slim	One modular bay for interchangeable devices (right side) / 9.5mm high bay / flat bezel												
Serial ATA disk (SATA150)	<b>100GB<sup>8</sup></b> (7200 rpm) / 9.5mm high / removable, upgradable / 9.5mm high bay / supports 2nd disk / <b>ThinkPad Shock Mounted Hard Drive / Active Protection System™</b>												
Display	<p><b>14.1"</b> (358.1mm) <b>SXGA+ (1400x1050) TFT color</b> / 150 nits / anti-glare</p>												
Graphics	<p><b>ATI® MOBILITY™ Radeon™ X1400 M54</b> / PCI Express x16 / <b>128MB</b> GDDR1 / DVI pass-through support to optional Advanced Mini Dock or Advanced Dock</p>												
Keyboard	89-key / ThinkVantage button / spill-resistant / multimedia Fn keys / Windows, Appl keys												
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar <sup>13</sup> , magnifying glass												
Touch pad	UltraNav™ multi-pointing system / touch pad below keyboard / Tap Zones												
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions												
Dimensions <sup>3</sup>	<p><b>14.1" models (WxDxH):</b> 12.2" x 10.0" x 1.0-1.2"; 311mm x 255mm x 26.6-31mm</p>												
Weight <sup>2</sup>	with optical drive and battery: <b>14.1" models:</b> up to 5.5 lb (2.5kg)												
Case material	<b>14.1":</b> magnesium composite in top cover, CFRP bottom cover												
Battery - type	Lithium Ion <b>9-cell</b> / supports unique 2nd battery in Ultrabay Slim												
Battery - life <sup>10</sup>	<b>6-cell:</b> up to 6.0 hr; <b>9-cell:</b> up to 6.8 hr; <b>9-cell plus Ultrabay battery:</b> up to 11.5												
Architecture	<p><b>Mobile Intel 945PM Express Chipset</b> / 82945PM Memory Controller Hub / 82801GBM ICH7-M I/O Controller Hub (SATA300, ATA-100 EIDE, PCI Express x1, PCI bus, USB, LPC interface, [Bluetooth], [fingerprint]) / PCI bus (TI® PCI1512 CardBus controller) / LPC bus (NS PC87382 Super I/O, Atmel® 97SC3203)</p>												
PC Card Std slot	One Type I or Type II slot / CardBus 32-bit / integrated door												
ExpressCard slot	One ExpressCard/34 or ExpressCard/54 / PCI Express x1 or USB 2.0 / integrated door												
Ports	Three USB 2.0 / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / no keyboard, mouse, serial ports, parallel port, 1394, or S-video (use USB)												
Wireless antenna	UltraConnect™ Antenna built into the display cover / on-off switch for all wireless radios												
Mini PCI Express	Two Mini PCI Express slots / only 802.11 wireless is customer upgradable												
11a/b/g <sup>32</sup>	11a/b/g wireless <sup>4</sup> , ThinkPad 11a/b/g Mini PCIe Adapter, Atheros AR5006EX												
WWAN <sup>16</sup>	None												
Modem	56K <sup>6</sup> V.90 (V.92-designed <sup>29</sup> ) modem in Com Daughter Card socket / Conexant® chipset												
Bluetooth™	Bluetooth 2.0 wireless / USB 2.0 interface via ICH7-M / LED indicator												
Ethernet	Gigabit ethernet on systemboard / Intel 82573L (MAC/PHY) / PCIe x1 / PXE												
Audio support	High Definition (HD) Audio / AD1981HD codec / stereo speaker / 1 watt / volume up, down, mute buttons / internal microphone / microphone input jack / headphone jack												
Security	Power-on password / hard disk password / supervisor password / security keyhole												
Security chip	<b>Trusted Platform Module</b> / Atmel chip / TCG 1.2-compliant												
Fingerprint reader	<b>Fingerprint reader on palm rest</b> / swipe sensor / supports the security chip												
Limited warranty <sup>12</sup>	<p><b>3-year/1-year battery, limited onsite service</b>, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time<sup>24</sup></p>										<p>Supports ThinkVantage® technologies</p>		
512MB PC2-5300 DDR2 CL5 SODIMM	40Y7733		T60 Series Li-Ion Battery 6-cell		40Y6799								
1GB PC2-5300 DDR2 CL5 SODIMM	40Y7734		Z60m/T60/R60 Li-Ion Battery 9-cell		40Y6797								
ThinkPad Advanced Dock	250310U		ThinkPad 90W AC/DC Combo Adapter		40Y7630								
Other accessories on O-T60 sheet	Other accessories at <a href="http://lenovo.com/accessories">lenovo.com/accessories</a>												
											<p>Post-warranty annual maintenance agreements at <a href="http://lenovo.com/thinkplus/warranty">lenovo.com/thinkplus/warranty</a></p>		

See footnotes for important warranty information  
US model announced April 17, 2007  
US model withdrawn effective September 2007

© Lenovo  
(DV2-7) September 2007

# ThinkPad® T60 (1953) - TopSeller - withdrawn

Personal Systems Reference (PSREF)

Type-model	Processor	Speed GHz	Memory	Screen	Graphics controller	Disk SATA GB <sup>3</sup>	rpm	EIDE optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN wireless	Blue-tooth	Finger-print reader	Bat-tery	Limited warranty <sup>12</sup>	Avail date
1953-D5U	Core Solo T1300	1.66	256MB	14.1" XGA	GMA 950	40GB	5400	Combo	* Intel 11a/b/g <sup>32</sup>		None		6-cell	1-yr	Feb 06
1953-D6U	Core Duo T2300	1.66	512MB	14.1" XGA	GMA 950	60GB	5400	Combo	* Intel 11a/b/g		None	Finger	6-cell	1-yr	Feb 06
1953-D7U	Core Duo T2300	1.66	512MB	15.0" XGA	GMA 950	60GB	5400	Combo	* Intel 11a/b/g		None	Finger	6-cell	1-yr	Feb 06
1953-D8U	Core Duo T2400	1.83	512MB	14.1" XGA	GMA 950	80GB	5400	Combo	* Intel 11a/b/g	AT&T	None	Finger	6-cell	1-yr	May 06
1953-D9U	Core Duo T2300E	1.66	512MB	14.1" XGA	GMA 950	60GB	5400	Combo	* Intel 11a/b/g		None	Finger	6-cell	1-yr	July 06
1953-DAU	Core Duo T2300E	1.66	512MB	15.0" XGA	GMA 950	60GB	5400	Combo	* Intel 11a/b/g		None	Finger	6-cell	1-yr	July 06

• These small and medium business (SMB) models are part of the US TopSeller™ Program  
 • These 1953 models have a 1-year limited warranty

Positioning Processor	<i>Premiere performance; two spindles</i> <b>Intel® Core™ Solo processor T1300 (1.66GHz)</b> with single-core, Enhanced Intel SpeedStep™ technology <sup>1</sup> , Execute Disable Bit, 667MHz bus, and 2MB L2 cache or <b>Intel Core Duo processor T2300, T2300E, or T2400</b> with dual-core, Enhanced Intel SpeedStep™ technology <sup>1</sup> , Execute Disable Bit, 667MHz system bus, and 2MB shared L2 cache	<b>SOFTWARE<sup>14</sup></b> <b>Windows XP Professional</b> - Microsoft® Windows® XP Professional <sup>20</sup> (Service Pack 2) ⇨ Disk-to-Disk Recovery (in hidden protected area) <b>Preloaded</b> • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • ThinkVantage System Update • System Migration Assistant • Symantec® Client Security™ • Diskeeper® Lite • PC-Doctor™ (diagnostics) • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader • Google Toolbar • Google Desktop • Picasa from Google • Fingerprint Software (fingerprint models) • Multimedia Center for Think Offerings • Sonic RecordNOW and Drive Letter Access • InterVideo WinDVD <b>License</b> - CD not included - Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client			
Memory	<b>256MB or 512MB</b> std / 4GB max <sup>31</sup> / PC2-5300 667MHz DDR2 / non-parity / CL5 / dual channel capable / two 200-pin SO-DIMM sockets / std mem in 1 socket / 1 socket avail				
Diskette drive	None standard / use optional USB-based diskette drive				
EIDE Combo	DVD-ROM/CD-RW / 24X/24X/24X/8X <sup>21</sup> speed / removable from Ultrabay Slim				
Ultrabay Slim	One modular bay for interchangeable devices (right side) / 9.5mm high bay / flat bezel				
Serial ATA disk (SATA150)	<b>40GB<sup>3</sup></b> (5400 rpm) or <b>60GB<sup>3</sup></b> (5400 rpm) or <b>80GB<sup>3</sup></b> (5400 rpm) / 9.5mm high / removable,upgradable / 9.5mm high bay / supports 2nd disk / <b>ThinkPad Shock Mounted Hard Drive / Active Protection System™</b>				
Display	<i>Some:</i> <b>14.1"</b> (358.1mm) <b>XGA (1024x768) TFT color</b> / 150 nits / anti-glare <i>Some:</i> <b>15.0"</b> (381.0mm) <b>XGA (1024x768) TFT color</b> / 150 nits / anti-glare				
Graphics	<b>Intel Graphics Media Accelerator 950 (GMA 950)</b> / integrated in 945GM / 250MHz / DVI pass-through support to optional Advanced Mini Dock or Advanced Dock				
Keyboard	89-key / ThinkVantage button / spill-resistant / multimedia Fn keys / Windows, Appl keys				
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar <sup>13</sup> , magnifying glass				
Touch pad	UltraNav™ multi-pointing system / touch pad below keyboard / Tap Zones				
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions				
Dimensions <sup>3</sup>	<i>14.1" models (WxDxH):</i> 12.2" x 10.0" x 1.0-1.2"; 311mm x 255mm x 26.6-31mm <i>15.0" models (WxDxH):</i> 13.0" x 10.6" x 1.2-1.4"; 329mm x 268mm x 31-36mm with optical drive and battery: <i>14.1" models:</i> up to 5.5 lb (2.5kg); <i>15":</i> up to 6.3 lb (2.8 kg)				
Weight <sup>2</sup>	<i>14.1":</i> magnesium composite in top cover, CFRP bottom cover; <i>15":</i> CFRP in top/bottom				
Case material	Lithium Ion <b>6-cell</b> / supports unique 2nd battery in Ultrabay Slim				
Battery - type	<b>6-cell:</b> up to 6.0 hr; <i>opt 9-cell:</i> up to 9.0 hr; <b>9-cell plus Ultrabay battery:</b> up to 11.5 hr				
Battery - life <sup>10</sup>					
Architecture	<b>Mobile Intel 945GM Express Chipset</b> / 82945GM Graphics Memory Controller Hub / 82801GBM ICH7-M I/O Controller Hub (SATA300, ATA-100 EIDE, PCI Express x1, PCI bus, USB, LPC interface, [Bluetooth], [fingerprint]) / PCI bus (TI® PCI1512 CardBus controller) / LPC bus (National Semiconductor® PC87382 Super I/O, Atmel® 97SC3203)				
PC Card Std slot	One Type I or Type II slot / CardBus 32-bit / integrated door				
ExpressCard slot	One ExpressCard/34 or ExpressCard/54 / PCI Express x1 or USB 2.0 / integrated door				
Ports	Three USB (Version 2.0) / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / no keyboard, mouse, serial ports, parallel port, or 1394 (use USB)				
Wireless antenna	UltraConnect™ Antenna built into the display cover / on-off switch for all wireless radios				
Mini PCI Express	Two Mini PCI Express slots / only 802.11 wireless is customer upgradable				
Intel 11a/b/g <sup>32</sup>	11a/b/g wireless <sup>4</sup> , Mini PCI Express adapter, Intel PRO/Wireless 3945ABG				
WWAN <sup>23</sup>	<i>Some:</i> Wireless WAN, GPRS/EDGE/UMTS/HSDPA support, Mini PCIe adapter and SIM, WWAN antenna on display, service contract required with AT&T®				
Modem	56K <sup>6</sup> V.90 (V.92-designed <sup>29</sup> ) modem in Com Daughter Card socket / Conexant® chipset				
Bluetooth™	None				
Ethernet	Gigabit ethernet on systemboard / Intel 82573L (MAC/PHY) / PCIe x1 / PXE				
Audio support	High Definition (HD) Audio / AD1981HD codec / stereo speakers, 1 watt / volume up, down, mute buttons / internal microphone / microphone input jack / headphone jack				
Security	Power-on password / hard disk password / supervisor password / security keyhole				
Security chip	<b>Trusted Platform Module</b> / Atmel chip / TCG 1.2-compliant				
Fingerprint reader	<i>Some:</i> <b>Fingerprint reader on palm rest</b> / swipe sensor / supports the security chip				
Limited warranty <sup>12</sup> <b>1-year</b> - EasyServ™ <sup>19</sup> onsite pickup and delivery / service upgrades <sup>22</sup> available		Supports ThinkVantage® technologies			
512MB PC2-5300 DDR2 CL5 SODIMM	40Y7733	T60 Series Li-Ion Battery 6-cell	40Y6799	ThinkPlus™.22 1-year LOR 9x5 NBD	41C9166
1GB PC2-5300 DDR2 CL5 SODIMM	40Y7734	Z60m/T60/R60 Li-Ion Battery 9-cell	40Y6797	ThinkPlus 2-year LOR 9x5 NBD	41C9167
2GB PC2-5300 DDR2 SODIMM	40Y7735	Advanced Ultrabay Battery 3-cell	40Y6789	ThinkPlus 3-year LOR 9x5 NBD	41C9168
Serial Hard Drive Ultrabay Slim Adapter(flat)	40Y8725	ThinkPad External Battery Charger	40Y7625	ThinkPlus 4-year LOR 9x5 NBD	41C9169
DVD-ROM Ultrabay Slim Drive (curved)	73P3270	ThinkPad 90W AC Adapter	40Y7659	ThinkPlus 5-year LOR 9x5 NBD	41C9170
Combo II Ultrabay Slim Drive (flat bezel)	40Y8621	ThinkPad 90W AC/DC Combo Adapter	40Y7630	ThinkPlus 2-year P&L P/U Depot	41C9171
ThinkPad DVD Ultrabay Slim Burner (flat)	41N5643	ThinkPad Carrying Case - Expander	10K0207	ThinkPlus 2-year P&L P/U Depot	41C9172
160GB Disk 9.5mm SATA150 (7200 rpm)	41N5737	ThinkPad Carrying Case - Organizer	73P3597	ThinkPlus 3-year P&L P/U Depot	41C9173
USB 2.0 Security Memory Key 4GB	41U5120	ThinkPad Carrying Case - Backpack	73P3598	ThinkPlus 3-year P&L P/U Depot	41C9174
USB 2.0 Super Multi-Burner Drive	41N5565	Kensington® MicroSaver® Security Cable	73P3599	ThinkPlus 4-year P&L P/U Depot	41C9175
ExpressCard Gemplus Smart Card Reader	41N3043	ThinkVision® L171p 17" LCD Monitor	9417HC2	ThinkPlus 5-year P&L P/U Depot	41C9176
11a/b/g Wireless Mini PCI Express Adpr	40Y7026	ThinkVision L190x 19" LCD Monitor	4439HB2	ThinkPlus 5-year P&L P/U Depot	41C9177
ThinkPad Essential Port Replicator	250510W	ThinkVision L193p 19" LCD Monitor	4431HB2	Other accessories on O-T60 sheet	
ThinkPad Advanced Mini Dock	250410U	Lenovo M500 Projector	0037A05	Other accessories at <a href="http://lenovo.com/accessories">lenovo.com/accessories</a>	
ThinkPad Advanced Dock	250310U				

See footnotes for important warranty information

US models announced Jan 31, June 20, or July 11, 2006

US models withdrawn effective Oct 2006, Sept 2007, or Dec 2007

\* Powered by Intel Centrino® mobile technology

\* Powered by Intel Centrino® Duo mobile technology

© Lenovo

(DV1-8) December 2007



# ThinkPad® T60 (1953 and 2623) - TopSeller - withdrawn

Created by Lenovo Training Solutions  
Personal Systems Reference (PSREF)

Type-model	Processor	Speed GHz	Memory	Screen	Graphics controller memory	Disk SATA GB <sup>8</sup> rpm	EIDE optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN wireless tooth	Bat-tery set	Limited warranty <sup>12</sup>	Avail date
T60 1953-DDU	Core™ 2 Duo T5500	1.66	512M	14.1" XGA	GMA 60GB	5400	Combo	*Intel 11a/b/g <sup>32</sup>		GM 6	1-yr	Oct 06
T60 2623-KEU	Core 2 Duo T5600	1.83	1GB	14.1" SXGA+	64MB	80GB 5400	DVD±RW	*Intel 11a/b/g	Blue	PM 6	3-yr	Oct 06
T60 2623-KFU	Core 2 Duo T7200	2.00	1GB	14.1" SXGA+	128MB	120GB 5400	DVD±RW	*Intel 11a/b/g	Verizon Blue	PM 9	3-yr	Oct 06

- These small and medium business (SMB) models are part of the US TopSeller™ Program
- These models have a 1-year or 3-year limited warranty

Positioning Processor	<i>Premiere performance; two spindles</i> <b>Intel® Core™ 2 Duo processor T5500, T5600, or T7200</b> with dual-core, Intel 64 Technology, Enhanced Intel SpeedStep™ technology <sup>1</sup> , Execute Disable Bit, and 667MHz system bus; <i>T5500/T5600: 2MB shared L2 cache; T7200: 4MB shared L2 cache</i> <b>512MB or 1GB</b> std / 4GB max <sup>31</sup> / PC2-5300 667MHz DDR2 / non-parity / CL5 / dual-channel capable / two 200-pin SO-DIMM sockets / standard memory in 1 socket / 1 socket available										
Memory	<b>512MB or 1GB</b> std / 4GB max <sup>31</sup> / PC2-5300 667MHz DDR2 / non-parity / CL5 / dual-channel capable / two 200-pin SO-DIMM sockets / standard memory in 1 socket / 1 socket available										
Diskette drive EIDE Combo Ultrabay Slim Serial ATA disk (SATA150)	None standard / use optional USB-based diskette drive <i>Some: DVD-ROM/CD-RW / 24X/24X/24X/8X<sup>21</sup> speed / removable from Ultrabay Slim</i> <i>Some: DVD burner / Super Multi-Burner (40Y8623) dual-layer, removable Ultrabay Slim</i> <i>Some: One modular bay for interchangeable devices (right side) / 9.5mm high bay / flat bezel</i> <b>60GB<sup>8</sup></b> (5400 rpm), <b>80GB</b> (5400 rpm), or <b>120GB</b> (5400 rpm) / 9.5mm high / removable, upgradable / 9.5mm high bay / supports 2nd disk / <b>ThinkPad Shock Mounted Hard Drive / Active Protection System™</b>										
Display	<i>Some: 14.1"</i> (358.1mm) <b>XGA (1024x768) TFT color</b> / 150 nits / anti-glare <i>Some: 14.1"</i> (358.1mm) <b>SXGA+ (1400x1050) TFT color</b> / 150 nits / anti-glare										
Graphics	<i>Some: Intel Graphics Media Accelerator 950 / integrated in 945GM / 250MHz</i> <i>Some: ATI® MOBILITY™ Radeon™ X1300 M52 / PCI Express x16 / 64MB memory</i> <i>Some: ATI MOBILITY Radeon X1400 M54 / PCI Express x16 / 128MB memory</i> <i>All: DVI pass-through support to optional Advanced Mini Dock or Advanced Dock</i>										
Keyboard TrackPoint® Touch pad ThinkLight™	89-key / ThinkVantage button / spill-resistant / multimedia Fn keys / Windows, Appl keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar™, magnifying glass UltraNav™ multi-pointing system / touch pad below keyboard / Tap Zones Illuminates the keyboard to improve visibility in low-light conditions										
Dimensions <sup>3</sup> Weight <sup>2</sup> Case material Battery - type Battery - life <sup>10</sup>	<i>14.1" models (WxDxH): 12.2" x 10.0" x 1.0-1.2"; 311mm x 255mm x 26.6-31mm</i> with optical drive and battery: <i>14.1" models: up to 5.5 lb (2.5kg)</i> <i>14.1": magnesium composite in top cover, CFRP bottom cover</i> Lithium Ion <b>6-cell</b> or <b>9-cell</b> / supports unique 2nd battery in Ultrabay Slim <i>6-cell: up to 6.3 hr; 9-cell: up to 6.8 hr; 9-cell plus Ultrabay battery: up to 7.8 hr</i>										
Architecture	<i>Some: Mobile Intel 945GM Express Chipset / 82945GM Graphics Memory Cont Hub</i> <i>Some: Mobile Intel 945PM Express Chipset / 82945PM Memory Controller Hub</i> <i>All: 82801GBM ICH7-M I/O Controller Hub (SATA300, ATA-100 EIDE, PCI Express x1, PCI bus, USB, LPC interface, [Bluetooth], [fingerprint]) / PCI bus (TI® PCI1512 CardBus controller) / LPC bus (NS PC87382 Super I/O, Atmel® 75C3203)</i>										
PC Card Std slot ExpressCard slot Ports	One Type I or Type II slot / CardBus 32-bit / integrated door One ExpressCard/34 or ExpressCard/54 / PCI Express x1 or USB 2.0 / integrated door Three USB 2.0 / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / no keyboard, mouse, serial ports, parallel port, 1394, or S-video (use USB)										
Wireless antenna Mini PCI Express Intel 11a/b/g <sup>32</sup> WWAN <sup>16</sup>	UltraConnect™ Antenna built into the display cover / on-off switch for all wireless radios Two Mini PCI Express slots / only 802.11 wireless is customer upgradable 11a/b/g wireless <sup>4</sup> , Mini PCI Express adapter, Intel PRO/Wireless 3945ABG <i>Some: Wireless WAN, Sierra Wireless 1xEV-DO Network Adapter, Mini PCIe Adapter, EV-DO/1xRTT, WWAN antenna on display, service contract reqd with Verizon®</i>										
Modem Bluetooth™ Ethernet Audio support	56K <sup>6</sup> V.90 (V.92-designed <sup>29</sup> ) modem in Com Daughter Card socket / Conexant® chipset <i>Some: Bluetooth 2.0 wireless / USB 2.0 interface via ICH7-M / LED indicator</i> Gigabit ethernet on systemboard / Intel 82573L (MAC/PHY) / PCIe x1 / PXE High Definition (HD) Audio / AD1981HD codec / stereo speakers, 1 watt / volume up, down, mute buttons / internal microphone / microphone input jack / headphone jack										
Security Security chip Fingerprint reader	Power-on password / hard disk password / supervisor password / security keyhole <b>Trusted Platform Module</b> / Atmel chip / TCG 1.2-compliant <b>Fingerprint reader on palm rest</b> / swipe sensor / supports the security chip										
Limited warranty <sup>12</sup>	1953: 1-year - EasyServ™ <sup>19</sup> onsite pickup and delivery / service upgrades <sup>22</sup> available 2623: 3-year/1-year battery - EasyServ onsite pickup and delivery / srv upgrades <sup>22</sup> avail										
512MB PC2-5300 DDR2 CL5 SODIMM 1GB PC2-5300 DDR2 CL5 SODIMM 2GB PC2-5300 DDR2 SODIMM Serial Hard Drive Ultrabay Slim Adapter (flat) Combo II Ultrabay Slim Drive (flat bezel) ThinkPad DVD Ultrabay Slim Burner (flat) 160GB Disk 9.5mm SATA150 (5400 rpm) USB 2.0 Lenovo Webcam USB 2.0 Security Memory Key 4GB USB 2.0 Super Multi-Burner Drive 11a/b/g Wireless Mini PCI Express Adpr ThinkPad Essential Port Replicator ThinkPad Advanced Mini Dock ThinkPad Advanced Dock Other accessories on O-T60 sheet	40Y7733 40Y7734 40Y7735 40Y8725 40Y8621 41N5643 41N5692 40Y8519 41U5120 41N5565 40Y7026 250510W 250410U 250310U	T60 Series Li-Ion Battery 6-cell Z60m/T60/R60 Li-Ion Battery 9-cell Advanced Ultrabay Battery 3-cell ThinkPad 90W AC Adapter ThinkPad 90W AC/DC Combo Adapter ThinkPad Carrying Case - Expander ThinkPad Carrying Case - Organizer ThinkPad Carrying Case - Backpack Carrying Case - Leather Attache Kensington MicroSaver Security Cable Lenovo L192 Wide 19" Monitor (black) ThinkVision® L201p 20.1" Monitor (blk) Lenovo M500 Projector Lenovo C500 Projector Other accessories at <a href="http://lenovo.com/accessories">lenovo.com/accessories</a>	40Y6799 40Y6797 40Y6789 40Y7659 40Y7630 73P3597 73P3598 73P3599 73P3600 73P2582 6920AB1 9220HB1 0037A05 0039A05	Supports ThinkVantage® technologies 90-watt AC adapter (discrete graphics) ThinkPad Roll Cage (one-piece magnesium frame) RoHS-compliant International Warranty Service <sup>17</sup> 24 hour x 7 day <sup>18</sup> toll-free warranty support during the warranty <sup>12</sup> ThinkPlus™ options at <a href="http://lenovo.com/thinkplus/warranty">lenovo.com/thinkplus/warranty</a> Post-warranty annual maintenance agreements at <a href="http://lenovo.com/thinkplus/warranty">lenovo.com/thinkplus/warranty</a>							

See footnotes for important warranty information  
US models announced October 17, 2006  
US models withdrawn effective September 2007

\* Powered by Intel Centrino® Duo mobile technology

# ThinkPad® T60 (1953 and 2623) - TopSeller (January 2007) - withdrawn

Created by Lenovo Training Solutions  
Personal Systems Reference (PSREF)

Type-model	Processor	GHz	Memory	Screen	Graphics controller memory	SATA disk GB <sup>8</sup>	EIDE optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN wireless tooth	Blue-Chip-set	Battery cells	Vista preload	Limited warranty <sup>12</sup>	Avail date
1953-P3U	Core™ 2 Duo T5500	1.66	1GB	14.1" XGA	GMA	60GB	Combo	*Intel 11a/b/g <sup>32</sup>		GM	6	Business	1-yr	Jan 07
2623-P2U	Core 2 Duo T5600	1.83	1GB	14.1" SXGA+	64MB	80GB	DVD±RW	*Intel 11a/b/g		Blue PM	6	Business	3-yr	Jan 07
2623-P3U	Core 2 Duo T7200	2.00	1GB	14.1" SXGA+	128MB	120GB	DVD±RW	*Intel 11a/b/g	Verizon	Blue PM	9	Business	3-yr	Jan 07
2623-QWU	Core 2 Duo T7200	2.00	1GB	14.1" SXGA+	128MB	120GB	DVD±RW	*Intel 11a/b/g		Blue PM	9	Ultimate	3-yr	Mar 07
<ul style="list-style-type: none"> <li>• <b>These small and medium business (SMB) models are part of the US TopSeller™ Program</b></li> <li>• <b>These models have a 1-year or 3-year limited warranty</b></li> </ul>														
Positioning Processor	<i>Premiere performance; two spindles</i> <b>Intel® Core™ 2 Duo processor T5500, T5600, or T7200</b> with dual-core, Intel 64 Technology, Enhanced Intel SpeedStep™ technology <sup>1</sup> , Execute Disable Bit, and 667MHz system bus; <i>T5500/T5600: 2MB shared L2 cache; T7200: 4MB shared L2 cache</i> <b>1GB</b> std / 4GB max <sup>31</sup> / PC2-5300 667MHz DDR2 / non-parity / CL5 / dual-channel capable / two 200-pin SO-DIMM sockets / standard memory in 1 socket / 1 socket available <i>1953-P3U: standard memory in both sockets; no sockets available; Others: standard memory in 1 socket; 1 socket available</i>													<b>Preloaded operating system<sup>20</sup></b> - Some: Microsoft® Windows® Vista™ Business Edition (32-bit) - Some: Microsoft Windows Vista Ultimate Edition (32-bit) ⇨ 2623-P2U: Vista Basic logo ⇨ Others: Vista Premium logo  <b>Preloaded applications<sup>14</sup> (all)</b> • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center with Away Manager • ThinkVantage System Update • Norton Internet Security™ (90 days of virus definitions) • Diskeeper® Home • PC-Doctor™ (diagnostics) • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader • Picasa from Google • Fingerprint Software (fingerprint models) • Microsoft Office 2007 Trial  <b>License - CD not included (all)</b> - Lotus® Notes® Stand-alone Client
Memory	None standard / use optional USB-based diskette drive Some: DVD-ROM/CD-RW / 24X/24X/8X <sup>21</sup> speed / removable from Ultrabay Slim Some: DVD burner / Super Multi-Burner (40Y8623) dual-layer, removable Ultrabay Slim One modular bay for interchangeable devices (right side) / 9.5mm high bay / flat bezel <b>60GB<sup>9</sup></b> (5400 rpm), <b>80GB</b> (5400 rpm), or <b>120GB</b> (5400 rpm) / 9.5mm high / removable, upgradable / 9.5mm high bay / supports 2nd disk / <b>ThinkPad Shock Mounted Hard Drive / Active Protection System™</b>													
Diskette drive	None standard / use optional USB-based diskette drive													
EIDE Combo	Some: DVD-ROM/CD-RW / 24X/24X/8X <sup>21</sup> speed / removable from Ultrabay Slim													
EIDE DVD±RW	Some: DVD burner / Super Multi-Burner (40Y8623) dual-layer, removable Ultrabay Slim													
Ultrabay Slim	One modular bay for interchangeable devices (right side) / 9.5mm high bay / flat bezel													
Serial ATA disk (SATA150)	<b>60GB<sup>9</sup></b> (5400 rpm), <b>80GB</b> (5400 rpm), or <b>120GB</b> (5400 rpm) / 9.5mm high / removable, upgradable / 9.5mm high bay / supports 2nd disk / <b>ThinkPad Shock Mounted Hard Drive / Active Protection System™</b>													
Display	Some: <b>14.1"</b> (358.1mm) <b>XGA (1024x768) TFT color</b> / 150 nits / anti-glare Some: <b>14.1"</b> (358.1mm) <b>SXGA+ (1400x1050) TFT color</b> / 150 nits / anti-glare													
Graphics	Some: <b>Intel Graphics Media Accelerator 950</b> / integrated in 945GM / 250MHz Some: <b>ATI MOBILITY™ Radeon™ X1300 M52</b> / PCI Express x16 / <b>64MB</b> memory Some: <b>ATI MOBILITY Radeon X1400 M54</b> / PCI Express x16 / <b>128MB</b> memory All: DVI pass-through support to optional Advanced Mini Dock or Advanced Dock													
Keyboard	89-key / ThinkVantage button / spill-resistant / multimedia Fn keys / Windows, Appl keys													
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar <sup>13</sup> , magnifying glass													
Touch pad	UltraNav™ multi-pointing system / touch pad below keyboard / Tap Zones													
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions													
Dimensions <sup>3</sup>	<b>14.1" models (WxDxH): 12.2" x 10.0" x 1.0-1.2"</b> ; 311mm x 255mm x 26.6-31mm													
Weight <sup>2</sup>	with optical drive and battery: <b>14.1" models: up to 5.5 lb (2.5kg)</b>													
Case material	<b>14.1"</b> : magnesium composite in top cover, CFRP bottom cover													
Battery - type	Lithium Ion <b>6-cell</b> or <b>9-cell</b> / supports unique 2nd battery in Ultrabay Slim													
Battery - life <sup>10</sup>	<b>6-cell: up to 6.3 hr; 9-cell: up to 6.8 hr; 9-cell plus Ultrabay battery: up to 7.8 hr</b>													
Architecture	Some: <b>Mobile Intel 945GM Express Chipset</b> / 82945GM Graphics Memory Cont Hub Some: <b>Mobile Intel 945PM Express Chipset</b> / 82945PM Memory Controller Hub All: 82801GBM ICH7-M I/O Controller Hub (SATA300, ATA-100 EIDE, PCI Express x1, PCI bus, USB, LPC interface, [Bluetooth], [fingerprint]) / PCI bus (TI® PCI1512 CardBus controller) / LPC bus (NS PC87382 Super I/O, Atmel® 75C3203)													
PC Card Std slot	One Type I or Type II slot / CardBus 32-bit / integrated door													
ExpressCard slot	One ExpressCard/34 or ExpressCard/54 / PCI Express x1 or USB 2.0 / integrated door													
Ports	Three USB 2.0 / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / no keyboard, mouse, serial ports, parallel port, 1394, or S-video (use USB)													
Wireless antenna	UltraConnect™ Antenna built into the display cover / on-off switch for all wireless radios													
Mini PCI Express	Two Mini PCI Express slots / only 802.11 wireless is customer upgradable													
Intel 11a/b/g <sup>32</sup> WWAN <sup>16</sup>	11a/b/g wireless <sup>4</sup> , Mini PCI Express adapter, Intel PRO/Wireless 3945ABG Some: Wireless WAN, Sierra Wireless 1xEV-DO Network Adapter, Mini PCIe Adapter, EV-DO/1xRTT, WWAN antenna on display, service contract reqd with Verizon®													
Modem	56K <sup>6</sup> V.90 (V.92-designed <sup>29</sup> ) modem in Com Daughter Card socket / Conexant® chipset													
Bluetooth™	Some: Bluetooth 2.0 wireless / USB 2.0 interface via ICH7-M / LED indicator													
Ethernet	Gigabit ethernet on systemboard / Intel 82573L (MAC/PHY) / PCIe x1 / PXE													
Audio support	High Definition (HD) Audio / AD1981HD codec / stereo speakers, 1 watt / volume up, down, mute buttons / internal microphone / microphone input jack / headphone jack													
Security	Power-on password / hard disk password / supervisor password / security keyhole													
Security chip	<b>Trusted Platform Module</b> / Atmel chip / TCG 1.2-compliant													
Fingerprint reader	<b>Fingerprint reader on palm rest</b> / swipe sensor / supports the security chip													
Limited warranty <sup>12</sup>	1953: 1-year - EasyServ™ <sup>19</sup> onsite pickup and delivery / service upgrades <sup>22</sup> available 2623: 3-year/1-year battery - EasyServ onsite pickup and delivery / srv upgrades <sup>22</sup> avail													
Supports ThinkVantage® technologies														
512MB PC2-5300 DDR2 CL5 SODIMM	40Y7733	T60 Series Li-Ion Battery 6-cell	40Y6799	90-watt AC adapter (discrete graphics)										
1GB PC2-5300 DDR2 CL5 SODIMM	40Y7734	Z60m/T60/R60 Li-Ion Battery 9-cell	40Y6797	ThinkPad Roll Cage (one-piece magnesium frame)										
2GB PC2-5300 DDR2 SODIMM	40Y7735	Advanced Ultrabay Battery 3-cell	40Y6789	RoHS-compliant										
Serial Hard Drive Ultrabay Slim Adapter (flat)	40Y8725	ThinkPad 90W AC Adapter	40Y7659	International Warranty Service <sup>17</sup>										
Combo II Ultrabay Slim Drive (flat bezel)	40Y8621	ThinkPad 90W AC/DC Combo Adapter	40Y7630	24 hour x 7 day <sup>18</sup> toll-free warranty support during the warranty <sup>12</sup>										
ThinkPad DVD Ultrabay Slim Burner (flat)	41N5643	ThinkPad Carrying Case - Organizer	73P3598	ThinkPlus™ options at										
160GB Disk 9.5mm SATA150 (5400 rpm)	41N5692	ThinkPad Carrying Case - Backpack	73P3599	<b>lenovo.com/thinkplus/warranty</b>										
USB 2.0 Super Multi-Burner Drive	41N5565	Lenovo L192 Wide 19" Monitor (black)	6920AB1	Post-warranty annual maintenance agreements at										
11a/b/g Wireless Mini PCI Express Adpr	40Y7026	Lenovo D221 Wide 22" Monitor	6622HB1	<b>lenovo.com/thinkplus/warranty</b>										
ThinkPad Essential Port Replicator	250510W	ThinkVision® L201p 20.1" Monitor (blk)	9220HB1											
ThinkPad Advanced Mini Dock	250410U	Lenovo M500 Projector	0037A05											
ThinkPad Advanced Dock	250310U	Lenovo C500 Projector	0039A05											
Other accessories on O-T60 sheet	Other accessories at <b>lenovo.com/accessories</b>													

See footnotes for important warranty information  
US models announced January 30 or March 27, 2007  
US models withdrawn effective September 2007

\* Powered by Intel Centrino® Duo mobile technology

# ThinkPad® T60 and T60p (2623) - TopSeller - withdrawn

Personal Systems Reference (PSREF)

Type-model	Processor	Speed GHz	Memory	Screen	Graphics controller memory	Disk SATA GB <sup>3</sup> rpm	EIDE optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN wireless	Blue-tooth	Bat-tery	Limited warranty <sup>12</sup>	Avail date
T60	2623-D2U	Core Duo T2300	1.66	512MB	14.1" SXGA+	64MB	80GB 5400	DVD±RW	11a/b/g <sup>32</sup>	Verizon	Blue	9-cell 3-yr	Feb 06
T60	2623-D3U	Core Duo T2500	2.00	1GB	15.0" SXGA+	128MB	100GB 5400	DVD±RW *	Intel 11a/b/g <sup>32</sup>	Verizon	Blue	9-cell 3-yr	Feb 06
T60	2623-D4U	Core Duo T2300	1.66	512MB	14.1" SXGA+	64MB	80GB 5400	Combo *	Intel 11a/b/g			6-cell 3-yr	Feb 06
T60	2623-D5U	Core Duo T2300	1.66	512MB	14.1" XGA	64MB	60GB 5400	Combo *	Intel 11a/b/g	Verizon		6-cell 3-yr	Feb 06
T60	2623-D6U	Core Duo T2400	1.83	512MB	14.1" SXGA+	64MB	80GB 5400	DVD±RW *	Intel 11a/b/g		Blue	6-cell 3-yr	Feb 06
T60	2623-D7U	Core Duo T2500	2.00	512MB	14.1" SXGA+	128MB	100GB 5400	DVD±RW *	Intel 11a/b/g	Verizon	Blue	9-cell 3-yr	Feb 06
T60p	2623-D8U	Core Duo T2500	2.00	1GB	14.1" SXGA+	256MB	100GB 7200	DVD±RW *	Intel 11a/b/g	Verizon	Blue	9-cell 3-yr	Feb 06
T60	2623-D9U	Core Duo T2300	1.66	512MB	15.0" XGA	64MB	60GB 5400	Combo *	Intel 11a/b/g			6-cell 3-yr	Feb 06
T60	2623-DAU	Core Duo T2400	1.83	512MB	15.0" XGA	64MB	80GB 5400	Combo *	Intel 11a/b/g			6-cell 3-yr	Feb 06
T60	2623-DBU	Core Duo T2400	1.83	512MB	15.0" SXGA+	64MB	80GB 5400	Combo *	Intel 11a/b/g	Verizon	Blue	6-cell 3-yr	Feb 06
T60	2623-DCU	Core Duo T2500	2.00	512MB	15.0" SXGA+	128MB	100GB 5400	DVD±RW *	Intel 11a/b/g	Verizon	Blue	9-cell 3-yr	Feb 06
T60p	2623-DDU	Core Duo T2500	2.00	1GB	15.0" UXGA	256MB	100GB 7200	DVD±RW *	Intel 11a/b/g	Verizon	Blue	9-cell 3-yr	Feb 06

- These small and medium business (SMB) models are part of the US TopSeller™ Program
- These 2623 models have a 3-year limited warranty

Positioning Processor	<i>Premiere performance; two spindles</i> <b>Intel® Core™ Duo processor T2300 (1.66GHz), T2400 (1.83GHz), or T2500 (2.00GHz)</b> with dual-core, Enhanced Intel SpeedStep™ technology <sup>1</sup> , Execute Disable Bit, 667MHz system bus, and 2MB shared L2 cache	<b>SOFTWARE<sup>14</sup></b> <b>Windows XP Professional</b> - Microsoft® Windows® XP Professional <sup>20</sup> (Service Pack 2) ⇨ Disk-to-Disk Recovery (in hidden protected area)
Memory	<b>512MB or 1GB</b> std / 4GB max <sup>31</sup> / PC2-5300 667MHz DDR2 / non-parity / CL5 / dual channel capable / two 200-pin SO-DIMM sockets / std mem in 1 socket / 1 socket avail	<b>Preloaded</b> • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center with Maintenance Manager • ThinkVantage System Update • System Migration Assistant • Symantec® Client Security™ • Diskeeper® Lite • PC-Doctor™ (diagnostics) • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader • Google Toolbar • Google Desktop • Picasa from Google • Fingerprint Software • Multimedia Center for Think Offerings • Sonic RecordNOW and Drive Letter Access (combo, DVD±RW) • InterVideo WinDVD (combo, DVD±RW models) • InterVideo WinDVD Creator (DVD±RW models)
Diskette drive	None standard / use optional USB-based diskette drive	<b>License - CD not included</b> - Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client
EIDE Combo	<i>Some:</i> DVD-ROM/CD-RW / 24X/24X/24X/8X <sup>21</sup> speed / removable from Ultrabay Slim	<b>Supports ThinkVantage® technologies</b> 90-watt AC adapter (discrete graphics) ThinkPad Roll Cage (one-piece magnesium frame) RoHS-compliant International Warranty Service <sup>17</sup> 24 hour x 7 day <sup>18</sup> toll-free warranty support during the warranty <sup>12</sup>
EIDE DVD±RW	<i>Some:</i> DVD burner / Super Multi-Burner (40Y8623) dual-layer, removable Ultrabay Slim	
Ultrabay Slim	One modular bay for interchangeable devices (right side) / 9.5mm high bay / flat bezel	
Serial ATA disk (SATA150)	<b>60GB<sup>8</sup></b> (5400 rpm), <b>80GB</b> (5400 rpm), or <b>100GB</b> (5400 or 7200 rpm) / 9.5mm high / removable, upgradable / 9.5mm high bay / supports 2nd disk / <b>ThinkPad Shock Mounted Hard Drive / Active Protection System™</b>	
Display	<i>Some:</i> <b>14.1"</b> (358.1mm) <b>XGA (1024x768) TFT color</b> / 150 nits / anti-glare <i>Some:</i> <b>14.1"</b> (358.1mm) <b>SXGA+ (1400x1050) TFT color</b> / 150 nits / anti-glare <i>Some:</i> <b>15.0"</b> (381.0mm) <b>SXGA+ (1400x1050) TFT color</b> / 200 nits / anti-glare FlexView display with wide viewing angle and high density using IPS technology <i>Some:</i> <b>15.0"</b> (381.0mm) <b>UXGA (1600x1200) TFT color</b> / 200 nits / anti-glare FlexView display with wide viewing angle and high density using IPS technology	
Graphics	<i>Some:</i> <b>ATI® MOBILITY™ Radeon™ X1300 M52</b> / PCI Express x16 / <b>64MB</b> GDDR1 <i>Some:</i> <b>ATI MOBILITY Radeon X1400 M54</b> / PCI Express x16 / <b>128MB</b> GDDR1 <i>Some:</i> <b>ATI MOBILITY FireGL™ V5200 M56</b> / PCI Express x16 / <b>256MB</b> GDDR3 <i>All:</i> DVI pass-through support to optional Advanced Mini Dock or Advanced Dock	
Keyboard	89-key / ThinkVantage button / spill-resistant / multimedia Fn keys / Windows, Appl keys	
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar <sup>13</sup> , magnifying glass	
Touch pad	UltraNav™ multi-pointing system / touch pad below keyboard / Tap Zones	
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions	
Dimensions <sup>3</sup>	<b>14.1" models (WxDxH):</b> 12.4" x 10.0" x 1.0-1.2"; 316mm x 255mm x 26.6-31mm <b>15.0" models (WxDxH):</b> 13.2" x 10.6" x 1.2-1.4"; 334mm x 268mm x 31-36mm with optical drive and battery: <b>14.1" models:</b> up to 5.5 lb (2.5kg); <b>15":</b> up to 6.3 lb (2.8 kg)	
Weight <sup>2</sup>	<b>14.1":</b> magnesium composite in top cover, CFRP bottom cover; <b>15":</b> CFRP in top/bottom	
Case material	Lithium Ion <b>6- or 9-cell</b> / supports unique 2nd battery in Ultrabay Slim	
Battery - type	<b>6-cell:</b> up to 6.0 hr; <b>9-cell:</b> up to 9.0 hr; <b>9-cell plus Ultrabay battery:</b> up to 11.5 hr	
Battery - life <sup>10</sup>		
Architecture	<b>Mobile Intel 945PM Express Chipset</b> / 82945PM Memory Controller Hub / 82801GBM ICH7-M I/O Controller Hub (SATA300, ATA-100 EIDE, PCI Express x1, PCI bus, USB, LPC interface, [Bluetooth], [fingerprint]) / PCI bus (TI® PCI1512 CardBus controller) / LPC bus (National Semiconductor® PC87382 Super I/O, Atmel® 97SC3203)	
PC Card Std slot	One Type I or Type II slot / CardBus 32-bit / integrated door	
ExpressCard slot	One ExpressCard/34 or ExpressCard/54 / PCI Express x1 or USB 2.0 / integrated door	
Ports	Three USB 2.0 / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / no keyboard, mouse, serial ports, parallel port, 1394, or S-video (use USB)	
Wireless antenna	UltraConnect™ Antenna built into the display cover / on-off switch for all wireless radios	
Mini PCI Express	Two Mini PCI Express slots / only 802.11 wireless is customer upgradable	
Intel 11a/b/g <sup>32</sup>	<i>Some:</i> 11a/b/g wireless <sup>4</sup> , Mini PCI Express adapter, Intel PRO/Wireless 3945ABG	
11a/b/g <sup>32</sup>	<i>Some:</i> 11a/b/g wireless <sup>4</sup> , ThinkPad 11a/b/g Mini PCIe Adapter, Atheros AR5006EX	
WWAN <sup>16</sup>	<i>Some:</i> Wireless WAN, Sierra Wireless 1xEV-DO Network Adapter, Mini PCIe Adapter, EV-DO/1xRTT, WWAN antenna on display, service contract reqd with Verizon® Wireless 56K <sup>6</sup> V.90 (V.92-designed <sup>29</sup> ) modem in Com Daughter Card socket / Conexant® chipset	
Modem	<i>Some:</i> Bluetooth 2.0 wireless / USB 2.0 interface via ICH7-M / LED indicator	
Bluetooth™	Gigabit ethernet on systemboard / Intel 82573L (MAC/PHY) / PCIe x1 / PXE	
Ethernet	High Definition (HD) Audio / AD1981HD codec / stereo speakers, 1 watt / volume up, down, mute buttons / internal microphone / microphone input jack / headphone jack	
Audio support	Power-on password / hard disk password / supervisor password / security keyhole	
Security	<b>Trusted Platform Module</b> / Atmel chip / TCG 1.2-compliant	
Security chip	<b>Fingerprint reader</b> / <b>Fingerprint reader on palm rest</b> / swipe sensor / supports the security chip	
Fingerprint reader		
Limited warranty <sup>12</sup>	<b>3-years/1-yr battery - EasyServ™.19</b> onsite pickup and delivery / service upgrades <sup>22</sup> avail	
512MB PC2-5300 DDR2 CL5 SODIMM	40Y7733	T60 Series Li-Ion Battery 6-cell 40Y6799
1GB PC2-5300 DDR2 CL5 SODIMM	40Y7734	Z60m/T60/R60 Li-Ion Battery 9-cell 40Y6797
ThinkPad DVD Ultrabay Slim Burner (flat)	41N5643	Advanced Ultrabay Battery 3-cell 40Y6789
160GB Disk 9.5mm SATA150 (7200 rpm)	41N5737	ThinkPad 90W AC Adapter 40Y7659
ThinkPad Advanced Mini Dock	250410U	ThinkPad Carrying Case - Expander 73P3597
ThinkPad Advanced Dock	250310U	Other accessories at <b>lenovo.com/accessories</b>
		<b>lenovo.com/thinkplus/warranty</b>

See footnotes for important warranty information

\* Powered by Intel Centrino® Duo mobile technology

© Lenovo

US models announced January 31, 2006

(DV1-9) December 2007

US models withdrawn effective Oct 2006, Sept 2007, or Dec 2007

# ThinkPad® T60 and T60p (2623) - TopSeller (June 2006) - withdrawn

Created by Lenovo Training Solutions  
Personal Systems Reference (PSREF)

Type-model	Processor	Speed GHz	Memory	Screen	Graphics controller memory	Disk SATA GB <sup>3</sup> rpm	EIDE optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN wireless	Blue-tooth	Bat-tery	Limited warranty <sup>12</sup>	Avail date
<b>T60</b> 2623-DGU	Core Duo T2300	1.66	512MB	14.1" SXGA+	64MB	80GB 5400	DVD±RW	11a/b/g <sup>32</sup>	AT&T		9-cell	3-yrs	Jun 06
<b>T60</b> 2623-DJU	Core Duo T2300	1.66	512MB	14.1" XGA	64MB	60GB 5400	Combo	* Intel 11a/b/g	AT&T		6-cell	3-yrs	Jun 06
<b>T60</b> 2623-DKU	Core Duo T2500	2.00	512MB	14.1" SXGA+	128MB	100GB 5400	DVD±RW	* Intel 11a/b/g	AT&T	Blue	9-cell	3-yrs	Jun 06
<b>T60p</b> 2623-DLU	Core Duo T2500	2.00	1GB	14.1" SXGA+	256MB	100GB 7200	DVD±RW	* Intel 11a/b/g	AT&T	Blue	9-cell	3-yrs	Jun 06
<b>T60</b> 2623-DQU	Core Duo T2300E	1.66	512MB	14.1" XGA	64MB	60GB 5400	Combo	* Intel 11a/b/g	Verizon		6-cell	3-yrs	July 06
<b>T60</b> 2623-DRU	Core Duo T2300E	1.66	512MB	14.1" SXGA+	64MB	80GB 5400	Combo	* Intel 11a/b/g			6-cell	3-yrs	July 06
<b>T60</b> 2623-DSU	Core Duo T2500	2.00	512MB	14.1" SXGA+	128MB	100GB 5400	DVD±RW	* Intel 11a/b/g	AT&T	Blue	9-cell	3-yrs	July 06
<b>T60</b> 2623-DTU	Core Duo T2300E	1.66	512MB	15.0" XGA	64MB	60GB 5400	Combo	* Intel 11a/b/g			6-cell	3-yrs	July 06
<b>T60</b> 2623-01U	Core Duo T2300E	1.66	1GB	15.0" SXGA+	128MB	120GB 5400	DVD±RW	* Intel 11a/b/g		Blue	6-cel	3-yrs	Jun 07

• These small and medium business (SMB) models are part of the US TopSeller™ Program  
 • These 2623 models have a 3-year limited warranty

Positioning Processor	<i>Premiere performance; two spindles</i> <b>Intel® Core™ Duo processor T2300, T2300E, or T2500</b> with dual-core, Enhanced Intel SpeedStep™ technology <sup>1</sup> , Execute Disable Bit, 667MHz system bus, and 2MB shared L2 cache	<b>SOFTWARE<sup>14</sup></b> <b>Windows XP Professional</b> - Microsoft® Windows® XP Professional <sup>20</sup> (Service Pack 2) ⇨ Disk-to-Disk Recovery (in hidden protected area) <b>Preloaded</b> • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center with Maintenance Manager • ThinkVantage System Update • Symantec® Client Security™ • Diskeeper® Lite • PC-Doctor™ (diagnostics) • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader • Google Toolbar • Google Desktop • Picasa from Google • Fingerprint Software • Multimedia Center for Think Offerings • Sonic RecordNOW and Drive Letter Access (combo, DVD±RW) • InterVideo WinDVD (combo, DVD±RW models) • InterVideo WinDVD Creator (DVD±RW models) <b>License</b> - CD not included - Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client	
Memory	<b>512MB</b> or <b>1GB</b> std / 4GB max <sup>31</sup> / PC2-5300 667MHz DDR2 / non-parity / CL5 / dual channel capable / two 200-pin SO-DIMM sockets / std mem in 1 socket / 1 socket avail		
Diskette drive	None standard / use optional USB-based diskette drive		
EIDE Combo	<i>Some:</i> DVD-ROM/CD-RW / 24X/24X/24X/8X <sup>21</sup> speed / removable from Ultrabay Slim		
EIDE DVD±RW	<i>Some:</i> DVD burner / Super Multi-Burner (40Y8623) dual-layer, removable Ultrabay Slim		
Ultrabay Slim	One modular bay for interchangeable devices (right side) / 9.5mm high bay / flat bezel		
Serial ATA disk (SATA150)	<b>60GB<sup>8</sup></b> (5400 rpm), <b>80GB</b> (5400 rpm), <b>100GB</b> (5400 or 7200 rpm), <b>120GB</b> (5400 rpm) / 9.5mm high / removable, upgradable / 9.5mm high bay / supports 2nd disk / <b>ThinkPad Shock Mounted Hard Drive / Active Protection System™</b>		
Display	<i>Some:</i> <b>14.1"</b> (358.1mm) <b>XGA (1024x768) TFT color</b> / 150 nits / anti-glare <i>Some:</i> <b>14.1"</b> (358.1mm) <b>SXGA+ (1400x1050) TFT color</b> / 150 nits / anti-glare <i>Some:</i> <b>15.0"</b> (381.0mm) <b>XGA (1024x768) TFT color</b> / 150 nits / anti-glare <i>Some:</i> <b>15.0"</b> (381.0mm) <b>SXGA+ (1400x1050) TFT color</b> / 200 nits / anti-glare / FlexView display with wide viewing angle and high density using IPS technology		
Graphics	<i>Some:</i> <b>ATI® MOBILITY™ Radeon™ X1300 M52</b> / PCI Express x16 / <b>64MB GDDR1</b> <i>Some:</i> <b>ATI MOBILITY Radeon X1400 M54</b> / PCI Express x16 / <b>128MB GDDR1</b> <i>Some:</i> <b>ATI MOBILITY FireGL™ V5200 M56</b> / PCI Express x16 / <b>256MB GDDR3</b> All: DVI pass-through support to optional Advanced Mini Dock or Advanced Dock		
Keyboard TrackPoint® Touch pad ThinkLight™	89-key / ThinkVantage button / spill-resistant / multimedia Fn keys / Windows, Appl keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar <sup>13</sup> , magnifying glass UltraNav™ multi-pointing system / touch pad below keyboard / Tap Zones Illuminates the keyboard to improve visibility in low-light conditions		
Dimensions <sup>3</sup>	<i>14.1" models (WxDxH):</i> 12.2" x 10.0" x 1.0-1.2"; 311mm x 255mm x 26.6-31mm <i>15.0" models (WxDxH):</i> 13.0" x 10.6" x 1.2-1.4"; 329mm x 268mm x 31-36mm		
Weight <sup>2</sup>	with optical drive and battery: <i>14.1" models:</i> up to 5.5 lb (2.5kg); <i>15":</i> up to 6.3 lb (2.8 kg)		
Case material	<i>14.1":</i> magnesium composite in top cover, CFRP bottom cover; <i>15":</i> CFRP in top/bottom)		
Battery - type	Lithium Ion <b>6-</b> or <b>9-cell</b> / supports unique 2nd battery in Ultrabay Slim		
Battery - life <sup>10</sup>	<i>6-cell:</i> up to 6.0 hr; <i>9-cell:</i> up to 9.0 hr; <i>9-cell plus Ultrabay battery:</i> up to 11.5 hr		
Architecture	<b>Mobile Intel 945PM Express Chipset</b> / 82945PM Memory Controller Hub / 82801GBM ICH7-M I/O Controller Hub (SATA300, ATA-100 EIDE, PCI Express x1, PCI bus, USB, LPC interface, [Bluetooth], [fingerprint]) / PCI bus (TI® PCI1512 CardBus controller) / LPC bus (National Semiconductor® PC87382 Super I/O, Atmel® 97SC3203)		
PC Card Std slot	One Type I or Type II slot / CardBus 32-bit / integrated door		
ExpressCard slot	One ExpressCard/34 or ExpressCard/54 / PCI Express x1 or USB 2.0 / integrated door		
Ports	Three USB 2.0 / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / no keyboard, mouse, serial ports, parallel port, 1394, or S-video (use USB)		
Wireless antenna	UltraConnect™ Antenna built into the display cover / on-off switch for all wireless radios		
Mini PCI Express	Two Mini PCI Express slots / only 802.11 wireless is customer upgradable		
Intel 11a/b/g <sup>32</sup>	<i>Some:</i> 11a/b/g wireless <sup>4</sup> , Mini PCI Express adapter, Intel PRO/Wireless 3945ABG		
11a/b/g <sup>32</sup>	<i>Some:</i> 11a/b/g wireless <sup>4</sup> , ThinkPad 11a/b/g Mini PCIe Adapter, Atheros AR5006EX		
WWAN <sup>16</sup>	<i>Some:</i> Wireless WAN, Sierra Wireless 1xEV-DO Network Adapter, Mini PCIe Adapter, EV-DO/1xRTT, WWAN antenna on display, service contract reqd with Verizon®		
WWAN <sup>23</sup>	<i>Some:</i> Wireless WAN, GPRS/EDGE/UMTS/HSDPA support, Mini PCIe adapter and SIM, WWAN antenna on display, service contract required with AT&T®		
Modem	56K <sup>6</sup> V.90 (V.92-designed <sup>29</sup> ) modem in Com Daughter Card socket / Conexant® chipset		
Bluetooth™	<i>Some:</i> Bluetooth 2.0 wireless / USB 2.0 interface via ICH7-M / LED indicator		
Ethernet	Gigabit ethernet on systemboard / Intel 82573L (MAC/PHY) / PCIe x1 / PXE		
Audio support	High Definition (HD) Audio / AD1981HD codec / stereo speakers, 1 watt / volume up, down, mute buttons / internal microphone / microphone input jack / headphone jack		
Security	Power-on password / hard disk password / supervisor password / security keyhole		
Security chip	<b>Trusted Platform Module</b> / Atmel chip / TCG 1.2-compliant		
Fingerprint reader	<b>Fingerprint reader on palm rest</b> / swipe sensor / supports the security chip		
Limited warranty <sup>12</sup>	<b>3-years/1-yr battery</b> - EasyServ™ <sup>19</sup> onsite pickup and delivery / service upgrades <sup>22</sup> avail		
1GB PC2-5300 DDR2 CL5 SODIMM	40Y7734	T60 Series Li-Ion Battery 6-cell	40Y6799
2GB PC2-5300 DDR2 SODIMM	40Y7735	Z60m/T60/R60 Li-Ion Battery 9-cell	40Y6797
Serial Hard Drive Ultrabay Slim Adapter(flat)	40Y8725	Advanced Ultrabay Battery 3-cell	40Y6789
ThinkPad DVD Ultrabay Slim Burner (flat)	41N5643	ThinkPad External Battery Charger	40Y7625
100GB Disk 9.5mm SATA150 (7200 rpm)	41N3013	ThinkPad 90W AC Adapter	40Y7659
Other accessories on O-T60 sheet		Other accessories at <a href="http://lenovo.com/accessories">lenovo.com/accessories</a>	
			ThinkPlus™ <sup>22</sup> 2-year LOR 9x5 NBD 41C9175
			ThinkPlus 3-year LOR 9x5 NBD 41C9176
			ThinkPlus 4-year LOR 9x5 NBD 41C9177
			ThinkPlus 5-year LOR 9x5 NBD 41C9179
			ThinkPlus 4-year P&L P/U Depot 41C9178
			ThinkPlus 5-year P&L P/U Depot 41C9180
			Post-warranty annual maintenance agreements at <a href="http://lenovo.com/thinkplus/warranty">lenovo.com/thinkplus/warranty</a>

See footnotes for important warranty information \* Powered by Intel Centrino® Duo mobile technology  
 US models announced June 20 or July 11, 2006 or July 24, 2007  
 US models withdrawn effective October 2006 or September 2007

© Lenovo  
 (DV1-10) September 2007

# ThinkPad® T60 15W - withdrawn

Created by Lenovo Training Solutions  
Personal Systems Reference (PSREF)

Type-model	Processor	GHz	Memory	Screen	Graphics controller	Disk SATA GB <sup>8</sup>	rpm	EIDE optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN wireless	Blue-tooth	Finger print reader	Bat-Chip set	Whorse (W) tery cells	Avail Gbl (G) Entry (E) date	
6369-6XU	Core 2 Duo T5500	1.66	512M	15.4" WXGA	GMA 40G	5400	DVD	*Intel 11a/b/g <sup>32</sup>					GM	6	G E	Dec06
6369-6FU	Core 2 Duo T5500	1.66	512M	15.4" WXGA	GMA 60G	5400	Combo	*Intel 11a/b/g				Finger	GM	6	G E	Dec06
6369-6RU	Core 2 Duo T7200	2.00	1GB	15.4" WXGA	GMA 80G	5400	Combo	*Intel 11a/b/g				Finger	GM	6	G	Dec06
8741-85U	Core 2 Duo T7200	2.00	1GB	15.4" WXGA	X1400	80G	5400	Combo	*Intel 11a/b/g		Blue	Finger	PM	6	G	Dec06
6369-3HU	Core 2 Duo T7200	2.00	1GB	15.4" WSXGA+	GMA 80G	5400	Combo	*Intel 11a/b/g				Finger	GM	6	G	Dec06
6369-38U	Core 2 Duo T7200	2.00	1GB	15.4" WSXGA+	GMA 80G	5400	Combo	*Intel 11a/b/g			Blue	Finger	GM	6		Dec06
8741-4GU	Core 2 Duo T7200	2.00	1GB	15.4" WSXGA+	X1400	80G	5400	Combo	*Intel 11a/b/g		Blue	Finger	PM	6	G	Dec06
6369-69U	Core 2 Duo T7200	2.00	1GB	15.4" WXGA	GMA 80G	5400	Combo	*Intel 11a/b/g			Blue	Finger	GM	6	G	Dec06
8741-55U	Core 2 Duo T7600	2.33	1GB	15.4" WSXGA+	X1400	120G	5400	DVD±RW	*Intel 11a/b/g		Blue	Finger	PM	9	G	Dec06
8741-4SU	Core 2 Duo T7400	2.16	1GB	15.4" WSXGA+	X1400	120G	5400	DVD±RW	*Intel 11a/b/g		Blue	Finger	PM	9	G	Dec06
8741-4RU	Core 2 Duo T7400	2.16	1GB	15.4" WSXGA+	X1400	120G	5400	DVD±RW	*Intel 11a/b/g	AT&T	Blue	Finger	PM	9		Dec06
8741-4YU	Core 2 Duo T7400	2.16	1GB	15.4" WSXGA+	X1400	120G	5400	DVD±RW	*Intel 11a/b/g	Verizon	Blue	Finger	PM	9		Dec06
8741-52U	Core 2 Duo T7600	2.33	1GB	15.4" WSXGA+	X1400	100G	7200	DVD±RW	*Intel 11a/b/g		Blue	Finger	PM	9	G	Dec06

Positioning Processor	<i>Premiere performance; two spindles</i> <b>Intel® Core™ 2 Duo processor T5500, T7200, T7400, or T7600</b> with dual-core, Intel 64 Technology, Enhanced Intel SpeedStep™ technology <sup>1</sup> , Execute Disable Bit, and 667MHz system bus / <i>T5500: 2MB L2 cache (shared); Others: 4MB L2 cache (shared)</i>	<b>SOFTWARE<sup>14</sup></b> <b>Windows XP Professional</b> - Microsoft® Windows® XP Professional <sup>20</sup> (Service Pack 2) ♦ Disk-to-Disk Recovery (in hidden protected area) <b>Preloaded</b> • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center with Away Manager • ThinkVantage System Update • Symantec® Client Security™ • Diskeeper® Lite • PC-Doctor™ (diagnostics) • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader • Google Toolbar • Google Desktop • Picasa from Google • Fingerprint Software (fingerprint models) • Multimedia Center for Think Offerings • Sonic RecordNOW and Drive Letter Access (combo, DVD±RW) • InterVideo WinDVD (combo, DVD±RW models) • InterVideo WinDVD Creator (DVD±RW models) <b>License</b> - CD not included - Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client
Memory	<b>512MB</b> or <b>1GB</b> std / 4GB max <sup>31</sup> / PC2-5300 667MHz DDR2 / non-parity / CL5 / dual-channel capable / two 200-pin SO-DIMM sockets / standard memory in 1 socket / 1 socket available	
Diskette drive	None standard / use optional USB-based diskette drive	
EIDE DVD	<i>Some: DVD-ROM / 24X-8X9 speed / single-layer / removable from Ultrabay™ Slim</i>	
EIDE Combo	<i>Some: DVD-ROM/CD-RW / 24X/24X/24X/8X<sup>21</sup> speed / removable from Ultrabay Slim</i>	
EIDE DVD±RW	<i>Some: DVD burner / Super Multi-Burner (40Y8623) dual-layer, removable Ultrabay Slim</i>	
Ultrabay Slim	One modular bay for interchangeable devices (right side) / 9.5mm high bay / flat bezel	
Serial ATA disk (SATA150)	<b>40GB<sup>8</sup></b> (5400 rpm), <b>60GB</b> (5400 rpm), <b>80GB</b> (5400 rpm), <b>100GB</b> (7200 rpm), or <b>120GB</b> (5400 rpm) / 9.5mm high / removable, upgradable, up to 9.5mm high bay / supports 2nd disk / <b>ThinkPad Shock Mounted Hard Drive / Active Protection System™</b>	
Widescreen display (anti-glare)	<i>Some: 15.4" (391mm) WXGA (1280x800) TFT color / 150 nits / 16:10 aspect ratio</i> <i>Some: 15.4" (391mm) WSXGA+ (1680x1050) TFT color / 200 nits / 16:10 aspect</i> <i>All: stainless steel hinges / one hand activates dual latches</i>	
Graphics	<i>Some: Intel Graphics Media Accelerator 950 / integrated in 945GM / 250MHz</i> <i>Some: ATI® MOBILITY™ Radeon™ X1400 / PCI Express x16 / 128MB memory</i> <i>All: DVI pass-through support to optional Advanced Mini Dock or Advanced Dock</i>	
Keyboard	89-key / ThinkVantage button / spill-resistant / multimedia Fn keys / Windows, Appl keys	
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar <sup>13</sup> , magnifying glass	
Touch pad	UltraNav™ multi-pointing system / touch pad below keyboard / Tap Zones	
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions	
Dimensions <sup>3</sup>	<i>15.4" models (WxDxH): 14.1" x 10.0" x 1.13–1.34"; 357.5mm x 255mm x 28.7–34mm</i> with optical drive and battery: up to 6.06 lb (2.75kg)	
Weight <sup>2</sup>		
Case material	Carbon-Fiber Reinforced Plastic (CFRP) in top/bottom	
Battery - type	Lithium Ion <b>6-cell</b> or <b>9-cell</b> / supports unique 2nd battery in Ultrabay Slim	
Battery - life <sup>10</sup>	<i>6-cell: up to 5.5 hr; 9-cell: up to 6.1 hr; 9-cell plus Ultrabay battery: up to 7.6 hr</i>	
Architecture	<i>Some: Mobile Intel 945GM Express Chipset / 82945GM Graphics Memory Cont Hub</i> <i>Some: Mobile Intel 945PM Express Chipset / 82945PM Memory Controller Hub</i> <i>All: 82801GBM ICH7-M I/O Controller Hub (SATA300, ATA-100 EIDE, PCI Express x1, PCI bus, USB, LPC interface, [Bluetooth], [fingerprint]) / PCI bus (T<sup>®</sup> PCI1512 CardBus controller) / LPC bus (NS PC87382 Super I/O, Atmel® 7SC3203)</i>	
PC Card Std slot	One Type I or Type II slot / CardBus 32-bit / integrated door	
ExpressCard slot	One ExpressCard/34 or ExpressCard/54 / PCI Express x1 or USB 2.0 / integrated door	
Ports	Three USB 2.0 / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / no keyboard, mouse, serial ports, parallel port, 1394, or S-video (use USB)	
Wireless antenna	UltraConnect™ Antenna built into the display cover / on-off switch for all wireless radios	
Mini PCI Express	Two Mini PCI Express slots / only 802.11 wireless is customer upgradable	
Intel 11a/b/g <sup>32</sup>	<i>Some: 11a/b/g wireless<sup>4</sup>, Mini PCI Express adapter, Intel PRO/Wireless 3945ABG</i>	
WWAN <sup>16</sup>	<i>Some: Wireless WAN, Sierra Wireless 1xEV-DO Network Adapter, Mini PCIe Adapter, EV-DO/1xRTT, retractable WWAN antenna, service contract reqd with Verizon®</i>	
WWAN <sup>23</sup>	<i>Some: Wireless WAN, GPRS/EDGE/UMTS/HSDPA support, Mini PCIe adapter and SIM, retractable WWAN antenna, service contract required with AT&amp;T®</i>	
Modem	56K <sup>6</sup> V.90 (V.92-designed <sup>29</sup> ) modem in Com Daughter Card socket / Conexant® chipset	
Bluetooth™	<i>Some: Bluetooth 2.0 wireless / USB 2.0 interface via ICH7-M / LED indicator</i>	
Ethernet	Gigabit ethernet on systemboard / Intel 82573L (MAC/PHY) / PCIe x1 / PXE	
Audio support	High Definition (HD) Audio / AD1981HD codec / stereo speakers, 1 watt / volume up, down, mute buttons / internal microphone / microphone input jack / headphone jack	
Security	Power-on password / hard disk password / supervisor password / security keyhole	
Security chip	<b>Trusted Platform Module</b> / Atmel chip / TCG 1.2-compliant	
Fingerprint reader	<i>Some: Fingerprint reader on palm rest / swipe sensor / supports the security chip</i>	
Limited warranty <sup>12</sup>	<b>3-years/1-yr battery</b> - EasyServ™ <sup>19</sup> onsite pickup and delivery / service upgrades <sup>22</sup> avail	
		Supports ThinkVantage® technologies 65-watt (GMA graphics) or 90-watt (ATI graphics) AC adapter ThinkPad Roll Cage (one-piece magnesium frame) RoHS-compliant International Warranty Service <sup>17</sup> 24 hour x 7 day <sup>18</sup> toll-free warranty support during the warranty <sup>12</sup> ThinkPlus™. <sup>22</sup> 2-year LOR 9x5 NBD 41C9175 ThinkPlus 3-year LOR 9x5 NBD 41C9176 ThinkPlus 5-year LOR 9x5 NBD 41C9179 Other ThinkPlus services at <a href="http://lenovo.com/thinkplus/warranty">lenovo.com/thinkplus/warranty</a>

See footnotes for important warranty information \* Powered by Intel Centrino® Duo mobile technology  
US models announced November 28 or December 19, 2006  
US models withdrawn effective September 2007

© Lenovo  
(CR2-1) September 2007

# ThinkPad® T60p 15W 8741 - withdrawn

Created by Lenovo Training Solutions  
Personal Systems Reference (PSREF)

Type-model	Processor	GHz	Memory	Screen	Graphics controller memory	Disk SATA GB <sup>8</sup> rpm	EIDE optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN Blue-tooth	Finger print reader	Bat-Chip set	Whorse (W) tery cells	Bl (G) Avail Entry (E) date
8741-C2U	Core 2 Duo T7400	2.16	2GB	15.4" WSXGA+	256MB	100G 7200	DVD±RW	*Intel 11a/b/g <sup>32</sup>	None	Blue Finger	PM	9	Dec06
8741-C3U	Core 2 Duo T7600	2.33	2GB	15.4" WSXGA+	256MB	100G 7200	DVD±RW	*Intel 11a/b/g	None	Blue Finger	PM	9	Dec06
8741-C4U	Core 2 Duo T7600	2.33	1GB	15.4" WSXGA+	256MB	100G 7200	DVD±RW	*Intel 11a/b/g	None	Blue Finger	PM	9	Dec06
8741-C5U	Core 2 Duo T7600	2.33	1GB	15.4" WSXGA+	256MB	100G 7200	DVD±RW	11a/b/g <sup>32</sup>	None	Blue Finger	PM	9	Dec06
Positioning Processor	<i>Premiere performance; two spindles</i> <b>Intel® Core™ 2 Duo processor T7400</b> or <b>T7600</b> with dual-core, Intel 64 Technology, Enhanced Intel SpeedStep™ technology <sup>1</sup> , Execute Disable Bit, and 667MHz system bus / 4MB L2 cache (shared)												
Memory	<b>1GB</b> or <b>2GB</b> std / 4GB max <sup>31</sup> / non-parity, dual-channel capable, two 200-pin SO-DIMM sockets; <i>Model C3U:</i> PC2-4200 533MHz DDR2; <i>Others:</i> PC2-5300 667MHz DDR2; <i>Italics:</i> standard memory in both sockets; no sockets available; <i>Non-italics:</i> standard memory in one socket; one socket available												
Diskette drive EIDE DVD±RW Ultrabay Slim Serial ATA disk (SATA150)	None standard / use optional USB-based diskette drive DVD burner / Super Multi-Burner (40Y8623) dual-layer, removable from Ultrabay Slim One modular bay for interchangeable devices (right side) / 9.5mm high bay / flat bezel <b>100GB<sup>9</sup></b> (7200 rpm) / 9.5mm high / removable, upgradable / 9.5mm high bay / supports 2nd disk / <b>ThinkPad Shock Mounted Hard Drive / Active Protection System™</b>												
Widescreen display	<b>15.4"</b> (391mm) <b>WSXGA+ (1680x1050) TFT color</b> / 200 nits / 16:10 aspect / anti-glare / stainless steel hinges / one hand activates dual latches												
Graphics	<b>ATI® MOBILITY™ FireGL™ V5250</b> / PCI Express x16 / <b>256MB</b> memory / DVI pass-through support to optional Advanced Mini Dock or Advanced Dock												
Keyboard TrackPoint® Touch pad ThinkLight™	89-key / ThinkVantage button / spill-resistant / multimedia Fn keys / Windows, Appl keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar <sup>13</sup> , magnifying glass UltraNav™ multi-pointing system / touch pad below keyboard / Tap Zones Illuminates the keyboard to improve visibility in low-light conditions												
Dimensions <sup>3</sup> Weight <sup>2</sup> Case material Battery - type Battery - life <sup>10</sup>	<i>15.4" models (WxDxH):</i> 14.1" x 10.0" x 1.13-1.34"; 357.5mm x 255mm x 28.7-34mm with optical drive and battery: up to 6.07 lb (2.76kg) Carbon-Fiber Reinforced Plastic (CFRP) in top/bottom Lithium Ion <b>9-cell</b> / supports unique 2nd battery in Ultrabay Slim <i>9-cell:</i> up to 5.7 hr; <i>9-cell plus Ultrabay battery:</i> up to 7.2 hr												
Architecture	<b>Mobile Intel 945PM Express Chipset</b> / 82945PM Memory Controller Hub / 82801GBM ICH7-M I/O Controller Hub (SATA300, ATA-100 EIDE, PCI Express x1, PCI bus, USB, LPC interface, [Bluetooth], [fingerprint]) / PCI bus (T <sup>®</sup> PCI1512 CardBus controller) / LPC bus (NS PC87382 Super I/O, Atmel <sup>®</sup> 7SC3203)												
PC Card Std slot ExpressCard slot Ports	One Type I or Type II slot / CardBus 32-bit / integrated door One ExpressCard/34 or ExpressCard/54 / PCI Express x1 or USB 2.0 / integrated door Three USB 2.0 / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / no keyboard, mouse, serial ports, parallel port, 1394, or S-video (use USB)												
Wireless antenna Mini PCI Express Intel 11a/b/g <sup>32</sup> 11a/b/g <sup>32</sup> WWAN <sup>16</sup>	UltraConnect™ Antenna built into the display cover / on-off switch for all wireless radios Two Mini PCI Express slots / only 802.11 wireless is customer upgradable <i>Some:</i> 11a/b/g wireless <sup>4</sup> , Mini PCI Express adapter, Intel PRO/Wireless 3945ABG <i>Some:</i> 11a/b/g wireless <sup>4</sup> , ThinkPad 11a/b/g Mini PCIe Adapter, Atheros AR5006EX None												
Modem Bluetooth™ Ethernet Audio support	56K <sup>6</sup> V.90 (V.92-designed <sup>29</sup> ) modem in Com Daughter Card socket / Conexant® chipset <i>Some:</i> Bluetooth 2.0 wireless / USB 2.0 interface via ICH7-M / LED indicator Gigabit ethernet on systemboard / Intel 82573L (MAC/PHY) / PCIe x1 / PXE High Definition (HD) Audio / AD1981HD codec / stereo speakers, 1 watt / volume up, down, mute buttons / internal microphone / microphone input jack / headphone jack												
Security Security chip Fingerprint reader	<b>Trusted Platform Module</b> / Atmel chip / TCG 1.2-compliant Power-on password / hard disk password / supervisor password / security keyhole <b>Trusted Platform Module</b> / Atmel chip / TCG 1.2-compliant <b>Fingerprint reader on palm rest</b> / swipe sensor / supports the security chip												
Limited warranty <sup>12</sup>	<b>3-years/1-yr battery - EasyServ™.19</b> onsite pickup and delivery / service upgrades <sup>22</sup> avail												
512MB PC2-5300 DDR2 CL5 SODIMM 1GB PC2-5300 DDR2 CL5 SODIMM 2GB PC2-5300 DDR2 SODIMM Serial/Parallel Port Bay Adapter (flat bezel) Serial Hard Drive Ultrabay Slim Adapter (flat) Combo II Ultrabay Slim Drive (flat bezel) ThinkPad DVD Ultrabay Slim Burner (flat) USB Gemplus GemPC Smart Card Reader USB 2.0 Lenovo Multimedia Headset USB 2.0 Lenovo Webcam USB 2.0 Security Memory Key 4GB USB 2.0 Portable 120GB Hard Disk USB 2.0 Super Multi-Burner Drive 11a/b/g Wireless Mini PCI Express Adpr ThinkPad Adjustable Notebook Stand ThinkPad Convertible Monitor Stand ThinkPad Essential Port Replicator ThinkPad Advanced Mini Dock ThinkPad Advanced Dock TrackPoint Cap Collection Other accessories on O-T60 sheet	T60 Series Li-Ion Battery 6-cell Z60m/T60/R60 Li-Ion Battery 9-cell Advanced Ultrabay Battery 3-cell ThinkPad External Battery Charger ThinkPad 65W AC Adapter ThinkPad 90W AC Adapter ThinkPad 90W AC/DC Combo Adapter ThinkPad Nylon Carrying Case ThinkPad Carrying Case - Expander ThinkPad Carrying Case - Organizer ThinkPad Carrying Case - BackPack Carrying Case - Leather Attache ThinkPad Women's Microfiber Tote Kensington® MicroSaver® Security Cable Lenovo L192 Wide 19" Monitor (black) Lenovo D221 Wide 22" Monitor ThinkVision® L192p 19" Monitor (black) ThinkVision L201p 20.1" Monitor (black) Lenovo M500 Projector Lenovo C500 Projector Other accessories at <a href="http://lenovo.com/accessories">lenovo.com/accessories</a>												
												90-watt AC adapter ThinkPad Roll Cage (one-piece magnesium frame) RoHS-compliant International Warranty Service <sup>17</sup> 24 hour x 7 day <sup>18</sup> toll-free warranty support during the warranty <sup>12</sup>	
												ThinkPlus™.22 2-year LOR 9x5 NBD 41C9175 ThinkPlus 3-year LOR 9x5 NBD 41C9176 ThinkPlus 4-year LOR 9x5 NBD 41C9177 ThinkPlus 5-year LOR 9x5 NBD 41C9179 ThinkPlus 4-year P&L P/U Depot 41C9178 ThinkPlus 5-year P&L P/U Depot 41C9180 Post-warranty annual maintenance agreements at <a href="http://lenovo.com/thinkplus/warranty">lenovo.com/thinkplus/warranty</a>	

See footnotes for important warranty information  
US models announced November 28, 2006  
US models withdrawn effective September 2007

\* Powered by Intel Centrino® Duo mobile technology

© Lenovo  
(CR2-2) September 2007

# ThinkPad® T60 and T60p 15W (6369 and 8741) - Education - withdrawn

Created by Lenovo Training Solutions  
Personal Systems Reference (PSREF)

Type-model	Processor	GHz	Memory	Screen	Graphics controller	Disk SATA GB <sup>8</sup> rpm	EIDE optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN wireless	Blue-tooth	Bat-Chip set	Limited warranty <sup>12</sup>	Avail date
<b>T60</b> 6369-6BU	Core 2 Duo T7200	2.00	1GB	15.4" WXGA	GMA	80GB 5400	Combo	*Intel 11a/b/g <sup>32</sup>	None	Blue	GM 6	EasyServ	Dec 06
<b>T60</b> 8741-49U	Core 2 Duo T7200	2.00	1GB	15.4" WSXGA+	X1400	100G 7200	DVD±RW	*Intel 11a/b/g	None	Blue	PM 6	EasyServ	Dec 06
<b>T60</b> 8741-4BU	Core 2 Duo T7200	2.00	1GB	15.4" WSXGA+	X1400	100G 7200	DVD±RW	*Intel 11a/b/g	None	Blue	PM 9	EasyServ	Dec 06
<b>T60</b> 8741-4PU	Core 2 Duo T7400	2.16	1GB	15.4" WSXGA+	X1400	100G 7200	DVD±RW	*Intel 11a/b/g	None	Blue	PM 9	EasyServ	Dec 06
<b>T60p</b> 8741-C6U	Core 2 Duo T7600	2.33	1GB	15.4" WSXGA+	V5250	100G 7200	DVD±RW	*Intel 11a/b/g	None	Blue	PM 9	EasyServ	Dec 06

• **These models have an EasyServ™<sup>19</sup> onsite pickup and delivery 3-year limited warranty**

These educational models are available only to public or private K-12 (or higher) accredited schools organized and operated exclusively for educational purposes for use by qualified students and teachers.

Positioning Processor	<i>Premiere performance; two spindles</i> <b>Intel® Core™ 2 Duo processor T7200, T7400, or T7600</b> with dual-core, Intel 64 Technology, Enhanced Intel SpeedStep™ technology <sup>1</sup> , Execute Disable Bit, and 667MHz system bus / 4MB L2 cache (shared)		<b>SOFTWARE<sup>14</sup></b> <b>Windows XP Professional</b> - Microsoft® Windows® XP Professional <sup>20</sup> (Service Pack 2) ⇨ Disk-to-Disk Recovery (in hidden protected area) <b>Preloaded</b> • Microsoft Office OneNote® 2003 • VitalSource Library education software • Adobe® Photoshop® Elements plus Adobe Premiere® Elements • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center with Away Manager • ThinkVantage System Update • Symantec® Client Security™ • Diskeeper® Lite • PC-Doctor™ (diagnostics) • ThinkPad Utilities (Power Manager and Presentation Director) • Fingerprint Software (fingerprint models) • Multimedia Center for Think Offerings • Sonic RecordNOW and Drive Letter Access (combo, DVD±RW) • InterVideo WinDVD (combo, DVD±RW models) • InterVideo WinDVD Creator (DVD±RW models) <b>CD included</b> • Adobe Photoshop Elements plus Adobe Premiere Elements • Microsoft Office OneNote 2003 <b>License</b> - CD not included - Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client  Supports ThinkVantage® technologies 65-watt (GMA graphics) or 90-watt (ATI graphics) AC adapter ThinkPad Roll Cage (one-piece magnesium frame) RoHS-compliant International Warranty Service <sup>17</sup> 24 hour x 7 day <sup>18</sup> toll-free warranty support during the warranty <sup>12</sup> ThinkPlus™, <sup>22</sup> 2-year LOR 9x5 NBD 41C9175 ThinkPlus 3-year LOR 9x5 NBD 41C9176 ThinkPlus 4-year LOR 9x5 NBD 41C9177 ThinkPlus 5-year LOR 9x5 NBD 41C9179 ThinkPlus 4-year P&L P/U Depot 41C9178 ThinkPlus 5-year P&L P/U Depot 41C9180 Post-warranty annual maintenance agreements at <a href="http://lenovo.com/thinkplus/warranty">lenovo.com/thinkplus/warranty</a>
Memory	<b>1GB</b> std / 4GB max <sup>31</sup> / PC2-5300 667MHz DDR2 / non-parity / CL5 / dual channel capable / two 200-pin SO-DIMM sockets / standard memory in 1 socket / 1 socket available		
Diskette drive	None standard / use optional USB-based diskette drive		
EIDE Combo	<i>Some:</i> DVD-ROM/CD-RW / 24X/24X/24X/8X <sup>21</sup> speed / removable from Ultrabay Slim		
EIDE DVD±RW	<i>Some:</i> DVD burner / Super Multi-Burner (40Y8623) dual-layer, removable Ultrabay Slim		
Ultrabay Slim	One modular bay for interchangeable devices (right side) / 9.5mm high bay / flat bezel		
Serial ATA disk (SATA150)	<b>80GB<sup>8</sup></b> (5400 rpm) or <b>100GB</b> (7200 rpm) / 9.5mm high / removable, upgradable / 9.5mm high bay / supports 2nd disk / <b>ThinkPad Shock Mounted Hard Drive / Active Protection System™</b>		
Widescreen display (anti-glare)	<i>Some:</i> <b>15.4"</b> (391mm) <b>WXGA (1280x800) TFT color</b> / 150 nits / 16:10 aspect ratio <i>Some:</i> <b>15.4"</b> (391mm) <b>WSXGA+ (1680x1050) TFT color</b> / 200 nits / 16:10 aspect <i>All:</i> stainless steel hinges / one hand activates dual latches		
Graphics	<i>Some:</i> <b>Intel Graphics Media Accelerator 950</b> / integrated in 945GM / 250MHz <i>Some:</i> <b>ATI® MOBILITY™ Radeon™ X1400</b> / PCI Express x16 / <b>128MB</b> memory <i>Some:</i> <b>ATI MOBILITY FireGL™ V5250</b> / PCI Express x16 / <b>256MB</b> memory <i>All:</i> DVI pass-through support to optional Advanced Mini Dock or Advanced Dock		
Keyboard	89-key / ThinkVantage button / spill-resistant / multimedia Fn keys / Windows, Appl keys		
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar <sup>13</sup> , magnifying glass		
Touch pad	UltraNav™ multi-pointing system / touch pad below keyboard / Tap Zones		
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions		
Dimensions <sup>3</sup>	<b>15.4" models (WxDxH):</b> 14.1" x 10.0" x 1.13–1.34"; 357.5mm x 255mm x 28.7–34mm with optical drive and battery: up to 6.05 lb (2.75kg)		
Weight <sup>2</sup>	Carbon-Fiber Reinforced Plastic (CFRP) in top/bottom		
Case material	Lithium Ion <b>6-cell</b> or <b>9-cell</b> / supports unique 2nd battery in Ultrabay Slim		
Battery - type	<b>6-cell:</b> up to 5.2 hr; <b>9-cell:</b> up to 6.0 hr; <b>9-cell plus Ultrabay battery:</b> up to 7.5 hr		
Battery - life <sup>10</sup>			
Architecture	<i>Some:</i> <b>Mobile Intel 945GM Express Chipset</b> / 82945GM Graphics Memory Cont Hub <i>Some:</i> <b>Mobile Intel 945PM Express Chipset</b> / 82945PM Memory Controller Hub <i>All:</i> 82801GBM ICH7-M I/O Controller Hub (SATA300, ATA-100 EIDE, PCI Express x1, PCI bus, USB, LPC interface, [Bluetooth], [fingerprint]) / PCI bus (TI® PCI1512 CardBus controller) / LPC bus (NS PC87382 Super I/O, Atmel® 7SC3203)		
PC Card Std slot	One Type I or Type II slot / CardBus 32-bit / integrated door		
ExpressCard slot	One ExpressCard/34 or ExpressCard/54 / PCI Express x1 or USB 2.0 / integrated door		
Ports	Three USB 2.0 / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / no keyboard, mouse, serial ports, parallel port, 1394, or S-video (use USB)		
Wireless antenna	UltraConnect™ Antenna built into the display cover / on-off switch for all wireless radios		
Mini PCI Express	Two Mini PCI Express slots / only 802.11 wireless is customer upgradable		
Intel 11a/b/g <sup>32</sup> WWAN <sup>16</sup>	11a/b/g wireless <sup>4</sup> , Mini PCI Express adapter, Intel PRO/Wireless 3945ABG		
Modem	56K <sup>6</sup> V.90 (V.92-designed <sup>29</sup> ) modem in Com Daughter Card socket / Conexant® chipset		
Bluetooth™	Bluetooth 2.0 wireless / USB 2.0 interface via ICH7-M / LED indicator		
Ethernet	Gigabit ethernet on systemboard / Intel 82573L (MAC/PHY) / PCIe x1 / PXE		
Audio support	High Definition (HD) Audio / AD1981HD codec / stereo speakers, 1 watt / volume up, down, mute buttons / internal microphone / microphone input jack / headphone jack		
Security	Power-on password / hard disk password / supervisor password / security keyhole		
Security chip	<b>Trusted Platform Module</b> / Atmel chip / TCG 1.2-compliant		
Fingerprint reader	<b>Fingerprint reader on palm rest</b> / swipe sensor / supports the security chip		
Limited warranty <sup>12</sup> 3-years/1-year battery - EasyServ™ <sup>19</sup> onsite pickup and delivery / srv upgrades <sup>22</sup> avail			
512MB PC2-5300 DDR2 CL5 SODIMM	40Y7733	T60 Series Li-Ion Battery 6-cell	40Y6799
1GB PC2-5300 DDR2 CL5 SODIMM	40Y7734	Z60m/T60/R60 Li-Ion Battery 9-cell	40Y6797
2GB PC2-5300 DDR2 SODIMM	40Y7735	ThinkPad External Battery Charger	40Y7625
Serial Hard Drive Ultrabay Slim Adapter (flat)	40Y8725	ThinkPad 65W AC Adapter	40Y7696
Combo II Ultrabay Slim Drive (flat bezel)	40Y8621	ThinkPad 90W AC Adapter	40Y7659
USB Gemplus GempC Smart Card Reader	41N3040	ThinkPad 90W AC/DC Combo Adapter	40Y7630
USB 2.0 Lenovo Webcam	40Y8519	ThinkPad Carrying Case - Organizer	73P3598
USB 2.0 Security Memory Key 4GB	41U5120	ThinkPad Carrying Case - Backpack	73P3599
USB 2.0 Super Multi-Burner Drive	41N5565	Lenovo L192 Wide 19" Monitor (black)	6920AB1
ThinkPad Essential Port Replicator	250510W	Lenovo D221 Wide 22" Monitor	6622HB1
ThinkPad Advanced Mini Dock	250410U	Lenovo M500 Projector	0037A05
ThinkPad Advanced Dock	250310U	Lenovo C500 Projector	0039A05
Other accessories on O-T60 sheet		Other accessories at <a href="http://lenovo.com/accessories">lenovo.com/accessories</a>	

See footnotes for important warranty information  
US models announced November 28, 2006  
US models withdrawn effective September 2007

\* Powered by Intel Centrino® Duo mobile technology

© Lenovo  
(CR2-4) September 2007

# ThinkPad® T60 and T60p 15W (6370 and 8742) - Education - withdrawn

Created by Lenovo Training Solutions  
Personal Systems Reference (PSREF)

Type-model	Processor	GHz	Memory	Screen	Graphics controller	Disk SATA GB <sup>8</sup> rpm	EIDE optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN wireless	Blue-tooth	Chip set	Battery cells	Limited warranty <sup>12</sup>	Avail date
<b>T60</b> 6370-6BU	Core 2 Duo T7200	2.00	1GB	15.4" WXGA	GMA	80GB 5400	Combo	*Intel 11a/b/g <sup>32</sup>	None	Blue	GM	6	Onsite	Dec 06
<b>T60</b> 8742-49U	Core 2 Duo T7200	2.00	1GB	15.4" WSXGA+	X1400	100G 7200	DVD±RW	*Intel 11a/b/g	None	Blue	PM	6	Onsite	Dec 06
<b>T60</b> 8742-4BU	Core 2 Duo T7200	2.00	1GB	15.4" WSXGA+	X1400	100G 7200	DVD±RW	*Intel 11a/b/g	None	Blue	PM	9	Onsite	Dec 06
<b>T60</b> 8742-4PU	Core 2 Duo T7400	2.16	1GB	15.4" WSXGA+	X1400	100G 7200	DVD±RW	*Intel 11a/b/g	None	Blue	PM	9	Onsite	Dec 06
<b>T60p</b> 8742-C6U	Core 2 Duo T7600	2.33	1GB	15.4" WSXGA+	V5250	100G 7200	DVD±RW	*Intel 11a/b/g	None	Blue	PM	9	Onsite	Dec 06

• **These models have a limited onsite service<sup>24</sup> 3-year limited warranty**

These educational models are available only to public or private K-12 (or higher) accredited schools organized and operated exclusively for educational purposes for use by qualified students and teachers.

Positioning Processor	<i>Premiere performance; two spindles</i> <b>Intel® Core™ 2 Duo processor T7200, T7400, or T7600</b> with dual-core, Intel 64 Technology, Enhanced Intel SpeedStep™ technology <sup>1</sup> , Execute Disable Bit, and 667MHz system bus / 4MB L2 cache (shared)										<b>SOFTWARE<sup>14</sup></b>			
Memory	<b>1GB</b> std / 4GB max <sup>31</sup> / PC2-5300 667MHz DDR2 / non-parity / CL5 / dual channel capable / two 200-pin SO-DIMM sockets / standard memory in 1 socket / 1 socket available										<b>Windows XP Professional</b> - Microsoft® Windows® XP Professional <sup>20</sup> (Service Pack 2) ◊ Disk-to-Disk Recovery (in hidden protected area)			
Diskette drive EIDE Combo EIDE DVD±RW Ultrabay Slim Serial ATA disk (SATA150)	None standard / use optional USB-based diskette drive <i>Some:</i> DVD-ROM/CD-RW / 24X/24X/24X/8X <sup>21</sup> speed / removable from Ultrabay Slim <i>Some:</i> DVD burner / Super Multi-Burner (40Y8623) dual-layer, removable Ultrabay Slim One modular bay for interchangeable devices (right side) / 9.5mm high bay / flat bezel <b>80GB<sup>8</sup></b> (5400 rpm) or <b>100GB<sup>8</sup></b> (7200 rpm) / 9.5mm high / removable, upgradable / 9.5mm high bay / supports 2nd disk / <b>ThinkPad Shock Mounted Hard Drive / Active Protection System™</b>										<b>Preloaded</b> • Microsoft Office OneNote® 2003 • VitalSource Library education software • Adobe® Photoshop® Elements plus Adobe Premiere® Elements • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center with Away Manager • ThinkVantage System Update • Symantec® Client Security™ • Diskkeeper Lite • PC-Doctor™ (diagnostics) • ThinkPad Utilities (Power Manager and Presentation Director) • Fingerprint Software (fingerprint models) • Multimedia Center for Think Offerings • Sonic RecordNOW and Drive Letter Access (combo, DVD±RW) • InterVideo WinDVD (combo, DVD±RW models) • InterVideo WinDVD Creator (DVD±RW models)			
Widescreen display (anti-glare)	<i>Some:</i> <b>15.4"</b> (391mm) <b>WXGA (1280x800) TFT color</b> / 150 nits / 16:10 aspect ratio <i>Some:</i> <b>15.4"</b> (391mm) <b>WSXGA+ (1680x1050) TFT color</b> / 200 nits / 16:10 aspect <i>All:</i> stainless steel hinges / one hand activates dual latches										• CD included • Adobe Photoshop Elements plus Adobe Premiere Elements • Microsoft Office OneNote 2003			
Graphics	<i>Some:</i> <b>Intel Graphics Media Accelerator 950</b> / integrated in 945GM / 250MHz <i>Some:</i> <b>ATI® MOBILITY™ Radeon™ X1400</b> / PCI Express x16 / <b>128MB</b> memory <i>Some:</i> <b>ATI MOBILITY FireGL™ V5250</b> / PCI Express x16 / <b>256MB</b> memory <i>All:</i> DVI pass-through support to optional Advanced Mini Dock or Advanced Dock										• License - CD not included - Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client			
Keyboard TrackPoint® Touch pad ThinkLight™	89-key / ThinkVantage button / spill-resistant / multimedia Fn keys / Windows, Appl keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar <sup>13</sup> , magnifying glass UltraNav™ multi-pointing system / touch pad below keyboard / Tap Zones Illuminates the keyboard to improve visibility in low-light conditions													
Dimensions <sup>3</sup> Weight <sup>2</sup> Case material Battery - type Battery - life <sup>10</sup>	<b>15.4" models (WxDxH):</b> 14.1" x 10.0" x 1.13–1.34"; 357.5mm x 255mm x 28.7–34mm with optical drive and battery: up to 6.05 lb (2.75kg) Carbon-Fiber Reinforced Plastic (CFRP) in top/bottom Lithium Ion <b>6-cell</b> or <b>9-cell</b> / supports unique 2nd battery in Ultrabay Slim <b>6-cell:</b> up to 5.2 hr; <b>9-cell:</b> up to 6.0 hr; <b>9-cell plus Ultrabay battery:</b> up to 7.5 hr													
Architecture	<i>Some:</i> <b>Mobile Intel 945GM Express Chipset</b> / 82945GM Graphics Memory Cont Hub <i>Some:</i> <b>Mobile Intel 945PM Express Chipset</b> / 82945PM Memory Controller Hub <i>All:</i> 82801GBM ICH7-M I/O Controller Hub (SATA300, ATA-100 EIDE, PCI Express x1, PCI bus, USB, LPC interface, [Bluetooth], [fingerprint]) / PCI bus (TI® PCI1512 CardBus controller) / LPC bus (NS PC87382 Super I/O, Atmel® 75C3203)													
PC Card Std slot ExpressCard slot Ports	One Type I or Type II slot / CardBus 32-bit / integrated door One ExpressCard/34 or ExpressCard/54 / PCI Express x1 or USB 2.0 / integrated door Three USB 2.0 / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / no keyboard, mouse, serial ports, parallel port, 1394, or S-video (use USB)													
Wireless antenna Mini PCI Express Intel 11a/b/g <sup>32</sup> WWAN <sup>16</sup> Modem Bluetooth™ Ethernet Audio support	UltraConnect™ Antenna built into the display cover / on-off switch for all wireless radios Two Mini PCI Express slots / only 802.11 wireless is customer upgradable 11a/b/g wireless <sup>4</sup> , Mini PCI Express adapter, Intel PRO/Wireless 3945ABG None 56K <sup>6</sup> V.90 (V.92-designed <sup>29</sup> ) modem in Com Daughter Card socket / Conexant® chipset Bluetooth 2.0 wireless / USB 2.0 interface via ICH7-M / LED indicator Gigabit ethernet on systemboard / Intel 82573L (MAC/PHY) / PCIe x1 / PXE High Definition (HD) Audio / AD1981HD codec / stereo speakers, 1 watt / volume up, down, mute buttons / internal microphone / microphone input jack / headphone jack													
Security Security chip Fingerprint reader	Power-on password / hard disk password / supervisor password / security keyhole <b>Trusted Platform Module</b> / Atmel chip / TCG 1.2-compliant <b>Fingerprint reader on palm rest</b> / swipe sensor / supports the security chip													
Limited warranty <sup>12</sup>	<b>3-year/1-year battery, limited onsite service<sup>24</sup>, 8 am - 5 pm, Mon - Fri coverage</b> excluding holidays, next business day response time													
512MB PC2-5300 DDR2 CL5 SODIMM 1GB PC2-5300 DDR2 CL5 SODIMM 2GB PC2-5300 DDR2 SODIMM Serial Hard Drive Ultrabay Slim Adapter (flat) Combo II Ultrabay Slim Drive (flat bezel) USB Gemplus GempC Smart Card Reader USB 2.0 Security Memory Key 4GB USB 2.0 Super Multi-Burner Drive 160GB Disk 9.5mm SATA150 (5400 rpm) ThinkPad Essential Port Replicator ThinkPad Advanced Mini Dock ThinkPad Advanced Dock Other accessories on O-T60 sheet	40Y7733 40Y7734 40Y7735 40Y8725 40Y8621 41N3040 41U5120 41N5565 41N5692 250510W 250410U 250310U			T60 Series Li-Ion Battery 6-cell Z60m/T60/R60 Li-Ion Battery 9-cell ThinkPad External Battery Charger ThinkPad 65W AC Adapter ThinkPad 90W AC Adapter ThinkPad 90W AC/DC Combo Adapter ThinkPad Carrying Case - Organizer ThinkPad Carrying Case - Backpack Lenovo L192 Wide 19" Monitor (black) Lenovo D221 Wide 22" Monitor Lenovo M500 Projector Lenovo C500 Projector Other accessories at <b>lenovo.com/accessories</b>			40Y6799 40Y6797 40Y7625 40Y7696 40Y7659 40Y7630 73P3598 73P3599 6920AB1 6622HB1 0037A05 0039A05			Supports ThinkVantage® technologies 65-watt (GMA graphics) or 90-watt (ATI graphics) AC adapter ThinkPad Roll Cage (one-piece magnesium frame) RoHS-compliant International Warranty Service <sup>17</sup> 24 hour x 7 day <sup>18</sup> toll-free warranty support during the warranty <sup>12</sup>				

See footnotes for important warranty information  
US models announced November 28, 2006  
US models withdrawn effective September 2007

\* Powered by Intel Centrino® Duo mobile technology



# ThinkPad® T60 15W (8741) - Education (Vista™) - withdrawn

Created by Lenovo Training Solutions  
Personal Systems Reference (PSREF)

Type-model	Processor	GHz	Memory	Screen	Graphics controller	Disk SATA GB <sup>8</sup>	EIDE rpm	optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN wireless	Bat- set	Educ tery cells	pre- load	Limited warranty <sup>12</sup>	Avail date
T60 8741-HHU	Core 2 Duo T7200	2.00	1GB	15.4" WSXGA+	X1400	100G	7200	DVD±RW	11a/b/g <sup>32</sup>	None	PM	9	HE	EasyServ	Apr 07
T60 8741-HJU	Core 2 Duo T7200	2.00	1GB	15.4" WSXGA+	X1400	100G	7200	DVD±RW	11a/b/g	None	PM	9	K12	EasyServ	Apr 07

• **These models have an EasyServ™<sup>19</sup> onsite pickup and delivery 3-year limited warranty**

These educational models are available only to public or private K-12 or higher accredited schools organized and operated exclusively for educational purposes for use by qualified students and teachers.

Positioning Processor	<i>Premiere performance; two spindles</i> <b>Intel® Core™ 2 Duo processor T7200</b> with dual-core, Intel 64 Technology, Enhanced Intel SpeedStep™ technology <sup>1</sup> , Execute Disable Bit, 667MHz system bus, and 4MB L2 cache (shared)										<b>Preloaded operating system<sup>20</sup></b> - Microsoft® Windows® Vista™ Business Edition (32-bit) ↔ Vista Basic logo				
Memory	<b>1GB</b> std / 4GB max <sup>31</sup> / PC2-5300 667MHz DDR2 / non-parity / CL5 / dual channel capable / two 200-pin SO-DIMM sockets / standard memory in 1 socket / 1 socket available										<b>Preloaded applications<sup>14</sup></b> • <i>Some (K12):</i> K-12 education software - VitalSource Library School Edition - Adobe® Instructor Resource Center - Adobe Digital School Collection - Photoshop Elements 5 (and CD) - Premier Elements 3 (and DVD) - Acrobat 8 Professional (and CD) - Contribute 4 (and CD) • <i>Some (HE):</i> Higher education software - VitalSource Library College Edition - Adobe Instructor Resource Center - Adobe Photoshop Elements 5 (and CD) - Adobe Premier Elements 3 (and DVD) • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center with Away Manager • ThinkVantage System Update • System Migration Assistant • Norton Internet Security™ (90 days of virus definitions) • Diskeeper® Home • PC-Doctor® (diagnostics) • ThinkPad Utilities • Adobe Reader • Picasa from Google • Fingerprint Software • Microsoft Office 2007 Trial				
Diskette drive	None (use optional USB-based diskette drive)														
EIDE DVD±RW	DVD burner / Super Multi-Burner (40Y8623) dual-layer, removable Ultrabay Slim														
Ultrabay Slim	One modular bay for interchangeable devices (right side) / 9.5mm high bay / flat bezel														
Serial ATA disk (SATA150)	<b>100GB<sup>9</sup></b> (7200 rpm) / 9.5mm high / removable, upgradable / 9.5mm high bay / supports 2nd disk / <b>ThinkPad Shock Mounted Hard Drive / Active Protection System™</b>														
Widescreen display (anti-glare)	<b>15.4"</b> (391mm) <b>WSXGA+ (1680x1050) TFT color</b> / 200 nits / 16:10 aspect / stainless steel hinges / one hand activates dual latches														
Graphics	<b>ATI® MOBILITY™ Radeon™ X1400</b> / PCI Express x16 / <b>128MB</b> memory / DVI pass-through support to optional Advanced Mini Dock or Advanced Dock														
Keyboard	89-key / ThinkVantage button / spill-resistant / multimedia Fn keys / Windows, Appl keys														
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar <sup>13</sup> , magnifying glass														
Touch pad	UltraNav™ multi-pointing system / touch pad below keyboard / Tap Zones														
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions														
Dimensions <sup>3</sup>	<i>15.4" models (WxDxH):</i> 14.1" x 10.0" x 1.13–1.34"; 357.5mm x 255mm x 28.7–34mm														
Weight <sup>2</sup>	with optical drive and battery: up to 6.05 lb (2.75kg)														
Case material	Carbon-Fiber Reinforced Plastic (CFRP) in top/bottom														
Battery - type	Lithium Ion <b>9-cell</b> / supports unique 2nd battery in Ultrabay Slim														
Battery - life <sup>10</sup>	<i>9-cell:</i> up to 6.0 hr; <i>9-cell plus Ultrabay battery:</i> up to 7.5 hr														
Architecture	<b>Mobile Intel 945PM Express Chipset</b> / 82945PM Memory Controller Hub / 82801GBM ICH7-M I/O Controller Hub (SATA300, ATA-100 EIDE, PCI Express x1, PCI bus, USB, LPC interface, [Bluetooth], [fingerprint]) / PCI bus (TI® PCI1512 CardBus controller) / LPC bus (NS PC87382 Super I/O, Atmel® 75C3203)														
PC Card Std slot	One Type I or Type II slot / CardBus 32-bit / integrated door														
ExpressCard slot	One ExpressCard/34 or ExpressCard/54 / PCI Express x1 or USB 2.0 / integrated door														
Ports	Three USB 2.0 / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / no keyboard, mouse, serial ports, parallel port, 1394, or S-video (use USB)														
Wireless antenna	UltraConnect™ Antenna built into the display cover / on-off switch for all wireless radios														
Mini PCI Express	Two Mini PCI Express slots / only 802.11 wireless is customer upgradable														
11a/b/g <sup>32</sup> WWAN <sup>16</sup>	11a/b/g wireless <sup>4</sup> , ThinkPad 11a/b/g Mini PCIe Adapter, Atheros AR5006EX														
Modem	56K <sup>6</sup> V.90 (V.92-designed <sup>29</sup> ) modem in Com Daughter Card socket / Conexant® chipset														
Bluetooth™	Bluetooth 2.0 wireless / USB 2.0 interface via ICH7-M / LED indicator														
Ethernet	Gigabit ethernet on systemboard / Intel 82573L (MAC/PHY) / PCIe x1 / PXE														
Audio support	High Definition (HD) Audio / AD1981HD codec / stereo speakers, 1 watt / volume up, down, mute buttons / internal microphone / microphone input jack / headphone jack														
Security	Power-on password / hard disk password / supervisor password / security keyhole														
Security chip	<b>Trusted Platform Module</b> / Atmel chip / TCG 1.2-compliant														
Fingerprint reader	<b>Fingerprint reader on palm rest</b> / swipe sensor / supports the security chip														
Limited warranty <sup>12</sup>	<b>3-years/1-year battery</b> - EasyServ™ <sup>19</sup> onsite pickup and delivery / srv upgrades <sup>22</sup> avail														
512MB PC2-5300 DDR2 CL5 SODIMM	40Y7733	T60 Series Li-Ion Battery 6-cell	40Y6799												
1GB PC2-5300 DDR2 CL5 SODIMM	40Y7734	Z60m/T60/R60 Li-Ion Battery 9-cell	40Y6797												
2GB PC2-5300 DDR2 SODIMM	40Y7735	ThinkPad External Battery Charger	40Y7625												
Serial Hard Drive Ultrabay Slim Adapter (flat)	40Y8725	ThinkPad 65W AC Adapter	40Y7696												
Combo II Ultrabay Slim Drive (flat bezel)	40Y8621	ThinkPad 90W AC Adapter	40Y7659												
USB 2.0 Lenovo Webcam	40Y8519	ThinkPad 90W AC/DC Combo Adapter	40Y7630												
USB 2.0 Security Memory Key 4GB	41U5120	ThinkPad Carrying Case - Organizer	73P3598												
USB 2.0 Super Multi-Burner Drive	41N5565	ThinkPad Carrying Case - BackPack	73P3599												
ThinkPad Essential Port Replicator	250510W	Lenovo L192 Wide 19" Monitor (black)	6920AB1												
ThinkPad Advanced Mini Dock	250410U	Lenovo D221 Wide 22" Monitor	6622HB1												
ThinkPad Advanced Dock	250310U	Lenovo C500 Projector	0039A05												
Other accessories on O-T60 sheet											Other accessories at <b>lenovo.com/accessories</b>				
										ThinkPlus™, <sup>22</sup> 2-year LOR 9x5 NBD 41C9175					
										ThinkPlus 3-year LOR 9x5 NBD 41C9176					
										ThinkPlus 4-year LOR 9x5 NBD 41C9177					
										ThinkPlus 5-year LOR 9x5 NBD 41C9179					
										ThinkPlus 4-year P&L P/U Depot 41C9178					
										ThinkPlus 5-year P&L P/U Depot 41C9180					
										Post-warranty annual maintenance agreements at <b>lenovo.com/thinkplus/warranty</b>					

See footnotes for important warranty information  
US models announced April 17, 2007  
US models withdrawn effective September 2007

© Lenovo  
(CR2-7) September 2007

# ThinkPad® T60 15W (8742) - Education (Vista™) - withdrawn

Created by Lenovo Training Solutions  
Personal Systems Reference (PSREF)

Type-model	Processor	GHz	Memory	Screen	Graphics controller	Disk SATA GB <sup>8</sup>	EIDE rpm	optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN wireless	Bat-tery set cells	Educ pre-load	Limited warranty <sup>12</sup>	Avail date
T60 8742-HHU	Core 2 Duo T7200	2.00	1GB	15.4" WSXGA+	X1400	100G	7200	DVD±RW	11a/b/g <sup>32</sup>	None	PM 9	HE	Onsite	Apr 07
T60 8742-HJU	Core 2 Duo T7200	2.00	1GB	15.4" WSXGA+	X1400	100G	7200	DVD±RW	11a/b/g	None	PM 9	K12	Onsite	Apr 07

### These models have a limited onsite service<sup>24</sup> 3-year limited warranty

These educational models are available only to public or private K-12 or higher accredited schools organized and operated exclusively for educational purposes for use by qualified students and teachers.

Positioning Processor	<i>Premiere performance; two spindles</i> <b>Intel® Core™ 2 Duo processor T7200</b> with dual-core, Intel 64 Technology, Enhanced Intel SpeedStep™ technology <sup>1</sup> , Execute Disable Bit, 667MHz system bus, and 4MB L2 cache (shared)										<b>Preloaded operating system<sup>20</sup></b> - Microsoft® Windows® Vista™ Business Edition (32-bit) ↔ Vista Basic logo
Memory	<b>1GB</b> std / 4GB max <sup>31</sup> / PC2-5300 667MHz DDR2 / non-parity / CL5 / dual channel capable / two 200-pin SO-DIMM sockets / standard memory in 1 socket / 1 socket available										<b>Preloaded applications<sup>14</sup></b> • <i>Some (K12):</i> K-12 education software - VitalSource Library School Edition - Adobe® Instructor Resource Center - Adobe Digital School Collection - Photoshop Elements 5 (and CD) - Premier Elements 3 (and DVD) - Acrobat 8 Professional (and CD) - Contribute 4 (and CD) • <i>Some (HE):</i> Higher education software - VitalSource Library College Edition - Adobe Instructor Resource Center - Adobe Photoshop Elements 5 (and CD) - Adobe Premier Elements 3 (and DVD) • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center with Away Manager • ThinkVantage System Update • System Migration Assistant • Norton Internet Security (90 days of virus definitions) • Diskeeper® Home • PC-Doctor™ (diagnostics) • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader • Picasa from Google • Fingerprint Software (fingerprint models) • Microsoft Office 2007 Trial <b>License</b> - CD not included - Lotus® Notes® Stand-alone Client
Diskette drive	None (use optional USB-based diskette drive)										
EIDE DVD±RW	DVD burner / Super Multi-Burner (40Y8623) dual-layer, removable Ultrabay Slim										
Ultrabay Slim	One modular bay for interchangeable devices (right side) / 9.5mm high bay / flat bezel										
Serial ATA disk (SATA150)	<b>100GB<sup>8</sup></b> (7200 rpm) / 9.5mm high / removable, upgradable / 9.5mm high bay / supports 2nd disk / <b>ThinkPad Shock Mounted Hard Drive / Active Protection System™</b>										
Widescreen display (anti-glare)	<b>15.4"</b> (391mm) <b>WSXGA+ (1680x1050) TFT color</b> / 200 nits / 16:10 aspect / stainless steel hinges / one hand activates dual latches										
Graphics	<b>ATI® MOBILITY™ Radeon™ X1400</b> / PCI Express x16 / <b>128MB</b> memory / DVI pass-through support to optional Advanced Mini Dock or Advanced Dock										
Keyboard	89-key / ThinkVantage button / spill-resistant / multimedia Fn keys / Windows, Appl keys										
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar <sup>13</sup> , magnifying glass										
Touch pad	UltraNav™ multi-pointing system / touch pad below keyboard / Tap Zones										
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions										
Dimensions <sup>3</sup>	<i>15.4" models (WxDxH):</i> 14.1" x 10.0" x 1.13–1.34"; 357.5mm x 255mm x 28.7–34mm										
Weight <sup>2</sup>	with optical drive and battery: up to 6.05 lb (2.75kg)										
Case material	Carbon-Fiber Reinforced Plastic (CFRP) in top/bottom										
Battery - type	Lithium Ion <b>9-cell</b> / supports unique 2nd battery in Ultrabay Slim										
Battery - life <sup>10</sup>	<i>9-cell:</i> up to 6.0 hr; <i>9-cell plus Ultrabay battery:</i> up to 7.5 hr										
Architecture	<b>Mobile Intel 945PM Express Chipset</b> / 82945PM Memory Controller Hub / 82801GBM ICH7-M I/O Controller Hub (SATA300, ATA-100 EIDE, PCI Express x1, PCI bus, USB, LPC interface, [Bluetooth], [fingerprint]) / PCI bus (TI® PCI1512 CardBus controller) / LPC bus (NS PC87382 Super I/O, Atmel® 75C3203)										
PC Card Std slot	One Type I or Type II slot / CardBus 32-bit / integrated door										
ExpressCard slot	One ExpressCard/34 or ExpressCard/54 / PCI Express x1 or USB 2.0 / integrated door										
Ports	Three USB 2.0 / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / no keyboard, mouse, serial ports, parallel port, 1394, or S-video (use USB)										
Wireless antenna	UltraConnect™ Antenna built into the display cover / on-off switch for all wireless radios										
Mini PCI Express	Two Mini PCI Express slots / only 802.11 wireless is customer upgradable										
11a/b/g <sup>32</sup>	11a/b/g wireless <sup>4</sup> , ThinkPad 11a/b/g Mini PCIe Adapter, Atheros AR5006EX										
WWAN <sup>16</sup>	None										
Modem	56K <sup>6</sup> V.90 (V.92-designed <sup>29</sup> ) modem in Com Daughter Card socket / Conexant® chipset										
Bluetooth™	Bluetooth 2.0 wireless / USB 2.0 interface via ICH7-M / LED indicator										
Ethernet	Gigabit ethernet on systemboard / Intel 82573L (MAC/PHY) / PCIe x1 / PXE										
Audio support	High Definition (HD) Audio / AD1981HD codec / stereo speakers, 1 watt / volume up, down, mute buttons / internal microphone / microphone input jack / headphone jack										
Security	Power-on password / hard disk password / supervisor password / security keyhole										
Security chip	<b>Trusted Platform Module</b> / Atmel chip / TCG 1.2-compliant										
Fingerprint reader	<b>Fingerprint reader on palm rest</b> / swipe sensor / supports the security chip										
Limited warranty <sup>12</sup>	<b>3-year/1-year battery, limited onsite service</b> , 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time <sup>24</sup>										
512MB PC2-5300 DDR2 CL5 SODIMM	40Y7733	T60 Series Li-Ion Battery 6-cell								40Y6799	Supports ThinkVantage® technologies
1GB PC2-5300 DDR2 CL5 SODIMM	40Y7734	Z60m/T60/R60 Li-Ion Battery 9-cell								40Y6797	
2GB PC2-5300 DDR2 SODIMM	40Y7735	ThinkPad External Battery Charger								40Y7625	90-watt (ATI graphics) AC adapter
Serial Hard Drive Ultrabay Slim Adapter (flat)	40Y8725	ThinkPad 65W AC Adapter								40Y7696	ThinkPad Roll Cage (one-piece magnesium frame)
Combo II Ultrabay Slim Drive (flat bezel)	40Y8621	ThinkPad 90W AC Adapter								40Y7659	RoHS-compliant
USB 2.0 Lenovo Webcam	40Y8519	ThinkPad 90W AC/DC Combo Adapter								40Y7630	International Warranty Service <sup>17</sup>
USB 2.0 Security Memory Key 4GB	41U5120	ThinkPad Carrying Case - Organizer								73P3598	24 hour x 7 day <sup>18</sup> toll-free warranty support during the warranty <sup>12</sup>
USB 2.0 Super Multi-Burner Drive	41N5565	ThinkPad Carrying Case - Backpack								73P3599	
ThinkPad Essential Port Replicator	250510W	Lenovo L192 Wide 19" Monitor (black)								6920AB1	
ThinkPad Advanced Mini Dock	250410U	Lenovo D221 Wide 22" Monitor								6622HB1	
ThinkPad Advanced Dock	250310U	Lenovo C500 Projector								0039A05	Post-warranty annual maintenance agreements at
Other accessories on O-T60 sheet		Other accessories at <a href="http://lenovo.com/accessories">lenovo.com/accessories</a>									<a href="http://lenovo.com/thinkplus/warranty">lenovo.com/thinkplus/warranty</a>

See footnotes for important warranty information  
US models announced April 17, 2007  
US models withdrawn effective September 2007

© Lenovo  
(CR2-8) September 2007

# ThinkPad® T60 and T60p 15W (TopSeller) - withdrawn

Created by Lenovo Training Solutions  
Personal Systems Reference (PSREF)

Type-model	Processor	GHz	Memory	Screen	Graphics controller	Disk SATA GB <sup>3</sup> rpm	EIDE optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN wireless	Blue-tooth	Chip set	Battery cells	Limited warranty <sup>12</sup>	Availability date
<b>T60</b> 6371-7DU	Core Duo T2300E	1.66	512MB	15.4"	WSXGA GMA	80GB 5400	Combo	*Intel 11a/b/g <sup>32</sup>	None	GM	6	1-yr	Mar 07	
<b>T60</b> 6371-74U	Core 2 Duo T5500	1.66	512MB	15.4"	WXGA GMA	80GB 5400	Combo	*Intel 11a/b/g	None	GM	6	1-yr	Dec 06	
<b>T60</b> 8744-5BU	Core 2 Duo T7200	2.00	1GB	15.4"	WSXGA+ X1400	120G 5400	DVD±RW	Thinkpad 11n <sup>28</sup>	None	Blue	PM	6	3-yr	Dec 06
<b>T60p</b> 8744-C9U	Core 2 Duo T7200	2.00	2GB	15.4"	WSXGA+ V5250	100G 7200	DVD±RW	Thinkpad 11n	None	Blue	PM	9	3-yr	Dec 06

- **These small and medium business (SMB) models are part of the US TopSeller™ Program**
- **These models have a 1-year or 3-year limited warranty**

Positioning Processor	<i>Premiere performance; two spindles</i> <b>Intel® Core™ Duo processor T2300E</b> with dual-core, Enhanced Intel SpeedStep™ technology <sup>1</sup> , Execute Disable Bit, 667MHz system bus, and 2MB L2 cache (shared) or <b>Intel Core 2 Duo processor T5500 or T7200</b> with dual-core, Intel 64 Technology, Enhanced Intel SpeedStep™ technology <sup>1</sup> , Execute Disable Bit, and 667MHz system bus / <b>T5500: 2MB L2 cache (shared); T7200: 4MB L2 cache (shared)</b>										<b>SOFTWARE<sup>14</sup></b> <b>Windows XP Professional</b> - Microsoft® Windows® XP Professional <sup>20</sup> (Service Pack 2) ⇨ Disk-to-Disk Recovery (in hidden protected area) <b>Preloaded</b> • Microsoft Office OneNote® 2003 or 2007 • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center with Away Manager • ThinkVantage System Update • Symantec® Client Security™ • Diskkeeper Lite • PC-Doctor™ (diagnostics) • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader • Google Toolbar • Google Desktop • Picasa from Google • Fingerprint Software (fingerprint models) • Multimedia Center for Think Offerings • Sonic RecordNOW and Drive Letter Access (combo, DVD±RW) • InterVideo WinDVD (combo, DVD±RW models) • InterVideo WinDVD Creator (DVD±RW models)			
Memory	<b>512MB, 1GB, or 2GB</b> std / 4GB max <sup>31</sup> / PC2-5300 667MHz DDR2 / non-parity / CL5 / dual channel capable / two 200-pin SO-DIMM sockets / <b>C9U:</b> standard memory in both sockets; no sockets available; <b>Others:</b> standard memory in 1 socket; 1 socket available										<b>CD included</b> • Microsoft Office OneNote 2003 <b>License</b> - CD not included - Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client			
Diskette drive EIDE Combo EIDE DVD±RW Ultrabay Slim Serial ATA disk (SATA150)	None standard / use optional USB-based diskette drive <i>Some:</i> DVD-ROM/CD-RW / 24X/24X/24X/8X <sup>21</sup> speed / removable from Ultrabay Slim <i>Some:</i> DVD burner / Super Multi-Burner (40Y8623) dual-layer, removable Ultrabay Slim One modular bay for interchangeable devices (right side) / 9.5mm high bay / flat bezel <b>80GB<sup>8</sup></b> (5400 rpm), <b>100GB</b> (7200 rpm), or <b>120GB</b> (5400 rpm) / 9.5mm high / removable, upgradable / 9.5mm high bay / supports 2nd disk / <b>ThinkPad Shock Mounted Hard Drive / Active Protection System™</b>										• InterVideo WinDVD Creator (DVD±RW models)			
Widescreen display (anti-glare)	<i>Some:</i> <b>15.4"</b> (391mm) <b>WXGA (1280x800) TFT color</b> / 150 nits / 16:10 aspect ratio <i>Some:</i> <b>15.4"</b> (391mm) <b>WSXGA+ (1680x1050) TFT color</b> / 200 nits / 16:10 aspect <b>All:</b> stainless steel hinges / one hand activates dual latches										• InterVideo WinDVD (combo, DVD±RW models)			
Graphics	<i>Some:</i> <b>Intel Graphics Media Accelerator 950</b> / integrated in 945GM / 250MHz <i>Some:</i> <b>ATI® MOBILITY™ Radeon™ X1400</b> / PCI Express x16 / <b>128MB</b> memory <i>Some:</i> <b>ATI MOBILITY FireGL™ V5250</b> / PCI Express x16 / <b>256MB</b> memory <b>All:</b> DVI pass-through support to optional Advanced Mini Dock or Advanced Dock										• InterVideo WinDVD (DVD±RW models)			
Keyboard TrackPoint® Touch pad ThinkLight™	89-key / ThinkVantage button / spill-resistant / multimedia Fn keys / Windows, Appl keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar <sup>13</sup> , magnifying glass UltraNav™ multi-pointing system / touch pad below keyboard / Tap Zones Illuminates the keyboard to improve visibility in low-light conditions										• InterVideo WinDVD (DVD±RW models)			
Dimensions <sup>3</sup> Weight <sup>2</sup> Case material Battery - type Battery - life <sup>10</sup>	<b>15.4" models (WxDxH):</b> 14.1" x 10.0" x 1.13-1.34"; 357.5mm x 255mm x 28.7-34mm with optical drive and battery: up to 6.08 lb (2.76kg) Carbon-Fiber Reinforced Plastic (CFRP) in top/bottom Lithium Ion <b>6-cell</b> or <b>9-cell</b> / supports unique 2nd battery in Ultrabay Slim <b>6-cell:</b> up to 5.5 hr; <b>9-cell:</b> up to 6.0 hr; <b>9-cell plus Ultrabay battery:</b> up to 7.0 hr										• InterVideo WinDVD (DVD±RW models)			
Architecture	<i>Some:</i> <b>Mobile Intel 945GM Express Chipset</b> / 82945GM Graphics Memory Cont Hub <i>Some:</i> <b>Mobile Intel 945PM Express Chipset</b> / 82945PM Memory Controller Hub <b>All:</b> 82801GBM ICH7-M I/O Controller Hub (SATA300, ATA-100 EIDE, PCI Express x1, PCI bus, USB, LPC interface, [Bluetooth], [fingerprint]) / PCI bus (TI® PCI1512 CardBus controller) / LPC bus (NS PC87382 Super I/O, Atmel® 75C3203)										• InterVideo WinDVD (DVD±RW models)			
PC Card Std slot ExpressCard slot Ports	One Type I or Type II slot / CardBus 32-bit / integrated door One ExpressCard/34 or ExpressCard/54 / PCI Express x1 or USB 2.0 / integrated door Three USB 2.0 / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / no keyboard, mouse, serial ports, parallel port, 1394, or S-video (use USB)										• InterVideo WinDVD (DVD±RW models)			
Wireless antenna Mini PCI Express Intel 11a/b/g <sup>32</sup> ThinkPad 11n <sup>28</sup>	UltraConnect™ Antenna built into the display cover / on-off switch for all wireless radios Two Mini PCI Express slots / only 802.11 wireless is customer upgradable <i>Some:</i> 11a/b/g wireless <sup>4</sup> , Mini PCI Express adapter, Intel PRO/Wireless 3945ABG <i>Some:</i> 11a/b/g/n wireless <sup>4</sup> , ThinkPad 11a/b/g/n Mini PCI Express Adapter, Atheros AR5008 chipset, MIMO 2x3										• InterVideo WinDVD (DVD±RW models)			
WWAN <sup>16</sup> Modem Bluetooth™ Ethernet Audio support	None 56K <sup>6</sup> V.90 (V.92-designed <sup>29</sup> ) modem in Com Daughter Card socket / Conexant® chipset Some: Bluetooth 2.0 wireless / USB 2.0 interface via ICH7-M / LED indicator Gigabit ethernet on systemboard / Intel 82573L (MAC/PHY) / PCIe x1 / PXE High Definition (HD) Audio / AD1981HD codec / stereo speakers, 1 watt / volume up, down, mute buttons / internal microphone / microphone input jack / headphone jack Power-on password / hard disk password / supervisor password / security keyhole										• InterVideo WinDVD (DVD±RW models)			
Security Security chip Fingerprint reader	<b>Trusted Platform Module</b> / Atmel chip / TCG 1.2-compliant <b>Fingerprint reader on palm rest</b> / swipe sensor / supports the security chip										• InterVideo WinDVD (DVD±RW models)			
Limited warranty <sup>12</sup>	<b>6371:</b> 1-year - EasyServ™ <sup>19</sup> onsite pickup and delivery / service upgrades <sup>22</sup> available <b>8744:</b> 3-year/1-year battery - EasyServ onsite pickup and delivery / srv upgrades <sup>22</sup> avail										• InterVideo WinDVD (DVD±RW models)			
1GB PC2-5300 DDR2 CL5 SODIMM 2GB PC2-5300 DDR2 SODIMM USB 2.0 Super Multi-Burner Drive ThinkPad Essential Port Replicator ThinkPad Advanced Mini Dock ThinkPad Advanced Dock Other accessories on O-T60 sheet	40Y7734 40Y7735 41N5565 250510W 250410U 250310U		T60 Series Li-Ion Battery 6-cell Z60m/T60/R60 Li-Ion Battery 9-cell ThinkPad 90W AC Adapter ThinkPad 90W AC/DC Combo Adapter ThinkPad Carrying Case - Organizer Lenovo L192 Wide 19" Monitor (black)		40Y6799 40Y6797 40Y7659 40Y7630 73P3598 6920AB1		Other accessories at <a href="http://lenovo.com/accessories">lenovo.com/accessories</a>							
Supports ThinkVantage® technologies 65-watt (GMA graphics) or 90-watt (ATI graphics) AC adapter ThinkPad Roll Cage (one-piece magnesium frame) RoHS-compliant International Warranty Service <sup>17</sup> 24 hour x 7 day <sup>18</sup> toll-free warranty support during the warranty <sup>12</sup> Onsite service upgrade options <sup>22</sup> and post-warranty annual maintenance agreements at <a href="http://lenovo.com/thinkplus/warranty">lenovo.com/thinkplus/warranty</a>														

See footnotes for important warranty information \* Powered by Intel Centrino® Duo mobile technology  
US models announced November 28, 2006 or March 27, 2007

© Lenovo  
(CR2-3) September 2007

# ThinkPad® T60 and T60p 15W (TopSeller) - Vista™ - withdrawn

Created by Lenovo Training Solutions  
Personal Systems Reference (PSREF)

Type-model	Processor	GHz	Memory	Screen	Graphics controller	SATA disk GB <sup>8</sup>	EIDE optical	Mini PCIe 802.11 wireless	Blue-tooth	Chip-set	Battery cells	Vista preload	Limited warranty <sup>12</sup>	Avail date
T60 6371-E4U	Core 2 Duo T5500	1.66	1GB	15.4" WXGA	GMA 80GB	80GB	Combo	*Intel 11a/b/g <sup>32</sup>	GM	6	Business	1-yr	Jan 07	
T60 8744-H3U	Core 2 Duo T5500	1.66	1GB	15.4" WXGA	X1400 120G	120G	DVD±RW	*Intel 11a/b/g	PM	9	Business	3-yr	Jan 07	
T60 6371-E5U	Core 2 Duo T5600	1.83	1GB	15.4" WXGA	GMA 120G	120G	DVD±RW	*Intel 11a/b/g	GM	9	Business	1-yr	Jan 07	
T60p 8744-J2U	Core 2 Duo T7200	2.00	2GB	15.4" WSXGA+	V5250 100G	100G	DVD±RW	*Intel 11a/b/g	Blue	PM	9	Business	3-yr	Jan 07
T60p 8744-JVU	Core 2 Duo T7200	2.00	2GB	15.4" WSXGA+	V5250 100G	100G	DVD±RW	ThinkPad 11n <sup>28</sup>	Blue	PM	9	Ultimate	3-yr	Mar 07

- These small and medium business (SMB) models are part of the US TopSeller™ Program
- These models have a 1-year or 3-year limited warranty

Positioning Processor	<i>Premiere performance; two spindles</i> <b>Intel® Core™ 2 Duo processor T5500, T5600, or T7200</b> with dual-core, Intel 64 Technology, Enhanced Intel SpeedStep™ technology <sup>1</sup> , Execute Disable Bit, and 667MHz system bus / [T5600/T7200: Virtualization Technology not supported] / T5500/T5600: 2MB L2 cache (shared); T7200: 4MB L2 cache (shared)										<b>SOFTWARE<sup>14</sup></b>				
Memory	<b>1GB or 2GB</b> std / 4GB max <sup>31</sup> / PC2-5300 667MHz DDR2 / non-parity / CL5 / dual channel capable / two 200-pin SO-DIMM sockets / E4U/J2U/JVU: standard memory in both sockets; no sockets available; Others: standard memory in 1 socket; 1 socket available										<b>Preloaded operating system</b> - Some: Microsoft® Windows® Vista Business Edition <sup>20</sup> (32-bit) - Some: Microsoft Windows Vista Ultimate Edition (32-bit) ♦ E5U: Vista Basic logo ♦ Others: Vista Premium logo				
Diskette drive	None standard / use optional USB-based diskette drive										<b>Preloaded applications (all)</b> • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center with Away Manager • ThinkVantage System Update • Norton Internet Security™ (90 days of virus definitions) • Diskeeper® Home • PC-Doctor™ (diagnostics) • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader • Picasa from Google • Microsoft Office 2007 Trial <b>License - CD not included (all)</b> - Lotus® Notes® Stand-alone Client				
EIDE Combo	Some: DVD-ROM/CD-RW / 24X/24X/24X/8X <sup>21</sup> speed / removable from Ultrabay Slim														
EIDE DVD±RW	Some: DVD burner / Super Multi-Burner (40Y8623) dual-layer, removable Ultrabay Slim														
Ultrabay Slim	One modular bay for interchangeable devices (right side) / 9.5mm high bay / flat bezel														
Serial ATA disk (SATA150)	<b>80GB<sup>8</sup></b> (5400 rpm), <b>100GB</b> (7200 rpm), or <b>120GB</b> (5400 rpm) / 9.5mm high / removable, upgradable / 9.5mm high bay / supports 2nd disk / <b>ThinkPad Shock Mounted Hard Drive / Active Protection System™</b>														
Widescreen display (anti-glare)	Some: <b>15.4"</b> (391mm) <b>WXGA (1280x800) TFT color</b> / 150 nits / 16:10 aspect ratio Some: <b>15.4"</b> (391mm) <b>WSXGA+ (1680x1050) TFT color</b> / 200 nits / 16:10 aspect All: stainless steel hinges / one hand activates dual latches														
Graphics	Some: <b>Intel Graphics Media Accelerator 950</b> / integrated in 945GM / 250MHz Some: <b>ATI® MOBILITY™ Radeon™ X1400</b> / PCI Express x16 / <b>128MB</b> memory Some: <b>ATI MOBILITY FireGL™ V5250</b> / PCI Express x16 / <b>256MB</b> memory All: DVI pass-through support to optional Advanced Mini Dock or Advanced Dock														
Keyboard	89-key / ThinkVantage button / spill-resistant / multimedia Fn keys / Windows, Appl keys														
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar <sup>13</sup> , magnifying glass														
Touch pad	UltraNav™ multi-pointing system / touch pad below keyboard / Tap Zones														
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions														
Dimensions <sup>3</sup>	<i>15.4" models (WxDxH): 14.1" x 10.0" x 1.13-1.34"</i> ; 357.5mm x 255mm x 28.7-34mm														
Weight <sup>2</sup>	with optical drive and battery: up to 6.08 lb (2.76kg)														
Case material	Carbon-Fiber Reinforced Plastic (CFRP) in top/bottom														
Battery - type	Lithium Ion <b>6-cell</b> or <b>9-cell</b> / supports unique 2nd battery in Ultrabay Slim														
Battery - life <sup>10</sup>	<b>6-cell</b> : up to 5.2 hr; <b>9-cell</b> : up to 6.0 hr; <b>9-cell plus Ultrabay battery</b> : up to 7.0 hr														
Architecture	Some: <b>Mobile Intel 945GM Express Chipset</b> / 82945GM Graphics Memory Cont Hub Some: <b>Mobile Intel 945PM Express Chipset</b> / 82945PM Memory Controller Hub All: 82801GBM ICH7-M I/O Controller Hub (SATA300, ATA-100 EIDE, PCI Express x1, PCI bus, USB, LPC interface, [Bluetooth], [fingerprint]) / PCI bus (TI® PCI1512 CardBus controller) / LPC bus (NS PC87382 Super I/O, Atmel® 7SC3203)														
PC Card Std slot	One Type I or Type II slot / CardBus 32-bit / integrated door														
ExpressCard slot	One ExpressCard/34 or ExpressCard/54 / PCI Express x1 or USB 2.0 / integrated door														
Ports	Three USB 2.0 / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / no keyboard, mouse, serial ports, parallel port, 1394, or S-video (use USB)														
Wireless antenna	UltraConnect™ Antenna built into the display cover / on-off switch for all wireless radios														
Mini PCI Express	Two Mini PCI Express slots / only 802.11 wireless is customer upgradable														
Intel 11a/b/g <sup>32</sup>	Some: 11a/b/g wireless <sup>4</sup> , Mini PCI Express adapter, Intel PRO/Wireless 3945ABG														
ThinkPad 11n <sup>28</sup>	Some: 11a/b/g/n wireless <sup>4</sup> , ThinkPad 11a/b/g/n Mini PCI Express Adapter, Atheros AR5008 chipset, MIMO 2x3														
WWAN <sup>16</sup>	None														
Modem	56K <sup>6</sup> V.90 (V.92-designed <sup>29</sup> ) modem in Com Daughter Card socket / Conexant® chipset														
Bluetooth™	Some: Bluetooth 2.0 wireless / USB 2.0 interface via ICH7-M / LED indicator														
Ethernet	Gigabit ethernet on systemboard / Intel 82573L (MAC/PHY) / PCIe x1 / PXE														
Audio support	High Definition (HD) Audio / AD1981HD codec / stereo speakers, 1 watt / volume up, down, mute buttons / internal microphone / microphone input jack / headphone jack														
Security	Power-on password / hard disk password / supervisor password / security keyhole														
Security chip	<b>Trusted Platform Module</b> / Atmel chip / TCG 1.2-compliant														
Fingerprint reader	<b>Fingerprint reader on palm rest</b> / swipe sensor / supports the security chip										Supports ThinkVantage® technologies				
Limited warranty <sup>12</sup>	<b>6371:</b> 1-year - EasyServ™ <sup>19</sup> onsite pickup and delivery / service upgrades <sup>22</sup> avail <b>8744:</b> 3-year/1-year battery - EasyServ onsite pickup and delivery / srv upgrades <sup>22</sup> avail										65-watt (GMA graphics) or 90-watt (ATI graphics) AC adapter ThinkPad Roll Cage (one-piece magnesium frame) RoHS-compliant International Warranty Service <sup>17</sup> 24 hour x 7 day <sup>18</sup> toll-free warranty support during the warranty <sup>12</sup>				
512MB PC2-5300 DDR2 CL5 SODIMM	40Y7733	T60 Series Li-Ion Battery 6-cell	40Y6799												
1GB PC2-5300 DDR2 CL5 SODIMM	40Y7734	Z60m/T60/R60 Li-Ion Battery 9-cell	40Y6797												
2GB PC2-5300 DDR2 SODIMM	40Y7735	ThinkPad External Battery Charger	40Y7625												
USB 2.0 Super Multi-Burner Drive	41N5565	ThinkPad 65W AC Adapter	40Y7696												
ThinkPad Essential Port Replicator	250510W	ThinkPad 90W AC Adapter	40Y7659												
ThinkPad Advanced Mini Dock	250410U	ThinkPad 90W AC/DC Combo Adapter	40Y7630												
ThinkPad Advanced Dock	250310U	Lenovo D221 Wide 22" Monitor	6622HB1												
Other accessories on O-T60 sheet	Other accessories at <a href="http://lenovo.com/accessories">lenovo.com/accessories</a>										Post-warranty annual maintenance agreements at <a href="http://lenovo.com/thinkplus/warranty">lenovo.com/thinkplus/warranty</a>				

See footnotes for important warranty information  
US models announced January 30 or March 27, 2007  
US models withdrawn effective September 2007

\* Powered by Intel Centrino® Duo mobile technology

© Lenovo  
(CR2-6) September 2007

**Partial list of accessories supported on ThinkPad T60 and T60p originally announced on January 5, 2006**

**Memory**

512MB PC2-5300 DDR2 CL5 SODIMM	40Y7733	ann 01/05/06
1GB PC2-5300 DDR2 CL5 SODIMM	40Y7734	ann 01/05/06
2GB PC2-5300 DDR2 SODIMM	40Y7735	ann 11/28/06

**Ultrabay Slim 9.5mm** (best to use flat bezel options)

Serial/Parallel Port Bay Adapter (flat bezel)	40Y8121	ann 01/31/06
Serial Hard Drive Ultrabay Slim Adapter (flat)	40Y8725	ann 09/20/05
DVD-ROM Ultrabay Slim Drive (curved)	73P3270	ann 10/07/03
Combo II Ultrabay Slim Drive (flat bezel)	40Y8621	ann 09/20/05
ThinkPad DVD Ultrabay Slim Burner (flat)	41N5643	ann 05/31/07

**Ultrabay Enhanced 12.7mm**

None

**Storage and removable storage**

80GB Disk 9.5mm SATA150 (5400 rpm) <sup>41</sup>	41N5662	ann 08/15/06
100GB Disk 9.5mm SATA150 (7200 rpm) <sup>41</sup>	41N3013	ann 01/05/06
120GB Disk 9.5mm SATA150 (5400 rpm) <sup>41</sup>	41N5691	ann 03/20/07
160GB Disk 9.5mm SATA150 (5400 rpm) <sup>41</sup>	41N5692	ann 03/20/07
160GB Disk 9.5mm SATA150 (7200 rpm) <sup>41</sup>	41N5737	ann 10/16/07

<sup>41</sup> Can be used as the main HDD or with ThinkPad Serial ATA Hard Drive Ultrabay Slim Adapter 40Y8725 in the Ultrabay or in the ThinkPad Advanced Dock 250310U.

USB 2.0 Essential Memory Key 1GB	41U4940	ann 01/23/07
USB 2.0 Essential Memory Key 2GB	41U4944	ann 01/23/07
USB 2.0 Security Memory Key 1GB	41U5118	ann 07/17/07
USB 2.0 Security Memory Key 2GB	41U5119	ann 07/17/07
USB 2.0 Security Memory Key 4GB	41U5120	ann 07/17/07

USB Portable Diskette Drive	05K9276	ann 06/05/00
USB 2.0 CD-RW/DVD-ROM Combo II Drive	40Y8637	ann 01/05/06
USB 2.0 Portable 80GB Hard Disk	41N8378	ann 04/17/07
USB 2.0 Portable 120GB Hard Disk	41N8379	ann 04/17/07
USB 2.0 Super Multi-Burner Drive	41N5565	ann 01/23/07

**Wireless LAN (Mini PCI Express)**

11a/b/g Wireless Mini PCI Express Adpr <sup>42</sup>	40Y7026	ann 09/20/05
Intel PRO/Wireless 3945ABG Mini PCIe Ad <sup>42</sup>	41N3008	ann 01/05/06

<sup>42</sup> System must be wireless upgradable.

**ThinkPad Expansion**

ThinkPad Adjustable Notebook Stand	40Y7676	ann 09/20/05
ThinkPad Essential Port Replicator	250510W	ann 09/20/05
ThinkPad Advanced Mini Dock	250410U	ann 09/20/05
ThinkPad Advanced Dock <sup>47</sup>	250310U	ann 09/20/05

<sup>47</sup> ThinkPad Advanced Dock supports dual-head graphics adapters:  
- ATI® X1300 256MB Dual Head/TV-out 41U5028

**External Keyboard**

TrackPoint Cap Collection	73P2698	ann 12/16/03
USB Numeric Keypad	33L3225	ann 05/01/00
Preferred Pro USB Keyboard	73P5220	ann 06/21/05
Enhanced Performance USB Keyboard	73P2620	ann 03/23/04
Enh Perf Wireless Keyboard and Mouse	73P4067	ann 12/07/04
USB Keyboard with UltraNav	31P8950	ann 01/28/03
USB Travel Keyboard with UltraNav	31P9490	ann 04/27/04
Preferred Pro USB Fingerprint Keyboard	73P4730	ann 02/22/05

**External Mouse**

USB Optical Wheel Mouse	06P4069	ann 05/21/03
Optical 3-Button ScrollPoint® Mouse	31P7405	ann 08/27/02
Optical 3-Button Travel Wheel Mouse	31P7410	
Lenovo Laser Mouse (USB, PS/2)	41U3074	ann 01/23/07

**Security**

Kensington® Cable Lock from Lenovo	73P2582	ann 12/29/03
USB Gemplus Smart Card Reader	41N3040	ann 02/21/06
PC Card Gemplus Smart Card Reader	41N3004	ann 12/13/05
ExpressCard Gemplus Smart Card Reader	41N3043	ann 06/27/06
USB Fingerprint Reader	41U3167	ann 10/24/06

**Multimedia**

USB 2.0 Lenovo Multimedia Headset	40Y8518	ann 06/27/06
USB 2.0 Lenovo Webcam	40Y8519	ann 08/29/06

**Data/Video Projectors**

Lenovo M500 Projector	0037A05	ann 02/28/06
-----------------------	---------	--------------

**Batteries**

T60/R60 Series Li-Ion Battery 6-cell	40Y6799	ann 01/05/06
Z60m/T60/R60 Li-Ion Battery 9-cell	40Y6797	ann 09/20/05
ThinkPad Advanced Ultrabay Battery 3-cell <sup>43</sup>	40Y6789	ann 09/20/05

<sup>43</sup> Used in Ultrabay Slim bay.

ThinkPad External Battery Charger <sup>44</sup>	40Y7625	ann 09/20/05
---	---------	--------------

<sup>44</sup> Requires the ThinkPad 90W AC Adapter 40Y7659 (adapter provided with some systems).

ThinkPad 65W AC Adapter <sup>45</sup>	40Y7696	
---------------------------------------	---------	--

<sup>45</sup> Only compatible with the 945GM and GM965 chipset models.

ThinkPad 90W AC Adapter	40Y7659	ann 09/20/05
ThinkPad 90W AC/DC Combo Adapter	40Y7630	ann 12/13/05
Belkin 1 Outlet Notebook Surge	31P7658	
Belkin Universal Notebook Travel Surge	22P7127	
Belkin 8-outlet 6-foot Surge Protector	31P7659	

**Carrying Cases**

Lenovo Carrying Case - Messenger Max	41U5253	ann 05/01/07
Lenovo Carry Case - Performance Backpack	41U5254	ann 05/01/07
ThinkPad Nylon Carrying Case	10K0207	
ThinkPad Carrying Case - Expander	73P3597	
ThinkPad Carrying Case - Organizer	73P3598	
ThinkPad Carrying Case - Backpack	73P3599	
ThinkPad Carrying Case - Leather Attache	73P3600	
ThinkPad Premiere Leather Carrying Case	10K0209	
ThinkPad Women's Microfiber Tote	22P8855	
ThinkPad Women's Leather Trim Tote	22P8856	
ThinkPad Women's Executive Leather Tote	22P8857	
Women's Executive Red Leather Tote	22P8858	
ThinkPad Convertible Carrying Case	22P8860	
ThinkPad Convertible Back Pack	22P8859	

**Monitors**

Lenovo E75 17" CRT Monitor (16.0" vis) blk	6307BTN	ann 01/16/07
ThinkVision® L151 15" LCD Monitor	9165AC6	ann 10/23/07
ThinkVision L171 17" LCD Monitor	9227AD1	ann 10/23/07
ThinkVision L171p 17" LCD Monitor	9417HC2	ann 10/31/06
ThinkVision L190x 19" LCD Monitor	4439HB2	ann 10/23/07
ThinkVision L193p 19" LCD Monitor	4431HB2	ann 10/23/07
ThinkVision L194 Wide 19" LCD Monitor	4434HB6	ann 10/23/07
ThinkVision L220x Wide 22" LCD Monitor	4433HB2	ann 10/23/07

**Monitor Accessories<sup>46</sup>**

ThinkVision USB Soundbar	40Y7616	ann 08/23/05
Kensington Cable Lock from Lenovo	73P2582	ann 12/29/03
ThinkPad Convertible Monitor Stand	40Y7620	ann 01/05/06
Radial Arm	19K4464	ann 05/05/00

<sup>46</sup> Compatible on selected Lenovo and ThinkVision monitors.

Other accessories at [lenovo.com/accessories](http://lenovo.com/accessories)

Accessories Guide pdf at [lenovo.com/accessoriesguide](http://lenovo.com/accessoriesguide)

Need to buy accessories no longer marketed by Lenovo? See [www.itxchange.com/lenovo](http://www.itxchange.com/lenovo) for the Options Continuation Program.

**ThinkPlus™, <sup>22</sup> service upgrade options<sup>22</sup> for 1-year warranty models:**

1-year Lenovo Onsite Repair 9x5 Next Business Day	41C9166
2-year Lenovo Onsite Repair 9x5 Next Business Day	41C9167
3-year Lenovo Onsite Repair 9x5 Next Business Day	41C9168
4-year Lenovo Onsite Repair 9x5 Next Business Day	41C9171
5-year Lenovo Onsite Repair 9x5 Next Business Day	41C9173
2-year Parts and Labor (P&L) Pickup Depot	41C9169
3-year Parts and Labor (P&L) Pickup Depot	41C9170
4-year Parts and Labor (P&L) Pickup Depot	41C9172
5-year Parts and Labor (P&L) Pickup Depot	41C9174

**ThinkPlus™, <sup>22</sup> service upgrade options<sup>22</sup> for 3-year warranty models:**

2-year Lenovo Onsite Repair 9x5 Next Business Day	41C9175
3-year Lenovo Onsite Repair 9x5 Next Business Day	41C9176
4-year Lenovo Onsite Repair 9x5 Next Business Day	41C9177
5-year Lenovo Onsite Repair 9x5 Next Business Day	41C9179
4-year Parts and Labor (P&L) Pickup Depot	41C9178
5-year Parts and Labor (P&L) Pickup Depot	41C9180

Post-warranty annual maintenance agreements at [lenovo.com/thinkplus/warranty](http://lenovo.com/thinkplus/warranty)

# ThinkPad® T61 8895 (GMA Graphics) - withdrawn

Personal Systems Reference (PSREF)

Proc- Type-model	essor GHz	Memory	Display	Graphics controller	Disk SATA GB <sup>5</sup> rpm	EIDE optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN or Turbo	Card slot	Blue- tooth	Bat- tery cells	Vista preload	Workhorse (W) Global (G) Entry (E)	Avail date
8895-2FU	T7300	2.00	1GB	14.1" XGA	GMA	80GB 5400	Combo	* Intel 4965AG <sup>32</sup>	None	Smart	Blue	6	Business32 W G	Jun 07
8895-01U	T7300	2.00	1GB	14.1" XGA	GMA	80GB 5400	Combo	* Intel 4965AG	None	Smart	Blue	6	XP Pro	Sep 07
8895-02U	T7500	2.20	1GB	14.1" XGA	GMA	100G 7200	DVD±RW	* Intel 4965AG	None	/54	Blue	6	XP Pro	Sep 07

*Italic MTM: not a base model for building a custom model*

Positioning Processor	<i>Premiere performance; two spindles</i> <b>Intel® Core™ 2 Duo processor T7300 or T7500</b> with dual-core, Intel 64 Technology, Enhanced Intel SpeedStep® technology <sup>1</sup> , Intel Dynamic Acceleration, Execute Disable Bit, Virtualization Technology, 800MHz system bus, and 4MB shared L2 cache										<b>Preloaded operating system<sup>20</sup></b> - Some: Microsoft® Windows® XP Professional - Some: Microsoft Windows Vista™ Business Edition (32-bit) ◇ <i>Vista models:</i> Vista Basic logo			
Memory	<b>1GB</b> std / 4GB max <sup>31</sup> / PC2-5300 667MHz DDR2, non-parity, dual-channel capable, two 200-pin SO-DIMM sockets; <i>Non-italics:</i> standard memory in 1 socket; 1 socket available										<b>Preloaded applications<sup>14</sup></b> (all OSes) • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • ThinkVantage System Update • System Migration Assistant • Norton Internet Security (90 days of virus definitions) • Diskeeper® Home • PC-Doctor™ (diagnostics) • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader • Windows Live™ Toolbar • Windows Live Search • Picasa from Google • Fingerprint Software • Microsoft Office 2007 Trial (60-day) • Sonic RecordNow and Drive Letter Access (combo, DVD±RW) • InterVideo WinDVD (combo, DVD±RW) • InterVideo WinDVD Creator (XP Pro DVD±RW models)			
Diskette drive	None (use optional USB-based diskette drive)													
EIDE Combo	DVD-ROM/CD-RW, 24X/24X/24X/8X <sup>21</sup> speed, removable from Ultrabay Slim													
EIDE DVD±RW	DVD burner, Ultrabay Slim Burner (41N5643), dual-layer, removable from Ultrabay Slim													
Ultrabay Slim	UltraNav™ multi-pointing system, touch pad below keyboard, Tap Zones													
Serial ATA disk (SATA150)	<b>80GB<sup>8</sup></b> (5400 rpm) or <b>100GB</b> (7200 rpm) / 9.5mm high, removable, upgradable, 9.5mm high bay, supports 2nd disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™													
Display	<b>14.1"</b> (358.1mm) <b>XGA (1024x768) color</b> , 150 nits, 4:3 aspect ratio, 200:1 contrast ratio, anti-glare													
Camera	None													
Graphics	<b>Intel Graphics Media Accelerator X3100 (GMA X3100)</b> , integrated in GM965, DVI pass-through support to optional Advanced Mini Dock or Advanced Dock													
Keyboard	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys, Windows/Apl keys													
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar <sup>13</sup> , magnifying glass													
Touch pad	UltraNav™ multi-pointing system, touch pad below keyboard, Tap Zones													
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions													
Dimensions <sup>3</sup>	<i>14.1" models (WxDxH):</i> 12.3" x 10.0" x 1.1-1.3"; 313mm x 255mm x 27.5-32.4mm with optical drive and battery: 5.3 lb (2.4kg)													
Weight <sup>2</sup>	<i>Top:</i> Super-Elastic Polycarbonate (SEPC); <i>Bottom:</i> Carbon-Fiber Reinforced Plastic													
Case material	Lithium Ion <b>6-cell</b> / supports unique 2nd battery in Ultrabay Slim													
Battery - type	<i>6-cell:</i> up to 5.7 hr; <i>9-cell:</i> up to 8.6 hr; <i>9-cell plus Ultrabay battery:</i> up to 10.1 hr													
Battery - life <sup>10</sup>	<b>Mobile Intel GM965 Express Chipset</b> (Graphics Memory Controller Hub); <b>ICH8M-Enhanced</b> I/O Controller Hub (SATA300, ATA-100 EIDE, PCI Express x1, PCI bus, USB, LPC bus, [Bluetooth], [fingerprint]) / PCI bus (Ricoh® R5C804 Cardbus/1394/Multicard) / LPC bus (WPCN385 Super I/O, Atmel® 97SC3203 TPM)													
Chipset	One Type I or Type II slot, CardBus 32-bit													
PC Card Std slot	Some: [/54] One ExpressCard/34 or ExpressCard/54, PCI Express x1 or USB 2.0													
ExpressCard slot	Some: Smart Card Reader													
Smart Card Read	None													
Multicard Reader	Three USB 2.0, external DB-15 monitor, RJ-11 (modem), RJ-45 (ethernet)													
Ports	UltraConnect™ II antenna / on-off switch for all wireless radios													
Wireless antenna	Two Mini PCI Express slots / only 802.11 wireless is customer upgradable													
Mini PCI Express	11a/b/g wireless <sup>4</sup> , Mini PCIe adapter, Intel Wireless WiFi Link 4965AG													
Intel 4965AG <sup>32</sup>	None													
WWAN	None													
Turbo Memory	56K <sup>6</sup> V.90 (V.92-designed <sup>29</sup> ) modem in Communications Daughter Card socket													
Modem	Bluetooth 2.0 wireless, USB 2.0 interface via ICH8M, LED indicator													
Bluetooth™	Gigabit ethernet on systemboard, Intel 82566MM Nineveh (PHY), PCIe x1 (GLCI), PXE													
Ethernet	Intel Active Management Technology (iAMT)													
Intel AMT	High Definition (HD) Audio, AD1984JCP codec / stereo speakers, 1 watt / volume up, down, mute buttons / internal microphone, microphone input jack, headphone jack													
Audio support	Power-on password, hard disk password, supervisor password, security keyhole													
Security	<b>Trusted Platform Module</b> , Atmel chip, TCG 1.2-compliant													
Security chip	<b>Fingerprint reader on palm rest</b> , swipe sensor, supports the security chip													
Fingerprint reader	Limited warranty <sup>12</sup> <b>3-years/1-yr battery</b> - EasyServ™ <sup>19</sup> depot repair service / service upgrades <sup>22</sup> available													
Limited warranty <sup>12</sup>	1GB PC2-5300 DDR2 SODIMM 40Y7734 T60/R60 Series Li-Ion Battery 6-cell 40Y6799													
	2GB PC2-5300 DDR2 SODIMM 40Y7735 Z60m/T60/R60 Li-Ion Battery 9-cell 40Y6797													
	ThinkPad DVD Ultrabay Slim Burner (flat) 41N5643 Advanced Ultrabay Battery II 3-cell 43R9250													
	Serial Hard Drive Ultrabay Slim Adapter (flat) 40Y8725 ThinkPad External Battery Charger 40Y7625													
	160GB Disk 9.5mm SATA150 (7200 rpm) 41N5737 ThinkPad 90W AC Adapter 40Y7659													
	200GB Disk FDE SATA150 (7200 rpm) 41N5738 90W Slim AC/DC Combo Adapter 41N8460													
	250GB Disk 9.5mm SATA150 (5400 rpm) 43R8152 ThinkPad Business Topload Case 43R2476													
	USB 2.0 Security Memory Key 4GB 41U5120 ThinkPad Business Backpack 43R2482													
	USB 2.0 Super Multi-Burner Drive 41N5565 ThinkPad Deluxe Expander Case 43R2478													
	USB 2.0 Lenovo Enhanced Port Replicator 43R8770 ThinkPad Executive Leather Case 43R2480													
	ThinkPad Adjustable Notebook Stand 40Y7676 ThinkVision® L174 17" LCD Monitor 9227AE1													
	ThinkPad Convertible Monitor Stand 40Y7620 ThinkVision L171p 17" LCD Monitor 9417HC2													
	ThinkPad Essential Port Replicator 250510W ThinkVision L190x 19" LCD Monitor 4439HB2													
	ThinkPad Advanced Mini Dock 250410U ThinkVision L193p 19" LCD Monitor 4431HB2													
	ThinkPad Advanced Dock 250310U ThinkVision L220x Wide 22" LCD 4433HB2													
	Other accessories on O-T61 sheet Other accessories at <b>lenovo.com/accessories</b>													
	Supports ThinkVantage® technologies													
	65-watt (GMA graphics) AC adapter ThinkPad Roll Cage and Top Cover Roll Cage (one-piece magnesium) ENERGY STAR® 4.0-compliant RoHS-compliant International Warranty Service <sup>17</sup> 24 hour x 7 day <sup>18</sup> toll-free support during the warranty period <sup>12</sup> via 800-426-7378													
	ThinkPlus™. <sup>22</sup> 2-year LOR 9x5 NBD 41C9175													
	ThinkPlus 3-year LOR 9x5 NBD 41C9176													
	ThinkPlus 4-year LOR 9x5 NBD 41C9177													
	ThinkPlus 5-year LOR 9x5 NBD 41C9179													
	ThinkPlus 4-year P&L P/U Depot 41C9178													
	ThinkPlus 5-year P&L P/U Depot 41C9180													
	Post-warranty annual maintenance agreements at <b>lenovo.com/thinkplus/warranty</b>													

See footnotes for important warranty information  
US models announced May 31 or September 5, 2007  
US models withdrawn effective May 2008

\* Intel Centrino® with vPro™ technology

© Lenovo  
(DV3-1) May 2008

# ThinkPad® T61 (GMA Graphics) - Education (EasyServ) - withdrawn

Personal Systems Reference (PSREF)

Proc- Type-model	essor GHz	Memory	Display	Graphics controller	Disk SATA GB <sup>2</sup>	EIDE rpm	EIDE optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN or Turbo	Card slot	Bat- tery cells	Educ pre- load	Limited warranty <sup>12</sup>	Vista preload	Avail date
8895-2BU	T7300	2.00	1GB	14.1" XGA	GMA	120GB	5400 DVD±RW	11a/b/g <sup>32</sup>	None	/54	9	K12	EasyServ	Business32	Jun 07
<p>• <b>This model has an EasyServ™<sup>19</sup> depot repair service 3-year limited warranty</b>                      This educational model is available only to public or private K-12 or higher accredited schools organized and operated exclusively for educational purposes for use by qualified students and teachers.</p>															
Positioning Processor	<i>Premiere performance; two spindles</i> <b>Intel® Core™ 2 Duo processor T7300 with dual-core,</b> Intel 64 Technology, Enhanced Intel SpeedStep® technology <sup>1</sup> , Intel Dynamic Acceleration, Execute Disable Bit, Virtualization Technology, 800MHz system bus, and 4MB shared L2 cache											<b>Preloaded operating system<sup>20</sup></b> - Microsoft® Windows® Vista™ Business Edition (32-bit) ↕ Vista Basic logo			
Memory	<b>1GB</b> std / 4GB max <sup>31</sup> / PC2-5300 667MHz DDR2, non-parity, dual-channel capable, two 200-pin SO-DIMM sockets; <i>Non-italics:</i> standard memory in 1 socket; 1 socket available											<b>Preloaded applications<sup>14</sup></b> • Microsoft Office OneNote® 2007 (and CD) • (K12): K-12 education software - VitalSource Library School Edition - Adobe Instructor Resource Center - Adobe Digital School Collection - Photoshop Elements 5 (and CD) - Premier Elements 3 (and DVD) - Acrobat 8 Professional (and CD) - Contribute 4 (and CD) • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • ThinkVantage System Update • System Migration Assistant • Norton Internet Security™ (90 days of virus definitions) • Diskeeper® Home • PC-Doctor™ (diagnostics) • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader • Windows Live™ Toolbar • Windows Live Search • Picasa from Google • Fingerprint Software • Microsoft Office 2007 Trial (60-day) • Sonic RecordNow and Drive Letter Access (DVD±RW) • InterVideo WinDVD (DVD±RW)			
Diskette drive	None (use optional USB-based diskette drive)											Supports ThinkVantage® technologies  65-watt (GMA graphics) AC adapter ThinkPad Roll Cage and Top Cover Roll Cage (one-piece magnesium) ENERGY STAR® 4.0-compliant RoHS-compliant International Warranty Service <sup>17</sup> 24 hour x 7 day <sup>18</sup> toll-free support during the warranty period <sup>12</sup> via 800-426-7378			
EIDE DVD±RW	DVD burner, Ultrabay Slim Burner (41N5643), dual-layer, removable from Ultrabay Slim														
Ultrabay Slim	One modular bay for interchangeable devices (right side), 9.5mm high bay, flat bezel														
Serial ATA disk (SATA150)	<b>120GB<sup>8</sup></b> (5400 rpm) / 9.5mm high, removable, upgradable, 9.5mm high bay, supports 2nd disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™														
Display	<b>14.1"</b> (358.1mm) <b>XGA (1024x768) color</b> , 150 nits, 4:3 aspect ratio, 200:1 contrast ratio, anti-glare														
Camera	None														
Graphics	<b>Intel Graphics Media Accelerator X3100 (GMA X3100)</b> , integrated in GM965, DVI pass-through support to optional Advanced Mini Dock or Advanced Dock														
Keyboard	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys, Windows/Appl keys											Supports ThinkVantage® technologies  65-watt (GMA graphics) AC adapter ThinkPad Roll Cage and Top Cover Roll Cage (one-piece magnesium) ENERGY STAR® 4.0-compliant RoHS-compliant International Warranty Service <sup>17</sup> 24 hour x 7 day <sup>18</sup> toll-free support during the warranty period <sup>12</sup> via 800-426-7378			
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar <sup>13</sup> , magnifying glass														
Touch pad	UltraNav™ multi-pointing system, touch pad below keyboard, Tap Zones														
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions														
Dimensions <sup>3</sup>	<b>14.1" models (WxDxH):</b> 12.3" x 10.0" x 1.1-1.3"; 313mm x 255mm x 27.5-32.4mm with optical drive and battery; 5.6 lb (2.55kg)														
Weight <sup>2</sup>	with optical drive and battery; 5.6 lb (2.55kg)														
Case material	<i>Top:</i> Super-Elastic PolyCarbonate (SEPC); <i>Bottom:</i> Carbon-Fiber Reinforced Plastic														
Battery - type	Lithium Ion <b>9-cell</b> / supports unique 2nd battery in Ultrabay Slim														
Battery - life <sup>10</sup>	<b>9-cell:</b> up to 8.6 hr; <b>9-cell plus Ultrabay battery:</b> up to 10.1 hr														
Chipset	<b>Mobile Intel GM965 Express Chipset</b> (Graphics Memory Controller Hub); <b>ICH8M-Enhanced</b> I/O Controller Hub (SATA300, ATA-100 EIDE, PCI Express x1, PCI bus, USB, LPC bus, [Bluetooth], [fingerprint]) / PCI bus (Ricoch® R5C804 Cardbus/1394/Multicard) / LPC bus (WPCN385 Super I/O, Atmel® 97SC3203 TPM)														
PC Card Std slot	One Type I or Type II slot, CardBus 32-bit														
ExpressCard slot	/54 One ExpressCard/34 or ExpressCard/54, PCI Express x1 or USB 2.0														
Smart Card Read	None														
Multicard Reader	None														
Ports	Three USB 2.0, external DB-15 monitor, RJ-11 (modem), RJ-45 (ethernet)														
Wireless antenna	UltraConnect™ II antenna / on-off switch for all wireless radios														
Mini PCI Express	Two Mini PCI Express slots / only 802.11 wireless is customer upgradable														
11a/b/g <sup>32</sup>	11a/b/g wireless <sup>4</sup> , ThinkPad 11a/b/g Mini PCIe Adapter, Atheros AR5006EX														
WWAN	None														
Turbo Memory	None														
Modem	56K <sup>6</sup> V.90 (V.92-designed <sup>29</sup> ) modem in Communications Daughter Card socket														
Bluetooth™	Bluetooth 2.0 wireless, USB 2.0 interface via ICH8M, LED indicator														
Ethernet	Gigabit ethernet on systemboard, Intel 82566MM Nineveh (PHY), PCIe x1 (GLCI), PXE														
Intel AMT	Intel Active Management Technology (iAMT)														
Audio support	High Definition (HD) Audio, AD1984JCP codec / stereo speakers, 1 watt / volume up, down, mute buttons / internal microphone, microphone input jack, headphone jack														
Security	Power-on password, hard disk password, supervisor password, security keyhole														
Security chip	<b>Trusted Platform Module</b> , Atmel chip, TCG 1.2-compliant														
Fingerprint reader	<b>Fingerprint reader on palm rest</b> , swipe sensor, supports the security chip														
Limited warranty <sup>12</sup>	<b>3-years/1-yr battery - EasyServ™<sup>19</sup> depot repair service / service upgrades<sup>22</sup> available</b>														
1GB PC2-5300 DDR2 SODIMM	40Y7734				T60/R60 Series Li-Ion Battery 6-cell				40Y6799						
2GB PC2-5300 DDR2 SODIMM	40Y7735				Z60m/T60/R60 Li-Ion Battery 9-cell				40Y6797						
ThinkPad DVD Ultrabay Slim Burner (flat)	41N5643				Advanced Ultrabay Battery II 3-cell				43R9250						
Serial Hard Drive Ultrabay Slim Adapter (flat)	40Y8725				ThinkPad External Battery Charger				40Y7625						
160GB Disk 9.5mm SATA150 (7200 rpm)	41N5737				ThinkPad 90W AC Adapter				40Y7659						
200GB Disk FDE SATA150 (7200 rpm)	41N5738				90W Slim AC/DC Combo Adapter				41N8460						
250GB Disk 9.5mm SATA150 (5400 rpm)	43R8152				ThinkPad Business Topload Case				43R2476						
USB 2.0 Security Memory Key 4GB	41U5120				ThinkPad Business Backpack				43R2482						
USB 2.0 Super Multi-Burner Drive	41N5565				ThinkPad Deluxe Expander Case				43R2478						
USB 2.0 Lenovo Enhanced Port Replicator	43R8770				ThinkPad Executive Leather Case				43R2480						
ThinkPad Adjustable Notebook Stand	40Y7676				ThinkVision® L174 17" LCD Monitor				9227AE1						
ThinkPad Convertible Monitor Stand	40Y7620				ThinkVision L171p 17" LCD Monitor				9417HC2						
ThinkPad Essential Port Replicator	250510W				ThinkVision L190x 19" LCD Monitor				4439HB2						
ThinkPad Advanced Mini Dock	250410U				ThinkVision L193p 19" LCD Monitor				4431HB2						
ThinkPad Advanced Dock	250310U				ThinkVision L220x Wide 22" LCD				4433HB2						
Other accessories on O-T61 sheet	Other accessories at <a href="http://lenovo.com/accessories">lenovo.com/accessories</a>											Other accessories at <a href="http://lenovo.com/thinkplus/warranty">lenovo.com/thinkplus/warranty</a>			

See footnotes for important warranty information  
 US model announced May 31, 2007  
 US model withdrawn effective May 2008

# ThinkPad® T61 (GMA Graphics) - Education (Onsite) - withdrawn

Personal Systems Reference (PSREF)

Proc- Type-model	essor GHz	Memory	Display	Graphics controller	Disk SATA GB <sup>2</sup>	EIDE rpm	EIDE optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN or Turbo	Card slot	Bat- tery cells	Educ pre- load	Limited warranty <sup>12</sup>	Vista preload	Avail date
8896-2BU	T7300	2.00	1GB	14.1" XGA	GMA	120GB	5400 DVD±RW	11a/b/g <sup>32</sup>	None	/54	9	K12	Onsite	Business32	Jun 07
<p>• <b>This model has a limited onsite service<sup>24</sup> 3-year limited warranty</b></p> <p>This educational model is available only to public or private K-12 or higher accredited schools organized and operated exclusively for educational purposes for use by qualified students and teachers.</p>															
Positioning Processor	<p><i>Premiere performance; two spindles</i>  <b>Intel® Core™ 2 Duo processor T7300 with dual-core</b>, Intel 64 Technology, Enhanced Intel SpeedStep® technology<sup>1</sup>, Intel Dynamic Acceleration, Execute Disable Bit, Virtualization Technology, 800MHz system bus, and 4MB shared L2 cache</p>											<p><b>Preloaded operating system<sup>20</sup></b>                      - Microsoft® Windows® Vista™ Business Edition (32-bit)                      ⇨ Vista Basic logo</p>			
Memory	<p><b>1GB</b> std / 4GB max<sup>31</sup> / PC2-5300 667MHz DDR2, non-parity, dual-channel capable, two 200-pin SO-DIMM sockets;  <i>Non-italics:</i> standard memory in 1 socket; 1 socket available</p>											<p><b>Preloaded applications<sup>14</sup></b>                      • Microsoft Office OneNote® 2007 (and CD)                      • (K12): K-12 education software                      - VitalSource Library School Edition                      - Adobe Instructor Resource Center                      - Adobe Digital School Collection                      - Photoshop Elements 5 (and CD)                      - Premier Elements 3 (and DVD)                      - Acrobat 8 Professional (and CD)                      - Contribute 4 (and CD)                      • Rescue and Recovery™                      • Access Connections™                      • Client Security Solution™                      • ThinkVantage Productivity Center                      • ThinkVantage System Update                      • System Migration Assistant                      • Norton Internet Security™ (90 days of virus definitions)                      • Diskeeper® Home                      • PC-Doctor™ (diagnostics)                      • ThinkPad Utilities (Power Manager and Presentation Director)                      • Adobe® Reader                      • Windows Live™ Toolbar                      • Windows Live Search                      • Picasa from Google                      • Fingerprint Software                      • Microsoft Office 2007 Trial (60-day)                      • Sonic RecordNow and Drive Letter Access (DVD±RW)                      • InterVideo WinDVD (DVD±RW)</p>			
Diskette drive	None (use optional USB-based diskette drive)														
EIDE DVD±RW	DVD burner, Ultrabay Slim Burner (41N5643), dual-layer, removable from Ultrabay Slim														
Ultrabay Slim	One modular bay for interchangeable devices (right side), 9.5mm high bay, flat bezel														
Serial ATA disk (SATA150)	<b>120GB<sup>8</sup></b> (5400 rpm) / 9.5mm high, removable, upgradable, 9.5mm high bay, supports 2nd disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™														
Display	<b>14.1"</b> (358.1mm) <b>XGA (1024x768) color</b> , 150 nits, 4:3 aspect ratio, 200:1 contrast ratio, anti-glare														
Camera	None														
Graphics	<b>Intel Graphics Media Accelerator X3100 (GMA X3100)</b> , integrated in GM965, DVI pass-through support to optional Advanced Mini Dock or Advanced Dock														
Keyboard	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys, Windows/Appl keys														
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar <sup>13</sup> , magnifying glass														
Touch pad	UltraNav™ multi-pointing system, touch pad below keyboard, Tap Zones														
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions														
Dimensions <sup>3</sup>	<b>14.1" models (WxDxH):</b> 12.3" x 10.0" x 1.1-1.3"; 313mm x 255mm x 27.5-32.4mm														
Weight <sup>2</sup>	with optical drive and battery: 5.6 lb (2.55kg)														
Case material	<i>Top:</i> Super-Elastic PolyCarbonate (SEPC); <i>Bottom:</i> Carbon-Fiber Reinforced Plastic														
Battery - type	Lithium Ion <b>9-cell</b> / supports unique 2nd battery in Ultrabay Slim														
Battery - life <sup>10</sup>	<b>9-cell:</b> up to 8.6 hr; <b>9-cell plus Ultrabay battery:</b> up to 10.1 hr														
Chipset	<b>Mobile Intel GM965 Express Chipset</b> (Graphics Memory Controller Hub); <b>ICH8M-Enhanced</b> I/O Controller Hub (SATA300, ATA-100 EIDE, PCI Express x1, PCI bus, USB, LPC bus, [Bluetooth], [fingerprint]) / PCI bus (Ricoch® R5C804 Cardbus/1394/Multicard) / LPC bus (WPCN385 Super I/O, Atmel® 97SC3203 TPM)														
PC Card Std slot	One Type I or Type II slot, CardBus 32-bit														
ExpressCard slot	[54] One ExpressCard/34 or ExpressCard/54, PCI Express x1 or USB 2.0														
Smart Card Read	None														
Multicard Reader	None														
Ports	Three USB 2.0, external DB-15 monitor, RJ-11 (modem), RJ-45 (ethernet)														
Wireless antenna	UltraConnect™ II antenna / on-off switch for all wireless radios														
Mini PCI Express	Two Mini PCI Express slots / only 802.11 wireless is customer upgradable														
11a/b/g <sup>32</sup>	11a/b/g wireless <sup>4</sup> , ThinkPad 11a/b/g Mini PCIe Adapter, Atheros AR5006EX														
WWAN	None														
Turbo Memory	None														
Modem	56K <sup>6</sup> V.90 (V.92-designed <sup>29</sup> ) modem in Communications Daughter Card socket														
Bluetooth™	Bluetooth 2.0 wireless, USB 2.0 interface via ICH8M, LED indicator														
Ethernet	Gigabit ethernet on systemboard, Intel 82566MM Nineveh (PHY), PCIe x1 (GLCI), PXE														
Intel AMT	Intel Active Management Technology (iAMT)														
Audio support	High Definition (HD) Audio, AD1984JCP codec / stereo speakers, 1 watt / volume up, down, mute buttons / internal microphone, microphone input jack, headphone jack														
Security	Power-on password, hard disk password, supervisor password, security keyhole														
Security chip	<b>Trusted Platform Module</b> , Atmel chip, TCG 1.2-compliant														
Fingerprint reader	<b>Fingerprint reader on palm rest</b> , swipe sensor, supports the security chip														
Limited warranty <sup>12</sup>	<b>3-years/1-year battery, limited onsite service<sup>24</sup></b> , 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time														
512MB PC2-5300 DDR2 SODIMM	40Y7733				T60/R60 Series Li-Ion Battery 6-cell				40Y6799						
1GB PC2-5300 DDR2 SODIMM	40Y7734				Z60m/T60/R60 Li-Ion Battery 9-cell				40Y6797						
2GB PC2-5300 DDR2 SODIMM	40Y7735				Advanced Ultrabay Battery II 3-cell				43R9250						
ThinkPad DVD Ultrabay Slim Burner (flat)	41N5643				ThinkPad External Battery Charger				40Y7625						
Serial Hard Drive Ultrabay Slim Adapter (flat)	40Y8725				ThinkPad 90W AC Adapter				40Y7659						
160GB Disk 9.5mm SATA150 (7200 rpm)	41N5737				90W Slim AC/DC Combo Adapter				41N8460						
200GB Disk FDE SATA150 (7200 rpm)	41N5738				ThinkPad Business Topload Case				43R2476						
250GB Disk 9.5mm SATA150 (5400 rpm)	43R8152				ThinkPad Business Backpack				43R2482						
USB 2.0 Security Memory Key 4GB	41U5120				ThinkPad Deluxe Expander Case				43R2478						
USB 2.0 Super Multi-Burner Drive	41N5565				ThinkPad Executive Leather Case				43R2480						
ThinkPad Adjustable Notebook Stand	40Y7676				ThinkVision® L174 17" LCD Monitor				9227AE1						
ThinkPad Convertible Monitor Stand	40Y7620				ThinkVision L171p 17" LCD Monitor				9417HC2						
ThinkPad Essential Port Replicator	250510W				ThinkVision L190x 19" LCD Monitor				4439HB2						
ThinkPad Advanced Mini Dock	250410U				ThinkVision L193p 19" LCD Monitor				4431HB2						
ThinkPad Advanced Dock	250310U				ThinkVision L220x Wide 22" LCD				4433HB2						
Other accessories on O-T61 sheet												Other accessories at <a href="http://lenovo.com/accessories">lenovo.com/accessories</a>			
											Supports ThinkVantage® technologies				
											65-watt (GMA graphics) AC adapter ThinkPad Roll Cage and Top Cover Roll Cage (one-piece magnesium) ENERGY STAR® 4.0-compliant RoHS-compliant International Warranty Service <sup>17</sup> 24 hour x 7 day <sup>18</sup> toll-free support during the warranty period <sup>12</sup> via 800-426-7378				
											Post-warranty annual maintenance agreements at <a href="http://lenovo.com/thinkplus/warranty">lenovo.com/thinkplus/warranty</a>				

See footnotes for important warranty information  
 US model announced May 31, 2007  
 US model withdrawn effective May 2008



# ThinkPad® T61 8889 (NVIDIA Graphics) - withdrawn

Personal Systems Reference (PSREF)

Proc- Type-model	essor GHz	Memory GB	Display Size	Graphics controller memory	Disk SATA GB <sup>5</sup> rpm	EIDE optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN or Turbo	Card slot	Blue- tooth	Bat- tery cells	Workhorse (W) Vista Global (G) preload Entry (E)	Avail date
8889-26U	T7300	2.00	1GB	14.1" SXGA+	128MB	80GB 5400	Combo	* Intel 4965AG <sup>32</sup>	None	Smart	Blue	6 Business32	W G July 07
8889-01U	T7300	2.00	1GB	14.1" SXGA+	128MB	80GB 5400	Combo	* Intel 4965AG	None	Smart	Blue	6 XP Pro	Sep 07
8889-02U	T7500	2.20	1GB	14.1" SXGA+	128MB	100G 7200	DVD±RW	* Intel 4965AG	None	/54	Blue	9 XP Pro	Sep 07

*Italic MTM: not a base model for building a custom model*

Positioning Processor	<i>Premiere performance; two spindles</i> <b>Intel® Core™ 2 Duo processor T7300 or T7500</b> with <b>dual-core</b> , Intel 64 Technology, Enhanced Intel SpeedStep® technology <sup>1</sup> , Intel Dynamic Acceleration, Execute Disable Bit, Virtualization Technology, 800MHz system bus, and 4MB shared L2 cache										<b>Preloaded operating system<sup>20</sup></b> - <i>Some:</i> Microsoft® Windows® XP Professional - <i>Some:</i> Microsoft Windows Vista™ Business Edition (32-bit) ◇ <i>Vista models:</i> Vista Premium logo		
Memory	<b>1GB</b> std / 4GB max <sup>31</sup> / PC2-5300 667MHz DDR2, non-parity, dual-channel capable, two 200-pin SO-DIMM sockets; <i>Non-italics:</i> standard memory in 1 socket; 1 socket available										<b>Preloaded applications<sup>14</sup></b> (all OSes) • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • ThinkVantage System Update • System Migration Assistant • Norton Internet Security (90 days of virus definitions) • Diskeeper® Home • PC-Doctor™ (diagnostics) • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader • Windows Live™ Toolbar • Windows Live Search • Picasa from Google • Fingerprint Software • Microsoft Office 2007 Trial (60-day) • Sonic RecordNow and Drive Letter Access (combo, DVD±RW) • InterVideo WinDVD (combo, DVD±RW) • InterVideo WinDVD Creator (XP Pro DVD±RW models)		
Diskette drive	None (use optional USB-based diskette drive)												
EIDE Combo	DVD-ROM/CD-RW, 24X/24X/24X/8X <sup>21</sup> speed, removable from Ultrabay Slim												
EIDE DVD±RW	DVD burner, Ultrabay Slim Burner (41N5643), dual-layer, removable from Ultrabay Slim												
Ultrabay Slim	One modular bay for interchangeable devices (right side), 9.5mm high bay, flat bezel												
Serial ATA disk (SATA150)	<b>80GB<sup>8</sup></b> (5400 rpm) / 9.5mm high, removable, upgradable, 9.5mm high bay, supports 2nd disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™												
Display	<b>14.1"</b> (358.1mm) <b>SXGA+ (1400x1050) color</b> , 150 nits, 4:3 aspect ratio, 200:1 contrast ratio, anti-glare												
Camera	None												
Graphics	<b>NVIDIA® Quadro® NVS 140M</b> , PCI Express x16, <b>128MB</b> memory, TurboCache, DVI pass-through support to optional Advanced Mini Dock or Advanced Dock												
Keyboard	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys, Windows/Apl keys												
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar <sup>13</sup> , magnifying glass												
Touch pad	UltraNav™ multi-pointing system, touch pad below keyboard, Tap Zones												
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions												
Dimensions <sup>3</sup>	<i>14.1" models (WxDxH):</i> 12.3" x 10.0" x 1.1-1.3"; 313mm x 255mm x 27.5-32.4mm with optical drive and battery: <i>6-cell:</i> 5.3 lb (2.4kg); <i>9-cell:</i> 5.6 lb (2.55kg)												
Weight <sup>2</sup>													
Case material	<i>Top:</i> Super-Elastic Polycarbonate (SEPC); <i>Bottom:</i> Carbon-Fiber Reinforced Plastic												
Battery - type	Lithium Ion <b>6-cell</b> or <b>9-cell</b> / supports unique 2nd battery in Ultrabay Slim												
Battery - life <sup>10</sup>	<i>6-cell:</i> up to 4.0 hr; <i>9-cell:</i> up to 6.0 hr; <i>9-cell plus Ultrabay battery:</i> up to 8.0 hr												
Chipset	<b>Mobile Intel PM965 Express Chipset</b> (Memory Controller Hub); <b>ICH8M-Enhanced</b> I/O Controller Hub (SATA300, ATA-100 EIDE, PCI Express x1, PCI bus, USB, LPC bus, [Bluetooth], [fingerprint]) / PCI bus (Ricoh® R5C804 Cardbus/1394/Multicard) / LPC bus (WPCN385 Super I/O, Atmel® 97SC3203 TPM)												
PC Card Std slot	One Type I or Type II slot, CardBus 32-bit												
ExpressCard slot	<i>Some:</i> [/54] One ExpressCard/34 or ExpressCard/54, PCI Express x1 or USB 2.0												
Smart Card Read	<i>Some:</i> Smart Card Reader												
Multicard Reader	None												
Ports	Three USB 2.0, external DB-15 monitor, RJ-11 (modem), RJ-45 (ethernet)												
Wireless antenna	UltraConnect™ II antenna / on-off switch for all wireless radios												
Mini PCI Express	Two Mini PCI Express slots / only 802.11 wireless is customer upgradable												
Intel 4965AG <sup>32</sup>	11a/b/g wireless <sup>4</sup> , Mini PCIe adapter, Intel Wireless WiFi Link 4965AG												
WWAN	None												
Turbo Memory	None												
Modem	56K <sup>6</sup> V.90 (V.92-designed <sup>29</sup> ) modem in Communications Daughter Card socket												
Bluetooth™	Bluetooth 2.0 wireless, USB 2.0 interface via ICH8M, LED indicator												
Ethernet	Gigabit ethernet on systemboard, Intel 82566MM Nineveh (PHY), PCIe x1 (GLCI), PXE												
Intel AMT	Intel Active Management Technology (iAMT)												
Audio support	High Definition (HD) Audio, AD1984JCP codec / stereo speakers, 1 watt / volume up, down, mute buttons / internal microphone, microphone input jack, headphone jack												
Security	Power-on password, hard disk password, supervisor password, security keyhole												
Security chip	<b>Trusted Platform Module</b> , Atmel chip, TCG 1.2-compliant												
Fingerprint reader	<b>Fingerprint reader on palm rest</b> , swipe sensor, supports the security chip												
Limited warranty <sup>12</sup>	<b>3-years/1-yr battery</b> - EasyServ™ <sup>19</sup> depot repair service / service upgrades <sup>22</sup> available												
1GB PC2-5300 DDR2 SODIMM	40Y7734			T60/R60 Series Li-Ion Battery 6-cell			40Y6799						
2GB PC2-5300 DDR2 SODIMM	40Y7735			Z60m/T60/R60 Li-Ion Battery 9-cell			40Y6797						
ThinkPad DVD Ultrabay Slim Burner (flat)	41N5643			Advanced Ultrabay Battery II 3-cell			43R9250			ThinkPlus™ <sup>22</sup> 2-year LOR 9x5 NBD			
Serial Hard Drive Ultrabay Slim Adapter (flat)	40Y8725			ThinkPad External Battery Charger			40Y7625			41C9175			
160GB Disk 9.5mm SATA150 (7200 rpm)	41N5737			ThinkPad 90W AC Adapter			40Y7659			41C9176			
200GB Disk FDE SATA150 (7200 rpm)	41N5738			90W Slim AC/DC Combo Adapter			41N8460			ThinkPlus 4-year LOR 9x5 NBD			
250GB Disk 9.5mm SATA150 (5400 rpm)	43R8152			ThinkPad Business Topload Case			43R2476			41C9177			
USB 2.0 Security Memory Key 4GB	41U5120			ThinkPad Business Backpack			43R2482			ThinkPlus 5-year LOR 9x5 NBD			
USB 2.0 Super Multi-Burner Drive	41N5565			ThinkPad Deluxe Expander Case			43R2478			41C9179			
USB 2.0 Lenovo Enhanced Port Replicator	43R8770			ThinkPad Executive Leather Case			43R2480			ThinkPlus 4-year P&L P/U Depot			
ThinkPad Adjustable Notebook Stand	40Y7676			ThinkVision® L174 17" LCD			9227AE1			41C9178			
ThinkPad Convertible Monitor Stand	40Y7620			ThinkVision L171p 17" LCD Monitor			9417HC2			ThinkPlus 5-year P&L P/U Depot			
ThinkPad Essential Port Replicator	250510W			ThinkVision L190x 19" LCD Monitor			4439HB2			41C9180			
ThinkPad Advanced Mini Dock	250410U			ThinkVision L193p 19" LCD Monitor			4431HB2			Post-warranty annual maintenance agreements at			
ThinkPad Advanced Dock	250310U			ThinkVision L220x Wide 22" LCD			4433HB2			lenovo.com/thinkplus/warranty			
Other accessories on O-T61 sheet											Other accessories at <b>lenovo.com/accessories</b>		

See footnotes for important warranty information  
US models announced July 10 or September 5, 2007  
US models withdrawn effective May 2008

\* Intel Centrino® with vPro™ technology

© Lenovo  
(DV3-4) May 2008

# ThinkPad® T61 (NVIDIA Graphics) - Education (EasyServ) - withdrawn

Personal Systems Reference (PSREF)

Proc- Type-model	essor GHz	Memory	Display	Graphics controller memory	Disk SATA GB <sup>2</sup> rpm	EIDE optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN or Turbo	Card slot	Bat- tery cells	Educ pre- load	Limited warranty <sup>12</sup>	Vista preload	Avail date
8889-24U	T7300	2.00	1GB 14.1"	128MB SXGA+	120G 5400	DVD±RW	11a/b/g <sup>32</sup>	None	/54	9	HE	EasyServ	Business32	July 07
<p>• <b>This model has an EasyServ™<sup>19</sup> depot repair service 3-year limited warranty</b>                      This educational model is available only to public or private K-12 or higher accredited schools organized and operated exclusively for educational purposes for use by qualified students and teachers.</p>														
Positioning Processor	<p><i>Premiere performance; two spindles</i>  <b>Intel® Core™ 2 Duo processor T7300 with dual-core,</b> Intel 64 Technology, Enhanced Intel SpeedStep® technology<sup>1</sup>, Intel Dynamic Acceleration, Execute Disable Bit, Virtualization Technology, 800MHz system bus, and 4MB shared L2 cache</p>											<p><b>Preloaded operating system<sup>20</sup></b>                      - Microsoft® Windows® Vista™ Business Edition (32-bit)                      ♦ Vista Premium logo</p>		
Memory	<p><b>1GB</b> std / 4GB max<sup>31</sup> / PC2-5300 667MHz DDR2, non-parity, dual-channel capable, two 200-pin SO-DIMM sockets;  <i>Non-italics:</i> standard memory in 1 socket; 1 socket available</p>											<p><b>Preloaded applications<sup>14</sup></b>                      • Microsoft Office OneNote® 2007 (and CD)                      • (HE): Higher education software                      - VitalSource Library College Edition                      - Adobe® Instructor Resource Center                      - Adobe Photoshop Elements 5 (and CD)                      - Adobe Premier Elements 3 (and DVD)                      • Rescue and Recovery™                      • Access Connections™                      • Client Security Solution™                      • ThinkVantage Productivity Center                      • ThinkVantage System Update                      • System Migration Assistant                      • Norton Internet Security (90 days of virus definitions)                      • Diskeeper™ Home                      • PC-Doctor™ (diagnostics)                      • ThinkPad Utilities (Power Manager and Presentation Director)                      • Adobe® Reader                      • Windows Live™ Toolbar                      • Windows Live Search                      • Picasa from Google                      • Fingerprint Software                      • Microsoft Office 2007 Trial (60-day)                      • Sonic RecordNow and Drive Letter Access (DVD±RW)                      • InterVideo WinDVD (DVD±RW)</p>		
Diskette drive	None (use optional USB-based diskette drive)											<p>• Microsoft Office OneNote® 2007 (and CD)                      • (HE): Higher education software                      - VitalSource Library College Edition                      - Adobe® Instructor Resource Center                      - Adobe Photoshop Elements 5 (and CD)                      - Adobe Premier Elements 3 (and DVD)                      • Rescue and Recovery™                      • Access Connections™                      • Client Security Solution™                      • ThinkVantage Productivity Center                      • ThinkVantage System Update                      • System Migration Assistant                      • Norton Internet Security (90 days of virus definitions)                      • Diskeeper™ Home                      • PC-Doctor™ (diagnostics)                      • ThinkPad Utilities (Power Manager and Presentation Director)                      • Adobe® Reader                      • Windows Live™ Toolbar                      • Windows Live Search                      • Picasa from Google                      • Fingerprint Software                      • Microsoft Office 2007 Trial (60-day)                      • Sonic RecordNow and Drive Letter Access (DVD±RW)                      • InterVideo WinDVD (DVD±RW)</p>		
EIDE DVD±RW	DVD burner, Ultrabay Slim Burner (41N5643), dual-layer, removable from Ultrabay Slim													
Ultrabay Slim	One modular bay for interchangeable devices (right side), 9.5mm high bay, flat bezel													
Serial ATA disk (SATA150)	<p><b>120GB<sup>8</sup></b> (5400 rpm) / 9.5mm high, removable, upgradable, 9.5mm high bay, supports 2nd disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™</p>													
Display	<p><b>14.1"</b> (358.1mm) <b>SXGA+ (1400x1050) color</b>, 150 nits, 4:3 aspect ratio, 200:1 contrast ratio, anti-glare</p>											<p>Supports ThinkVantage® technologies</p> <p>90-watt (NVIDIA graphic) AC adapter                      ThinkPad Roll Cage and Top Cover                      Roll Cage (one-piece magnesium)                      ENERGY STAR® 4.0-compliant                      RoHS-compliant                      International Warranty Service<sup>17</sup>                      24 hour x 7 day<sup>18</sup> toll-free support during the warranty period<sup>12</sup>                      via 800-426-7378</p> <p>ThinkPlus™<sup>22</sup> 2-year LOR 9x5 NBD                      41C9175                      ThinkPlus 3-year LOR 9x5 NBD                      41C9176                      ThinkPlus 4-year LOR 9x5 NBD                      41C9177                      ThinkPlus 5-year LOR 9x5 NBD                      41C9179                      ThinkPlus 4-year P&amp;L P/U Depot                      41C9178                      ThinkPlus 5-year P&amp;L P/U Depot                      41C9180                      Post-warranty annual maintenance agreements at  <b>lenovo.com/thinkplus/warranty</b></p>		
Camera	None													
Graphics	<p><b>NVIDIA® Quadro® NVS 140M</b>, PCI Express x16, <b>128MB</b> memory, TurboCache, DVI pass-through support to optional Advanced Mini Dock or Advanced Dock</p>													
Keyboard	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys, Windows/Appl keys													
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar <sup>13</sup> , magnifying glass													
Touch pad	UltraNav™ multi-pointing system, touch pad below keyboard, Tap Zones													
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions													
Dimensions <sup>3</sup>	<p><i>14.1" models (WxDxH):</i> 12.3" x 10.0" x 1.1-1.3"; 313mm x 255mm x 27.5-32.4mm with optical drive and battery; 5.6 lb (2.55kg)</p>													
Weight <sup>2</sup>	<p><i>Top:</i> Super-Elastic PolyCarbonate (SEPC); <i>Bottom:</i> Carbon-Fiber Reinforced Plastic</p>													
Case material	<p><i>Top:</i> Super-Elastic PolyCarbonate (SEPC); <i>Bottom:</i> Carbon-Fiber Reinforced Plastic</p>													
Battery - type	Lithium Ion <b>9-cell</b> / supports unique 2nd battery in Ultrabay Slim													
Battery - life <sup>10</sup>	<p><i>9-cell:</i> up to 6.0 hr; <i>9-cell plus Ultrabay battery:</i> up to 8.0 hr</p>													
Chipset	<p><b>Mobile Intel® PM965 Express Chipset</b> (Memory Controller Hub); <b>ICH8M-Enhanced</b> I/O Controller Hub (SATA300, ATA-100 EIDE, PCI Express x1, PCI bus, USB, LPC bus, [Bluetooth], [fingerprint]) / PCI bus (Ricoch® R5C804 Cardbus/1394/Multicard) / LPC bus (WPCN385 Super I/O, Atmel® 97SC3203 TPM)</p>											<p>Supports ThinkVantage® technologies</p> <p>90-watt (NVIDIA graphic) AC adapter                      ThinkPad Roll Cage and Top Cover                      Roll Cage (one-piece magnesium)                      ENERGY STAR® 4.0-compliant                      RoHS-compliant                      International Warranty Service<sup>17</sup>                      24 hour x 7 day<sup>18</sup> toll-free support during the warranty period<sup>12</sup>                      via 800-426-7378</p> <p>ThinkPlus™<sup>22</sup> 2-year LOR 9x5 NBD                      41C9175                      ThinkPlus 3-year LOR 9x5 NBD                      41C9176                      ThinkPlus 4-year LOR 9x5 NBD                      41C9177                      ThinkPlus 5-year LOR 9x5 NBD                      41C9179                      ThinkPlus 4-year P&amp;L P/U Depot                      41C9178                      ThinkPlus 5-year P&amp;L P/U Depot                      41C9180                      Post-warranty annual maintenance agreements at  <b>lenovo.com/thinkplus/warranty</b></p>		
PC Card Std slot	One Type I or Type II slot, CardBus 32-bit													
ExpressCard slot	[54] One ExpressCard/34 or ExpressCard/54, PCI Express x1 or USB 2.0													
Smart Card Read	None													
Multicard Reader	None													
Ports	Three USB 2.0, external DB-15 monitor, RJ-11 (modem), RJ-45 (ethernet)													
Wireless antenna	UltraConnect™ II antenna / on-off switch for all wireless radios													
Mini PCI Express	Two Mini PCI Express slots / only 802.11 wireless is customer upgradable													
11a/b/g <sup>32</sup>	11a/b/g wireless <sup>4</sup> , ThinkPad 11a/b/g Mini PCIe Adapter, Atheros AR5006EX													
WWAN	None													
Turbo Memory	None													
Modem	56K <sup>6</sup> V.90 (V.92-designed <sup>29</sup> ) modem in Communications Daughter Card socket													
Bluetooth™	Bluetooth 2.0 wireless, USB 2.0 interface via ICH8M, LED indicator													
Ethernet	Gigabit ethernet on systemboard, Intel 82566MM Nineveh (PHY), PCIe x1 (GLCI), PXE													
Intel AMT	Intel Active Management Technology (iAMT)													
Audio support	High Definition (HD) Audio, AD1984JCP codec / stereo speakers, 1 watt / volume up, down, mute buttons / internal microphone, microphone input jack, headphone jack													
Security	Power-on password, hard disk password, supervisor password, security keyhole													
Security chip	<b>Trusted Platform Module</b> , Atmel chip, TCG 1.2-compliant													
Fingerprint reader	<b>Fingerprint reader on palm rest</b> , swipe sensor, supports the security chip													
Limited warranty <sup>12</sup>	<p><b>3-years/1-yr battery - EasyServ™<sup>19</sup> depot repair service / service upgrades<sup>22</sup> available</b></p>											<p>Supports ThinkVantage® technologies</p> <p>90-watt (NVIDIA graphic) AC adapter                      ThinkPad Roll Cage and Top Cover                      Roll Cage (one-piece magnesium)                      ENERGY STAR® 4.0-compliant                      RoHS-compliant                      International Warranty Service<sup>17</sup>                      24 hour x 7 day<sup>18</sup> toll-free support during the warranty period<sup>12</sup>                      via 800-426-7378</p> <p>ThinkPlus™<sup>22</sup> 2-year LOR 9x5 NBD                      41C9175                      ThinkPlus 3-year LOR 9x5 NBD                      41C9176                      ThinkPlus 4-year LOR 9x5 NBD                      41C9177                      ThinkPlus 5-year LOR 9x5 NBD                      41C9179                      ThinkPlus 4-year P&amp;L P/U Depot                      41C9178                      ThinkPlus 5-year P&amp;L P/U Depot                      41C9180                      Post-warranty annual maintenance agreements at  <b>lenovo.com/thinkplus/warranty</b></p>		
512MB PC2-5300 DDR2 SODIMM	40Y7733				T60/R60 Series Li-Ion Battery 6-cell				40Y6799					
1GB PC2-5300 DDR2 SODIMM	40Y7734				Z60m/T60/R60 Li-Ion Battery 9-cell				40Y6797					
2GB PC2-5300 DDR2 SODIMM	40Y7735				Advanced Ultrabay Battery II 3-cell				43R9250					
ThinkPad DVD Ultrabay Slim Burner (flat)	41N5643				ThinkPad External Battery Charger				40Y7625					
Serial Hard Drive Ultrabay Slim Adapter (flat)	40Y8725				ThinkPad 90W AC Adapter				40Y7659					
160GB Disk 9.5mm SATA150 (7200 rpm)	41N5737				90W Slim AC/DC Combo Adapter				41N8460					
200GB Disk FDE SATA150 (7200 rpm)	41N5738				ThinkPad Business Topload Case				43R2476					
250GB Disk 9.5mm SATA150 (5400 rpm)	43R8152				ThinkPad Business Backpack				43R2482					
USB 2.0 Security Memory Key 4GB	41U5120				ThinkPad Deluxe Expander Case				43R2478					
USB 2.0 Super Multi-Burner Drive	41N5565				ThinkPad Executive Leather Case				43R2480					
ThinkPad Adjustable Notebook Stand	40Y7676				ThinkVision® L174 17" LCD Monitor				9227AE1					
ThinkPad Convertible Monitor Stand	40Y7620				ThinkVision L171p 17" LCD Monitor				9417HC2					
ThinkPad Essential Port Replicator	250510W				ThinkVision L190x 19" LCD Monitor				4439HB2					
ThinkPad Advanced Mini Dock	250410U				ThinkVision L193p 19" LCD Monitor				4431HB2					
ThinkPad Advanced Dock	250310U				ThinkVision L220x Wide 22" LCD				4433HB2					
Other accessories on O-T61 sheet					Other accessories at <b>lenovo.com/accessories</b>									

See footnotes for important warranty information  
 US model announced July 10, 2007  
 US model withdrawn effective May 2008

# ThinkPad® T61 (NVIDIA Graphics) - Education (Onsite) - withdrawn

Personal Systems Reference (PSREF)

Proc- Type-model	essor GHz	Memory	Display	Graphics controller memory	Disk SATA GB <sup>8</sup> rpm	EIDE optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN or Turbo	Card slot	Bat- tery cells	Educ pre- load	Limited warranty <sup>12</sup>	Vista preload	Avail date		
8890-24U	T7300	2.00	1GB	14.1" SXGA+	128MB	120G	5400	DVD±RW	11a/b/g <sup>32</sup>	None	/54	9	HE	Onsite	Business32	July07
<p>• <b>This model has a limited onsite service<sup>24</sup> 3-year limited warranty</b></p> <p>This educational model is available only to public or private K-12 or higher accredited schools organized and operated exclusively for educational purposes for use by qualified students and teachers.</p>																
Positioning Processor	<p><i>Premiere performance; two spindles</i>  <b>Intel® Core™ 2 Duo processor T7300 with dual-core</b>, Intel 64 Technology, Enhanced Intel SpeedStep® technology<sup>1</sup>, Intel Dynamic Acceleration, Execute Disable Bit, Virtualization Technology, 800MHz system bus, and 4MB shared L2 cache</p>											<p><b>Preloaded operating system<sup>20</sup></b>                      - Microsoft® Windows® Vista™ Business Edition (32-bit)                      ⇨ Vista Premium logo</p>				
Memory	<p><b>1GB</b> std / 4GB max<sup>31</sup> / PC2-5300 667MHz DDR2, non-parity, dual-channel capable, two 200-pin SO-DIMM sockets;  <i>Non-italics:</i> standard memory in 1 socket; 1 socket available</p>											<p><b>Preloaded applications<sup>14</sup></b>                      • Microsoft Office OneNote® 2007 (and CD)                      • (HE): Higher education software                      - VitalSource Library College Edition                      - Adobe® Instructor Resource Center                      - Adobe Photoshop Elements 5 (and CD)                      - Adobe Premier Elements 3 (and DVD)                      • Rescue and Recovery™                      • Access Connections™                      • Client Security Solution™                      • ThinkVantage Productivity Center                      • ThinkVantage System Update                      • System Migration Assistant                      • Norton Internet Security (90 days of virus definitions)                      • Diskkeeper™ Home                      • PC-Doctor™ (diagnostics)                      • ThinkPad Utilities (Power Manager and Presentation Director)                      • Adobe® Reader                      • Windows Live™ Toolbar                      • Windows Live Search                      • Picasa from Google                      • Fingerprint Software                      • Microsoft Office 2007 Trial (60-day)                      • Sonic RecordNow and Drive Letter Access (DVD±RW)                      • InterVideo WinDVD (DVD±RW)</p>				
Diskette drive	None (use optional USB-based diskette drive)															
EIDE DVD±RW	DVD burner, Ultrabay Slim Burner (41N5643), dual-layer, removable from Ultrabay Slim															
Ultrabay Slim	One modular bay for interchangeable devices (right side), 9.5mm high bay, flat bezel															
Serial ATA disk (SATA150)	<p><b>120GB<sup>9</sup></b> (5400 rpm) / 9.5mm high, removable, upgradable, 9.5mm high bay, supports 2nd disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™</p>															
Display	<p><b>14.1"</b> (358.1mm) <b>SXGA+ (1400x1050) color</b>, 150 nits, 4:3 aspect ratio, 200:1 contrast ratio, anti-glare</p>															
Camera	None															
Graphics	<p><b>NVIDIA® Quadro® NVS 140M</b>, PCI Express x16, <b>128MB</b> memory, TurboCache, DVI pass-through support to optional Advanced Mini Dock or Advanced Dock</p>															
Keyboard	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys, Windows/Appl keys															
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar <sup>13</sup> , magnifying glass															
Touch pad	UltraNav™ multi-pointing system, touch pad below keyboard, Tap Zones															
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions															
Dimensions <sup>3</sup>	<p><i>14.1" models (WxDxH):</i> 12.3" x 10.0" x 1.1-1.3"; 313mm x 255mm x 27.5-32.4mm with optical drive and battery; 5.6 lb (2.55kg)</p>															
Weight <sup>2</sup>	<p><i>Top:</i> Super-Elastic PolyCarbonate (SEPC); <i>Bottom:</i> Carbon-Fiber Reinforced Plastic</p>															
Case material	<p><i>Battery - type</i> 9-cell / supports unique 2nd battery in Ultrabay Slim</p>															
Battery - type	<p><i>Battery - life<sup>10</sup></i> 9-cell: up to 6.0 hr; 9-cell plus Ultrabay battery: up to 8.0 hr</p>															
Chipset	<p><b>Mobile Intel® PM965 Express Chipset</b> (Memory Controller Hub); <b>ICH8M-Enhanced</b> I/O Controller Hub (SATA300, ATA-100 EIDE, PCI Express x1, PCI bus, USB, LPC bus, [Bluetooth], [fingerprint]) / PCI bus (Ricoch® R5C804 Cardbus/1394/Multicard) / LPC bus (WPCN385 Super I/O, Atmel® 97SC3203 TPM)</p>															
PC Card Std slot	One Type I or Type II slot, CardBus 32-bit															
ExpressCard slot	[/54] One ExpressCard/34 or ExpressCard/54, PCI Express x1 or USB 2.0															
Smart Card Read	None															
Multicard Reader	None															
Ports	Three USB 2.0, external DB-15 monitor, RJ-11 (modem), RJ-45 (ethernet)															
Wireless antenna	UltraConnect™ II antenna / on-off switch for all wireless radios															
Mini PCI Express	Two Mini PCI Express slots / only 802.11 wireless is customer upgradable															
11a/b/g <sup>32</sup>	11a/b/g wireless <sup>4</sup> , ThinkPad 11a/b/g Mini PCIe Adapter, Atheros AR5006EX															
WWAN	None															
Turbo Memory	None															
Modem	56K <sup>6</sup> V.90 (V.92-designed <sup>29</sup> ) modem in Communications Daughter Card socket															
Bluetooth™	Bluetooth 2.0 wireless, USB 2.0 interface via ICH8M, LED indicator															
Ethernet	Gigabit ethernet on systemboard, Intel 82566MM Nineveh (PHY), PCIe x1 (GLCI), PXE															
Intel AMT	Intel Active Management Technology (iAMT)															
Audio support	High Definition (HD) Audio, AD1984JCP codec / stereo speakers, 1 watt / volume up, down, mute buttons / internal microphone, microphone input jack, headphone jack															
Security	Power-on password, hard disk password, supervisor password, security keyhole															
Security chip	<b>Trusted Platform Module</b> , Atmel chip, TCG 1.2-compliant															
Fingerprint reader	<b>Fingerprint reader on palm rest</b> , swipe sensor, supports the security chip															
Limited warranty <sup>12</sup>	<p><b>3-years/1-year battery, limited onsite service<sup>24</sup></b>, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time</p>															
1GB PC2-5300 DDR2 SODIMM	40Y7734			T60/R60 Series Li-Ion Battery 6-cell			40Y6799									
2GB PC2-5300 DDR2 SODIMM	40Y7735			Z60m/T60/R60 Li-Ion Battery 9-cell			40Y6797									
ThinkPad DVD Ultrabay Slim Burner (flat)	41N5643			Advanced Ultrabay Battery II 3-cell			43R9250			Supports ThinkVantage® technologies						
Serial Hard Drive Ultrabay Slim Adapter (flat)	40Y8725			ThinkPad External Battery Charger			40Y7625			90-watt (NVIDIA graphic) AC adapter						
160GB Disk 9.5mm SATA150 (7200 rpm)	41N5737			ThinkPad 90W AC Adapter			40Y7659			ThinkPad Roll Cage and Top Cover						
200GB Disk FDE SATA150 (7200 rpm)	41N5738			90W Slim AC/DC Combo Adapter			41N8460			Roll Cage (one-piece magnesium)						
250GB Disk 9.5mm SATA150 (5400 rpm)	43R8152			ThinkPad Business Topload Case			43R2476			ENERGY STAR® 4.0-compliant						
USB 2.0 Security Memory Key 4GB	41U5120			ThinkPad Business Backpack			43R2482			RoHS-compliant						
USB 2.0 Super Multi-Burner Drive	41N5565			ThinkPad Deluxe Expander Case			43R2478			International Warranty Service <sup>17</sup>						
USB 2.0 Lenovo Enhanced Port Replicator	43R8770			ThinkPad Executive Leather Case			43R2480			24 hour x 7 day <sup>18</sup> toll-free support						
ThinkPad Adjustable Notebook Stand	40Y7676			ThinkVision® L171p 17" LCD Monitor			9417HC2			during the warranty period <sup>12</sup>						
ThinkPad Convertible Monitor Stand	40Y7620			ThinkVision L190x 19" LCD Monitor			4439HB2			via 800-426-7378						
ThinkPad Essential Port Replicator	250510W			ThinkVision L193p 19" LCD Monitor			4431HB2									
ThinkPad Advanced Mini Dock	250410U			ThinkVision L197 Wide 19" LCD Monitor			4434HE1			Post-warranty annual maintenance						
ThinkPad Advanced Dock	250310U			ThinkVision L220x Wide 22" LCD			4433HB2			agreements at						
Other accessories on O-T61 sheet	Other accessories at <a href="http://lenovo.com/accessories">lenovo.com/accessories</a>															
<p>See footnotes for important warranty information                      US model announced July 10, 2007                      US model withdrawn effective May 2008</p>																

# ThinkPad® T61 8892 (NVIDIA Graphics) - TopSeller - withdrawn

Personal Systems Reference (PSREF)

Proc- Type-model	essor GHz	Memory GB	Display	Graphics controller memory	Disk SATA GB <sup>3</sup>	rpm	EIDE optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN or Turbo	Card slot	Blue- tooth	Bat- tery cells	Preload	Workhorse (W) Global (G) Entry (E)	Avail date	
8892-01U	T7100	1.80	1GB	14.1" SXGA+	128MB	100G	7200	DVD±RW	* Intel 11a/b/g <sup>32</sup>	None	/54	Blue	6	XP Pro	No	Sep07
8892-02U	T7500	2.20	1GB	14.1" SXGA+	128MB	100G	7200	DVD±RW	* Intel 11n <sup>28</sup>	None	/54	Blue	9	XP Pro	No	Sep07
<ul style="list-style-type: none"> <li>• <b>These small and medium business (SMB) models are part of the US TopSeller™ Program</b></li> <li>• <b>These models have a 3-year limited warranty<sup>12</sup></b></li> </ul>																
Positioning Processor	<i>Premiere performance; two spindles</i> <b>Intel® Core™ 2 Duo processor T7100 or T7500 with dual-core,</b> Intel 64 Technology, Enhanced Intel SpeedStep® technology <sup>1</sup> , Intel Dynamic Acceleration, Execute Disable Bit, Virtualization Technology, and 800MHz system bus; <i>T7100: 2MB shared L2 cache; T7500: 4MB shared L2 cache</i>											<b>Preloaded operating system<sup>20</sup></b> - Microsoft® Windows® XP Professional  <b>Preloaded applications<sup>14</sup></b> <ul style="list-style-type: none"> <li>• Rescue and Recovery™</li> <li>• Access Connections™</li> <li>• Client Security Solution™</li> <li>• ThinkVantage Productivity Center</li> <li>• ThinkVantage System Update</li> <li>• System Migration Assistant</li> <li>• Norton Internet Security (90 days of virus definitions)</li> <li>• Diskeeper® Home</li> <li>• PC-Doctor™ (diagnostics)</li> <li>• ThinkPad Utilities (Power Manager and Presentation Director)</li> <li>• Adobe® Reader</li> <li>• Windows Live™ Toolbar</li> <li>• Windows Live Search</li> <li>• Picasa from Google</li> <li>• Fingerprint Software</li> <li>• Microsoft Office 2007 Trial (60-day)</li> <li>• Sonic RecordNOW and Drive Letter Access (DVD±RW models)</li> <li>• InterVideo WinDVD (DVD±RW)</li> <li>• InterVideo WinDVD Creator (DVD±RW)</li> </ul>				
Memory	<b>1GB</b> std / 4GB max <sup>31</sup> / PC2-5300 667MHz DDR2, non-parity, dual-channel capable, two 200-pin SO-DIMM sockets; <i>Non-italics: standard memory in 1 socket; 1 socket available</i>															
Diskette drive	None (use optional USB-based diskette drive)															
EIDE DVD±RW	DVD burner, Ultrabay Slim Burner (41N5643), dual-layer, removable from Ultrabay Slim															
Ultrabay Slim	One modular bay for interchangeable devices (right side), 9.5mm high bay, flat bezel															
Serial ATA disk (SATA150)	<b>100GB<sup>8</sup></b> (7200 rpm) / 9.5mm high, removable, upgradable, 9.5mm high bay, supports 2nd disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™															
Display	<b>14.1"</b> (358.1mm) <b>SXGA+ (1400x1050) color</b> , 150 nits, 4:3 aspect ratio, 200:1 contrast ratio, anti-glare															
Camera	None															
Graphics	<b>NVIDIA® Quadro® NVS 140M</b> , PCI Express x16, <b>128MB</b> memory, TurboCache, DVI pass-through support to optional Advanced Mini Dock or Advanced Dock															
Keyboard	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys, Windows/Appl keys															
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar <sup>13</sup> , magnifying glass															
Touch pad	UltraNav™ multi-pointing system, touch pad below keyboard, Tap Zones															
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions															
Dimensions <sup>3</sup>	<b>14.1" models (WxDxH):</b> 12.3" x 10.0" x 1.1-1.3"; 313mm x 255mm x 27.5-32.4mm with optical drive and battery; <i>6-cell: 5.3 lb (2.4kg); 9-cell: 5.6 lb (2.55kg)</i>															
Weight <sup>2</sup>																
Case material	<i>Top: Super-Elastic PolyCarbonate (SEPC); Bottom: Carbon-Fiber Reinforced Plastic</i>															
Battery - type	Lithium Ion <b>6-cell</b> / supports unique 2nd battery in Ultrabay Slim															
Battery - life <sup>10</sup>	<b>6-cell:</b> up to 4.0 hr; <b>9-cell:</b> up to 6.0 hr; <b>9-cell plus Ultrabay battery:</b> up to 8.0 hr															
Chipset	<b>Mobile Intel PM965 Express Chipset</b> (Memory Controller Hub); <b>ICH8M-Enhanced</b> I/O Controller Hub (SATA300, ATA-100 EIDE, PCI Express x1, PCI bus, USB, LPC bus, [Bluetooth], [fingerprint]) / PCI bus (Ricoch® R5C804 Cardbus/1394/Multicard) / LPC bus (WPCN385 Super I/O, Atmel® 97SC3203 TPM)															
PC Card Std slot	One Type I or Type II slot, CardBus 32-bit															
ExpressCard slot	[54] One ExpressCard/34 or ExpressCard/54, PCI Express x1 or USB 2.0															
Smart Card Read	None															
Multicard Reader	None															
Ports	Three USB 2.0, external DB-15 monitor, RJ-11 (modem), RJ-45 (ethernet)															
Wireless antenna	UltraConnect™ II antenna / on-off switch for all wireless radios															
Mini PCI Express	Two Mini PCI Express slots / only 802.11 wireless is customer upgradable															
Intel 11a/b/g <sup>32</sup>	Some: 11a/b/g wireless <sup>4</sup> , Mini PCIe adapter, Intel PRO/Wireless 3945ABG															
Intel 11n <sup>28</sup>	Some: 11a/b/g/n wireless <sup>4</sup> , Mini PCIe adapter, Intel Wireless WiFi Link 4965AGN, MIMO 2x3 (Kedron)															
WWAN	None															
Turbo Memory	None															
Modem	56K <sup>6</sup> V.90 (V.92-designed <sup>29</sup> ) modem in Communications Daughter Card socket															
Bluetooth™	Bluetooth 2.0 wireless, USB 2.0 interface via ICH8M, LED indicator															
Ethernet	Gigabit ethernet on systemboard, Intel 82566MM Nineveh (PHY), PCIe x1 (GLCI), PXE															
Intel AMT	Intel Active Management Technology (iAMT)															
Audio support	High Definition (HD) Audio, AD1984JCP codec / stereo speakers, 1 watt / volume up, down, mute buttons / internal microphone, microphone input jack, headphone jack															
Security	Power-on password, hard disk password, supervisor password, security keyhole															
Security chip	<b>Trusted Platform Module</b> , Atmel chip, TCG 1.2-compliant															
Fingerprint reader	<b>Fingerprint reader on palm rest</b> , swipe sensor, supports the security chip															
Limited warranty <sup>12</sup> <b>3-years/1-yr battery</b> - EasyServ™ <sup>19</sup> depot repair service / service upgrades <sup>22</sup> available																
1GB PC2-5300 DDR2 SODIMM (TopSeller)	43R1999	T60/R60 Series Li-Ion Battery 6-cell	40Y6799													
2GB PC2-5300 DDR2 SODIMM (TopSeller)	43R2000	Z60m/T60/R60 Li-Ion Battery 9-cell	40Y6797													
ThinkPad DVD Ultrabay Slim Burner (flat)	41N5643	Advanced Ultrabay Battery II 3-cell	43R9250													
Serial Hard Drive Ultrabay Slim Adapter (flat)	40Y8725	ThinkPad External Battery Charger	40Y7625													
200GB Disk FDE SATA150 (7200 rpm)	41N5738	ThinkPad 90W AC Adapter	40Y7659													
250GB Disk 9.5mm SATA150 (5400 rpm)	43R8152	90W Slim AC/DC Combo Adapter	41N8460													
USB 2.0 Security Memory Key 4GB	41U5120	ThinkPad Business Topload Case	43R2476													
USB 2.0 Super Multi-Burner Drive	41N5565	ThinkPad Business Backpack	43R2482													
ThinkPad Adjustable Notebook Stand	40Y7676	ThinkPad Deluxe Expander Case	43R2478													
ThinkPad Convertible Monitor Stand	40Y7620	ThinkPad Executive Leather Case	43R2480													
ThinkPad Essential Port Replicator	250510W	ThinkVision® L190x 19" LCD Monitor	4439HB2													
ThinkPad Advanced Mini Dock	250410U	ThinkVision L193p 19" LCD Monitor	4431HB2													
ThinkPad Advanced Dock	250310U	ThinkVision L220x Wide 22" LCD	4433HB2													
Other accessories on O-T61 sheet	Other accessories at <a href="http://lenovo.com/accessories">lenovo.com/accessories</a>											ThinkPlus™. <sup>22</sup> 2-year LOR 9x5 NBD 41C9175 ThinkPlus 3-year LOR 9x5 NBD 41C9176 ThinkPlus 4-year LOR 9x5 NBD 41C9177 ThinkPlus 5-year LOR 9x5 NBD 41C9179 ThinkPlus 4-year P&L P/U Depot 41C9178 ThinkPlus 5-year P&L P/U Depot 41C9180 Post-warranty annual maintenance agreements at <a href="http://lenovo.com/thinkplus/warranty">lenovo.com/thinkplus/warranty</a>				

See footnotes for important warranty information  
 US models announced September 4, 2007  
 US models withdrawn effective May 2008

\* Intel Centrino® processor technology  
 \* Intel Centrino with vPro™ technology

© Lenovo  
 (DV3-8) May 2008

# ThinkPad® T61 8890 (NVIDIA) - Onsite - withdrawn

Personal Systems Reference (PSREF)

Proc- Type-model	essor GHz	Memory GB	Display Inch	Graphics controller memory	Disk SATA GB <sup>5</sup> rpm	EIDE optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN or Turbo	Card slot	Blue- tooth	Bat- tery cells	Workhorse (W) Global (G) Avail Preload Entry (E) date
8890-26U T7300	2.00	1GB	14.1"	SXGA+	128MB	80GB 5400	Combo	* Intel 4965AG <sup>32</sup>	None	Smart	Blue	6 Business32 W G July07

• This model is part of the Global Models Plus program with limited onsite service<sup>24</sup> 3-year limited warranty

Positioning Processor	<i>Premiere performance; two spindles</i> <b>Intel® Core™ 2 Duo processor T7300 with dual-core</b> , Intel 64 Technology, Enhanced Intel SpeedStep® technology <sup>1</sup> , Intel Dynamic Acceleration, Execute Disable Bit, Virtualization Technology, 800MHz system bus, and 4MB shared L2 cache										
Memory	<b>1GB</b> std / 4GB max <sup>31</sup> / PC2-5300 667MHz DDR2, non-parity, dual-channel capable, two 200-pin SO-DIMM sockets; <i>Non-italics:</i> standard memory in 1 socket; 1 socket available										
Diskette drive	None (use optional USB-based diskette drive)										
EIDE Combo	DVD-ROM/CD-RW, 24X/24X/24X/8X <sup>21</sup> speed, removable from Ultrabay Slim										
Ultrabay Slim	One modular bay for interchangeable devices (right side), 9.5mm high bay, flat bezel										
Serial ATA disk (SATA150)	<b>80GB<sup>8</sup></b> (5400 rpm) / 9.5mm high, removable, upgradable, 9.5mm high bay, supports 2nd disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™										
Display	<b>14.1"</b> (358.1mm) <b>SXGA+ (1400x1050) color</b> , 150 nits, 4:3 aspect ratio, 200:1 contrast ratio, anti-glare										
Camera	None										
Graphics	<b>NVIDIA® Quadro® NVS 140M</b> , PCI Express x16, <b>128MB</b> memory, TurboCache, DVI pass-through support to optional Advanced Mini Dock or Advanced Dock										
Keyboard	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys, Windows/Appl keys										
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar <sup>13</sup> , magnifying glass										
Touch pad	UltraNav™ multi-pointing system, touch pad below keyboard, Tap Zones										
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions										
Dimensions <sup>3</sup>	<i>14.1" models (WxDxH):</i> 12.3" x 10.0" x 1.1-1.3"; 313mm x 255mm x 27.5-32.4mm with optical drive and battery: <i>6-cell:</i> 5.3 lb (2.4kg); <i>9-cell:</i> 5.6 lb (2.55kg)										
Weight <sup>2</sup>											
Case material	<i>Top:</i> Super-Elastic PolyCarbonate (SEPC); <i>Bottom:</i> Carbon-Fiber Reinforced Plastic										
Battery - type	Lithium Ion <b>6-cell</b> / supports unique 2nd battery in Ultrabay Slim										
Battery - life <sup>10</sup>	<i>6-cell:</i> up to 4.0 hr; <i>9-cell:</i> up to 6.0 hr; <i>9-cell plus Ultrabay battery:</i> up to 8.0 hr										
Chipset	<b>Mobile Intel PM965 Express Chipset</b> (Memory Controller Hub); <b>ICH8M-Enhanced</b> I/O Controller Hub (SATA300, ATA-100 EIDE, PCI Express x1, PCI bus, USB, LPC bus, [Bluetooth], [fingerprint]) / PCI bus (Ricoch® R5C804 Cardbus/1394/Multicard) / LPC bus (WPCN385 Super I/O, Atmel® 97SC3203 TPM)										
PC Card Std slot	One Type I or Type II slot, CardBus 32-bit										
ExpressCard slot	None										
Smart Card Reader	Smart Card Reader										
Multicard Reader	None										
Ports	Three USB 2.0, external DB-15 monitor, RJ-11 (modem), RJ-45 (ethernet)										
Wireless antenna	UltraConnect™ II antenna / on-off switch for all wireless radios										
Mini PCI Express	Two Mini PCI Express slots / only 802.11 wireless is customer upgradable										
Intel 4965AG <sup>32</sup>	11a/b/g wireless <sup>4</sup> , Mini PCIe adapter, Intel Wireless WiFi Link 4965AG										
WWAN	None										
Turbo Memory	None										
Modem	56K <sup>6</sup> V.90 (V.92-designed <sup>29</sup> ) modem in Communications Daughter Card socket										
Bluetooth™	Bluetooth 2.0 wireless, USB 2.0 interface via ICH8M, LED indicator										
Ethernet	Gigabit ethernet on systemboard, Intel 82566MM Nineveh (PHY), PCIe x1 (GLCI), PXE										
Intel AMT	Intel Active Management Technology (IAMT)										
Audio support	High Definition (HD) Audio, AD1984JCP codec / stereo speakers, 1 watt / volume up, down, mute buttons / internal microphone, microphone input jack, headphone jack										
Security	Power-on password, hard disk password, supervisor password, security keyhole										
Security chip	<b>Trusted Platform Module</b> , Atmel chip, TCG 1.2-compliant										
Fingerprint reader	<b>Fingerprint reader on palm rest</b> , swipe sensor, supports the security chip										
Limited warranty <sup>12</sup>	<b>3-years/1-year battery, limited onsite service<sup>24</sup></b> , 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time / service upgrades <sup>22</sup> available										
1GB PC2-5300 DDR2 SODIMM	40Y7734		T60/R60 Series Li-Ion Battery 6-cell		40Y6799						
2GB PC2-5300 DDR2 SODIMM	40Y7735		Z60m/T60/R60 Li-Ion Battery 9-cell		40Y6797						
ThinkPad DVD Ultrabay Slim Burner (flat)	41N5643		Advanced Ultrabay Battery II 3-cell		43R9250						
Serial Hard Drive Ultrabay Slim Adapter (flat)	40Y8725		ThinkPad External Battery Charger		40Y7625						
160GB Disk 9.5mm SATA150 (7200 rpm)	41N5737		ThinkPad 90W AC Adapter		40Y7659						
200GB Disk FDE SATA150 (7200 rpm)	41N5738		90W Slim AC/DC Combo Adapter		41N8460						
250GB Disk 9.5mm SATA150 (5400 rpm)	43R8152		ThinkPad Business Topload Case		43R2476						
USB 2.0 Lenovo Enhanced Port Replicator	43R8770		ThinkPad Business Backpack		43R2482						
USB 2.0 Security Memory Key 4GB	41U5120		ThinkPad Deluxe Expander Case		43R2478						
USB 2.0 Super Multi-Burner Drive	41N5565		ThinkPad Executive Leather Case		43R2480						
ThinkPad Convertible Monitor Stand	40Y7620		ThinkVision® L174 17" LCD Monitor		9227AE1						
ThinkPad Essential Port Replicator	250510W		ThinkVision L171p 17" LCD Monitor		9417HC2						
ThinkPad Advanced Mini Dock	250410U		ThinkVision L190x 19" LCD Monitor		4439HB2						
ThinkPad Advanced Dock	250310U		ThinkVision L193p 19" LCD Monitor		4431HB2						
Other accessories on O-T61 sheet			Other accessories at <a href="http://lenovo.com/accessories">lenovo.com/accessories</a>								
											Supports ThinkVantage® technologies
											90-watt (NVIDIA graphic) AC adapter ThinkPad Roll Cage and Top Cover Roll Cage (one-piece magnesium) ENERGY STAR® 4.0-compliant RoHS-compliant International Warranty Service <sup>17</sup> 24 hour x 7 day <sup>18</sup> toll-free support during the warranty period <sup>12</sup> via 800-426-7378
											ThinkPlus™.22 4-year LOR 9x5 NBD 12X5630
											ThinkPlus 5-year LOR 9x5 NBD 43R2162
											Post-warranty annual maintenance agreements at <a href="http://lenovo.com/thinkplus/warranty">lenovo.com/thinkplus/warranty</a>

See footnotes for important warranty information  
 US model announced July 10, 2007  
 US model withdrawn effective May 2008

\* Intel Centrino® with vPro™ technology

# ThinkPad® T61 8897 (GMA) - TopSeller - withdrawn

Personal Systems Reference (PSREF)

Type-model	Proc- essor	GHz	Memory	Display	Graphics controller	Disk SATA GB <sup>5</sup> rpm	EIDE optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN or Turbo	Card slot	Blue- tooth	Bat- tery cells	Preload	Workhorse (W) Global (G) Entry (E)	Avail date
8897-01U	T7100	1.80	1GB	14.1" XGA	GMA 100G	7200	DVD±RW	* Intel 11a/b/g <sup>32</sup>	None	/54	None	6	XP Pro	No	Sep 07
8897-02U	T5270	1.40	512MB	14.1" XGA	GMA 80G	5400	Combo	* Intel 11a/b/g	None	/54	None	6	XP Pro	No	Oct 07
8897-03U	T5270	1.40	1GB	14.1" SXGA+	GMA 100G	7200	Combo	* Intel 11a/b/g	None	/54	None	6	XP Pro	No	Jan 08

- These small and medium business (SMB) models are part of the US TopSeller™ Program
- These models have a 1-year limited warranty<sup>12</sup>

Positioning Processor	<p><i>Premiere performance; two spindles</i>  <b>Intel® Core™ 2 Duo processor T5270 with dual-core</b>, Intel 64 Technology, Enhanced Intel SpeedStep technology<sup>1</sup>, Intel Dynamic Acceleration, Execute Disable Bit, 800MHz system bus, and 2MB shared L2 cache or  <b>Intel Core 2 Duo processor T7100 with dual-core</b>, Intel 64 Technology, Enhanced Intel SpeedStep technology<sup>1</sup>, Intel Dynamic Acceleration, Execute Disable Bit, Virtualization Technology, 800MHz system bus, and 2MB shared L2 cache</p>										<p><b>Preloaded operating system<sup>20</sup></b>                      - Microsoft® Windows® XP Professional</p> <p><b>Preloaded applications<sup>14</sup></b>                      • Rescue and Recovery™                      • Access Connections™                      • Client Security Solution™                      • ThinkVantage Productivity Center                      • ThinkVantage System Update                      • System Migration Assistant                      • Norton Internet Security (90 days of virus definitions)                      • Diskkeeper® Home                      • PC-Doctor™ (diagnostics)                      • ThinkPad Utilities (Power Manager and Presentation Director)                      • Adobe® Reader                      • Windows Live™ Toolbar                      • Windows Live Search                      • Picasa from Google                      • Fingerprint Software                      • Microsoft Office 2007 Trial (60-day)                      • Sonic RecordNOW and Drive Letter Access (combo, DVD±RW models)                      • InterVideo WinDVD (combo, DVD±RW)                      • InterVideo WinDVD Creator (DVD±RW)</p>				
Memory	<p><b>512MB or 1GB</b> std / 4GB max<sup>31</sup> / PC2-5300 667MHz DDR2, non-parity, dual-channel capable, two 200-pin SO-DIMM sockets;  <i>Non-italics:</i> standard memory in 1 socket; 1 socket available</p>										<p>Supports ThinkVantage® technologies</p> <p>65-watt (GMA graphics) AC adapter                      ThinkPad Roll Cage and Top Cover Roll Cage (one-piece magnesium)                      ENERGY STAR® 4.0-compliant                      RoHS-compliant                      International Warranty Service<sup>17</sup>                      24 hour x 7 day<sup>18</sup> toll-free support during the warranty period<sup>12</sup>                      via 800-426-7378</p> <p>ThinkPlus™.22 1-year LOR 9x5 NBD                      41C9166                      ThinkPlus 2-year LOR 9x5 NBD                      41C9167                      ThinkPlus 3-year LOR 9x5 NBD                      41C9168                      ThinkPlus 4-year LOR 9x5 NBD                      41C9171                      ThinkPlus 5-year LOR 9x5 NBD                      41C9173                      ThinkPlus 2-year P&amp;L P/U Depot                      41C9169                      ThinkPlus 3-year P&amp;L P/U Depot                      41C9170                      ThinkPlus 4-year P&amp;L P/U Depot                      41C9172                      ThinkPlus 5-year P&amp;L P/U Depot                      41C9174</p> <p>Post-warranty annual maintenance agreements at  <b>lenovo.com/thinkplus/warranty</b></p>				
Diskette drive	None (use optional USB-based diskette drive)														
EIDE Combo	Some: DVD-ROM/CD-RW, 24X/24X/24X/8X <sup>21</sup> speed, removable from Ultrabay Slim														
EIDE DVD±RW	Some: DVD burner, Ultrabay Burner (41N5643), dual-layer, removable from Ultrabay														
Ultrabay Slim	One modular bay for interchangeable devices (right side), 9.5mm high bay, flat bezel														
Serial ATA disk (SATA150)	<p><b>80GB<sup>8</sup></b> (5400 rpm) or <b>100GB</b> (7200 rpm) / 9.5mm high, removable, upgradable, 9.5mm high bay, supports 2nd disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™</p>														
Display	<p>Some: <b>14.1"</b> (358.1mm) <b>XGA (1024x768) color</b>, 150 nits, 4:3, 200:1, anti-glare                      Some: <b>14.1"</b> (358.1mm) <b>SXGA+ (1400x1050) color</b>, 150 nits, 4:3, 200:1, anti-glare</p>														
Camera	None														
Graphics	<p><b>Intel Graphics Media Accelerator X3100 (GMA X3100)</b>, integrated in GM965, DVI pass-through support to optional Advanced Mini Dock or Advanced Dock</p>														
Keyboard	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys, Windows/Appl keys														
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar <sup>13</sup> , magnifying glass														
Touch pad	UltraNav™ multi-pointing system, touch pad below keyboard, Tap Zones														
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions														
Dimensions <sup>3</sup>	14.1" models (WxDxH): 12.3" x 10.0" x 1.1-1.3"; 313mm x 255mm x 27.5-32.4mm														
Weight <sup>2</sup>	with optical drive and battery: 5.3 lb (2.4kg)														
Case material	Top: Super-Elastic PolyCarbonate (SEPC); Bottom: Carbon-Fiber Reinforced Plastic														
Battery - type	Lithium Ion <b>6-cell</b> / supports unique 2nd battery in Ultrabay Slim														
Battery - life <sup>10</sup>	6-cell: up to 5.7 hr; 9-cell: up to 8.6 hr; 9-cell plus Ultrabay battery: up to 10.1 hr														
Chipset	<p><b>Mobile Intel GM965 Express Chipset</b> (Graphics Memory Controller Hub);  <b>ICH8M-Enhanced</b> I/O Controller Hub (SATA300, ATA-100 EIDE, PCI Express x1, PCI bus, USB, LPC bus, [Bluetooth], [fingerprint]) / PCI Express x1, PCI bus, USB, LPC bus, [Bluetooth], [fingerprint]) / PCI bus (Ricoh® R5C804 Cardbus/1394/Multicard) / LPC bus (WPCN385 Super I/O, Atmel® 97SC3203 TPM)</p>														
PC Card Std slot	One Type I or Type II slot, CardBus 32-bit														
ExpressCard slot	[/54] One ExpressCard/34 or ExpressCard/54, PCI Express x1 or USB 2.0														
Smart Card Read	None														
Multicard Reader	None														
Ports	Three USB 2.0, external DB-15 monitor, RJ-11 (modem), RJ-45 (ethernet)														
Wireless antenna	UltraConnect™ II antenna / on-off switch for all wireless radios														
Mini PCI Express	Two Mini PCI Express slots / only 802.11 wireless is customer upgradable														
Intel 11a/b/g <sup>32</sup>	11a/b/g wireless <sup>4</sup> , Mini PCIe adapter, Intel PRO/Wireless 3945ABG														
WWAN	None														
Turbo Memory	None														
Modem	56K <sup>6</sup> V.90 (V.92-designed <sup>29</sup> ) modem in Communications Daughter Card socket														
Bluetooth™	None														
Ethernet	Gigabit ethernet on systemboard, Intel 82566MM Nineveh (PHY), PCIe x1 (GLCI), PXE														
Intel AMT	Intel Active Management Technology (iAMT)														
Audio support	High Definition (HD) Audio, AD1984JCP codec / stereo speakers, 1 watt / volume up, down, mute buttons / internal microphone, microphone input jack, headphone jack														
Security	Power-on password, hard disk password, supervisor password, security keyhole														
Security chip	<b>Trusted Platform Module</b> , Atmel chip, TCG 1.2-compliant														
Fingerprint reader	<b>Fingerprint reader on palm rest</b> , swipe sensor, supports the security chip														
Limited warranty <sup>12</sup>	1-year - EasyServ™.19 depot repair service / service upgrades <sup>22</sup> available														
1GB PC2-5300 DDR2 SODIMM (TopSeller)	43R1999	T60/R60 Series Li-Ion Battery 6-cell	40Y6799												
2GB PC2-5300 DDR2 SODIMM (TopSeller)	43R2000	Z60m/T60/R60 Li-Ion Battery 9-cell	40Y6797												
ThinkPad DVD Ultrabay Slim Burner (flat)	41N5643	Advanced Ultrabay Battery II 3-cell	43R9250												
Serial Hard Drive Ultrabay Slim Adapter (flat)	40Y8725	ThinkPad 90W AC Adapter	40Y7659												
160GB Disk 9.5mm SATA150 (7200 rpm)	41N5737	90W Slim AC/DC Combo Adapter	41N8460												
250GB Disk 9.5mm SATA150 (5400 rpm)	43R8152	ThinkPad Business Topload Case	43R2476												
200GB Disk FDE SATA150 (7200 rpm)	41N5738	ThinkPad Deluxe Expander Case	43R2478												
USB 2.0 Security Memory Key 4GB	41U5120	ThinkPad Executive Leather Case	43R2480												
USB 2.0 Super Multi-Burner Drive	41N5565	ThinkVision® L151 15" LCD Monitor	9165AC6												
ThinkPad Convertible Monitor Stand	40Y7620	ThinkVision L193p 19" LCD Monitor	4431HB2												
ThinkPad Advanced Mini Dock	250410U	ThinkVision L220x Wide 22" LCD	4433HB2												
ThinkPad Advanced Dock	250310U	Other accessories at <b>lenovo.com/accessories</b>													

See footnotes for important warranty information

\* Intel Centrino® processor technology

US models announced Sept 4 or Oct 3, 2007 or Jan 17, 2008

US models withdrawn effective May 2008

© Lenovo  
(DV3-7) May 2008

# ThinkPad® T61 8896 (GMA) - Onsite - withdrawn

Personal Systems Reference (PSREF)

Proc- Type-model	essor GHz	Memory GB	Display Inch	Graphics controller	Disk SATA GB <sup>5</sup> rpm	EIDE optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN or Turbo	Card slot	Blue- tooth	Bat- tery cells	Workhorse (W) Global (G) Avail Entry (E) date
8896-2FU T7300	2.00	1GB	14.1" XGA	GMA	80GB 5400	Combo	* Intel 4965AG <sup>32</sup>	None	Smart	Blue	6	Business32 W G Jun 07

• This model is part of the Global Models Plus program with limited onsite service<sup>24</sup> 3-year limited warranty

Positioning Processor	<i>Premiere performance; two spindles</i> <b>Intel® Core™ 2 Duo processor T7300 with dual-core</b> , Intel 64 Technology, Enhanced Intel SpeedStep® technology <sup>1</sup> , Intel Dynamic Acceleration, Execute Disable Bit, Virtualization Technology, 800MHz system bus, and 4MB shared L2 cache											<b>Preloaded operating system<sup>20</sup></b> - Microsoft® Windows® Vista® Business Edition (32-bit) ♦ <i>Vista models:</i> Vista Basic logo
Memory	<b>1GB</b> std / 4GB max <sup>31</sup> / PC2-5300 667MHz DDR2, non-parity, dual-channel capable, two 200-pin SO-DIMM sockets; <i>Non-italics:</i> standard memory in 1 socket; 1 socket available											<b>Preloaded applications<sup>14</sup></b> <ul style="list-style-type: none"> <li>• Rescue and Recovery™</li> <li>• Access Connections™</li> <li>• Client Security Solution™</li> <li>• ThinkVantage Productivity Center</li> <li>• ThinkVantage System Update</li> <li>• System Migration Assistant</li> <li>• Norton Internet Security (90 days of virus definitions)</li> <li>• Diskkeeper® Home</li> <li>• PC-Doctor™ (diagnostics)</li> <li>• ThinkPad Utilities (Power Manager and Presentation Director)</li> <li>• Adobe® Reader</li> <li>• Windows Live™ Toolbar</li> <li>• Windows Live Search</li> <li>• Picasa from Google</li> <li>• Fingerprint Software</li> <li>• Microsoft Office 2007 Trial (60-day)</li> <li>• Sonic RecordNow and Drive Letter Access (combo)</li> <li>• InterVideo WinDVD (combo)</li> </ul>
Diskette drive	None (use optional USB-based diskette drive)											
EIDE Combo	DVD-ROM/CD-RW, 24X/24X/24X/8X <sup>21</sup> speed, removable from Ultrabay Slim											
Ultrabay Slim	One modular bay for interchangeable devices (right side), 9.5mm high bay, flat bezel											
Serial ATA disk (SATA150)	<b>80GB<sup>8</sup></b> (5400 rpm) / 9.5mm high, removable, upgradable, 9.5mm high bay, supports 2nd disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™											
Display	<b>14.1"</b> (358.1mm) <b>XGA (1024x768) color</b> , 150 nits, 4:3 aspect ratio, 200:1 contrast ratio, anti-glare											
Camera	None											
Graphics	<b>Intel Graphics Media Accelerator X3100 (GMA X3100)</b> , integrated in GM965, DVI pass-through support to optional Advanced Mini Dock or Advanced Dock											
Keyboard	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys, Windows/Appl keys											
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar <sup>13</sup> , magnifying glass											
Touch pad	UltraNav™ multi-pointing system, touch pad below keyboard, Tap Zones											
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions											
Dimensions <sup>3</sup>	<b>14.1" models (WxDxH):</b> 12.3" x 10.0" x 1.1-1.3"; 313mm x 255mm x 27.5-32.4mm with optical drive and battery; 5.3 lb (2.4kg)											
Weight <sup>2</sup>												
Case material	<i>Top:</i> Super-Elastic PolyCarbonate (SEPC); <i>Bottom:</i> Carbon-Fiber Reinforced Plastic											
Battery - type	Lithium Ion <b>6-cell</b> / supports unique 2nd battery in Ultrabay Slim											
Battery - life <sup>10</sup>	<b>6-cell:</b> up to 5.7 hr; <b>9-cell:</b> up to 8.6 hr; <b>9-cell plus Ultrabay battery:</b> up to 10.1 hr											
Chipset	<b>Mobile Intel GM965 Express Chipset</b> (Graphics Memory Controller Hub); <b>ICH8M-Enhanced</b> I/O Controller Hub (SATA300, ATA-100 EIDE, PCI Express x1, PCI bus, USB, LPC bus, [Bluetooth], [fingerprint]) / PCI bus (Ricoch® R5C804 Cardbus/1394/Multicard) / LPC bus (WPCN385 Super I/O, Atmel® 97SC3203 TPM)											
PC Card Std slot	One Type I or Type II slot, CardBus 32-bit											
ExpressCard slot	None											
Smart Card Read	Smart Card Reader											
Multicard Reader	None											
Ports	Three USB 2.0, external DB-15 monitor, RJ-11 (modem), RJ-45 (ethernet)											
Wireless antenna	UltraConnect™ II antenna / on-off switch for all wireless radios											
Mini PCI Express	Two Mini PCI Express slots / only 802.11 wireless is customer upgradable											
Intel 4965AG <sup>32</sup>	11a/b/g wireless <sup>4</sup> , Mini PCIe adapter, Intel Wireless WiFi Link 4965AG											
WWAN	None											
Turbo Memory	None											
Modem	56K <sup>6</sup> V.90 (V.92-designed <sup>29</sup> ) modem in Communications Daughter Card socket											
Bluetooth™	Bluetooth 2.0 wireless, USB 2.0 interface via ICH8M, LED indicator											
Ethernet	Gigabit ethernet on systemboard, Intel 82566MM Nineveh (PHY), PCIe x1 (GLCI), PXE											
Intel AMT	Intel Active Management Technology (IAMT)											
Audio support	High Definition (HD) Audio, AD1984JCP codec / stereo speakers, 1 watt / volume up, down, mute buttons / internal microphone, microphone input jack, headphone jack											
Security	Power-on password, hard disk password, supervisor password, security keyhole											
Security chip	<b>Trusted Platform Module</b> , Atmel chip, TCG 1.2-compliant											
Fingerprint reader	<b>Fingerprint reader on palm rest</b> , swipe sensor, supports the security chip											
Limited warranty <sup>12</sup>	<b>3-years/1-year battery, limited onsite service<sup>24</sup></b> , 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time / service upgrades <sup>22</sup> available											Supports ThinkVantage® technologies
512MB PC2-5300 DDR2 SODIMM	40Y7733				T60/R60 Series Li-Ion Battery 6-cell	40Y6799				65-watt (GMA graphics) AC adapter		
1GB PC2-5300 DDR2 SODIMM	40Y7734				Z60m/T60/R60 Li-Ion Battery 9-cell	40Y6797				ThinkPad Roll Cage and Top Cover		
2GB PC2-5300 DDR2 SODIMM	40Y7735				Advanced Ultrabay Battery 3-cell	40Y6789				Roll Cage (one-piece magnesium)		
ThinkPad DVD Ultrabay Slim Burner (flat)	41N5643				ThinkPad External Battery Charger	40Y7625				ENERGY STAR® 4.0-compliant		
Serial Hard Drive Ultrabay Slim Adapter (flat)	40Y8725				ThinkPad 90W AC Adapter	40Y7659				RoHS-compliant		
160GB Disk 9.5mm SATA150 (7200 rpm)	41N5737				90W Slim AC/DC Combo Adapter	41N8460				International Warranty Service <sup>17</sup>		
200GB Disk FDE SATA150 (7200 rpm)	41N5738				ThinkPad Business Topload Case	43R2476				24 hour x 7 day <sup>18</sup> toll-free support during the warranty period <sup>12</sup>		
250GB Disk 9.5mm SATA150 (5400 rpm)	43R8152				ThinkPad Business Backpack	43R2482				via 800-426-7378		
USB 2.0 Security Memory Key 4GB	41U5120				ThinkPad Deluxe Expander Case	43R2478				ThinkPlus™.22 4-year LOR 9x5 NBD		
USB 2.0 Super Multi-Burner Drive	41N5565				ThinkPad Executive Leather Case	43R2480				12X5630		
ThinkPad Convertible Monitor Stand	40Y7620				ThinkVision® L174 17" LCD Monitor	9227AE1				ThinkPlus 5-year LOR 9x5 NBD		
ThinkPad Essential Port Replicator	250510W				ThinkVision L171p 17" LCD Monitor	9417HC2				43R2162		
ThinkPad Advanced Mini Dock	250410U				ThinkVision L190x 19" LCD Monitor	4439HB2				Post-warranty annual maintenance agreements at		
ThinkPad Advanced Dock	250310U				ThinkVision L193p 19" LCD Monitor	4431HB2				lenovo.com/thinkplus/warranty		
Other accessories on O-T61 sheet	Other accessories at <a href="http://lenovo.com/accessories">lenovo.com/accessories</a>											

See footnotes for important warranty information  
 US model announced May 31, 2007  
 US model withdrawn effective May 2008

\* Intel Centrino® with vPro™ technology

© Lenovo  
 (DV3-10) May 2008

# ThinkPad® T61 14W 7664 (NVIDIA®) - Linux (TopSeller) - withdrawn

Personal Systems Reference (PSREF)

Proc- Type-model	essor GHz	Memory	Wide- screen display	Graphics controller memory	Disk SATA GB <sup>8</sup> rpm	EIDE optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN or Turbo	Card slot	Blue- tooth	Bat- tery cells	Linux preload	Limited warranty <sup>12</sup>	Avail date
7664-1MU	T7500	2.20	1GB	14.1" WXGA+	128MB	100G 7200	DVD±RW	* Intel 11a/b/g <sup>32</sup>	None	/54	Blue	6-cell	SLED10	3-yr Jan 08
Positioning Processor	<i>Premiere performance; two spindles</i> <b>Intel® Core™ 2 Duo processor T7500 with dual-core,</b> Intel 64 Technology, Enhanced Intel SpeedStep technology <sup>1</sup> , Intel Dynamic Acceleration, Execute Disable Bit, Virtualization Technology, 800MHz system bus, and 4MB shared L2 cache										<b>Preloaded operating system<sup>20</sup></b> - SUSE® Linux™ Enterprise Desktop10 Service Pack 1 <b>Preloaded applications<sup>14</sup></b> • None			
Memory	<b>1GB</b> std / 4GB max <sup>31</sup> / PC2-5300 667MHz DDR2, non-parity, dual-channel capable, two 200-pin SO-DIMM sockets; <i>Non-italics:</i> standard memory in one socket; one socket available										<b>Supported devices</b> (only some listed) • HD Audio • Intel 3945ABG wireless • Intel Graphics Media Accelerator X3100 (GMA X3100) • NVIDIA Quadro NVS 140M • Fingerprint reader • Bluetooth • Function keys • ThinkPad Advanced Dock			
Diskette drive EIDE DVD±RW Ultrabay Slim Serial ATA disk	None (use optional USB-based diskette drive) DVD burner, Super Multi-Burner (40Y8623) dual-layer, removable from Ultrabay One modular bay for interchangeable devices (right side), 9.5mm high bay, flat bezel <b>100GB<sup>8</sup></b> (7200 rpm) / SATA 1.5Gb/s, 9.5mm high, removable, upgradable, 9.5mm high bay, supports 2nd disk, ThinkPad Shock Mounted Hard Drive													
Widescreen display Camera	<b>14.1"</b> (358.1mm) <b>WXGA+ (1440x900) color</b> , anti-glare, 200 nits, 16:10 aspect ratio, 300:1 contrast ratio None										<b>Non-supported devices</b> (only some listed) • Intel 4965AG, Intel 4965AGN, ThinkPad 11a/b/g, ThinkPad 11n wireless • WWAN • Active Protection System™ • ThinkVantage® button • Security chip • Intel Turbo Memory • Intel AMT technology • Integrated camera			
Graphics	<b>NVIDIA® Quadro® NVS 140M</b> , PCI Express® x16, <b>128MB</b> memory, TurboCache, DVI pass-through support to optional Advanced Mini Dock or Advanced Dock													
Keyboard TrackPoint® Touch pad ThinkLight™	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys, Windows/Appl keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar <sup>13</sup> , magnifying glass UltraNav™ multi-pointing system, touch pad below keyboard, Tap Zones Illuminates the keyboard to improve visibility in low-light conditions													
Dimensions <sup>3</sup> Weight <sup>2</sup> Case material Battery - type Battery - life <sup>10</sup>	<i>6-cell 14.1W" (WxDxH):</i> 13.2" x 10.2" x 1.09–1.26"; 335 x 261mm x 27.6–31.9mm <i>6-cell:</i> starting at 5.3 lb (2.4kg) <i>Top:</i> Super-Elastic PolyCarbonate (SEPC); <i>Bottom:</i> Carbon-Fiber Reinforced Plastic Lithium Ion <b>6-cell</b> , supports unique 2nd battery in Ultrabay Slim Not published													
Chipset	<b>Mobile Intel PM965 Express Chipset</b> (Memory Controller Hub); <b>ICH8M-Enhanced</b> I/O Controller Hub (SATA 3.0Gb/s, ATA-100 EIDE, PCI Express x1, PCI bus, USB, LPC bus, [Bluetooth], [fingerprint]) / PCI bus (Ricoch® R5C847 Cardbus/1394/Multicard) / LPC bus (WPCN385 Super I/O, Atmel® 97SC3203 TPM)										<b>Non-supported applications</b> (only some listed) • ThinkPad Utilities • ThinkVantage technologies • Presentation Director • Encrypted DVD playback • Keyboard Customizer			
PC Card Std slot ExpressCard slot Smart Card Read Multicard Reader Ports	One Type I or Type II slot, CardBus 32-bit /54 One ExpressCard/34 or ExpressCard/54 None None Three USB 2.0, DB-15 (external VGA monitor), RJ-11 (modem), RJ-45 (ethernet), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)													
Wireless antenna Mini PCI Express Intel 11a/b/g <sup>32</sup> WWAN Turbo Memory Modem Bluetooth™ Ethernet Intel AMT Audio support	UltraConnect™ II antenna / on-off switch for all wireless radios Two Mini PCI Express slots / only 802.11 wireless is customer upgradable 11a/b/g wireless <sup>4</sup> , Mini PCIe adapter, Intel PRO/Wireless 3945ABG None None 56K <sup>6</sup> V.92 <sup>29</sup> modem in Communications Daughter Card socket Bluetooth 2.0 wireless, USB 2.0 interface via ICH8M, LED indicator Gigabit ethernet on systemboard, Intel 82566MM Nineveh (PHY), PCIe x1 (GLCI), PXE Not supported High Definition (HD) Audio, AD1984HD codec / stereo speakers, 1 watt / volume up, down, mute buttons / internal microphone, microphone input jack, headphone jack										90-watt (NVIDIA) AC adapter ThinkPad Roll Cage and Top Cover Roll Cage (one-piece magnesium) RoHS-compliant International Warranty Service <sup>17</sup> 24 hour x 7 day <sup>18</sup> toll-free support during the warranty period <sup>12</sup> via 800-426-7378			
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole <b>Trusted Platform Module</b> , Atmel chip, TCG 1.2-compliant Fingerprint reader on palm rest, swipe sensor, supports the security chip										ThinkPlus™.22 2-year LOR <sup>24</sup> 9x5 NBD 41C9175			
Limited warranty <sup>12</sup>	<b>3-years/1-yr battery - EasyServ™.19</b> depot repair service / service upgrades <sup>22</sup> available										ThinkPlus 3-year LOR 9x5 NBD 41C9176			
1GB PC2-5300 DDR2 SODIMM (TopSeller)	43R1999	T/R 14W Standard Battery 4-cell	41U3196											
2GB PC2-5300 DDR2 SODIMM (TopSeller)	43R2000	T/R 14W Enhanced Battery 6-cell	41U3198											
Serial Hard Drive Ultrabay Slim Adapter (flat)	40Y8725	T/R 14W High Capacity Batt 9-cell	43R2499											
64GB SSD SATA 3.0Gb/s 1.8" (2.5" cover)	43N3400	Advanced Ultrabay Battery II 3-cell	43R9250											
320GB Disk SATA 1.5Gb/s (5400 rpm)	43N3403	ThinkPad External Battery Charger	40Y7625											
USB 2.0 Ultra Secure Memory Key 8GB	45J5918	90W Slim AC/DC Combo Adapter	41N8460											
USB 2.0 Lenovo Enhanced Port Replicator	43R8770	ThinkPad Business Topload Case	43R2476											
ThinkPad Essential Port Replicator	250510W	ThinkPad Executive Leather Case	43R2480											
ThinkPad Advanced Mini Dock	250410U	ThinkVision® L2240p Wide 22" Monitor	4422HB6											
ThinkPad Advanced Dock	250310U	ThinkVision L2440p Wide 24" Monitor	4420HB2											
Check Linux compatibility for other accessories	Other accessories at <a href="http://lenovo.com/accessories">lenovo.com/accessories</a>													

See footnotes for important warranty information  
US models announced January 15, 2008  
US models withdrawn effective November 2008

\* Intel Centrino® processor technology

© Lenovo  
(ML1-11) November 2008



# ThinkPad® T61 14W 7659 (GMA Graphics) - withdrawn

Personal Systems Reference (PSREF)

Type-model	Processor	GHz	Memory	Wide-screen display	Cam-era	Graphics controller	Disk SATA GB <sup>8</sup>	EIDE rpm	EIDE optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN or Turbo Card slot	Finger Bat- print tery	Workhorse (W) Vista Global (G) Avail
7659-1QU	T7100	1.80	1GB	14.1" WXGA		GMA 80G	5400	Combo	*Intel 11a/b/g <sup>32</sup>	None	/54	4	Business32 W Jun 07
7659-11U	T7100	1.80	1GB	14.1" WXGA		GMA 80G	5400	Combo	*Intel 4965AG <sup>32</sup>	None	Smart	Blue Fing	4 Business32 W G May07
7659-12U	T7300	2.00	1GB	14.1" WXGA		GMA 80G	5400	Combo	*Intel 4965AG	None	Smart	Blue Fing	4 Business32 W G May07
7659-01U	T7300	2.00	1GB	14.1" WXGA		GMA 100G	7200	Combo	*Intel 4965AG	None	/54	Blue Fing	6 XP Pro Aug07
7659-02U	T7500	2.20	1GB	14.1" WXGA		GMA 100G	7200	Combo	*Intel 4965AG	None	/54	Blue Fing	6 Business32 W Aug07
7659-2BU	T7300	2.00	1GB	14.1" WXGA		GMA 80G	5400	Combo	*Intel 4965AG	None	Smart	Blue Fing	4 XP Pro G Sep07
7659-2SU	T7500	2.20	1GB	14.1" WXGA	Cam	GMA 120G	5400	Combo	*Intel 4965AG	None	4-in-1	Blue Fing	6 Business32 W G Jan 08

*Italic MTM: not a base model for building a custom model*

Positioning Processor	<i>Premiere performance; two spindles</i> <b>Intel® Core™ 2 Duo processor T7100, T7300, or T7500 with dual-core,</b> Intel 64 Technology, Enhanced Intel SpeedStep® technology <sup>1</sup> , Intel Dynamic Acceleration, Execute Disable Bit, Virtualization Technology, and 800MHz system bus; T7100: 2MB shared L2 cache; T7300/T7500: 4MB shared L2 cache	<b>Preloaded operating system<sup>20</sup></b> - Some: Microsoft® Windows® XP Professional - Some: Microsoft Windows Vista® Business Edition (32-bit) ◇ 11U/1QU: Vista Premium logo ◇ 12U/02U/2SU: Vista Basic logo
Memory	<b>1GB</b> std / 4GB max <sup>31</sup> / PC2-5300 667MHz DDR2, non-parity, dual-channel capable, two 200-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available; <i>Non-italics:</i> standard memory in 1 socket; 1 socket available	<b>Preloaded applications<sup>14</sup></b> (all OSes) • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • ThinkVantage System Update • System Migration Assistant • Norton Internet Security (90 days of virus definitions) • Diskeeper® Home • PC-Doctor™ (diagnostics) • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader • Windows Live™ Toolbar • Windows Live Search • Picasa from Google • Fingerprint Software (fingerprint models) • Multimedia Center for Think Offerings (XP) • Microsoft Office 2007 Trial (60-day) • Sonic RecordNow and Drive Letter Access (combo) • Corel® WinDVD® (combo)
Diskette drive	None (use optional USB-based diskette drive)	
EIDE Combo	DVD-ROM/CD-RW, 24X/24X/24X/8X <sup>21</sup> speed, removable from Ultrabay Slim	
Ultrabay Slim	One modular bay for interchangeable devices (right side), 9.5mm high bay, flat bezel	
Serial ATA disk	<b>80GB<sup>8</sup></b> (5400 rpm), <b>100GB</b> (7200 rpm), or <b>120GB</b> (5400 rpm) / SATA 1.5Gb/s, 9.5mm high, removable, upgradable, 9.5mm high bay, supports 2nd disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™	
Widescreen display	<b>14.1"</b> (358.1mm) <b>WXGA (1280x800) color</b> , anti-glare, 185 nits, 16:10 aspect ratio, 300:1 contrast ratio	
Camera	<i>Some:</i> integrated camera on top of screen, 1.3-megapixel, fixed focus, USB 2.0	
Graphics	<b>Intel Graphics Media Accelerator X3100 (GMA X3100)</b> , integrated in GM965, DVI pass-through support to optional Advanced Mini Dock or Advanced Dock	
Keyboard	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys, Windows/Appl keys	
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar <sup>13</sup> , magnifying glass	
Touch pad	UltraNav™ multi-pointing system, touch pad below keyboard, Tap Zones	
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions	
Dimensions <sup>3</sup>	<i>4-cell 14.1W"</i> (WxDxH): 13.2" x 9.3" x 1.09–1.26"; 335mm x 237mm x 27.6–31.9mm <i>6-cell 14.1W"</i> (WxDxH): 13.2" x 10.2" x 1.09–1.26"; 335 x 261mm x 27.6–31.9mm <i>4-cell:</i> starting at 5.0 lb (2.3kg); <i>6-cell:</i> starting at 5.3 lb (2.4kg)	
Weight <sup>2</sup>	<i>Top:</i> Super-Elastic PolyCarbonate (SEPC); <i>Bottom:</i> Carbon-Fiber Reinforced Plastic	
Case material	Lithium Ion <b>4-cell</b> or <b>6-cell</b> , supports unique 2nd battery in Ultrabay Slim	
Battery - type	<i>4-cell:</i> up to 3.6 hr; <i>6-cell:</i> up to 5.7 hr; <i>6-cell plus Ultrabay battery:</i> up to 7.2 hr	
Battery - life <sup>10</sup>		
Chipset	<b>Mobile Intel GM965 Express Chipset</b> (Graphics Memory Controller Hub); <b>ICH8M-Enhanced</b> I/O Controller Hub (SATA 3.0Gb/s, ATA-100 EIDE, PCI Express® x1, PCI bus, USB, LPC bus, [Bluetooth], [fingerprint]) / PCI bus (Ricoh® R5C847 Cardbus/1394/Multicard) / LPC bus (WPCN385 Super I/O, Atmel® 97SC3203 TPM)	
PC Card Std slot	One Type I or Type II slot, CardBus 32-bit	
ExpressCard slot	<i>Some:</i> [/54] One ExpressCard/34 or ExpressCard/54	
Smart Card Read	<i>Some:</i> Smart Card Reader	
Multicard Reader	<i>Some:</i> 4-in-1 reader (MultiMediaCard, Mem Stick PRO, Sec Digital, xD-Picture Card™)	
Ports	Three USB 2.0, DB-15 (external VGA monitor), RJ-11 (modem), RJ-45 (ethernet), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)	
Wireless antenna	UltraConnect™ II antenna / on-off switch for all wireless radios	Supports ThinkVantage® technologies
Mini PCI Express	Two Mini PCI Express slots / only 802.11 wireless is customer upgradable	
Intel 11a/b/g <sup>32</sup>	<i>Some:</i> 11a/b/g wireless <sup>4</sup> , Mini PCIe adapter, Intel PRO/Wireless 3945ABG	
Intel 4965AG <sup>32</sup>	<i>Some:</i> 11a/b/g wireless <sup>4</sup> , Mini PCIe adapter, Intel Wireless WiFi Link 4965AG	
WWAN	None	
Turbo Memory	None	
Modem	56K <sup>6</sup> V.92 <sup>29</sup> modem in Communications Daughter Card socket	
Bluetooth™	<i>Some:</i> Bluetooth 2.0 wireless, USB 2.0 interface via ICH8M, LED indicator	
Ethernet	Gigabit ethernet on systemboard, Intel 82566MM Nineveh (PHY), PCIe x1 (GLCI), PXE	
Intel AMT	Intel Active Management Technology (iAMT)	
Audio support	High Definition (HD) Audio, AD1984HD codec / stereo speakers, 1 watt / volume up, down, mute buttons / internal microphone, microphone input jack, headphone jack	
Security	Power-on password, hard disk password, supervisor password, security keyhole	ThinkPlus™.22 2-year LOR <sup>24</sup> 9x5 NBD 41C9175
Security chip	<b>Trusted Platform Module</b> , Atmel chip, TCG 1.2-compliant	ThinkPlus 3-year LOR 9x5 NBD 41C9176
Fingerprint reader	<i>Some:</i> <b>Fingerprint reader on palm rest</b> , swipe sensor, supports the security chip	ThinkPlus 4-year LOR 9x5 NBD 41C9177
Limited warranty <sup>12</sup>	<b>3-years/1-yr battery</b> - EasyServ™.19 depot repair service / service upgrades <sup>22</sup> available	ThinkPlus 5-year LOR 9x5 NBD 41C9179
1GB PC2-5300 DDR2 SODIMM	40Y7734	T/R 14W Standard Battery 4-cell 41U3196
2GB PC2-5300 DDR2 SODIMM	40Y7735	T/R 14W Enhanced Battery 6-cell 41U3198
ThinkPad DVD Ultrabay Slim Burner (flat)	41N5643	T/R 14W High Capacity Batt 9-cell 43R2499
Serial Hard Drive Ultrabay Slim Adapter (flat)	40Y8725	Advanced Ultrabay Battery II 3-cell 43R9250
64GB SSD SATA 3.0Gb/s 1.8" (2.5" cover)	43N3400	ThinkPad External Battery Charger 40Y7625
200GB Disk FDE SATA 1.5Gb/s (7200 rpm)	41N5738	90W Slim AC/DC Combo Adapter 41N8460
USB 2.0 Security Memory Key 4GB	41U5120	ThinkPad Business Topload Case 43R2476
ThinkPad Advanced Dock	250310U	ThinkVision® L2440x Wide 24" Monitor 4421HB2
Other accessories on O-T61 sheet		Other accessories at <a href="http://lenovo.com/accessories">lenovo.com/accessories</a>

See footnotes for important warranty information  
US models announced May 9, Jun 5, Aug 21,  
or Sept 4, 2007 or Jan 2008  
US models withdrawn effective May or November 2008

\* Intel Centrino® processor technology  
\* Intel Centrino with vPro technology

# ThinkPad® T61 14W 7659 (GMA) - Linux - withdrawn

Personal Systems Reference (PSREF)

Proc- Type-model	essor GHz	Memory	Wide- screen display	Graphics controller	Disk SATA GB <sup>3</sup> rpm	EIDE optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN or Turbo	Card slot	Blue- tooth	Finger Bat- print ertery reader cells	Workhorse (W) Linux Global (G) Entry (E)	Avail date
7659-2UU	T7500	2.20	1GB	14.1" WXGA	GMA	80G 5400	Combo	*Intel 11a/b/g <sup>32</sup>	None	/54	Blue	Finger 6	SLED10 W G Jan 08
Positioning Processor	<i>Premiere performance; two spindles</i> <b>Intel® Core™ 2 Duo processor T7500 with dual-core,</b> Intel 64 Technology, Enhanced Intel SpeedStep technology <sup>1</sup> , Intel Dynamic Acceleration, Execute Disable Bit, Virtualization Technology, 800MHz system bus, and 4MB shared L2 cache												
Memory	<b>1GB</b> std / 4GB max <sup>31</sup> / PC2-5300 667MHz DDR2, non-parity, dual-channel capable, two 200-pin SO-DIMM sockets; <i>Non-italics:</i> standard memory in 1 socket; 1 socket available												
Diskette drive	None (use optional USB-based diskette drive)												
EIDE Combo	DVD-ROM/CD-RW, 24X/24X/24X/8X <sup>21</sup> speed, removable from Ultrabay Slim												
Ultrabay Slim	One modular bay for interchangeable devices (right side), 9.5mm high bay, flat bezel												
Serial ATA disk	<b>80GB<sup>9</sup></b> (5400 rpm) / SATA 1.5Gb/s, 9.5mm high, removable, upgradable, 9.5mm high bay, supports 2nd disk, ThinkPad Shock Mounted Hard Drive												
Widescreen display	<b>14.1"</b> (358.1mm) <b>WXGA (1280x800) color</b> , anti-glare, 185 nits, 16:10 aspect ratio, 300:1 contrast ratio												
Camera	None												
Graphics	<b>Intel Graphics Media Accelerator X3100 (GMA X3100)</b> , integrated in GM965												
Keyboard	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys, Windows/Appl keys												
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar <sup>13</sup> , magnifying glass												
Touch pad	UltraNav™ multi-pointing system, touch pad below keyboard, Tap Zones												
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions												
Dimensions <sup>3</sup>	6-cell 14.1W" (WxDxH): 13.2" x 10.2" x 1.09–1.26"; 335 x 261mm x 27.6–31.9mm												
Weight <sup>2</sup>	6-cell: starting at 5.3 lb (2.4kg)												
Case material	Top: Super-Elastic Polycarbonate (SEPC); Bottom: Carbon-Fiber Reinforced Plastic												
Battery - type	Lithium Ion 6-cell, supports unique 2nd battery in Ultrabay Slim												
Battery - life <sup>10</sup>	Not published												
Chipset	<b>Mobile Intel GM965 Express Chipset</b> (Graphics Memory Controller Hub); <b>ICH8M-Enhanced</b> I/O Controller Hub (SATA 3.0Gb/s, ATA-100 EIDE, PCI Express <sup>®</sup> x1, PCI bus, USB, LPC bus, [Bluetooth], [fingerprint]) / PCI bus (Ricoh® R5C847 Cardbus/1394/Multicard) / LPC bus (WPCN385 Super I/O, Atmel® 97SC3203 TPM)												
PC Card Std slot	One Type I or Type II slot, CardBus 32-bit												
ExpressCard slot	/54 One ExpressCard/34 or ExpressCard/54												
Smart Card Read	None												
Multicard Reader	None												
Ports	Three USB 2.0, DB-15 (external VGA monitor), RJ-11 (modem), RJ-45 (ethernet), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)												
Wireless antenna	UltraConnect™ II antenna / on-off switch for all wireless radios												
Mini PCI Express	Two Mini PCI Express slots / only 802.11 wireless is customer upgradable												
Intel 11a/b/g <sup>32</sup>	11a/b/g wireless <sup>4</sup> , Mini PCIe adapter, Intel PRO/Wireless 3945ABG												
WWAN	None												
Turbo Memory	None												
Modem	56K <sup>6</sup> V.92 <sup>29</sup> modem in Communications Daughter Card socket												
Bluetooth™	Bluetooth 2.0 wireless, USB 2.0 interface via ICH8M, LED indicator												
Ethernet	Gigabit ethernet on systemboard, Intel 82566MM Nineveh (PHY), PCIe x1 (GLCI), PXE												
Intel AMT	Not supported												
Audio support	High Definition (HD) Audio, AD1984HD codec / stereo speakers, 1 watt / volume up, down, mute buttons / internal microphone, microphone input jack, headphone jack												
Security	Power-on password, hard disk password, supervisor password, security keyhole												
Security chip	<b>Trusted Platform Module</b> , Atmel chip, TCG 1.2-compliant												
Fingerprint reader	<b>Fingerprint reader on palm rest</b> , swipe sensor, supports the security chip												
Limited warranty <sup>12</sup>	3-years/1-yr battery - EasyServ™ <sup>19</sup> depot repair service / service upgrades <sup>22</sup> available												
512MB PC2-5300 DDR2 SODIMM	40Y7733			T/R 14W Standard Battery 4-cell				41U3196					
1GB PC2-5300 DDR2 SODIMM	40Y7734			T/R 14W Enhanced Battery 6-cell				41U3198					
2GB PC2-5300 DDR2 SODIMM	40Y7735			T/R 14W High Capacity Batt 9-cell				43R2499					
Serial Hard Drive Ultrabay Slim Adapter (flat)	40Y8725			Advanced Ultrabay Battery II 3-cell				43R9250					
64GB SSD SATA 3.0Gb/s 1.8" (2.5" cover)	43N3400			ThinkPad External Battery Charger				40Y7625					
320GB Disk SATA 1.5Gb/s (5400 rpm)	43N3403			90W Slim AC/DC Combo Adapter				41N8460					
USB 2.0 Ultra Secure Memory Key 8GB	45J5918			ThinkPad Business Topload Case				43R2476					
ThinkPad Essential Port Replicator	250510W			ThinkPad Business Backpack				43R2482					
ThinkPad Advanced Mini Dock	250410U			ThinkVision® L2240p Wide 22" Monitor				4422HB6					
ThinkPad Advanced Dock	250310U			ThinkVision L2440p Wide 24" Monitor				4420HB2					
Check Linux compatibility for other accessories	Other accessories at <a href="http://lenovo.com/accessories">lenovo.com/accessories</a>												
											Preloaded operating system <sup>20</sup> - SUSE® Linux™ Enterprise Desktop10 Service Pack 1  Preloaded applications <sup>14</sup> • None  Supported devices (only some listed) • HD Audio • Intel 3945ABG wireless • Intel Graphics Media Accelerator X3100 (GMA X3100) • NVIDIA Quadro NVS 140M • Fingerprint reader • Bluetooth • Function keys • ThinkPad Advanced Dock  Non-supported devices (only some listed) • Intel 4965AG, Intel 4965AGN, ThinkPad 11a/b/g, ThinkPad 11n wireless • WWAN • Active Protection System™ • ThinkVantage® button • Security chip • Intel Turbo Memory • Intel AMT technology • Integrated camera  Non-supported applications (only some listed) • ThinkPad Utilities • ThinkVantage technologies • Presentation Director • Encrypted DVD playback • Keyboard Customizer		
											65-watt (GMA graphics) AC adapter ThinkPad Roll Cage and Top Cover Roll Cage (one-piece magnesium) RoHS-compliant International Warranty Service <sup>17</sup> 24 hour x 7 day <sup>18</sup> toll-free support during the warranty period <sup>12</sup> via 800-426-7378		
											ThinkPlus™.22 2-year LOR <sup>24</sup> 9x5 NBD 41C9175		
											ThinkPlus 3-year LOR 9x5 NBD 41C9176		
											ThinkPlus 4-year LOR 9x5 NBD 41C9177		
											ThinkPlus 5-year LOR 9x5 NBD 41C9179		
											ThinkPlus 4-year P&L P/U Depot 41C9178		
											ThinkPlus 5-year P&L P/U Depot 41C9180		
											Post-warranty annual maintenance agreements at <a href="http://lenovo.com/thinkplus/warranty">lenovo.com/thinkplus/warranty</a>		

See footnotes for important warranty information  
 US model announced January 15, 2008  
 US model withdrawn effective November 2008

\* Intel Centrino® processor technology

© Lenovo  
 (ML1-12) November 2008

# ThinkPad® T61 14W 7661 (GMA) - Onsite - withdrawn

Personal Systems Reference (PSREF)

Proc- Type-model	essor GHz	Memory	Wide- screen display	Graphics controller memory	Disk SATA GB <sup>3</sup>	EIDE rpm optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN or Turbo	Card slot	Camera	Blue- tooth	Bat- tery cells	Preload	Workhorse (W) Global (G) GMP (P)	Avail date	
7661-11U	T7100	1.80	1GB	14.1" WXGA	GMA	80G 5400	Combo	*Intel 4965AG <sup>32</sup>	None	Smart	Blue	4	Business32	W G P	May07	
7661-12U	T7300	2.00	1GB	14.1" WXGA	GMA	80G 5400	Combo	*Intel 4965AG	None	Smart	Blue	4	Business32	W G P	May07	
7661-2BU	T7300	2.00	1GB	14.1" WXGA	GMA	80G 5400	Combo	*Intel 4965AG	None	Smart	Blue	4	XP Pro	W G P	Sep07	
7661-2SU	T7500	2.20	1GB	14.1" WXGA	GMA	120G 5400	Combo	*Intel 4965AG	None	4-in-1	Cam	Blue	6	Business32	W G P	Jan 08

• These models are part of the Global Models Plus program with limited onsite service<sup>24</sup> 3-year limited warranty

Positioning Processor	<i>Premiere performance; two spindles</i> <b>Intel® Core™ 2 Duo processor T7100, T7300, or T7500 with dual-core,</b> Intel 64 Technology, Enhanced Intel SpeedStep® technology <sup>1</sup> , Intel Dynamic Acceleration, Execute Disable Bit, Virtualization Technology, and 800MHz system bus; <b>T7100: 2MB shared L2 cache; T7300/T7500: 4MB shared L2 cache</b>										<b>Preloaded operating system<sup>20</sup></b> - Some: Microsoft® Windows® XP Professional - Some: Microsoft Windows Vista® Business Edition (32-bit) ◇ Vista models: Vista Premium logo				
Memory	<b>1GB</b> std / 4GB max <sup>31</sup> / PC2-5300 667MHz DDR2, non-parity, dual-channel capable, two 200-pin SO-DIMM sockets; <i>Non-italics:</i> standard memory in one socket; one socket available <i>Italics:</i> standard memory in both sockets; no sockets available										<b>Preloaded applications<sup>14</sup></b> (all OSes) • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • ThinkVantage System Update • System Migration Assistant • Norton Internet Security™ (90 days of virus definitions) • Diskeeper® Home • PC-Doctor™ (diagnostics) • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader • Windows Live™ Toolbar • Windows Live Search • Picasa from Google • Fingerprint Software (fingerprint models) • Microsoft Office 2007 Trial (60-day) • Sonic RecordNow and Drive Letter Access (Combo) • Corel® WinDVD® (Combo)				
Diskette drive	None (use optional USB-based diskette drive)														
EIDE Combo	DVD-ROM/CD-RW, 24X/24X/24X/8X <sup>21</sup> speed, removable from Ultrabay Slim														
Ultrabay Slim	One modular bay for interchangeable devices (right side), 9.5mm high bay, flat bezel														
Serial ATA disk	<b>80GB<sup>8</sup></b> (5400 rpm) or <b>120GB</b> (5400 rpm) / SATA 1.5Gb/s, 9.5mm high, removable, upgradable, 9.5mm high bay, supports 2nd disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™														
Widescreen display	<b>14.1"</b> (358.1mm) <b>WXGA (1280x800) color</b> , anti-glare, 185 nits, 16:10 aspect ratio, 300:1 contrast ratio														
Camera	<i>Some:</i> integrated camera on top of screen, 1.3-megapixel, fixed focus, USB 2.0														
Graphics	<b>Intel Graphics Media Accelerator X3100 (GMA X3100)</b> , integrated in GM965, DVI pass-through support to optional Advanced Mini Dock or Advanced Dock														
Keyboard	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys, Windows/Appl keys														
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar <sup>13</sup> , magnifying glass														
Touch pad	UltraNav™ multi-pointing system, touch pad below keyboard, Tap Zones														
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions														
Dimensions <sup>3</sup>	<i>4-cell 14.1W" (WxDxH):</i> 13.2" x 9.3" x 1.09–1.26"; 335mm x 237mm x 27.6–31.9mm <i>6-cell 14.1W" (WxDxH):</i> 13.2" x 10.2" x 1.09–1.26"; 335 x 261mm x 27.6–31.9mm														
Weight <sup>2</sup>	<i>4-cell:</i> starting at 5.0 lb (2.3kg); <i>6-cell:</i> starting at 5.3 lb (2.4kg)														
Case material	<i>Top:</i> Super-Elastic PolyCarbonate (SEPC); <i>Bottom:</i> Carbon-Fiber Reinforced Plastic														
Battery - type	Lithium Ion <b>4-cell</b> or <b>6-cell</b> , supports unique 2nd battery in Ultrabay Slim														
Battery - life <sup>10</sup>	<i>4-cell:</i> up to 2.5 hr; <i>6-cell:</i> up to 3.8 hr; <i>6-cell plus Ultrabay battery:</i> up to 5.3 hr														
Chipset	<b>Mobile Intel PM965 Express Chipset</b> (Memory Controller Hub); <b>ICH8M-Enhanced</b> I/O Controller Hub (SATA 3.0Gb/s, ATA-100 EIDE, PCI Express® x1, PCI bus, USB, LPC bus, [Bluetooth], [fingerprint]) / PCI bus (Ricoh® R5C847 Cardbus/1394/Multicard) / LPC bus (WPCN385 Super I/O, Atmel® 97SC3203 TPM)														
PC Card Std slot	One Type I or Type II slot, CardBus 32-bit														
ExpressCard slot	None														
Smart Card Read	<i>Some:</i> Smart Card Reader														
Multicard Reader	<i>Some:</i> 4-in-1 reader (MultiMediaCard, Mem Stick PRO, Sec Digital, xD-Picture Card™)														
Ports	Three USB 2.0, DB-15 (external VGA monitor), RJ-11 (modem), RJ-45 (ethernet), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)														
Wireless antenna	UltraConnect™ II antenna / on-off switch for all wireless radios														
Mini PCI Express	Two Mini PCI Express slots / only 802.11 wireless is customer upgradable														
Intel 4965AG <sup>32</sup>	11a/b/g wireless <sup>4</sup> , Mini PCIe adapter, Intel Wireless WiFi Link 4965AG														
WWAN	None														
Turbo Memory	None														
Modem	56K <sup>6</sup> V.92 <sup>29</sup> modem in Communications Daughter Card socket														
Bluetooth™	Bluetooth 2.0 wireless, USB 2.0 interface via ICH8M, LED indicator														
Ethernet	Gigabit ethernet on systemboard, Intel 82566MM Nineveh (PHY), PCIe x1 (GLCI), PXE														
Intel AMT	Intel Active Management Technology (IAMT)														
Audio support	High Definition (HD) Audio, AD1984HD codec / stereo speakers, 1 watt / volume up, down, mute buttons / internal microphone, microphone input jack, headphone jack										Supports ThinkVantage® technologies				
Security	Power-on password, hard disk password, supervisor password, security keyhole										90-watt (NVIDIA) AC adapter				
Security chip	<b>Trusted Platform Module</b> , Atmel chip, TCG 1.2-compliant										ThinkPad Roll Cage and Top Cover				
Fingerprint reader	<b>Fingerprint reader on palm rest</b> , swipe sensor, supports the security chip										Roll Cage (one-piece magnesium)				
Limited warranty <sup>12</sup>	<b>3-years/1-year battery, limited onsite service<sup>24</sup>, 8 am - 5 pm, Mon - Fri coverage</b> excluding holidays, next business day response time / service upgrades <sup>22</sup> available										ENERGY STAR® 4.0-compliant				
1GB PC2-5300 DDR2 SODIMM	40Y7734										RoHS-compliant				
2GB PC2-5300 DDR2 SODIMM	40Y7735										International Warranty Service <sup>17</sup>				
ThinkPad DVD Ultrabay Slim Burner (flat)	41N5643										24 hour x 7 day <sup>18</sup> toll-free support during the warranty period <sup>12</sup>				
Serial Hard Drive Ultrabay Slim Adapter (flat)	40Y8725										via 800-426-7378				
64GB SSD SATA 3.0Gb/s 1.8" (2.5" cover)	43N3400										ThinkPlus™.22 4-year LOR <sup>24</sup> 9x5 NBD				
200GB Disk FDE SATA 1.5Gb/s (7200 rpm)	41N5738										12X5630				
USB 2.0 Security Memory Key 4GB	41U5120										ThinkPlus 5-year LOR 9x5 NBD				
ThinkPad Convertible Monitor Stand	40Y7620										43R2476				
ThinkPad Advanced Dock	250310U										4424HB6				
Other accessories on O-T61 sheet											4422HB6				
											4421HB2				
											Other accessories at <a href="http://lenovo.com/accessories">lenovo.com/accessories</a>				
											agreements at <a href="http://lenovo.com/thinkplus/warranty">lenovo.com/thinkplus/warranty</a>				

See footnotes for important warranty information \* Intel Centrino® with vPro technology  
US models announced May 9 or September 4, 2007 or January 8, 2008  
US models withdrawn effective May or November 2008

© Lenovo  
(ML1-15) November 2008

# ThinkPad® T61 14W 7663 (NVIDIA® Graphics) - withdrawn

Personal Systems Reference (PSREF)

Proc- Type-model	essor GHz	Memory	Wide- screen display	Graphics controller memory	Cam- era	Disk SATA GB <sup>3</sup> rpm	EIDE optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN or Turbo	Card slot	Bat- tery cells	Workhorse (W) Vista Global (G) Avail preload Entry (E) date
7663-11U	T7100	1.80	1GB	14.1" WXGA+	128MB	80G 5400	Combo	* Intel 4965AG <sup>32</sup>		Smart	6-cell	Business32 W G May07
7663-12U	T7300	2.00	1GB	14.1" WXGA+	128MB	80G 5400	Combo	* Intel 4965AG		Smart	4-cell	Business32 W G May07
7663-13U	T7500	2.20	1GB	14.1" WXGA+	128MB	120G 5400	DVD±RW	* Intel 4965AG		Smart	6-cell	Business32 W G May07
7663-16U	T7300	2.00	1GB	14.1" WXGA+	128MB	80G 5400	Combo	* Intel 4965AG	1G Turbo	Smart	4-cell	Business32 W G May07
7663-01U	T7300	2.00	1GB	14.1" WXGA	128MB	100G 7200	Combo	* Intel 4965AG		/54	6-cell	XP Pro Aug07
7663-02U	T7500	2.20	1GB	14.1" WXGA+	128MB	120G 5400	DVD±RW	* Intel 4965AG		4-in-1	6-cell	XP Pro Aug07
7663-03U	T7500	2.20	1GB	14.1" WXGA	128MB	100G 7200	Combo	* Intel 4965AG		/54	6-cell	Business32 W Aug07
7663-04U	T7500	2.20	1GB	14.1" WXGA+	128MB	100G 7200	DVD±RW	* Intel 11n <sup>28</sup>	Verizon	4-in-1	6-cell	Business32 W Aug07
7663-2DU	T7300	2.00	1GB	14.1" WXGA+	128MB	80G 5400	Combo	* Intel 4965AG		Smart	4-cell	XP Pro G Sep07
7663-2EU	T7500	2.20	1GB	14.1" WXGA+	128MB	120G 5400	DVD±RW	* Intel 4965AG		Smart	6-cell	XP Pro G Sep07
7663-3FU	T7300	2.00	1GB	14.1" WXGA+	128MB	120G 5400	DVD±RW	* Intel 4965AG		4-in-1	6-cell	Business32 W Sep07
7663-3JU	T7500	2.20	1GB	14.1" WXGA+	128MB	Cam 120G 5400	Combo	* Intel 4965AG		4-in-1	6-cell	Business32 W G Jan08
7663-3SU	T7300	2.00	1GB	14.1" WXGA+	128MB	80G 5400	Combo	* Intel 11a/b/g	WWAN upg	/54	4-cell	Business32 Feb08

*Italic MTM:* not a base model for building a custom model

Processor	<b>Intel® Core™ 2 Duo processor T7100, T7300, or T7500 with dual-core,</b> Intel 64 Technology, Enhanced Intel SpeedStep® technology <sup>1</sup> , Intel Dynamic Acceleration, Execute Disable Bit, Virtualization Technology, and 800MHz system bus; T7100: 2MB shared L2 cache; T7300/T7500: 4MB shared L2 cache									<b>Preloaded operating system<sup>20</sup></b> - Some: Microsoft® Windows® XP Professional - Some: Microsoft Windows Vista® Business Edition (32-bit) ♦ <i>Vista models:</i> Vista Premium logo		
Memory	<b>1GB</b> std / 4GB max <sup>31</sup> / PC2-5300 667MHz DDR2, non-parity, dual-channel capable, two 200-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available; <i>Non-italics:</i> standard memory in one socket; one socket available									<b>Preloaded applications<sup>14</sup></b> (all OSes; only some listed) • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • ThinkVantage System Update • System Migration Assistant • Norton Internet Security™ (90 days of virus definitions) • Diskeeper® Home • PC-Doctor™ (diagnostics) • ThinkPad Utilities (Power Manager and Presentation Director) • Windows Live™ Toolbar • Windows Live Search • Fingerprint Software • Multimedia Center for Think Offerings (XP) • Microsoft Office 2007 Trial (60-day) • Sonic RecordNOW and Drive Letter Access (combo, DVD±RW) • Corel® WinDVD® (combo, DVD±RW models) • Corel WinDVD Creator (XP DVD±RW models)		
Diskette drive	None (use optional USB-based diskette drive)											
EIDE Combo	Some: DVD-ROM/CD-RW, 24X/24X/24X/8X <sup>21</sup> speed, removable from Ultrabay Slim											
EIDE DVD±RW	Some: DVD burner, Super Multi-Burner (40Y8623) dual-layer, removable Ultrabay Slim											
Ultrabay Slim	One modular bay for interchangeable devices (right side), 9.5mm high bay, flat bezel											
Serial ATA disk	<b>80GB<sup>8</sup></b> (5400 rpm), <b>100GB</b> (7200 rpm), or <b>120GB</b> (5400 rpm) / SATA 1.5Gb/s, 9.5mm high, removable, upgradable, 9.5mm high bay, supports 2nd disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™											
Widescreen display	Some: <b>14.1"</b> (358.1mm) <b>WXGA (1280x800) color</b> , anti-glare, 185 nits, 16:10, 300:1											
Camera	Some: <b>14.1"</b> (358.1mm) <b>WXGA+ (1440x900) color</b> , anti-glare, 200 nits, 16:10, 300:1											
Graphics	<b>NVIDIA® Quadro® NVS 140M</b> , PCI Express® x16, <b>128MB</b> memory, TurboCache, DVI pass-through support to optional Advanced Mini Dock or Advanced Dock											
Keyboard	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys, Windows/Appl keys											
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar <sup>13</sup> , magnifying glass											
Touch pad	UltraNav™ multi-pointing system, touch pad below keyboard, Tap Zones											
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions											
Dimensions <sup>3</sup>	<b>4-cell 14.1W"</b> (WxDxH): 13.2" x 9.3" x 1.09–1.26"; 335mm x 237mm x 27.6–31.9mm <b>6-cell 14.1W"</b> (WxDxH): 13.2" x 10.2" x 1.09–1.26"; 335 x 261mm x 27.6–31.9mm <b>4-cell:</b> starting at 5.0 lb (2.3kg); <b>6-cell:</b> starting at 5.3 lb (2.4kg)											
Weight <sup>2</sup>												
Case material	<i>Top:</i> Super-Elastic PolyCarbonate (SEPC); <i>Bottom:</i> Carbon-Fiber Reinforced Plastic											
Battery - type	Lithium Ion <b>4-cell</b> or <b>6-cell</b> , supports unique 2nd battery in Ultrabay Slim											
Battery - life <sup>10</sup>	<b>4-cell:</b> up to 2.5 hr; <b>6-cell:</b> up to 3.8 hr; <b>6-cell plus Ultrabay battery:</b> up to 5.3 hr											
Chipset	<b>Mobile Intel PM965 Express Chipset</b> (Memory Controller Hub); <b>ICH8M-Enhanced</b> I/O Controller Hub (SATA 3.0Gb/s, ATA-100 EIDE, PCI Express x1, PCI bus, USB, LPC bus, [Bluetooth], [fingerprint]) / PCI bus (Ricoh® R5C847 Cardbus/1394/Multicard) / LPC bus (WPCN385 Super I/O, Atmel® 97SC3203 TPM)											
PC Card Std slot	One Type I or Type II slot, CardBus 32-bit											
ExpressCard slot	Some: [54] One ExpressCard/34 or ExpressCard/54											
Smart Card Read	Some: Smart Card Reader											
Multicard Reader	Some: 4-in-1 reader (MultiMediaCard, Mem Stick PRO, Sec Digital, xD-Picture Card™)											
Ports	Three USB 2.0, DB-15 (external VGA monitor), RJ-11 (modem), RJ-45 (ethernet), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)									Supports ThinkVantage® technologies		
Wireless antenna	UltraConnect™ II antenna / on-off switch for all wireless radios									90-watt (NVIDIA) AC adapter		
Mini PCI Express	Two Mini PCI Express slots									ThinkPad Roll Cage and Top Cover Roll Cage (one-piece magnesium)		
Intel 11a/b/g <sup>32</sup>	Some: 11a/b/g wireless <sup>4</sup> , Mini PCIe adapter, Intel PRO/Wireless 3945ABG									ENERGY STAR® 4.0-compliant		
Intel 4965AG	Some: 11a/b/g wireless <sup>4</sup> , Mini PCIe adapter, Intel Wireless WiFi Link 4965AG									RoHS-compliant		
Intel 11n <sup>28</sup>	Some: 11a/b/g/n wireless <sup>4</sup> , Mini PCIe adapter, Intel Wireless WiFi Link 4965AGN, MIMO 2x3 (Kedron)									International Warranty Service <sup>17</sup>		
WWAN upg	Some: Wireless WAN upgradable, requires Verizon® EV-DO Rev. A Mini PCIe (43R1818)									24 hour x 7 day <sup>18</sup> toll-free support during the warranty period <sup>12</sup> via 800-426-7378		
Verizon <sup>16</sup>	Some: Wireless WAN, Sierra Wireless 1xEV-DO Network Adapter, Mini PCIe adapter, EV-DO Rev. A, service contract reqd with Verizon											
1G Turbo	Some: Intel Turbo Memory, Mini PCIe adapter, 1GB flash, disk-cache accelerator									ThinkPlus™.22 2-year LOR <sup>24</sup> 9x5 NBD 41C9175		
Modem	56K <sup>6</sup> V.92 <sup>29</sup> modem in Communications Daughter Card socket									ThinkPlus 3-year LOR 9x5 NBD 41C9176		
Bluetooth™	Bluetooth 2.0 wireless, USB 2.0 interface via ICH8M, LED indicator									ThinkPlus 4-year LOR 9x5 NBD 41C9177		
Ethernet	Gigabit ethernet on systemboard, Intel 82566MM Nineveh (PHY), PCIe x1 (GLCI), PXE									ThinkPlus 5-year LOR 9x5 NBD 41C9179		
Intel AMT	Intel Active Management Technology (IAMT)									ThinkPlus 4-year P&L P/U Depot 41C9178		
Audio support	High Definition (HD) Audio, AD1984HD codec / stereo speakers, 1 watt / volume up, down, mute buttons / internal microphone, microphone input jack, headphone jack									ThinkPlus 5-year P&L P/U Depot 41C9180		
Security	Power-on password, hard disk password, supervisor password, security keyhole											
Security chip	<b>Trusted Platform Module</b> , Atmel chip, TCG 1.2-compliant											
Fingerprint reader	<b>Fingerprint reader on palm rest</b> , swipe sensor, supports the security chip											
Limited warranty <sup>12</sup>	<b>3-years/1-yr battery</b> - EasyServ™.19 depot repair service / service upgrades <sup>22</sup> available											

See footnotes for important warranty information  
 US models announced May 9, Aug 21, Sept 4,  
 or Sept 18, 2007; or Jan 8 or Feb 12, 2008  
 US models withdrawn May or November 2008

\* Intel Centrino® processor technology  
 \* Intel Centrino® with vPro technology

© Lenovo  
 (ML1-4) November 2008

# ThinkPad® T61 14W 7663 (NVIDIA®) - Linux - withdrawn

Personal Systems Reference (PSREF)

Proc- Type-model	essor GHz	Memory	Wide- screen display	Graphics controller memory	Disk SATA GB <sup>3</sup> rpm	EIDE optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN or Turbo	Card slot	Blue- tooth	Bat- tery cells	Linux preload	Workhorse (W) Global (G) Entry (E)	Avail date
7663-3LU	T7500	2.20	2GB	14.1" WXGA+	128MB	120G 5400	DVD±RW	*Intel 11a/b/g <sup>32</sup>	None	/54	Blue	6-cell	SLED10	W G Jan 08
Positioning Processor	<i>Premiere performance; two spindles</i> <b>Intel® Core™ 2 Duo processor T7500 with dual-core,</b> Intel 64 Technology, Enhanced Intel SpeedStep technology <sup>1</sup> , Intel Dynamic Acceleration, Execute Disable Bit, Virtualization Technology, 800MHz system bus, and 4MB shared L2 cache											<b>Preloaded operating system<sup>20</sup></b> - SUSE® Linux™ Enterprise Desktop10 Service Pack 1  <b>Preloaded applications<sup>14</sup></b> • None		
Memory	<b>2GB</b> std / 4GB max <sup>31</sup> / PC2-5300 667MHz DDR2, non-parity, dual-channel capable, two 200-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available;											<b>Supported devices</b> (only some listed) • HD Audio • Intel 3945ABG wireless • Intel Graphics Media Accelerator X3100 (GMA X3100) • NVIDIA Quadro NVS 140M • Fingerprint reader • Bluetooth • Function keys • ThinkPad Advanced Dock		
Diskette drive	None (use optional USB-based diskette drive)											<b>Non-supported devices</b> (only some listed) • Intel 4965AG, Intel 4965AGN, ThinkPad 11a/b/g, ThinkPad 11n wireless • WWAN • Active Protection System™ • ThinkVantage® button • Security chip • Intel Turbo Memory • Intel AMT technology • Integrated camera  <b>Non-supported applications</b> (only some listed) • ThinkPad Utilities • ThinkVantage technologies • Presentation Director • Encrypted DVD playback • Keyboard Customizer		
EIDE DVD±RW	DVD burner, Super Multi-Burner (40Y8623) dual-layer, removable Ultrabay Slim													
Ultrabay Slim	One modular bay for interchangeable devices (right side), 9.5mm high bay, flat bezel													
Serial ATA disk	<b>120GB<sup>8</sup></b> (5400 rpm) / SATA 1.5Gb/s, 9.5mm high, removable, upgradable, 9.5mm high bay, supports 2nd disk, ThinkPad Shock Mounted Hard Drive													
Widescreen display	<b>14.1"</b> (358.1mm) <b>WXGA+ (1440x900) color</b> , anti-glare, 200 nits, 16:10 aspect ratio, 300:1 contrast ratio											90-watt (NVIDIA) AC adapter ThinkPad Roll Cage and Top Cover Roll Cage (one-piece magnesium) RoHS-compliant International Warranty Service <sup>17</sup> 24 hour x 7 day <sup>18</sup> toll-free support during the warranty period <sup>12</sup> via 800-426-7378		
Camera	None													
Graphics	<b>NVIDIA® Quadro® NVS 140M</b> , PCI Express x16, <b>128MB</b> memory, TurboCache, DVI pass-through support to optional Advanced Mini Dock or Advanced Dock													
Keyboard	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys, Windows/Appl keys													
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar <sup>13</sup> , magnifying glass													
Touch pad	UltraNav™ multi-pointing system, touch pad below keyboard, Tap Zones													
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions													
Dimensions <sup>3</sup>	<i>6-cell 14.1W"</i> (WxDxH): 13.2" x 10.2" x 1.09–1.26"; 335 x 261mm x 27.6–31.9mm													
Weight <sup>2</sup>	<i>6-cell:</i> starting at 5.3 lb (2.4kg)													
Case material	<i>Top:</i> Super-Elastic PolyCarbonate (SEPC); <i>Bottom:</i> Carbon-Fiber Reinforced Plastic													
Battery - type	Lithium Ion <b>6-cell</b> , supports unique 2nd battery in Ultrabay Slim													
Battery - life <sup>10</sup>	Not published													
Chipset	<b>Mobile Intel PM965 Express Chipset</b> (Memory Controller Hub); <b>ICH8M-Enhanced</b> I/O Controller Hub (SATA 1.5Gb/s, ATA-100 EIDE, PCI Express® x1, PCI bus, USB, LPC bus, [Bluetooth], [fingerprint]) / PCI bus (Ricoh® R5C847 Cardbus/1394/Multicard) / LPC bus (WPCN385 Super I/O, Atmel® 97SC3203 TPM)											90-watt (NVIDIA) AC adapter ThinkPad Roll Cage and Top Cover Roll Cage (one-piece magnesium) RoHS-compliant International Warranty Service <sup>17</sup> 24 hour x 7 day <sup>18</sup> toll-free support during the warranty period <sup>12</sup> via 800-426-7378		
PC Card Std slot	One Type I or Type II slot, CardBus 32-bit													
ExpressCard slot	[54] One ExpressCard/34 or ExpressCard/54													
Smart Card Read	None													
Multicard Reader	None													
Ports	Three USB 2.0, DB-15 (external VGA monitor), RJ-11 (modem), RJ-45 (ethernet), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)													
Wireless antenna	UltraConnect™ II antenna / on-off switch for all wireless radios													
Mini PCI Express	Two Mini PCI Express slots / only 802.11 wireless is customer upgradable													
Intel 11a/b/g <sup>32</sup>	11a/b/g wireless <sup>4</sup> , Mini PCIe adapter, Intel PRO/Wireless 3945ABG													
WWAN	None													
Turbo Memory	None													
Modem	56K <sup>6</sup> V.92 <sup>29</sup> modem in Communications Daughter Card socket													
Bluetooth™	Bluetooth 2.0 wireless, USB 2.0 interface via ICH8M, LED indicator													
Ethernet	Gigabit ethernet on systemboard, Intel 82566MM Nineveh (PHY), PCIe x1 (GLCI), PXE													
Intel AMT	Not supported													
Audio support	High Definition (HD) Audio, AD1984HD codec / stereo speakers, 1 watt / volume up, down, mute buttons / internal microphone, microphone input jack, headphone jack													
Security	Power-on password, hard disk password, supervisor password, security keyhole													
Security chip	<b>Trusted Platform Module</b> , Atmel chip, TCG 1.2-compliant													
Fingerprint reader	<b>Fingerprint reader on palm rest</b> , swipe sensor, supports the security chip													
Limited warranty <sup>12</sup>	<b>3-years/1-yr battery</b> - EasyServ™ <sup>19</sup> depot repair service / service upgrades <sup>22</sup> available													
1GB PC2-5300 DDR2 SODIMM	40Y7734	T/R 14W Standard Battery 4-cell	41U3196	ThinkPlus™.22 2-year LOR <sup>24</sup> 9x5 NBD										
2GB PC2-5300 DDR2 SODIMM	40Y7735	T/R 14W Enhanced Battery 6-cell	41U3198	41C9175										
ThinkPad DVD Ultrabay Slim Burner (flat)	41N5643	T/R 14W High Capacity Batt 9-cell	43R2499	ThinkPlus 3-year LOR 9x5 NBD										
Serial Hard Drive Ultrabay Slim Adapter (flat)	40Y8725	Advanced Ultrabay Battery II 3-cell	43R9250	41C9176										
64GB SSD SATA 3.0Gb/s 1.8" (2.5" cover)	43N3400	ThinkPad External Battery Charger	40Y7625	ThinkPlus 4-year LOR 9x5 NBD										
320GB Disk SATA 1.5Gb/s (5400 rpm)	43N3403	90W Slim AC/DC Combo Adapter	41N8460	41C9177										
USB 2.0 Ultra Secure Memory Key 8GB	45J5918	ThinkPad Business Backpack	43R2482	ThinkPlus 5-year LOR 9x5 NBD										
ThinkPad Essential Port Replicator	250510W	ThinkPad Executive Leather Case	43R2480	41C9179										
ThinkPad Advanced Mini Dock	250410U	ThinkVision® L2240p Wide 22" Monitor	4422HB6	ThinkPlus 4-year P&L P/U Depot										
ThinkPad Advanced Dock	250310U	ThinkVision L2440p Wide 24" Monitor	4420HB2	41C9178										
Check Linux compatibility for other accessories		Other accessories at <a href="http://lenovo.com/accessories">lenovo.com/accessories</a>		ThinkPlus 5-year P&L P/U Depot										
				41C9180										

See footnotes for important warranty information  
 US model announced January 15, 2008  
 US model withdrawn effective November 2008

\* Intel Centrino® processor technology

© Lenovo  
 (ML1-13) November 2008

# ThinkPad® T61 14W 7665 (NVIDIA®) - Onsite - withdrawn

Personal Systems Reference (PSREF)

Proc- Type-model GHz	Memory	Wide- screen display	Graphics controller memory	Disk SATA GB <sup>3</sup>	EIDE rpm	EIDE optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN or Turbo	Card slot	Cam- era	Blue- tooth	Bat- tery cells	Preload	Workhorse (W) Global (G) GMP (P)	Avail date
7665-11U T7100	1.80 1GB	14.1" WXGA+	128MB	80G	5400	Combo	*Intel 4965AG <sup>32</sup>	None	Smart		Blue 6	Business32	W G P	May07	
7665-12U T7300	2.00 1GB	14.1" WXGA+	128MB	80G	5400	Combo	*Intel 4965AG	None	Smart		Blue 4	Business32	W G P	May07	
7665-13U T7500	2.20 1GB	14.1" WXGA+	128MB	120G	5400	DVD±RW	*Intel 4965AG	None	Smart		Blue 6	Business32	W G P	May07	
7665-2DU T7300	2.00 1GB	14.1" WXGA+	128MB	80G	5400	Combo	*Intel 4965AG	None	Smart		Blue 4	XP Pro	W G P	Sep07	
7665-2EU T7500	2.20 1GB	14.1" WXGA+	128MB	120G	5400	DVD±RW	*Intel 4965AG	None	Smart		Blue 6	XP Pro	W G P	Sep07	
7665-3JU T7500	2.20 1GB	14.1" WXGA+	128MB	120G	5400	Combo	*Intel 4965AG	None	4-in-1	Cam	Blue 6	Business32	W G P	Jan 08	
<b>• These models are part of the Global Models Plus program with limited onsite service<sup>24</sup> 3-year limited warranty</b>															
Positioning Processor	<i>Premiere performance; two spindles</i> <b>Intel® Core™ 2 Duo processor T7100, T7300, or T7500 with dual-core,</b> Intel 64 Technology, Enhanced Intel SpeedStep® technology <sup>1</sup> , Intel Dynamic Acceleration, Execute Disable Bit, Virtualization Technology, and 800MHz system bus; <i>T7100: 2MB shared L2 cache; T7300/T7500: 4MB shared L2 cache</i>											<b>Preloaded operating system<sup>20</sup></b> - Some: Microsoft® Windows® XP Professional - Some: Microsoft Windows Vista® Business Edition (32-bit) ◇ Vista models: Vista Premium logo			
Memory	<b>1GB</b> std / 4GB max <sup>31</sup> / PC2-5300 667MHz DDR2, non-parity, dual-channel capable, two 200-pin SO-DIMM sockets; <i>Non-italics:</i> standard memory in one socket; one socket available											<b>Preloaded applications<sup>14</sup></b> (all OSes) • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • ThinkVantage System Update • System Migration Assistant • Norton Internet Security™ (90 days of virus definitions) • Diskeeper® Home • PC-Doctor™ (diagnostics) • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader • Windows Live™ Toolbar • Windows Live Search • Picasa from Google • Fingerprint Software (fingerprint models) • Microsoft Office 2007 Trial (60-day) • Multimedia Center for Think Offerings (XP Pro models) • Sonic RecordNow and Drive Letter Access (Combo, DVD±RW) • Corel® WinDVD® (Combo, DVD±RW) • Corel WinDVD Creator (XP Pro DVD±RW models)			
Diskette drive EIDE Combo EIDE DVD±RW Ultrabay Slim Serial ATA disk	None (use optional USB-based diskette drive) <i>Some:</i> DVD-ROM/CD-RW, 24X/24X/24X/8X <sup>21</sup> speed, removable from Ultrabay Slim <i>Some:</i> DVD burner, Super Multi-Burner (40Y8623) dual-layer, removable Ultrabay Slim One modular bay for interchangeable devices (right side), 9.5mm high bay, flat bezel <b>80GB<sup>8</sup></b> (5400 rpm) or <b>120GB</b> (5400 rpm) / SATA 1.5Gb/s, 9.5mm high, removable, upgradable, 9.5mm high bay, supports 2nd disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™														
Widescreen display Camera	<b>14.1"</b> (358.1mm) <b>WXGA+</b> ( <b>1440x900</b> ) color, anti-glare, 200 nits, 16:10 aspect ratio, 300:1 contrast ratio <i>Some:</i> integrated camera on top of screen, 1.3-megapixel, fixed focus, USB 2.0														
Graphics	<b>NVIDIA® Quadro® NVS 140M</b> , PCI Express® x16, <b>128MB</b> memory, TurboCache, DVI pass-through support to optional Advanced Mini Dock or Advanced Dock														
Keyboard TrackPoint® Touch pad ThinkLight™	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys, Windows/Appl keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar <sup>13</sup> , magnifying glass UltraNav™ multi-pointing system, touch pad below keyboard, Tap Zones Illuminates the keyboard to improve visibility in low-light conditions														
Dimensions <sup>3</sup>	<b>4-cell 14.1W"</b> (WxDxH): 13.2" x 9.3" x 1.09–1.26"; 335mm x 237mm x 27.6–31.9mm <b>6-cell 14.1W"</b> (WxDxH): 13.2" x 10.2" x 1.09–1.26"; 335 x 261mm x 27.6–31.9mm <i>4-cell:</i> starting at 5.0 lb (2.3kg); <i>6-cell:</i> starting at 5.3 lb (2.4kg)														
Weight <sup>2</sup> Case material Battery - type Battery - life <sup>10</sup>	<i>Top:</i> Super-Elastic PolyCarbonate (SEPC); <i>Bottom:</i> Carbon-Fiber Reinforced Plastic Lithium Ion <b>4-cell</b> or <b>6-cell</b> , supports unique 2nd battery in Ultrabay Slim <i>4-cell:</i> up to 2.5 hr; <i>6-cell:</i> up to 3.8 hr; <i>6-cell plus Ultrabay battery:</i> up to 5.3 hr														
Chipset	<b>Mobile Intel PM965 Express Chipset</b> (Memory Controller Hub); <b>ICH8M-Enhanced</b> I/O Controller Hub (SATA 3.0Gb/s, ATA-100 EIDE, PCI Express x1, PCI bus, USB, LPC bus, [Bluetooth], [fingerprint]) / PCI bus (Ricoh® R5C847 Cardbus/1394/Multicard) / LPC bus (WPCN385 Super I/O, Atmel® 97SC3203 TPM)														
PC Card Std slot ExpressCard slot Smart Card Read Multicard Reader Ports	One Type I or Type II slot, CardBus 32-bit None <i>Some:</i> Smart Card Reader <i>Some:</i> 4-in-1 reader (MultiMediaCard, Mem Stick PRO, Sec Digital, xD-Picture Card™) Three USB 2.0, DB-15 (external VGA monitor), RJ-11 (modem), RJ-45 (ethernet), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)														
Wireless antenna Mini PCI Express Intel 4965AG <sup>32</sup> WWAN Turbo Memory	UltraConnect™ II antenna / on-off switch for all wireless radios Two Mini PCI Express slots / only 802.11 wireless is customer upgradable 11a/b/g wireless <sup>4</sup> , Mini PCIe adapter, Intel Wireless WiFi Link 4965AG None None														
Modem Bluetooth™ Ethernet Intel AMT Audio support	56K <sup>6</sup> V.92 <sup>29</sup> modem in Communications Daughter Card socket Bluetooth 2.0 wireless, USB 2.0 interface via ICH8M, LED indicator Gigabit ethernet on systemboard, Intel 82566MM Nineveh (PHY), PCIe x1 (GLCI), PXE Intel Active Management Technology (IAMT) High Definition (HD) Audio, AD1984HD codec / stereo speakers, 1 watt / volume up, down, mute buttons / internal microphone, microphone input jack, headphone jack														
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole <b>Trusted Platform Module</b> , Atmel chip, TCG 1.2-compliant <b>Fingerprint reader on palm rest</b> , swipe sensor, supports the security chip											Supports ThinkVantage® technologies			
Limited warranty <sup>12</sup>	<b>3-years/1-year battery, limited onsite service<sup>24</sup>, 8 am - 5 pm, Mon - Fri coverage</b> excluding holidays, next business day response time / service upgrades <sup>22</sup> available											90-watt (NVIDIA) AC adapter ThinkPad Roll Cage and Top Cover Roll Cage (one-piece magnesium) ENERGY STAR® 4.0-compliant RoHS-compliant International Warranty Service <sup>17</sup> 24 hour x 7 day <sup>18</sup> toll-free support during the warranty period <sup>12</sup> via 800-426-7378			
1GB PC2-5300 DDR2 SODIMM 2GB PC2-5300 DDR2 SODIMM ThinkPad DVD Ultrabay Slim Burner (flat) 64GB SSD SATA 3.0Gb/s 1.8" (2.5" cover) 200GB Disk FDE SATA 1.5Gb/s (7200 rpm) 320GB Disk SATA 1.5Gb/s (5400 rpm) USB 2.0 Ultra Secure Memory Key 8GB USB 2.0 Lenovo Enhanced Port Replicator ThinkPad Convertible Monitor Stand ThinkPad Advanced Dock Other accessories on O-T61 sheet	40Y7734 40Y7735 41N5643 43N3400 41N5738 43N3403 45J5918 43R8770 40Y7620 250310U	T/R 14W Standard Battery 4-cell T/R 14W Enhanced Battery 6-cell T/R 14W High Capacity Batt 9-cell Advanced Ultrabay Battery II 3-cell 90W Slim AC/DC Combo Adapter ThinkPad Business Topload Case ThinkVision® L1700p 17" Monitor ThinkVision L1940p Wide 19" Monitor ThinkVision L2240p Wide 22" Monitor ThinkVision L2440x Wide 24" Monitor	41U3196 41U3198 43R2499 43R9250 41N8460 43R2476 9417HE2 4424HB6 4422HB6 4421HB2	ThinkPlus™.22 4-year LOR <sup>24</sup> 9x5 NBD 12X5630 ThinkPlus 5-year LOR 9x5 NBD 43R2162 Post-warranty annual maintenance agreements at <b>lenovo.com/thinkplus/warranty</b>											

See footnotes for important warranty information \* Intel Centrino® with vPro™ technology  
US models announced May 9 or September 4, 2007 or January 8, 2008  
US models withdrawn effective May or November 2008

# ThinkPad® T61 14W (GMA Graphics) - Education (EasyServ) - withdrawn

Personal Systems Reference (PSREF)

Proc- Type-model essor	GHz	Memory	Wide- screen display	Graphics controller	Disk SATA GB <sup>8</sup> rpm	EIDE optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN or Turbo	Card slot	Blue- tooth	Vista preload	Educ pre- load	Workhorse (W) Limited Gbl (G) Avail warranty <sup>12</sup> date
7659-1NU	T7300	2.00	1GB	14.1" WXGA	GMA 80G	5400	Combo	11a/b/g <sup>32</sup>	None	4-in-1	Business32	K12	EasyServ W May07
7659-1PU	T7300	2.00	1GB	14.1" WXGA	GMA 80G	5400	Combo	11a/b/g	None	4-in-1	Business32	HE	EasyServ W May07
7659-XAU	T7300	2.00	1GB	14.1" WXGA+	GMA 120G	5400	DVD±RW	11a/b/g	None	4-in-1	Business32	HE	EasyServ May07

• **These models have an EasyServ™,19 depot repair service 3-year limited warranty**

These educational models are available only to public or private K-12 or higher accredited schools organized and operated exclusively for educational purposes for use by qualified students and teachers.

Positioning Processor	<i>Premiere performance; two spindles</i> <b>Intel® Core™ 2 Duo processor T7300 with dual-core,</b> Intel 64 Technology, Enhanced Intel SpeedStep® technology <sup>1</sup> , Intel Dynamic Acceleration, Execute Disable Bit, Virtualization Technology, 800MHz system bus, and 4MB shared L2 cache										<b>Preloaded operating system<sup>20</sup></b> - Microsoft® Windows® Vista® Business Edition (32-bit) ◇ Vista Basic logo		
Memory	<b>1GB</b> std / 4GB max <sup>31</sup> / PC2-5300 667MHz DDR2, non-parity, dual-channel capable, two 200-pin SO-DIMM sockets; <i>Non-italics:</i> standard memory in one socket; one socket available										<b>Preloaded applications<sup>14</sup></b> • Microsoft Office OneNote® 2007 (and CD) • <i>Some (K12):</i> K-12 education software - VitalSource Library School Edition - Adobe® Instructor Resource Center - Adobe Digital School Collection - Photoshop Elements 5 (and CD) - Premier Elements 3 (and DVD) - Acrobat 8 Professional (and CD) - Contribute 4 (and CD) • <i>Some (HE):</i> Higher education software - VitalSource Library College Edition - Adobe Instructor Resource Center - Adobe Photoshop Elements 5 (and CD) - Adobe Premier Elements 3 (and DVD) • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • ThinkVantage System Update • System Migration Assistant • Norton Internet Security™ • Diskeeper® Home • PC-Doctor™ (diagnostics) • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader • Windows Live™ Toolbar • Windows Live Search • Picasa from Google • Microsoft Office 2007 Trial (60-day) • Sonic RecordNow and Drive Letter Access (combo, DVD±RW) • Corel® WinDVD® (combo, DVD±RW)		
Diskette drive	None (use optional USB-based diskette drive)										Supports ThinkVantage® technologies		
EIDE Combo	<i>Some:</i> DVD-ROM/CD-RW, 24X/24X/24X/8X <sup>21</sup> speed, removable from Ultrabay Slim												
EIDE DVD±RW	<i>Some:</i> DVD burner, Super Multi-Burner (40Y8623) dual-layer, removable Ultrabay Slim												
Ultrabay Slim	One modular bay for interchangeable devices (right side), 9.5mm high bay, flat bezel												
Serial ATA disk	<b>80GB<sup>8</sup></b> (5400 rpm) or <b>120GB<sup>8</sup></b> (5400 rpm) / SATA 1.5Gb/s, 9.5mm high, removable, upgradable, 9.5mm high bay, supports 2nd disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™												
Widescreen display	<i>Some:</i> <b>14.1"</b> (358.1mm) <b>WXGA (1280x800) color</b> , anti-glare, 185 nits, 16:10, 300:1 <i>Some:</i> <b>14.1"</b> (358.1mm) <b>WXGA+ (1440x900) color</b> , anti-glare, 200 nits, 16:10, 300:1										65-watt (GMA graphics) AC adapter ThinkPad Roll Cage and Top Cover Roll Cage (one-piece magnesium) ENERGY STAR® 4.0-compliant RoHS-compliant International Warranty Service <sup>17</sup> 24 hour x 7 day <sup>18</sup> toll-free support during the warranty period <sup>12</sup> via 800-426-7378		
Camera	None												
Graphics	<b>Intel Graphics Media Accelerator X3100 (GMA X3100)</b> , integrated in GM965, DVI pass-through support to optional Advanced Mini Dock or Advanced Dock												
Keyboard	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys, Windows/Appl keys												
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar <sup>13</sup> , magnifying glass												
Touch pad	UltraNav™ multi-pointing system, touch pad below keyboard, Tap Zones												
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions												
Dimensions <sup>3</sup>	<i>6-cell 14.1W"</i> (WxDxH): 13.2" x 10.2" x 1.09–1.26"; 335 x 261mm x 27.6–31.9mm												
Weight <sup>2</sup>	<i>6-cell:</i> starting at 5.3 lb (2.4kg)												
Case material	<i>Top:</i> Super-Elastic PolyCarbonate (SEPC); <i>Bottom:</i> Carbon-Fiber Reinforced Plastic												
Battery - type	Lithium Ion <b>6-cell</b> , supports unique 2nd battery in Ultrabay Slim												
Battery - life <sup>10</sup>	<i>6-cell:</i> up to 5.7 hr; <i>6-cell plus Ultrabay battery:</i> up to 7.2 hr												
Chipset	<b>Mobile Intel GM965 Express Chipset</b> (Graphics Memory Controller Hub); <b>ICH8M-Enhanced I/O Controller Hub</b> (SATA 3.0Gb/s, ATA-100 EIDE, PCI Express® x1, PCI bus, USB, LPC bus, [Bluetooth], [fingerprint]) / PCI bus (Ricoh® R5C847 Cardbus/1394/Multicard) / LPC bus (WPCN385 Super I/O, Atmel® 97SC3203 TPM)										ThinkPlus™,22 2-year LOR <sup>24</sup> 9x5 NBD 41C9175 ThinkPlus 3-year LOR 9x5 NBD 41C9176 ThinkPlus 4-year LOR 9x5 NBD 41C9177 ThinkPlus 5-year LOR 9x5 NBD 41C9179 ThinkPlus 4-year P&L P/U Depot 41C9178 ThinkPlus 5-year P&L P/U Depot 41C9180 Post-warranty annual maintenance agreements at <b>lenovo.com/thinkplus/warranty</b>		
PC Card Std slot	One Type I or Type II slot, CardBus 32-bit, integrated door												
ExpressCard slot	None												
Smart Card Read	None												
Multicard Reader	4-in-1 reader (MultiMediaCard, Mem Stick PRO, Sec Digital, xD-Picture Card™)												
Ports	Three USB 2.0, DB-15 (external VGA monitor), RJ-11 (modem), RJ-45 (ethernet), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)												
Wireless antenna	UltraConnect™ II antenna / on-off switch for all wireless radios												
Mini PCI Express	Two Mini PCI Express slots / only 802.11 wireless is customer upgradable												
11a/b/g <sup>32</sup>	11a/b/g wireless <sup>4</sup> , ThinkPad 11a/b/g Mini PCIe Adapter, Atheros AR5006EX												
WWAN	None												
Turbo Memory	None												
Modem	56K <sup>6</sup> V.92 <sup>29</sup> modem in Communications Daughter Card socket												
Bluetooth™	<i>Some:</i> Bluetooth 2.0 wireless, USB 2.0 interface via ICH8M, LED indicator												
Ethernet	Gigabit ethernet on systemboard, Intel 82566MM Nineveh (PHY), PCIe x1 (GLCI), PXE												
Intel AMT	Intel Active Management Technology (iAMT)												
Audio support	High Definition (HD) Audio, AD1984HD codec / stereo speakers, 1 watt / volume up, down, mute buttons / internal microphone, microphone input jack, headphone jack Power-on password, hard disk password, supervisor password, security keyhole												
Security	<b>Trusted Platform Module</b> , Atmel chip, TCG 1.2-compliant												
Security chip	None												
Fingerprint reader	None												
Limited warranty <sup>12</sup>	<b>3-years/1-yr battery - EasyServ™,19 depot repair service / service upgrades<sup>22</sup> available</b>												
1GB PC2-5300 DDR2 SODIMM	40Y7734			T/R 14W Standard Battery 4-cell			41U3196			ThinkPlus 3-year LOR 9x5 NBD 41C9175			
2GB PC2-5300 DDR2 SODIMM	40Y7735			T/R 14W Enhanced Battery 6-cell			41U3198			ThinkPlus 3-year LOR 9x5 NBD 41C9176			
ThinkPad DVD Ultrabay Slim Burner (flat)	41N5643			T/R 14W High Capacity Batt 9-cell			43R2499			ThinkPlus 4-year LOR 9x5 NBD 41C9177			
Serial Hard Drive Ultrabay Slim Adapter (flat)	40Y8725			Advanced Ultrabay Battery II 3-cell			43R9250			ThinkPlus 5-year LOR 9x5 NBD 41C9179			
64GB SSD SATA 3.0Gb/s 1.8" (2.5" cover)	43N3400			ThinkPad External Battery Charger			40Y7625			ThinkPlus 4-year P&L P/U Depot 41C9178			
200GB Disk FDE SATA 1.5Gb/s (7200 rpm)	41N5738			ThinkPad 90W AC Adapter			40Y7659			ThinkPlus 5-year P&L P/U Depot 41C9180			
USB 2.0 Security Memory Key 4GB	41U5120			90W Slim AC/DC Combo Adapter			41N8460			Post-warranty annual maintenance agreements at <b>lenovo.com/thinkplus/warranty</b>			
USB 2.0 Super Multi-Burner Drive	41N5565			ThinkPad Business Backpack			43R2482						
USB 2.0 Lenovo Enhanced Port Replicator	43R8770			ThinkVision® L1700p 17" Monitor			9417HE2						
ThinkPad Essential Port Replicator	250510W			ThinkVision L1940p Wide 19" Monitor			4424HB6						
ThinkPad Advanced Mini Dock	250410U			ThinkVision L2240p Wide 22" Monitor			4422HB6						
ThinkPad Advanced Dock	250310U			ThinkVision L2440p Wide 24" Monitor			4420HB2						
Other accessories on O-T61 sheet													

See footnotes for important warranty information

US models announced on May 9, 2007

US models withdrawn effective June or November 2008

© Lenovo  
(ML1-5) November 2008

# ThinkPad® T61 14W (NVIDIA® Graphics) - Education (EasyServ) - withdrawn Personal Systems Reference (PSREF)

Proc- Type-model	essor GHz	Memory	Wide- screen display	Graphics controller memory	Disk SATA GB <sup>8</sup> rpm	EIDE optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN Card or Turbo slot	Blue- tooth	Vista preload	Educ pre- load	Workhorse (W) Limited Gbl (G) Avail warranty <sup>12</sup> date
7663-1TU	T7300	2.00	1GB	14.1" WXGA+	128MB	120G 5400	DVD±RW	11a/b/g <sup>32</sup>	None	4-in-1	Blue	Business32 HE EasyServ W May07
<p>• <b>This model has an EasyServ™<sup>19</sup> depot repair service 3-year limited warranty</b>            This educational model is available only to public or private K-12 or higher accredited schools organized and operated exclusively for educational purposes for use by qualified students and teachers.</p>												
Processor	<b>Intel® Core™ 2 Duo processor T7300 with dual-core,</b> Intel 64 Technology, Enhanced Intel SpeedStep® technology <sup>1</sup> , Intel Dynamic Acceleration, Execute Disable Bit, Virtualization Technology, 800MHz system bus, and 4MB shared L2 cache											<b>Preloaded operating system<sup>20</sup></b> - Microsoft® Windows® Vista® Business Edition (32-bit) ⇨ Vista Premium logo
Memory	<b>1GB</b> std / 4GB max <sup>31</sup> / PC2-5300 667MHz DDR2, non-parity, dual-channel capable, two 200-pin SO-DIMM sockets; <i>Non-italics:</i> standard memory in one socket; one socket available											<b>Preloaded applications<sup>14</sup></b> <ul style="list-style-type: none"> <li>• Microsoft Office OneNote® 2007 (and CD)</li> <li>• (HE): Higher education software</li> <li>- VitalSource Library College Edition</li> <li>- Adobe Instructor Resource Center</li> <li>- Adobe Photoshop Elements 5 (and CD)</li> <li>- Adobe Premier Elements 3 (and DVD)</li> <li>• Rescue and Recovery™</li> <li>• Access Connections™</li> <li>• Client Security Solution™</li> <li>• ThinkVantage Productivity Center</li> <li>• ThinkVantage System Update</li> <li>• System Migration Assistant</li> <li>• Norton Internet Security™ (90 days of virus definitions)</li> <li>• Diskeeper® Home</li> <li>• PC-Doctor™ (diagnostics)</li> <li>• ThinkPad Utilities (Power Manager and Presentation Director)</li> <li>• Adobe® Reader</li> <li>• Windows Live™ Toolbar</li> <li>• Windows Live Search</li> <li>• Picasa from Google</li> <li>• Fingerprint Software</li> <li>• Microsoft Office 2007 Trial (60-day)</li> <li>• Sonic RecordNow and Drive Letter Access (DVD±RW)</li> <li>• Corel® WinDVD® (DVD±RW)</li> </ul>
Diskette drive	None (use optional USB-based diskette drive)											
EIDE DVD±RW	DVD burner, Super Multi-Burner (40Y8623) dual-layer, removable Ultrabay Slim											
Ultrabay Slim	One modular bay for interchangeable devices (right side), 9.5mm high bay, flat bezel											
Serial ATA disk	<b>120GB</b> (5400 rpm) / SATA 1.5Gb/s, 9.5mm high, removable, upgradable, 9.5mm high bay, supports 2nd disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™											
Widescreen display	<b>14.1"</b> (358.1mm) <b>WXGA+ (1440x900) color</b> , anti-glare, 200 nits, 16:10 aspect ratio, 300:1 contrast ratio											
Camera	None											
Graphics	<b>NVIDIA® Quadro® NVS 140M</b> , PCI Express® x16, <b>128MB</b> memory, TurboCache, DVI pass-through support to optional Advanced Mini Dock or Advanced Dock											
Keyboard	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys, Windows/Appl keys											
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar <sup>13</sup> , magnifying glass											
Touch pad	UltraNav™ multi-pointing system, touch pad below keyboard, Tap Zones											
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions											
Dimensions <sup>3</sup>	<b>6-cell 14.1W" (WxDxH):</b> 13.2" x 10.2" x 1.09–1.26"; 335 x 261mm x 27.6–31.9mm											
Weight <sup>2</sup>	<b>6-cell:</b> starting at 5.3 lb (2.4kg)											
Case material	<i>Top:</i> Super-Elastic PolyCarbonate (SEPC); <i>Bottom:</i> Carbon-Fiber Reinforced Plastic											
Battery - type	Lithium Ion <b>6-cell</b> , supports unique 2nd battery in Ultrabay Slim											
Battery - life <sup>10</sup>	<b>6-cell:</b> up to 3.8 hr; <b>6-cell plus Ultrabay battery:</b> up to 5.3 hr											
Chipset	<b>Mobile Intel PM965 Express Chipset</b> (Memory Controller Hub); <b>ICH8M-Enhanced</b> I/O Controller Hub (SATA 3.0Gb/s, ATA-100 EIDE, PCI Express x1, PCI bus, USB, LPC bus, [Bluetooth], [fingerprint]) / PCI bus (Ricoh® R5C847 Cardbus/1394/Multicard) / LPC bus (WPCN385 Super I/O, Atmel® 97SC3203 TPM)											
PC Card Std slot	One Type I or Type II slot, CardBus 32-bit											
ExpressCard slot	None											
Smart Card Read	None											
Multicard Reader	4-in-1 reader (MultiMediaCard, Memory Stick® PRO™, Secure Digital, xD-Picture Card™)											
Ports	Three USB 2.0, DB-15 (external VGA monitor), RJ-11 (modem), RJ-45 (ethernet), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)											
Wireless antenna	UltraConnect™ II antenna / on-off switch for all wireless radios											
Mini PCI Express	Two Mini PCI Express slots / only 802.11 wireless is customer upgradable											
11a/b/g <sup>32</sup>	11a/b/g wireless <sup>4</sup> , ThinkPad 11a/b/g Mini PCIe Adapter, Atheros AR5006EX											
WWAN	None											
Turbo Memory	None											
Modem	56K <sup>6</sup> V.92 <sup>29</sup> modem in Communications Daughter Card socket											
Bluetooth™	Bluetooth 2.0 wireless, USB 2.0 interface via ICH8M, LED indicator											
Ethernet	Gigabit ethernet on systemboard, Intel 82566MM Nineveh (PHY), PCIe x1 (GLCI), PXE											
Intel AMT	Intel Active Management Technology (iAMT)											
Audio support	High Definition (HD) Audio, AD1984HD codec / stereo speakers, 1 watt / volume up, down, mute buttons / internal microphone, microphone input jack, headphone jack											
Security	Power-on password, hard disk password, supervisor password, security keyhole											
Security chip	<b>Trusted Platform Module</b> , Atmel chip, TCG 1.2-compliant											
Fingerprint reader	<b>Fingerprint reader on palm rest</b> , swipe sensor, supports the security chip											
Limited warranty <sup>12</sup>	<b>3-years/1-yr battery - EasyServ™<sup>19</sup> depot repair service / service upgrades<sup>22</sup> avail</b>											
1GB PC2-5300 DDR2 SODIMM	40Y7734			T/R 14W Standard Battery 4-cell				41U3196				ThinkPlus™. <sup>22</sup> 2-year LOR <sup>24</sup> 9x5 NBD
2GB PC2-5300 DDR2 SODIMM	40Y7735			T/R 14W Enhanced Battery 6-cell				41U3198				41C9175
ThinkPad DVD Ultrabay Slim Burner (flat)	41N5643			T/R 14W High Capacity Batt 9-cell				43R2499				ThinkPlus 3-year LOR 9x5 NBD
Serial Hard Drive Ultrabay Slim Adapter (flat)	40Y8725			Advanced Ultrabay Battery II 3-cell				43R9250				41C9176
64GB SSD SATA 3.0Gb/s 1.8" (2.5" cover)	43N3400			ThinkPad External Battery Charger				40Y7625				ThinkPlus 4-year LOR 9x5 NBD
200GB Disk FDE SATA 1.5Gb/s (7200 rpm)	41N5738			ThinkPad 90W AC Adapter				40Y7659				41C9177
320GB Disk SATA 1.5Gb/s (5400 rpm)	43N3403			90W Slim AC/DC Combo Adapter				41N8460				ThinkPlus 5-year LOR 9x5 NBD
USB 2.0 Essential Memory Key 8GB	45J7905			ThinkPad Business Topload Case				43R2476				41C9179
USB 2.0 Security Memory Key 4GB	41U5120			ThinkPad Business Backpack				43R2482				ThinkPlus 4-year P&L P/U Depot
USB 2.0 Super Multi-Burner Drive	41N5565			ThinkVision® L1700p 17" Monitor				9417HE2				41C9178
USB 2.0 Lenovo Enhanced Port Replicator	43R8770			ThinkVision L1940p Wide 19" Monitor				4424HB6				ThinkPlus 5-year P&L P/U Depot
ThinkPad Essential Port Replicator	250510W			ThinkVision L2240p Wide 22" Monitor				4422HB6				41C9180
ThinkPad Advanced Mini Dock	250410U			ThinkVision L2440p Wide 24" Monitor				4420HB2				Post-warranty annual maintenance agreements at
ThinkPad Advanced Dock	250310U			ThinkVision L2440x Wide 24" Monitor				4421HB2				<b>lenovo.com/thinkplus/warranty</b>
Other accessories on O-T61 sheet	Other accessories at <b>lenovo.com/accessories</b>											

See footnotes for important warranty information  
 US model announced on May 9, 2007  
 US model withdrawn effective November 2008



# ThinkPad® T61 14W (GMA Graphics) - Education (Onsite) - withdrawn

Personal Systems Reference (PSREF)

Type-model	Proc- essor	GHz	Memory	Wide- screen display	Graphics controller	Disk SATA GB <sup>5</sup> rpm	EIDE optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN or Turbo	Card slot	Blue- tooth	Vista preload	Educ pre- load	Workhorse (W) Limited Gbl (G) Avail warranty <sup>12</sup> date
7661-1NU	T7300	2.00	1GB	14.1" WXGA	GMA	80G 5400	Combo	11a/b/g <sup>32</sup>	None	4-in-1	Blue	Business32	K12	Onsite W May07
7661-1PU	T7300	2.00	1GB	14.1" WXGA	GMA	80G 5400	Combo	11a/b/g	None	4-in-1	Blue	Business32	HE	Onsite W May07
7661-XAU	T7300	2.00	1GB	14.1" WXGA+	GMA	120G 5400	DVD±RW	11a/b/g	None	4-in-1	Blue	Business32	HE	Onsite May07

• **These models have a limited onsite service<sup>24</sup> 3-year limited warranty**

These educational models are available only to public or private K-12 or higher accredited schools organized and operated exclusively for educational purposes for use by qualified students and teachers.

Positioning Processor	<i>Premiere performance; two spindles</i> <b>Intel® Core™ 2 Duo processor T7300 with dual-core.</b> Intel 64 Technology, Enhanced Intel SpeedStep® technology <sup>1</sup> , Intel Dynamic Acceleration, Execute Disable Bit, Virtualization Technology, 800MHz system bus, and 4MB shared L2 cache											<b>Preloaded operating system<sup>20</sup></b> - Microsoft® Windows® Vista™ Business Edition (32-bit) ↳ Vista Basic logo
Memory	<b>1GB</b> std / 4GB max <sup>31</sup> / PC2-5300 667MHz DDR2, non-parity, dual-channel capable, two 200-pin SO-DIMM sockets; <i>Non-italics:</i> standard memory in 1 socket; 1 socket available											<b>Preloaded applications<sup>14</sup></b> • Microsoft Office OneNote® 2007 (and CD) • <i>Some (K12):</i> K-12 education software - VitalSource Library School Edition - Adobe® Instructor Resource Center - Adobe Digital School Collection - Photoshop Elements 5 (and CD) - Premier Elements 3 (and DVD) - Acrobat 8 Professional (and CD) - Contribute 4 (and CD) • <i>Some (HE):</i> Higher education software - VitalSource Library College Edition - Adobe Instructor Resource Center - Adobe Photoshop Elements 5 (and CD) - Adobe Premier Elements 3 (and DVD) • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • ThinkVantage System Update • System Migration Assistant • Norton Internet Security™ (90 days of virus definitions) • Diskeeper® Home • PC-Doctor™ (diagnostics) • ThinkPad Utilities (Power Manager and Presentation Director) • Picasa from Google • Microsoft Office 2007 Trial (60-day) • Sonic RecordNow and Drive Letter Access (combo, DVD±RW) • Corel® WinDVD® (combo, DVD±RW)
Diskette drive	None (use optional USB-based diskette drive)											
EIDE Combo	<i>Some:</i> DVD-ROM/CD-RW, 24X/24X/24X/8X <sup>21</sup> speed, removable from Ultrabay Slim											
EIDE DVD±RW	<i>Some:</i> DVD burner, Super Multi-Burner (40Y8623) dual-layer, removable Ultrabay Slim											
Ultrabay Slim	One modular bay for interchangeable devices (right side), 9.5mm high bay, flat bezel											
Serial ATA disk	<b>80GB<sup>8</sup></b> (5400 rpm) or <b>120GB</b> (5400 rpm) / SATA 1.5Gb/s, 9.5mm high, removable, upgradable, 9.5mm high bay, supports 2nd disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™											
Widescreen display	<i>Some:</i> <b>14.1"</b> (358.1mm) <b>WXGA (1280x800) color</b> , anti-glare, 185 nits, 16:10, 300:1											
Camera	<i>Some:</i> <b>14.1"</b> (358.1mm) <b>WXGA+ (1440x900) color</b> , anti-glare, 200 nits, 16:10, 300:1											
Graphics	<b>Intel Graphics Media Accelerator X3100 (GMA X3100)</b> , integrated in GM965, DVI pass-through support to optional Advanced Mini Dock or Advanced Dock											
Keyboard	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys, Windows/Appl keys											
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar <sup>13</sup> , magnifying glass											
Touch pad	UltraNav™ multi-pointing system, touch pad below keyboard, Tap Zones											
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions											
Dimensions <sup>3</sup>	<i>6-cell 14.1W" (WxDxH):</i> 13.2" x 10.2" x 1.09–1.26"; 335 x 261mm x 27.6–31.9mm											
Weight <sup>2</sup>	<i>6-cell:</i> starting at 5.3 lb (2.4kg)											
Case material	<i>Top:</i> Super-Elastic PolyCarbonate (SEPC); <i>Bottom:</i> Carbon-Fiber Reinforced Plastic											
Battery - type	Lithium Ion <b>6-cell</b> , supports unique 2nd battery in Ultrabay Slim											
Battery - life <sup>10</sup>	<i>6-cell:</i> up to 5.7 hr; <i>6-cell plus Ultrabay battery:</i> up to 7.2 hr											
Chipset	<b>Mobile Intel GM965 Express Chipset</b> (Graphics Memory Controller Hub); <b>ICH8M-Enhanced</b> I/O Controller Hub (SATA 3.0Gb/s, ATA-100 EIDE, PCI Express® x1, PCI bus, USB, LPC bus, [Bluetooth], [fingerprint]) / PCI bus (Ricoh® R5C847 Cardbus/1394/Multicard) / LPC bus (WPCN385 Super I/O, Atmel® 97SC3203 TPM)											
PC Card Std slot	One Type I or Type II slot, CardBus 32-bit											
ExpressCard slot	None											
Smart Card Read	None											
Multicard Reader	4-in-1 reader (MultiMediaCard, Memory Stick® PRO™, Sec Digital, xD-Picture Card™)											
Ports	Three USB 2.0, DB-15 (external VGA monitor), RJ-11 (modem), RJ-45 (ethernet), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)											
Wireless antenna	UltraConnect™ II antenna / on-off switch for all wireless radios											
Mini PCI Express	Two Mini PCI Express slots / only 802.11 wireless is customer upgradable											
11a/b/g <sup>32</sup>	11a/b/g wireless <sup>4</sup> , ThinkPad 11a/b/g Mini PCIe Adapter, Atheros AR5006EX											
WWAN	None											
Turbo Memory	None											
Modem	56K <sup>6</sup> V.92 <sup>29</sup> modem in Communications Daughter Card socket											
Bluetooth™	<i>Some:</i> Bluetooth 2.0 wireless, USB 2.0 interface via ICH8M, LED indicator											
Ethernet	Gigabit ethernet on systemboard, Intel 82566MM Nineveh (PHY), PCIe x1 (GLCI), PXE											
Intel AMT	Intel Active Management Technology (iAMT)											
Audio support	High Definition (HD) Audio, AD1984HD codec / stereo speakers, 1 watt / volume up, down, mute buttons / internal microphone, microphone input jack, headphone jack											
Security	Power-on password, hard disk password, supervisor password, security keyhole											
Security chip	<b>Trusted Platform Module</b> , Atmel chip, TCG 1.2-compliant											
Fingerprint reader	None											
Limited warranty <sup>12</sup>	<b>3-years/1-year battery, limited onsite service<sup>24</sup>, 8 am - 5 pm, Mon - Fri coverage</b> excluding holidays, next business day response time											Supports ThinkVantage® technologies  65-watt (GMA graphics) AC adapter ThinkPad Roll Cage and Top Cover Roll Cage (one-piece magnesium) ENERGY STAR® 4.0-compliant RoHS-compliant International Warranty Service <sup>17</sup> 24 hour x 7 day <sup>18</sup> toll-free support during the warranty period <sup>12</sup> via 800-426-7378  Post-warranty annual maintenance agreements at <b>lenovo.com/thinkplus/warranty</b>

See footnotes for important warranty information

US models announced May 9, 2007

US models withdrawn effective June or November 2008

© Lenovo  
(ML1-7) November 2008

# ThinkPad® T61 14W (NVIDIA® Graphics) - Education (Onsite) - withdrawn Personal Systems Reference (PSREF)

Proc- Type-model	essor GHz	Memory	Wide- screen display	Graphics controller memory	Disk SATA GB <sup>3</sup> rpm	EIDE optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN or Turbo slot	Blue- tooth	Vista preload	Educ pre- load	Workhorse (W) Limited Global (G) Avail warranty <sup>12</sup>	date
7665-1TU	T7300	2.00	1GB	14.1" WXGA+	128MB	120G	5400	DVD±RW	11a/b/g <sup>32</sup>	None	4-in-1	Blue Business32	HE Onsite W May 07

• **This model has a limited onsite service<sup>24</sup> 3-year limited warranty**

This educational model is available only to public or private K-12 or higher accredited schools organized and operated exclusively for educational purposes for use by qualified students and teachers.

Positioning Processor	<i>Premiere performance; two spindles</i> <b>Intel® Core™ 2 Duo processor T7300</b> with dual-core, Intel 64 Technology, Enhanced Intel SpeedStep® technology <sup>1</sup> , Intel Dynamic Acceleration, Execute Disable Bit, Virtualization Technology, 800MHz system bus, and 4MB shared L2 cache											<b>Preloaded operating system<sup>20</sup></b> - Microsoft® Windows® Vista™ Business Edition (32-bit) ◇ Vista Premium logo
Memory	<b>1GB</b> std / 4GB max <sup>31</sup> / PC2-5300 667MHz DDR2, non-parity, dual-channel capable, two 200-pin SO-DIMM sockets; <i>Non-italics:</i> standard memory in one socket; one socket available											<b>Preloaded applications<sup>14</sup></b> • Microsoft Office OneNote® 2007 (and CD) • (HE): Higher education software - VitalSource Library College Edition - Adobe Instructor Resource Center - Adobe Photoshop Elements 5 (and CD) - Adobe Premier Elements 3 (and DVD) • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center with Away Manager • ThinkVantage System Update • System Migration Assistant • Norton Internet Security™ (90 days of virus definitions) • Diskeeper® Home • PC-Doctor™ (diagnostics) • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader • Windows Live™ Toolbar • Windows Live Search • Picasa from Google • Fingerprint Software • Sonic RecordNow and Drive Letter Access (DVD±RW) • Corel® WinDVD® (DVD±RW)
Diskette drive	None (use optional USB-based diskette drive)											
EIDE DVD±RW	DVD burner, Super Multi-Burner (40Y8623) dual-layer, removable Ultrabay Slim											
Ultrabay Slim	One modular bay for interchangeable devices (right side), 9.5mm high bay, flat bezel											
Serial ATA disk	<b>120GB<sup>8</sup></b> (5400 rpm) / SATA 1.5Gb/s, 9.5mm high, removable, upgradable, 9.5mm high bay, supports 2nd disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™											
Widescreen display	<b>14.1"</b> (358.1mm) <b>WXGA+ (1440x900) color</b> , anti-glare, 200 nits, 16:10 aspect ratio, 300:1 contrast ratio											
Camera	None											
Graphics	<b>NVIDIA® Quadro® NVS 140M</b> , PCI Express x16, <b>128MB</b> memory, TurboCache, DVI pass-through support to optional Advanced Mini Dock or Advanced Dock											
Keyboard	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys, Windows/Appl keys											
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar <sup>13</sup> , magnifying glass											
Touch pad	UltraNav™ multi-pointing system, touch pad below keyboard, Tap Zones											
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions											
Dimensions <sup>3</sup>	<i>6-cell 14.1W" (WxDxH):</i> 13.2" x 10.2" x 1.09–1.26"; 335 x 261mm x 27.6–31.9mm											
Weight <sup>2</sup>	<i>6-cell:</i> starting at 5.3 lb (2.4kg)											
Case material	<i>Top:</i> Super-Elastic PolyCarbonate (SEPC); <i>Bottom:</i> Carbon-Fiber Reinforced Plastic											
Battery - type	Lithium Ion <b>6-cell</b> , supports unique 2nd battery in Ultrabay Slim											
Battery - life <sup>10</sup>	<i>6-cell:</i> up to 3.8 hr; <i>6-cell plus Ultrabay battery:</i> up to 5.3 hr											
Chipset	<b>Mobile Intel PM965 Express Chipset</b> (Memory Controller Hub); <b>ICH8M-Enhanced</b> I/O Controller Hub (SATA 3.0Gb/s, ATA-100 EIDE, PCI Express® x1, PCI bus, USB, LPC bus, [Bluetooth], [fingerprint]) / PCI bus (Ricoh® R5C847 Cardbus/1394/Multicard) / LPC bus (WPCN385 Super I/O, Atmel® 97SC3203 TPM)											
PC Card Std slot	One Type I or Type II slot, CardBus 32-bit											
ExpressCard slot	None											
Smart Card Read	None											
Multicard Reader	4-in-1 reader (MultiMediaCard, Memory Stick® PRO™, Secure Digital, xD-Picture Card™)											
Ports	Three USB 2.0, DB-15 (external VGA monitor), RJ-11 (modem), RJ-45 (ethernet), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)											
Wireless antenna	UltraConnect™ II antenna / on-off switch for all wireless radios											
Mini PCI Express	Two Mini PCI Express slots / only 802.11 wireless is customer upgradable											
11a/b/g <sup>32</sup>	11a/b/g wireless <sup>4</sup> , ThinkPad 11a/b/g Mini PCIe Adapter, Atheros AR5006EX											
WWAN	None											
Turbo Memory	None											
Modem	56K <sup>6</sup> V.92 <sup>29</sup> modem in Communications Daughter Card socket											
Bluetooth™	Bluetooth 2.0 wireless, USB 2.0 interface via ICH8M, LED indicator											
Ethernet	Gigabit ethernet on systemboard, Intel 82566MM Nineveh (PHY), PCIe x1 (GLCI), PXE											
Intel AMT	Intel Active Management Technology (iAMT)											
Audio support	High Definition (HD) Audio, AD1984HD codec / stereo speakers, 1 watt / volume up, down, mute buttons / internal microphone, microphone input jack, headphone jack											
Security	Power-on password, hard disk password, supervisor password, security keyhole											
Security chip	<b>Trusted Platform Module</b> , Atmel chip, TCG 1.2-compliant											
Fingerprint reader	<b>Fingerprint reader on palm rest</b> , swipe sensor, supports the security chip											
Limited warranty <sup>12</sup>	<b>3-years/1-year</b> battery, <b>limited onsite service<sup>24</sup></b> , 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time											Supports ThinkVantage® technologies
												90-watt (NVIDIA) AC adapter ThinkPad Roll Cage and Top Cover Roll Cage (one-piece magnesium) ENERGY STAR® 4.0-compliant RoHS-compliant International Warranty Service <sup>17</sup> 24 hour x 7 day <sup>18</sup> toll-free support during the warranty period <sup>12</sup> via 800-426-7378
												Post-warranty annual maintenance agreements at <b>lenovo.com/thinkplus/warranty</b>

See footnotes for important warranty information  
US model announced May 9, 2007  
US model withdrawn effective November 2008

© Lenovo  
(ML1-8) November 2008

# ThinkPad® T61 15W 6463 (GMA) - Education (EasyServ) - withdrawn

Personal Systems Reference (PSREF)

Proc- Type-model	GHz	Memory	Wide- screen display	Graphics controller	Disk SATA GB <sup>3</sup> rpm	EIDE optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN or Turbo slot	Finger Blue- print reader	Bat- tery cells	Educ pre- load	Limited warranty <sup>12</sup>	Vista preload	Avail date
6463-4JU T7300	2.00	1GB	15.4" WXGA	GMA	120G 5400	DVD±RW	11a/b/g <sup>32</sup>	None	/54 Blue	Finger	9	K12 EasyServ	Business32	Jun 07
<p>• <b>This model has an EasyServ™<sup>19</sup> depot repair service 3-year limited warranty</b>                      This educational model is available only to public or private K-12 or higher accredited schools organized and operated exclusively for educational purposes for use by qualified students and teachers.</p>														
Positioning Processor	<p><i>Premiere performance; two spindles</i>  <b>Intel® Core™ 2 Duo processor T7300 with dual-core,</b>                      Intel 64 Technology, Enhanced Intel SpeedStep® technology<sup>1</sup>, Intel Dynamic Acceleration, Execute Disable Bit, Virtualization Technology, 800MHz system bus, and 4MB shared L2 cache</p>										<p><b>Preloaded operating system<sup>20</sup></b>                      - Microsoft® Windows® Vista® Business Edition (32-bit)                      ⇨ Vista Basic logo</p>			
Memory	<p><b>1GB</b> std / 4GB max<sup>31</sup> / PC2-5300 667MHz DDR2, non-parity, dual-channel capable, two 200-pin SO-DIMM sockets;  <i>Non-italics:</i> standard memory in 1 socket; 1 socket available</p>										<p><b>Preloaded applications<sup>14</sup></b>                      • Microsoft Office OneNote® 2007 (and CD)                      • <i>Some (K12):</i> K-12 education software                      - VitalSource Library School Edition                      - Adobe Instructor Resource Center                      - Adobe Digital School Collection                      - Photoshop Elements 5 (and CD)                      - Premier Elements 3 (and DVD)                      - Acrobat 8 Professional (and CD)                      - Contribute 4 (and CD)                      • Rescue and Recovery™                      • Access Connections™                      • Client Security Solution™                      • ThinkVantage Productivity Center                      • ThinkVantage System Update                      • System Migration Assistant                      • Norton Internet Security™ (90 days of virus definitions)                      • Diskeeper® Home                      • PC-Doctor™ (diagnostics)                      • ThinkPad Utilities (Power Manager and Presentation Director)                      • Adobe® Reader                      • Windows Live™ Toolbar                      • Windows Live Search                      • Picasa from Google                      • Fingerprint Software                      • Microsoft Office 2007 Trial (60-day)                      • Sonic RecordNow and Drive Letter Access (DVD±RW)                      • InterVideo WinDVD (DVD±RW)</p>			
Diskette drive EIDE DVD±RW Ultrabay Slim Serial ATA disk	<p>None (use optional USB-based diskette drive)                      DVD burner, Slim Burner (41N5643), dual-layer, removable from Ultrabay Slim                      One modular bay for interchangeable devices (right side), 9.5mm high bay, flat bezel  <b>120GB<sup>8</sup></b> (5400 rpm) /                      SATA 1.5Gb/s, 9.5mm high, removable, upgradable, 9.5mm high bay, supports 2nd disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™</p>													
Widescreen display Camera	<p><b>15.4"</b> (391mm) <b>WXGA (1280x800) color</b>, anti-glare, 200 nits, 16:10 aspect ratio, 300:1 contrast ratio                      None</p>													
Graphics	<p><b>Intel Graphics Media Accelerator X3100 (GMA X3100)</b>, integrated in GM965, DVI pass-through support to optional Advanced Mini Dock or Advanced Dock</p>													
Keyboard TrackPoint® Touch pad ThinkLight™	<p>89-key, ThinkVantage button, spill-resistant, multimedia Fn keys, Windows/Apl keys                      TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar<sup>13</sup>, magnifying glass                      UltraNav™ multi-pointing system, touch pad below keyboard, Tap Zones                      Illuminates the keyboard to improve visibility in low-light conditions</p>													
Dimensions <sup>3</sup> Weight <sup>2</sup> Case material Battery - type Battery - life <sup>10</sup>	<p><i>15.4" models (WxDxH):</i> 14.1" x 10.0" x 1.2–1.4"; 358.4mm x 255mm x 29.8–34.5mm with optical drive and battery; starting at 5.9 lb (2.7kg)  <i>Top:</i> Super-Elastic PolyCarbonate (SEPC); <i>Bottom:</i> Carbon-Fiber Reinforced Plastic                      Lithium Ion <b>9-cell</b> / supports unique 2nd battery in Ultrabay Slim  <i>9-cell:</i> up to 8.3 hr; <i>9-cell plus Ultrabay battery:</i> up to 9.8 hr</p>													
Chipset	<p><b>Mobile Intel GM965 Express Chipset</b> (Graphics Memory Controller Hub);  <b>ICH8M-Enhanced</b> I/O Controller Hub (SATA 3.0Gb/s, ATA-100 EIDE, PCI Express x1, PCI bus, USB, LPC bus, [Bluetooth], [fingerprint]) /                      PCI bus (Ricoh® R5C847 Cardbus/1394/Multicard) /                      LPC bus (WPCN385 Super I/O, Atmel® 97SC3203 TPM)</p>													
PC Card Std slot ExpressCard slot Smart Card Read	<p>One Type I or Type II slot, CardBus 32-bit                      [54] One ExpressCard/34 or ExpressCard/54, PCI Express x1 or USB 2.0                      None</p>													
Multicard Reader Ports	<p>4-in-1 reader (MultiMediaCard, Memory Stick® PRO™, Secure Digital, xD-Picture Card™)                      Three USB 2.0, DB-15 (external VGA monitor), RJ-11 (modem), RJ-45 (ethernet), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)</p>													
Wireless antenna Mini PCI Express 11a/b/g <sup>32</sup> WWAN Turbo Memory UWB	<p>UltraConnect™ II antenna / on-off switch for all wireless radios                      Three Mini PCI Express slots / only 802.11 wireless is customer upgradable                      11a/b/g wireless<sup>4</sup>, ThinkPad 11a/b/g Mini PCIe Adapter, Atheros AR5006EX                      None                      None                      None (uses Half-Mini PCI Express slot)</p>													
Modem Bluetooth™ Ethernet Intel AMT Audio support	<p>56K<sup>6</sup> V.90 (V.92-designed<sup>29</sup>) modem in Communications Daughter Card socket                      Bluetooth 2.0 wireless, USB 2.0 interface via ICH8M, LED indicator                      Gigabit ethernet on systemboard, Intel 82566MM Nineveh (PHY), PCIe x1 (GLCI), PXE                      Intel Active Management Technology (IAMT)                      High Definition (HD) Audio, AD1984JCP codec / stereo speakers, 1 watt / volume up, down, mute buttons / internal microphone, microphone input jack, headphone jack</p>													
Security Security chip Fingerprint reader	<p>Power-on password, hard disk password, supervisor password, security keyhole  <b>Trusted Platform Module</b>, Atmel chip, TCG 1.2-compliant                      Atmel chip, supports the security chip</p>													
Limited warranty <sup>12</sup>	<p><b>3-years/1-yr battery - EasyServ™<sup>19</sup> depot repair service / service upgrades<sup>22</sup> available</b></p>													
1GB PC2-5300 DDR2 SODIMM 2GB PC2-5300 DDR2 SODIMM ThinkPad DVD Ultrabay Slim Burner (flat) Serial Hard Drive Ultrabay Slim Adapter (flat) 64GB SSD SATA 3.0Gb/s 1.8" (2.5" cover) 200GB Disk FDE SATA 1.5Gb/s (7200 rpm) 250GB Disk 9.5mm SATA 1.5Gb/s (5400 rpm) USB 2.0 Security Memory Key 4GB USB 2.0 Super Multi-Burner Drive USB 2.0 Lenovo Enhanced Port Replicator ThinkPad Convertible Monitor Stand ThinkPad Advanced Mini Dock ThinkPad Advanced Dock Other accessories on O-T61 sheet	40Y7734 40Y7735 41N5643 40Y8725 43N3400 41N5738 43R8152 41U5120 41N5565 43R8770 40Y7620 250410U 250310U	T60/R60 Series Li-Ion Battery 6-cell Z60m/T60/R60 Li-Ion Battery 9-cell Advanced Ultrabay Battery II 3-cell ThinkPad External Battery Charger ThinkPad 90W AC Adapter 90W Slim AC/DC Combo Adapter ThinkPad Business Topload Case ThinkPad Business Backpack ThinkPad Deluxe Expander Case ThinkVision® L190x 19" LCD Monitor ThinkVision L193p 19" LCD Monitor ThinkVision L197 Wide 19" LCD ThinkVision L220x Wide 22" LCD Other accessories at <a href="http://lenovo.com/accessories">lenovo.com/accessories</a>	40Y6799 40Y6797 43R9250 40Y7625 40Y7659 41N8460 43R2476 43R2482 43R2478 4439HB2 4431HB2 4434HE1 4433HB2	ThinkPlus™. <sup>22</sup> 2-year LOR 9x5 NBD 41C9175 ThinkPlus 3-year LOR 9x5 NBD 41C9176 ThinkPlus 4-year LOR 9x5 NBD 41C9177 ThinkPlus 5-year LOR 9x5 NBD 41C9179 ThinkPlus 4-year P&L P/U Depot 41C9178 ThinkPlus 5-year P&L P/U Depot 41C9180 Post-warranty annual maintenance agreements at <a href="http://lenovo.com/thinkplus/warranty">lenovo.com/thinkplus/warranty</a>										

See footnotes for important warranty information  
 US model announced on May 31, 2007  
 US model withdrawn effective June 2008

# ThinkPad® T61 15W (GMA Graphics) - Education (Onsite) - withdrawn

Personal Systems Reference (PSREF)

Proc- Type-model	essor GHz	Memory	Wide- screen display	Graphics controller	Disk SATA GB <sup>9</sup> rpm	EIDE optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN or Turbo Card slot	Bat- tery cells	Educ pre- load	Limited warranty <sup>12</sup>	Vista preload	Avail date
6464-4JU	T7300	2.00 1GB	15.4" WXGA	GMA	120G 5400	DVD±RW	11a/b/g <sup>32</sup>	None /54	9	K12	Onsite	Business32	Jun 07
<p>• <b>This model has a limited onsite service<sup>24</sup> 3-year limited warranty</b></p> <p>This educational model is available only to public or private K-12 or higher accredited schools organized and operated exclusively for educational purposes for use by qualified students and teachers.</p>													
Positioning Processor	<p><i>Premiere performance; two spindles</i>  <b>Intel® Core™ 2 Duo processor T7300 with dual-core</b>, Intel 64 Technology, Enhanced Intel SpeedStep® technology<sup>1</sup>, Intel Dynamic Acceleration, Execute Disable Bit, Virtualization Technology, 800MHz system bus, and 4MB shared L2 cache</p>										<p><b>Preloaded operating system<sup>20</sup></b>                      - Microsoft® Windows® Vista™ Business Edition (32-bit)                      ⇨ Vista Basic logo</p>		
Memory	<p><b>1GB</b> std / 4GB max<sup>31</sup> / PC2-5300 667MHz DDR2, non-parity, dual-channel capable, two 200-pin SO-DIMM sockets;  <i>Non-italics:</i> standard memory in 1 socket; 1 socket available</p>										<p><b>Preloaded applications<sup>14</sup></b>                      • Microsoft Office OneNote® 2007 (and CD)                      • (K12): K-12 education software                      - VitalSource Library School Edition                      - Adobe Instructor Resource Center                      - Adobe Digital School Collection                      - Photoshop Elements 5 (and CD)                      - Premier Elements 3 (and DVD)                      - Acrobat 8 Professional (and CD)                      - Contribute 4 (and CD)                      • Rescue and Recovery™                      • Access Connections™                      • Client Security Solution™                      • ThinkVantage Productivity Center                      • ThinkVantage System Update                      • System Migration Assistant                      • Norton Internet Security™ (90 days of virus definitions)                      • Diskeeper® Home                      • PC-Doctor™ (diagnostics)                      • ThinkPad Utilities (Power Manager and Presentation Director)                      • Adobe® Reader                      • Windows Live™ Toolbar                      • Windows Live Search                      • Picasa from Google                      • Fingerprint Software                      • Microsoft Office 2007 Trial (60-day)                      • Sonic RecordNow and Drive Letter Access (DVD±RW)                      • InterVideo WinDVD (DVD±RW)</p>		
Diskette drive EIDE DVD±RW Ultrabay Slim Serial ATA disk	<p>None (use optional USB-based diskette drive)                      DVD burner, Ultrabay Slim Burner (41N5643), dual-layer, removable from Ultrabay Slim                      One modular bay for interchangeable devices (right side), 9.5mm high bay, flat bezel  <b>120GB<sup>8</sup></b> (5400 rpm) /                      SATA 1.5Gb/s, 9.5mm high, removable, upgradable, 9.5mm high bay, supports 2nd disk,                      ThinkPad Shock Mounted Hard Drive, Active Protection System™</p>												
Widescreen display Camera	<p><b>15.4"</b> (391mm) <b>WXGA (1280x800) color</b>, anti-glare, 200 nits, 16:10 aspect ratio, 300:1 contrast ratio                      None</p>												
Graphics	<p><b>Intel Graphics Media Accelerator X3100 (GMA X3100)</b>, integrated in GM965, DVI pass-through support to optional Advanced Mini Dock or Advanced Dock</p>												
Keyboard TrackPoint® Touch pad ThinkLight™	<p>89-key, ThinkVantage button, spill-resistant, multimedia Fn keys, Windows/Appl keys                      TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar<sup>13</sup>, magnifying glass                      UltraNav™ multi-pointing system, touch pad below keyboard, Tap Zones                      Illuminates the keyboard to improve visibility in low-light conditions</p>												
Dimensions <sup>3</sup> Weight <sup>2</sup> Case material Battery - type Battery - life <sup>10</sup>	<p><i>15.4" models (WxDxH):</i> 14.1" x 10.0" x 1.2–1.4"; 358.4mm x 255mm x 29.8–34.5mm with optical drive and battery; starting at 5.9 lb (2.7kg)  <i>Top:</i> Super-Elastic PolyCarbonate (SEPC); <i>Bottom:</i> Carbon-Fiber Reinforced Plastic                      Lithium Ion <b>9-cell</b> / supports unique 2nd battery in Ultrabay Slim                      9-cell: up to 8.3 hr; 9-cell plus Ultrabay battery: up to 9.8 hr</p>												
Chipset	<p><b>Mobile Intel GM965 Express Chipset</b> (Graphics Memory Controller Hub);  <b>ICH8M-Enhanced</b> I/O Controller Hub (SATA 3.0Gb/s, ATA-100 EIDE, PCI Express x1, PCI bus, USB, LPC bus, [Bluetooth], [fingerprint]) /                      PCI bus (Ricoh® R5C847 Cardbus/1394/Multicard) /                      LPC bus (WPCN385 Super I/O, Atmel® 97SC3203 TPM)</p>												
PC Card Std slot ExpressCard slot Smart Card Reader Multicard Reader Ports	<p>One Type I or Type II slot, CardBus 32-bit                      [54] One ExpressCard/34 or ExpressCard/54, PCI Express x1 or USB 2.0                      None                      4-in-1 reader (MultiMediaCard, Memory Stick® PRO™, Secure Digital, xD-Picture Card™)                      Three USB 2.0, DB-15 (external VGA monitor), RJ-11 (modem), RJ-45 (ethernet), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)</p>												
Wireless antenna Mini PCI Express 11a/b/g <sup>32</sup> WWAN Turbo Memory UWB	<p>UltraConnect™ II antenna / on-off switch for all wireless radios                      Three Mini PCI Express slots / only 802.11 wireless is customer upgradable                      11a/b/g wireless<sup>4</sup>, ThinkPad 11a/b/g Mini PCIe Adapter, Atheros AR5006EX                      None                      None                      None (uses Half-Mini PCI Express slot)</p>												
Modem Bluetooth™ Ethernet Intel AMT Audio support	<p>56K<sup>6</sup> V.90 (V.92-designed<sup>29</sup>) modem in Communications Daughter Card socket                      Bluetooth 2.0 wireless, USB 2.0 interface via ICH8M, LED indicator                      Gigabit ethernet on systemboard, Intel 82566MM Nineveh (PHY), PCIe x1 (GLCI), PXE                      Intel Active Management Technology (IAMT)                      High Definition (HD) Audio, AD1984JCP codec / stereo speakers, 1 watt / volume up, down, mute buttons / internal microphone, microphone input jack, headphone jack</p>												
Security Security chip Fingerprint reader	<p>Power-on password, hard disk password, supervisor password, security keyhole  <b>Trusted Platform Module</b>, Atmel chip, TCG 1.2-compliant  <b>Fingerprint reader on palm rest</b>, swipe sensor, supports the security chip</p>												
Limited warranty <sup>12</sup>	<p><b>3-years<sup>12</sup>/1-year battery, limited onsite service<sup>24</sup></b>, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time</p>												
1GB PC2-5300 DDR2 SODIMM 2GB PC2-5300 DDR2 SODIMM ThinkPad DVD Ultrabay Slim Burner (flat) Serial Hard Drive Ultrabay Slim Adapter (flat) 64GB SSD SATA 3.0Gb/s 1.8" (2.5" cover) 160GB Disk 9.5mm SATA 1.5Gb/s (7200 rpm) 200GB Disk FDE SATA 1.5Gb/s (7200 rpm) 250GB Disk 9.5mm SATA 1.5Gb/s (5400 rpm) USB 2.0 Security Memory Key 4GB USB 2.0 Super Multi-Burner Drive USB 2.0 Lenovo Enhanced Port Replicator ThinkPad Essential Port Replicator ThinkPad Advanced Mini Dock ThinkPad Advanced Dock Other accessories on O-T61 sheet	<p>40Y7734 40Y7735 41N5643 40Y8725 43N3400 41N5737 41N5738 43R8152 41U5120 41N5565 43R8770 250510W 250410U 250310U</p>		<p>T60/R60 Series Li-Ion Battery 6-cell Z60m/T60/R60 Li-Ion Battery 9-cell Advanced Ultrabay Battery II 3-cell ThinkPad External Battery Charger ThinkPad 90W AC Adapter 90W Slim AC/DC Combo Adapter ThinkPad Business Topload Case ThinkPad Business Backpack ThinkPad Deluxe Expander Case ThinkVision® L174 17" LCD Monitor ThinkVision L171p 17" LCD Monitor ThinkVision L190x 19" LCD Monitor ThinkVision L193p 19" LCD Monitor ThinkVision L220x Wide 22" LCD</p>		<p>40Y6799 40Y6797 43R9250 40Y7625 40Y7659 41N8460 43R2476 43R2482 43R2478 9227AE1 9417HC2 4439HB2 4431HB2 4433HB2</p>		<p>Supports ThinkVantage® technologies</p> <p>65-watt (GMA graphics) AC adapter ThinkPad Roll Cage and Top Cover Roll Cage (one-piece magnesium) ENERGY STAR® 4.0-compliant RoHS-compliant International Warranty Service<sup>17</sup> 24 hour x 7 day<sup>18</sup> toll-free support during the warranty period<sup>12</sup> via 800-426-7378</p> <p>Post-warranty annual maintenance agreements at <b>lenovo.com/thinkplus/warranty</b></p>						

See footnotes for important warranty information  
 US model announced May 31, 2007  
 US model withdrawn effective June 2008

# ThinkPad® T61 15W 6465 (GMA) - TopSeller - withdrawn

Personal Systems Reference (PSREF)

Type-model	Proc- essor	GHz	Memory	Wide- screen display	Graphics controller	Disk SATA GB <sup>3</sup> rpm	EIDE optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN or Turbo	Blue- tooth	Finger Bat- tery reader cells	Workhorse (W) Global (G) Educ	Avail date
6465-57U	T7100	1.80	1GB	15.4" WXGA	GMA	120G 5400	DVD±RW	* Intel 11a/b/g <sup>32</sup>			Finger 6	Business32	Jun 07
6465-01U	T7100	1.80	1GB	15.4" WXGA	GMA	120G 5400	DVD±RW	* Intel 11a/b/g			Finger 6	XP Pro	July 07
6465-02U	T5270	1.40	512MB	15.4" WXGA	GMA	80GB 5400	Combo	* Intel 11a/b/g			6	XP Pro	Oct 07
6465-03U	T7250	2.00	1GB	15.4" WXGA	GMA	100G 7200	Combo	* Intel 11a/b/g		Blue	Finger 6	XP Pro	Dec 07
6465-5YU	T7250	2.00	1GB	15.4" WXGA	GMA	160G 5400	DVD±RW	* Intel 11n <sup>28</sup>		Blue	Finger 6	XP Pro	Oct 07
6465-5ZU	T7250	2.00	1GB	15.4" WXGA	GMA	160G 5400	DVD±RW	* Intel 11n		Blue	Finger 6	Business32	Oct 07
6465-62U	T7500	2.20	1GB	15.4" WXGA	GMA	160G 7200	DVD±RW	* Intel 11n		Blue	Finger 6	XP Pro	Oct 07
6465-63U	T7500	2.20	1GB	15.4" WXGA	GMA	160G 7200	DVD±RW	* Intel 11n	1G Turbo	Blue	Finger 6	Business32	Oct 07
6465-9TU	T8100	2.10	1GB	15.4" WXGA	GMA	120G 5400	DVD±RW	* Intel 11a/b/g			Finger 6	XP Pro	Jan 08
6465-9UU	T8300	2.40	1GB	15.4" WXGA	GMA	100G 7200	DVD±RW	* Intel 11n		Blue	Finger 6	XP Pro	Jan 08
6465-05U	T8100	2.10	1GB	15.4" WXGA	GMA	120G 5400	DVD±RW	* Intel 4965AG <sup>32</sup>			Finger 6	Business32 Educ	May 08

• These small and medium business (SMB) models are part of the US TopSeller™ Program  
 • These models have a 1-year limited warranty<sup>12</sup>

Processor	Intel® Core™ 2 Duo processor T5270 with dual-core, Intel 64 Technology, Enhanced Intel SpeedStep® technology <sup>1</sup> , Intel Dynamic Acceleration, Execute Disable Bit, 800MHz system bus, and 2MB shared L2 cache or Intel Core 2 Duo processor T7100, T7250, T7500, T8100, or T8300 with dual-core, Intel 64 Technology, Enhanced Intel SpeedStep technology <sup>1</sup> , Intel Dynamic Acceleration, Execute Disable Bit, Virtualization Technology, 800MHz system bus; T7100/T7250: 2MB L2 cache; T7500: 4MB L2 cache; T8100/T8300: 3MB L2 cache	Preloaded operating system <sup>20</sup> - Some: Microsoft® Windows® XP Professional with Vista® COA - Some: Microsoft Windows Vista Business Edition (32-bit) ◇ Vista models: Vista Basic logo
Memory	512MB or 1GB std / 4GB max <sup>31</sup> / PC2-5300 667MHz DDR2, non-parity, dual-channel capable, two 200-pin SO-DIMM sockets; Non-italics: standard memory in 1 socket; 1 socket available	Preloaded applications <sup>14</sup> (all OSes; only some listed) • Some: Education software - VitalSource Library College Edition - Adobe® Instructor Resource Cntr - Adobe Digital School Collection - Photoshop Elements (and CD) - Premier Elements (and DVD) - Acrobat 8 Professional (and CD) - Contribute 4 (and CD) • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • ThinkVantage System Update • PC-Doctor™ (diagnostics) • Fingerprint Software (fingerprint models) • Microsoft Office OneNote® 2007 and CD (05U model) • Microsoft Office 2007 Trial (60-day) • Multimedia Center for Think Offerings (XP Pro models) • Sonic RecordNow and Drive Letter Access (Combo, DVD±RW) • Corel® WinDVD® (Combo, DVD±RW) • Corel WinDVD Creator (XP Pro DVD±RW models)
Diskette drive	None (use optional USB-based diskette drive)	
EIDE Combo	Some: DVD-ROM/CD-RW, 24X/24X/24X/8X <sup>21</sup> speed, removable from Ultrabay Slim	
EIDE DVD±RW	Some: DVD burner, Ultrabay Slim Burner (41N5643), dual-layer, removable from Ultrabay Slim	
Ultrabay Slim	One modular bay for interchangeable devices (right side), 9.5mm high bay, flat bezel	
Serial ATA disk	80GB <sup>8</sup> (5400 rpm), 100GB (7200 rpm), 120GB (5400 rpm), or 160GB (5400 or 7200) / SATA 1.5Gb/s, 9.5mm high, removable, upgradable, 9.5mm high bay, supports 2nd disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™	
Widescreen display	15.4" (391mm) WXGA (1280x800) color, anti-glare, 200 nits, 16:10 aspect ratio, 300:1 contrast ratio	
Camera	None	
Graphics	Intel Graphics Media Accelerator X3100 (GMA X3100), integrated in GM965, DVI pass-through support to optional Advanced Mini Dock or Advanced Dock	
Keyboard	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys, Windows/Appl keys	
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar <sup>13</sup> , magnifying glass	
Touch pad	UltraNav™ multi-pointing system, touch pad below keyboard, Tap Zones	
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions	
Dimensions <sup>3</sup>	15.4" models (WxDxH): 14.1" x 10.0" x 1.2–1.4"; 358.4mm x 255mm x 29.8–34.5mm with optical drive and battery: starting at 5.9 lb (2.7kg)	
Weight <sup>2</sup>		
Case material	Top: Super-Elastic PolyCarbonate (SEPC); Bottom: Carbon-Fiber Reinforced Plastic	
Battery - type	Lithium Ion 6-cell / supports unique 2nd battery in Ultrabay Slim	
Battery - life <sup>10</sup>	6-cell: up to 5.5 hr; 9-cell: up to 8.3 hr; 9-cell plus Ultrabay battery: up to 9.8 hr	
Chipset	Mobile Intel GM965 Express Chipset (Graphics Memory Controller Hub); ICH8M-Enhanced I/O Controller Hub (SATA 3.0Gb/s, ATA-100 EIDE, PCI Express® x1, PCI bus, USB, LPC bus, [Bluetooth], [fingerprint]) / PCI bus (Ricoch® R5C847 Cardbus/1394/Multicard) / LPC bus (WPCN385 Super I/O, Atmel® 97SC3203 TPM)	Supports ThinkVantage® technologies
PC Card Std slot	One Type I or Type II slot, CardBus 32-bit	
ExpressCard slot	[54] One ExpressCard/34 or ExpressCard/54	
Smart Card Read	None	
Multicard Reader	4-in-1 reader (MultiMediaCard, Memory Stick® PRO™, Secure Digital, xD-Picture Card™)	
Ports	Three USB 2.0, DB-15 (external VGA monitor), RJ-11 (modem), RJ-45 (ethernet), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)	65-watt (GMA graphics) AC adapter ThinkPad Roll Cage and Top Cover Roll Cage (one-piece magnesium) ENERGY STAR® 4.0-compliant RoHS-compliant International Warranty Service <sup>17</sup> 24 hour x 7 day <sup>18</sup> toll-free support during the warranty period <sup>12</sup> via 800-426-7378
Wireless antenna	UltraConnect™ II antenna / on-off switch for all wireless radios	
Mini PCI Express	Three Mini PCI Express slots / only 802.11 wireless is customer upgradable	
Intel 11a/b/g <sup>32</sup>	Some: 11a/b/g wireless <sup>4</sup> , Mini PCIe adapter, Intel PRO/Wireless 3945ABG	ThinkPlus™.22 1-year LOR <sup>24</sup> 9x5 NBD 41C9166
Intel 4965AG <sup>32</sup>	Some: 11a/b/g wireless <sup>4</sup> , Mini PCIe adapter, Intel Wireless WiFi Link 4965AG	ThinkPlus 2-year LOR 9x5 NBD 41C9167
Intel 11n <sup>28</sup>	Some: 11a/b/g/n wireless <sup>4</sup> , Mini PCIe adapter, Intel Wireless WiFi Link 4965AGN, MIMO 2x3 (Kedron)	ThinkPlus 3-year LOR 9x5 NBD 41C9168
WWAN	None	ThinkPlus 4-year LOR 9x5 NBD 41C9171
1G Turbo	Some: Intel Turbo Memory, Mini PCIe adapter, 1GB flash, disk-cache accelerator	ThinkPlus 5-year LOR 9x5 NBD 41C9173
UWB	None (uses Half-Mini PCI Express slot)	ThinkPlus 2-year P&L P/U Depot 41C9169
Modem	56K <sup>6</sup> V.92 <sup>29</sup> modem in Communications Daughter Card socket	ThinkPlus 3-year P&L P/U Depot 41C9170
Bluetooth™	Some: Bluetooth 2.0 wireless, USB 2.0 interface via ICH8M, LED indicator	ThinkPlus 4-year P&L P/U Depot 41C9172
Ethernet	Gigabit ethernet on systemboard, Intel 82566MM Nineveh (PHY), PCIe x1 (GLCI), PXE	ThinkPlus 5-year P&L P/U Depot 41C9174
Intel AMT	Intel Active Management Technology (AMT)	
Audio support	High Definition (HD) Audio, AD1984JCP codec / stereo speakers, 1 watt / volume up, down, mute buttons / internal microphone, microphone input jack, headphone jack	
Security	Power-on password, hard disk password, supervisor password, security keyhole	
Security chip	Trusted Platform Module, Atmel chip, TCG 1.2-compliant	
Fingerprint reader	Some: Fingerprint reader on palm rest, swipe sensor, supports the security chip	
Limited warranty <sup>12</sup>	1-year - EasyServ™.19 depot repair service / service upgrades <sup>22</sup> available	

See footnotes for important warranty information  
 US models announced May 31, July 10, October 3,  
 October 30, or December 6, 2007; or January 8 or May 13, 2008  
 US models withdrawn effective Dec 2007, May 2008, or Nov 2008

# ThinkPad® T61 15W 6465 (GMA) - TopSeller (April 2008) - withdrawn

Personal Systems Reference (PSREF)

Type-model	Proc- essor	GHz	Memory	Wide- screen display	Graphics controller	Disk SATA GB <sup>3</sup> rpm	EIDE optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN or Turbo	Card slot	Blue- tooth	Finger print reader	Bat- tery cells	Preload	Avail date
6465-9ZU	T5270	1.40	1GB	15.4" WXGA	GMA	80GB 5400	Combo	* Intel 11a/b/g	None	/54			6	Business32	Apr 08
6465-A2U	T8100	2.10	<b>2GB</b>	15.4" WXGA	GMA	160G 5400	DVD±RW	* Intel 11a/b/g	None	/54		Finger	6	Business32	Apr 08
6465-A3U	T8300	2.40	<b>2GB</b>	15.4" WXGA	GMA	100G 7200	DVD±RW	* Intel 11n	None	/54	Blue	Finger	6	Business32	Apr 08
<ul style="list-style-type: none"> <li>• <b>These small and medium business (SMB) models are part of the US TopSeller™ Program</b></li> <li>• <b>These models have a 1-year limited warranty<sup>12</sup></b></li> </ul>															
Positioning	<i>Premiere performance; two spindles</i>										<b>Preloaded operating system<sup>20</sup></b>				
Processor	<b>Intel® Core™ 2 Duo processor T5270 with dual-core,</b> Intel 64 Technology, Enhanced Intel SpeedStep® technology <sup>1</sup> , Intel Dynamic Acceleration, Execute Disable Bit, 800MHz system bus, and 2MB shared L2 cache or <b>Intel Core 2 Duo processor T8100 or T8300 with dual-core,</b> Intel 64 Technology, Enhanced Intel SpeedStep technology <sup>1</sup> , Intel Dynamic Acceleration, Execute Disable Bit, Virtualization Technology, 800MHz system bus, and 3MB shared L2 cache										- Microsoft Windows Vista® Business Edition (32-bit) ◇ 9ZU: Vista Basic logo ◇ A2U/A3U: Vista Premium logo  <b>Preloaded applications<sup>14</sup></b> <ul style="list-style-type: none"> <li>• Rescue and Recovery™</li> <li>• Access Connections™</li> <li>• Client Security Solution™</li> <li>• ThinkVantage Productivity Center</li> <li>• ThinkVantage System Update</li> <li>• System Migration Assistant</li> <li>• Norton Internet Security™ (90 days of virus definitions)</li> <li>• Diskeeper® Home</li> <li>• PC-Doctor™ (diagnostics)</li> <li>• ThinkPad Utilities (Power Manager and Presentation Director)</li> <li>• Adobe® Reader</li> <li>• Windows Live™ Toolbar</li> <li>• Windows Live Search</li> <li>• Picasa from Google</li> <li>• Fingerprint Software (fingerprint models)</li> <li>• Microsoft Office 2007 Trial (60-day)</li> <li>• Sonic RecordNow and Drive Letter Access (Combo, DVD±RW)</li> <li>• Corel® WinDVD® (Combo, DVD±RW)</li> </ul>				
Memory	<b>1GB or 2GB</b> std / 4GB max <sup>31</sup> / PC2-5300 667MHz DDR2, non-parity, dual-channel capable, two 200-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available <i>Non-italics:</i> standard memory in 1 socket; 1 socket available														
Diskette drive	None (use optional USB-based diskette drive)														
EIDE Combo	Some: DVD-ROM/CD-RW, 24X/24X/24X/8X <sup>21</sup> speed, removable from Ultrabay Slim														
EIDE DVD±RW	Some: DVD burner, Ultrabay Slim Burner (41N5643), dual-layer, removable from Ultrabay Slim														
Ultrabay Slim	One modular bay for interchangeable devices (right side), 9.5mm high bay, flat bezel														
Serial ATA disk	<b>80GB<sup>9</sup></b> (5400 rpm), <b>100GB</b> (7200 rpm), or <b>160GB</b> (5400) / SATA 1.5Gb/s, 9.5mm high, removable, upgradable, 9.5mm high bay, supports 2nd disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™														
Widescreen display	<b>15.4"</b> (391mm) <b>WXGA (1280x800) color</b> , anti-glare, 300 nits, 16:10 aspect ratio, 200:1 contrast ratio														
Camera	None														
Graphics	<b>Intel Graphics Media Accelerator X3100 (GMA X3100)</b> , integrated in GM965, DVI pass-through support to optional Advanced Mini Dock or Advanced Dock														
Keyboard	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys, Windows/Appl keys														
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar <sup>13</sup> , magnifying glass														
Touch pad	UltraNav™ multi-pointing system, touch pad below keyboard, Tap Zones														
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions														
Dimensions <sup>3</sup>	<i>15.4" models (WxDxH):</i> 14.1" x 10.0" x 1.2–1.4"; 358.4mm x 255mm x 29.8–34.5mm														
Weight <sup>2</sup>	with optical drive and battery: starting at 5.9 lb (2.7kg)														
Case material	<i>Top:</i> Super-Elastic PolyCarbonate (SEPC); <i>Bottom:</i> Carbon-Fiber Reinforced Plastic														
Battery - type	Lithium Ion <b>6-cell</b> / supports unique 2nd battery in Ultrabay Slim														
Battery - life <sup>10</sup>	<i>6-cell:</i> up to 5.5 hr; <i>9-cell:</i> up to 8.3 hr; <i>9-cell plus Ultrabay battery:</i> up to 9.8 hr														
Chipset	<b>Mobile Intel GM965 Express Chipset</b> (Graphics Memory Controller Hub); <b>ICH8M-Enhanced</b> I/O Controller Hub (SATA 3.0Gb/s, ATA-100 EIDE, PCI Express® x1, PCI bus, USB, LPC bus, [Bluetooth], [fingerprint]) / PCI bus (Ricoh® R5C847 Cardbus/1394/Multicard) / LPC bus (WPCN385 Super I/O, Atmel® 97SC3203 TPM)														
PC Card Std slot	One Type I or Type II slot, CardBus 32-bit														
ExpressCard slot	/54 One ExpressCard/34 or ExpressCard/54														
Smart Card Read	None														
Multicard Reader	4-in-1 reader (MultiMediaCard, Memory Stick® PRO™, Secure Digital, xD-Picture Card™)														
Ports	Three USB 2.0, DB-15 (external VGA monitor), RJ-11 (modem), RJ-45 (ethernet), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)														
Wireless antenna	UltraConnect™ II antenna / on-off switch for all wireless radios														
Mini PCI Express	Three Mini PCI Express slots / only 802.11 wireless is customer upgradable														
Intel 11a/b/g <sup>32</sup>	Some: 11a/b/g wireless <sup>4</sup> , Mini PCIe adapter, Intel PRO/Wireless 3945ABG														
Intel 11n <sup>28</sup>	Some: 11a/b/g/n wireless <sup>4</sup> , Mini PCIe adapter, Intel Wireless WiFi Link 4965AGN, MIMO 2x3 (Kedron)														
WWAN	None														
Turbo Memory	None														
Ultra-Wideband	None (uses Half-Mini PCI Express slot)														
Modem	56K <sup>6</sup> V.92 <sup>29</sup> modem in Communications Daughter Card socket														
Bluetooth™	Some: Bluetooth 2.0 wireless, USB 2.0 interface via ICH8M, LED indicator														
Ethernet	Gigabit ethernet on systemboard, Intel 82566MM Nineveh (PHY), PCIe x1 (GLCI), PXE														
Intel AMT	Intel Active Management Technology (IAMT)														
Audio support	High Definition (HD) Audio, AD1984JCP codec / stereo speakers, 1 watt / volume up, down, mute buttons / internal microphone, microphone input jack, headphone jack														
Security	Power-on password, hard disk password, supervisor password, security keyhole														
Security chip	<b>Trusted Platform Module</b> , Atmel chip, TCG 1.2-compliant														
Fingerprint reader	Some: <b>Fingerprint reader on palm rest</b> , swipe sensor, supports the security chip														
Limited warranty <sup>12</sup>	<b>1-year</b> - EasyServ™ <sup>19</sup> depot repair service / service upgrades <sup>22</sup> available														
1GB PC2-5300 DDR2 SODIMM	40Y7734				T/R/W/SL Series Li-Ion Battery 6-cell				40Y6799						
2GB PC2-5300 DDR2 SODIMM	40Y7735				T/R/W/SL Series Li-Ion Battery 9-cell				40Y6797						
ThinkPad DVD Ultrabay Slim Burner (flat)	41N5643				Advanced Ultrabay Battery II 3-cell				43R9250						
64GB SSD SATA 3.0Gb/s 1.8" (2.5" cover)	43N3400				90W Slim AC/DC Combo Adapter				41N8460						
320GB Disk SATA 1.5Gb/s (5400 rpm)	43N3403				ThinkPad Business Topload Case				43R2476						
ThinkPad Advanced Dock	250310U				ThinkVision® L2440x Wide 24" Monitor				4421HB2						
Other accessories on O-T61 sheet	Other accessories at <b>lenovo.com/accessories</b>														
					ThinkPlus™ <sup>22</sup> 1-year LOR <sup>24</sup> 9x5 NBD				41C9166						
					ThinkPlus 2-year LOR 9x5 NBD				41C9167						
					ThinkPlus 3-year LOR 9x5 NBD				41C9168						
					ThinkPlus 4-year LOR 9x5 NBD				41C9171						
					ThinkPlus 5-year LOR 9x5 NBD				41C9173						
					ThinkPlus 2-year P&L P/U Depot				41C9169						
					ThinkPlus 3-year P&L P/U Depot				41C9170						
					ThinkPlus 4-year P&L P/U Depot				41C9172						
					ThinkPlus 5-year P&L P/U Depot				41C9174						

See footnotes for important warranty information  
 US models announced April 15, 2008  
 US models withdrawn effective November 2008

\* Powered by Intel Centrino® processor technology  
 \* Powered by Intel Centrino with vPro™ technology

© Lenovo  
 (CR4-3) November 2008

# ThinkPad® T61p 15W (NVIDIA Graphics) - withdrawn

Personal Systems Reference (PSREF)

Type-model	Processor	GHz	Memory	Wide-screen display	Graphics controller memory	Disk SATA GB <sup>3</sup> rpm	EIDE optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN or Turbo	Card slot	Blue-tooth	Battery cells	Preload	Workhorse (W) Global (G) Entry (E)	Avail date	
6457-5KU	T7700	2.40	2GB	15.4" WUXGA	256MB	100G 7200	DVD±RW*	Intel 4965AG <sup>32</sup>	None	Smart	Blue	9	Ultimate 32	G	July 07	
6457-7WU	T7700	2.40	2GB	15.4" WUXGA	256MB	160G 7200	DVD±RW*	Intel 4965AG	None	/54	Blue	9	Ultimate 32	G	Sep 07	
6457-8LU	T7700	2.40	2GB	15.4" WSXGA+	256MB	100G 7200	DVD±RW*	Intel 4965AG	None	Smart	Blue	9	Ultimate 32	G	Sep 07	
Positioning Processor	<i>Premiere performance; two spindles</i> <b>Intel® Core™ 2 Duo processor T7700 with dual-core,</b> Intel 64 Technology, Enhanced Intel SpeedStep® technology <sup>1</sup> , Intel Dynamic Acceleration, Execute Disable Bit, Virtualization Technology, 800MHz system bus, and 4MB shared L2 cache											Preloaded operating system <sup>20</sup> - Microsoft® Windows® Vista® Ultimate Edition (32-bit) ◇ Vista Premium logo				
Memory	<b>2GB</b> std / 4GB max <sup>31</sup> / PC2-5300 667MHz DDR2, non-parity, dual-channel capable, two 200-pin SO-DIMM sockets; <i>Non-italics:</i> standard memory in 1 socket; 1 socket available											Preloaded applications <sup>14</sup> • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • ThinkVantage System Update • System Migration Assistant • Norton Internet Security™ (90 days of virus definitions) • Diskkeeper® Home • PC-Doctor™ (diagnostics) • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader • Windows Live™ Toolbar • Windows Live Search • Picasa from Google • Fingerprint Software (fingerprint models) • Microsoft Office 2007 Trial (60-day) • EarthLink Trial (Vista Ultimate models) • Sonic RecordNow and Drive Letter Access (DVD±RW) • Corel® WinDVD® (DVD±RW)				
Diskette drive	None (use optional USB-based diskette drive)															
EIDE DVD±RW	DVD burner, Ultrabay Slim Burner (41N5643), dual-layer, removable from Ultrabay Slim															
Ultrabay Slim	One modular bay for interchangeable devices (right side), 9.5mm high bay, flat bezel															
Serial ATA disk	<b>100GB</b> (7200 rpm) or <b>160GB</b> (7200 rpm) / SATA 1.5Gb/s, 9.5mm high, removable, upgradable, 9.5mm high bay, supports 2nd disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™															
Widescreen display	<i>Some:</i> <b>15.4"</b> (391mm) <b>WSXGA+</b> ( <b>1680x1050</b> ) color, anti-glare, 200 nits, 16:10, 500:1 <i>Some:</i> <b>15.4"</b> (391mm) <b>WUXGA</b> ( <b>1920x1200</b> ) color, anti-glare, 175 nits, 16:10, 500:1															
Camera	None															
Graphics	<b>NVIDIA® Quadro® FX 570M</b> , PCI Express® x16, <b>256MB</b> memory, TurboCache, DVI pass-through support to optional Advanced Mini Dock or Advanced Dock															
Keyboard	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys, Windows/Appl keys															
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar <sup>13</sup> , magnifying glass															
Touch pad	UltraNav™ multi-pointing system, touch pad below keyboard, Tap Zones															
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions															
Dimensions <sup>3</sup>	<i>15.4" models (WxDxH):</i> 14.1" x 10.0" x 1.2–1.4"; 358.4mm x 255mm x 29.8–34.5mm															
Weight <sup>2</sup>	with optical drive and battery: starting at 5.9 lb (2.7kg)															
Case material	<i>Top:</i> Super-Elastic PolyCarbonate (SEPC); <i>Bottom:</i> Carbon-Fiber Reinforced Plastic															
Battery - type	Lithium Ion <b>9-cell</b> / supports unique 2nd battery in Ultrabay Slim															
Battery - life <sup>10</sup>	<b>9-cell:</b> up to 5.9 hr; <b>9-cell plus Ultrabay battery:</b> up to 7.9 hr															
Chipset	<b>Mobile Intel PM965 Express Chipset</b> (Memory Controller Hub); <b>ICH8M-Enhanced</b> I/O Controller Hub (SATA 3.0Gb/s, ATA-100 EIDE, PCI Express x1, PCI bus, USB, LPC bus, [Bluetooth], [fingerprint]) / PCI bus (Ricoh® R5C847 Cardbus/1394/Multicard) / LPC bus (WPCN385 Super I/O, Atmel® 97SC3203 TPM)															
PC Card Std slot	One Type I or Type II slot, CardBus 32-bit															
ExpressCard slot	<i>Some:</i> [54] One ExpressCard/34 or ExpressCard/54															
Smart Card Reader	<i>Some:</i> Smart Card Reader															
Multicard Reader	4-in-1 reader (MultiMediaCard, Memory Stick® PRO™, Secure Digital, xD-Picture Card™)															
Ports	Three USB 2.0, DB-15 (external VGA monitor), RJ-11 (modem), RJ-45 (ethernet), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)															
Wireless antenna	UltraConnect™ II antenna / on-off switch for all wireless radios															
Mini PCI Express	Three Mini PCI Express slots / only 802.11 wireless is customer upgradable															
Intel 4965AG <sup>32</sup>	11a/b/g wireless <sup>4</sup> , Mini PCIe adapter, Intel Wireless WiFi Link 4965AG															
WWAN	None															
Turbo Memory	None															
UWB	None (uses Half-Mini PCI Express slot)															
Modem	56K <sup>6</sup> V.92 <sup>29</sup> modem in Communications Daughter Card socket											Supports ThinkVantage® technologies				
Bluetooth™	Bluetooth 2.0 wireless, USB 2.0 interface via ICH8M, LED indicator															
Ethernet	Gigabit ethernet on systemboard, Intel 82566MM Nineveh (PHY), PCIe x1 (GLCI), PXE											90-watt (NVIDIA) AC adapter ThinkPad Roll Cage and Top Cover Roll Cage (one-piece magnesium) ENERGY STAR® 4.0-compliant RoHS-compliant				
Intel AMT	Intel Active Management Technology (IAMT)											International Warranty Service <sup>17</sup> 24 hour x 7 day <sup>18</sup> toll-free support during the warranty period <sup>12</sup> via 800-426-7378				
Audio support	High Definition (HD) Audio, AD1984JCP codec / stereo speakers, 1 watt / volume up, down, mute buttons / internal microphone, microphone input jack, headphone jack															
Security	Power-on password, hard disk password, supervisor password, security keyhole															
Security chip	<b>Trusted Platform Module</b> , Atmel chip, TCG 1.2-compliant															
Fingerprint reader	<b>Fingerprint reader on palm rest</b> , swipe sensor, supports the security chip															
Limited warranty <sup>12</sup>	<b>3-years/1-yr battery</b> - EasyServ™ <sup>19</sup> depot repair service / service upgrades <sup>22</sup> available											ThinkPlus™. <sup>22</sup> 2-year LOR <sup>24</sup> 9x5 NBD 41C9175				
1GB PC2-5300 DDR2 SODIMM	40Y7734		T/R/W/SL Series Li-Ion Battery 6-cell	40Y6799		ThinkPlus 3-year LOR 9x5 NBD	41C9176									
2GB PC2-5300 DDR2 SODIMM	40Y7735		T/R/W/SL Series Li-Ion Battery 9-cell	40Y6797		ThinkPlus 4-year LOR 9x5 NBD	41C9177									
ThinkPad DVD Ultrabay Slim Burner (flat)	41N5643		Advanced Ultrabay Battery II 3-cell	43R9250		ThinkPlus 5-year LOR 9x5 NBD	41C9179									
Serial Hard Drive Ultrabay Slim Adapter (flat)	40Y8725		ThinkPad External Battery Charger	40Y7625		ThinkPlus 4-year P&L P/U Depot	41C9178									
64GB SSD SATA 3.0Gb/s 1.8" (2.5" cover)	43N3400		ThinkPad 90W AC Adapter	40Y7659		ThinkPlus 5-year P&L P/U Depot	41C9180									
200GB Disk FDE SATA 1.5Gb/s (7200 rpm)	41N5738		90W Slim AC/DC Combo Adapter	41N8460		Post-warranty annual maintenance agreements at										
250GB Disk 9.5mm SATA 1.5Gb/s (5400 rpm)	43R8152		ThinkPad Business Topload Case	43R2476												
320GB Disk SATA 1.5Gb/s (5400 rpm)	43N3403		ThinkPad Business Backpack	43R2482												
USB 2.0 Security Memory Key 4GB	41U5120		ThinkPad Deluxe Expander Case	43R2478												
USB 2.0 Super Multi-Burner Drive	41N5565		ThinkPad Executive Leather Case	43R2480												
ThinkPad Convertible Monitor Stand	40Y7620		ThinkVision® L1940p Wide 19" Monitor	4424HB6												
ThinkPad Advanced Mini Dock	250410U		ThinkVision L2240p Wide 22" Monitor	4422HB6												
ThinkPad Advanced Dock	250310U		ThinkVision L2440p Wide 24" Monitor	4420HB2												
Other accessories on O-T61 sheet	Other accessories at <a href="http://lenovo.com/accessories">lenovo.com/accessories</a>											<a href="http://lenovo.com/thinkplus/warranty">lenovo.com/thinkplus/warranty</a>				

See footnotes for important warranty information  
US models announced July 10 or September 18, 2007  
US models withdrawn effective November 2008

\* Intel Centrino® with vPro™ technology

© Lenovo  
(CR3-6) November 2008

# ThinkPad® T61p 15W 6458 (NVIDIA) - Onsite - withdrawn

Personal Systems Reference (PSREF)

Proc- Type-model	essor GHz	Memory	Wide- screen display	Graphics controller memory	Disk SATA GB <sup>3</sup> rpm	EIDE optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN or Turbo	Card slot	Blue- tooth	Bat- tery cells	Workhorse (W) Global (G) Avail date
6458-5KU T7700	2.40	2GB	15.4" WUXGA	256MB	100G 7200	DVD±RW*	Intel 4965AG <sup>32</sup>	None	Smart	Blue	9	Ultimate 32 G P July 07
<p>• <b>This model is part of the Global Models Plus program with limited onsite service<sup>24</sup> 3-year limited warranty</b></p>												
Positioning Processor	<p><i>Premiere performance; two spindles</i>  <b>Intel® Core™ 2 Duo processor T7700 with dual-core</b>, Intel 64 Technology, Enhanced Intel SpeedStep<sup>®</sup> technology<sup>1</sup>, Intel Dynamic Acceleration, Execute Disable Bit, Virtualization Technology, 800MHz system bus, and 4MB shared L2 cache</p>										<p><b>Preloaded operating system<sup>20</sup></b>                      - Microsoft® Windows® Vista® Ultimate Edition (32-bit)                      ⇨ Vista Premium logo</p>	
Memory	<p><b>2GB</b> std / 4GB max<sup>31</sup> / PC2-5300 667MHz DDR2, non-parity, dual-channel capable, two 200-pin SO-DIMM sockets;  <i>Non-italics:</i> standard memory in 1 socket; 1 socket available</p>										<p><b>Preloaded applications<sup>14</sup></b>                      • Rescue and Recovery™                      • Access Connections™                      • Client Security Solution™                      • ThinkVantage Productivity Center                      • ThinkVantage System Update                      • System Migration Assistant                      • Norton Internet Security™ (90 days of virus definitions)                      • Diskkeeper® Home                      • PC-Doctor™ (diagnostics)                      • ThinkPad Utilities (Power Manager and Presentation Director)                      • Adobe® Reader                      • Windows Live™ Toolbar                      • Windows Live Search                      • Picasa from Google                      • Fingerprint Software (fingerprint models)                      • Microsoft Office 2007 Trial (60-day)                      • EarthLink Trial (Vista Ultimate models)                      • Sonic RecordNow and Drive Letter Access (DVD±RW)                      • Corel® WinDVD® (DVD±RW)</p>	
Diskette drive	None (use optional USB-based diskette drive)											
EIDE DVD±RW	DVD burner, Ultrabay Slim Burner (41N5643), dual-layer, removable from Ultrabay Slim											
Ultrabay Slim	One modular bay for interchangeable devices (right side), 9.5mm high bay, flat bezel											
Serial ATA disk	<p><b>100GB<sup>8</sup></b> (7200 rpm) / SATA 1.5Gb/s, 9.5mm high, removable, upgradable, 9.5mm high bay, supports 2nd disk, ThinkPad Shock Mounted Hard Drive, Active Protection System™</p>											
Widescreen display	<p><b>15.4"</b> (391mm) <b>WUXGA (1920x1200) color</b>, anti-glare, 175 nits, 16:10 aspect ratio, 500:1 contrast ratio</p>											
Camera	None											
Graphics	<p><b>NVIDIA® Quadro® FX 570M</b>, PCI Express® x16, <b>256MB</b> memory, TurboCache, DVI pass-through support to optional Advanced Mini Dock or Advanced Dock</p>											
Keyboard	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys, Windows/Appl keys											
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar <sup>13</sup> , magnifying glass											
Touch pad	UltraNav™ multi-pointing system, touch pad below keyboard, Tap Zones											
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions											
Dimensions <sup>3</sup>	<p><i>15.4" models (WxDxH):</i> 14.1" x 10.0" x 1.2–1.4"; 358.4mm x 255mm x 29.8–34.5mm</p>											
Weight <sup>2</sup>	with optical drive and battery: starting at 5.9 lb (2.7kg)											
Case material	<p><i>Top:</i> Super-Elastic PolyCarbonate (SEPC); <i>Bottom:</i> Carbon-Fiber Reinforced Plastic</p>											
Battery - type	Lithium Ion <b>9-cell</b> / supports unique 2nd battery in Ultrabay Slim											
Battery - life <sup>10</sup>	<p><i>9-cell:</i> up to 5.9 hr; <i>9-cell plus Ultrabay battery:</i> up to 7.9 hr</p>											
Chipset	<p><b>Mobile Intel PM965 Express Chipset</b> (Memory Controller Hub); <b>ICH8M-Enhanced</b> I/O Controller Hub (SATA 3.0Gb/s, ATA-100 EIDE, PCI Express x1, PCI bus, USB, LPC bus, [Bluetooth], [fingerprint]) / PCI bus (Ricoh® R5C847 Cardbus/1394/Multicard) / LPC bus (WPCN385 Super I/O, Atmel® 97SC3203 TPM)</p>											
PC Card Std slot	One Type I or Type II slot, CardBus 32-bit											
ExpressCard slot	<p><i>Some:</i> [54] One ExpressCard/34 or ExpressCard/54</p>											
Smart Card Reader	<p><i>Some:</i> Smart Card Reader</p>											
Multicard Reader	4-in-1 reader (MultiMediaCard, Memory Stick® PRO™, Secure Digital, xD-Picture Card™)											
Ports	<p>Three USB 2.0, DB-15 (external VGA monitor), RJ-11 (modem), RJ-45 (ethernet), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)</p>											
Wireless antenna	UltraConnect™ II antenna / on-off switch for all wireless radios											
Mini PCI Express	Three Mini PCI Express slots / only 802.11 wireless is customer upgradable											
Intel 4965AG <sup>32</sup>	11a/b/g wireless <sup>4</sup> , Mini PCIe adapter, Intel Wireless WiFi Link 4965AG											
WWAN	None											
Turbo Memory	None											
UWB	None (uses Half-Mini PCI Express slot)											
Modem	56K <sup>9</sup> V.92 <sup>29</sup> modem in Communications Daughter Card socket											
Bluetooth™	Bluetooth 2.0 wireless, USB 2.0 interface via ICH8M, LED indicator											
Ethernet	Gigabit ethernet on systemboard, Intel 82566MM Nineveh (PHY), PCIe x1 (GLCI), PXE											
Intel AMT	Intel Active Management Technology (IAMT)											
Audio support	<p>High Definition (HD) Audio, AD1984JCP codec / stereo speakers, 1 watt / volume up, down, mute buttons / internal microphone, microphone input jack, headphone jack</p>											
Security	Power-on password, hard disk password, supervisor password, security keyhole											
Security chip	<p><b>Trusted Platform Module</b>, Atmel chip, TCG 1.2-compliant</p>											
Fingerprint reader	<p><b>Fingerprint reader on palm rest</b>, swipe sensor, supports the security chip</p>										Supports ThinkVantage® technologies	
Limited warranty <sup>12</sup>	<p><b>3-years/1-year battery, limited onsite service<sup>24</sup></b>, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time / service upgrades<sup>22</sup> available</p>										<p>90-watt (NVIDIA) AC adapter                      ThinkPad Roll Cage and Top Cover                      Roll Cage (one-piece magnesium)                      ENERGY STAR® 4.0-compliant                      RoHS-compliant                      International Warranty Service<sup>17</sup>                      24 hour x 7 day<sup>18</sup> toll-free support during the warranty period<sup>12</sup>                      via 800-426-7378</p>	
1GB PC2-5300 DDR2 SODIMM	40Y7734			T/R/W/SL Series Li-Ion Battery 6-cell			40Y6799					
2GB PC2-5300 DDR2 SODIMM	40Y7735			T/R/W/SL Series Li-Ion Battery 9-cell			40Y6797					
ThinkPad DVD Ultrabay Slim Burner (flat)	41N5643			Advanced Ultrabay Battery II 3-cell			43R9250					
Serial Hard Drive Ultrabay Slim Adapter (flat)	40Y8725			ThinkPad External Battery Charger			40Y7625					
64GB SSD SATA 3.0Gb/s 1.8" (2.5" cover)	43N3400			ThinkPad 90W AC Adapter			40Y7659					
200GB Disk FDE SATA 1.5Gb/s (7200 rpm)	41N5738			90W Slim AC/DC Combo Adapter			41N8460					
320GB Disk SATA 1.5Gb/s (5400 rpm)	43N3403			ThinkPad Business Topload Case			43R2476					
USB 2.0 Ultra Secure Memory Key 8GB	45J5918			ThinkPad 90W AC Adapter			43R2482					
USB 2.0 Super Multi-Burner Drive	41N5565			ThinkPad Deluxe Expander Case			43R2478					
ThinkPad Convertible Monitor Stand	40Y7620			ThinkPad Executive Leather Case			43R2480					
ThinkPad Essential Port Replicator	250510W			ThinkVision® L1940p Wide 19" Monitor			4424HB6					
ThinkPad Advanced Mini Dock	250410U			ThinkVision L2240p Wide 22" Monitor			4422HB6					
ThinkPad Advanced Dock	250310U			ThinkVision L2440p Wide 24" Monitor			4420HB2					
Other accessories on O-T61 sheet											<p>Other accessories at <b>lenovo.com/accessories</b></p>	
ThinkPlus™.22 4-year LOR <sup>24</sup> 9x5 NBD											12X5630	
ThinkPlus 5-year LOR 9x5 NBD											43R2162	
Post-warranty annual maintenance agreements at <b>lenovo.com/thinkplus/warranty</b>												

See footnotes for important warranty information  
 US model announced July 10, 2007  
 US model withdrawn effective November 2008

\* Intel Centrino® with vPro™ technology



# ThinkPad® X31 (2672) - October 2003 - withdrawn

Created by Lenovo Training Solutions  
Personal Systems Reference (PSREF)

Type-model	Processor	GHz	Memory	Screen	Disk	Optical in UltraBase	ThinkPad X3 UltraBase™	Mini PCI wireless	CDC: modem/Bluetooth™	Sec Ethernet chip	Planar Preload	WH (W) Entry (E)	Gbl (G) TAA	Avail date
2672-27U	Pentium® M 1.4	256MB	12.1" XGA	20GB <sup>8</sup>	None	Optional	Open; wireless upg <sup>36</sup>	Modem	Yes	10/100	XP Pro	E		Oct 03
2672-2BU	Pentium M 1.4	256MB	12.1" XGA	20GB	None	Optional	*Intel 11b Wi-Fi <sup>32</sup>	Modem	Yes	10/100	XP Pro	E		Oct 03
2672-N7U	Pentium M 1.6	256MB	12.1" XGA	40GB	None	Optional	Open; wireless upg	Modem	Yes	10/100	XP Pro	W G		Oct 03
2672-P7U	Pentium M 1.6	256MB	12.1" XGA	40GB	None	Optional	Open; wireless upg	Modem	Yes	Gigabit	XP Pro	W		Oct 03
2672-PBU	Pentium M 1.6	256MB	12.1" XGA	40GB	None	Optional	*Intel 11b Wi-Fi	Modem	Yes	Gigabit	XP Pro	W G		Oct 03
2672-PUU	Pentium M 1.6	256MB	12.1" XGA	40GB	None	Optional	11a/b/g Wi-Fi <sup>32</sup>	Modem	Yes	Gigabit	XP Pro	W		Oct 03
2672-PXU	Pentium M 1.6	256MB	12.1" XGA	40GB	None	Optional	Cisco® 802.11b <sup>32</sup>	Modem	Yes	Gigabit	XP Pro	W G		Oct 03
2672-REU	Pentium M 1.6	512MB	12.1" XGA	40HS	None	Optional	*Intel 11b Wi-Fi	Mod/Blue	Yes	Gigabit	XP Pro	W		Oct 03
2672-RHU	Pentium M 1.6	512MB	12.1" XGA	40HS	None	Optional	11a/b/g Wi-Fi <sup>32</sup>	Mod/Blue	Yes	Gigabit	XP Pro	W		Oct 03
2672-NYU	Pentium M 1.6	256MB	12.1" XGA	40GB	None	Optional	Open; wireless upg	Modem	Yes	10/100	XP Pro	W TAA		Dec03
Positioning Processor	<i>Ultimate mobility in a versatile ultraportable; one spindle</i> NYU: US Government model (Trade Act Agreement-compliant) Intel® Pentium® M Processor 1.4 or 1.6GHz with enhanced Intel SpeedStep™ technology <sup>1</sup> and 400MHz system bus													
L2 cache	<b>1MB</b> / on die (at processor speed) / ECC													
Memory	<b>256 or 512MB</b> std / 2GB max <sup>7</sup> / <b>PC2700</b> 333MHz DDR1 (memory controller limits memory speed to 266MHz) / non-parity / CL2.5 / two 200-pin SO-DIMM sockets / std memory in one socket / one socket available													
Diskette drive	None standard / use optional Ultrabay™-based (inX3) or USB-based diskette drive													
Optical	None standard / optional USB-based optical, or optional Ultrabay 2000-based optical removable from optional X3 UltraBase, ThinkPad Dock, or ThinkPad Dock II													
Ultrabay™ 2000 Disk	Supports Ultrabay 2000 devices in optional X3 UltraBase (or optional ThinkPad Dock II) <b>20GB</b> (4200 rpm), <b>40GB<sup>3</sup></b> (4200 rpm), or <b>40GB</b> (HS 5400 rpm), 9.5mm, ATA-100 / removable and upgradable / 9.5mm high bay													
Display	<b>12.1"</b> (308mm) <b>XGA (1024x768) TFT color</b> / Active Matrix / 150 nits													
Graphics controller	<b>ATI® Mobility RADEON® / AGP 4X / 16MB</b> DDR1 (DDR-SDRAM)													
Graphics - external	External monitor support via analog DB-15 connector / up to 1280x1024x16.7M at 85Hz													
Keyboard	Standard-size <sup>26</sup> keys / 97% size of T Series / 87-key / 18.5mm pitch; 2.5mm stroke / Access IBM button / palm rest / TrackPoint®, "Press-to-Select," Internet Scroll Bar <sup>13</sup> / soft dome TrackPoint cap / ships with classic dome and soft rim TrackPoint cap													
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions													
Dimensions <sup>3</sup>	<i>without X3 UltraBase:</i> 10.7" x 8.8" x .98-1.19"; 273mm x 223mm x 24.9-30.2mm <i>with X3 UltraBase and optical:</i> 10.8" x 8.9" x 2.0-2.3"; 273 x 227 x 51-58mm <i>with battery:</i> 3.6 lb (1.65kg); <i>with X3 UltraBase and optical:</i> 5.6 lb (2.54kg)													
Travel weight <sup>2</sup>	Color: black; All: <b>titanium composite</b> in the top cover / magnesium alloy bottom case													
Case material	Li-Ion 6-cell / intelligent / supports opt Extended Life Battery on base (for two batteries)													
Battery - type	supports Ultrabay battery or optional 6-cell battery in X3 UltraBase (for two batteries)													
Battery - life <sup>10</sup>	5.3 to 6.0 hrs; <i>with std battery and optional Extended Life Battery:</i> up to 10.1 hrs													
Architecture	<b>Intel 855PM</b> chipset / 82855PM Memory Controller Hub (MCH-M) / 82801DBM ICH4-M I/O Controller Hub (ATA-100 EIDE, PCI bus, ethernet MAC, Low Pin Count (LPC) interface, USB [Bluetooth]) / Intel 82802AC Firmware Hub / PCI bus 2.2 32-bit, 33MHz (Ricoh® R5C554 CardBus/1394 combo controller, Mini PCI, ext expansion) / LPC bus 33MHz (PC87392 Super I/O)													
Media slice	Optional <b>X3 UltraBase media slice</b> (see right side)													
Compact Flash slot	<b>Compact Flash slot</b> / 1 CF+ Type II / supports optional Microdrive™													
PC Card Std slot	One Type II / CardBus 32-bit / PCMCIA 2.1 / integrated door													
IEEE 1394	<b>IEEE 1394 (FireWire) port</b> (4-pin)													
Ports	Two USB (version 2.0) / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / parallel / IEEE 1394 (4-pin) / no serial, keyboard, or mouse ports													
Wireless antenna	UltraConnect™ antenna built into the display cover for optimal wireless signal reception													
Mini PCI	One Mini PCI type III slot (Communications Bay) / customer upgradeable													
Wireless upg <sup>36</sup>	Some: wireless upgradeable with wireless Mini PCI options													
11b Wi-Fi <sup>32</sup>	Some: 11b Wi-Fi <sup>32</sup> wireless <sup>4</sup> , Mini PCI, Intel PRO/Wireless 2100 Network Connection 802.11b, Intel 82531 chipset													
Cisco 802.11b <sup>32</sup>	Some: 802.11b wireless <sup>4</sup> , Mini PCI, Cisco® Aironet® Wireless 802.11b													
11a/b/g Wi-Fi <sup>32</sup>	Some: 11a/b/g Wi-Fi <sup>32</sup> wireless <sup>4</sup> , Mini PCI, Atheros™ AR5001X+ chipset													
CDC	One Communications Daughter Card (CDC) socket / customer accessible													
Modem	56K <sup>6</sup> V.90 (V.92-designed <sup>29</sup> ) modem in CDC / Agere® chipset													
Bluetooth™	Some: Bluetooth wireless technology / in CDC (with modem)													
Ethernet	Some: 10/100 ethernet on systemboard / Intel 82562EZ chipset (physical layer) / PXE													
Audio support	Some: Gigabit Ethernet on systemboard / Intel 82540EP chipset (MAC/PHY) / PXE													
Security	Soft audio / ICH AC97 controller / DirectSound™ support / AD1981B AC97 codec / mono speaker / 0.5 watt / volume up, down, mute buttons / internal mic / microphone input jack (pink) / headphone jack (green) / mic in (blue) [all 3.5mm]													
Security chip	Power-on password / dual hard disk password / supervisor password / security keyhole													
Limited warranty <sup>12</sup>	<b>3 years/1 yr battery</b> - EasyServ™.19 onsite pickup and delivery / service upgrades <sup>22</sup> avail Embedded <b>Security Subsystem 2.0</b> <sup>33</sup> / hardware key storage / multi-factor authentication / local file encryption / enhances VPN security <sup>16</sup> / TCG-compliant													
128 MB PC2700 DDR-SDRAM CL2.5 SOD	31P9828	ThinkPad X3 UltraBase media slice	46P7912											
256 MB PC2700 DDR-SDRAM CL2.5 SOD	31P9830	ThinkPad Port Replicator II	74P6733											
512 MB PC2700 DDR-SDRAM CL2.5 SOD	31P9832	ThinkPad Mini Dock	287810U											
1 GB PC2700 DDR-SDRAM CL2.5 SOD	31P9834	ThinkPad Dock II	287710U											
80GB HS Hard Disk 9.5mm (5400 rpm)	09N4273	USB Portable Diskette Drive	05K9276											
100GB Hard Disk 9.5mm PATA (5400 rpm)	40Y8716	ThinkPad X30 Series Li-Ion Battery (6-cell)	92P1097											
11a/b/g Wireless CardBus Adapter	31P9101	ThinkPad X30 Series Extended Life Battery	02K7041											
11a/b/g Wireless Mini PCI Adapter	31P9701	ThinkPad Ultraportable 56W AC Adapter	02K6880											
ThinkVision® L192p 19" Monitor (black)	9419HB2	ServicePac®.22 2yr IOR 9x5 NBD	30L9190											
M400 Projector	0037A04	Other options at <a href="http://lenovo.com/options">lenovo.com/options</a>												
56 watt AC Adapter	Asset ID™.34 (system-specific info in chip accessed over network)													
PC 2001-compliant	ACPI 1.0b and 2.0-compliant													
24 hour x 7 day <sup>18</sup> toll-free warranty support during the warranty <sup>12</sup> via 800-IBM-SERV (426-7378)	CIM and DMI 2.0-compliant													
	International Warranty Service <sup>17</sup>													
	Ethernet port and modem port													
	Retractable feet; 1.41 lb; 638g													

See footnotes for important warranty information

\* Powered by Intel Centrino™ mobile technology

© Lenovo

US models announced on October 7 or December 9, 2003

(X31O) October 2005

US models withdrawn effective April 2004, January 2005, or December 2005

# ThinkPad® X31 (2884) - Express (February 2004) - withdrawn

Created by Lenovo Training Solutions  
Personal Systems Reference (PSREF)

Type-model	Processor	GHz	Memory	Screen	Disk	Optical in UltraBase	ThinkPad X3 UltraBase™	Mini PCI wireless	CDC: modem/Bluetooth™	Security chip	Ethernet planar Preload	Avail date
2884-68U	Pentium® M	1.5	256MB	12.1" XGA	20GB <sup>8</sup>		Optional	Open; wireless upg <sup>36</sup>	Modem	Yes	10/100 XP Pro	Feb 2004
2884-6KU	Pentium M	1.5	256MB	12.1" XGA	20GB		Optional	* Intel 11b Wi-Fi <sup>32</sup>	Modem	Yes	10/100 XP Pro	Feb 2004
2884-6LU	Pentium M	1.5	256MB	12.1" XGA	20GB	DVD	X3 UltraBase	* Intel 11b Wi-Fi	Modem	Yes	10/100 XP Pro	Feb 2004
2884-3UU	Pentium M	1.5	256MB	12.1" XGA	30GB		Optional	11b/g <sup>32</sup>	Modem	Yes	10/100 XP Pro	Feb 2004
2884-3WU	Pentium M	1.5	256MB	12.1" XGA	30GB	Combo	X3 UltraBase	11b/g	Modem	Yes	10/100 XP Pro	Feb 2004
2884-5KU	Pentium M	1.7	256MB	12.1" XGA	40GB		Optional	* Intel 11b Wi-Fi	Modem	Yes	Gigabit XP Pro	Feb 2004
2884-5LU	Pentium M	1.7	256MB	12.1" XGA	40GB	Combo	X3 UltraBase	* Intel 11b Wi-Fi	Modem	Yes	Gigabit XP Pro	Feb 2004
2884-4LU	Pentium M	1.7	256MB	12.1" XGA	40HS	Combo	X3 UltraBase	* Intel 11b Wi-Fi	Modem	Yes	Gigabit XP Pro	Feb 2004
2884-4WU	Pentium M	1.7	512MB	12.1" XGA	40HS	Combo	X3 UltraBase	11b/g	Modem	Yes	Gigabit XP Pro	Feb 2004
<p>• <b>These small and medium business (SMB) models are part of the US Think Express Program</b> • <b>The 2884 has a 1 year limited warranty</b></p>												
Positioning Processor	<p><i>Ultimate mobility in a versatile ultraportable; one spindle</i>  <b>Intel® Pentium® M Processor 1.5 or 1.7GHz</b> with enhanced Intel SpeedStep™ technology<sup>1</sup> and 400MHz system bus</p>											
L2 cache	<p><b>1MB</b> / on die (at processor speed) / ECC</p>											
Memory	<p><b>256MB</b> or <b>512MB</b> std / <b>2GB</b> max<sup>7</sup> / <b>PC2700</b> 333MHz DDR1 (memory controller limits speed to 266MHz) / non-parity / CL2.5 / two 200-pin SO-DIMM sockets / std memory in one socket / one socket available</p>											
Diskette drive	<p>None standard / use optional Ultrabay™-based (inX3) or USB-based diskette drive</p>											
DVD	<p><i>Some:</i> DVD-ROM / 8X-3.3X<sup>9</sup> speed / single-layer / removable from Ultrabay 2000 of X3</p>											
Combo	<p><i>Some:</i> DVD-ROM/CD-RW / 16X/10X/24X/8X<sup>21</sup> speed / removable from Ultrabay 2000</p>											
Ultrabay™ 2000	<p>Supports Ultrabay 2000 devices in std or opt X3 UltraBase (or opt ThinkPad Dock II)</p>											
Disk	<p><b>20GB<sup>8</sup></b> (4200 rpm), <b>30GB</b> (4200 rpm), or <b>40GB</b> (4200 rpm or HS 5400 rpm), 9.5mm, ATA-100 / removable, upgradable / 9.5mm high bay</p>											
Display	<p><b>12.1"</b> (308mm) <b>XGA (1024x768) TFT color</b> / Active Matrix / 150 nits</p>											
Graphics controller	<p><b>ATI® MOBILITY™ RADEON® / AGP 4X / 16MB</b> DDR1 (DDR-SDRAM)</p>											
Graphics - external	<p>External monitor support via analog DB-15 connector / up to 1280x1024x16.7M at 85Hz</p>											
Keyboard	<p>Standard-size<sup>26</sup> keys / 97% size of T Series / 87-key / 18.5mm pitch; 2.5mm stroke / Access IBM button / palm rest / TrackPoint®, "Press-to-Select," Internet Scroll Bar<sup>13</sup> / soft dome TrackPoint cap / ships with classic dome and soft rim TrackPoint cap</p>											
ThinkLight™	<p>Illuminates the keyboard to improve visibility in low-light conditions</p>											
Dimensions <sup>3</sup>	<p><i>without X3 UltraBase:</i> 10.7" x 8.8" x .98-1.19"; 273mm x 223mm x 24.9-30.2mm  <i>with X3 UltraBase and optical:</i> 10.8" x 8.9" x 2.0-2.3"; 273 x 227 x 51-58mm</p>											
Travel weight <sup>2</sup>	<p><i>with battery:</i> 3.6 lb (1.65kg); <i>with X3 UltraBase and optical:</i> 5.6 lb (2.54kg)</p>											
Case material	<p><b>Color:</b> black; <b>All: titanium composite</b> in the top cover / magnesium alloy bottom case</p>											
Battery - type	<p>Li-Ion 6-cell / intelligent / supports opt Extended Life Battery on base (for two batteries) supports Ultrabay battery or optional 6-cell battery in X3 UltraBase (for two batteries)</p>											
Battery - life <sup>10</sup>	<p>Up to 5.5 hrs; <i>with std battery and optional Extended Life Battery:</i> up to 10.1 hrs</p>											
Architecture	<p><b>Intel 855PM</b> chipset / 82855PM Memory Controller Hub (MCH-M) / 82801DBM ICH4-M I/O Controller Hub (ATA-100 EIDE, PCI bus, ethernet MAC, Low Pin Count (LPC) interface, USB [Bluetooth]) / Intel 82802AC Firmware Hub / PCI bus 2.2 32-bit, 33MHz (Ricoch® R5C554 CardBus/1394 combo controller, Mini PCI, ext expansion) / LPC bus 33MHz (PC87392 Super I/O for infrared [dock-based diskette, serial, parallel])</p>											
Media slice	<p><i>Some:</i> <b>X3 UltraBase media slice</b> (see right side)</p>											
Docking Station	<p>Optional <b>ThinkPad Dock</b> or <b>Dock II</b> (includes Ultrabay 2000 and half-size PCI slot)</p>											
Compact Flash slot	<p><b>Compact Flash slot</b> / 1 CF+ Type II / supports optional Microdrive™</p>											
PC Card Std slot	<p>One Type II / CardBus 32-bit / PCMCIA 2.1 / integrated door</p>											
IEEE 1394	<p><b>IEEE 1394 (FireWire) port</b> (4-pin)</p>											
Ports	<p>Two USB (version 2.0) / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / parallel / IEEE 1394 (4-pin) / no serial, keyboard, or mouse ports</p>											
Wireless antenna	<p>UltraConnect™ antenna built into the display cover for optimal wireless signal reception</p>											
Mini PCI	<p>One Mini PCI type III slot (Communications Bay) / customer upgradeable</p>											
Wireless upg <sup>36</sup>	<p><i>Some:</i> wireless upgradable with wireless Mini PCI options</p>											
11b Wi-Fi <sup>32</sup>	<p><i>Some:</i> 11b Wi-Fi<sup>32</sup> wireless<sup>4</sup>, Mini PCI, Intel PRO/Wireless 2100 Network Connection</p>											
11b/g <sup>32</sup>	<p>802.11b, Intel 82531 chipset</p>											
CDC	<p><i>Some:</i> 11b/g Wi-Fi<sup>32</sup> wireless<sup>4</sup>, Mini PCI, Atheros™ AR5004G chipset</p>											
Modem	<p>One Communications Daughter Card (CDC) socket / customer accessible</p>											
Ethernet	<p>56K<sup>6</sup> V.90 (V.92-designed<sup>25</sup>) modem in CDC / Agere® chipset</p>											
Audio support	<p><i>Some:</i> 10/100 ethernet on systemboard / Intel 82562EZ chipset (physical layer) / PXE</p>											
Security	<p><i>Some:</i> Gigabit Ethernet on systemboard / Intel 82540EP chipset (MAC/PHY) / PXE</p>											
Security chip	<p>Soft audio / ICH AC97 controller / DirectSound® support / AD1981B AC97 codec / mono speaker / 0.5 watt / volume up, down, mute buttons / internal mic / microphone input jack (pink) / headphone jack (green) / mic in (blue) [all 3.5mm]</p>											
Limited warranty <sup>12</sup>	<p>Power-on password / dual hard disk password / supervisor password / security keyhole  <b>Embedded Security Subsystem 2.0<sup>33</sup></b> / Atmel® chip / TCG-compliant</p>											
	<p><b>1 year</b> - EasyServ™<sup>19</sup> onsite pickup and delivery / service upgrades<sup>22</sup> available</p>											
256MB PC2700 DDR-SDRAM CL2.5 SOD	31P9830	ThinkPad X3 UltraBase media slice	46P7912									
512MB PC2700 DDR-SDRAM CL2.5 SOD	31P9832	ThinkPad Port Replicator II	74P6733									
1GB PC2700 DDR-SDRAM CL2.5 SOD	31P9834	ThinkPad Mini Dock	287810U									
USB Portable Diskette Drive	05K9276	ThinkPad Dock II	287710U									
USB Fingerprint Reader	73P4774	ThinkPad X30 Series Li-Ion Battery (6-cell)	92P1097									
USB 2.0 Memory Key 512MB	22P9230	ThinkPad X30 Series Extended Life Battery	02K7041									
60GB HS Hard Disk 9.5mm (5400 rpm)	73P3357	ThinkPad 72W AC/DC Combo Adapter	22P9010									
80GB HS Hard Disk 9.5mm (5400 rpm)	09N4273	Powered USB 2.0 Port Combo Drive	22P9194									
11a/b/g Wireless CardBus Adapter	31P9101	Carrying Case - Leather Ultraportable	73P5186									
11a/b/g Wireless Mini PCI Adapter	31P9701	ServicePac® <sup>22</sup> 1yr IOR 9x5 NBD	30L9188									
ThinkVision® L192p 19" Monitor (black)	9419HB2	ServicePac 3yr IOR 9x5 NBD	30L9195									
M400 Projector	0037A04	ServicePac 3yr P&L P/U Depot	30L9192									
Preferred Pro USB Fingerprint Keyboard	73P4730	Other options at <a href="http://lenovo.com/options">lenovo.com/options</a>										
				<p>56 watt AC Adapter            Asset ID™<sup>34</sup> (system-specific info in chip accessed over network)            PC 2001-compliant            ACPI 1.0b and 2.0-compliant            CIM and DMI 2.0-compliant            ENERGY STAR®-compliant            International Warranty Service<sup>17</sup>            24 hour x 7 day<sup>18</sup> toll-free warranty support during the warranty<sup>12</sup></p>								

See footnotes for important warranty information  
 US models announced February 10, 2004  
 US models withdrawn effective October 2004 or December 2005

\* Powered by Intel Centrino™ mobile technology

# ThinkPad® X32 (2672) - withdrawn

Created by Lenovo Training Solutions  
Personal Systems Reference (PSREF)

Type-model	Processor	GHz	Memory	Screen	Disk	Optical	UltraBase X3	ThinkPad UltraBase™	Mini PCI wireless	CDC: modem/Bluetooth™	Sec Ethernet chip	WH (W) Planar	Gbl (G) Preload	Avail (A) Entry TAA	date																																													
2672-KBU	Pentium® M 755	2.0	512MB	12.1" XGA	60HS	None	Optional	* Intel 11a/b/g <sup>32</sup>		Mod/Blue	Yes	Gigabit	XP Pro	W	Apr 05																																													
2672-M2U	Pentium M 745	1.8	256MB	12.1" XGA	40HS	None	Optional	* Intel 11b/g <sup>32</sup>		Modem	Yes	Gigabit	XP Pro	W	Apr 05																																													
2672-KDU	Pentium M 755	2.0	512MB	12.1" XGA	80HS	None	Optional	* Intel 11a/b/g		Mod/Blue	Yes	Gigabit	XP Pro	W	Apr 05																																													
2672-8BU	Pentium M 735	1.7	512MB	12.1" XGA	40HS	None	Optional	* Intel 11b/g		Modem	Yes	Gigabit	XP Pro	Entry	Apr 05																																													
2672-A3U	Pentium M 725	1.6	512MB	12.1" XGA	40HS	None	Optional	* Intel 11b/g		Modem	Yes	Gigabit	XP Pro	Entry	Apr 05																																													
2672-M3U	Pentium M 745	1.8	256MB	12.1" XGA	40HS	None	Optional	Open; wireless upg <sup>36</sup>		Modem	Yes	Gigabit	XP Pro	W G	Apr 05																																													
2672-M4U	Pentium M 745	1.8	512MB	12.1" XGA	40HS	None	Optional	* Intel 11b/g		Modem	Yes	Gigabit	XP Pro	W G	Apr 05																																													
2672-L2U	Pentium M 745	1.8	256MB	12.1" XGA	40HS	None	Optional	Open; wireless upg		Modem	Yes	Gigabit	XP Pro	W TAA	Apr 05																																													
Positioning	<i>Ultimate mobility in a versatile ultraportable; one spindle</i>										<b>SOFTWARE<sup>14</sup></b>																																																	
US Govt (TAA) <sup>5</sup>	Model L1U: US Government model (Trade Act Agreement-compliant)										<b>Windows XP Professional</b>																																																	
Processor	Intel® Pentium® M Processor 725 (1.60GHz), 735 (1.70GHz), 745 (1.80GHz), or 755 (2.00GHz) with Enhanced Intel SpeedStep™ technology <sup>1</sup> and 400MHz system bus										- Microsoft® Windows® XP Professional <sup>20</sup> (Service Pack 2)																																																	
L2 cache	2MB / on die (at processor speed) / ECC										◇ Disk-to-Disk Recovery (in hidden protected area)																																																	
Memory	256 or 512MB std / 2GB max <sup>7</sup> / PC2700 333MHz DDR1 (memory controller limits memory speed to 266MHz) / non-parity / CL2.5 / two 200-pin SO-DIMM sockets / std memory in one socket / one socket available										<b>Preloaded</b>																																																	
Diskette drive	None standard / use optional Ultrabay™-based (inX3) or USB-based diskette drive										• Rescue and Recovery™																																																	
Optical	None standard / optional USB-based optical, or optional Ultrabay 2000-based optical removable from optional X3 UltraBase, ThinkPad Dock, or ThinkPad Dock II										• Access Program																																																	
Ultrabay™ 2000	Supports Ultrabay 2000 devices in optional X3 UltraBase (or optional ThinkPad Dock II)										• Access Connections™																																																	
Disk	40GB <sup>8</sup> (HS 5400 rpm), 60GB (HS 5400 rpm), or 80GB (HS 5400 rpm), 9.5mm, ATA-100/removable and upgradable / 9.5mm high bay										• Norton AntiVirus																																																	
Display	12.1" (308mm) XGA (1024x768) TFT color / Active Matrix / 150 nits										• PC-Doctor™																																																	
Graphics controller	ATI® MOBILITY™ RADEON® / AGP 4X / 16MB DDR1 (DDR-SDRAM)										• ThinkPad Utilities																																																	
Graphics - external	External monitor support via analog DB-15 connector / up to 1280x1024x16.7M at 85Hz										• Adobe Reader																																																	
Keyboard	Standard-size <sup>26</sup> keys / 97% size of T Series / 87-key / 18.5mm pitch; 2.5mm stroke / Access IBM button / palm rest / TrackPoint®, "Press-to-Select," Internet Scroll Bar <sup>13</sup> / soft dome TrackPoint cap / ships with classic dome and soft rim TrackPoint cap										• Update Connector™ <sup>15</sup>																																																	
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions										<b>Downloadable</b>																																																	
Dimensions <sup>3</sup>	without X3 UltraBase: 10.7" x 8.8" x .98-1.19"; 273mm x 223mm x 24.9-30.2mm with X3 UltraBase and optical: 10.8" x 8.9" x 2.0-2.3"; 273 x 227 x 51-58mm with battery: 3.6 lb (1.65kg); with X3 UltraBase and optical: 5.6 lb (2.54kg)										• IBM Director Agent																																																	
Travel weight <sup>2</sup>	Color: black; All: titanium composite in the top cover / magnesium alloy bottom case										• Software Delivery Assistant																																																	
Case material	Li-Ion 6-cell / intelligent / supports opt Extended Life Battery on base (for two batteries) supports Ultrabay battery or optional 6-cell battery in X3 UltraBase (for two batteries) / Up to 5.7 hr; with std battery and optional Extended Life Battery: up to 10.0 hr										• System Migration Assistant																																																	
Battery - type											• Client Security Software (for security chip)																																																	
Battery - life <sup>10</sup>											<b>License</b> (CD not included)																																																	
Architecture	Intel 855PM chipset / 82855PM Memory Controller Hub (MCH-M) / 82801DBM ICH4-M I/O Controller Hub (ATA-100 EIDE, PCI bus, ethernet MAC, Low Pin Count (LPC) interface, USB [Bluetooth]) / Intel 82802AC Firmware Hub / PCI bus 2.2 32-bit, 33MHz (Ricoh® R5C554 CardBus/1394 combo controller, Mini PCI, ext expansion) / LPC bus 33MHz (PC87392 Super I/O)										- Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client																																																	
Media slice	Optional X3 UltraBase media slice (see right side)										Supports ThinkVantage™ technologies																																																	
Compact Flash slot	Compact Flash slot / 1 CF+ Type II / supports optional Microdrive™										<b>ThinkPad X3 UltraBase™</b>																																																	
PC Card Std slot	One Type II / CardBus 32-bit / PCMCIA 2.1 / integrated door										Right bay of X3 UltraBase supports most Ultrabay 2000 options:																																																	
IEEE 1394	IEEE 1394 (FireWire) port (4-pin)										• Optional battery, CD-ROM, CD-RW, DVD-ROM, Zip 250MB, Combo																																																	
Ports	Two USB (Version 2.0) / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / parallel / IEEE 1394 (4-pin) / no serial, keyboard, or mouse ports										• Optional HDD adapter for 2nd disk																																																	
Wireless antenna	UltraConnect™ antenna built into the display cover for optimal wireless signal reception										• Ultrabay Plus-compatible																																																	
Mini PCI	One Mini PCI type III slot (Communications Bay) / customer upgradable										Ultrabay 2000 accessories:																																																	
Wireless upg <sup>36</sup>	Some: wireless upgradable with wireless Mini PCI options										• CD-RW/DVD Combo IV Ultrabay 2000 22P6991																																																	
Intel 11b/g <sup>32</sup>	Some: 11b/g wireless <sup>4</sup> , Mini PCI, Intel PRO/Wireless 2200BG, Intel 82532 chipset										• Second HDD Adapter for Ultrabay 2000 08K6068																																																	
Intel 11a/b/g <sup>32</sup>	Some: 11a/b/g wireless <sup>4</sup> , Mini PCI, Intel PRO/Wireless 2915ABG, Intel 82533 chipset										• Ultrabay 2000 Li-Ion battery 02K6646																																																	
CDC	One Communications Daughter Card (CDC) socket / customer accessible										• ThinkPad Multi-Burner Ultrabay 2000 Drive 22P7015																																																	
Modem	56K <sup>6</sup> V.90 (V.92-designed <sup>28</sup> ) modem in CDC / Agere® chipset										• Enhanced Drive Adapter for Ultrabay 2000 73P3268																																																	
Bluetooth™	Some: Bluetooth wireless technology / in CDC (with modem)										X3 UltraBase bottom contains:																																																	
Ethernet	Gigabit Ethernet on systemboard / Intel 82540EP chipset (MAC/PHY) / PXE										• Bay for X30 battery (same as X31)																																																	
Audio support	Soft audio / ICH AC97 controller / DirectSound® support / AD1981B AC97 codec / mono speaker, 0.5 watt / volume up, down, mute buttons / internal mic / microphone input jack (pink) / headphone jack (green) / mic in (blue) [all 3.5mm]										Other features:																																																	
Security	Power-on password / dual hard disk password / supervisor password / security keyhole										• Second battery support (for Ultrabay battery or second 6-cell battery)																																																	
Security chip	Embedded Security Subsystem 2.0 <sup>33</sup> / Atmel® chip / TCG-compliant										• Stereo speakers (1 watt)																																																	
Limited warranty <sup>12</sup>	3-year/1-yr battery - EasyServ™ <sup>19</sup> onsite pickup and delivery / service upgrades <sup>22</sup> avail										• Security keyhole, UltraBase lock																																																	
256MB PC2700 DDR-SDRAM CL2.5 SOD	31P9830	ThinkPad X3 UltraBase media slice	46P7912	512MB PC2700 DDR-SDRAM CL2.5 SOD	31P9832	ThinkPad Port Replicator II	74P6733	1GB PC2700 DDR-SDRAM CL2.5 SOD	31P9834	ThinkPad Mini Dock	287810U	USB Fingerprint Reader	73P4774	ThinkPad Dock II	287710U	USB 2.0 CD-RW/DVD-ROM Combo II Drive	40Y8637	USB Portable Diskette Drive	05K9276	ThinkPad X30 Series Li-Ion Battery (6-cell)	92P1097	USB 2.0 Memory Key 512KB	40Y8596	ThinkPad X30 Series Extended Life Battery	02K7041	USB 2.0 Memory Key 1GB	40Y7421	ThinkPad Ultraportable 56W AC Adapter	02K6880	60GB HS Hard Disk 9.5mm (5400 rpm)	73P3357	Carrying Case - Leather Ultraportable	73P5186	100GB Hard Disk 9.5mm PATA (5400 rpm)	40Y8716	ThinkPlus™ <sup>22</sup> 2-year LOR 9x5 NBD	41C9175	11a/b/g Wireless Mini PCI Adapter II	73P4301	ThinkPlus™ 3-year LOR 9x5 NBD	41C9176	Intel PRO/Wireless 2915ABG Mini PCI	41N2990	ThinkPlus 5-year LOR 9x5 NBD	41C9179	Preferred Pro USB Fingerprint Keyboard	73P4730	ThinkPlus 5-year P&L P/U Depot	41C9180	Lenovo M500 Projector	0037A05	Other options at <a href="http://lenovo.com/options">lenovo.com/options</a>	56 watt AC Adapter	Asset ID™ <sup>34</sup> (system-specific info in chip accessed over network)	PC 2001-compliant	ACPI 1.0b and 2.0-compliant	CIM and DMI 2.0-compliant	ENERGY STAR®-compliant	International Warranty Service <sup>17</sup>	24 hour x 7 day <sup>18</sup> toll-free warranty support during the warranty <sup>12</sup>

See footnotes for important warranty information

\* Powered by Intel Centrino® mobile technology

© Lenovo

US models announced April 5, 2005

(X32) October 2006

US models withdrawn effective November 2005, April 2006, or October 2006

# ThinkPad® X32 (2884) - Express - withdrawn

Created by Lenovo Training Solutions  
Personal Systems Reference (PSREF)

Type-model	Processor	GHz	Memory	Screen	Disk	Optical in UltraBase	ThinkPad X3 UltraBase™	Mini PCI wireless	CDC: modem/Bluetooth™	Sec chip	Ethernet planar	Limited warranty <sup>12</sup>	Avail date
2884-A2U	Pentium® M 725	1.6	256MB	12.1" XGA	40HS		Optional	* Intel 11b/g <sup>32</sup>	Modem	Yes	Gigabit	XP Pro	1 year Apr 05
2884-M2U	Pentium M 745	1.8	256MB	12.1" XGA	40HS	Combo	X3 UltraBase	* Intel 11b/g	Modem	Yes	Gigabit	XP Pro	1 year Apr 05
2884-M5U	Pentium M 745	1.8	512MB	12.1" XGA	40HS		Optional	* Intel 11b/g	Modem	Yes	Gigabit	XP Pro	1 year Apr 05
2884-K4U	Pentium M 755	2.0	512MB	12.1" XGA	60HS	Combo	X3 UltraBase	* Intel 11a/b/g <sup>32</sup>	Mod/Blue	Yes	Gigabit	XP Pro	1 year Apr 05

- These small and medium business (SMB) models are part of the US Think Express Program
- The 2884 has a 1 year limited warranty

Positioning Processor	<i>Ultimate mobility in a versatile ultraportable; one spindle</i> <b>Intel® Pentium® M Processor 725 (1.60GHz), 745 (1.80GHz), or 755 (2.00GHz)</b> with enhanced Intel SpeedStep™ technology <sup>1</sup> and 400MHz system bus		<b>SOFTWARE</b> <sup>14</sup> <b>Windows XP Professional</b> - Microsoft® Windows® XP Professional <sup>20</sup> (Service Pack 2) ◇ Disk-to-Disk Recovery (in hidden protected area)			
L2 cache	<b>2MB</b> / on die (at processor speed) / ECC		Preloaded			
Memory	<b>256</b> or <b>512MB</b> std / <b>2GB</b> max <sup>7</sup> / <b>PC2700</b> 333MHz DDR1 (memory controller limits memory speed to 266MHz) / non-parity / CL2.5 / two 200-pin SO-DIMM sockets / std memory in one socket / one socket available		• Rescue and Recovery™ • Access IBM • Access Connections™ • Norton AntiVirus • PC-Doctor™ • ThinkPad Utilities • Adobe Reader • Update Connector™.15			
Diskette drive	None standard / use optional Ultrabay™-based (inX3) or USB-based diskette drive		Downloadable • IBM Director Agent • Software Delivery Assistant • System Migration Assistant • Client Security Software (for security chip)			
Combo	Some: DVD-ROM/CD-RW / 16X/10X/24X/8X <sup>21</sup> speed / removable from Ultrabay 2000 in X3 UltraBase					
Ultrabay™ 2000	Supports Ultrabay 2000 devices in std or optional X3 UltraBase (or optional Dock II)		License (CD not included) - Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client			
Disk	<b>40GB</b> (HS 5400 rpm) or <b>60GB</b> (HS 5400 rpm), 9.5mm, ATA-100 / removable and upgradable / 9.5mm high bay					
Display	<b>12.1"</b> (308mm) <b>XGA (1024x768) TFT color</b> / Active Matrix / 150 nits					
Graphics controller	<b>ATI® MOBILITY™ RADEON® / AGP 4X / 16MB</b> DDR1 (DDR-SDRAM)		ThinkPad notebooks implement ThinkVantage™ technologies and design; visit <a href="http://thinkpad.com/thinkvantage">thinkpad.com/thinkvantage</a>			
Graphics - external	External monitor support via analog DB-15 connector / up to 1280x1024x16.7M at 85Hz					
Keyboard	Standard-size <sup>26</sup> keys / 97% size of T-Series / 87-key / 18.5mm pitch; 2.5mm stoke / Access IBM button / palm rest / TrackPoint®, "Press-to-Select," Internet Scroll Bar <sup>13</sup> / soft dome TrackPoint cap / ships with classic dome and soft rim TrackPoint cap					
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions					
Dimensions <sup>3</sup>	<i>without X3 UltraBase</i> : 10.7" x 8.8" x .98-1.19"; 273mm x 223mm x 24.9-30.2mm <i>with X3 UltraBase and optical</i> : 10.8" x 8.9" x 2.0-2.3"; 273 x 227 x 51-58mm <i>with battery</i> : 3.6 lb (1.65kg); <i>with X3 UltraBase and optical</i> : 5.6 lb (2.54kg)		ThinkPad X3 UltraBase™ Right bay of X3 UltraBase supports most Ultrabay 2000 options: • Optional battery, CD-ROM, CD-RW, DVD-ROM, Zip 250MB, Combo • Optional HDD adapter for 2nd disk • Ultrabay Plus-compatible  Ultrabay 2000 accessories: • CD-RW/DVD Combo IV Ultrabay 2000 22P6991 • Second HDD Adapter for Ultrabay 2000 08K6068 • Ultrabay 2000 Li-Ion battery 02K6646 • ThinkPad Multi-Burner Ultrabay 2000 Drive 22P7015 • Enhanced Drive Adapter for Ultrabay 2000 73P3268  X3 UltraBase bottom contains: • Bay for X30 battery (same as X31)			
Travel weight <sup>2</sup>	<i>Color</i> : black; <i>All</i> : <b>titanium composite</b> in the top cover / magnesium alloy bottom case					
Case material	Li-Ion 6-cell / intelligent / supports opt Extended Life Battery on base (for two batteries)					
Battery - type	supports Ultrabay battery or optional 6-cell battery in X3 UltraBase (for two batteries) / Up to 5.7 hr; <i>with std battery and optional Extended Life Battery</i> : up to 10.0 hr					
Battery - life <sup>10</sup>			Other features: • Second battery support (for Ultrabay battery or second 6-cell battery) • Stereo speakers (1 watt) • Security keyhole, UltraBase lock • Serial and parallel ports • PS/2 mouse port • Analog DB-15 monitor port • One USB port (Ver 2.0 only on X31) • Ethernet port and modem port • Retractable feet; 1.41 lb; 638g			
Architecture	<b>Intel 855PM</b> chipset / 82855PM Memory Controller Hub (MCH-M) / 82801DBM ICH4-M I/O Controller Hub (ATA-100 EIDE, PCI bus, ethernet MAC, Low Pin Count (LPC) interface, USB [Bluetooth]) / Intel 82802AC Firmware Hub / PCI bus 2.2 32-bit, 33MHz (Ricoh® R5C554 CardBus/1394 combo controller, Mini PCI, ext expansion) / LPC bus 33MHz (PC87392 Super I/O)					
Media slice	Some: <b>X3 UltraBase media slice</b> (see right side)		X3 UltraBase bottom contains: • Bay for X30 battery (same as X31)			
Compact Flash slot	<b>Compact Flash slot</b> / 1 CF+ Type II / supports optional Microdrive™					
PC Card Std slot	One Type II / CardBus 32-bit / PCMCIA 2.1 / integrated door					
IEEE 1394	<b>IEEE 1394 (FireWire) port</b> (4-pin)					
Ports	Two USB (version 2.0) / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / parallel / IEEE 1394 (4-pin) / no serial, keyboard, or mouse ports					
Wireless antenna	UltraConnect™ antenna built into the display cover for optimal wireless signal reception		X3 UltraBase bottom contains: • Bay for X30 battery (same as X31)			
Mini PCI	One Mini PCI type III slot (Communications Bay) / customer upgradeable Some: 11b/g wireless <sup>4</sup> , Mini PCI, Intel PRO/Wireless 2200BG, Intel 82532 chipset Some: 11a/b/g wireless <sup>4</sup> , Mini PCI, Intel PRO/Wireless 2915ABG, Intel 82533 chipset					
CDC	One Communications Daughter Card (CDC) socket / customer accessible					
Modem	56K <sup>6</sup> V.90 (V.92-designed <sup>29</sup> ) modem in CDC / Agere® chipset					
Bluetooth™	Some: Bluetooth wireless technology / in CDC (with modem)					
Ethernet	Gigabit Ethernet on systemboard / Intel 82540EP chipset (MAC/PHY) / PXE					
Audio support	Soft audio / ICH AC97 controller / DirectSound® support / AD1981B AC97 codec / mono speaker / 0.5 watt / volume up, down, mute buttons / internal mic / microphone input jack (pink) / headphone jack (green) / mic in (blue) [all 3.5mm]					
Security	Power-on password / dual hard disk password / supervisor password / security keyhole					
Security chip	<b>Embedded Security Subsystem 2.0</b> <sup>33</sup> / Atmel® chip / TCG-compliant					
Limited warranty <sup>12</sup>	<b>1 year</b> - EasyServ™.19 onsite pickup and delivery / service upgrades <sup>22</sup> available					

128MB PC2700 DDR-SDRAM CL2.5 SOD	31P9828	ThinkPad X3 UltraBase media slice	46P7912
256MB PC2700 DDR-SDRAM CL2.5 SOD	31P9830	ThinkPad Port Replicator II	74P6733
512MB PC2700 DDR-SDRAM CL2.5 SOD	31P9832	ThinkPad Mini Dock	287810U
1GB PC2700 DDR-SDRAM CL2.5 SOD	31P9834	ThinkPad Dock II	287710U
USB Fingerprint Reader	73P4774	USB Portable Diskette Drive	05K9276
USB 2.0 Portable Multi-Burner	22P9163	ThinkPad X30 Series Li-Ion Battery (6-cell)	92P1097
USB 2.0 Memory Key 256MB	22P9228	ThinkPad X30 Series Extended Life Battery	02K7041
USB 2.0 Memory Key 512MB	22P9230	ThinkPad Ultraportable 56W AC Adapter	02K6880
60GB HS Hard Disk 9.5mm (5400 rpm)	73P3357	Carrying Case - Leather Ultraportable	73P5186
80GB HS Hard Disk 9.5mm (5400 rpm)	09N4273	ServicePac®.22 1yr IOR 9x5 NBD	30L9188
100GB Hard Disk 9.5mm PATA (5400 rpm)	40Y8716	ServicePac 2yr IOR 9x5 NBD	30L9189
11a/b/g Wireless CardBus Adapter	31P9101	ServicePac 3yr IOR 9x5 NBD	30L9195
11a/b/g Wireless Mini PCI Adapter II	73P4301	ServicePac 4yr IOR 9x5 NBD	30L9194
Intel PRO/Wireless 2915ABG Mini PCI	41N2990	ServicePac 5yr IOR 9x5 NBD	30L9196
Preferred Pro USB Fingerprint Keyboard	73P4730	ServicePac 2yr P&L P/U Depot	30L9191
M400 Projector	0037A04	ServicePac 3yr P&L P/U Depot	30L9192
ThinkVision® E500 Projector	0038A05	ServicePac 5yr P&L P/U Depot	69P9197
SonyEricsson® GC83 EDGE PC Card	26K3393	Other options at <a href="http://lenovo.com/options">lenovo.com/options</a>	

See footnotes for important warranty information  
US models announced April 5, 2005  
US models withdrawn effective November 2005

\* Powered by Intel Centrino™ mobile technology

© Lenovo  
(X321) October 2005

# ThinkPad® X32 (2885) - Express - withdrawn

Created by Lenovo Training Solutions  
Personal Systems Reference (PSREF)

Type-model	Processor	GHz	Memory	Screen	Disk	Optical in	ThinkPad UltraBase X3 UltraBase™	Mini PCI wireless	CDC: modem/Bluetooth™	Sec chip	Ethernet planar	Limited Preload warranty <sup>12</sup>	Avail date
2885-M2U	Pentium® M 745	1.8	256MB	12.1" XGA	40HS	Combo	X3 UltraBase *	Intel 11b/g <sup>32</sup>	Modem	Yes	Gigabit	XP Pro 3 year	Apr 05
2885-K4U	Pentium M 755	2.0	512MB	12.1" XGA	60HS	Combo	X3 UltraBase *	Intel 11a/b/g <sup>32</sup>	Mod/Blue	Yes	Gigabit	XP Pro 3 year	Apr 05

- These small and medium business (SMB) models are part of the US Think Express Program
- The 2885 has a 3 year limited warranty

Positioning Processor	<i>Ultimate mobility in a versatile ultraportable; one spindle</i> <b>Intel® Pentium® M Processor 745 (1.80GHz) or 755 (2.00GHz)</b> with enhanced Intel SpeedStep™ technology <sup>1</sup> and 400MHz system bus							<b>SOFTWARE<sup>14</sup></b> <b>Windows XP Professional</b> - Microsoft® Windows® XP Professional <sup>20</sup> (Service Pack 2) ◇ Disk-to-Disk Recovery (in hidden protected area)					
L2 cache	<b>2MB</b> / on die (at processor speed) / ECC												
Memory	<b>256 or 512MB</b> std / <b>2GB</b> max <sup>7</sup> / <b>PC2700</b> 333MHz DDR1 (memory controller limits memory speed to 266MHz) / non-parity / CL2.5 / two 200-pin SO-DIMM sockets / std memory in one socket / one socket available												
Diskette drive	None standard / use optional Ultrabay™-based (inX3) or USB-based diskette drive							<b>Preloaded</b> • Rescue and Recovery™ • Access IBM • Access Connections™ • Norton AntiVirus • PC-Doctor™ • ThinkPad Utilities • Adobe Reader • Update Connector™ <sup>15</sup>					
Combo	DVD-ROM/CD-RW / 16X/10X/24X/8X <sup>21</sup> speed / removable from Ultrabay 2000 in X3 UltraBase												
Ultrabay™ 2000	Supports Ultrabay 2000 devices in std or optional X3 UltraBase (or optional Dock II)												
Disk	<b>40GB</b> (HS 5400 rpm) or <b>60GB</b> (HS 5400 rpm), 9.5mm, ATA-100 / removable and upgradable / 9.5mm high bay												
Display	<b>12.1"</b> (308mm) <b>XGA (1024x768) TFT color</b> / Active Matrix / 150 nits												
Graphics controller	<b>ATI® MOBILITY™ RADEON® / AGP 4X / 16MB</b> DDR1 (DDR-SDRAM)												
Graphics - external	External monitor support via analog DB-15 connector / up to 1280x1024x16.7M at 85Hz												
Keyboard	Standard-size <sup>26</sup> keys / 97% size of T Series / 87-key / 18.5mm pitch; 2.5mm stoke / Access IBM button / palm rest / TrackPoint®, "Press-to-Select," Internet Scroll Bar <sup>13</sup> / soft dome TrackPoint cap / ships with classic dome and soft rim TrackPoint cap							<b>Downloadable</b> • IBM Director Agent • Software Delivery Assistant • System Migration Assistant • Client Security Software (for security chip)					
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions												
Dimensions <sup>3</sup>	<i>without X3 UltraBase:</i> 10.7" x 8.8" x .98-1.19"; 273mm x 223mm x 24.9-30.2mm <i>with X3 UltraBase and optical:</i> 10.8" x 8.9" x 2.0-2.3"; 273 x 227 x 51-58mm <i>with battery:</i> 3.6 lb (1.65kg); <i>with X3 UltraBase and optical:</i> 5.6 lb (2.54kg)							<b>License</b> (CD not included) - Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client					
Travel weight <sup>2</sup>	<i>Color:</i> black; <i>All: titanium composite</i> in the top cover / magnesium alloy bottom case												
Case material	Li-Ion 6-cell / intelligent / supports opt Extended Life Battery on base (for two batteries)												
Battery - type	supports Ultrabay battery or optional 6-cell battery in X3 UltraBase (for two batteries)												
Battery - life <sup>10</sup>	Up to 5.7 hr; <i>with std battery and optional Extended Life Battery:</i> up to 10.0 hr							ThinkPad notebooks implement ThinkVantage™ technologies and design; visit <a href="http://thinkpad.com/thinkvantage">thinkpad.com/thinkvantage</a>					
Architecture	<b>Intel 855PM</b> chipset / 82855PM Memory Controller Hub (MCH-M) / 82801DBM ICH4-M I/O Controller Hub (ATA-100 EIDE, PCI bus, ethernet MAC, Low Pin Count (LPC) interface, USB [Bluetooth]) / Intel 82802AC Firmware Hub / PCI bus 2.2 32-bit, 33MHz (Ricoh® R5C554 CardBus/1394 combo controller, Mini PCI, ext expansion) / LPC bus 33MHz (PC87392 Super I/O)							<b>ThinkPad X3 UltraBase™</b> Right bay of X3 UltraBase supports most Ultrabay 2000 options: • Optional battery, CD-ROM, CD-RW, DVD-ROM, Zip 250MB, Combo • Optional HDD adapter for 2nd disk • Ultrabay Plus-compatible					
Media slice	<b>X3 UltraBase media slice</b> (see right side)							Ultrabay 2000 accessories: • CD-RW/DVD Combo IV Ultrabay 2000 22P6991 • Second HDD Adapter for Ultrabay 2000 08K6068 • Ultrabay 2000 Li-Ion battery 02K6646 • ThinkPad Multi-Burner Ultrabay 2000 Drive 22P7015 • Enhanced Drive Adapter for Ultrabay 2000 73P3268					
Compact Flash slot	<b>Compact Flash slot</b> / 1 CF+ Type II / supports optional Microdrive™												
PC Card Std slot	One Type II / CardBus 32-bit / PCMCIA 2.1 / integrated door												
IEEE 1394	<b>IEEE 1394 (FireWire) port</b> (4-pin)												
Ports	Two USB (version 2.0) / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / parallel / IEEE 1394 (4-pin) / no serial, keyboard, or mouse ports							X3 UltraBase bottom contains: • Bay for X30 battery (same as X31)					
Wireless antenna	UltraConnect™ antenna built into the display cover for optimal wireless signal reception							Other features: • Second battery support (for Ultrabay battery or second 6-cell battery) • Stereo speakers (1 watt) • Security keyhole, UltraBase lock • Serial and parallel ports • PS/2 mouse port • Analog DB-15 monitor port • One USB port (Ver 2.0 only on X31) • Ethernet port and modem port • Retractable feet; 1.41 lb; 638g					
Mini PCI	One Mini PCI type III slot (Communications Bay) / customer upgradeable												
Intel 11b/g <sup>32</sup>	<i>Some:</i> 11b/g wireless <sup>4</sup> , Mini PCI, Intel PRO/Wireless 2200BG, Intel 82532 chipset												
Intel 11a/b/g <sup>32</sup>	<i>Some:</i> 11a/b/g wireless <sup>4</sup> , Mini PCI, Intel PRO/Wireless 2915ABG, Intel 82533 chipset												
CDC	One Communications Daughter Card (CDC) socket / customer accessible												
Modem	56K <sup>6</sup> V.90 (V.92-designed <sup>29</sup> ) modem in CDC / Agere® chipset												
Bluetooth™	<i>Some:</i> Bluetooth wireless technology / in CDC (with modem)												
Ethernet	Gigabit Ethernet on systemboard / Intel 82540EP chipset (MAC/PHY) / PXE												
Audio support	Soft audio / ICH AC97 controller / DirectSound® support / AD1981B AC97 codec / mono speaker / 0.5 watt / volume up, down, mute buttons / internal mic / microphone input jack (pink) / headphone jack (green) / mic in (blue) [all 3.5mm]												
Security	Power-on password / dual hard disk password / supervisor password / security keyhole												
Security chip	<b>Embedded Security Subsystem 2.0<sup>33</sup></b> / Atmel® chip / TCG-compliant												
Limited warranty <sup>12</sup>	<b>3 years/1 yr battery</b> - EasyServ™ <sup>19</sup> onsite pickup and delivery / service upgrades <sup>22</sup> avail												
128MB PC2700 DDR-SDRAM CL2.5 SOD	31P9828	ThinkPad X3 UltraBase media slice	46P7912										
256MB PC2700 DDR-SDRAM CL2.5 SOD	31P9830	ThinkPad Port Replicator II	74P6733										
512MB PC2700 DDR-SDRAM CL2.5 SOD	31P9832	ThinkPad Mini Dock	287810U										
1GB PC2700 DDR-SDRAM CL2.5 SOD	31P9834	ThinkPad Dock II	287710U										
USB Fingerprint Reader	73P4774	USB Portable Diskette Drive	05K9276										
USB 2.0 Portable Multi-Burner	22P9163	ThinkPad X30 Series Li-Ion Battery (6-cell)	92P1097										
USB 2.0 Memory Key 256MB	22P9228	ThinkPad X30 Series Extended Life Battery	02K7041										
USB 2.0 Memory Key 512MB	22P9230	ThinkPad Ultrabay 56W AC Adapter	02K6880										
60GB HS Hard Disk 9.5mm (5400 rpm)	73P3357	ThinkPad Carrying Case - Backpack	73P3599										
80GB HS Hard Disk 9.5mm (5400 rpm)	09N4273	ThinkPad Carrying Case - Leather	73P3600										
100GB Hard Disk 9.5mm (5400 rpm)	40Y8716	Carrying Case - Leather Ultraportable	73P5186										
11a/b/g Wireless CardBus Adapter	31P9101	ServicePac® <sup>22</sup> 2yr IOR 9x5 NBD	30L9190										
11a/b/g Wireless Mini PCI Adapter II	73P4301	ServicePac 3yr IOR 9x5 NBD	30L9197										
Intel PRO/Wireless 2915ABG Mini PCI	41N2990	ServicePac 4yr IOR 9x5 NBD	69P9198										
Preferred Pro USB Fingerprint Keyboard	73P4730	ServicePac 5yr IOR 9x5 NBD	69P9200										
M400 Projector	0037A04	ServicePac 4yr P&L P/U Depot	69P9199										
ThinkVision® E500 Projector	0038A05	ServicePac 5yr P&L P/U Depot	69P9201										
C400 Projector	0039A04	Other options at <a href="http://lenovo.com/options">lenovo.com/options</a>											

See footnotes for important warranty information  
US models announced April 5, 2005  
US models withdrawn effective November 2005

\* Powered by Intel Centrino™ mobile technology

© Lenovo  
(X323) October 2005

# ThinkPad® X40 (2371) - May 2004 - withdrawn

Created by Lenovo Training Solutions  
Personal Systems Reference (PSREF)

Type-model	Processor	GHz	Memory	Screen	Disk	Optical in	ThinkPad UltraBase X4	ThinkPad UltraBase™	Mini PCI wireless	CDC: modem/Sec Bluetooth™	Battery chip	Preload	Limited warranty <sup>12</sup>	WH Gbl TAA	Avail date
2371-97U	Pentium® M 1.2	256MB	12.1" XGA	40GB	None	Optional	Open; wireless upg <sup>36</sup>	Modem	Yes	8	XP Pro	3-year	TAA	May 2004	
2371-6DU	Pentium M 1.3	256MB	12.1" XGA	40GB	None	Optional	* Intel 11b Wi-Fi <sup>32</sup>	Modem	Yes	8	XP Pro	3-year		May 2004	
2371-6FU	Pentium M 1.3	256MB	12.1" XGA	40GB	None	Optional	* Intel 11b/g <sup>32</sup>	Modem	Yes	8	XP Pro	3-year		May 2004	
2371-7FU	Pentium M 1.3	512MB	12.1" XGA	40GB	None	Optional	* Intel 11b/g	Modem	Yes	4	XP Pro	3-year		May 2004	
Positioning	<i>Ultimate mobility in a versatile ultraportable; one spindle</i>										<b>SOFTWARE<sup>14</sup></b>				
US Govt (TAA) <sup>5</sup> Processor	97U: US Government model (Trade Act Agreement-compliant) <b>Intel® Pentium® M Processor Low Voltage 1.2 or 1.3GHz</b> with Enhanced Intel SpeedStep™ technology <sup>1</sup> and 400MHz system bus										<b>Windows XP Professional</b> - Microsoft® Windows® XP Professional <sup>20</sup> ◇ Disk-to-Disk Recovery (in hidden protected area)				
L2 cache Memory	<b>1MB</b> / on die (at processor speed) / ECC <b>256 or 512MB</b> std / 1.28 to 1.53GB max <sup>7</sup> / <b>PC2700</b> 333MHz DDR1 (DDR-SDRAM) / non-parity / CL2.5 / 97U/6DU/6FU: std memory soldered to systemboard; one 200-pin SO-DIMM socket available 7FU with 512MB: 256MB soldered to board; one 256MB SO-DIMM in 200-pin socket										• Access Program • Access Connections™ • Adobe Reader • Rescue and Recovery™ • Norton AntiVirus (OEM edition) • PC-Doctor™ • ThinkPad Utilities • Update Connector™.15				
Diskette drive Ultrabay™ Slim Disk	None standard / use optional USB-based diskette drive Supports Ultrabay Slim devices in optional or standard X4 UltraBase <b>40GB<sup>8</sup></b> (4200 rpm), 9.5mm, ATA-100 / 1.8" platter / removable and upgradable / 9.5mm high bay / <b>Active Protection System™</b> (shock protection)										• Preloaded • IBM Director Agent • Software Delivery Assistant • System Migration Assistant • Client Security Software (for security chip)				
Display	<b>12.1"</b> (308mm) <b>XGA (1024x768) TFT color</b> / Active Matrix / 150 nits										<b>Downloadable</b> • Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client				
Graphics	<b>Integrated Intel Extreme™ Graphics 2</b> / in 855GME GMCH / uses main memory (up to 64MB) / 266MHz										ThinkPad notebooks implement ThinkVantage® technologies and design; visit <a href="http://thinkpad.com/thinkvantage">thinkpad.com/thinkvantage</a>				
Graphics external	External monitor support via analog DB-15 connector / up to 1600x1200x16.7M at 85Hz														
Keyboard	Standard-size <sup>26</sup> keys / 97% size of T Series / 87-key / 18.5mm pitch; 2.5mm stroke / Access IBM button / palm rest / TrackPoint®, "Press-to-Select," Internet Scroll Bar <sup>13</sup> / soft dome TrackPoint cap / ships with classic dome and soft rim TrackPoint cap Illuminates the keyboard to improve visibility in low-light conditions														
ThinkLight®	Illuminates the keyboard to improve visibility in low-light conditions														
Dimensions <sup>3</sup>	4-cell without X4 UltraBase: 10.5" x 8.3" x .81-1.06"; 268mm x 211mm x 20.6-26.9mm 8-cell without X4 UltraBase: 10.5" x 9.3" x .81-1.06"; 268mm x 237mm x 20.6-26.9mm 4-cell battery models: 2.7 lb (1.23kg); 8-cell battery models: 3.2 lb (1.44kg); with 8-cell battery and X4 UltraBase with combo: 5.0 lb (2.26kg)														
Weight <sup>2</sup>	4-cell battery models: 2.7 lb (1.23kg); 8-cell battery models: 3.2 lb (1.44kg); with 8-cell battery and X4 UltraBase with combo: 5.0 lb (2.26kg)														
Case material	Color: black; All: magnesium alloy														
Battery - type	Li-Ion 4- or 8-cell / intelligent / supports optional Extended Life Battery on base (for two batteries) / supports optional battery in X4 UltraBase (for two batteries)														
Battery - life <sup>10</sup>	with 4-cell: 3.5 hr; with 8-cell: 7.5 hr; with 8-cell and optional Extended Life Battery: up to 10 hr														
Architecture	Intel 855GME chipset / 82852GME Memory Controller Hub (MCH-M) / 82801DBM ICH4-M I/O Controller Hub (ATA-100 EIDE, PCI bus, Low Pin Count (LPC) interface, USB [Bluetooth]) / Intel 82802AC Firmware Hub / PCI bus 2.2 32-bit, 33MHz (ethernet, Ricoh® R5C511 CardBus controller, Mini PCI) / LPC bus 33MHz (PC87392 Super I/O for infrared [dock-based ports])										<b>ThinkPad X4 UltraBase™</b> • Provides desktop expansion and cable management for the X40/X41 • Easily connects to the bottom of the X40/X41 for traveling • Converts the X40 to a two-spindle system by supporting optional Ultrabay Slim accessories in left side: – Ultrabay Slim Li-Polymer Battery 3-cell 08K8190 – ThinkPad DVD-ROM Ultrabay Slim Drive 73P3270 – CD-RW/DVD Combo II Ultrabay Slim Drive 73P3288 – Super Multi-Burner Ultrabay Slim Drive (curved bezel) 40Y8622 – Second HDD Adapter for Ultrabay Slim 41U3148 Disks supported: • 40GB HS Hard Disk 08K9816 • 60GB HS Hard Disk 39W9106 • 80GB HS Hard Disk 09N4273				
Mobile media base Secure Digital slot PC Card Std slot Ports	Supports optional <b>X4 UltraBase</b> (see right side) and <b>X4 Dock</b> One <b>Secure Digital Card</b> slot / supports SD memory cards used in consumer devices One Type I or one Type II / CardBus 32-bit / PCMCIA 2.1 / integrated door Two USB (version 2.0), plus one powered USB port for select options / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / no serial, parallel, keyboard/mouse ports (use X4 UltraBase) / no IEEE 1394 port														
Wireless antenna Mini PCI	UltraConnect™ antenna built into the display cover for optimal wireless signal reception One Mini PCI type III slot (Communications Bay) / customer upgradable														
Wireless upg <sup>36</sup> Intel 11b Wi-Fi <sup>32</sup>	Some: wireless upgradable with wireless Mini PCI options Some: 11b Wi-Fi <sup>32</sup> wireless <sup>4</sup> , Mini PCI, Intel PRO/Wireless 2100 Network Connection 802.11b, Intel 82531 chipset														
Intel 11b/g <sup>32</sup>	Some: 11b/g wireless <sup>4</sup> , Mini PCI, Intel PRO/Wireless 2200BG, Intel 82532 chipset														
CDC	One Communications Daughter Card (CDC) socket / customer accessible														
Modem	56K <sup>6</sup> V.90 (V.92-designed <sup>29</sup> ) modem in CDC / Conexant® chipset														
Bluetooth™	None														
Ethernet	Intel PRO/1000 Gigabit Ethernet / on systemboard / Intel 82541GI chipset (MAC/PHY) / Wake on LAN®														
Audio support	Soft audio / ICH AC97 controller / DirectSound® support / AD1981B AC97 codec / mono speaker, 0.5 watt / volume up, down, mute buttons / internal mic / microphone input jack (3.5 mm; pink) / headphone jack (3.5 mm; green)										Other features: • Power button (front) • Stereo speakers (1 watt) • Security key lock, security keyhole, and optical security screw • Serial and parallel ports • PS/2 port for keyboard or mouse • Analog DB-15 monitor port • Three USB 2.0 ports (via USB hub) • Ethernet port (Gigabit Ethernet) • Modem port • Retractable feet; 1.3 lb; 580g				
Security Security chip	Power-on password / dual hard disk password / supervisor password / security keyhole <b>Embedded Security Subsystem 2.0<sup>33</sup></b> / hardware key storage / multi-factor authentication / local file encryption / Atmel® chip / TCG-compliant														
Limited warranty <sup>12</sup>	3-year/1-yr battery - EasyServ™.19 onsite pickup and delivery / service upgrades <sup>22</sup> avail														
256MB PC2700 DDR-SDRAM CL2.5 SOD	31P9830	ThinkPad X4 UltraBase	92P3429												
512MB PC2700 DDR-SDRAM CL2.5 SOD	31P9832	ThinkPad X4 Dock	250610U												
1GB PC2700 DDR-SDRAM CL2.5 SOD	31P9834	ThinkPad X40 Series Li-Ion Battery (4-cell)	92P1009												
USB Portable Diskette Drive	05K9276	ThinkPad X40 Series Li-Ion Battery (8-cell)	92P1119												
USB 2.0 Lenovo Webcam	40Y8519	ThinkPad X40 Series Extended Life Battery	92P1006												
USB 2.0 Portable 80GB Hard Disk	40Y8726	ThinkPad Multiple Battery Charger II	22P9040												
USB 2.0 Super Multi-Burner Drive	40Y8638	ThinkPad Ultraportable 56W AC Adapter	02K6880												
60GB Mini Hard Disk 9.5mm (4200 rpm)	73P3358	72W Slim AC/DC Combo Adapter	73P4485												
11a/b/g Wireless Mini PCI Adapter II	73P4301	ThinkPlus™.22 2-year LOR 9x5 NBD	41C9175												
Intel PRO/Wireless 2915ABG Mini PCI	41N2990	ThinkPlus 3-year LOR 9x5 NBD	41C9176												
Carrying Case - Leather Ultraportable	73P5186	ThinkPlus 5-year LOR 9x5 NBD	41C9179												
Verizon Wireless V620 WWAN PC Card <sup>25</sup>	40Y9137	ThinkPlus 4-year P&L P/U Depot	41C9178												
Lenovo M500 Projector	0037A05	ThinkPlus 5-year P&L P/U Depot	41C9180												
ThinkVision® L201p 20.1" Monitor (black)	9220HB1	Other options at <a href="http://lenovo.com/options">lenovo.com/options</a>		56-watt AC Adapter Asset ID™.34 (system-specific info in chip accessed over network) ACPI 1.0b and 2.0-compliant ENERGY STAR®-compliant International Warranty Service <sup>17</sup> 24 hour x 7 day <sup>18</sup> toll-free warranty support during the warranty <sup>12</sup> via 800-IBM-SERV (426-7378)											

See footnotes for important warranty information  
US models announced May 18, 2004  
US models withdrawn effective December 2006

\* Powered by Intel Centrino® mobile technology

© Lenovo  
(X40Y) December 2006

# ThinkPad® X40 (2371) - October 2004 - withdrawn

Created by Lenovo Training Solutions  
Personal Systems Reference (PSREF)

Type-model	Processor	L2 GHz cache	Memory	Screen	Optical in Disk	UltraBase	ThinkPad X4 UltraBase™	Mini PCI wireless	CDC: modem/ Bluetooth™	Sec chip	Battery cells	Limited warranty <sup>12</sup>	WH Entry	Gbl	Avail date	
2371-E8U	Pentium® M 738	1.4	2MB	256MB	12.1" XGA	40GB	None	Optional	Open; wireless upg <sup>36</sup>	Modem	Yes	8	3 years	W	G	Oct 04
2371-GHU	Pentium M 738	1.4	2MB	512MB	12.1" XGA	40GB	None	Optional * Intel 11b/g <sup>32</sup>	Modem	Yes	8	3 years	W	G	Oct 04	
2371-H8U	Pentium M 738	1.4	2MB	512MB	12.1" XGA	40GB	None	Optional * Intel 11b/g	Mod/Blue	Yes	8	3 years	W	G	Oct 04	
2371-G4U	Pentium M 738	1.4	2MB	512MB	12.1" XGA	40GB	None	Optional * Intel 11b/g	Modem	Yes	4	3 years	W		Oct 04	
2371-H9U	Pentium M 738	1.4	2MB	512MB	12.1" XGA	40GB	None	Optional 11a/b/g II <sup>32</sup>	Mod/Blue	Yes	8	3 years	W		Oct 04	
2371-E9U	Pentium M 738	1.4	2MB	256MB	12.1" XGA	40GB	None	Optional * Intel 11b/g	Modem	Yes	8	3 years	W		Oct 04	
2371-E5U	Pentium M 738	1.4	2MB	256MB	12.1" XGA	40GB	None	Optional * Intel 11b/g	Modem	Yes	4	3 years	W		Oct 04	
2371-A9U	Pentium M 713	1.1	1MB	256MB	12.1" XGA	30GB	None	Optional * Intel 11b/g	Modem	Yes	4	3 years	Entry		Oct 04	
Positioning Processor	<i>Ultimate mobility in a versatile ultraportable; one spindle Intel® Pentium® M Processor Ultra Low Voltage 713 (1.1GHz) or Low Voltage 738 (1.4GHz) with enhanced Intel SpeedStep™ technology<sup>1</sup> and 400MHz system bus 1.1GHz: 1MB; 1.4GHz: 2MB; All: on die (at processor speed) / ECC</i>										<b>SOFTWARE<sup>14</sup></b>					
L2 cache Memory	<b>256 or 512MB</b> std / 1.28 to 1.53GB max <sup>7</sup> / <b>PC2700</b> 333MHz DDR1 (DDR-SDRAM) / non-parity / CL2.5 / std memory soldered to systemboard / one 200-pin SO-DIMM socket available										Windows XP Professional - Microsoft® Windows® XP Professional <sup>20</sup> (Service Pack 2) ◇ Disk-to-Disk Recovery (in hidden protected area)					
Diskette drive Ultrabay™ Slim Disk	None standard / use optional USB-based diskette drive Supports Ultrabay Slim devices in optional or standard X4 UltraBase <b>30GB<sup>8</sup> or 40GB<sup>8</sup></b> (4200 rpm), 9.5mm, ATA-100 / 1.8" platter / removable and upgradable / 9.5mm high bay / <b>Active Protection System™</b> (shock protection)										<b>Preloaded</b> • Rescue and Recovery™ • Access Program • Access Connections™ • Norton AntiVirus (OEM edition) • PC-Doctor™ • ThinkPad Utilities • Adobe Reader • Update Connector™ <sup>15</sup>					
Display	<b>12.1"</b> (308mm) <b>XGA (1024x768) TFT color</b> / Active Matrix / 150 nits															
Graphics	<b>Integrated Intel Extreme™ Graphics 2</b> / in 855GME GMCH / uses main memory (up to 64MB) / 266MHz															
Graphics external	External monitor support via analog DB-15 connector / up to 1600x1200x16.7M at 85Hz															
Keyboard	Standard-size <sup>26</sup> keys / 97% size of T Series / 87-key / 18.5mm pitch; 2.5mm stroke / Access IBM button / palm rest / TrackPoint®, "Press-to-Select," Internet Scroll Bar <sup>13</sup> / soft dome TrackPoint cap / ships with classic dome and soft rim TrackPoint cap															
ThinkLight®	Illuminates the keyboard to improve visibility in low-light conditions															
Dimensions <sup>3</sup>	<i>4-cell without X4 UltraBase: 10.5" x 8.3" x .81-1.06"; 268mm x 211mm x 20.6-26.9mm</i> <i>8-cell without X4 UltraBase: 10.5" x 9.3" x .81-1.06"; 268mm x 237mm x 20.6-26.9mm</i> <i>4-cell battery models: 2.7 lb (1.23kg); 8-cell battery models: 3.2 lb (1.44kg); with 8-cell battery and X4 UltraBase with combo: 5.0 lb (2.26kg)</i>															
Travel weight <sup>2</sup>																
Case material	Color: black; All: magnesium alloy															
Battery - type	Li-Ion 4- or 8-cell / intelligent / supports optional Extended Life Battery on base (for two batteries) / supports optional battery in X4 UltraBase (for two batteries)															
Battery - life <sup>10</sup>	<i>with 4-cell: up to 3.25 hr; with 8-cell: up to 7.0 hr; with 8-cell and optional Extended Life Battery: up to 10 hr</i>															
Architecture	<b>Intel 855GME</b> chipset / 82852GME Memory Controller Hub (MCH-M) / 82801DBM ICH4-M I/O Controller Hub (ATA-100 EIDE, PCI bus, Low Pin Count (LPC) interface, USB [Bluetooth]) / Intel 82802AC Firmware Hub / PCI bus 2.2 32-bit, 33MHz (ethernet, Ricoh® R5C511 CardBus controller, Mini PCI) / LPC bus 33MHz (PC87392 Super I/O for infrared [dock-based ports])															
Mobile media base	Supports optional <b>X4 UltraBase</b> (see right side) and <b>X4 Dock</b>															
Secure Digital slot	One <b>Secure Digital Card</b> slot / supports SD memory cards used in consumer devices															
PC Card Std slot	One Type I or one Type II / CardBus 32-bit / PCMCIA 2.1 / integrated door															
Ports	Two USB (version 2.0), plus one powered USB port for select options / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / no serial, parallel, keyboard/mouse ports (use X4 UltraBase) / no IEEE 1394 port															
Wireless antenna	UltraConnect™ antenna built into the display cover for optimal wireless signal reception															
Mini PCI	One Mini PCI type III slot (Communications Bay) / customer upgradeable															
Wireless upg <sup>36</sup>	Some: wireless upgradeable with wireless Mini PCI options															
Intel 11b/g <sup>32</sup>	Some: 11b/g wireless <sup>4</sup> , Mini PCI, Intel PRO/Wireless 2200BG, Intel 82532 chipset															
11a/b/g II <sup>32</sup>	Some: 11a/b/g wireless <sup>4</sup> , 11a/b/g Mini PCI Adapter II, Atheros™ AR5004X chipset															
CDC	One Communications Daughter Card (CDC) socket / customer accessible															
Modem	56K <sup>9</sup> V.90 (V.92-designed <sup>29</sup> ) modem in CDC / Conexant® chipset															
Bluetooth™	Some: Bluetooth wireless technology / in CDC (with modem)															
Ethernet	Intel PRO/1000 Gigabit Ethernet / on systemboard / Intel 82541GI chipset (MAC/PHY) / Wake on LAN®															
Audio support	Soft audio / ICH AC97 controller / DirectSound® support / AD1981B AC97 codec / mono speaker / 0.5 watt / volume up, down, mute buttons / internal mic / microphone input jack (3.5 mm; pink) / headphone jack (3.5 mm; green)															
Security	Power-on password / dual hard disk password / supervisor password / security keyhole															
Security chip	<b>Embedded Security Subsystem 2.0<sup>33</sup></b> / Atmel® chip / TCG-compliant															
Limited warranty <sup>12</sup>	<b>3-years/1-yr battery - EasyServ™<sup>19</sup> onsite pickup and delivery / service upgrades<sup>22</sup> avail</b>															
128MB PC2700 DDR-SDRAM CL2.5 SOD	31P9828	ThinkPad X4 UltraBase	92P3429													
256MB PC2700 DDR-SDRAM CL2.5 SOD	31P9830	ThinkPad X4 Dock	250610U													
512MB PC2700 DDR-SDRAM CL2.5 SOD	31P9832	ThinkPad X40 Series Li-Ion Battery (4-cell)	92P1009													
1GB PC2700 DDR-SDRAM CL2.5 SOD	31P9834	ThinkPad X40 Series Li-Ion Battery (8-cell)	92P1119													
USB Portable Diskette Drive	05K9276	ThinkPad X40 Series Extended Life Battery	92P1006													
USB Fingerprint Reader	73P4774	ThinkPad Multiple Battery Charger II	22P9040													
Powered USB 2.0 Port Combo Drive	22P9194	ThinkPad Ultraportable 56W AC Adapter	02K6880													
USB 2.0 Portable Multi-Burner Drive	22P9163	ThinkPad 72W AC/DC Combo Adapter	22P9010													
USB 2.0 Memory Key 512MB	22P9230	ThinkPlus™ <sup>22</sup> 2-year LOR 9x5 NBD	41C9175													
60GB Mini Hard Disk 9.5mm (4200 rpm)	73P3358	ThinkPlus 3-year LOR 9x5 NBD	41C9176													
Kensington® MicroSaver® Security Cable	73P2582	ThinkPlus 5-year LOR 9x5 NBD	41C9179													
11a/b/g Wireless CardBus Adapter	31P9101	ThinkPlus 4-year P&L P/U Depot	41C9178													
11a/b/g Wireless Mini PCI Adapter II	73P4301	ThinkPlus 5-year P&L P/U Depot	41C9180													
ThinkVision® L192p 19" Monitor (black)	9419HB2	Other options at <a href="http://lenovo.com/options">lenovo.com/options</a>														
			<b>56 watt AC Adapter</b>													
			Asset ID™ <sup>34</sup> (system-specific info in chip accessed over network)													
			ACPI 1.0b and 2.0-compliant													
			ENERGY STAR®-compliant													
			International Warranty Service <sup>17</sup>													
			24 hour x 7 day <sup>18</sup> toll-free warranty support during the warranty <sup>12</sup> via 800-IBM-SERV (426-7378)													

See footnotes for important warranty information  
US models announced May 18, 2004  
US models withdrawn effective March or November 2005

\* Powered by Intel Centrino™ mobile technology

© Lenovo  
(X4T) October 2005

# ThinkPad® X40 (2371) - February 2005 - withdrawn

Created by Lenovo Training Solutions  
Personal Systems Reference (PSREF)

Type-model	Processor	L2 GHz cache	Memory	Screen	Optical in Disk	ThinkPad UltraBase™	Mini PCI wireless	CDC: Bluetooth™	modem/Sec chip	Battery cells	Limited warranty <sup>12</sup>	WH Entry	Gbl	Avail date	
2371-BMU	Pentium® M 733	1.1	2MB	256MB	12.1" XGA	30GB	None	Optional	* Intel 11b/g <sup>32</sup>	Modem	Yes	4	3-yr	Entry	Mar 05
2371-J3U	Pentium M 758	1.5	2MB	256MB	12.1" XGA	40GB	None	Optional	Open; wireless upg <sup>36</sup>	Modem	Yes	8	3-yr	W G	Mar 05
2371-K3U	Pentium M 758	1.5	2MB	512MB	12.1" XGA	40GB	None	Optional	* Intel 11b/g	Modem	Yes	8	3-yr	W G	Mar 05
2371-K4U	Pentium M 758	1.5	2MB	512MB	12.1" XGA	40GB	None	Optional	* Intel 11b/g	Modem	Yes	4	3-yr	W	Mar 05
2371-LBU	Pentium M 758	1.5	2MB	512MB	12.1" XGA	40GB	None	Optional	11a/b/g II <sup>32</sup>	Mod/Blue	Yes	8	3-yr	W	Mar 05
2371-J4U	Pentium M 758	1.5	2MB	256MB	12.1" XGA	40GB	None	Optional	* Intel 11b/g	Modem	Yes	8	3-yr	W	Mar 05
2371-KZU	Pentium M 758	1.5	2MB	512MB	12.1" XGA	40GB	None	Optional	* Intel 11b/g	Modem	Yes	8	3-yr	W TAA	Mar 05
Positioning	<i>Ultimate mobility in a versatile ultraportable; one spindle</i>										<b>SOFTWARE<sup>14</sup></b>				
US Govt (TAA) <sup>5</sup> Processor	KZU: US Government model (Trade Act Agreement-compliant) <b>Intel® Pentium M Processor Ultra Low Voltage 733 (1.1GHz) or Low Voltage 758 (1.5GHz)</b> with Enhanced Intel SpeedStep™ technology <sup>1</sup> and 400MHz system bus										<b>Windows XP Professional</b> - Microsoft® Windows® XP Professional <sup>20</sup> (Service Pack 2) ◇ Disk-to-Disk Recovery (in hidden protected area)				
L2 cache Memory	<b>2MB</b> / on die (at processor speed) / ECC <b>256</b> or <b>512MB</b> std / 1.28 to 1.53GB max <sup>7</sup> / <b>PC2700</b> 333MHz DDR1 (DDR-SDRAM) / non-parity / CL2.5 / std memory soldered to systemboard / one 200-pin SO-DIMM socket available										<b>Preloaded</b> • Rescue and Recovery • Access Program • Access Connections™ • Norton AntiVirus (OEM edition) • PC-Doctor™ • ThinkPad Utilities • Adobe Reader • Update Connector™.15				
Diskette drive Ultrabay™ Slim Disk	None standard / use optional USB-based diskette drive Supports Ultrabay Slim devices in optional or standard X4 UltraBase <b>30GB<sup>8</sup></b> or <b>40GB</b> (4200 rpm), 9.5mm, ATA-100 / 1.8" platter / removable and upgradable / 9.5mm high bay / <b>Active Protection System™</b> (shock protection)										<b>Downloadable</b> • IBM Director Agent • Software Delivery Assistant • System Migration Assistant • Client Security Software (for security chip)				
Display	<b>12.1"</b> (308mm) <b>XGA (1024x768) TFT color</b> / Active Matrix / 150 nits										<b>License</b> (CD not included) - Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client				
Graphics	<b>Integrated Intel Extreme™ Graphics 2</b> / in 855GME GMCH / uses main memory (up to 64MB) / 266MHz										Supports ThinkVantage™ technologies				
Graphics external	External monitor support via analog DB-15 connector / up to 1600x1200x16.7M at 85Hz														
Keyboard	Standard-size <sup>26</sup> keys / 97% size of T Series / 87-key / 18.5mm pitch; 2.5mm stroke / Access IBM button / palm rest / TrackPoint®, "Press-to-Select," Internet Scroll Bar <sup>13</sup> / soft dome TrackPoint cap / ships with classic dome and soft rim TrackPoint cap														
ThinkLight®	Illuminates the keyboard to improve visibility in low-light conditions														
Dimensions <sup>3</sup>	<i>4-cell without X4 UltraBase:</i> 10.5" x 8.3" x .81-1.06"; 268mm x 211mm x 20.6-26.9mm <i>8-cell without X4 UltraBase:</i> 10.5" x 9.3" x .81-1.06"; 268mm x 237mm x 20.6-26.9mm <i>4-cell battery models:</i> 2.7 lb (1.23kg); <i>8-cell battery models:</i> 3.2 lb (1.44kg); <i>with 8-cell battery and X4 UltraBase with combo:</i> 5.0 lb (2.26kg)														
Travel weight <sup>2</sup>															
Case material	Color: black; All: magnesium alloy														
Battery - type	Li-Ion 4- or 8-cell / intelligent / supports optional Extended Life Battery on base (for two batteries) / supports optional battery in X4 UltraBase (for two batteries)														
Battery - life <sup>10</sup>	<i>with 4-cell:</i> up to 3.25 hr; <i>with 8-cell:</i> up to 7.0 hr; <i>with 8-cell and optional Extended Life Battery:</i> up to 10 hr														
Architecture	<b>Intel 855GME</b> chipset / 82852GME Memory Controller Hub (MCH-M) / 82801DBM ICH4-M I/O Controller Hub (ATA-100 EIDE, PCI bus, Low Pin Count (LPC) interface, USB [Bluetooth]) / Intel 82802AC Firmware Hub / PCI bus 2.2 32-bit, 33MHz (ethernet, Ricoh® R5C511 CardBus controller, Mini PCI) / LPC bus 33MHz (PC87392 Super I/O for infrared [dock-based ports])														
Mobile media base	Supports optional <b>X4 UltraBase</b> (see right side) and <b>X4 Dock</b>														
Secure Digital slot	One <b>Secure Digital Card</b> slot / supports SD memory cards used in consumer devices														
PC Card Std slot	One Type I or one Type II / CardBus 32-bit / PCMCIA 2.1 / integrated door														
Ports	Two USB (version 2.0), plus one powered USB port for select options / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / no serial, parallel, keyboard/mouse ports (use X4 UltraBase) / no IEEE 1394 port														
Wireless antenna	UltraConnect™ antenna built into the display cover for optimal wireless signal reception														
Mini PCI	One Mini PCI type III slot (Communications Bay) / customer upgradable														
Wireless upg <sup>36</sup>	<i>Some:</i> wireless upgradable with wireless Mini PCI options <i>Some:</i> 11b/g wireless <sup>4</sup> , Mini PCI, Intel PRO/Wireless 2200BG, Intel 82532 chipset <i>Some:</i> 11a/b/g wireless <sup>4</sup> , ThinkPad 11a/b/g Mini PCI Adapter II, Atheros™ AR5004X chip														
CDC	One Communications Daughter Card (CDC) socket / customer accessible														
Modem	56K <sup>9</sup> V.90 (V.92-designed <sup>29</sup> ) modem in CDC / Conexant® chipset														
Bluetooth™	<i>Some:</i> Bluetooth wireless technology / in CDC (with modem)														
Ethernet	Intel PRO/1000 Gigabit Ethernet / on systemboard / Intel 82541GI chipset (MAC/PHY) / Wake on LAN®														
Audio support	Soft audio / ICH AC97 controller / DirectSound® support / AD1981B AC97 codec / mono speaker, 0.5 watt / volume up, down, mute buttons / internal mic / microphone input jack (3.5 mm; pink) / headphone jack (3.5 mm; green)														
Security	Power-on password / dual hard disk password / supervisor password / security keyhole														
Security chip	<b>Embedded Security Subsystem 2.0<sup>33</sup></b> / Atmel® chip / TCG-compliant														
Limited warranty <sup>12</sup>	<b>3-year/1-yr battery - EasyServ™.19</b> onsite pickup and delivery / service upgrades <sup>22</sup> avail														
256MB PC2700 DDR-SDRAM CL2.5 SOD	31P9830		ThinkPad X4 UltraBase		92P3429										
512MB PC2700 DDR-SDRAM CL2.5 SOD	31P9832		ThinkPad X4 Dock		250610U										
1GB PC2700 DDR-SDRAM CL2.5 SOD	31P9834		ThinkPad X40 Series Li-Ion Battery (4-cell)		92P1009										
USB Portable Diskette Drive	05K9276		ThinkPad X40 Series Li-Ion Battery (8-cell)		92P1119										
USB Gemplus GemPC Smart Card Reader	41N3040		ThinkPad X40 Series Extended Life Battery		92P1006										
USB 2.0 Memory Key 1GB	40Y7421		ThinkPad Multiple Battery Charger II		22P9040										
USB 2.0 CD-RW/DVD-ROM Combo II Drive	40Y8637		ThinkPad Ultraportable 56W AC Adapter		02K6880										
60GB Mini Hard Disk 9.5mm (4200 rpm)	73P3358		ThinkPad Convertible Monitor Stand		40Y7620										
Kensington® MicroSaver® Security Cable	73P2582		ThinkPlus™.22 2-year LOR 9x5 NBD		41C9175										
11a/b/g Wireless Mini PCI Adapter II	73P4301		ThinkPlus 3-year LOR 9x5 NBD		41C9176										
Intel PRO/Wireless 2915ABG Mini PCI	41N2990		ThinkPlus 5-year LOR 9x5 NBD		41C9179										
Verizon Wireless V620 WWAN PC Card <sup>25</sup>	40Y9137		ThinkPlus 4-year P&L P/U Depot		41C9178										
Lenovo M500 Projector	0037A05		ThinkPlus 5-year P&L P/U Depot		41C9180										
ThinkVision® L201p 20.1" Monitor (black)	9320HB1		Other options at <a href="http://lenovo.com/options">lenovo.com/options</a>												
										56 watt AC Adapter Asset ID™.34 (system-specific info in chip accessed over network) ACPI 1.0b and 2.0-compliant ENERGY STAR®-compliant International Warranty Service <sup>17</sup> 24 hour x 7 day <sup>18</sup> toll-free warranty support during the warranty <sup>12</sup> via 800-IBM-SERV (426-7378)					

See footnotes for important warranty information  
US models announced February 15 or March 22, 2005  
US models withdrawn effective July 2005 or April 2006

\* Powered by Intel Centrino® mobile technology

© Lenovo  
(X4F) April 2006



# ThinkPad® X40 (2371) - October 2005 - withdrawn

Created by Lenovo Training Solutions  
Personal Systems Reference (PSREF)

Type-model	Processor	L2 GHz cache	Memory	Screen	Optical in Disk	ThinkPad UltraBase™	Mini PCI wireless	CDC: modem/Bluetooth™ chip	Sec Battery cells	Limited warranty <sup>12</sup>	WH Entry	Gbl	Avail date	
2371-M6U	Pentium® M 753	1.2	2MB	256MB	12.1" XGA	30GB	None	Optional * Intel 11b/g <sup>32</sup>	Modem	Yes	4	3-yr	Entry	Oct 05
2371-N1U	Pentium M 778	1.6	2MB	256MB	12.1" XGA	40GB	None	Optional Open; wireless upg <sup>36</sup>	Modem	Yes	8	3-yr	Global	Oct 05
2371-QEU	Pentium M 778	1.6	2MB	512MB	12.1" XGA	40GB	None	Optional * Intel 11b/g	Modem	Yes	8	3-yr	Global	Oct 05
2371-Q1U	Pentium M 778	1.6	2MB	512MB	12.1" XGA	60GB	None	Optional * Intel 11b/g	Modem	Yes	8	3-yr		Oct 05
2371-R1U	Pentium M 778	1.6	2MB	512MB	12.1" XGA	40GB	None	Optional 11a/b/g II <sup>32</sup>	Mod/Blue	Yes	4	3-yr		Oct 05
2371-N2U	Pentium M 778	1.6	2MB	256MB	12.1" XGA	40GB	None	Optional * Intel 11b/g	Modem	Yes	8	3-yr		Oct 05
Positioning	<i>Ultimate mobility in a versatile ultraportable; one spindle</i>										<b>SOFTWARE<sup>14</sup></b>			
US Govt (TAA) <sup>5</sup> Processor	None										<b>Windows XP Professional</b>			
L2 cache	<b>Intel® Pentium M Processor Ultra Low Voltage 753 (1.2GHz) or Low Voltage 778 (1.6GHz)</b> with Enhanced Intel SpeedStep™ technology <sup>1</sup> , XD bit, and 400MHz bus										- Microsoft® Windows® XP Professional <sup>20</sup> (Service Pack 2)			
Memory	<b>2MB / on die</b> (at processor speed) / ECC <b>256</b> or <b>512MB</b> std / 1.28 to 1.53GB max <sup>7</sup> / <b>PC2700</b> 333MHz DDR1 (DDR-SDRAM) / non-parity / CL2.5 / std memory soldered to systemboard / one 200-pin SO-DIMM socket available										◇ Disk-to-Disk Recovery (in hidden protected area)			
Diskette drive	None standard / use optional USB-based diskette drive										<b>Preloaded</b>			
Ultraplay™ Slim Disk	Supports Ultraplay Slim devices in optional X4 UltraBase <b>30GB<sup>8</sup>, 40GB, or 60GB</b> (4200 rpm), 9.5mm, ATA-100 / 1.8" platter / removable and upgradable / 9.5mm high bay / <b>Active Protection System™</b> (shock protection)										• Rescue and Recovery™ • Access Connections™ • ThinkVantage Productivity Center • ThinkVantage System Update • Symantec® Client Security • PC-Doctor™ • ThinkPad Utilities • Adobe Reader • Client Security Solution™ (for security chip)			
Display	<b>12.1"</b> (308mm) <b>XGA (1024x768) TFT color</b> / Active Matrix / 150 nits										<b>Downloadable</b>			
Graphics	<b>Integrated Intel Extreme™ Graphics 2 /</b> in 855GME GMCH / uses main memory (up to 64MB) / 266MHz										• IBM Director Agent • Software Delivery Assistant • System Migration Assistant			
Graphics external	External monitor support via analog DB-15 connector / up to 1600x1200x16.7M at 85Hz										<b>License</b> (CD not included) - Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client			
Keyboard	Standard-size <sup>26</sup> keys / 97% size of T Series / 87-key / 18.5mm pitch; 2.5mm stroke / Access IBM button / palm rest / TrackPoint®, "Press-to-Select," Internet Scroll Bar <sup>13</sup> / soft dome TrackPoint cap / ships with classic dome and soft rim TrackPoint cap										Supports ThinkVantage™ technologies			
ThinkLight®	Illuminates the keyboard to improve visibility in low-light conditions										<b>ThinkPad X4 UltraBase™</b>			
Dimensions <sup>3</sup>	<i>4-cell without X4 UltraBase:</i> 10.5" x 8.3" x .81-1.06"; 268mm x 211mm x 20.6-26.9mm										• Provides desktop expansion and cable management for the X40/X41			
Travel weight <sup>2</sup>	<i>8-cell without X4 UltraBase:</i> 10.5" x 9.3" x .81-1.06"; 268mm x 237mm x 20.6-26.9mm										• Easily connects to the bottom of the X40/X41 for traveling			
Case material	Color: black; All: magnesium alloy										• Converts the X40 to a two-spindle system by supporting optional Ultraplay Slim accessories in left side			
Battery - type	Li-Ion 4- or 8-cell / intelligent / supports optional Extended Life Battery on base (for two batteries) / supports optional battery in X4 UltraBase (for two batteries)										- Ultraplay Slim Li-Polymer Battery 3-cell 08K8190			
Battery - life <sup>10</sup>	<i>with 4-cell:</i> up to 3.25 hr; <i>with 8-cell:</i> up to 7.0 hr; <i>with 8-cell and optional Extended Life Battery:</i> up to 10 hr										- CD-RW/DVD Combo II Ultraplay Slim Drive 73P3288			
Architecture	<b>Intel 855GME</b> chipset / 82852GME Memory Controller Hub (MCH-M) / 82801DBM ICH4-M I/O Controller Hub (ATA-100 EIDE, PCI bus, Low Pin Count (LPC) interface, USB [Bluetooth]) / Intel 82802AC Firmware Hub / PCI bus 2.2 32-bit, 33MHz (ethernet, Ricoh® R5C511 CardBus controller, Mini PCI) / LPC bus 33MHz (PC87392 Super I/O for infrared [dock-based ports])										- Super Multi-Burner Ultraplay Slim Drive (curved bezel) 40Y8622			
Mobile media base	Supports optional <b>X4 UltraBase</b> (see right side) and <b>X4 Dock</b>										- Second HDD Adapter for Ultraplay Slim 62P4554			
Secure Digital slot	One <b>Secure Digital Card</b> slot / supports SD memory cards used in consumer devices										Disks supported: • 40GB HS Hard Disk 08K9816 • 60GB HS Hard Disk 73P3357 • 80GB HS Hard Disk 09N4273			
PC Card Std slot	One Type I or one Type II / CardBus 32-bit / PCMCIA 2.1 / integrated door										Other features:			
Ports	Two USB (version 2.0), plus one powered USB port for select options / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / no serial, parallel, keyboard/mouse ports (use X4 UltraBase) / no IEEE 1394 port										• Power button (front) • Stereo speakers (1 watt) • Security key lock, security keyhole, and optical security screw • Serial and parallel ports • PS/2 port for keyboard or mouse • Analog DB-15 monitor port • Three USB 2.0 ports (via USB hub) • Ethernet port (Gigabit Ethernet) • Modem port • Retractable feet; 1.3 lb; 580g			
Wireless antenna	UltraConnect™ antenna built into the display cover for optimal wireless signal reception										56 watt AC Adapter			
Mini PCI	One Mini PCI type III slot (Communications Bay) / customer upgradable										Asset ID™ <sup>34</sup> (system-specific info in chip accessed over network)			
Wireless upg <sup>36</sup>	Some: wireless upgradable with wireless Mini PCI options										ACPI 1.0b and 2.0-compliant			
Intel 11b/g <sup>32</sup>	Some: 11b/g wireless <sup>4</sup> , Mini PCI, Intel PRO/Wireless 2200BG, Intel 82532 chipset										ENERGY STAR®-compliant			
11a/b/g II <sup>32</sup>	Some: 11a/b/g wireless <sup>4</sup> , ThinkPad 11a/b/g Mini PCI Adapter II, Atheros™ AR5004X										International Warranty Service <sup>17</sup>			
CDC	One Communications Daughter Card (CDC) socket / customer accessible										24 hour x 7 day <sup>18</sup> toll-free warranty support during the warranty <sup>12</sup> via 800-IBM-SERV (426-7378)			
Modem	56K <sup>6</sup> V.90 (V.92-designed <sup>29</sup> ) modem in CDC / Conexant® chipset													
Bluetooth™	Some: Bluetooth wireless technology / in CDC (with modem)													
Ethernet	Intel PRO/1000 Gigabit Ethernet / on systemboard / Intel 82541GI chipset (MAC/PHY) / Wake on LAN®													
Audio support	Soft audio / ICH AC97 controller / DirectSound® support / AD1981B AC97 codec / mono speaker, 0.5 watt / volume up, down, mute buttons / internal mic / microphone input jack (3.5 mm; pink) / headphone jack (3.5 mm; green)													
Security	Power-on password / dual hard disk password / supervisor password / security keyhole													
Security chip	<b>Embedded Security Subsystem 2.0<sup>33</sup></b> / Atmel® chip / TCG-compliant													
Limited warranty <sup>12</sup>	<b>3-year/1-yr battery - EasyServ™<sup>19</sup></b> onsite pickup and delivery / service upgrades <sup>22</sup> avail													
256MB PC2700 DDR-SDRAM CL2.5 SOD	31P9830			ThinkPad X4 UltraBase				92P3429						
512MB PC2700 DDR-SDRAM CL2.5 SOD	31P9832			ThinkPad X4 Dock				250610U						
1GB PC2700 DDR-SDRAM CL2.5 SOD	31P9834			X40 Series Li-Ion Battery (4-cell)				92P1009						
USB Portable Diskette Drive	05K9276			X40 Series Li-Ion Battery (8-cell)				92P1119						
USB Gemplus GemPC Smart Card Reader	41N3040			X40 Series Extended Life Battery				92P1006						
USB 2.0 Memory Key 1GB	40Y7421			ThinkPad Multiple Battery Charger II				22P9040						
USB 2.0 Super Multi-Burner Drive	40Y8638			ThinkPad Ultraportable 56W AC Adapter				02K6880						
USB 2.0 Portable 80GB Hard Disk	40Y8726			Enh Perf Wireless Keyboard and Mouse				73P4067						
60GB Mini Hard Disk 9.5mm (4200 rpm)	73P3358			ThinkPlus™ <sup>22</sup> 2-year LOR 9x5 NBD				41C9175						
11a/b/g Wireless Mini PCI Adapter II	73P4301			ThinkPlus 3-year LOR 9x5 NBD				41C9176						
Intel PRO/Wireless 2915ABG Mini PCI	41N2990			ThinkPlus 5-year LOR 9x5 NBD				41C9179						
Verizon Wireless V620 WWAN PC Card <sup>25</sup>	40Y9137			ThinkPlus 4-year P&L P/U Depot				41C9178						
Lenovo M500 Projector	0037A05			ThinkPlus 5-year P&L P/U Depot				41C9180						
ThinkVision® L201p 20.1" Monitor (black)	9320HB1			Other options at <a href="http://lenovo.com/options">lenovo.com/options</a>										

See footnotes for important warranty information  
US models announced October 4, 2005  
US models withdrawn effective May 2006

\* Powered by Intel Centrino® mobile technology

# ThinkPad® X40 (2382) - TopSeller - withdrawn

Created by Lenovo Training Solutions  
Personal Systems Reference (PSREF)

Type-model	Processor	L2 GHz cache	Memory	Screen	Optical in UltraBase	ThinkPad X4 UltraBase™	Mini PCI wireless	CDC: modem/ Bluetooth™	SecBattery chip	Limited cells	Avail warranty <sup>12</sup>	Avail date
2382-1GU	Pentium® M	1.0 1MB	256MB	12.1" XGA	40GB	Optional	*Intel 11b Wi-Fi <sup>32</sup>	Modem	Yes	4	3-yr	Feb 04
2382-6UU	Pentium M	1.2 1MB	256MB	12.1" XGA	40GB	Combo X4 UltraBase	*Intel 11b Wi-Fi	Modem	Yes	8	3-yr	Feb 04
2382-8WU	Pentium M	1.2 1MB	512MB	12.1" XGA	40GB	Combo X4 UltraBase	11b/g <sup>32</sup>	Mod/Blue	Yes	8	3-yr	Feb 04
2382-8RU	Pentium M	1.3 1MB	512MB	12.1" XGA	40GB	Combo X4 UltraBase	*Intel 11b/g <sup>32</sup>	Modem	Yes	8	3-yr	May 04
2382-ECU	Pentium M 738	1.4 2MB	256MB	12.1" XGA	40GB	Combo X4 UltraBase	*Intel 11b/g	Modem	Yes	8	3-yr	Oct 04
2382-HCU	Pentium M 738	1.4 2MB	512MB	12.1" XGA	40GB	Combo X4 UltraBase	*Intel 11b/g	Mod/Blue	Yes	8	3-yr	Oct 04
2382-JEU	Pentium M 758	1.5 2MB	256MB	12.1" XGA	40GB	Combo X4 UltraBase	*Intel 11b/g	Modem	Yes	8	3-yr	Mar 05
2382-KPU	Pentium M 758	1.5 2MB	512MB	12.1" XGA	40GB	Combo X4 UltraBase	*Intel 11b/g	Modem	Yes	8	3-yr	Mar 05

• These small and medium business (SMB) models are part of the US TopSeller™ Program  
• The 2382 has a 3-year limited warranty

Positioning Processor	Ultimate mobility in a versatile ultraportable; one spindle <b>Intel® Pentium® M Processor Ultra Low Voltage 1.0GHz or Low Voltage 1.2, 1.3, 1.4 (738), or 1.5GHz (758)</b> with Enhanced Intel SpeedStep™ technology¹ and 400MHz bus	<b>SOFTWARE<sup>14</sup></b> <b>Windows XP Professional</b> - Microsoft® Windows® XP Professional <sup>20</sup> - ECU/HCU/JEU/KPU: Serv Pack 2 ↕ Disk-to-Disk Recovery (in hidden protected area) <b>Preloaded</b> • Rescue and Recovery™ • Access Program • Access Connections™ • Norton AntiVirus (OEM edition) • PC-Doctor™ • ThinkPad Utilities • Adobe Reader • Update Connector™ <sup>15</sup> • InterVideo WinDVD (combo models) • RecordNow and DLA (combo) <b>Downloadable</b> • IBM Director Agent • Software Delivery Assistant • System Migration Assistant • Client Security Software (for security chip)
L2 cache	1.0/1.2/1.3GHz: 1MB; 1.4/1.5GHz: 2MB; All: on die (at processor speed) / ECC	
Memory	256 or 512MB std / 1.28 to 1.53GB max <sup>7</sup> / PC2700 333MHz DDR1 (DDR-SDRAM) / non-parity / CL2.5 / 1GU/6UU/8WU/ECU/HCU: std memory soldered to systemboard; 8RU with 512MB: 256MB soldered to board; one 256MB SO-DIMM in 200-pin socket	
Diskette drive	None standard / use optional USB-based diskette drive	
Combo	Some: DVD-ROM/CD-RW / 24X/24X/24X/8X <sup>21</sup> speed / removable from X4 UltraBase	
Ultrabay™ Slim	Supports Ultrabay Slim devices in optional or standard X4 UltraBase	
Disk	40GB <sup>8</sup> (4200 rpm), 9.5mm, ATA-100 / 1.8" platter / removable and upgradable / 9.5mm high bay / Active Protection System™ (shock protection)	
Display	12.1" (308mm) XGA (1024x768) TFT color / Active Matrix / 150 nits	
Graphics	Integrated Intel Extreme™ Graphics 2 / in 855GME GMCH / uses main memory (up to 64MB) / 266MHz	
Keyboard	Standard-size <sup>26</sup> keys / 97% size of T Series / 87-key / 18.5mm pitch; 2.5mm stroke / Access IBM button / palm rest / TrackPoint®, "Press-to-Select," Internet Scroll Bar <sup>13</sup> / soft dome TrackPoint cap / ships with classic dome and soft rim TrackPoint cap	
ThinkLight®	Illuminates the keyboard to improve visibility in low-light conditions	
Dimensions <sup>3</sup>	4-cell without X4 UltraBase: 10.5" x 8.3" x .81-1.06"; 268mm x 211mm x 20.6-26.9mm 8-cell without X4 UltraBase: 10.5" x 9.3" x .81-1.06"; 268mm x 237mm x 20.6-26.9mm 8-cell with X4 UltraBase and optical: 10.7" x 9.3" x 1.5-2.0"; 272 x 237 x 38.2-50.4mm 1GU with 4-cell battery: 2.7 lb (1.23kg); Others with 8-cell battery: 3.2 lb (1.44kg); Models with 8-cell battery and X4 UltraBase with combo: 5.0lb (2.26kg)	
Weight <sup>2</sup>	Li-Ion 4- or 8-cell / intelligent / supports optional Extended Life Battery on base (for two batteries) / supports optional battery in X4 UltraBase (for two batteries)	
Battery - type	1GU with 4-cell: up to 3.25 hr; Models with 8-cell: up to 7.0 hr; with 8-cell and optional Extended Life Battery: up to 10 hr	
Battery - life <sup>10</sup>		
Architecture	Intel 855GME chipset / 82852GME Memory Controller Hub (MCH-M) / 82801DBM ICH4-M I/O Controller Hub (ATA-100 EIDE, PCI bus, Low Pin Count (LPC) interface, USB [Bluetooth]) / Intel 82802AC Firmware Hub / PCI bus 2.2 32-bit, 33MHz (ethernet, Ricoh® R5C511 CardBus controller, Mini PCI) / LPC bus 33MHz (PC87392 Super I/O for infrared [dock-based ports])	
Mobile media base	Some: X4 UltraBase (see right side) / optional X4 Dock supported	
Secure Digital slot	One Secure Digital Card slot / supports SD memory cards used in consumer devices	
PC Card Std slot	One Type I or one Type II / CardBus 32-bit / PCMCIA 2.1 / integrated door	
Ports	Two USB (version 2.0), plus one powered USB port for select options / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / no serial, parallel, keyboard/mouse ports (use X4 UltraBase) / no IEEE 1394 port	
Wireless antenna	UltraConnect™ antenna built into the display cover for optimal wireless signal reception	
Mini PCI	One Mini PCI type III slot (Communications Bay) / customer upgradable	
Intel 11b Wi-Fi <sup>32</sup>	Some: 11b Wi-Fi <sup>32</sup> wireless <sup>4</sup> , Mini PCI, Intel PRO/Wireless 2100, Intel 82531 chipset	
11b/g <sup>32</sup>	Some: 11b/g Wi-Fi <sup>32</sup> wireless <sup>4</sup> , Mini PCI, Atheros™ AR5004G chipset	
Intel 11b/g <sup>32</sup>	Some: 11b/g wireless <sup>4</sup> , Mini PCI, Intel PRO/Wireless 2200BG, Intel 82532 chipset	
CDC	One Communications Daughter Card (CDC) socket / customer accessible	
Modem	56K <sup>6</sup> V.90 (V.92-designed <sup>29</sup> ) modem in CDC / Conexant® chipset	
Bluetooth™	Some: Bluetooth wireless technology / in CDC (with modem)	
Ethernet	Intel PRO/1000 Gigabit Ethernet / on systemboard / Intel 82541GI chipset (MAC/PHY)	
Audio support	Soft audio / ICH AC97 controller / DirectSound® support / AD1981B AC97 codec / mono speaker, 0.5 watt / volume up, down, mute buttons / internal mic / microphone input jack (3.5 mm; pink) / headphone jack (3.5 mm; green)	
Security	Power-on password / dual hard disk password / supervisor password / security keyhole	
Security chip	Embedded Security Subsystem 2.0 <sup>33</sup> / hardware key storage / multi-factor authentication / local file encryption / Atmel® chip / TCG-compliant	
Limited warranty <sup>12</sup>	3-year/1-yr battery - EasyServ™ <sup>19</sup> onsite pickup and delivery / service upgrades <sup>22</sup> avail	

256 MB PC2700 DDR-SDRAM CL2.5 SOD	31P9830	ThinkPad X4 UltraBase	92P3429
512 MB PC2700 DDR-SDRAM CL2.5 SOD	31P9832	ThinkPad X4 Dock	250610U
1GB PC2700 DDR-SDRAM CL2.5 SOD	31P9834	ThinkPad X40 Series Li-Ion Battery (4-cell)	92P1009
USB Portable Diskette Drive	05K9276	ThinkPad X40 Series Li-Ion Battery (8-cell)	92P1119
USB 2.0 Memory Key 1GB	40Y7421	ThinkPad X40 Series Extended Life Battery	92P1006
USB 2.0 Super Multi-Burner Drive	40Y8638	ThinkPad Ultraportable 56W AC Adapter	02K6880
60GB Mini Hard Disk 9.5mm (4200 rpm)	73P3358	ThinkPlus™ <sup>22</sup> 2-year LOR 9x5 NBD	41C9175
11a/b/g Wireless Mini PCI Adapter II	73P4301	ThinkPlus 3-year LOR 9x5 NBD	41C9176
Intel PRO/Wireless 2915ABG Mini PCI	41N2990	ThinkPlus 5-year LOR 9x5 NBD	41C9179
Lenovo M500 Projector	0037A05	ThinkPlus 5-year P&L P/U Depot	41C9180
ThinkVision® L201p 20.1" Monitor (black)	9220HB1	Other options at lenovo.com/options	

56-watt AC Adapter	Asset ID™ <sup>34</sup> (system-specific info in chip accessed over network)
ACPI 1.0b and 2.0-compliant	International Warranty Service <sup>17</sup>
24 hour x 7 day <sup>18</sup> toll-free warranty support during the warranty <sup>12</sup>	via 800-IBM-SERV (426-7378)

See footnotes for important warranty information \* Powered by Intel Centrino® mobile technology  
US models announced February 10, May 18, or October 5, 2004 or February 15, 2005  
US models withdrawn effective January 2005, July 2005, or December 2006

© Lenovo  
(X40B3) December 2006

# ThinkPad® X40 (2382) - TopSeller (October 2005) - withdrawn

Created by Lenovo Training Solutions  
Personal Systems Reference (PSREF)

Type-model	Processor	L2 GHz cache	Memory	Screen	Disk	Optical in UltraBase	ThinkPad X4 UltraBase™	Mini PCI wireless	CDC: modem/ Bluetooth™	Sec chip	Battery cells	Limited warranty <sup>12</sup>	Avail date
2382-QDU	Pentium® M 778	1.6	2MB	512MB	12.1" XGA	40GB	Combo	X4 UltraBase * Intel 11b/g <sup>32</sup>	Modem	Yes	8-cell	3-year	Oct 05
2382-RFU	Pentium® M 778	1.6	2MB	512MB	12.1" XGA	60GB	DVD±RW	X4 UltraBase * Intel 11b/g <sup>32</sup>	Mod/Blue	Yes	8-cell	3-year	Oct 05

- **These small and medium business (SMB) models are part of the US TopSeller™ Program**
- **The 2382 has a 3-year limited warranty**

Positioning Processor	<i>Ultimate mobility in a versatile ultraportable; one spindle</i>										<b>SOFTWARE<sup>14</sup></b>		
L2 cache	<b>Intel® Pentium M Processor Low Voltage 778 (1.6GHz)</b> with Enhanced Intel SpeedStep™ technology <sup>1</sup> , XD bit, and 400MHz bus										<b>Windows XP Professional</b>		
Memory	<b>2MB</b> / on die (at processor speed) / ECC										- Microsoft® Windows® XP Professional <sup>20</sup> (Service Pack 2)		
Diskette drive	None standard / use optional USB-based diskette drive										◇ Disk-to-Disk Recovery (in hidden protected area)		
Combo DVD±RW	<i>Some:</i> DVD-ROM/CD-RW / 24X/24X/24X/8X <sup>21</sup> speed / removable from X4 UltraBase										<b>Preloaded</b>		
Ultrabay™ Slim	<i>Some:</i> DVD and CD burner / Multi-Burner Plus / removable from X4 UltraBase										• Rescue and Recovery™		
Disk	Supports Ultrabay Slim devices in standard X4 UltraBase										• Access Connections™		
	<b>40GB<sup>8</sup> or 60GB</b> (4200 rpm), 9.5mm, ATA-100 / 1.8" platter / removable and upgradable / 9.5mm high bay / <b>Active Protection System™</b> (shock protection)										• ThinkVantage Productivity Center		
Display	<b>12.1"</b> (308mm) <b>XGA (1024x768) TFT color</b> / Active Matrix / 150 nits										• ThinkVantage System Update		
Graphics	<b>Integrated Intel Extreme™ Graphics 2</b> / in 855GME GMCH / uses main memory (up to 64MB) / 266MHz										• Symantec® Client Security		
Graphics external	External monitor support via analog DB-15 connector / up to 1600x1200x16.7M at 85Hz										• PC-Doctor™		
Keyboard	Standard-size <sup>26</sup> keys / 97% size of T Series / 87-key / 18.5mm pitch; 2.5mm stroke / Access IBM button / palm rest / TrackPoint®, "Press-to-Select," Internet Scroll Bar <sup>13</sup> / soft dome TrackPoint cap / ships with classic dome and soft rim TrackPoint cap										• ThinkPad Utilities		
ThinkLight®	Illuminates the keyboard to improve visibility in low-light conditions										• Adobe Reader		
Dimensions <sup>3</sup>	4-cell without X4 UltraBase: 10.5" x 8.3" x .81-1.06"; 268mm x 211mm x 20.6-26.9mm										• Client Security Solution™ (for security chip)		
Travel weight <sup>2</sup>	8-cell without X4 UltraBase: 10.5" x 9.3" x .81-1.06"; 268mm x 237mm x 20.6-26.9mm										• Sonic RecordNOW and Drive Letter Access (combo, DVD±RW)		
Case material	Color: black; All: magnesium alloy										• InterVideo WinDVD (combo, DVD±RW models)		
Battery - type	Li-Ion 8-cell / intelligent / supports optional Extended Life Battery on base (for two batteries) / supports optional battery in X4 UltraBase (for two batteries)										• InterVideo WinDVD Creator (DVD±RW models)		
Battery - life <sup>10</sup>	with 4-cell: up to 3.25 hr; with 8-cell: up to 7.0 hr; with 8-cell and optional Extended Life Battery: up to 10 hr										• Simple Backup (DVD±RW)		
Architecture	Intel 855GME chipset / 82852GME Memory Controller Hub (MCH-M) / 82801DBM ICH4-M I/O Controller Hub (ATA-100 EIDE, PCI bus, Low Pin Count (LPC) interface, USB [Bluetooth]) / Intel 82802AC Firmware Hub / PCI bus 2.2 32-bit, 33MHz (ethernet, Ricoh® R5C511 CardBus controller, Mini PCI) / LPC bus 33MHz (PC87392 Super I/O for infrared [dock-based ports])										<b>License</b> (CD not included)		
Mobile media base	X4 UltraBase (see right side) / optional X4 Dock supported										- Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client		
Secure Digital slot	One <b>Secure Digital Card</b> slot / supports SD memory cards used in consumer devices										Supports ThinkVantage™ technologies		
PC Card Std slot	One Type I or one Type II / CardBus 32-bit / PCMCIA 2.1 / integrated door										<b>ThinkPad X4 UltraBase™</b>		
Ports	Two USB (version 2.0), plus one powered USB port for select options / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / no serial, parallel, keyboard/mouse ports (use X4 UltraBase) / no IEEE 1394 port										• Provides desktop expansion and cable management for the X40/X41		
Wireless antenna	UltraConnect™ antenna built into the display cover for optimal wireless signal reception										• Easily connects to the bottom of the X40/X41 for traveling		
Mini PCI	One Mini PCI type III slot (Communications Bay) / customer upgradable										• Converts the X40 to a two-spindle system by supporting optional Ultrabay Slim accessories in left side:		
Intel 11b/g <sup>32</sup>	11b/g wireless <sup>4</sup> , Mini PCI, Intel PRO/Wireless 2200BG, Intel 82532 chipset										- Ultrabay Slim Li-Polymer Battery 3-cell 08K8190		
CDC	One Communications Daughter Card (CDC) socket / customer accessible										- CD-RW/DVD Combo II Ultrabay Slim Drive 73P3288		
Modem	56K <sup>6</sup> V.90 (V.92-designed <sup>29</sup> ) modem in CDC / Conexant® chipset										- Super Multi-Burner Ultrabay Slim Drive (curved bezel) 40Y8622		
Bluetooth™	<i>Some:</i> Bluetooth wireless technology / in CDC (with modem)										- Second HDD Adapter for Ultrabay Slim 62P4554		
Ethernet	Intel PRO/1000 Gigabit Ethernet / on systemboard / Intel 82541GI chipset (MAC/PHY) / Wake on LAN®										Disks supported:		
Audio support	Soft audio / ICH AC97 controller / DirectSound® support / AD1981B AC97 codec / mono speaker, 0.5 watt / volume up, down, mute buttons / internal mic / microphone input jack (3.5 mm; pink) / headphone jack (3.5 mm; green)										• 40GB HS Hard Disk 08K9816		
Security	Power-on password / dual hard disk password / supervisor password / security keyhole										• 60GB HS Hard Disk 73P3357		
Security chip	<b>Embedded Security Subsystem 2.0<sup>33</sup></b> / Atmel® chip / TCG-compliant										• 80GB HS Hard Disk 09N4273		
Limited warranty <sup>12</sup>	<b>3-year/1-yr battery</b> - EasyServ™ <sup>19</sup> onsite pickup and delivery / service upgrades <sup>22</sup> avail										Other features:		
256MB PC2700 DDR-SDRAM CL2.5 SOD	31P9830					ThinkPad X4 UltraBase					92P3429		
512MB PC2700 DDR-SDRAM CL2.5 SOD	31P9832					ThinkPad X4 Dock					250610U		
1GB PC2700 DDR-SDRAM CL2.5 SOD	31P9834					X40 Series Li-Ion Battery (4-cell)					92P1009		
USB Portable Diskette Drive	05K9276					X40 Series Li-Ion Battery (8-cell)					92P1119		
USB 2.0 Memory Key 1GB	40Y7421					X40 Series Extended Life Battery					92P1006		
USB 2.0 Super Multi-Burner Drive	40Y8638					ThinkPad Multiple Battery Charger II					22P9040		
USB 2.0 Portable 80GB Hard Disk	40Y8726					ThinkPad Ultraportable 56W AC Adapter					02K6880		
60GB Mini Hard Disk 9.5mm (4200 rpm)	73P3358					ThinkPad Convertible Monitor Stand					40Y7620		
11a/b/g Wireless Mini PCI Adapter II	73P4301					Kensington® MicroSaver® Security Cable					73P2582		
Intel PRO/Wireless 2915ABG Mini PCI	41N2990					ThinkPlus™ <sup>22</sup> 2-year LOR 9x5 NBD					41C9175		
Verizon Wireless V620 WWAN PC Card <sup>25</sup>	40Y9137					ThinkPlus 3-year LOR 9x5 NBD					41C9176		
Lenovo M500 Projector	0037A05					ThinkPlus 5-year LOR 9x5 NBD					41C9179		
ThinkVision® C400 Wireless Projector	0039WA1					ThinkPlus 4-year P&L P/U Depot					41C9178		
ThinkVision L171 17" Monitor (black)	9417AB1					ThinkPlus 5-year P&L P/U Depot					41C9180		
ThinkVision L201p 20.1" Monitor (black)	9320HB1					Other options at <a href="http://lenovo.com/options">lenovo.com/options</a>							
										56 watt AC Adapter			
										Asset ID™ <sup>34</sup> (system-specific info in chip accessed over network)			
										ACPI 1.0b and 2.0-compliant			
										ENERGY STAR®-compliant			
										International Warranty Service <sup>17</sup>			
										24 hour x 7 day <sup>18</sup> toll-free warranty support during the warranty <sup>12</sup> via 800-IBM-SERV (426-7378)			

See footnotes for important warranty information  
US models announced October 4, 2005  
US models withdrawn effective May 2006

\* Powered by Intel Centrino® mobile technology

© Lenovo  
(SP35M2) April 2006

# ThinkPad® X40 (2386) - Express (October 2004) - withdrawn

Created by Lenovo Training Solutions  
Personal Systems Reference (PSREF)

Type-model	Processor	L2 GHz cache	Memory	Screen	Disk	Optical in UltraBase	ThinkPad X4 UltraBase™	Mini PCI wireless	CDC: modem/Bluetooth™	Sec chip	Battery cells	Limited warranty <sup>12</sup>	Avail date	
2386-A4U	Pentium® M 713	1.1	1MB	256MB	12.1" XGA	20GB	None	Optional	*Intel 11b/g <sup>32</sup>	Modem	Yes	4	1 year	Oct 04
2386-GCU	Pentium M 738	1.4	2MB	512MB	12.1" XGA	40GB	Combo	X4 UltraBase	*Intel 11b/g	Modem	Yes	8	1 year	Oct 04
2386-E9U	Pentium M 738	1.4	2MB	256MB	12.1" XGA	40GB	None	Optional	*Intel 11b/g	Modem	Yes	8	1 year	Oct 04
2386-ECU	Pentium M 738	1.4	2MB	256MB	12.1" XGA	40GB	Combo	X4 UltraBase	*Intel 11b/g	Modem	Yes	8	1 year	Oct 04
2386-HCU	Pentium M 738	1.4	2MB	512MB	12.1" XGA	40GB	Combo	X4 UltraBase	*Intel 11b/g	Mod/Blue	Yes	8	1 year	Oct 04

- These small and medium business (SMB) models are part of the US Think Express Program
- The 2386 has a 1 year limited warranty

Positioning	Ultimate mobility in a versatile ultraportable; one spindle																																																														
Processor	Intel® Pentium® M Processor Ultra Low Voltage 713 (1.1GHz) or Low Voltage 738 (1.4GHz) with enhanced Intel SpeedStep™ technology <sup>1</sup> and 400MHz system bus																																																														
L2 cache	1.1GHz: <b>1MB</b> ; 1.4GHz: <b>2MB</b> ; All: on die (at processor speed) / ECC																																																														
Memory	<b>256</b> or <b>512MB</b> std / 1.28 to 1.53GB max <sup>2</sup> / <b>PC2700</b> 333MHz DDR1 (DDR-SDRAM) / non-parity / CL2.5 / std memory soldered to systemboard / one 200-pin SO-DIMM socket available																																																														
Diskette drive	None standard / use optional USB-based diskette drive																																																														
Combo	Some: DVD-ROM/CD-RW / 24X/24X/24X/8X <sup>21</sup> speed / removable from X4 UltraBase																																																														
Ultrabay™ Slim	Supports Ultrabay Slim devices in optional or standard X4 UltraBase Dock																																																														
Disk	<b>20GB</b> <sup>8</sup> or <b>40GB</b> (4200 rpm), 9.5mm, ATA-100 / 1.8" platter / removable and upgradable / 9.5mm high bay / <b>Active Protection System</b> (shock protection)																																																														
Display	<b>12.1"</b> (308mm) <b>XGA (1024x768)</b> TFT color / Active Matrix / 150 nits																																																														
Graphics	<b>Integrated Intel Extreme™ Graphics 2</b> / in 855GME GMCH / uses main memory (up to 64MB) / 266MHz																																																														
Keyboard	Standard-size <sup>26</sup> keys / 97% size of T Series / 87-key / 18.5mm pitch; 2.5mm stroke / Access IBM button / palm rest / TrackPoint®, "Press-to-Select," Internet Scroll Bar <sup>13</sup> / soft dome TrackPoint cap / ships with classic dome and soft rim TrackPoint cap																																																														
ThinkLight®	Illuminates the keyboard to improve visibility in low-light conditions																																																														
Dimensions <sup>3</sup>	4-cell without X4 UltraBase: 10.5" x 8.3" x .81-1.06"; 268mm x 211mm x 20.6-26.9mm 8-cell without X4 UltraBase: 10.5" x 9.3" x .81-1.06"; 268mm x 237mm x 20.6-26.9mm 8-cell with X4 UltraBase and optical: 10.7" x 9.3" x 1.5-2.0"; 272 x 237 x 38.2-50.4mm																																																														
Weight <sup>2</sup>	4-cell with battery: 2.7 lb (1.23kg); 8-cell with battery: 3.2 lb (1.44kg); 8-cell battery and X4 UltraBase with combo: 5.0 lb (2.26kg)																																																														
Case material	Color: black; All: magnesium alloy																																																														
Battery - type	Li-Ion 4- or 8-cell / intelligent / supports optional Extended Life Battery on base (for two batteries) / supports optional battery in X4 UltraBase Dock (for two batteries)																																																														
Battery - life <sup>10</sup>	4-cell models: up to 3.25 hr; 8-cell models: up to 7.0 hr; with 8-cell and optional Extended Life Battery: up to 10 hr																																																														
Architecture	Intel <b>855GME</b> chipset / 82852GME Memory Controller Hub (MCH-M) / 82801DBM ICH4-M I/O Controller Hub (ATA-100 EIDE, PCI bus, Low Pin Count (LPC) interface, USB [Bluetooth]) / Intel 82802AC Firmware Hub / PCI bus 2.2 32-bit, 33MHz (ethernet, Ricoh® R5C511 CardBus controller, Mini PCI) / LPC bus 33MHz (PC87392 Super I/O for infrared [dock-based ports])																																																														
Mobile media base	Some: <b>X4 UltraBase Dock</b> (see right side) and <b>X4 Dock</b>																																																														
Secure Digital slot	One <b>Secure Digital Card</b> slot / supports SD memory cards used in consumer devices																																																														
PC Card Std slot	One Type I or one Type II / CardBus 32-bit / PCMCIA 2.1 / integrated door																																																														
Ports	Two USB (version 2.0), plus one powered USB port for select options / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / no serial, parallel, keyboard/mouse ports (use X4) / no IEEE 1394 port																																																														
Wireless antenna	UltraConnect™ antenna built into the display cover for optimal wireless signal reception																																																														
Mini PCI	One Mini PCI type III slot (Communications Bay) / customer upgradeable																																																														
Intel 11b/g <sup>32</sup>	11b/g wireless <sup>4</sup> , Mini PCI, Intel PRO/Wireless 2200BG, Intel 82532 chipset																																																														
CDC	One Communications Daughter Card (CDC) socket / customer accessible																																																														
Modem	56K <sup>6</sup> V.90 (V.92-designed <sup>29</sup> ) modem in CDC / Conexant® chipset																																																														
Bluetooth™	Some: Bluetooth wireless technology / in CDC (with modem)																																																														
Ethernet	Intel PRO/1000 Gigabit Ethernet / on systemboard / Intel 82541GI chipset (MAC/PHY)																																																														
Audio support	Soft audio / ICH AC97 controller / DirectSound® support / AD1981B AC97 codec / mono speaker / 0.5 watt / volume up, down, mute buttons / internal mic / microphone input jack (3.5 mm; pink) / headphone jack (3.5 mm; green)																																																														
Security	Power-on password / dual hard disk password / supervisor password / security keyhole																																																														
Security chip	<b>Embedded Security Subsystem 2.0</b> <sup>33</sup> / Atmel® chip / TCG-compliant																																																														
Limited warranty <sup>12</sup>	<b>1 year</b> - EasyServ™ <sup>19</sup> onsite pickup and delivery / service upgrades <sup>22</sup> available																																																														
128MB PC2700 DDR-SDRAM CL2.5 SOD	31P9828	ThinkPad X4 UltraBase Dock	92P3429	256MB PC2700 DDR-SDRAM CL2.5 SOD	31P9830	ThinkPad X4 Dock	250610U	512MB PC2700 DDR-SDRAM CL2.5 SOD	31P9832	ThinkPad X40 Series Li-Ion Battery (4-cell)	92P1009	1GB PC2700 DDR-SDRAM CL2.5 SOD	31P9834	ThinkPad X40 Series Li-Ion Battery (8-cell)	92P1119	USB Portable Diskette Drive	05K9276	ThinkPad X40 Series Extended Life Battery	92P1006	USB Fingerprint Reader	73P4774	ThinkPad Multiple Battery Charger II	22P9040	Powered USB 2.0 Port Combo Drive	22P9194	ThinkPad Ultraportable 56W AC Adapter	02K6880	USB 2.0 Portable Multi-Burner Drive	22P9163	Preferred Pro USB Fingerprint Keyboard	73P4730	USB 2.0 Memory Key 128MB	73P4512	TrackPoint Cap Collection	73P2698	60GB Mini Hard Disk 9.5mm (4200 rpm)	73P3358	ServicePac®.22 1yr IOR 9x5 NBD	30L9188	Kensington® MicroSaver® Security Cable	73P2582	ServicePac 2yr IOR 9x5 NBD	30L9189	11a/b/g Wireless CardBus Adapter	31P9101	ServicePac 3yr IOR 9x5 NBD	30L9195	11a/b/g Wireless Mini PCI Adapter II	73P4301	ServicePac 5yr IOR 9x5 NBD	30L9196	Intel PRO/Wireless 2200BG Mini PCI	73P2801	ServicePac 3yr P&L P/U Depot	30L9192	SonyEricsson® GC83 EDGE PC Card	26K3393	ServicePac 5yr P&L P/U Depot	69P9197	M400 Projector	0037A04	Other options at <a href="http://lenovo.com/options">lenovo.com/options</a>	

SOFTWARE <sup>14</sup>
<b>Windows XP Professional</b> - Microsoft® Windows® XP Professional <sup>20</sup> (Service Pack 2) ◇ Disk-to-Disk Recovery (in hidden protected area)
<b>Preloaded</b> • Rescue and Recovery™ • Access IBM • Access Connections • Norton AntiVirus (OEM edition) • PC-Doctor™ • Adobe Reader • Update Connector™.15 • InterVideo WinDVD (combo models) • RecordNow and DLA (combo)
<b>Downloadable</b> • IBM Director Agent • Software Delivery Assistant • System Migration Assistant • Client Security Software (for security chip)
<b>License</b> (CD not included) - Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client

ThinkPad notebooks implement ThinkVantage™ technologies
<b>ThinkPad X4 UltraBase™ Dock</b> (standard with GCU/ECU/HCU) • Provides desktop expansion and cable management for the X40 • Easily connects to the bottom of the X40 for traveling • Converts the X40 to a two-spindle system by supporting optional Ultrabay Slim accessories in left side: - Ultrabay Slim Li-Polymer Battery 3-cell 08K8190 - CD-RW/DVD Combo II Ultrabay Slim Drive 73P3288 - Multi-Burner Plus Ultrabay Slim Drive 73P3342 - Second HDD Adapter for Ultrabay Slim 62P4554 Disks supported: • 40GB HS Hard Disk 08K9816 • 60GB HS Hard Disk 73P3357 • 80GB HS Hard Disk 09N4273
<b>Other features:</b> • Power button (front) • Stereo speakers (1 watt) • Security key lock, security keyhole, and optical security screw • Serial and parallel ports • PS/2 port for keyboard or mouse • Analog DB-15 monitor port • Three USB 2.0 ports (via USB hub) • Ethernet port (Gigabit Ethernet) • Modem port • Retractable feet; 1.3 lb; 580g
56 watt AC Adapter Asset ID™.34 (system-specific info in chip accessed over network) ACPI 1.0b and 2.0-compliant ENERGY STAR®-compliant International Warranty Service <sup>17</sup> 24 hour x 7 day <sup>18</sup> toll-free warranty support during the warranty <sup>12</sup> via 800-IBM-SERV (426-7378)

See footnotes for important warranty information  
US models announced October 5, 2004  
US models withdrawn effective January or July 2005

\* Powered by Intel Centrino™ mobile technology

# ThinkPad® X40 (2386) - TopSeller (February 2005) - withdrawn

Created by Lenovo Training Solutions  
Personal Systems Reference (PSREF)

Type-model	Processor	L2 GHz cache	Memory	Screen	Disk	Optical in UltraBase	ThinkPad X4 UltraBase™	Mini PCI wireless	CDC: modem/ Bluetooth™	Sec chip	Battery cells	Limited warranty <sup>12</sup>	Avail date	
2386-BHU	Pentium® M 733	1.1	2MB	256MB	12.1" XGA	30GB	None	Optional	* Intel 11b/g <sup>32</sup>	Modem	Yes	4	1-year	Mar 05
2386-JBU	Pentium M 758	1.5	2MB	256MB	12.1" XGA	40GB	None	Optional	* Intel 11b/g	Modem	Yes	8	1-year	Mar 05
2386-KLU	Pentium M 758	1.5	2MB	512MB	12.1" XGA	40GB	None	Optional	* Intel 11b/g	Modem	Yes	8	1-year	Mar 05
2386-JCU	Pentium M 758	1.5	2MB	256MB	12.1" XGA	40GB	Combo	X4 UltraBase	* Intel 11b/g	Modem	Yes	8	1-year	Mar 05
2386-KMU	Pentium M 758	1.5	2MB	512MB	12.1" XGA	40GB	Combo	X4 UltraBase	* Intel 11b/g	Modem	Yes	8	1-year	Mar 05

• These small and medium business (SMB) models are part of the US TopSeller™ Program

• The 2386 has a 1-year limited warranty

Positioning	Ultimate mobility in a versatile ultraportable; one spindle										
Processor	Intel® Pentium® M Processor Ultra Low Voltage 733 (1.1GHz) or Low Voltage 758 (1.5GHz) with Enhanced Intel SpeedStep™ technology <sup>1</sup> and 400MHz system bus										
L2 cache	2MB / on die (at processor speed) / ECC										
Memory	256 or 512MB std / 1.28 to 1.53GB max <sup>2</sup> / PC2700 333MHz DDR1 (DDR-SDRAM) / non-parity / CL2.5 / std memory soldered to systemboard / one 200-pin SO-DIMM socket available										
Diskette drive	None standard / use optional USB-based diskette drive										
Combo	Some: DVD-ROM/CD-RW / 24X/24X/24X/8X <sup>21</sup> speed / removable from X4 UltraBase										
Ultrabay™ Slim	Supports Ultrabay Slim devices in optional or standard X4 UltraBase										
Disk	20GB <sup>8</sup> or 40GB (4200 rpm), 9.5mm, ATA-100 / 1.8" platter / removable and upgradable / 9.5mm high bay / Active Protection System™ (shock protection)										
Display	12.1" (308mm) XGA (1024x768) TFT color / Active Matrix / 150 nits										
Graphics	Integrated Intel Extreme™ Graphics 2 / in 855GME GMCH / uses main memory (up to 64MB) / 266MHz										
Keyboard	Standard-size <sup>26</sup> keys / 97% size of T Series / 87-key / 18.5mm pitch; 2.5mm stroke / Access IBM button / palm rest / TrackPoint®, "Press-to-Select," Internet Scroll Bar <sup>13</sup> / soft dome TrackPoint cap / ships with classic dome and soft rim TrackPoint cap										
ThinkLight®	Illuminates the keyboard to improve visibility in low-light conditions										
Dimensions <sup>3</sup>	4-cell without X4 UltraBase: 10.5" x 8.3" x .81-1.06"; 268mm x 211mm x 20.6-26.9mm 8-cell without X4 UltraBase: 10.5" x 9.3" x .81-1.06"; 268mm x 237mm x 20.6-26.9mm 8-cell with X4 UltraBase and optical: 10.7" x 9.3" x 1.5-2.0"; 272 x 237 x 38.2-50.4mm										
Weight <sup>2</sup>	4-cell with battery: 2.7 lb (1.23kg); 8-cell with battery: 3.2 lb (1.44kg); 8-cell battery and X4 UltraBase with combo: 5.0 lb (2.26kg)										
Case material	Color: black; All: magnesium alloy										
Battery - type	Li-Ion 4- or 8-cell / intelligent / supports optional Extended Life Battery on base (for two batteries) / supports optional battery in X4 UltraBase (for two batteries)										
Battery - life <sup>10</sup>	4-cell models: up to 3.25 hr; 8-cell models: up to 7.0 hr; with 8-cell and optional Extended Life Battery: up to 10 hr										
Architecture	Intel 855GME chipset / 82852GME Memory Controller Hub (MCH-M) / 82801DBM ICH4-M I/O Controller Hub (ATA-100 EIDE, PCI bus, Low Pin Count (LPC) interface, USB [Bluetooth]) / Intel 82802AC Firmware Hub / PCI bus 2.2 32-bit, 33MHz (ethernet, Ricoh® R5C511 CardBus controller, Mini PCI) / LPC bus 33MHz (PC87392 Super I/O for infrared [dock-based ports])										
Mobile media base	Some: X4 UltraBase (see right side) / optional X4 Dock supported										
Secure Digital slot	One Secure Digital Card slot / supports SD memory cards used in consumer devices										
PC Card Std slot	One Type I or one Type II / CardBus 32-bit / PCMCIA 2.1 / integrated door										
Ports	Two USB (version 2.0), plus one powered USB port for select options / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / no serial, parallel, keyboard/mouse ports (use X4 UltraBase) / no IEEE 1394 port										
Wireless antenna	UltraConnect™ antenna built into the display cover for optimal wireless signal reception										
Mini PCI	One Mini PCI type III slot (Communications Bay) / customer upgradable										
Intel 11b/g <sup>32</sup>	11b/g wireless <sup>4</sup> , Mini PCI, Intel PRO/Wireless 2200BG, Intel 82532 chipset										
CDC	One Communications Daughter Card (CDC) socket / customer accessible										
Modem	56K <sup>6</sup> V.90 (V.92-designed <sup>29</sup> ) modem in CDC / Conexant® chipset										
Bluetooth™	None										
Ethernet	Intel PRO/1000 Gigabit Ethernet / on systemboard / Intel 82541GI chipset (MAC/PHY)										
Audio support	Soft audio / ICH AC97 controller / DirectSound® support / AD1981B AC97 codec / mono speaker, 0.5 watt / volume up, down, mute buttons / internal mic / microphone input jack (3.5 mm; pink) / headphone jack (3.5 mm; green)										
Security	Power-on password / dual hard disk password / supervisor password / security keyhole										
Security chip	Embedded Security Subsystem 2.0 <sup>33</sup> / Atmel® chip / TCG-compliant										
Limited warranty <sup>12</sup>	1-year - EasyServ™ <sup>19</sup> onsite pickup and delivery / service upgrades <sup>22</sup> available										
256MB PC2700 DDR-SDRAM CL2.5 SOD	31P9830	ThinkPad X4 UltraBase	92P3429								
512MB PC2700 DDR-SDRAM CL2.5 SOD	31P9832	ThinkPad X4 Dock	250610U								
1GB PC2700 DDR-SDRAM CL2.5 SOD	31P9834	ThinkPad X40 Series Li-Ion Battery (4-cell)	92P1009								
USB Portable Diskette Drive	05K9276	ThinkPad X40 Series Li-Ion Battery (8-cell)	92P1119								
USB Fingerprint Reader	41U3167	ThinkPad X40 Series Extended Life Battery	92P1006								
USB 2.0/Analog Headset by Sennheiser	40Y8518	ThinkPad Multiple Battery Charger II	22P9040								
USB 2.0 Lenovo Webcam	40Y8519	ThinkPad Ultraportable 56W AC Adapter	02K6880								
USB 2.0 Memory Key 1GB	40Y7421	72W Slim AC/DC Combo Adapter	73P4485								
USB 2.0 Super Multi-Burner Drive	40Y8638	Carrying Case - Leather Ultraportable	73P5186								
60GB Mini Hard Disk 9.5mm (4200 rpm)	73P3358	ThinkPlus™ <sup>22</sup> 1-year LOR 9x5 NBD	41C9166								
Kensington® MicroSaver® Security Cable	73P2582	ThinkPlus 2-year LOR 9x5 NBD	41C9167								
11a/b/g Wireless Mini PCI Adapter II	73P4301	ThinkPlus 3-year LOR 9x5 NBD	41C9168								
Intel PRO/Wireless 2915ABG Mini PCI	41N2990	ThinkPlus 5-year LOR 9x5 NBD	41C9173								
Lenovo M500 Projector	0037A05	ThinkPlus 3-year P&L P/U Depot	41C9170								
ThinkVision® L201p 20.1" Monitor (black)	9220HB1	ThinkPlus 5-year P&L P/U Depot	41C9174								
Verizon Wireless V620 WWAN PC Card <sup>25</sup>	40Y9137	Other options at <a href="http://lenovo.com/options">lenovo.com/options</a>									

## SOFTWARE<sup>14</sup>

### Windows XP Professional

- Microsoft® Windows® XP Professional<sup>20</sup> (Service Pack 2)  
 ⇨ Disk-to-Disk Recovery (in hidden protected area)

### Preloaded

- Rescue and Recovery™
- Access Program
- Access Connections™
- Norton AntiVirus (OEM edition)
- PC-Doctor™
- Adobe Reader
- Update Connector™<sup>15</sup>
- InterVideo WinDVD (combo models)
- RecordNow and DLA (combo)

### Downloadable

- IBM Director Agent
  - Software Delivery Assistant
  - System Migration Assistant
  - Client Security Software (for security chip)
- License (CD not included)
- Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client

ThinkPad notebooks implement ThinkVantage® technologies

### ThinkPad X4 UltraBase™ (standard with JCU/KMU)

- Provides desktop expansion and cable management for the X40/X41
  - Easily connects to the bottom of the X40/X41 for traveling
  - Converts the X40 to a two-spindle system by supporting optional Ultrabay Slim accessories in left side:
    - Ultrabay Slim Li-Polymer Battery 3-cell 08K8190
    - CD-RW/DVD Combo II Ultrabay Slim Drive 73P3288
    - Super Multi-Burner Ultrabay Slim Drive (curved bezel) 40Y8622
    - Second HDD Adapter for Ultrabay Slim 41U3148
- Disks supported:
- 40GB HS Hard Disk 08K9816
  - 60GB HS Hard Disk 09Y86106
  - 80GB HS Hard Disk 09N4273

### Other features:

- Power button (front)
- Stereo speakers (1 watt)
- Security key lock, security keyhole, and optical security screw
- Serial and parallel ports
- PS/2 port for keyboard or mouse
- Analog DB-15 monitor port
- Three USB 2.0 ports (via USB hub)
- Ethernet port (Gigabit Ethernet)
- Modem port
- Retractable feet; 1.3 lb; 580g

56-watt AC Adapter  
 Asset ID™<sup>34</sup> (system-specific info in chip accessed over network)  
 ACPI 1.0b and 2.0-compliant  
 ENERGY STAR®-compliant  
 International Warranty Service<sup>17</sup>  
 24 hour x 7 day<sup>18</sup> toll-free warranty support during the warranty<sup>12</sup> via 800-IBM-SERV (426-7378)

See footnotes for important warranty information  
 US models announced February 15, 2005  
 US models withdrawn effective December 2006

\* Powered by Intel Centrino® mobile technology

© Lenovo  
 (X4X) December 2006

# ThinkPad® X40 (2386) - TopSeller (October 2005) - withdrawn

Created by Lenovo Training Solutions  
Personal Systems Reference (PSREF)

Type-model	Processor	L2 GHz cache	Memory	Screen	Disk	Optical in UltraBase	ThinkPad X4 UltraBase™	Mini PCI wireless	CDC: modem/Bluetooth™	Sec chip	Battery cells	Limited warranty <sup>12</sup>	Avail date	
2386-MCU	Pentium® M 753	1.2	2MB	256MB	12.1" XGA	40GB	None	Optional	* Intel 11b/g <sup>32</sup>	Modem	Yes	4-cell	1-year	Oct 05
2386-N8U	Pentium M 778	1.6	2MB	256MB	12.1" XGA	40GB	None	Optional	* Intel 11b/g	Modem	Yes	8-cell	1-year	Oct 05
2386-QAU	Pentium M 778	1.6	2MB	512MB	12.1" XGA	40GB	None	Optional	* Intel 11b/g	Modem	Yes	8-cell	1-year	Oct 05
2386-QBU	Pentium M 778	1.6	2MB	512MB	12.1" XGA	40GB	Combo	X4 UltraBase	* Intel 11b/g	Modem	Yes	8-cell	1-year	Oct 05
2386-REU	Pentium M 778	1.6	2MB	512MB	12.1" XGA	60GB	Combo	X4 UltraBase	* Intel 11b/g	Mod/Blue	Yes	8-cell	1-year	Oct 05

- These small and medium business (SMB) models are part of the US TopSeller™ Program
- The 2386 has a 1-year limited warranty

Positioning Processor	<b>Ultimate mobility in a versatile ultraportable; one spindle</b> <b>Intel® Pentium M Processor Ultra Low Voltage 753 (1.2GHz) or Low Voltage 778 (1.6GHz)</b> with Enhanced Intel SpeedStep™ technology <sup>1</sup> , XD bit, and 400MHz bus		<b>SOFTWARE<sup>14</sup></b>  <b>Windows XP Professional</b> - Microsoft® Windows® XP Professional <sup>20</sup> (Service Pack 2) ✦ Disk-to-Disk Recovery (in hidden protected area)  <b>Preloaded</b> • Rescue and Recovery™ • Access Connections™ • ThinkVantage Productivity Center • ThinkVantage System Update • Symantec® Client Security • PC-Doctor™ • ThinkPad Utilities • Adobe Reader • Client Security Solution™ (for security chip)  <b>Downloadable</b> • IBM Director Agent • Software Delivery Assistant • System Migration Assistant  <b>License</b> (CD not included) - Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client  <b>Supports ThinkVantage™ technologies</b>  <b>ThinkPad X4 UltraBase™</b> • Provides desktop expansion and cable management for the X40/X41 • Easily connects to the bottom of the X40/X41 for traveling • Converts the X40 to a two-spindle system by supporting optional Ultrabay Slim accessories in left side: - Ultrabay Slim Li-Polymer Battery 3-cell 08K8190 - CD-RW/DVD Combo II Ultrabay Slim Drive 73P3288 - Super Multi-Burner Ultrabay Slim Drive (curved bezel) 40Y8622 - Second HDD Adapter for Ultrabay Slim 62P4554  <b>Disks supported:</b> • 40GB HS Hard Disk 08K9816 • 60GB HS Hard Disk 73P3357 • 80GB HS Hard Disk 09N4273  <b>Other features:</b> • Power button (front) • Stereo speakers (1 watt) • Security key lock, security keyhole, and optical security screw • Serial and parallel ports • PS/2 port for keyboard or mouse • Analog DB-15 monitor port • Three USB 2.0 ports (via USB hub) • Ethernet port (Gigabit Ethernet) • Modem port • Retractable feet; 1.3 lb; 580g  56 watt AC Adapter Asset ID™ <sup>34</sup> (system-specific info in chip accessed over network) ACPI 1.0b and 2.0-compliant ENERGY STAR®-compliant International Warranty Service <sup>17</sup> 24 hour x 7 day <sup>18</sup> toll-free warranty support during the warranty <sup>12</sup> via 800-IBM-SERV (426-7378)
L2 cache	<b>256 or 512MB</b> std / 1.28 to 1.53GB max <sup>7</sup> / <b>PC2700</b> 333MHz DDR1 (DDR-SDRAM) / non-parity / CL2.5 / std memory soldered to systemboard / one 200-pin SO-DIMM socket available		
Memory	None standard / use optional USB-based diskette drive <i>Some:</i> DVD-ROM/CD-RW / 24X/24X/24X/8X <sup>21</sup> speed / removable from X4 UltraBase Supports Ultrabay Slim devices in optional or standard X4 UltraBase <b>40GB<sup>8</sup> or 60GB</b> (4200 rpm), 9.5mm, ATA-100 / 1.8" platter / removable, upgradable / 9.5mm high bay / <b>Active Protection System™</b> (shock protection)		
Diskette drive	None standard / use optional USB-based diskette drive		
Combo	<i>Some:</i> DVD-ROM/CD-RW / 24X/24X/24X/8X <sup>21</sup> speed / removable from X4 UltraBase		
Ultrabay™ Slim	Supports Ultrabay Slim devices in optional or standard X4 UltraBase		
Disk	<b>40GB<sup>8</sup> or 60GB</b> (4200 rpm), 9.5mm, ATA-100 / 1.8" platter / removable, upgradable / 9.5mm high bay / <b>Active Protection System™</b> (shock protection)		
Display	<b>12.1"</b> (308mm) <b>XGA (1024x768) TFT color</b> / Active Matrix / 150 nits		
Graphics	<b>Integrated Intel Extreme™ Graphics 2</b> / in 855GME GMCH / uses main memory (up to 64MB) / 266MHz		
Graphics external	External monitor support via analog DB-15 connector / up to 1600x1200x16.7M at 85Hz		
Keyboard	Standard-size <sup>26</sup> keys / 97% size of T Series / 87-key / 18.5mm pitch; 2.5mm stroke / Access IBM button / palm rest / TrackPoint®, "Press-to-Select," Internet Scroll Bar <sup>13</sup> / soft dome TrackPoint cap / ships with classic dome and soft rim TrackPoint cap Illuminates the keyboard to improve visibility in low-light conditions		
ThinkLight®	Illuminates the keyboard to improve visibility in low-light conditions		
Dimensions <sup>3</sup>	<b>4-cell without X4 UltraBase:</b> 10.5" x 8.3" x .81-1.06"; 268mm x 211mm x 20.6-26.9mm <b>8-cell without X4 UltraBase:</b> 10.5" x 9.3" x .81-1.06"; 268mm x 237mm x 20.6-26.9mm <b>8-cell with X4 UltraBase and optical:</b> 10.7" x 9.3" x 1.5-2.0"; 272 x 237 x 38.2-50.4mm		
Travel weight <sup>2</sup>	<b>4-cell battery models:</b> 2.7 lb (1.23kg); <b>8-cell battery models:</b> 3.2 lb (1.44kg); <b>with 8-cell battery and X4 UltraBase with combo:</b> 5.0 lb (2.26kg)		
Case material	Color: black; All: magnesium alloy		
Battery - type	Li-Ion 4- or 8-cell / intelligent / supports optional Extended Life Battery on base (for two batteries) / supports optional battery in X4 UltraBase (for two batteries)		
Battery - life <sup>10</sup>	<b>with 4-cell:</b> up to 3.25 hr; <b>with 8-cell:</b> up to 7.0 hr; <b>with 8-cell and optional Extended Life Battery:</b> up to 10 hr		
Architecture	<b>Intel 855GME</b> chipset / 82852GME Memory Controller Hub (MCH-M) / 82801DBM ICH4-M I/O Controller Hub (ATA-100 EIDE, PCI bus, Low Pin Count (LPC) interface, USB [Bluetooth]) / Intel 82802AC Firmware Hub / PCI bus 2.2 32-bit, 33MHz (ethernet, Ricoh® R5C511 CardBus controller, Mini PCI) / LPC bus 33MHz (PC87392 Super I/O for infrared [dock-based ports])		
Mobile media base	<i>Some:</i> <b>X4 UltraBase</b> (see right side) / optional <b>X4 Dock</b> supported		
Secure Digital slot	One <b>Secure Digital Card</b> slot / supports SD memory cards used in consumer devices		
PC Card Std slot	One Type I or one Type II / CardBus 32-bit / PCMCIA 2.1 / integrated door		
Ports	Two USB (version 2.0), plus one powered USB port for select options / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / no serial, parallel, keyboard/mouse ports (use X4 UltraBase) / no IEEE 1394 port		
Wireless antenna	UltraConnect™ antenna built into the display cover for optimal wireless signal reception		
Mini PCI	One Mini PCI type III slot (Communications Bay) / customer upgradable		
Intel 11b/g <sup>32</sup>	11b/g wireless <sup>4</sup> , Mini PCI, Intel PRO/Wireless 2200BG, Intel 82532 chipset		
CDC	One Communications Daughter Card (CDC) socket / customer accessible		
Modem	56K <sup>6</sup> V.90 (V.92-designed <sup>29</sup> ) modem in CDC / Conexant® chipset		
Bluetooth™	<i>Some:</i> Bluetooth wireless technology / in CDC (with modem)		
Ethernet	Intel PRO/1000 Gigabit Ethernet / on systemboard / Intel 82541GI chipset (MAC/PHY) /		
Audio support	Soft audio / ICH AC97 controller / DirectSound® support / AD1981B AC97 codec / mono speaker, 0.5 watt / volume up, down, mute buttons / internal mic / microphone input jack (3.5 mm; pink) / headphone jack (3.5 mm; green)		
Security	Power-on password / dual hard disk password / supervisor password / security keyhole		
Security chip	<b>Embedded Security Subsystem 2.0<sup>33</sup></b> / Atmel® chip / TCG-compliant		
Limited warranty <sup>12</sup>	<b>1-year</b> - EasyServ™ <sup>19</sup> onsite pickup and delivery / service upgrades <sup>22</sup> available		
256MB PC2700 DDR-SDRAM CL2.5 SOD	31P9830	ThinkPad X4 UltraBase	92P3429
512MB PC2700 DDR-SDRAM CL2.5 SOD	31P9832	ThinkPad X4 Dock	250610U
1GB PC2700 DDR-SDRAM CL2.5 SOD	31P9834	X40 Series Li-Ion Battery (4-cell)	92P1009
USB Portable Diskette Drive	05K9276	X40 Series Li-Ion Battery (8-cell)	92P1119
USB 2.0 Memory Key 1GB	40Y7421	X40 Series Extended Life Battery	92P1006
USB 2.0 Super Multi-Burner Drive	40Y8638	ThinkPad Multiple Battery Charger II	22P9040
USB 2.0 Portable 80GB Hard Disk	40Y8726	ThinkPad Ultraportable 56W AC Adapter	02K6880
60GB Mini Hard Disk 9.5mm (4200 rpm)	73P3358	ThinkVision® L171 17" Monitor (black)	9417AB1
Kensington® MicroSaver® Security Cable	73P2582	ThinkPlus™ <sup>22</sup> 1-year LOR 9x5 NBD	41C9166
11a/b/g Wireless Mini PCI Adapter II	73P4301	ThinkPlus 2-year LOR 9x5 NBD	41C9167
Intel PRO/Wireless 2915ABG Mini PCI	41N2990	ThinkPlus 3-year LOR 9x5 NBD	41C9168
Verizon Wireless V620 WWAN PC Card <sup>25</sup>	40Y9137	ThinkPlus 5-year LOR 9x5 NBD	41C9173
Lenovo M500 Projector	0037A05	ThinkPlus 3-year P&L P/U Depot	41C9170
ThinkVision® C400 Wireless Projector	0039WA1	ThinkPlus 5-year P&L P/U Depot	41C9174
ThinkVision L201p 20.1" Monitor (black)	9320HB1	Other options at <a href="http://lenovo.com/options">lenovo.com/options</a>	

See footnotes for important warranty information  
US models announced October 4, 2005  
US models withdrawn effective May 2006

\* Powered by Intel Centrino® mobile technology

# ThinkPad® X40 (2371) - Education - withdrawn

Created by Lenovo Training Solutions  
Personal Systems Reference (PSREF)

Type-model	Processor	L2 GHz cache	Memory	Screen	Disk	Optical in UltraBase	ThinkPad X4 UltraBase™	Mini PCI wireless	CDC: modem/ Bluetooth™	Sec chip	Limited warranty <sup>12</sup>	Education software	Avail date	
2371-9EU	Pentium® M	1.2	1MB	512MB	12.1" XGA	40GB	None	Optional	* Intel 11b/g <sup>32</sup>	Modem	Yes	EasyServ	No	Apr 2004
2371-GEU	Pentium M 738	1.4	2MB	512MB	12.1" XGA	40GB	None	Optional	* Intel 11b/g	Modem	Yes	EasyServ	Yes	Oct 2004
2371-KJU	Pentium M 758	1.5	2MB	512MB	12.1" XGA	40GB	None	Optional	* Intel 11b/g	Modem	Yes	EasyServ	Yes	Mar 2005
2371-Q8U	Pentium M 778	1.6	2MB	512MB	12.1" XGA	40GB	None	Optional	* Intel 11b/g	Modem	Yes	EasyServ	Yes	Oct 2005

• **The 2371 has an EasyServ™<sup>19</sup> onsite pickup and delivery 3-year limited warranty**

These educational models are available only to public or private K-12 (or higher) accredited schools organized and operated exclusively for educational purposes for use by qualified students and teachers.

Positioning Processor	<i>Ultimate mobility in a versatile ultraportable; one spindle</i>										<b>SOFTWARE<sup>14</sup></b>		
L2 cache	<b>Intel® Pentium M Processor Low Voltage 1.2GHz, 738 (1.4GHz), 758 (1.5GHz), or 778 (1.6GHz)</b> with Enhanced Intel SpeedStep™ technology <sup>1</sup> and 400MHz system bus										<b>Windows XP Professional</b>		
Memory	<b>1.2GHz: 1MB; 1.4GHz: 2MB; All: on die (at processor speed) / ECC</b>										- Microsoft® Windows® XP Professional <sup>20</sup>		
Diskette drive	None standard / use optional USB-based diskette drive										- <i>GEU/KJU/Q8U only: Service Pack 2</i>		
Ultrabay™ Slim Disk	Supports Ultrabay Slim devices in optional X4 UltraBase										- <i>Disk-to-Disk Recovery (in hidden protected area)</i>		
Display	<b>40GB<sup>8</sup> (4200 rpm), 9.5mm, ATA-100 / 1.8" platter / removable and upgradable / 9.5mm high bay / Active Protection System™ (shock protection)</b>										<b>Preloaded</b>		
Graphics	<b>12.1" (308mm) XGA (1024x768) TFT color / Active Matrix / 150 nits</b>										• <i>GEU/KJU/Q8U only: Education software from Vital Source Technologies®: vitalsource KEY™ and Personal Portable library™</i>		
Graphics external	<b>Integrated Intel Extreme™ Graphics 2 / in 855GME GMCH / uses main memory (up to 64MB) / 266MHz</b>										• Rescue and Recovery™		
Keyboard	External monitor support via analog DB-15 connector / up to 1600x1200x16.7M at 85Hz										• Access Connections™		
ThinkLight®	Standard-size <sup>26</sup> keys / 97% size of T Series / 87-key / 18.5mm pitch; 2.5mm stroke / Access IBM button / palm rest / TrackPoint®, "Press-to-Select," Internet Scroll Bar <sup>13</sup> / soft dome TrackPoint cap / ships with classic dome and soft rim TrackPoint cap										• ThinkVantage Productivity Center		
Dimensions <sup>3</sup>	Illuminates the keyboard to improve visibility in low-light conditions										• Norton AntiVirus (OEM edition)		
Weight <sup>2</sup>	4-cell without X4 UltraBase: 10.5" x 8.3" x .81-1.06"; 268mm x 211mm x 20.6-26.9mm										• PC-Doctor™		
Case material	with battery: 2.7 lb (1.23kg)										• ThinkPad Utilities		
Battery - type	Color: black; All: magnesium alloy										• Adobe Reader		
Battery - life <sup>10</sup>	Li-Ion 4-cell / intelligent / supports optional Extended Life Battery on base (for two batteries) / supports optional battery in X4 UltraBase (for two batteries)										• Update Connector™ <sup>15</sup>		
Architecture	with 4-cell: up to 3.25 hr; with optional 8-cell: up to 7.0 hr; with 8-cell and optional Extended Life Battery: up to 10 hr										• Client Security Software (for security chip)		
Mobile media base	<b>Intel 855GME chipset / 82852GME Memory Controller Hub (MCH-M) / 82801DBM ICH4-M I/O Controller Hub (ATA-100 EIDE, PCI bus, Low Pin Count (LPC) interface, USB [Bluetooth]) / Intel 82802AC Firmware Hub / PCI bus 2.2 32-bit, 33MHz (ethernet, Ricoh® R5C511 CardBus controller, Mini PCI) / LPC bus 33MHz (PC87392 Super I/O for infrared [dock-based ports])</b>										<b>Downloadable</b>		
Secure Digital slot	Optional: <b>X4 UltraBase</b> (see right side) and <b>X4 Dock</b>										• IBM Director Agent		
PC Card Std slot	One <b>Secure Digital Card</b> slot / supports SD memory cards used in consumer devices										• Software Delivery Assistant		
Ports	One Type I or one Type II / CardBus 32-bit / PCMCIA 2.1 / integrated door										• System Migration Assistant		
Wireless antenna	Two USB (version 2.0), plus one powered USB port for select options / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / no serial, parallel, keyboard/mouse ports (use X4 UltraBase) / no IEEE 1394 port										<b>License (CD not included)</b>		
Mini PCI	UltraConnect™ antenna built into the display cover for optimal wireless signal reception										- Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client		
Intel 11b/g <sup>32</sup>	One Mini PCI type III slot (Communications Bay) / customer upgradable										Supports ThinkVantage™ technologies		
CDC	11b/g wireless <sup>4</sup> , Mini PCI, Intel PRO/Wireless 2200BG, Intel 82532 chipset										<b>ThinkPad X4 UltraBase™</b>		
Modem	One Communications Daughter Card (CDC) socket / customer accessible										• Provides desktop expansion and cable management for the X40/X41		
Bluetooth™	56K <sup>6</sup> V.90 (V.92-designed <sup>29</sup> ) modem in CDC / Conexant® chipset										• Easily connects to the bottom of the X40/X41 for traveling		
Ethernet	None										• Converts the X40 to a two-spindle system by supporting optional Ultrabay Slim accessories in left side:		
Audio support	Intel PRO/1000 Gigabit Ethernet / on systemboard / Intel 82541GI chipset (MAC/PHY) / Wake on LAN®										- Ultrabay Slim Li-Polymer Battery 3-cell 08K8190		
Security	Soft audio / ICH AC97 controller / DirectSound® support / AD1981B AC97 codec / mono speaker, 0.5 watt / volume up, down, mute buttons / internal mic / microphone input jack (3.5 mm; pink) / headphone jack (3.5 mm; green)										- CD-RW/DVD Combo II Ultrabay Slim Drive 73P3288		
Security chip	Power-on password / dual hard disk password / supervisor password / security keyhole										- ThinkPad DVD-ROM Ultrabay Slim Drive 73P3270		
Limited warranty <sup>12</sup>	<b>Embedded Security Subsystem 2.0<sup>33</sup> / hardware key storage / multi-factor authentication / local file encryption / Atmel® chip / TCG-compliant</b>										- Second HDD Adapter for Ultrabay Slim 62P4554		
256MB PC2700 DDR-SDRAM CL2.5 SOD	3-year/1-yr battery - EasyServ™ <sup>19</sup> onsite pickup and delivery / service upgrades <sup>22</sup> avail										Disks supported:		
512MB PC2700 DDR-SDRAM CL2.5 SOD	256MB PC2700 DDR-SDRAM CL2.5 SOD										• 40GB HS Hard Disk 08K9816		
1GB PC2700 DDR-SDRAM CL2.5 SOD	31P9834										• 60GB HS Hard Disk 73P3357		
USB Portable Diskette Drive	05K9276										• 80GB HS Hard Disk 09N4273		
USB Serial Parallel Adapter	22P5298										Other features:		
USB 2.0 CD-RW/DVD-ROM Combo II Drive	40Y8637										• Power button (front)		
USB 2.0 Portable 80GB Hard Disk	40Y8726										• Stereo speakers (1 watt)		
USB 2.0 Memory Key 1GB	40Y7421										• Security key lock, security keyhole, and optical security screw		
60GB Mini Hard Disk 9.5mm (4200 rpm)	73P3358										• Serial and parallel ports		
Kensington® MicroSaver® Security Cable	73P2582										• PS/2 port for keyboard or mouse		
11a/b/g Wireless Mini PCI Adapter II	73P4301										• Analog DB-15 monitor port		
Intel PRO/Wireless 2915ABG Mini PCI	41N2990										• Three USB 2.0 ports (via USB hub)		
Verizon Wireless V620 WWAN PC Card <sup>25</sup>	40Y9137										• Ethernet port (Gigabit Ethernet)		
Optical 3-Button Travel Wheel Mouse	31P7410										• Modem port		
ThinkPad Convertible Monitor Stand	40Y7620										• Retractable feet; 1.3 lb; 580g		
Lenovo M500 Projector	0037A05										56 watt AC Adapter		
ThinkVision® C400 Wireless Projector	0039WA1										Asset ID™ <sup>34</sup> (system-specific info in chip accessed over network)		
Carrying Case - Leather Ultraportable	73P5186										ACPI 1.0b and 2.0-compliant		
ThinkPad Carrying Case - BackPack	73P3599										International Warranty Service <sup>17</sup>		
											24 hour x 7 day <sup>18</sup> toll-free warranty support during the warranty <sup>12</sup>		

See footnotes for important warranty information \* Powered by Intel Centrino® mobile technology  
US models announced April 6 or October 5, 2004 or February 15 or October 4, 2005  
US models withdrawn effective May 2005, April 2006, or May 2006

© Lenovo  
(X40E) April 2006

# ThinkPad® X40 (2372) - Education - withdrawn

Created by Lenovo Training Solutions  
Personal Systems Reference (PSREF)

Type-model	Processor	L2 GHz cache	Memory	Screen	Disk	Optical in UltraBase	ThinkPad X4 UltraBase™	Mini PCI wireless	CDC: modem/ Bluetooth™	Sec chip	Limited warranty <sup>12</sup>	Education software	Avail date	
2372-9EU	Pentium® M	1.2	1MB	512MB	12.1" XGA	40GB	None	Optional	* Intel 11b/g <sup>32</sup>	Modem	Yes	Onsite	No	Apr 2004
2372-G4U	Pentium M 738	1.4	2MB	512MB	12.1" XGA	40GB	None	Optional	* Intel 11b/g	Modem	Yes	Onsite	Yes	Oct 2004
2372-KKU	Pentium M 758	1.5	2MB	512MB	12.1" XGA	40GB	None	Optional	* Intel 11b/g	Modem	Yes	Onsite	Yes	Mar 2005
2372-Q9U	Pentium M 778	1.6	2MB	512MB	12.1" XGA	40GB	None	Optional	* Intel 11b/g	Modem	Yes	Onsite	Yes	Oct 2005

• **The 2372 has a limited onsite service<sup>24</sup> 3-year limited warranty**

These educational models are available only to public or private K-12 (or higher) accredited schools organized and operated exclusively for educational purposes for use by qualified students and teachers.

Positioning Processor	<i>Ultimate mobility in a versatile ultraportable; one spindle</i>										<b>SOFTWARE<sup>14</sup></b>																																																					
L2 cache Memory	<b>Intel® Pentium® M Processor Low Voltage 1.2GHz, 738 (1.4GHz), 758 (1.5GHz), or 778 (1.6GHz)</b> with Enhanced Intel SpeedStep™ technology <sup>1</sup> and 400MHz system bus 1.2GHz; <b>1MB</b> ; 1.4/1.5/1.6GHz; <b>2MB</b> ; All: on die (at processor speed) / ECC <b>512MB</b> std / 1.53GB max <sup>7</sup> / <b>PC2700</b> 333MHz DDR1 / non-parity / CL2.5 / std memory soldered to systemboard / one 200-pin SO-DIMM socket available										<b>Windows XP Professional</b> - Microsoft® Windows® XP Professional <sup>20</sup> - <i>G4U/KKU/Q9U only</i> : Service Pack 2 ⇨ Disk-to-Disk Recovery (in hidden protected area)																																																					
Diskette drive Ultrabay™ Slim Disk	None standard / use optional USB-based diskette drive Supports Ultrabay Slim devices in optional X4 UltraBase <b>40GB</b> <sup>8</sup> (4200 rpm), 9.5mm, ATA-100/1.8" platter / removable and upgradable / 9.5mm high bay / <b>Active Protection System™</b> (shock protection)										<b>Preloaded</b> • <i>G4U/KKU/Q9U only</i> : Education software from Vital Source Technologies®: vitalsource KEY™ and Personal Portable library™ • Rescue and Recovery™ • Access Connections™ • ThinkVantage Productivity Center • Norton AntiVirus (OEM edition) • PC-Doctor™ • ThinkPad Utilities • Adobe Reader • Update Connector™ <sup>15</sup> • Client Security Software (for security chip)																																																					
Display	<b>12.1"</b> (308mm) <b>XGA (1024x768) TFT color</b> / Active Matrix / 150 nits										<b>Downloadable</b> • IBM Director Agent • Software Delivery Assistant • System Migration Assistant																																																					
Graphics	<b>Integrated Intel Extreme™ Graphics 2</b> / in 855GME GMCH / uses main memory (up to 64MB) / 266MHz										<b>License</b> (CD not included) - Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client																																																					
Graphics external	External monitor support via analog DB-15 connector / up to 1600x1200x16.7M at 85Hz										Supports ThinkVantage™ technologies																																																					
Keyboard	Standard-size <sup>26</sup> keys / 97% size of T Series / 87-key / 18.5mm pitch; 2.5mm stroke / Access IBM button / palm rest / TrackPoint®, "Press-to-Select," Internet Scroll Bar <sup>13</sup> / soft dome TrackPoint cap / ships with classic dome and soft rim TrackPoint cap Illuminates the keyboard to improve visibility in low-light conditions										<b>ThinkPad X4 UltraBase™</b> • Provides desktop expansion and cable management for the X40/X41 • Easily connects to the bottom of the X40/X41 for traveling • Converts the X40 to a two-spindle system by supporting optional Ultrabay Slim accessories in left side: – Ultrabay Slim Li-Polymer Battery 3-cell 08K8190 – CD-RW/DVD Combo II Ultrabay Slim Drive 73P3288 – Super Multi-Burner Ultrabay Slim Drive (curved bezel) 40Y8622 – Second HDD Adapter for Ultrabay Slim 62P4554 Disks supported: • 60GB HS Hard Disk 73P3357 • 80GB HS Hard Disk 09N4273																																																					
ThinkLight®	Illuminates the keyboard to improve visibility in low-light conditions																																																															
Dimensions <sup>3</sup> Weight <sup>2</sup> Case material Battery - type	4-cell without X4 UltraBase: 10.5" x 8.3" x .81-1.06"; 268mm x 211mm x 20.6-26.9mm with battery: 2.7 lb (1.23kg) Color: black; All: magnesium alloy Li-Ion 4-cell / intelligent / supports optional Extended Life Battery on base (for two batteries) / supports optional battery in X4 UltraBase (for two batteries) 4-cell models: up to 3.25 hr; with optional 8-cell models: up to 7.0 hr; with 8-cell and optional Extended Life Battery: up to 10 hr																																																															
Battery - life <sup>10</sup>	4-cell models: up to 3.25 hr; with optional 8-cell models: up to 7.0 hr; with 8-cell and optional Extended Life Battery: up to 10 hr																																																															
Architecture	<b>Intel 855GME</b> chipset / 82852GME Memory Controller Hub (MCH-M) / 82801DBM ICH4-M I/O Controller Hub (ATA-100 EIDE, PCI bus, Low Pin Count (LPC) interface, USB [Bluetooth]) / Intel 82802AC Firmware Hub / PCI bus 2.2 32-bit, 33MHz (ethernet, Ricoh® R5C511 CardBus controller, Mini PCI) / LPC bus 33MHz (PC87392 Super I/O for infrared [dock-based ports])																																																															
Mobile media base Secure Digital slot PC Card Std slot Ports	Optional: <b>X4 UltraBase</b> (see right side) and <b>X4 Dock</b> One <b>Secure Digital Card</b> slot / supports SD memory cards used in consumer devices One Type I or one Type II / CardBus 32-bit / PCMCIA 2.1 / integrated door Two USB (version 2.0), plus one powered USB port for select options / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / no serial, parallel, keyboard/mouse ports (use X4 UltraBase) / no IEEE 1394 port																																																															
Wireless antenna Mini PCI Intel 11b/g <sup>32</sup> CDC Modem Bluetooth™ Ethernet	UltraConnect™ antenna built into the display cover for optimal wireless signal reception One Mini PCI type III slot (Communications Bay) / customer upgradable 11b/g wireless <sup>4</sup> , Mini PCI, Intel PRO/Wireless 2200BG, Intel 82532 chipset One Communications Daughter Card (CDC) socket / customer accessible 56K <sup>6</sup> V.90 (V.92-designed <sup>28</sup> ) modem in CDC / Conexant® chipset None Intel PRO/1000 Gigabit Ethernet / on systemboard / Intel 82541GI chipset (MAC/PHY) / Wake on LAN®																																																															
Audio support	Soft audio / ICH AC97 controller / DirectSound® support / AD1981B AC97 codec / mono speaker, 0.5 watt / volume up, down, mute buttons / internal mic / microphone input jack (3.5 mm; pink) / headphone jack (3.5 mm; green)																																																															
Security Security chip	Power-on password / dual hard disk password / supervisor password / security keyhole <b>Embedded Security Subsystem 2.0</b> <sup>33</sup> / hardware key storage / multi-factor authentication / local file encryption / Atmel® chip / TCG-compliant																																																															
Limited warranty <sup>12</sup>	<b>3-year/1-year battery, limited onsite service</b> , 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time <sup>24</sup>										Other features: • Power button (front) • Stereo speakers (1 watt) • Security key lock, security keyhole, and optical security screw • Serial and parallel ports • PS/2 port for keyboard or mouse • Analog DB-15 monitor port • Three USB 2.0 ports (via USB hub) • Ethernet port (Gigabit Ethernet) • Modem port • Retractable feet; 1.3 lb; 580g																																																					
256MB PC2700 DDR-SDRAM CL2.5 SOD	31P9830	ThinkPad X4 UltraBase	92P3429	512MB PC2700 DDR-SDRAM CL2.5 SOD	31P9832	ThinkPad X4 Dock	250610U	1GB PC2700 DDR-SDRAM CL2.5 SOD	31P9834	ThinkPad X40 Series Li-Ion Battery (4-cell)	92P1009	USB Portable Diskette Drive	05K9276	ThinkPad X40 Series Li-Ion Battery (8-cell)	92P1119	USB Serial Parallel Adapter	22P5298	ThinkPad X40 Series Extended Life Battery	92P1006	USB 2.0 Super Multi-Burner Drive	40Y8638	ThinkPad Multiple Battery Charger II	22P9040	USB 2.0 Portable 80GB Hard Disk	40Y8726	ThinkPad Ultraportable 56W AC Adapter	02K6880	USB 2.0 Memory Key 1GB	40Y7421	72W Slim AC/DC Combo Adapter	73P4485	60GB Mini Hard Disk 9.5mm (4200 rpm)	73P3358	USB Travel Keyboard with UltraNav®	31P9490	Kensington® MicroSaver® Security Cable	73P2582	Enh Perf Wireless Keyboard and Mouse	73P4067	11a/b/g Wireless Mini PCI Adapter II	73P4301	Lenovo M500 Projector	0037A05	Intel PRO/Wireless 2915ABG Mini PCI	41N2990	ThinkVision® C400 Wireless Projector	0039WA1	Optical 3-Button Travel Wheel Mouse	31P7410	ThinkVision L201p 20.1" Monitor (black)	9320HB1	Verizon Wireless V620 WWAN PC Card <sup>25</sup>	40Y9137	Other options at <a href="http://lenovo.com/options">lenovo.com/options</a>		ThinkPad Monitor Stand	22P5265	Carrying Case - Leather Ultraportable	73P5186	Post-warranty annual maintenance agreements at <a href="http://lenovo.com/thinkplus/warranty">lenovo.com/thinkplus/warranty</a>		Carrying Case - BackPack	73P3599	Asset ID™ <sup>34</sup> (system-specific info in chip accessed over network) ACPI 1.0b and 2.0-compliant International Warranty Service <sup>17</sup> 24 hour x 7 day <sup>18</sup> toll-free warranty support during the warranty <sup>12</sup>

See footnotes for important warranty information \* Powered by Intel Centrino® mobile technology  
US models announced April 6 or October 5, 2004 or February 15 or October 4, 2005  
US models withdrawn effective June 2005, August 2005, April 2006, or May 2006

© Lenovo  
(2372) April 2006



# ThinkPad® X41 (2525) - withdrawn

Created by Lenovo Training Solutions  
Personal Systems Reference (PSREF)

Type-model	Processor	L2 GHz cache	L2 Memory	Screen	Optical Disk	UltraBase	ThinkPad X4 UltraBase™	Mini PCI wireless	CDC: modem/Bluetooth™	Fingerprint reader	Limited warranty <sup>12</sup>	WH Entry	Gbl	Avail date
2525-18U	Pentium® M 758	1.5	2MB	256MB	12.1" XGA	40GB	None	Optional	Open; wireless upg <sup>36</sup>	Modem	No	3-yr	W G	Apr 05
2525-3CU	Pentium M 758	1.5	2MB	512MB	12.1" XGA	40GB	None	Optional	* Intel 11b/g <sup>32</sup>	Modem	No	3-yr	W G	Apr 05
2525-54U	Pentium M 758	1.5	2MB	512MB	12.1" XGA	40GB	None	Optional	* Intel 11b/g	Modem	Finger	3-yr	W G	Apr 05
2525-6NU	Pentium M 758	1.5	2MB	512MB	12.1" XGA	60GB	None	Optional	* Intel 11a/b/g <sup>32</sup>	Mod/Blue	Finger	3-yr	W	Apr 05
2525-6HU	Pentium M 758	1.5	2MB	512MB	12.1" XGA	60GB	Combo	UltraBase	* Intel 11a/b/g	Mod/Blue	Finger	3-yr	W	Apr 05
2525-5ZU	Pentium M 758	1.5	2MB	512MB	12.1" XGA	40GB	None	Optional	* Intel 11b/g	Modem	Finger	3-yr	W TAA	Apr 05
Positioning	<i>Ultimate mobility in a versatile ultraportable; one spindle</i>											<b>SOFTWARE<sup>14</sup></b>		
US Govt (TAA) <sup>5</sup> Processor	5ZU: US Government model (Trade Act Agreement-compliant) <b>Intel® Pentium® M Processor Low Voltage 758 (1.5GHz)</b> with Enhanced Intel SpeedStep™ technology <sup>1</sup> , Execute Disable Bit, and 400MHz system bus											<b>Windows XP Professional</b>		
L2 cache Memory	<b>2MB</b> / on die (at processor speed) / ECC <b>256 or 512MB</b> std / 1.28 to 1.53GB max <sup>7</sup> / <b>PC2-4200</b> 533MHz DDR2 (limited to 400MHz because of low voltage processor) / non-parity / CL4 / dual channel capable / std memory soldered to systemboard / one 200-pin SO-DIMM socket available											- Microsoft® Windows® XP Professional <sup>20</sup> (Service Pack 2) ◇ Disk-to-Disk Recovery (in hidden protected area)		
Diskette drive Combo Ultrabay™ Slim Disk	None standard / use optional USB-based diskette drive <i>Some:</i> DVD-ROM/CD-RW / 24X/24X/24X/8X <sup>21</sup> speed / removable from X4 UltraBase Supports Ultrabay Slim devices in optional or standard X4 UltraBase <b>40GB<sup>8</sup> or 60GB</b> (4200 rpm), 9.5mm, ATA-100 / 1.8" platter / removable and upgradable / 9.5mm high bay / <b>Active Protection System™</b> (shock protection)											<b>Preloaded</b> • Rescue and Recovery™ • Access Program • Access Connections™ • Norton AntiVirus (OEM edition) • PC-Doctor™ • ThinkPad Utilities • Adobe Reader • Update Connector™.15 • Client Security Software (for security chip)		
Display	<b>12.1"</b> (308mm) <b>XGA (1024x768) TFT color</b> / Active Matrix / 150 nits											<b>Downloadable</b> • IBM Director Agent • Software Delivery Assistant • System Migration Assistant		
Graphics	<b>Intel Graphics Media Accelerator 900 (GMA 900)</b> / integrated graphics in 915GM GMCH / uses main memory (up to 128MB with 256MB+) / 200MHz											<b>License</b> (CD not included) - Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client		
Keyboard	Standard-size <sup>26</sup> keys / 97% size of T Series / 87-key / 18.5mm pitch; 2.5mm stroke / Access IBM button / palm rest / TrackPoint®, "Press-to-Select," Internet Scroll Bar <sup>13</sup> / soft dome TrackPoint cap / ships with classic dome and soft rim TrackPoint cap Illuminates the keyboard to improve visibility in low-light conditions											Supports ThinkVantage™ technologies		
ThinkLight®	Illuminates the keyboard to improve visibility in low-light conditions											<b>ThinkPad X4 UltraBase™ Dock</b> • Provides desktop expansion and cable management for the X40/X41 • Easily connects to the bottom of the X40/X41 for traveling • Converts the X40 to a two-spindle system by supporting optional Ultrabay Slim accessories in left side: – Ultrabay Slim Li-Polymer Battery 3-cell 08K8190 – CD-RW/DVD Combo II Ultrabay Slim Drive 73P3288 – ThinkPad DVD-ROM Ultrabay Slim Drive 73P3270 – Super Multi-Burner Ultrabay Slim Drive (curved bezel) 40Y8622 – Second HDD Adapter for Ultrabay Slim 62P4554 Disks supported: • 40GB HS Hard Disk 08K9816 • 60GB HS Hard Disk 73P3357 • 80GB HS Hard Disk 09N4273		
Dimensions <sup>3</sup> Travel weight <sup>2</sup>	<i>8-cell without X4 UltraBase:</i> 10.5" x 9.3" x .81-1.06"; 268mm x 237mm x 20.6-26.9mm <i>8-cell battery models:</i> 3.3 lb (1.49kg) <i>with 8-cell battery and X4 UltraBase with combo:</i> 5.1 lb (2.31kg)											Other features: • Power button (front) • Stereo speakers (1 watt) • Security key lock, security keyhole, and optical security screw • Serial and parallel ports • PS/2 port for keyboard or mouse • Analog DB-15 monitor port • Three USB 2.0 ports (via USB hub) • Ethernet port (Gigabit Ethernet) • Modem port • Retractable feet; 1.3 lb; 580g		
Case material Battery - type	Color: black; All: magnesium alloy Li-Ion <b>8-cell</b> / intelligent / supports optional Extended Life Battery on base (for two batteries) / supports optional battery in X4 UltraBase (for two batteries)											56 watt AC Adapter Asset ID™.34 (system-specific info in chip accessed over network) ACPI 1.0b and 2.0-compliant ENERGY STAR®-compliant International Warranty Service <sup>17</sup> 24 hour x 7 day <sup>18</sup> toll-free warranty support during the warranty <sup>12</sup> via 800-IBM-SERV (426-7378)		
Battery - life <sup>10</sup>	<i>with 8-cell:</i> up to 5.7 hr; <i>with 8-cell and optional Extended Life Battery:</i> up to 8.1 hr													
Architecture	<b>Mobile Intel 915GM Express Chipset</b> / 82915GM Graph Mem Cont Hub (GMCH-M) / 82801FBM ICH6-M I/O Controller Hub (SATA150, ATA-100 EIDE, PCI Express x1, PCI bus, ethernet MAC, USB, Low Pin Count [LPC] interface, [Bluetooth], [fingerprint]) / PCI bus (Ricoch® R5C811 CardBus Plus controller, Mini PCI, external expansion) / LPC bus (PC87392 Super I/O for infrared [dock-based ports], Atmel® security chip) <i>Some:</i> <b>X4 UltraBase</b> (see right side) / optional <b>X4 Dock</b> supported													
Mobile media base Secure Digital slot PC Card Std slot Ports	One <b>Secure Digital Card</b> slot / supports SD memory cards used in consumer devices One Type I or one Type II / <b>CardBus Plus</b> 32-bit / PCMCIA 2.1 / integrated door Two USB (version 2.0), plus one powered USB port for select options / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / no serial, parallel, keyboard/mouse ports (use X4 UltraBase) / no IEEE 1394 port													
Wireless antenna Mini PCI Wireless upg <sup>36</sup> Intel 11b/g <sup>32</sup> Intel 11a/b/g <sup>32</sup>	UltraConnect™ antenna built into the display cover for optimal wireless signal reception One Mini PCI type III slot (Communications Bay) / customer upgradable <i>Some:</i> wireless upgradable with wireless Mini PCI options <i>Some:</i> 11b/g wireless <sup>4</sup> , Mini PCI, Intel PRO/Wireless 2200BG, Intel 82532 chipset <i>Some:</i> 11a/b/g wireless <sup>4</sup> , Mini PCI, Intel PRO/Wireless 2915ABG, Intel 82533 chipset													
CDC Modem Bluetooth™	One Communications Daughter Card (CDC) socket / customer accessible 56K <sup>6</sup> V.90 (V.92-designed <sup>29</sup> ) modem in CDC / Conexant® chipset <i>Some:</i> Bluetooth wireless technology / in CDC (with modem)													
Ethernet Audio support	Gigabit ethernet on systemboard / Broadcom BCM5751M (MAC/PHY) / PCIe x1 / PXE Soft audio / ICH AC97 controller / DirectSound™ support / AD1981B AC97 codec / mono speaker, 0.5 watt / volume up, down, mute buttons / internal mic / microphone input jack (3.5 mm; pink) / headphone jack (3.5 mm; green) Power-on password / dual hard disk password / supervisor password / security keyhole													
Security Security chip Fingerprint reader	<b>Embedded Security Subsystem 2.0<sup>33</sup></b> / Atmel® chip / TCG-compliant <i>Some:</i> <b>Fingerprint reader on palm rest</b> / swipe sensor / integrated with security chip													
Limited warranty <sup>12</sup>	<b>3-year/1-yr battery</b> - EasyServ™.19 onsite pickup and delivery / service upgrades <sup>22</sup> avail													
256MB PC2-4200 DDR2 NP CL4 SOD	73P3840			ThinkPad X4 UltraBase				92P3429						
512MB PC2-4200 DDR2 NP CL4 SOD	73P3842			ThinkPad X4 Dock				250610U						
1GB PC2-4200 DDR2 NP CL4 SOD	73P3844			ThinkPad X40 Series Li-Ion Battery (4-cell)				92P1009						
USB Portable Diskette Drive	05K9276			ThinkPad X40 Series Li-Ion Battery (8-cell)				92P1119						
USB Numeric Keypad (black)	33L3225			ThinkPad X40 Series Extended Life Battery				92P1006						
USB Fingerprint Reader	73P4774			ThinkPad Multiple Battery Charger II				22P9040						
USB 2.0 Super Multi-Burner Drive	40Y8638			ThinkPad Ultraportable 56W AC Adapter				02K6880						
USB 2.0 Memory Key 1GB	40Y7421			72W Slim AC/DC Combo Adapter				73P4485						
60GB Mini Hard Disk 9.5mm (4200 rpm)	73P3358			Enh Perf Wireless Keyboard and Mouse				73P4067						
Kensington® MicroSaver® Security Cable	73P2582			ThinkPlus™.22 2-year LOR 9x5 NBD				41C9175						
11a/b/g Wireless Mini PCI Adapter II	73P4301			ThinkPlus 3-year LOR 9x5 NBD				41C9176						
Intel PRO/Wireless 2915ABG Mini PCI	41N2990			ThinkPlus 5-year LOR 9x5 NBD				41C9179						
Carrying Case - Leather Ultraportable	73P5186			ThinkPlus 4-year P&L P/U Depot				41C9178						
Carrying Case - Backpack	73P3599			ThinkPlus 5-year P&L P/U Depot				41C9180						
ThinkVision® L201p 20.1" Monitor (black)	9320HB1			Other options at <a href="http://lenovo.com/options">lenovo.com/options</a>										

See footnotes for important warranty information  
US models announced April 5, 2005  
US models withdrawn effective November 2005 or May 2006

\* Powered by Intel Centrino® mobile technology

© Lenovo  
(X1) April 2006

# ThinkPad® X41 (2525) - October 2005 - withdrawn

Created by Lenovo Training Solutions  
Personal Systems Reference (PSREF)

Type-model	Processor	L2 GHz cache	Memory	Screen	Optical in Disk	UltraBase	ThinkPad X4 UltraBase™	Mini PCI wireless	CDC: modem/ Bluetooth™	Fingerprint reader	Limited warranty <sup>12</sup>	WH Gbl Entry	Avail date	
2525-A2U	Pentium® M 778	1.6	2MB	256MB	12.1" XGA	40GB	None	Optional	Open; wireless upg <sup>36</sup>	Modem	No	3-yr	W G	Oct 05
2525-C3U	Pentium M 778	1.6	2MB	512MB	12.1" XGA	60GB	None	Optional	* Intel 11b/g <sup>32</sup>	Modem	No	3-yr	W G	Oct 05
2525-E2U	Pentium M 778	1.6	2MB	512MB	12.1" XGA	60GB	None	Optional	* Intel 11b/g	Modem	Finger	3-yr	W G	Oct 05
2525-F6U	Pentium M 778	1.6	2MB	512MB	12.1" XGA	60GB	None	Optional	* Intel 11a/b/g <sup>32</sup>	Mod/Blue	Finger	3-yr	W	Oct 05
2525-FGU	Pentium M 778	1.6	2MB	512MB	12.1" XGA	60GB	Combo	UltraBase	* Intel 11a/b/g	Mod/Blue	Finger	3-yr		Oct 05
2525-FUU	Pentium M 778	1.6	2MB	512MB	12.1" XGA	60GB	Combo	UltraBase	11a/b/g II <sup>32</sup>	Mod/Blue	Finger	3-yr		Oct 05
<p>Positioning <i>Ultimate mobility in a versatile ultraportable; one spindle</i></p> <p>US Govt (TAA)<sup>5</sup> None</p> <p>Processor <b>Intel® Pentium® M Processor Low Voltage 778 (1.6GHz)</b> with Enhanced Intel SpeedStep™ technology<sup>1</sup>, Execute Disable Bit, and 400MHz system bus</p> <p>L2 cache <b>2MB</b> / on die (at processor speed) / ECC</p> <p>Memory <b>256 or 512MB</b> std / 1.28 to 1.53GB max<sup>7</sup> / <b>PC2-4200</b> 533MHz DDR2 (limited to 400MHz because of low voltage processor) / non-parity / CL4 / dual channel capable / std memory soldered to systemboard / one 200-pin SO-DIMM socket available</p> <p>Diskette drive None standard / use optional USB-based diskette drive</p> <p>Combo <i>Some: DVD-ROM/CD-RW / 24X/24X/24X/8X<sup>21</sup> speed / removable from X4 UltraBase</i></p> <p>UltraBase™ Slim Supports Ultrabay Slim devices in optional or standard X4 UltraBase</p> <p>Disk <b>40GB<sup>8</sup> or 60GB</b> (4200 rpm), 9.5mm, ATA-100 / 1.8" platter / removable and upgradable / 9.5mm high bay / <b>Active Protection System™</b> (shock protection)</p> <p>Display <b>12.1"</b> (308mm) <b>XGA (1024x768) TFT color</b> / Active Matrix / 150 nits</p> <p>Graphics <b>Intel Graphics Media Accelerator 900 (GMA 900)</b> / integrated graphics in 915GM GMCH / uses main memory (up to 128MB with 256MB+) / 200MHz</p> <p>Keyboard Standard-size<sup>26</sup> keys / 97% size of T Series / 87-key / 18.5mm pitch; 2.5mm stroke / Access IBM button / palm rest / TrackPoint®, "Press-to-Select," Internet Scroll Bar<sup>13</sup> / soft dome TrackPoint cap / ships with classic dome and soft rim TrackPoint cap</p> <p>ThinkLight® Illuminates the keyboard to improve visibility in low-light conditions</p> <p>Dimensions<sup>3</sup> <i>8-cell without X4 UltraBase: 10.5" x 9.3" x .81-1.06"</i>; 268mm x 237mm x 20.6-26.9mm</p> <p>Weight<sup>2</sup> <i>8-cell battery models: 3.3 lb (1.49kg)</i>; <i>with 8-cell battery and X4 UltraBase with combo: 5.1 lb (2.31kg)</i></p> <p>Case material <i>Color: black; All: magnesium alloy</i></p> <p>Battery - type Li-Ion <b>8-cell</b> / intelligent / supports optional Extended Life Battery on base (for two batteries) / supports optional battery in X4 UltraBase (for two batteries)</p> <p>Battery - life<sup>10</sup> <i>with 8-cell: up to 5.7 hr</i>; <i>with 8-cell and optional Extended Life Battery: up to 8.1 hr</i></p> <p>Architecture <b>Mobile Intel 915GM Express Chipset</b> / 82915GM Graph Mem Cont Hub (GMCH-M) / 82801FBM ICH6-M I/O Controller Hub (SATA150, ATA-100 EIDE, PCI Express x1, PCI bus, ethernet MAC, USB, Low Pin Count [LPC] interface, [Bluetooth], [fingerprint]) / PCI bus (Ricoh® R5C811 CardBus Plus controller, Mini PCI, external expansion) / LPC bus (PC87392 Super I/O for infrared [dock-based ports], Atmel® security chip)</p> <p>Mobile media base <i>Some: X4 UltraBase (see right side) / optional X4 Dock supported</i></p> <p>Secure Digital slot One <b>Secure Digital Card</b> slot / supports SD memory cards used in consumer devices</p> <p>PC Card Std slot One Type I or one Type II / <b>CardBus Plus</b> 32-bit / PCMCIA 2.1 / integrated door</p> <p>Ports Two USB (version 2.0), plus one powered USB port for select options / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / no serial, parallel, keyboard/mouse ports (use <i>X4 UltraBase</i>) / no IEEE 1394 port</p> <p>Wireless antenna UltraConnect™ antenna built into the display cover for optimal wireless signal reception</p> <p>Mini PCI One Mini PCI type III slot (Communications Bay) / customer upgradable</p> <p>Wireless upg<sup>36</sup> <i>Some: wireless upgradable with wireless Mini PCI options</i></p> <p>Intel 11b/g<sup>32</sup> <i>Some: 11b/g wireless<sup>4</sup>, Mini PCI, Intel PRO/Wireless 2200BG, Intel 82532 chipset</i></p> <p>Intel 11a/b/g<sup>32</sup> <i>Some: 11a/b/g wireless<sup>4</sup>, Mini PCI, Intel PRO/Wireless 2915ABG, Intel 82533 chipset</i></p> <p>11a/b/g II<sup>32</sup> <i>Some: 11a/b/g wireless<sup>4</sup>, ThinkPad 11a/b/g Mini PCI Adapter II, Atheros AR5004X chip</i></p> <p>CDC One Communications Daughter Card (CDC) socket / customer accessible</p> <p>Modem 56K<sup>6</sup> V.90 (V.92-designed<sup>29</sup>) modem in CDC / Conexant® chipset</p> <p>Bluetooth™ <i>Some: Bluetooth wireless technology / in CDC (with modem)</i></p> <p>Ethernet Gigabit ethernet on systemboard / Broadcom BCM5751M (MAC/PHY) / PCIe x1 / PXE</p> <p>Audio support Soft audio / ICH AC97 controller / DirectSound® support / AD1981B AC97 codec / mono speaker, 0.5 watt / volume up, down, mute buttons / internal mic / microphone input jack (3.5 mm; pink) / headphone jack (3.5 mm; green)</p> <p>Security Power-on password / dual hard disk password / supervisor password / security keyhole</p> <p>Security chip <b>Embedded Security Subsystem 2.0<sup>33</sup></b> / Atmel® chip / TCG-compliant</p> <p>Fingerprint reader <i>Some: Fingerprint reader on palm rest / swipe sensor / integrated with security chip</i></p> <p>Limited warranty<sup>12</sup> <b>3-year/1-yr battery</b> - EasyServ™<sup>19</sup> onsite pickup and delivery / service upgrades<sup>22</sup> avail</p>														
<p><b>SOFTWARE<sup>14</sup></b></p> <p><b>Windows XP Professional</b></p> <ul style="list-style-type: none"> <li>- Microsoft® Windows® XP Professional<sup>20</sup> (Service Pack 2)</li> <li>◇ Disk-to-Disk Recovery (in hidden protected area)</li> </ul> <p><b>Preloaded</b></p> <ul style="list-style-type: none"> <li>• Rescue and Recovery™</li> <li>• Access Connections™</li> <li>• ThinkVantage Productivity Center</li> <li>• ThinkVantage System Update</li> <li>• Symantec® Client Security</li> <li>• PC-Doctor™</li> <li>• ThinkPad Utilities</li> <li>• Adobe Reader</li> <li>• Update Connector™<sup>15</sup></li> <li>• Client Security Solution™ (for security chip)</li> </ul> <p><b>Downloadable</b></p> <ul style="list-style-type: none"> <li>• IBM Director Agent</li> <li>• Software Delivery Assistant</li> <li>• System Migration Assistant</li> </ul> <p><b>License</b> (CD not included)</p> <ul style="list-style-type: none"> <li>- Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client</li> </ul> <p>Supports ThinkVantage® technologies</p> <p><b>ThinkPad X4 UltraBase™</b></p> <ul style="list-style-type: none"> <li>• Provides desktop expansion and cable management for the X40/X41</li> <li>• Easily connects to the bottom of the X40/X41 for traveling</li> <li>• Converts the X41 to a two-spindle system by supporting optional Ultrabay Slim accessories in left side: <ul style="list-style-type: none"> <li>- Ultrabay Slim Li-Polymer Battery 3-cell 08K8190</li> <li>- CD-RW/DVD Combo II Ultrabay Slim Drive 73P3288</li> <li>- ThinkPad DVD-ROM Ultrabay Slim Drive 73P3270</li> <li>- Super Multi-Burner Ultrabay Slim Drive (curved bezel) 40Y8622</li> <li>- Second HDD Adapter for Ultrabay Slim 41U3148</li> </ul> </li> <li>Disks supported: <ul style="list-style-type: none"> <li>• 40GB HS Hard Disk 08K9816</li> <li>• 60GB HS Hard Disk 39W9106</li> <li>• 80GB HS Hard Disk 09N4273</li> </ul> </li> </ul> <p>Other features:</p> <ul style="list-style-type: none"> <li>• Power button (front)</li> <li>• Stereo speakers (1 watt)</li> <li>• Security key lock, security keyhole, and optical security screw</li> <li>• Serial and parallel ports</li> <li>• PS/2 port for keyboard or mouse</li> <li>• Analog DB-15 monitor port</li> <li>• Three USB 2.0 ports (via USB hub)</li> <li>• Ethernet port (Gigabit Ethernet)</li> <li>• Modem port</li> <li>• Retractable feet; 1.3 lb; 580g</li> </ul> <p>56-watt AC Adapter</p> <p>Asset ID™<sup>34</sup> (system-specific info in chip accessed over network)</p> <p>ACPI 1.0b and 2.0-compliant</p> <p>ENERGY STAR®-compliant</p> <p>International Warranty Service<sup>17</sup></p> <p>24 hour x 7 day<sup>18</sup> toll-free warranty support during the warranty<sup>12</sup> via 800-IBM-SERV (426-7378)</p>														
256MB	PC2-4200	DDR2 NP	CL4	SOD	73P3840	ThinkPad X4 UltraBase		92P3429						
512MB	PC2-4200	DDR2 NP	CL4	SOD	73P3842	ThinkPad X4 Dock		250610U						
1GB	PC2-4200	DDR2 NP	CL4	SOD	73P3844	X40 Series Li-Ion Battery (4-cell)		92P1009						
USB	Portable	Diskette	Drive		05K9276	X40 Series Li-Ion Battery (8-cell)		92P1119						
USB	Numeric	Keypad	(black)		33L3225	X40 Series Extended Life Battery		92P1006						
USB	Fingerprint	Reader			41U3167	ThinkPad Multiple Battery Charger II		22P9040						
USB 2.0	Memory	Key	1GB		40Y7421	ThinkPad Ultraportable 56W AC Adapter		02K6880						
USB 2.0	Portable	80GB	Hard	Disk	40Y8726	72W Slim AC/DC Combo Adapter		73P4485						
60GB	Mini	Hard	Disk	9.5mm	(4200 rpm)	73P3358	ThinkVision™ L201p 20.1" Monitor (black)	9220HB1						
Kensington®	MicroSaver®	Security	Cable		73P2582	ThinkPlus™ <sup>22</sup> 2-year LOR 9x5 NBD		41C9175						
11a/b/g	Wireless	Mini	PCI	Adapter	II	73P4301	ThinkPlus 3-year LOR 9x5 NBD	41C9176						
Intel	PRO/Wireless	2915ABG	Mini	PCI		41N2990	ThinkPlus 5-year LOR 9x5 NBD	41C9179						
Carrying	Case -	Leather	Ultraportable		73P5186	ThinkPlus 4-year P&L P/U Depot		41C9178						
Carrying	Case -	BackPack			73P3599	ThinkPlus 5-year P&L P/U Depot		41C9180						
ThinkPad	Convertible	Monitor	Stand		40Y7620	Other options at <a href="http://lenovo.com/options">lenovo.com/options</a>								

See footnotes for important warranty information  
US models announced October 4, 2005  
US models withdrawn effective May or November 2006

\* Powered by Intel Centrino® mobile technology

# ThinkPad® X41 (2527) - Express - withdrawn

Created by Lenovo Training Solutions  
Personal Systems Reference (PSREF)

Type-model	Processor	L2 cache	Memory	Screen	Disk	Optical in	ThinkPad UltraBase™	Mini PCI wireless	CDC: modem/Bluetooth™	Fingerprint reader	Sec chip	Limited warranty <sup>12</sup>	Avail date	
2527-55U	Pentium® M 758	1.5 GHz	2MB	512MB	12.1" XGA	40GB	None	Optional	* Intel 11a/b/g <sup>32</sup>	Modem	Finger	Yes	1 year	Apr 05
2527-6NU	Pentium M 758	1.5 GHz	2MB	512MB	12.1" XGA	60GB	None	Optional	* Intel 11a/b/g	Mod/Blue	Finger	Yes	1 year	Apr 05
2527-5FU	Pentium M 758	1.5 GHz	2MB	512MB	12.1" XGA	40GB	Combo	UltraBase	* Intel 11a/b/g	Modem	Finger	Yes	1 year	Apr 05

- These small and medium business (SMB) models are part of the US Think Express Program
- The 2527 has a 1 year limited warranty

Positioning	Ultimate mobility in a versatile ultraportable; one spindle										<b>SOFTWARE<sup>14</sup></b>																																																																								
US Govt (TAA) <sup>5</sup>	None										<b>Windows XP Professional</b>																																																																								
Processor	Intel® Pentium® M Processor Low Voltage 758 (1.5GHz) with enhanced Intel SpeedStep™ technology <sup>1</sup> , Execute Disable Bit, and 400MHz system bus										- Microsoft® Windows® XP Professional <sup>20</sup> (Service Pack 2)																																																																								
L2 cache	2MB / on die (at processor speed) / ECC										◇ Disk-to-Disk Recovery (in hidden protected area)																																																																								
Memory	512MB std / 1.28 to 1.53GB max <sup>7</sup> / PC2-4200 533MHz DDR2 (limited to 400MHz because of low voltage processor) / non-parity / CL4 / dual channel capable / std memory soldered to systemboard / one 200-pin SO-DIMM socket available										<b>Preloaded</b>																																																																								
Diskette drive	None standard / use optional USB-based diskette drive										• Rescue and Recovery™																																																																								
Combo	Some: DVD-ROM/CD-RW / 24X/24X/24X/8X <sup>21</sup> speed / removable from X4 UltraBase										• Access Program																																																																								
Ultrabay™ Slim	Supports Ultrabay Slim devices in optional or standard X4 UltraBase										• Access Connections™																																																																								
Disk	40GB <sup>8</sup> or 60GB (4200 rpm), 9.5mm, ATA-100 / 1.8" platter / removable and upgradable / 9.5mm high bay / Active Protection System™ (shock protection)										• Norton AntiVirus (OEM edition)																																																																								
Display	12.1" (308mm) XGA (1024x768) TFT color / Active Matrix / 150 nits										• PC-Doctor™																																																																								
Graphics	Intel Graphics Media Accelerator 900 (GMA 900) / integrated graphics in 915GM GMCH / uses main memory (up to 128MB with 256MB+) / 200MHz										• ThinkPad Utilities																																																																								
Keyboard	Standard-size <sup>26</sup> keys / 97% size of T Series / 87-key / 18.5mm pitch; 2.5mm stroke / Access IBM button / palm rest / TrackPoint®, "Press-to-Select," Internet Scroll Bar <sup>13</sup> / soft dome TrackPoint cap / ships with classic dome and soft rim TrackPoint cap										• Adobe Reader																																																																								
ThinkLight®	Illuminates the keyboard to improve visibility in low-light conditions										• Update Connector™ <sup>15</sup>																																																																								
Dimensions <sup>3</sup>	8-cell without X4 UltraBase: 10.5" x 9.3" x .81-1.06"; 268mm x 237mm x 20.6-26.9mm										• Client Security Software (for security chip)																																																																								
Travel weight <sup>2</sup>	8-cell battery models: 3.3 lb (1.49kg); with 8-cell battery and X4 UltraBase with combo: 5.1 lb (2.31kg)										<b>Downloadable</b>																																																																								
Case material	Color: black; All: magnesium alloy										• IBM Director Agent																																																																								
Battery - type	Li-Ion 8-cell / intelligent / supports optional Extended Life Battery on base (for two batteries) / supports optional battery in X4 UltraBase (for two batteries)										• Software Delivery Assistant																																																																								
Battery - life <sup>10</sup>	with 8-cell: up to 5.7 hr; with 8-cell and optional Extended Life Battery: up to 8.1 hr										• System Migration Assistant																																																																								
Architecture	Mobile Intel 915GM Express Chipset / 82915GM Graph Mem Cont Hub (GMCH-M) / 82801FBM ICH6-M I/O Controller Hub (SATA150, ATA-100 EIDE, PCI Express x1, PCI bus, ethernet MAC, USB, Low Pin Count [LPC] interface, [Bluetooth], [fingerprint]) / PCI bus (Ricoh® R5C811 CardBus Plus controller, Mini PCI, external expansion) / LPC bus (PC87392 Super I/O for infrared [dock-based ports], Atmel® security chip)										<b>ThinkPad X4 UltraBase™</b>																																																																								
Mobile media base	Some: X4 UltraBase (see right side) / optional X4 Dock supported										• Provides desktop expansion and cable management for the X40/X41																																																																								
Secure Digital slot	One Secure Digital Card slot / supports SD memory cards used in consumer devices										• Easily connects to the bottom of the X40/X41 for traveling																																																																								
PC Card Std slot	One Type I or one Type II / CardBus Plus 32-bit / PCMCIA 2.1 / integrated door										• Converts the X41 to a two-spindle system by supporting optional Ultrabay Slim accessories in left side:																																																																								
Ports	Two USB (version 2.0), plus one powered USB port for select options / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / no serial, parallel, keyboard/mouse ports (use X4 UltraBase) / no IEEE 1394 port										- Ultrabay Slim Li-Polymer Battery 3-cell 08K8190																																																																								
Wireless antenna	UltraConnect™ antenna built into the display cover for optimal wireless signal reception										- CD-RW/DVD Combo II Ultrabay Slim Drive 73P3288																																																																								
Mini PCI	One Mini PCI type III slot (Communications Bay) / customer upgradeable										- ThinkPad DVD-ROM Ultrabay Slim Drive 73P3270																																																																								
Intel 11a/b/g <sup>32</sup>	11a/b/g wireless <sup>4</sup> , Intel PRO/Wireless 2915ABG, Intel 82533 chipset										- Multi-Burner Plus Ultrabay Slim Drive 73P3342																																																																								
CDC	One Communications Daughter Card (CDC) socket / customer accessible										- Second HDD Adapter for Ultrabay Slim 62P4554																																																																								
Modem	56K <sup>6</sup> V.90 (V.92-designed <sup>29</sup> ) modem in CDC / Conexant® chipset										Disks supported:																																																																								
Bluetooth™	Some: Bluetooth wireless technology / in CDC (with modem)										• 40GB HS Hard Disk 08K9816																																																																								
Ethernet	Gigabit ethernet on systemboard / Broadcom BCM5751M (MAC/PHY) / PCIe x1 / PXE										• 60GB HS Hard Disk 73P3357																																																																								
Audio support	Soft audio / ICH AC97 controller / DirectSound™ support / AD1981B AC97 codec / mono speaker / 0.5 watt / volume up, down, mute buttons / internal mic / microphone input jack (3.5 mm; pink) / headphone jack (3.5 mm; green)										• 80GB HS Hard Disk 09N4273																																																																								
Security	Power-on password / dual hard disk password / supervisor password / security keyhole										Other features:																																																																								
Security chip	Embedded Security Subsystem 2.0 <sup>33</sup> / Atmel® chip / TCG-compliant										• Power button (front)																																																																								
Fingerprint reader	Fingerprint reader on palm rest / swipe sensor / integrated with security chip										• Stereo speakers (1 watt)																																																																								
Limited warranty <sup>12</sup>	1 year - EasyServ™ <sup>19</sup> onsite pickup and delivery / service upgrades <sup>22</sup> available										• Security key lock, security keyhole, and optical security screw																																																																								
256MB PC2-4200 DDR2 NP CL4 SOD	73P3840	ThinkPad X4 UltraBase	92P3429	512MB PC2-4200 DDR2 NP CL4 SOD	73P3842	ThinkPad X4 Dock	250610U	1GB PC2-4200 DDR2 NP CL4 SOD	73P3844	ThinkPad X40 Series Li-Ion Battery (4-cell)	92P1009	USB Portable Diskette Drive	05K9276	ThinkPad X40 Series Li-Ion Battery (8-cell)	92P1119	USB Numeric Keypad (black)	33L3225	ThinkPad X40 Series Extended Life Battery	92P1006	USB Fingerprint Reader	73P4774	ThinkPad Multiple Battery Charger II	22P9040	Powered USB 2.0 Port Combo Drive	22P9194	ThinkPad Ultraportable 56W AC Adapter	02K6880	USB 2.0 Portable Multi-Burner Drive	22P9163	Enh Perf Wireless Keyboard and Mouse	73P4067	USB 2.0 Memory Key 512MB	22P9230	ThinkVision® C400 Wireless Projector	0039WA1	60GB Mini Hard Disk 9.5mm (4200 rpm)	73P3358	ThinkPlus™ <sup>22</sup> 1yr LOR 9x5 NBD	41C9166	Kensington® MicroSaver® Security Cable	73P2582	ThinkPlus 2yr LOR 9x5 NBD	41C9167	11a/b/g Wireless CardBus Adapter	31P9101	ThinkPlus 3yr LOR 9x5 NBD	41C9168	11a/b/g Wireless Mini PCI Adapter II	73P4301	ThinkPlus 5yr LOR 9x5 NBD	41C9173	Intel PRO/Wireless 2915ABG Mini PCI	41N2990	ThinkPlus 2yr P&L P/U Depot	41C9169	ThinkPad Carrying Case - Backpack	73P3599	ThinkPlus 3yr P&L P/U Depot	41C9170	ThinkPad Carrying Case - Leather	73P3600	ThinkPlus 4yr P&L P/U Depot	41C9172	Carrying Case - Leather Ultraportable	73P5186	ThinkPlus 5yr P&L P/U Depot	41C9174	SonyEricsson® GC83 EDGE PC Card	26K3393	Other options at <a href="http://lenovo.com/options">lenovo.com/options</a>		56 watt AC Adapter		Asset ID™ <sup>34</sup> (system-specific info in chip accessed over network)		ACPI 1.0b and 2.0-compliant		ENERGY STAR®-compliant		International Warranty Service <sup>17</sup>		24 hour x 7 day <sup>18</sup> toll-free warranty support during the warranty <sup>12</sup> via 800-IBM-SERV (426-7378)	

See footnotes for important warranty information  
US models announced April 5, 2005  
US models withdrawn effective November 2005

\* Powered by Intel Centrino™ mobile technology

© Lenovo  
(X2) October 2005

# ThinkPad® X41 (2527) - TopSeller (October 2005) - withdrawn

Created by Lenovo Training Solutions  
Personal Systems Reference (PSREF)

Type-model	Processor	L2 cache	Memory	Screen	Disk	Optical in	ThinkPad UltraBase™	Mini PCI wireless	CDC: modem/Bluetooth™	Fingerprint reader	Sec chip	Limited warranty <sup>12</sup>	Avail date	
2527-EJU	Pentium® M 778	1.6 GHz	2MB	512MB	12.1" XGA	40GB	None	Optional	* Intel 11a/b/g <sup>32</sup>	Modem	Finger	Yes	1-year	Oct 05
2527-FQU	Pentium M 778	1.6 GHz	2MB	512MB	12.1" XGA	60GB	None	Optional	* Intel 11a/b/g	Mod/Blue	Finger	Yes	1-year	Oct 05
2527-B4U	Pentium M 778	1.6 GHz	2MB	512MB	12.1" XGA	40GB	Combo	UltraBase	* Intel 11a/b/g	Modem	Finger	Yes	1-year	Oct 05

- These small and medium business (SMB) models are part of the US TopSeller™ Program
- The 2527 has a 1-year limited warranty

Positioning	<i>Ultimate mobility in a versatile ultraportable; one spindle</i>										<b>SOFTWARE<sup>14</sup></b>		
US Govt (TAA) <sup>5</sup>	None										<b>Windows XP Professional</b>		
Processor	<b>Intel® Pentium® M Processor Low Voltage 778 (1.6GHz)</b> with Enhanced Intel SpeedStep™ technology <sup>1</sup> , Execute Disable Bit, and 400MHz system bus										- Microsoft® Windows® XP Professional <sup>20</sup> (Service Pack 2)		
L2 cache	<b>2MB</b> / on die (at processor speed) / ECC										- Disk-to-Disk Recovery (in hidden protected area)		
Memory	<b>512MB</b> std / 1.28 to 1.53GB max <sup>7</sup> / <b>PC2-4200</b> 533MHz DDR2 (limited to 400MHz because of low voltage processor) / non-parity / CL4 / dual channel capable / std memory soldered to systemboard / one 200-pin SO-DIMM socket available										<b>Preloaded</b>		
Diskette drive	None standard / use optional USB-based diskette drive										• Rescue and Recovery™		
Combo	<i>Some:</i> DVD-ROM/CD-RW / 24X/24X/24X/8X <sup>21</sup> speed / removable from X4 UltraBase										• Access Connections™		
UltraBay™ Slim	Supports Ultrabay Slim devices in optional or standard X4 UltraBase										• ThinkVantage Productivity Center		
Disk	<b>40GB<sup>8</sup> or 60GB</b> (4200 rpm), 9.5mm, ATA-100 / 1.8" platter / removable and upgradable / 9.5mm high bay / <b>Active Protection System™</b> (shock protection)										• ThinkVantage System Update		
Display	<b>12.1"</b> (308mm) <b>XGA (1024x768) TFT color</b> / Active Matrix / 150 nits										• Symantec® Client Security		
Graphics	<b>Intel Graphics Media Accelerator 900 (GMA 900)</b> / integrated graphics in 915GM GMCH / uses main memory (up to 128MB with 256MB+) / 200MHz										• PC-Doctor™		
Keyboard	Standard-size <sup>26</sup> keys / 97% size of T Series / 87-key / 18.5mm pitch; 2.5mm stroke / Access IBM button / palm rest / TrackPoint®, "Press-to-Select," Internet Scroll Bar <sup>13</sup> / soft dome TrackPoint cap / ships with classic dome and soft rim TrackPoint cap										• ThinkPad Utilities		
ThinkLight®	Illuminates the keyboard to improve visibility in low-light conditions										• Adobe Reader		
Dimensions <sup>3</sup>	<i>8-cell without X4 UltraBase:</i> 10.5" x 9.3" x .81-1.06"; 268mm x 237mm x 20.6-26.9mm										• Update Connector™ <sup>15</sup>		
Travel weight <sup>2</sup>	<i>8-cell battery models:</i> 3.3 lb (1.49kg); <i>with 8-cell battery and X4 UltraBase with combo:</i> 5.1 lb (2.31kg)										• Client Security Solution™ (for security chip)		
Case material	<i>Color:</i> black; <i>All:</i> magnesium alloy										<b>License</b> (CD not included)		
Battery - type	Li-Ion <b>8-cell</b> / intelligent / supports optional Extended Life Battery on base (for two batteries) / supports optional battery in X4 UltraBase (for two batteries)										- Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client		
Battery - life <sup>10</sup>	<i>with 8-cell:</i> up to 5.7 hr; <i>with 8-cell and optional Extended Life Battery:</i> up to 8.1 hr										ThinkPad notebooks implement ThinkVantage™ technologies and de-sign; visit <a href="http://thinkpad.com/thinkvantage">thinkpad.com/thinkvantage</a>		
Architecture	<b>Mobile Intel 915GM Express Chipset</b> / 82915GM Graph Mem Cont Hub (GMCH-M) / 82801FBM ICH6-M I/O Controller Hub (SATA150, ATA-100 EIDE, PCI Express x1, PCI bus, ethernet MAC, USB, Low Pin Count [LPC] interface, [Bluetooth], [fingerprint]) / PCI bus (Ricoch® R5C811 CardBus Plus controller, Mini PCI, external expansion) / LPC bus (PC87392 Super I/O for infrared [dock-based ports], Atmel® security chip)										<b>ThinkPad X4 UltraBase™ Dock</b>		
Mobile media base	<i>Some:</i> <b>X4 UltraBase</b> (see right side) / optional <b>X4 Dock</b> supported										• Provides desktop expansion and cable management for the X40/X41		
Secure Digital slot	One <b>Secure Digital Card</b> slot / supports SD memory cards used in consumer devices										• Easily connects to the bottom of the X40/X41 for traveling		
PC Card Std slot	One Type I or one Type II / <b>CardBus Plus</b> 32-bit / PCMCIA 2.1 / integrated door										• Converts the X41 to a two-spindle system by supporting optional Ultrabay Slim accessories in left side:		
Ports	Two USB (version 2.0), plus one powered USB port for select options / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / no serial, parallel, keyboard/mouse ports (use <b>X4 UltraBase</b> ) / no IEEE 1394 port										- Ultrabay Slim Li-Polymer Battery 3-cell 08K8190		
Wireless antenna	UltraConnect™ antenna built into the display cover for optimal wireless signal reception										- CD-RW/DVD Combo II Ultrabay Slim Drive 73P3288		
Mini PCI	One Mini PCI type III slot (Communications Bay) / customer upgradable										- ThinkPad DVD-ROM Ultrabay Slim Drive 73P3270		
Intel 11a/b/g <sup>32</sup>	11a/b/g wireless <sup>4</sup> , Mini PCI, Intel PRO/Wireless 2915ABG, Intel 82533 chipset										- Super Multi-Burner Ultrabay Slim Drive (curved bezel) 40Y8622		
CDC	One Communications Daughter Card (CDC) socket / customer accessible										- Second HDD Adapter for Ultrabay Slim 62P4554		
Modem	56K <sup>6</sup> V.90 (V.92-designed <sup>29</sup> ) modem in CDC / Conexant® chipset										Disks supported:		
Bluetooth™	<i>Some:</i> Bluetooth wireless technology / in CDC (with modem)										• 40GB HS Hard Disk 08K9816		
Ethernet	Gigabit ethernet on systemboard / Broadcom BCM5751M (MAC/PHY) / PCIe x1 / PXE										• 60GB HS Hard Disk 73P3357		
Audio support	Soft audio / ICH AC97 controller / DirectSound® support / AD1981B AC97 codec / mono speaker, 0.5 watt / volume up, down, mute buttons / internal mic / microphone input jack (3.5 mm; pink) / headphone jack (3.5 mm; green) / Power-on password / dual hard disk password / supervisor password / security keyhole										• 80GB HS Hard Disk 09N4273		
Security	<b>Embedded Security Subsystem 2.0<sup>33</sup></b> / Atmel® chip / TCG-compliant										Other features:		
Security chip	<b>Fingerprint reader on palm rest</b> / swipe sensor / integrated with security chip										• Power button (front)		
Fingerprint reader	Fingerprint reader on palm rest / swipe sensor / integrated with security chip										• Stereo speakers (1 watt)		
Limited warranty <sup>12</sup>	<b>1-year</b> - EasyServ™ <sup>19</sup> onsite pickup and delivery / service upgrades <sup>22</sup> available										• Security key lock, security keyhole, and optical security screw		
256MB PC2-4200 DDR2 NP CL4 SOD	73P3840	ThinkPad X4 UltraBase	92P3429										
512MB PC2-4200 DDR2 NP CL4 SOD	73P3842	ThinkPad X4 Dock	250610U										
1GB PC2-4200 DDR2 NP CL4 SOD	73P3844	X40 Series Li-Ion Battery (4-cell)	92P1009										
USB Portable Diskette Drive	05K9276	X40 Series Li-Ion Battery (8-cell)	92P1119										
USB Numeric Keypad (black)	33L3225	X40 Series Extended Life Battery	92P1006										
USB Fingerprint Reader	73P4774	ThinkPad Multiple Battery Charger II	22P9040										
USB 2.0 Super Multi-Burner Drive	40Y8638	ThinkPad Ultraportable 56W AC Adapter	02K6880										
USB 2.0 Memory Key 1GB	40Y7421	Enh Perf Wireless Keyboard and Mouse	73P4067										
60GB Mini Hard Disk 9.5mm (4200 rpm)	73P3358	SonyEricsson® GC83 EDGE PC Card	26K3393										
Kensington® MicroSaver® Security Cable	73P2582	ThinkPlus™ <sup>22</sup> 1-year LOR 9x5 NBD	41C9166										
11a/b/g Wireless Mini PCI Adapter II	73P4301	ThinkPlus 2-year LOR 9x5 NBD	41C9167										
Intel PRO/Wireless 2915ABG Mini PCI	41N2990	ThinkPlus 3-year LOR 9x5 NBD	41C9168										
ThinkPad Carrying Case - BackPack	73P3599	ThinkPlus 5-year LOR 9x5 NBD	41C9173										
ThinkPad Carrying Case - Leather	73P3600	ThinkPlus 2-year P&L P/U Depot	41C9169										
Carrying Case - Leather Ultraportable	73P5186	ThinkPlus 3-year P&L P/U Depot	41C9170										
ThinkVision® C400 Wireless Projector	0039WA1	ThinkPlus 4-year P&L P/U Depot	41C9172										
ThinkVision L171 17" Monitor (black)	9417AB1	ThinkPlus 5-year P&L P/U Depot	41C9174										
ThinkVision L201p 20.1" Monitor (black)	9320HB1	Other options at <a href="http://lenovo.com/options">lenovo.com/options</a>											

See footnotes for important warranty information  
US models announced October 4, 2005  
US models withdrawn effective May 2006

\* Powered by Intel Centrino® mobile technology

© Lenovo  
(SP35A2) April 2006

# ThinkPad® X41 (2528) - Express - withdrawn

Created by Lenovo Training Solutions  
Personal Systems Reference (PSREF)

Type-model	Processor	L2 cache	Memory	Screen	Disk	Optical in UltraBase	ThinkPad X4 UltraBase™	Mini PCI wireless	CDC: modem/Bluetooth™	Fingerprint reader	Sec chip	Limited warranty <sup>12</sup>	Avail date
2528-55U	Pentium® M 758	1.5 2MB	512MB	12.1" XGA	40GB	None	Optional	* Intel 11a/b/g <sup>32</sup>	Modem	Finger	Yes	3 years	Apr 05
2528-6NU	Pentium M 758	1.5 2MB	512MB	12.1" XGA	60GB	None	Optional	* Intel 11a/b/g	Mod/Blue	Finger	Yes	3 years	Apr 05
2528-5FU	Pentium M 758	1.5 2MB	512MB	12.1" XGA	40GB	Combo	UltraBase	* Intel 11a/b/g	Modem	Finger	Yes	3 years	Apr 05

- These small and medium business (SMB) models are part of the US Think Express Program
- The 2528 has a 3 year limited warranty

Positioning	Ultimate mobility in a versatile ultraportable; one spindle										<b>SOFTWARE<sup>14</sup></b>		
US Govt (TAA) <sup>5</sup>	None										<b>Windows XP Professional</b>		
Processor	Intel® Pentium® M Processor Low Voltage 758 (1.5GHz) with enhanced Intel SpeedStep™ technology <sup>1</sup> , Execute Disable Bit, and 400MHz system bus										- Microsoft® Windows® XP Professional <sup>20</sup> (Service Pack 2)		
L2 cache	2MB / on die (at processor speed) / ECC										◇ Disk-to-Disk Recovery (in hidden protected area)		
Memory	512MB std / 1.28 to 1.53GB max <sup>7</sup> / PC2-4200 533MHz DDR2 (limited to 400MHz because of low voltage processor) / non-parity / CL4 / dual channel capable / std memory soldered to systemboard / one 200-pin SO-DIMM socket available										<b>Preloaded</b>		
Diskette drive	None standard / use optional USB-based diskette drive										• Rescue and Recovery™		
Combo	Some: DVD-ROM/CD-RW / 24X/24X/24X/8X <sup>21</sup> speed / removable from X4 UltraBase										• Access Program		
Ultrabay™ Slim	Supports Ultrabay Slim devices in optional or standard X4 UltraBase										• Access Connections™		
Disk	40GB <sup>8</sup> or 60GB (4200 rpm), 9.5mm, ATA-100 / 1.8" platter / removable and upgradable / 9.5mm high bay / Active Protection System™ (shock protection)										• Norton AntiVirus (OEM edition)		
Display	12.1" (308mm) XGA (1024x768) TFT color / Active Matrix / 150 nits										• PC-Doctor™		
Graphics	Intel Graphics Media Accelerator 900 (GMA 900) / integrated graphics in 915GM GMCH / uses main memory (up to 128MB with 256MB+) / 200MHz										• ThinkPad Utilities		
Keyboard	Standard-size <sup>26</sup> keys / 97% size of T Series / 87-key / 18.5mm pitch; 2.5mm stroke / Access IBM button / palm rest / TrackPoint®, "Press-to-Select," Internet Scroll Bar <sup>13</sup> / soft dome TrackPoint cap / ships with classic dome and soft rim TrackPoint cap										• Adobe Reader		
ThinkLight®	Illuminates the keyboard to improve visibility in low-light conditions										• Update Connector™ <sup>15</sup>		
Dimensions <sup>3</sup>	8-cell without X4 UltraBase: 10.5" x 9.3" x .81-1.06"; 268mm x 237mm x 20.6-26.9mm										• Client Security Software (for security chip)		
Travel weight <sup>2</sup>	8-cell battery models: 3.3 lb (1.49kg); with 8-cell battery and X4 UltraBase with combo: 5.1 lb (2.31kg)										<b>Downloadable</b>		
Case material	Color: black; All: magnesium alloy										• IBM Director Agent		
Battery - type	Li-Ion 8-cell / intelligent / supports optional Extended Life Battery on base (for two batteries) / supports optional battery in X4 UltraBase (for two batteries)										• Software Delivery Assistant		
Battery - life <sup>10</sup>	with 8-cell: up to 5.7 hr; with 8-cell and optional Extended Life Battery: up to 8.1 hr										• System Migration Assistant		
Architecture	Mobile Intel 915GM Express Chipset / 82915GM Graph Mem Cont Hub (GMCH-M) / 82801FBM ICH6-M I/O Controller Hub (SATA150, ATA-100 EIDE, PCI Express x1, PCI bus, ethernet MAC, USB, Low Pin Count [LPC] interface, [Bluetooth], [fingerprint]) / PCI bus (Ricoh® R5C811 CardBus Plus controller, Mini PCI, external expansion) / LPC bus (PC87392 Super I/O for infrared [dock-based ports], Atmel® security chip)										<b>ThinkPad X4 UltraBase™</b>		
Mobile media base	Some: X4 UltraBase (see right side) / optional X4 Dock supported										• Provides desktop expansion and cable management for the X40/X41		
Secure Digital slot	One Secure Digital Card slot / supports SD memory cards used in consumer devices										• Easily connects to the bottom of the X40/X41 for traveling		
PC Card Std slot	One Type I or one Type II / CardBus Plus 32-bit / PCMCIA 2.1 / integrated door										• Converts the X41 to a two-spindle system by supporting optional Ultrabay Slim accessories in left side:		
Ports	Two USB (version 2.0), plus one powered USB port for select options / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / no serial, parallel, keyboard/mouse ports (use X4 UltraBase) / no IEEE 1394 port										- Ultrabay Slim Li-Polymer Battery 3-cell 08K8190		
Wireless antenna	UltraConnect™ antenna built into the display cover for optimal wireless signal reception										- CD-RW/DVD Combo II Ultrabay Slim Drive 73P3288		
Mini PCI	One Mini PCI type III slot (Communications Bay) / customer upgradeable										- ThinkPad DVD-ROM Ultrabay Slim Drive 73P3270		
CDC	11a/b/g wireless <sup>4</sup> , Mini PCI, Intel PRO/Wireless 2915ABG, Intel 82533 chipset										- Multi-Burner Plus Ultrabay Slim Drive 73P3342		
Modem	One Communications Daughter Card (CDC) socket / customer accessible										- Second HDD Adapter for Ultrabay Slim 62P4554		
Bluetooth™	56K V.90 (V.92-designed <sup>29</sup> ) modem in CDC / Conexant® chipset										Disks supported:		
Ethernet	Some: Bluetooth wireless technology / in CDC (with modem)										• 40GB HS Hard Disk 08K9816		
Audio support	Gigabit ethernet on systemboard / Broadcom BCM5751M (MAC/PHY) / PCIe x1 / PXE										• 60GB HS Hard Disk 73P3357		
Security	Soft audio / ICH AC97 controller / DirectSound® support / AD1981B AC97 codec / mono speaker / 0.5 watt / volume up, down, mute buttons / internal mic / microphone input jack (3.5 mm; pink) / headphone jack (3.5 mm; green)										• 80GB HS Hard Disk 09N4273		
Security chip	Power-on password / dual hard disk password / supervisor password / security keyhole										Other features:		
Fingerprint reader	Embedded Security Subsystem 2.0 <sup>33</sup> / Atmel® chip / TCG-compliant										• Power button (front)		
Limited warranty <sup>12</sup>	3 years/1 yr battery - EasyServ™ <sup>19</sup> onsite pickup and delivery / service upgrades <sup>22</sup> avail										• Stereo speakers (1 watt)		
256MB PC2-4200 DDR2 NP CL4 SOD	73P3840		ThinkPad X4 UltraBase		92P3429								
512MB PC2-4200 DDR2 NP CL4 SOD	73P3842		ThinkPad X4 Dock		250610U								
1GB PC2-4200 DDR2 NP CL4 SOD	73P3844		ThinkPad X40 Series Li-Ion Battery (4-cell)		92P1009								
USB Portable Diskette Drive	05K9276		ThinkPad X40 Series Li-Ion Battery (8-cell)		92P1119								
USB Numeric Keypad (black)	33L3225		ThinkPad X40 Series Extended Life Battery		92P1006								
USB Fingerprint Reader	73P4774		ThinkPad Multiple Battery Charger II		22P9040								
Powered USB 2.0 Port Combo Drive	22P9194		ThinkPad Ultraportable 56W AC Adapter		02K6880								
USB 2.0 Portable Multi-Burner Drive	22P9163		ThinkPad 72W AC/DC Combo Adapter		22P9010								
USB 2.0 Portable 80GB Hard Disk	40Y8726		Enh Perf Wireless Keyboard and Mouse		73P4067								
USB 2.0 Memory Key 512MB	22P9230		Preferred Pro USB Fingerprint Keyboard		73P4730								
60GB Mini Hard Disk 9.5mm (4200 rpm)	73P3358		M400 Projector		0037A04								
11a/b/g Wireless CardBus Adapter	31P9101		ThinkPlus™ <sup>22</sup> 2yr LOR 9x5 NBD		41C9175								
11a/b/g Wireless Mini PCI Adapter II	73P4301		ThinkPlus 3yr LOR 9x5 NBD		41C9176								
Intel PRO/Wireless 2915ABG Mini PCI	41N2990		ThinkPlus 4yr LOR 9x5 NBD		41C9177								
ThinkPad Carrying Case - BackPack	73P3599		ThinkPlus 5yr LOR 9x5 NBD		41C9179								
Carrying Case - Leather Ultraportable	73P5186		ThinkPlus 4yr P&L P/U Depot		41C9178								
SonyEricsson® GC83 EDGE PC Card	26K3393		ThinkPlus 5yr P&L P/U Depot		41C9180								
Verizon Wireless V620 WWAN PC Card	40Y9137		Other options at <a href="http://lenovo.com/options">lenovo.com/options</a>										

See footnotes for important warranty information  
US models announced April 5, 2005  
US models withdrawn effective November 2005

\* Powered by Intel Centrino™ mobile technology

© Lenovo  
(X3) October 2005

# ThinkPad® X41 (2528) - TopSeller (October 2005) - withdrawn

Created by Lenovo Training Solutions  
Personal Systems Reference (PSREF)

Type-model	Processor	L2 cache	Memory	Screen	Disk	Optical in	ThinkPad UltraBase™ X4 UltraBase™	Mini PCI wireless	CDC: modem/ Bluetooth™	Fingerprint reader	Sec chip	Limited warranty <sup>12</sup>	Avail date	
2528-ELU	Pentium® M 778	1.6 GHz	2MB	512MB	12.1" XGA	40GB	None	Optional	* Intel 11a/b/g <sup>32</sup>	Modem	Finger	Yes	3-year	Oct 05
2528-FPU	Pentium M 778	1.6 GHz	2MB	512MB	12.1" XGA	60GB	None	Optional	* Intel 11a/b/g	Mod/Blue	Finger	Yes	3-year	Oct 05
2528-EMU	Pentium M 778	1.6 GHz	2MB	512MB	12.1" XGA	40GB	Combo	UltraBase	* Intel 11a/b/g	Modem	Finger	Yes	3-year	Oct 05
2528-FRU	Pentium M 778	1.6 GHz	2MB	512MB	12.1" XGA	60GB	DVD±RW	UltraBase	* Intel 11a/b/g	Mod/Blue	Finger	Yes	3-year	Oct 05

- **These small and medium business (SMB) models are part of the US TopSeller™ Program**
- **The 2528 has a 3-year limited warranty**

Positioning Processor	<i>Ultimate mobility in a versatile ultraportable; one spindle</i>										<b>SOFTWARE<sup>14</sup></b>		
L2 cache	<b>Intel® Pentium® M Processor Low Voltage 778 (1.6GHz)</b> with Enhanced Intel SpeedStep™ technology <sup>1</sup> , Execute Disable Bit, and 400MHz system bus										<b>Windows XP Professional</b>		
Memory	<b>2MB</b> / on die (at processor speed) / ECC										- Microsoft® Windows® XP Professional <sup>20</sup> (Service Pack 2)		
Diskette drive	<b>512MB</b> std / 1.28 to 1.53GB max <sup>7</sup> / <b>PC2-4200</b> 533MHz DDR2 (limited to 400MHz because of low voltage processor) / non-parity / CL4 / dual channel capable / std memory soldered to systemboard / one 200-pin SO-DIMM socket available										◇ Disk-to-Disk Recovery (in hidden protected area)		
Combo DVD±RW	None standard / use optional USB-based diskette drive										<b>Preloaded</b>		
Ultrabay™ Slim Disk	<i>Some:</i> DVD and CD burner / Multi-Burner Plus / removable from X4 UltraBase										• Rescue and Recovery™		
Display	Supports Ultrabay Slim devices in optional or standard X4 UltraBase										• Access Connections™		
Graphics	<b>40GB</b> <sup>8</sup> or <b>60GB</b> (4200 rpm), 9.5mm, ATA-100 / 1.8" platter / removable and upgradable / 9.5mm high bay / <b>Active Protection System™</b> (shock protection)										• ThinkVantage Productivity Center		
Keyboard	<b>12.1"</b> (308mm) <b>XGA (1024x768)</b> TFT color / Active Matrix / 150 nits										• ThinkVantage System Update		
ThinkLight®	<b>Intel Graphics Media Accelerator 900 (GMA 900)</b> / integrated graphics in 915GM GMCH / uses main memory (up to 128MB with 256MB+) / 200MHz										• Symantec® Client Security		
Dimensions <sup>3</sup>	Standard-size <sup>26</sup> keys / 97% size of T Series / 87-key / 18.5mm pitch; 2.5mm stroke / Access IBM button / palm rest / TrackPoint®, "Press-to-Select," Internet Scroll Bar <sup>13</sup> / soft dome TrackPoint cap / ships with classic dome and soft rim TrackPoint cap										• PC-Doctor™		
Travel weight <sup>2</sup>	Illuminates the keyboard to improve visibility in low-light conditions										• ThinkPad Utilities		
Case material	<b>8-cell without X4 UltraBase:</b> 10.5" x 9.3" x .81-1.06"; 268mm x 237mm x 20.6-26.9mm										• Adobe Reader		
Battery - type	<b>8-cell battery models:</b> 3.3 lb (1.49kg);										• Update Connector™ <sup>15</sup>		
Battery - life <sup>10</sup>	<b>with 8-cell battery and X4 UltraBase with combo:</b> 5.1 lb (2.31kg)										• Client Security Solution™ (for security chip)		
Architecture	<b>Color:</b> black; <b>All:</b> magnesium alloy										<b>License</b> (CD not included)		
Mobile media base	<b>Li-Ion 8-cell</b> / intelligent / supports optional Extended Life Battery on base (for two batteries) / supports optional battery in X4 UltraBase (for two batteries)										- Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client		
Secure Digital slot	<b>with 8-cell and optional Extended Life Battery:</b> up to 8.1 hr										ThinkPad notebooks implement ThinkVantage™ technologies and de-sign; visit <a href="http://thinkpad.com/thinkvantage">thinkpad.com/thinkvantage</a>		
PC Card Std slot	<b>Mobile Intel 915GM Express Chipset</b> / 82915GM Graph Mem Cont Hub (GMCH-M) / 82801FBM ICH6-M I/O Controller Hub (SATA150, ATA-100 EIDE, PCI Express x1, PCI bus, ethernet MAC, USB, Low Pin Count [LPC] interface, [Bluetooth], [fingerprint]) / PCI bus (Ricoh® R5C811 CardBus Plus controller, Mini PCI, external expansion) / LPC bus (PC87392 Super I/O for infrared [dock-based ports], Atmel® security chip)										<b>ThinkPad X4 UltraBase™</b>		
Ports	<b>Some:</b> X4 UltraBase (see right side) / optional X4 Dock supported										• Provides desktop expansion and cable management for the X40/X41		
Wireless antenna	<b>One Secure Digital Card slot</b> / supports SD memory cards used in consumer devices										• Easily connects to the bottom of the X40/X41 for traveling		
Mini PCI	<b>One Type I or one Type II / CardBus Plus</b> 32-bit / PCMCIA 2.1 / integrated door										• Converts the X41 to a two-spindle system by supporting optional Ultrabay Slim accessories in left side		
CDC	Two USB (version 2.0), plus one powered USB port for select options / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / no serial, parallel, keyboard/mouse ports (use X4 UltraBase) / no IEEE 1394 port										- Ultrabay Slim Li-Polymer Battery 3-cell 08K8190		
Modem	UltraConnect™ antenna built into the display cover for optimal wireless signal reception										- CD-RW/DVD Combo II Ultrabay Slim Drive 73P3288		
Bluetooth™	One Mini PCI type III slot (Communications Bay) / customer upgradable										- ThinkPad DVD-ROM Ultrabay Slim Drive 73P3270		
Ethernet	11a/b/g wireless <sup>4</sup> , Mini PCI, Intel PRO/Wireless 2915ABG, Intel 82533 chipset										- Super Multi-Burner Ultrabay Slim Drive (curved bezel) 40Y8622		
Audio support	One Communications Daughter Card (CDC) socket / customer accessible										- Second HDD Adapter for Ultrabay Slim 62P4554		
Security	56K <sup>6</sup> V.90 (V.92-designed <sup>29</sup> ) modem in CDC / Conexant® chipset										Disks supported:		
Security chip	<b>Some:</b> Bluetooth wireless technology / in CDC (with modem)										• 40GB HS Hard Disk 08K9816		
Fingerprint reader	Gigabit ethernet on systemboard / Broadcom BCM5751M (MAC/PHY) / PCIe x1 / PXE										• 60GB HS Hard Disk 73P3357		
Limited warranty <sup>12</sup>	Soft audio / ICH AC97 controller / DirectSound® support / AD1981B AC97 codec / mono speaker, 0.5 watt / volume up, down, mute buttons / internal mic / microphone input jack (3.5 mm; pink) / headphone jack (3.5 mm; green)										• 80GB HS Hard Disk 09N4273		
	Power-on password / dual hard disk password / supervisor password / security keyhole										Other features:		
	<b>Embedded Security Subsystem 2.0<sup>33</sup></b> / Atmel® chip / TCG-compliant										• Power button (front)		
	<b>Fingerprint reader on palm rest</b> / swipe sensor / integrated with security chip										• Stereo speakers (1 watt)		
	256MB PC2-4200 DDR2 NP CL4 SOD 73P3840										• Security key lock, security keyhole, and optical security screw		
	512MB PC2-4200 DDR2 NP CL4 SOD 73P3842										• Serial and parallel ports		
	1GB PC2-4200 DDR2 NP CL4 SOD 73P3844										• PS/2 port for keyboard or mouse		
	USB Portable Diskette Drive 05K9276										• Analog DB-15 monitor port		
	USB Numeric Keypad (black) 33L3225										• Three USB 2.0 ports (via USB hub)		
	USB Fingerprint Reader 73P4774										• Ethernet port (Gigabit Ethernet)		
	USB Gemplus GemPC Smart Card Reader 41N3040										• Modem port		
	USB 2.0 Super Multi-Burner Drive 40Y8638										• Retractable feet; 1.3 lb; 580g		
	USB 2.0 Portable 80GB Hard Disk 40Y8726										56 watt AC Adapter		
	60GB Mini Hard Disk 9.5mm (4200 rpm) 73P3358										Asset ID™ <sup>34</sup> (system-specific info in chip accessed over network)		
	11a/b/g Wireless Mini PCI Adapter II 73P4301										ACPI 1.0b and 2.0-compliant		
	Intel PRO/Wireless 2915ABG Mini PCI 41N2990										ENERGY STAR®-compliant		
	ThinkPad Carrying Case - BackPack 73P3599										International Warranty Service <sup>17</sup>		
	Carrying Case - Leather Ultraportable 73P5186										24 hour x 7 day <sup>18</sup> toll-free warranty support during the warranty <sup>12</sup> via 800-IBM-SERV (426-7378)		
	SonyEricsson® GC83 EDGE PC Card 26K3393												
	Verizon Wireless V620 WWAN PC Card <sup>25</sup> 40Y9137												
	ThinkPad Convertible Monitor Stand 40Y7620												
	ThinkVision® L171 17" Monitor (black) 9417AB1												

See footnotes for important warranty information  
US models announced October 4, 2005  
US models withdrawn effective May 2006

\* Powered by Intel Centrino® mobile technology

© Lenovo  
(SP35A3) April 2006

# ThinkPad® X41 Tablet - withdrawn

Created by Lenovo Training Solutions  
Personal Systems Reference (PSREF)

Type-model	Processor	L2 GHz cache	Memory	Screen	Disk	Mini PCI wireless	CDC: modem/Bluetooth™	Fingerprint reader	Sec chip	Battery cells	Limited warranty <sup>12</sup>	WH Entry	Gbl	Avail date
1866-1CU	Pentium® M 753	1.2	2MB	256MB	12.1" XGA	40GB	*Intel 11b/g <sup>32</sup>	Modem	No	Yes	4-cell	3-yr	Entry	Jun 05
1866-2CU	Pentium M 758	1.5	2MB	256MB	12.1" XGA	40GB	*Intel 11b/g	Modem	No	Yes	4-cell	3-yr	WH	Jun 05
1866-3GU	Pentium M 758	1.5	2MB	512MB	12.1" XGA	40GB	*Intel 11b/g	Modem	No	Yes	8-cell	3-yr	WH	Jun 05
1866-5GU	Pentium M 758	1.5	2MB	512MB	12.1" XGA	40GB	*Intel 11b/g	Modem	Finger	Yes	8-cell	3-yr	WH	Jun 05
1866-2GU	Pentium M 758	1.5	2MB	256MB	12.1" XGA	40GB	*Intel 11b/g	Modem	No	Yes	8-cell	3-yr	WH	Jun 05
1866-6HU	Pentium M 758	1.5	2MB	512MB	12.1" XGA	40GB	*Intel 11a/b/g <sup>32</sup>	Mod/Blue	Finger	Yes	8-cell	3-yr	WH	Jun 05
1866-3RU	Pentium M 758	1.5	2MB	512MB	12.1" XGA	60GB	*Intel 11b/g	Modem	No	Yes	8-cell	3-yr	WH	Jun 05
1866-6SU	Pentium M 758	1.5	2MB	512MB	12.1" XGA	60GB	*Intel 11a/b/g	Mod/Blue	Finger	Yes	8-cell	3-yr	WH	Jun 05
1866-6GU	Pentium M 758	1.5	2MB	512MB	12.1" XGA	40GB	*Intel 11b/g	Mod/Blue	Finger	Yes	8-cell	3-yr	WH	Jun 05
1866-6JU	Pentium M 758	1.5	2MB	512MB	12.1" XGA	40GB	11a/b/g II <sup>32</sup>	Mod/Blue	Finger	Yes	8-cell	3-yr	WH	Jun 05
1866-6TU	Pentium M 758	1.5	2MB	512MB	12.1" XGA	60GB	11a/b/g II	Mod/Blue	Finger	Yes	8-cell	3-yr	WH	Jun 05
1866-3FU	Pentium M 758	1.5	2MB	512MB	12.1" XGA	40GB	Open; wireless upg <sup>36</sup>	Modem	No	Yes	8-cell	3-yr	WH	Sep 05
Positioning US Govt (TAA) <sup>5</sup> Processor	<b>Convertible tablet; ultimate mobility in a versatile ultraportable; one spindle 3FU:</b> US Government model (Trade Act Agreement-compliant) <b>Intel® Pentium® M Processor Ultra Low Voltage 753 or Low Voltage 758</b> with Enhanced Intel SpeedStep™ technology <sup>1</sup> , Execute Disable Bit, and 400MHz system bus										<b>SOFTWARE<sup>14</sup></b> <b>Windows XP Tablet</b> - Microsoft® Windows® XP Tablet PC Edition 2005 <sup>20</sup> ◇ Disk-to-Disk Recovery (in hidden protected area)			
L2 cache Memory	<b>2MB</b> / on die (at processor speed) / ECC <b>256 or 512MB</b> std / 1.28 to 1.53GB max <sup>7</sup> / <b>PC2-4200</b> 533MHz DDR2 (limited to 400MHz because of low voltage processor) / non-parity / CL4 / dual channel capable / std memory soldered to systemboard / one 200-pin SO-DIMM socket available										<b>Preloaded</b> • Rescue and Recovery™ • Access Program • Access Connections™ • Norton AntiVirus (OEM edition) • PC-Doctor™ • ThinkPad Utilities • Adobe Reader • Update Connector™ <sup>15</sup> • Fingerprint Software (fingerprint models) • Client Security Software (for security chip) • InterVideo VirtualDrive			
Ultrabay™ Slim Disk	Supports Ultrabay™ Slim devices in optional ThinkPad X4 Dock <b>40GB</b> <sup>8</sup> or <b>60GB</b> (4200 rpm), 9.5mm, ATA-100 / 1.8" platter / removable and upgradable / 9.5mm high bay / <b>Active Protection System</b> (shock protection)										• Alias Sketchbook Pro • Zinio Reader • FranklinCovey PlanPlus (30 day trial)			
Display	<b>12.1"</b> (307mm) <b>Super Wide Angle FFS XGA (1024x768) TFT color</b> / anti-reflective and anti-glare protective coatings / 180 nits / <b>write on screen with standard digitizer pen</b> / pen holder in front base / <b>rotate and swivel hinge</b> in middle bottom of display for tablet mode (portrait or landscape) or picture frame mode (keyboard faces away from user) / 8 buttons on display bottom (power, reboot, rotation, utility, Esc, enter, page up/down)													
Graphics	<b>Intel Graphics Media Accelerator 900 (GMA 900)</b> / integrated graphics in 915GM GMCH / uses main memory (up to 128MB with 256MB+) / 200MHz													
Keyboard	Standard-size <sup>26</sup> keys / 97% size of T Series / 87-key / 18.5mm pitch; 2.5mm stroke / Access IBM button / palm rest / TrackPoint®, "Press-to-Select," Internet Scroll Bar <sup>13</sup> /										<b>Free trial</b> • ThinkPad notebooks implement ThinkVantage™ technologies and design; visit <a href="http://thinkpad.com/thinkvantage">thinkpad.com/thinkvantage</a>			
Dimensions <sup>3</sup>	<b>4-cell:</b> 10.8" x 9.5" x 1.14-1.26"; 274mm x 242mm x 29-32mm <b>8-cell:</b> 10.8" x 10.5" x 1.14-1.26"; 274mm x 266mm x 29-32mm <b>4-cell battery models:</b> 3.5 lb (1.61kg); <b>8-cell battery models:</b> 4.0 lb (1.84kg)													
Travel weight <sup>2</sup> Case material Battery - type Battery - life <sup>10</sup>	<b>Color:</b> black; <b>All:</b> magnesium alloy Li-Ion <b>4-cell</b> or <b>8-cell</b> / supports opt Extended Life Battery on base (for two batteries) with <b>4-cell:</b> 2.6 hr; with <b>8-cell:</b> up to 6.3 hr; with <b>8-cell and optional Extended Life Battery:</b> up to 8.5 hr													
Architecture	<b>Mobile Intel 915GM Express Chipset</b> / 82915GM Graph Mem Cont Hub (GMCH-M) / 82801FBM ICH6-M I/O Controller Hub (SATA150, ATA-100 EIDE, PCI Express x1, PCI bus, ethernet MAC, USB, Low Pin Count [LPC] interface, [Bluetooth], [fingerprint]) / PCI bus (Ricoch® R5C811 CardBus Plus controller, Mini PCI, external expansion) / LPC bus (PC87392 Super I/O for infrared [dock-based ports], Atmel® security chip)										<b>ThinkPad X4 Dock</b> • Provides desktop expansion and cable mgmt for X40/X41/X41 Tablet • Connects to the bottom of notebook • Supports optional Ultrabay™ Slim accessories in left side: – ThinkPad DVD-ROM Ultrabay Slim Drive 73P3270 – CD-RW/DVD Combo II Ultrabay Slim Drive 73P3288 – Super Multi-Burner Ultrabay Slim Drive (curved bezel) 40Y8622 – Second HDD Adapter for Ultrabay Slim 41U3148 Disks supported: • 40GB HS Hard Disk 08K9816 • 80GB HS Hard Disk 09N4273			
Secure Digital slot PC Card Std slot Ports	One <b>Secure Digital Card</b> slot / supports SD memory cards used in consumer devices One Type I or one Type II / <b>CardBus Plus 32-bit</b> / PCMCIA 2.1 / integrated door Two USB (version 2.0), plus one powered USB port for select options / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / no serial, parallel, keyboard/mouse ports (use <b>X4 Dock</b> ) / no IEEE 1394 port													
Wireless antenna Mini PCI	UltraConnect™ antenna built into the display cover for optimal wireless signal reception One Mini PCI type III slot (Communications Bay) / customer upgradable													
Wireless upg <sup>36</sup> Intel 11b/g <sup>32</sup> Intel 11a/b/g <sup>32</sup> 11a/b/g II <sup>32</sup>	<b>Some:</b> wireless upgradable with wireless Mini PCI options <b>Some:</b> 11b/g wireless <sup>4</sup> , Mini PCI, Intel PRO/Wireless 2200BG, Intel 82532 chipset <b>Some:</b> 11a/b/g wireless <sup>4</sup> , Mini PCI, Intel PRO/Wireless 2915ABG, Intel 82533 chipset <b>Some:</b> 11a/b/g wireless <sup>4</sup> , ThinkPad 11a/b/g Mini PCI Adapter II, Atheros AR5004X chip													
CDC	One Communications Daughter Card (CDC) socket / customer accessible													
Modem	56K <sup>6</sup> V.90 (V.92-designed <sup>29</sup> ) modem in CDC / Conexant® chipset													
Bluetooth™	<b>Some:</b> Bluetooth wireless technology / in CDC (with modem)													
Ethernet	Gigabit ethernet on systemboard / Broadcom BCM5751M (MAC/PHY) / PCIe x1 / PXE													
Audio support	Soft audio / ICH AC97 controller / DirectSound® support / AD1981B AC97 codec / mono speaker, 0.5 watt / volume up, down, mute buttons / internal mic / microphone input jack (3.5 mm; pink) / headphone jack (3.5 mm; green)										Other features: • 56 watt AC adapter • Power button • Stereo speakers (1 watt) • Security key lock, security keyhole, and Ultrabay Slim security screw • Serial and parallel ports • PS/2 port for keyboard or mouse • Analog DB-15 monitor port • Three USB 2.0 ports (via USB hub) • Gigabit Ethernet port (RJ-45) • Modem port (RJ-11) • 2.4 lb; 1.1 kg			
Security Security chip Fingerprint reader	Power-on password / dual hard disk password / supervisor password / security keyhole <b>Embedded Security Subsystem 2.0<sup>33</sup></b> / Atmel® chip / TCG-compliant <b>Some:</b> <b>Fingerprint reader</b> on right base of display / 2-way swipe sensor													
Limited warranty <sup>12</sup>	<b>3-years/1-yr battery</b> - EasyServ™ <sup>19</sup> onsite pickup and delivery / service upgrades <sup>22</sup> avail													
256MB PC2-4200 DDR2 NP CL4 SOD			73P3840			ThinkPad X41 Tablet Digitizer Pen			73P5188					
512MB PC2-4200 DDR2 NP CL4 SOD			73P3842			ThinkPad X4 Dock			250610U					
1GB PC2-4200 DDR2 NP CL4 SOD			73P3844			X41 Tablet Li-Ion Battery (4-cell)			73P5167					
USB 2.0 CD-RW/DVD-ROM Combo II Drive			40Y8637			X41 Tablet Li-Ion Battery (8-cell)			73P5168					
USB 2.0 Memory Key 1GB			40Y7421			ThinkPad X40 Series Extended Life Battery			92P1006					
60GB Mini Hard Disk 9.5mm (4200 rpm)			73P3358			ThinkPad Ultraportable 56W AC Adapter			02K6880					
Intel PRO/Wireless 2915ABG Mini PCI			41N2990			72W Slim AC/DC Combo Adapter			73P4485					
11a/b/g Wireless Mini PCI Adapter II			73P4301			ThinkPlus™ <sup>22</sup> 2-year LOR 9x5 NBD			41C9175					
ThinkPad X41 Tablet Sleeve			30R4959			ThinkPlus 3-year LOR 9x5 NBD			41C9176					
ThinkVision® L201p 20.1" Monitor (black)			9320HB1			Other options at <a href="http://lenovo.com/options">lenovo.com/options</a>				56 watt AC Adapter ACPI 1.0b and 2.0-compliant ENERGY STAR®-compliant International Warranty Service <sup>17</sup> 24 hour x 7 day <sup>18</sup> toll-free warranty support during the warranty <sup>12</sup>				

See footnotes for important warranty information \* Powered by Intel Centrino® mobile technology  
US models announced June 7, June 28, or August 30, 2005  
US models withdrawn effective April or September 2006

# ThinkPad® X41 Tablet (March 2006) - withdrawn

Created by Lenovo Training Solutions  
Personal Systems Reference (PSREF)

Type-model	Processor	L2 GHz cache	Memory	Screen	Disk	Mini PCI wireless	CDC: modem/Bluetooth™	Fingerprint Sec reader chip	Battery cells	Limited warranty <sup>12</sup>	WH Gbl TAA	Avail date
1866-9MU	Pentium® M 778	1.6	2MB	512MB	12.1" XGA	60GB	*Intel 11b/g <sup>32</sup>	Modem	No	Yes	4-cell	3-yr WH Gbl Mar 06
1866-9GU	Pentium M 778	1.6	2MB	512MB	12.1" XGA	40GB	*Intel 11b/g	Modem	No	Yes	8-cell	3-yr WH Gbl Mar 06
1866-BGU	Pentium M 778	1.6	2MB	512MB	12.1" XGA	40GB	*Intel 11b/g	Modem	Finger	Yes	8-cell	3-yr WH Gbl Mar 06
1866-8GU	Pentium M 778	1.6	2MB	256MB	12.1" XGA	40GB	*Intel 11b/g	Modem	No	Yes	8-cell	3-yr WH Mar 06
1866-CHU	Pentium M 778	1.6	2MB	512MB	12.1" XGA	40GB	*Intel 11a/b/g <sup>32</sup>	Mod/Blue	Finger	Yes	8-cell	3-yr WH Mar 06
1866-9RU	Pentium M 778	1.6	2MB	512MB	12.1" XGA	60GB	*Intel 11b/g <sup>32</sup>	Modem	No	Yes	8-cell	3-yr WH Mar 06
1866-CTU	Pentium M 778	1.6	2MB	512MB	12.1" XGA	60GB	11a/b/g II <sup>32</sup>	Mod/Blue	Finger	Yes	8-cell	3-yr WH Mar 06
1866-CRU	Pentium M 778	1.6	2MB	512MB	12.1" XGA	60GB	*Intel 11a/b/g	Mod/Blue	Finger	Yes	8-cell	3-yr WH Mar 06
1866-AEU	Pentium M 778	1.6	2MB	512MB	12.1" XGA	40GB	11a/b/g II	Mod/Blue	No	Yes	4-cell	3-yr WH Mar 06
1866-ADU	Pentium M 778	1.6	2MB	512MB	12.1" XGA	40GB	*Intel 11a/b/g	Mod/Blue	No	Yes	4-cell	3-yr WH Mar 06
1866-CGU	Pentium M 778	1.6	2MB	512MB	12.1" XGA	40GB	*Intel 11b/g	Mod/Blue	Finger	Yes	8-cell	3-yr WH Mar 06
1866-BFU	Pentium M 778	1.6	2MB	512MB	12.1" XGA	40GB	Open; wireless upg <sup>36</sup>	Modem	Finger	Yes	8-cell	3-yr WH TAA Mar 06
Positioning US Govt (TAA) <sup>5</sup> Processor	<b>Convertible tablet; ultimate mobility in a versatile ultraportable; one spindle BFU:</b> US Government model (Trade Act Agreement-compliant) <b>Intel® Pentium® M Processor Low Voltage 778</b> with Enhanced Intel SpeedStep™ technology <sup>1</sup> , Execute Disable Bit, and 400MHz system bus						<b>SOFTWARE<sup>14</sup></b> <b>Windows XP Tablet</b> - Microsoft® Windows® XP Tablet PC Edition 2005 <sup>20</sup> ⇨ Disk-to-Disk Recovery (in hidden protected area)					
L2 cache Memory	<b>2MB</b> / on die (at processor speed) / ECC <b>256 or 512MB</b> std / 1.28 to 1.53GB max <sup>7</sup> / <b>PC2-4200</b> 533MHz DDR2 (limited to 400MHz because of low voltage processor) / non-parity / CL4 / dual channel capable / std memory soldered to systemboard / one 200-pin SO-DIMM socket available						<b>Preloaded</b> • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center with Away Manager • ThinkVantage System Update • Symantec® Client Security™ • DiskKeeper Lite • PC-Doctor™ (diagnostics) • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader • Fingerprint Software (fingerprint models) • InterVideo VirtualDrive CD/DVD Emulator					
Ultrabay™ Slim Disk	Supports Ultrabay™ Slim devices in optional ThinkPad X4 Dock <b>40GB</b> <sup>8</sup> or <b>60GB</b> (4200 rpm), 9.5mm, ATA-100 / 1.8" platter / removable and upgradable / 9.5mm high bay / <b>Active Protection System</b> (shock protection)						<b>Free trial</b> • Alias Sketchbook Pro • Zinio Reader • FranklinCovey TabletPlanner					
Display	<b>12.1"</b> (307mm) <b>Super Wide Angle FFS XGA (1024x768) TFT color</b> / anti-reflective and anti-glare protective coatings / 180 nits / <b>write on screen with standard digitizer pen</b> / pen holder in front base / <b>rotate and swivel hinge</b> in middle bottom of display for tablet mode (portrait or landscape) or picture frame mode (keyboard faces away from user) / 8 buttons on display bottom (power, reboot, rotation, utility, Esc, enter, page up/down)						<b>Supports ThinkVantage® technologies</b> <b>ThinkPad X4 Dock</b> • Provides desktop expansion and cable mgmt for X40/X41/X41 Tablet • Connects to the bottom of notebook • Supports optional Ultrabay™ Slim accessories in left side: – ThinkPad DVD-ROM Ultrabay Slim Drive 73P3270 – CD-RW/DVD Combo II Ultrabay Slim Drive 73P3288 – Super Multi-Burner Ultrabay Slim Drive (curved bezel) 40Y8622 – Second HDD Adapter for Ultrabay Slim 41U3148 Disks supported (some listed): • 80GB HS Hard Disk 09N4273					
Graphics	<b>Intel Graphics Media Accelerator 900 (GMA 900)</b> / integrated graphics in 915GM GMCH / uses main memory (up to 128MB with 256MB+) / 200MHz											
Keyboard	Standard-size <sup>26</sup> keys / 97% size of T Series / 87-key / 18.5mm pitch; 2.5mm stroke / Access IBM button / palm rest / TrackPoint®, "Press-to-Select," Internet Scroll Bar <sup>13</sup> /											
Dimensions <sup>3</sup>	<b>4-cell:</b> 10.8" x 9.5" x 1.14-1.26"; 274mm x 242mm x 29-32mm <b>8-cell:</b> 10.8" x 10.5" x 1.14-1.26"; 274mm x 266mm x 29-32mm <b>4-cell battery models:</b> 3.5 lb (1.61kg); <b>8-cell battery models:</b> 4.0 lb (1.84kg)											
Weight <sup>2</sup>	<b>Color:</b> black; <b>All:</b> magnesium alloy											
Case material	Li-Ion <b>4-cell</b> or <b>8-cell</b> / supports opt Extended Life Battery on base (for two batteries)											
Battery - type	<b>with 4-cell:</b> 2.6 hr; <b>with 8-cell:</b> up to 6.3 hr;											
Battery - life <sup>10</sup>	<b>with 8-cell and optional Extended Life Battery:</b> up to 8.5 hr											
Architecture	<b>Mobile Intel 915GM Express Chipset</b> / 82915GM Graph Mem Cont Hub (GMCH-M) / 82801FBM ICH6-M I/O Controller Hub (SATA150, ATA-100 EIDE, PCI Express x1, PCI bus, ethernet MAC, USB, Low Pin Count [LPC] interface, [Bluetooth], [fingerprint]) / PCI bus (Ricoch® R5C811 CardBus Plus controller, Mini PCI, external expansion) / LPC bus (PC87392 Super I/O for infrared [dock-based ports], Atmel® security chip)											
Secure Digital slot	One <b>Secure Digital Card</b> slot / supports SD memory cards used in consumer devices											
PC Card Std slot	One Type I or one Type II / <b>CardBus Plus 32-bit</b> / PCMCIA 2.1 / integrated door											
Ports	Two USB (version 2.0), plus one powered USB port for select options / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / no serial, parallel, keyboard/mouse ports (use <i>X4 Dock</i> ) / no IEEE 1394 port											
Wireless antenna	UltraConnect™ antenna built into the display cover for optimal wireless signal reception											
Mini PCI	One Mini PCI type III slot (Communications Bay) / customer upgradable											
Wireless upg <sup>36</sup>	<b>Some:</b> wireless upgradable with wireless Mini PCI options											
Intel 11b/g <sup>32</sup>	<b>Some:</b> 11b/g wireless <sup>4</sup> , Mini PCI, Intel PRO/Wireless 2200BG, Intel 82532 chipset											
Intel 11a/b/g <sup>32</sup>	<b>Some:</b> 11a/b/g wireless <sup>4</sup> , Mini PCI, Intel PRO/Wireless 2915ABG, Intel 82533 chipset											
11a/b/g II <sup>32</sup>	<b>Some:</b> 11a/b/g wireless <sup>4</sup> , ThinkPad 11a/b/g Mini PCI Adapter II, Atheros AR5004X chip											
CDC	One Communications Daughter Card (CDC) socket / customer accessible											
Modem	56K <sup>6</sup> V.90 (V.92-designed <sup>29</sup> ) modem in CDC / Conexant® chipset											
Bluetooth™	<b>Some:</b> Bluetooth wireless technology / in CDC (with modem)											
Ethernet	Gigabit ethernet on systemboard / Broadcom BCM5751M (MAC/PHY) / PCIe x1 / PXE											
Audio support	Soft audio / ICH AC97 controller / DirectSound® support / AD1981B AC97 codec / mono speaker, 0.5 watt / volume up, down, mute buttons / internal mic / microphone input jack (3.5 mm; pink) / headphone jack (3.5 mm; green)											
Security	Power-on password / dual hard disk password / supervisor password / security keyhole											
Security chip	<b>Embedded Security Subsystem 2.0<sup>33</sup></b> / Atmel® chip / TCG-compliant											
Fingerprint reader	<b>Some:</b> <b>Fingerprint reader</b> on right base of display / 2-way swipe sensor											
Limited warranty <sup>12</sup>	<b>3-years/1-yr battery - EasyServ™<sup>19</sup> onsite pickup and delivery / service upgrades<sup>22</sup> avail</b>											
256MB PC2-4200 DDR2 NP CL4 SOD	73P3840		ThinkPad X41 Tablet Digitizer Pen		73P5188							
512MB PC2-4200 DDR2 NP CL4 SOD	73P3842		ThinkPad X4 Dock		250610U							
1GB PC2-4200 DDR2 NP CL4 SOD	73P3844		X41 Tablet Li-Ion Battery (4-cell)		73P5167							
USB 2.0 Super Multi-Burner Drive	41N5565		X41 Tablet Li-Ion Battery (8-cell)		73P5168							
USB 2.0 Memory Key 1GB	40Y7421		ThinkPad X40 Series Extended Life Battery		92P1006							
60GB Mini Hard Disk 9.5mm (4200 rpm)	73P3358		ThinkPad Ultraportable 56W AC Adapter		02K6880							
Intel PRO/Wireless 2915ABG Mini PCI	41N2990		72W Slim AC/DC Combo Adapter		73P4485							
11a/b/g Wireless Mini PCI Adapter II	73P4301		ThinkPlus™ <sup>22</sup> 2-year LOR 9x5 NBD		41C9175							
ThinkPad X41 Tablet Sleeve	30R4959		ThinkPlus 3-year LOR 9x5 NBD		41C9176							
ThinkVision® L201p 20.1" Monitor (black)	9220HB1		Other options at <a href="http://lenovo.com/options">lenovo.com/options</a>				56-watt AC Adapter ACPI 1.0b and 2.0-compliant ENERGY STAR®-compliant International Warranty Service <sup>17</sup> 24 hour x 7 day <sup>18</sup> toll-free warranty support during the warranty <sup>12</sup>					

See footnotes for important warranty information  
US models announced March 14, 2006  
US models withdrawn effective February 2007

\* Powered by Intel Centrino® mobile technology



# ThinkPad® X41 Tablet (1866) - Education - withdrawn

Created by Lenovo Training Solutions  
Personal Systems Reference (PSREF)

Type-model	Processor	L2 GHz cache	Memory	Screen	Disk	Mini PCI wireless	CDC: modem/Bluetooth™	Fingerprint reader	Sec chip	Limited warranty <sup>12</sup>	OneNote® Education CD	Avail software date	
1866-1GU	Pentium® M 753	1.2	2MB	256MB	12.1" XGA	40GB	* Intel 11b/g <sup>32</sup>	Modem	No	Yes	EasyServ 3-yr	No	Yes Jun 05
1866-4GU	Pentium M 758	1.5	2MB	512MB	12.1" XGA	40GB	* Intel 11b/g	Mod/Blue	No	Yes	EasyServ 3-yr	Yes	Yes Jun 05
1866-A7U	Pentium M 778	1.6	2MB	512MB	12.1" XGA	40GB	* Intel 11b/g	Mod/Blue	No	Yes	EasyServ 3-yr	Yes	Yes Mar 06
1866-CXU	Pentium M 778	1.6	2MB	512MB	12.1" XGA	60GB	* Intel 11b/g	Mod/Blue	Finger	Yes	EasyServ 3-yr	Yes	Yes Mar 06

• **The 1866 has an EasyServ™, onsite pickup and delivery 3-year limited warranty**

These educational models are available only to public or private K-12 (or higher) accredited schools organized and operated exclusively for educational purposes for use by qualified students and teachers.

Positioning Processor	<b>Convertible tablet; ultimate mobility in a versatile ultraportable; one spindle Intel® Pentium® M Processor Ultra Low Voltage 753 (1.2GHz) or Low Voltage 758 (1.5GHz) or Low Voltage 778 (1.6GHz) with Enhanced Intel SpeedStep™ technology<sup>1</sup>, Execute Disable Bit, and 400MHz system bus</b>										<b>SOFTWARE<sup>14</sup></b>	
L2 cache	<b>2MB / on die (at processor speed) / ECC</b>										<b>Windows XP Tablet</b> - Microsoft® Windows® XP Tablet PC Edition 2005 <sup>20</sup> ♦ Disk-to-Disk Recovery	
Memory	<b>256 or 512MB std / 1.28 to 1.53GB max<sup>7</sup> / PC2-4200 533MHz DDR2 (limited to 400MHz because of low voltage processor) / non-parity / CL4 / dual channel capable / std memory soldered to systemboard / one 200-pin SO-DIMM socket available</b>										<b>Preloaded</b> • VitalSource Library education software • Adobe® Photoshop® Elements plus Adobe Premiere® Elements • Rescue and Recovery™ • Model A7U/CXU: Microsoft Office OneNote 2003 • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • ThinkVantage System Update • Symantec® Client Security™ • Diskeeper Lite • PC-Doctor™ (diagnostics) • ThinkPad Utilities (Power Manager and Presentation Director) • Fingerprint Software (fingerprint) • InterVideo VirtualDrive CD/DVD Emulator	
Ultrabay™ Slim Disk	Supports Ultrabay™ Slim devices in optional ThinkPad X4 Dock <b>40GB<sup>8</sup> or 60GB</b> (4200 rpm), 9.5mm, ATA-100 / 1.8" platter / removable and upgradable / 9.5mm high bay / <b>Active Protection System™</b> (shock protection)										• Model A7U/CXU: Microsoft Office OneNote 2003 • Adobe Photoshop Elements plus Adobe Premiere Elements <b>Free trial</b> • Alias Sketchbook Pro • Zinio Reader • FranklinCovey TabletPlanner	
Display	<b>12.1"</b> (307mm) <b>Super Wide Angle FFS XGA (1024x768) TFT color / anti-reflective and anti-glare protective coatings / 180 nits / write on screen with standard digitizer pen / pen holder in front base / rotate and swivel hinge</b> in middle bottom of display for tablet mode (portrait or landscape) or picture frame mode (keyboard faces away from user) / 8 buttons on display bottom (power, reboot, rotation, utility, Esc, enter, page up/down)										<b>CD included</b> • Model 4GU/A7U/CXU: Microsoft Office OneNote 2003 • Adobe Photoshop Elements plus Adobe Premiere Elements	
Graphics	<b>Intel Graphics Media Accelerator 900 (GMA 900) / integrated graphics in 915GM GMCH / uses main memory (up to 128MB with 256MB+) / 200MHz</b>										<b>Supports ThinkVantage® technologies</b>	
Keyboard	Standard-size <sup>26</sup> keys / 97% size of T Series / 87-key / 18.5mm pitch; 2.5mm stroke / Access IBM button / palm rest / TrackPoint®, "Press-to-Select," Internet Scroll Bar <sup>13</sup> /										<b>ThinkPad X4 Dock</b> • Provides desktop expansion and cable mgmt for X40/X41/X41 Tablet • Connects to the bottom of notebook • Supports optional Ultrabay™ Slim accessories in left side: – CD-RW/DVD Combo II Ultrabay Slim Drive (flat bezel) 40Y8621 – ThinkPad DVD Ultrabay Slim Burner (flat bezel) 41N5643 – Second HDD Adapter for Ultrabay Slim 41U3148 Disks supported (some listed): • 80GB HS Hard Disk 09N4273	
Dimensions <sup>3</sup>	8-cell: 10.8" x 10.5" x 1.14-1.26"; 274mm x 266mm x 29-32mm										<b>Other features:</b> • 56-watt AC adapter • Power button • Stereo speakers (1 watt) • Security key lock, security keyhole, and Ultrabay Slim security screw • Serial and parallel ports • PS/2 port for keyboard or mouse • Analog DB-15 monitor port • Three USB 2.0 ports (via USB hub) • Gigabit Ethernet port (RJ-45) • Modem port (RJ-11) • 2.4 lb; 1.1kg	
Weight <sup>2</sup>	8-cell battery models: 4.0 lb (1.84kg)										• 56-watt AC Adapter ACPI 1.0b and 2.0-compliant International Warranty Service <sup>17</sup> 24 hour x 7 day <sup>18</sup> toll-free warranty support during the warranty <sup>12</sup>	
Case material	Color: black; All: magnesium alloy											
Battery - type	Li-Ion 8-cell / supports optional Extended Life Battery on base (for two batteries)											
Battery - life <sup>10</sup>	with 4-cell: 2.6 hr; with 8-cell: up to 6.3 hr; with 8-cell and optional Extended Life Battery: up to 8.5 hr											
Architecture	<b>Mobile Intel 915GM Express Chipset / 82915GM Graph Mem Cont Hub (GMCH-M) / 82801FBM ICH6-M I/O Controller Hub (SATA150, ATA-100 EIDE, PCI Express x1, PCI bus, ethernet MAC, USB, Low Pin Count [LPC] interface, [Bluetooth], [fingerprint]) / PCI bus (Ricoch® R5C811 CardBus Plus controller, Mini PCI, external expansion) / LPC bus (PC87392 Super I/O for infrared [dock-based ports], Atmel® security chip)</b> Optional <b>ThinkPad X4 Dock</b> (see right side)											
Docking station	One <b>Secure Digital Card</b> slot / supports SD memory cards used in consumer devices											
Secure Digital slot	One Type I or one Type II / <b>CardBus Plus</b> 32-bit / PCMCIA 2.1 / integrated door											
PC Card Std slot	Two USB (version 2.0), plus one powered USB port for select options /											
Ports	external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / no serial, parallel, keyboard/mouse ports (use <i>X4 Dock</i> ) / no IEEE 1394 port											
Wireless antenna	UltraConnect™ antenna built into the display cover for optimal wireless signal reception											
Mini PCI	One Mini PCI type III slot (Communications Bay) / customer upgradable											
Intel 11b/g <sup>32</sup>	11b/g wireless <sup>4</sup> , Mini PCI, Intel PRO/Wireless 2200BG, Intel 82532 chipset											
CDC	One Communications Daughter Card (CDC) socket / customer accessible											
Modem	56K <sup>6</sup> V.90 (V.92-designed <sup>25</sup> ) modem in CDC / Conexant® chipset											
Bluetooth™	Some: Bluetooth wireless technology / in CDC (with modem)											
Ethernet	Gigabit ethernet on systemboard / Broadcom BCM5751M (MAC/PHY) / PCIe x1 / PXE											
Audio support	Soft audio / ICH AC97 controller / DirectSound® support / AD1981B AC97 codec / mono speaker / 0.5 watt / volume up, down, mute buttons / internal mic / microphone input jack (3.5 mm; pink) / headphone jack (3.5 mm; green)											
Security	Power-on password / dual hard disk password / supervisor password / security keyhole											
Security chip	<b>Embedded Security Subsystem 2.0<sup>33</sup> / Atmel® chip / TCG-compliant</b>											
Fingerprint reader	Some: <b>Fingerprint reader</b> on right base of display / 2-way swipe sensor											
Limited warranty <sup>12</sup>	<b>3-years/1-yr battery - EasyServ™, onsite pickup and delivery / service upgrades<sup>22</sup> avail</b>											
512MB PC2-5300 DDR2 CL5 SODIMM	40Y7733	ThinkPad X41 Tablet Digitizer Pen	73P5188									
1GB PC2-5300 DDR2 CL5 SODIMM	40Y7734	ThinkPad X4 Dock	250610U									
2GB PC2-5300 DDR2 SODIMM	40Y7735	X41 Tablet Li-Ion Battery (4-cell)	73P5167									
USB Portable Diskette Drive	05K9276	X41 Tablet Li-Ion Battery (8-cell)	73P5168									
USB Fingerprint Reader	41U3167	ThinkPad X40 Series Extended Life Battery	92P1006									
USB 2.0 Lenovo Multimedia Headset	40Y8518	ThinkPad Multiple Battery Charger II	22P9040									
USB 2.0 Lenovo Webcam	40Y8519	ThinkPad Ultraportable 56W AC Adapter	02K6880									
USB 2.0 Security Memory Key 2GB	41U5119	72W Slim AC/DC Combo Adapter	73P4485									
USB 2.0 Security Memory Key 4GB	41U5120	Enh Perf Wireless Keyboard and Mouse	73P4067									
USB 2.0 Super Multi-Burner Drive	41N5565	Preferred Pro USB Fingerprint Keyboard	73P4730									
60GB Mini Hard Disk 9.5mm (4200 rpm)	73P3358	Lenovo M500 Projector	0037A05									
Kensington® MicroSaver® Security Cable	73P2582	Lenovo C500 Projector	0039A05									
11a/b/g Wireless CardBus Adapter	31P9101	Lenovo L192 Wide 19" Monitor (black)	6920AB1									
11a/b/g Wireless Mini PCI Adapter II	73P4301	Lenovo D221 Wide 22" Monitor (black)	6622HB1									
ThinkPad X41 Tablet Sleeve	30R4959	ThinkPlus™, 2.2-year LOR 9x5 NBD	41C9175									
ThinkPad Carrying Case - Backpack	73P3599	ThinkPlus 3-year LOR 9x5 NBD	41C9176									
Carrying Case - Leather Ultraportable	73P5186	Other accessories at <b>lenovo.com/accessories</b>										

See footnotes for important warranty information

\* Powered by Intel Centrino® mobile technology

© Lenovo

US models announced on June 7, 2005 or March 14, 2006

(PH3) August 2007

US models withdrawn effective August 2006 or August 2007

# ThinkPad® X41 Tablet (1867) - Education - withdrawn

Created by Lenovo Training Solutions  
Personal Systems Reference (PSREF)

Type-model	Processor	L2 GHz cache	Memory	Screen	Disk	Mini PCI wireless	CDC: modem/Bluetooth™	Fingerprint reader	Sec chip	Limited warranty <sup>12</sup>	OneNote® CD	Education software	Avail date
1867-1GU	Pentium® M 753	1.2	2MB	256MB	12.1" XGA	40GB	*Intel 11b/g <sup>32</sup>	Modem	No	Yes	Onsite 3-yrs	No	Yes Jun 05
1867-4GU	Pentium M 758	1.5	2MB	512MB	12.1" XGA	40GB	*Intel 11b/g	Mod/Blue	No	Yes	Onsite 3-yrs	Yes	Yes Jun 05
1867-AGU	Pentium M 778	1.5	2MB	512MB	12.1" XGA	40GB	*Intel 11b/g	Mod/Blue	No	Yes	Onsite 3-yrs	Yes	Yes Mar 06

• **The 1867 has a limited onsite service<sup>24</sup> 3-year limited warranty**

These educational models are available only to public or private K-12 (or higher) accredited schools organized and operated exclusively for educational purposes for use by qualified students and teachers.

Positioning Processor	<b>Convertible tablet; ultimate mobility in a versatile ultraportable; one spindle Intel® Pentium® M Processor Ultra Low Voltage 753 (1.2GHz) or Low Voltage 758 (1.5GHz) or Low Voltage 778 (1.6GHz)</b> with Enhanced Intel SpeedStep™ technology <sup>1</sup> , Execute Disable Bit, and 400MHz system bus										<b>SOFTWARE<sup>14</sup></b>																																																																
L2 cache Memory	<b>2MB / on die (at processor speed) / ECC 256 or 512MB</b> std / 1.28 to 1.53GB max <sup>7</sup> / <b>PC2-4200</b> 533MHz DDR2 (limited to 400MHz because of low voltage processor) / non-parity / CL4 / dual channel capable / std memory soldered to systemboard / one 200-pin SO-DIMM socket available										<b>Windows XP Tablet</b> - Microsoft® Windows® XP Tablet PC Edition 2005 <sup>20</sup> ⇨ Disk-to-Disk Recovery  <b>Preloaded</b> • VitalSource Library education software • Adobe® Photoshop® Elements plus Adobe Premiere® Elements • Model AGU: Microsoft Office OneNote 2003 • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • ThinkVantage System Update • Symantec® Client Security™ • Diskkeeper Lite • PC-Doctor™ (diagnostics) • ThinkPad Utilities (Power Manager and Presentation Director) • InterVideo VirtualDrive CD/DVD Emulator  <b>CD included</b> • Model 4GU/AGU: Microsoft Office OneNote 2003 • Adobe Photoshop Elements plus Adobe Premiere Elements  <b>Free trial</b> • Alias Sketchbook Pro • Zinio Reader • FranklinCovey TabletPlanner																																																																
Ultrabay™ Slim Disk	Supports Ultrabay™ Slim devices in optional ThinkPad X4 Dock <b>40GB<sup>8</sup></b> (4200 rpm), 9.5mm, ATA-100 / 1.8" platter / removable and upgradable / 9.5mm high bay / <b>Active Protection System™</b> (shock protection)																																																																										
Display	<b>12.1"</b> (307mm) <b>Super Wide Angle FFS XGA (1024x768) TFT color</b> / anti-reflective and anti-glare protective coatings / 180 nits / <b>write on screen with standard digitizer pen</b> / pen holder in front base / <b>rotate and swivel hinge</b> in middle bottom of display for tablet mode (portrait or landscape) or picture frame mode (keyboard faces away from user) / 8 buttons on display bottom (power, reboot, rotation, utility, Esc, enter, page up/down)																																																																										
Graphics	<b>Intel Graphics Media Accelerator 900 (GMA 900)</b> / integrated graphics in 915GM GMCH / uses main memory (up to 128MB with 256MB+) / 200MHz																																																																										
Keyboard	Standard-size <sup>26</sup> keys / 97% size of T Series / 87-key / 18.5mm pitch; 2.5mm stroke / Access IBM button / palm rest / TrackPoint®, "Press-to-Select," Internet Scroll Bar <sup>13</sup> /																																																																										
Dimensions <sup>3</sup> Weight <sup>2</sup> Case material Battery - type Battery - life <sup>10</sup>	<b>8-cell: 10.8" x 10.5" x 1.14-1.26"</b> ; 274mm x 266mm x 29-32mm <b>8-cell battery models: 4.0 lb (1.84kg)</b> Color: black; All: magnesium alloy Li-Ion <b>8-cell</b> / supports optional Extended Life Battery on base (for two batteries) with 4-cell: 2.6 hr; with 8-cell: up to 6.3 hr; with 8-cell and optional <b>Extended Life Battery</b> : up to 8.5 hr																																																																										
Architecture	<b>Mobile Intel 915GM Express Chipset</b> / 82915GM Graph Mem Cont Hub (GMCH-M) / 82801FBM ICH6-M I/O Controller Hub (SATA150, ATA-100 EIDE, PCI Express x1, PCI bus, ethernet MAC, USB, Low Pin Count [LPC] interface, [Bluetooth], [fingerprint]) / PCI bus (Ricoch® R5C811 CardBus Plus controller, Mini PCI, external expansion) / LPC bus (PC87392 Super I/O for infrared [dock-based ports], Atmel® security chip) Optional <b>ThinkPad X4 Dock</b> (see right side)																																																																										
Docking station Secure Digital slot PC Card Std slot Ports	One <b>Secure Digital Card</b> slot / supports SD memory cards used in consumer devices One Type I or one Type II / <b>CardBus Plus</b> 32-bit / PCMCIA 2.1 / integrated door Two USB (version 2.0), plus one powered USB port for select options / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / no serial, parallel, keyboard/mouse ports (use <b>X4 Dock</b> ) / no IEEE 1394 port										<b>Supports ThinkVantage® technologies</b>  <b>ThinkPad X4 Dock</b> • Provides desktop expansion and cable mgmt for X40/X41/X41 Tablet • Connects to the bottom of notebook • Supports optional Ultrabay™ Slim accessories in left side: - ThinkPad DVD-ROM Ultrabay Slim Drive 73P3270 - CD-RW/DVD Combo II Ultrabay Slim Drive (flat bezel) 40Y8621 - ThinkPad DVD Ultrabay Slim Burner (flat bezel) 41N5643 - Second HDD Adapter for Ultrabay Slim 41U3148 Disks supported (some listed): • 80GB HS Hard Disk 09N4273																																																																
Wireless antenna Mini PCI Intel 11b/g <sup>32</sup> CDC Modem Bluetooth™ Ethernet Audio support	UltraConnect™ antenna built into the display cover for optimal wireless signal reception One Mini PCI type III slot (Communications Bay) / customer upgradable 11b/g wireless <sup>4</sup> , Mini PCI, Intel PRO/Wireless 2200BG, Intel 82532 chipset One Communications Daughter Card (CDC) socket / customer accessible 56K <sup>6</sup> V.90 (V.92-designed <sup>29</sup> ) modem in CDC / Conexant® chipset Some: Bluetooth wireless technology / in CDC (with modem) Gigabit ethernet on systemboard / Broadcom BCM5751M (MAC/PHY) / PCIe x1 / PXE Soft audio / ICH AC97 controller / DirectSound® support / AD1981B AC97 codec / mono speaker / 0.5 watt / volume up, down, mute buttons / internal mic / microphone input jack (3.5 mm; pink) / headphone jack (3.5 mm; green)																																																																										
Security Security chip Fingerprint reader	Power-on password / dual hard disk password / supervisor password / security keyhole <b>Embedded Security Subsystem 2.0<sup>33</sup></b> / Atmel® chip / TCG-compliant None																																																																										
Limited warranty <sup>12</sup>	<b>3-years/1-year battery, limited onsite service, 8 am - 5 pm, Mon - Fri coverage</b> excluding holidays, next business day response time <sup>24</sup>																																																																										
512MB PC2-5300 DDR2 CL5 SODIMM	40Y7733	ThinkPad X41 Tablet Digitizer Pen	73P5188	1GB PC2-5300 DDR2 CL5 SODIMM	40Y7734	ThinkPad X4 Dock	250610U	2GB PC2-5300 DDR2 SODIMM	40Y7735	X41 Tablet Li-Ion Battery (4-cell)	73P5167	USB Portable Diskette Drive	05K9276	X41 Tablet Li-Ion Battery (8-cell)	73P5168	USB Numeric Keypad (black)	33L3225	ThinkPad X40 Series Extended Life Battery	92P1006	USB Fingerprint Reader	41U3167	ThinkPad Multiple Battery Charger II	22P9040	USB 2.0 Security Memory Key 2GB	41U5119	ThinkPad Ultraportable 56W AC Adapter	02K6880	USB 2.0 Security Memory Key 4GB	41U5120	72W Slim AC/DC Combo Adapter	73P4485	USB 2.0 Super Multi-Burner Drive	41N5656	Enh Perf Wireless Keyboard and Mouse	73P4067	60GB Mini Hard Disk 9.5mm (4200 rpm)	73P3358	Preferred Pro USB Fingerprint Keyboard	73P4730	Kensington® MicroSaver® Security Cable	73P2582	Lenovo M500 Projector	0037A05	11a/b/g Wireless CardBus Adapter	31P9101	Lenovo C500 Projector	0039A05	11a/b/g Wireless Mini PCI Adapter II	73P4301	Optical 3-Button Travel Wheel Mouse	31P7410	ThinkPad X41 Tablet Sleeve	30R4959	Optical 3-Button ScrollPoint® Mouse	31P7405	ThinkPad Carrying Case - Backpack	73P3599	ThinkPlus™.22 2-year LOR 9x5 NBD	41C9175	Carrying Case - Leather Ultraportable	73P5186	ThinkPlus 3-year LOR 9x5 NBD	41C9176	Lenovo D221 Wide 22" Monitor (black)	6622HB1	Other accessories at <b>lenovo.com/accessories</b>		56-watt AC Adapter		ACPI 1.0b and 2.0-compliant		International Warranty Service <sup>17</sup>		24 hour x 7 day <sup>18</sup> toll-free warranty support during the warranty <sup>12</sup> via	

See footnotes for important warranty information  
US models announced on June 7, 2005 or March 14, 2006  
US models withdrawn effective August 2006 or August 2007

\* Powered by Intel Centrino® mobile technology

# ThinkPad® X41 Tablet (1869) - TopSeller - withdrawn

Created by Lenovo Training Solutions  
Personal Systems Reference (PSREF)

Type-model	Processor	L2 GHz cache	Memory	Screen	Disk	Mini PCI wireless	CDC: modem/Bluetooth™	Fingerprint reader	Sec chip	Battery cells	Limited warranty <sup>12</sup>	WH Gbl Entry	Avail date
1869-5CU	Pentium® M 758	1.5 2MB	512MB	12.1" XGA	40GB	*Intel 11b/g <sup>32</sup>	Modem	Finger	Yes	4-cell	3-years	TopSeller	Jun 05
1869-BCU	Pentium M 778	1.6 2MB	512MB	12.1" XGA	40GB	*Intel 11b/g	Modem	Finger	Yes	4-cell	3-years	TopSeller	Mar 06
1869-CSU	Pentium M 778	1.6 2MB	512MB	12.1" XGA	60GB	*Intel 11a/b/g <sup>32</sup>	Mod/Blue	Finger	Yes	8-cell	3-years	TopSeller	Mar 06

- These small and medium business (SMB) models are part of the US TopSeller™ Program
- The 1869 has a 3-year limited warranty

Positioning Processor	<b>Convertible tablet</b> ; ultimate mobility in a versatile ultraportable; one spindle										<b>SOFTWARE<sup>14</sup></b>		
L2 cache	Intel® Pentium® M Processor Low Voltage 758 or Low Voltage 778 with Enhanced Intel SpeedStep™ technology <sup>1</sup> , Execute Disable Bit, and 400MHz system bus										Windows XP Tablet		
Memory	2MB / on die (at processor speed) / ECC										- Microsoft® Windows® XP Tablet PC Edition 2005 <sup>20</sup>		
UltraTray™ Slim Disk	512MB std / 1.53GB max <sup>7</sup> / <b>PC2-4200</b> 533MHz DDR2 (limited to 400MHz because of low voltage processor) / non-parity / CL4 / dual channel capable / std memory soldered to systemboard / one 200-pin SO-DIMM socket available										◇ Disk-to-Disk Recovery (in hidden protected area)		
Display	Supports UltraTray™ Slim devices in optional ThinkPad X4 Dock										Preloaded		
Graphics	40GB <sup>8</sup> or 60GB (4200 rpm), 9.5mm, ATA-100 / 1.8" platter / removable and upgradable / 9.5mm high bay / <b>Active Protection System™</b> (shock protection)										• Rescue and Recovery™		
Keyboard	12.1" (307mm) <b>Super Wide Angle FFS XGA (1024x768) TFT color</b> / anti-reflective and anti-glare protective coatings / 180 nits / write on screen with <b>standard digitizer pen</b> / pen holder in front base / rotate and swivel hinge in middle bottom of display for tablet mode (portrait or landscape) or picture frame mode (keyboard faces away from user) / 8 buttons on display bottom (power, reboot, rotation, utility, Esc, enter, page up/down)										• Access Connections™		
Dimensions <sup>3</sup>	Intel <b>Graphics Media Accelerator 900 (GMA 900)</b> / integrated graphics in 915GM GMCH / uses main memory (up to 128MB with 256MB+) / 200MHz										• Client Security Solution™		
Weight <sup>2</sup>	Standard-size <sup>26</sup> keys / 97% size of T Series / 87-key / 18.5mm pitch; 2.5mm stroke / Access IBM button / palm rest / TrackPoint®, "Press-to-Select," Internet Scroll Bar <sup>13</sup> /										• ThinkVantage Productivity Center with Away Manager		
Case material	4-cell: 10.8" x 9.5" x 1.14-1.26"; 274mm x 242mm x 29-32mm										• ThinkVantage System Update		
Battery - type	8-cell: 10.8" x 10.5" x 1.14-1.26"; 274mm x 266mm x 29-32mm										• Symantec® Client Security™		
Battery - life <sup>10</sup>	4-cell battery models: 3.5 lb (1.61kg); 8-cell battery models: 4.0 lb (1.84kg)										• Diskeeper Lite		
Architecture	Color: black; All: magnesium alloy										• PC-Doctor™ (diagnostics)		
Docking station	Li-Ion 4-cell or 8-cell / supports opt Extended Life Battery on base (for two batteries) with 4-cell: 2.6 hr; with 8-cell: up to 6.3 hr; with 8-cell and optional Extended Life Battery: up to 8.5 hr										• ThinkPad Utilities (Power Manager and Presentation Director)		
Secure Digital slot	Mobile Intel 915GM Express Chipset / 82915GM Graph Mem Cont Hub (GMCH-M) / 82801FBM ICH6-M I/O Controller Hub (SATA150, ATA-100 EIDE, PCI Express x1, PCI bus, ethernet MAC, USB, Low Pin Count [LPC] interface, [Bluetooth], [fingerprint]) / PCI bus (Ricoch® R5C811 CardBus Plus controller, Mini PCI, external expansion) / LPC bus (PC87392 Super I/O for infrared [dock-based ports], Atmel® security chip)										• Adobe® Reader		
PC Card Std slot	Optional <b>ThinkPad X4 Dock</b> (see right side)										• Fingerprint Software (fingerprint models)		
Ports	One <b>Secure Digital Card</b> slot / supports SD memory cards used in consumer devices										• InterVideo VirtualDrive CD/DVD Emulator		
Wireless antenna	One Type I or one Type II / <b>CardBus Plus</b> 32-bit / PCMCIA 2.1 / integrated door										<b>Free trial</b>		
Mini PCI	Two USB (version 2.0), plus one powered USB port for select options / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / no serial, parallel, keyboard/mouse ports (use X4 Dock) / no IEEE 1394 port										• Alias Sketchbook Pro		
Intel 11b/g <sup>32</sup>	UltraConnect™ antenna built into the display cover for optimal wireless signal reception										• Zinio Reader		
Intel 11a/b/g <sup>32</sup>	One Mini PCI type III slot (Communications Bay) / customer upgradable										• FranklinCovey TabletPlanner		
CDC	Some: 11b/g wireless <sup>4</sup> , Mini PCI, Intel PRO/Wireless 2200BG, Intel 82532 chipset										License (CD not included)		
Modem	Some: 11a/b/g wireless <sup>4</sup> , Mini PCI, Intel PRO/Wireless 2915ABG, Intel 82533 chipset										- Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client		
Bluetooth™	One Communications Daughter Card (CDC) socket / customer accessible										Supports ThinkVantage® technologies		
Ethernet	56K <sup>6</sup> V.90 (V.92-designed <sup>25</sup> ) modem in CDC / Conexant® chipset										<b>ThinkPad X4 Dock</b>		
Audio support	Some: Bluetooth wireless technology / in CDC (with modem)										• Provides desktop expansion and cable mgmt for X40/X41/X41 Tablet		
Security	Gigabit ethernet on systemboard / Broadcom BCM5751M (MAC/PHY) / PCIe x1 / PXE										• Connects to the bottom of notebook		
Security chip	Soft audio / ICH AC97 controller / DirectSound® support / AD1981B AC97 codec / mono speaker, 0.5 watt / volume up, down, mute buttons / internal mic / microphone input jack (3.5 mm; pink) / headphone jack (3.5 mm; green)										• Supports optional UltraTray™ Slim accessories in left side:		
Fingerprint reader	Power-on password / dual hard disk password / supervisor password / security keyhole										- ThinkPad DVD-ROM UltraTray Slim Drive 73P3270		
Limited warranty <sup>12</sup>	Embedded <b>Security Subsystem 2.0<sup>33</sup></b> / Atmel® chip / TCG-compliant										- CD-RW/DVD Combo II UltraTray Slim Drive 73P3288		
256MB PC2-4200 DDR2 NP CL4 SOD	Fingerprint reader <b>Fingerprint reader</b> on right base of display / use in tablet or notebook mode / 2-way swipe sensor / integrated with security chip										- Super Multi-Burner UltraTray Slim Drive (curved bezel) 40Y8622		
512MB PC2-4200 DDR2 NP CL4 SOD	EasyServ™ <sup>19</sup> onsite pickup and delivery / service upgrades <sup>22</sup> avail										- Second HDD Adapter for UltraTray Slim 41U3148		
1GB PC2-4200 DDR2 NP CL4 SOD	Other options at <a href="http://lenovo.com/options">lenovo.com/options</a>										Disks supported:		
USB Portable Diskette Drive	ThinkPad X41 Tablet Digitizer Pen 73P5188										• 60GB HS Hard Disk 39W9106		
USB Fingerprint Reader	ThinkPad X4 Dock 250610U										• 80GB HS Hard Disk 09N4273		
USB 2.0 Portable 80GB Hard Disk	X41 Tablet Li-Ion Battery (4-cell) 73P5167										Other features:		
USB 2.0 Memory Key 1GB	X41 Tablet Li-Ion Battery (8-cell) 73P5168										• 56 watt AC adapter		
USB 2.0 Super Multi-Burner Drive	ThinkPad X40 Series Extended Life Battery 92P1006										• Power button		
60GB Mini Hard Disk 9.5mm (4200 rpm)	ThinkPad Multiple Battery Charger II 22P9040										• Stereo speakers (1 watt)		
Kensington® MicroSaver® Security Cable	ThinkPad UltraTrayable 56W AC Adapter 02K6880										• Security key lock, security keyhole, and UltraTray Slim security screw		
11a/b/g Wireless CardBus Adapter	72W Slim AC/DC Combo Adapter 73P4485										• Serial and parallel ports		
11a/b/g Wireless Mini PCI Adapter II	Enh Perf Wireless Keyboard and Mouse 73P4067										• PS/2 port for keyboard or mouse		
Intel PRO/Wireless 2915ABG Mini PCI	ThinkVision® E500 Projector 0038A05										• Analog DB-15 monitor port		
ThinkPad X41 Tablet Sleeve	Lenovo M500 Projector 0037A05										• Three USB 2.0 ports (via USB hub)		
ThinkPad Carrying Case - Backpack	ThinkVision C400 Wireless Projector 0039WA1										• Gigabit Ethernet port (RJ-45)		
Carrying Case - Leather Ultraportable	SonyEricsson® GC83 EDGE PC Card 26K3393										• Modem port (RJ-11)		
ThinkVision® L171 17" Monitor (black)	Verizon Wireless V620 WWAN PC Card <sup>25</sup> 40Y9137										• 2.4 lb; 1.1kg		

See footnotes for important warranty information  
US models announced June 7, 2005 or March 14, 2006  
US models withdrawn effective December 2006

\* Powered by Intel Centrino® mobile technology

© Lenovo  
(PH2) December 2006

Type-model	Processor	GHz	Memory	Screen	Disk	Optical in	ThinkPad	802.11	WWAN	Blue-	Fingerprt	Battery	Workhorse	Avail
						UltraBase	UltraBase	wireless	wireless	tooth	reader	cells	Global	date
1706-5DU	Core Duo T2400	1.83	512MB	12.1" XGA	60GB	None	Optional *	Intel 11a/b/g <sup>32</sup>				8-cell	XP Pro	W G Feb 06
1706-5KU	Core Duo T2400	1.83	512MB	12.1" XGA	60GB	None	Optional *	Intel 11a/b/g			Finger	8-cell	XP Pro	W G Feb 06
1706-7AU	Core Duo T2400	1.83	512MB	12.1" XGA	60GB	None	Optional *	Intel 11a/b/g		Blue		8-cell	XP Pro	W Feb 06
1706-85U	Core Duo T2400	1.83	512MB	12.1" XGA	80GB	None	Optional *	Intel 11a/b/g		Blue	Finger	4-cell	XP Pro	W Feb 06
1706-86U	Core Duo T2400	1.83	512MB	12.1" XGA	80GB	None	Optional *	Intel 11a/b/g		Blue	Finger	8-cell	XP Pro	W Feb 06
1706-8DU	Core Duo T2400	1.83	512MB	12.1" XGA	80GB	Combo	UltraBase *	Intel 11a/b/g		Blue	Finger	8-cell	XP Pro	W Feb 06
1706-95U	Core Duo T2400	1.83	512MB	12.1" XGA	80GB	Combo	UltraBase *	Intel 11a/b/g	Verizon	Blue	Finger	4-cell	XP Pro	Feb 06
1706-AFU	Core Duo T2300E	1.66	512MB	12.1" XGA	60GB	None	Optional *	Intel 11a/b/g			Finger	8-cell	XP Pro	May 06
1706-ABU	Core Duo T2300E	1.66	512MB	12.1" XGA	40GB	None	Optional	11a/b/g <sup>32</sup>			Finger	8-cell	XP Pro	May 06
1706-A7U	Core Duo T2300E	1.66	512MB	12.1" XGA	60GB	None	Optional *	Intel 11a/b/g			Finger	4-cell	XP Pro	May 06

Positioning Processor **Thinnest and lightest; one spindle Intel® Core™ Duo processor T2300E or T2400 with dual-core, Enhanced Intel SpeedStep™ technology<sup>1</sup>, Execute Disable Bit, 667MHz system bus, and 2MB shared L2 cache**

Memory **512MB** std / 4GB max<sup>31</sup> / PC2-5300 667MHz DDR2 / non-parity / CL5 / dual channel capable / two 200-pin SO-DIMM sockets / std memory in 1 socket / one socket available

Diskette drive None standard / use optional USB-based diskette drive  
 EIDE Combo *Some:* DVD-ROM/CD-RW / 24X/24X/24X/8X<sup>21</sup> speed / removable from X6 UltraBase  
 Ultrabay™ Slim Supports Ultrabay Slim devices in optional or standard X6 UltraBase  
 Serial ATA disk (SATA150) **40, 60 or 80GB<sup>8</sup>** (5400 rpm) / 9.5mm high / removable, upgradeable / 9.5mm high bay / **ThinkPad Shock Mounted Hard Drive / Active Protection System™** / supports 2nd disk in optional X6 UltraBase

Display **12.1"** (308mm) **XGA (1024x768) TFT color / Active Matrix / 150 nits / anti-glare**

Graphics controller **Intel Graphics Media Accelerator 950 (GMA 950)** / integrated in 945GM / 250MHz  
 Graphics - external External monitor support via analog DB-15 connector / no DVI-out support

Keyboard **89-key / ThinkVantage button / spill-resistant / multimedia Fn keys / Windows, Appl keys standard-size<sup>26</sup> keys / 97% size of T Series / 18.5mm pitch; 2.5mm stroke /**

TrackPoint® TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar<sup>13</sup>, magnifying glass  
 Touch pad None  
 ThinkLight™ Illuminates the keyboard to improve visibility in low-light conditions

Dimensions<sup>3</sup> **without X6 UltraBase: 10.5" x 8.3" x .80-1.39"**; 268mm x 211mm x 20-35mm  
 Weight<sup>2</sup> **with 4-cell battery:** 3.15 lb (1.43kg); **with 8-cell battery:** 3.6 lb (1.64kg)  
 Case material *Color:* black; *All:* magnesium alloy  
 Battery - type Li-ion 4- or 8-cell / supports optional Extended Life Battery on base (for two batteries); supports optional Ultrabay Slim battery in optional X6 UltraBase (for two batteries)

Battery - life<sup>10</sup> **Enhanced 4-cell:** up to 3.9 hr; **8-cell:** up to 7.8 hr

Architecture **Mobile Intel 945GM Express Chipset** / 82945GM Graphics Memory Controller Hub / 82801GBM ICH7-M I/O Controller Hub (SATA300, ATA-100 EIDE, PCI Express x1, PCI bus, USB, LPC interface, [Bluetooth]), [fingerprint] / PCI bus (Ricoh® R5C554 CardBus/1394 combo controller) / LPC bus (PC87382 Super I/O, Atmel® 97SC3203)

Media slice *Some:* **X6 UltraBase media slice** (see right side)  
 Secure Digital slot One **Secure Digital Card** slot / supports SD memory cards used in consumer devices  
 PC Card slot One Type I or one Type II / **CardBus Plus** (34mm ExpressCard via adapter) / door  
 IEEE 1394 **IEEE 1394 (FireWire) port** (4-pin)  
 Ports Three USB (version 2.0) / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / IEEE 1394 (4-pin) / no serial, parallel, keyboard, or mouse ports

Wireless antenna UltraConnect™ Antenna built into the display cover / on-off switch for all wireless radios  
 Mini PCI Express Two Mini PCI Express slots / only 802.11 wireless is customer upgradeable  
 Intel 11a/b/g<sup>32</sup> *Some:* 11a/b/g wireless<sup>4</sup>, Mini PCI Express adapter, Intel PRO/Wireless 3945ABG  
 11a/b/g<sup>32</sup> *Some:* 11a/b/g wireless<sup>4</sup>, ThinkPad 11a/b/g Mini PCIe Adapter, Atheros AR5006EX  
 WWAN<sup>16</sup> *Some:* Wireless WAN, Sierra Wireless 1xEV-DO Network Adapter, Mini PCIe Adapter, EV-DO/1xRTT, WWAN antenna on display, service contract reqd with Verizon® Wireless

Modem **56K<sup>6</sup> V.90 (V.92-designed<sup>29</sup>) modem in Comm Daughter Card / Conexant® chipset**  
 Bluetooth™ *Some:* Bluetooth 2.0 wireless / USB 2.0 interface via ICH7-M / LED indicator  
 Ethernet Gigabit ethernet on systemboard / Intel 82573L (MAC/PHY) / PCIe x1 / PXE  
 Audio support High Definition (HD) Audio / AD1981HD codec / mono speaker 0.5 watt / volume down, up, mute buttons / internal microphone / mic input jack (pink) / headphone jack (green)

Security Power-on password / hard disk password / supervisor password / security keyhole  
 Security chip **Trusted Platform Module / Atmel chip / TCG 1.2-compliant**  
 Fingerprint reader *Some:* **Fingerprint reader on palm rest / swipe sensor / supports the security chip**

Limited warranty<sup>12</sup> **3-years/1-yr battery - EasyServ™<sup>19</sup> onsite pickup and delivery / service upgrades<sup>22</sup> avail**

512MB PC2-5300 DDR2 CL5 SODIMM	40Y7733	X60 Enhanced Capacity Battery 4-cell	40Y7001
1GB PC2-5300 DDR2 CL5 SODIMM	40Y7734	ThinkPad X60 High Capacity 8-cell	40Y7003
2GB PC2-5300 DDR2 SODIMM	40Y7735	ThinkPad X60 Extended Life Battery	40Y7005
160GB Disk 9.5mm SATA150 (5400 rpm)	41N5692	ThinkPad External Battery Charger	40Y7625
160GB Disk 9.5mm SATA150 (7200 rpm)	41N5737	ThinkPad 90W AC/DC Combo Adapter	40Y7630
USB Portable Diskette Drive	05K9276	ThinkPad Carrying Case - Expander	73P3597
USB 2.0 Lenovo Multimedia Headset	40Y8518	ThinkPad Carrying Case - BackPack	73P3599
USB 2.0 Security Memory Key 4GB	41U5120	ThinkVision® L193p 19" LCD Monitor	4431HB2
USB 2.0 CD-RW/DVD-ROM Combo II Drive	40Y8637	ThinkVision L194 Wide 19" LCD Monitor	4434HB6
USB 2.0 Super Multi-Burner Drive	41N5565	ThinkPlus™ <sup>22</sup> 2-year LOR 9x5 NBD	41C9175
11a/b/g Wireless Mini PCI Express Adapter	40Y7026	ThinkPlus 3-year LOR 9x5 NBD	41C9176
ThinkPad Adjustable Notebook Stand	40Y7676	ThinkPlus 4-year LOR 9x5 NBD	41C9177
ThinkPad Convertible Monitor Stand	40Y7620	ThinkPlus 5-year LOR 9x5 NBD	41C9179
ThinkPad X6 UltraBase	40Y8116	ThinkPlus 4-year P&L P/U Depot	41C9178
Lenovo M500 Projector	0037A05	ThinkPlus 5-year P&L P/U Depot	41C9180
Other accessories on O-X60 sheet		Other accessories at <b>lenovo.com/accessories</b>	

**SOFTWARE<sup>14</sup>**

**Windows XP Professional**  
 - Microsoft® Windows® XP Professional<sup>20</sup> (Service Pack 2)

**Preloaded** (only some listed)  
 • Rescue and Recovery™  
 • Access Connections™  
 • Client Security Solution™  
 • ThinkVantage Productivity Center with Maintenance Manager  
 • ThinkVantage System Update  
 • System Migration Assistant  
 • Symantec® Client Security™  
 • Diskeeper® Lite  
 • PC-Doctor™ (diagnostics)  
 • ThinkPad utilities  
 • Picasa from Google  
 • Fingerprint Software (fingerprint models)  
 • Multimedia Center for Think Offerings  
 • Sonic RecordNOW and Drive Letter Access (combo model)  
 • InterVideo WinDVD (combo model)

**License** - CD not included (all)  
 - Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client

Supports ThinkVantage® technologies

**ThinkPad X60 UltraBase™**

- Provides desktop expansion and cable management for X60 Series
- Easily connects to the bottom of the X60 Series X60s for traveling
- Converts ThinkPad to a two-spindle system with optional flat bezel Ultrabay Slim options in left side:
  - ThinkPad Advanced Ultrabay Battery 3-cell (flat bezel) 40Y6789
  - CD-RW/DVD Combo II Ultrabay Slim Drive (flat bezel) 40Y8621
  - ThinkPad DVD Ultrabay Slim Burner (flat bezel) 41N5643
  - Serial Hard Drive Ultrabay Slim Adapter (flat bezel) 40Y8725
- Disks supported (only some listed):
  - 120GB Disk 5400 rpm 41N5691
  - 160GB Disk 5400 rpm 41N5692
  - 160GB Disk 7200 rpm 41N5737

**Other features:**

- Power button (front)
- Stereo speakers (1 watt)
- Security key lock, security keyhole, and optional security screw
- Serial and parallel ports
- Analog DB-15 monitor port
- Four USB 2.0 ports
- Gigabit ethernet port
- Modem port
- Microphone in and headphone out
- Requires 65 or 90 watt AC adapter
- Retractable feet; 1.48 lb; 670g

65-watt AC Adapter  
 ROHS-compliant  
 International Warranty Service<sup>17</sup>  
 24 hour x 7 day<sup>18</sup> toll-free warranty support during the warranty<sup>12</sup>

See footnotes for important warranty information \* Powered by Intel Centrino® Duo mobile technology  
 US models announced Jan 5, Jan 31, Feb 28, or May 30, 2006  
 US models withdrawn effective Nov 2006, Aug 2007, or Oct 2007



# ThinkPad® X60 (1708) - TopSeller - withdrawn

Created by Lenovo Training Solutions  
Personal Systems Reference (PSREF)

Type-model	Processor	GHz	Memory	Screen	Disk	Optical	UltraBase	802.11	WWAN	Blue-tooth	Fingerprt	Battery	Limited Avail
1708-5MU	Core Duo T2400	1.83	512MB	12.1" XGA	60GB	Combo	Ultrabase	* Intel 11a/b/g	None	None	Finger	8-cell XP Pro	3-yr Feb 06
<ul style="list-style-type: none"> <li>• <b>This small and medium business (SMB) model is part of the US TopSeller™ Program</b></li> <li>• <b>This 1708 model has a 3-year limited warranty</b></li> </ul>													
Positioning Processor	<i>Thinnest and lightest; one spindle</i> <b>Intel® Core™ Duo processor T2400 (1.83GHz)</b> with dual-core, Enhanced Intel SpeedStep™ technology <sup>1</sup> , Execute Disable Bit, 667MHz system bus, and 2MB shared L2 cache											<b>SOFTWARE<sup>14</sup></b>	
Memory	<b>512MB</b> std / 4GB max <sup>31</sup> / PC2-5300 667MHz DDR2 / non-parity / CL5 / dual channel capable / two 200-pin SO-DIMM sockets / std memory in 1 socket / one socket available											<b>Windows XP Professional</b> - Microsoft® Windows® XP Professional <sup>20</sup> (Service Pack 2) ↪ Disk-to-Disk Recovery	
Diskette drive	None standard / use optional USB-based diskette drive											<b>Preloaded</b> • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center with Maintenance Manager • ThinkVantage System Update • Symantec® Client Security™ • Diskeeper Lite • PC-Doctor™ (diagnostics) • ThinkPad utilities • Adobe® Reader • Google Toolbar • Google Desktop • Picasa from Google • Fingerprint Software • Multimedia Center for Think Offerings • Sonic RecordNOW and Drive Letter Access (combo model) • InterVideo WinDVD (combo model)	
EIDE Combo	DVD-ROM/CD-RW / 24X/24X/24X/8X <sup>21</sup> speed / removable from X6 UltraBase												
Ultrabay™ Slim	Supports Ultrabay Slim devices in optional or standard X6 UltraBase												
Serial ATA disk (SATA150)	<b>60GB<sup>8</sup></b> (5400 rpm) / 9.5mm high / removable, upgradable / 9.5mm high bay / <b>ThinkPad Shock Mounted Hard Drive / Active Protection System™</b> / supports 2nd disk in optional X6 UltraBase												
Display	<b>12.1"</b> (308mm) <b>XGA (1024x768) TFT color</b> / Active Matrix / 150 nits / anti-glare												
Graphics controller	<b>Intel Graphics Media Accelerator 950 (GMA 950)</b> / integrated in 945GM / 250MHz												
Graphics - external	External monitor support via analog DB-15 connector / no DVI-out support												
Keyboard	89-key / ThinkVantage button / spill-resistant / multimedia Fn keys / Windows, Appl keys standard-size <sup>26</sup> keys / 97% size of T Series / 18.5mm pitch; 2.5mm stroke /												
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar <sup>13</sup> , magnifying glass												
Touch pad	None												
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions												
Dimensions <sup>3</sup>	<i>without X6 UltraBase:</i> 10.5" x 8.3" x .80-1.39"; 268mm x 211mm x 20-35mm												
Weight <sup>2</sup>	<i>with 8-cell battery:</i> 3.6 lb (1.64kg); <i>with optional 4-cell battery:</i> 3.15 lb (1.43kg)												
Case material	Color: black; All: magnesium alloy												
Battery - type	Li-Ion 8-cell / supports optional Extended Life Battery on base (for two batteries); supports optional Ultrabay Slim battery in optional X6 UltraBase (for two batteries)												
Battery - life <sup>10</sup>	<i>8-cell:</i> up to 7.8 hr; <i>with std 8-cell battery and Extended Life Battery:</i> up to 10.7 hr												
Architecture	<b>Mobile Intel 945GM Express Chipset</b> / 82945GM Graphics Memory Controller Hub / 82801GBM ICH7-M I/O Controller Hub (SATA300, ATA-100 EIDE, PCI Express x1, PCI bus, USB, LPC interface, [Bluetooth], [fingerprint]) / PCI bus (Ricoh® R5C554 CardBus/1394 combo controller) / LPC bus (PC87382 Super I/O, Atmel® 97SC3203)												
Media slice	<i>Some: X6 UltraBase media slice (see right side)</i>											Supports ThinkVantage® technologies	
Secure Digital slot	One <b>Secure Digital Card</b> slot / supports SD memory cards used in consumer devices												
PC Card slot	One Type I or one Type II / <b>CardBus Plus</b> (34mm ExpressCard via adapter) / door												
IEEE 1394	<b>IEEE 1394 (FireWire) port</b> (4-pin)												
Ports	Three USB (version 2.0) / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / IEEE 1394 (4-pin) / no serial, parallel, keyboard, or mouse ports												
Wireless antenna	UltraConnect™ Antenna built into the display cover / on-off switch for all wireless radios												
Mini PCI Express	Two Mini PCI Express slots / only 802.11 wireless is customer upgradable												
Intel 11a/b/g <sup>32</sup>	11a/b/g wireless <sup>4</sup> , Mini PCI Express adapter, Intel PRO/Wireless 3945ABG												
WWAN <sup>16</sup>	None												
Modem	56K <sup>6</sup> V.90 (V.92-designed <sup>29</sup> ) modem in Comm Daughter Card / Conexant® chipset												
Bluetooth™	None												
Ethernet	Gigabit ethernet on systemboard / Intel 82573L (MAC/PHY) / PCIe x1 / PXE												
Audio support	High Definition (HD) Audio / AD1981HD codec / mono speaker 0.5 watt / volume down, up, mute buttons / internal microphone / mic input jack (pink) / headphone jack (green)												
Security	Power-on password / hard disk password / supervisor password / security keyhole												
Security chip	<b>Trusted Platform Module</b> / Atmel chip / TCG 1.2-compliant												
Fingerprint reader	<b>Fingerprint reader on palm rest</b> / swipe sensor / supports the security chip												
Limited warranty <sup>12</sup>	<b>3-years/1-yr battery</b> - EasyServ™ <sup>19</sup> onsite pickup and delivery / service upgrades <sup>22</sup> avail												
512MB PC2-5300 DDR2 CL5 SODIMM	40Y7733	X60 Enhanced Capacity Battery 4-cell	40Y7001										
1GB PC2-5300 DDR2 CL5 SODIMM	40Y7734	ThinkPad X60 High Capacity 8-cell	40Y7003										
2GB PC2-5300 DDR2 SODIMM	40Y7735	ThinkPad X60 Extended Life Battery	40Y7005										
100GB Disk 9.5mm SATA150 (7200 rpm)	41N3013	ThinkPad External Battery Charger	40Y7625										
160GB Disk 9.5mm SATA150 (5400 rpm)	41N5692	ThinkPad 65W AC Adapter	40Y7696										
USB Portable Diskette Drive	05K9276	ThinkPad 90W AC Adapter	40Y7659										
USB 2.0 Lenovo Multimedia Headset	40Y8518	ThinkPad 90W AC/DC Combo Adapter	40Y7630										
USB 2.0 Lenovo Webcam	40Y8519	ThinkPad Carrying Case - Expander	73P3597										
USB 2.0 Security Memory Key 2GB	41U5119	ThinkPad Carrying Case - Organizer	73P3598										
USB 2.0 Security Memory Key 4GB	41U5120	ThinkPad Carrying Case - BackPack	73P3599										
USB 2.0 CD-RW/DVD-ROM Combo II Drive	40Y8637	Lenovo L171 17" Monitor (black)	9227AC1										
USB 2.0 Portable 120GB Hard Disk	41N8379	Lenovo L192 Wide 19" Monitor (black)	6920AB1										
USB 2.0 Super Multi-Burner Drive	41N5565	Lenovo D221 Wide 22" Monitor (black)	6622HB1										
11a/b/g Wireless Mini PCI Express Adpr	40Y7026	ThinkVision® L192p 19" Monitor (black)	9419HC2										
ThinkPad Adjustable Notebook Stand	40Y7676	ThinkVision L201p 20.1" Monitor (black)	9220HB1										
ThinkPad Convertible Monitor Stand	40Y7620	ThinkPlus™ <sup>22</sup> 2-year LOR 9x5 NBD	41C9175										
ThinkPad X6 UltraBase	40Y8116	ThinkPlus 3-year LOR 9x5 NBD	41C9176										
Lenovo Laser Mouse (USB, PS/2)	41U3074	ThinkPlus 4-year LOR 9x5 NBD	41C9177										
Lenovo M500 Projector	0037A05	ThinkPlus 5-year LOR 9x5 NBD	41C9179										
Lenovo C500 Projector	0039A05	ThinkPlus 4-year P&L P/U Depot	41C9178										
Kensington MicroSaver Security Cable	73P2582	ThinkPlus 5-year P&L P/U Depot	41C9180										
Other accessories on O-X60 sheet		Other accessories at <b>lenovo.com/accessories</b>											
<b>Other features:</b> • Power button (front) • Stereo speakers (1 watt) • Security key lock, security keyhole, and optional security screw • Serial and parallel ports • Analog DB-15 monitor port • Four USB 2.0 ports • Gigabit ethernet port • Modem port • Microphone in and headphone out • Requires 65 or 90 watt AC adapter • Retractable feet; 1.48 lb; 670g													
65-watt AC Adapter ROHS-compliant International Warranty Service <sup>17</sup> 24 hour x 7 day <sup>18</sup> toll-free warranty support during the warranty <sup>12</sup>													

See footnotes for important warranty information  
US models announced January 31, 2006  
US models withdrawn effective August 2007

\* Powered by Intel Centrino® Duo mobile technology

© Lenovo  
(SM1-2) August 2007

**ThinkPad® X60 (1709) - TopSeller - withdrawn**

Personal Systems Reference (PSREF)

Type-model	Processor	GHz	Memory	Screen	Disk	Optical	ThinkPad	802.11	WWAN	Blue-	Fingerprt	Battery	Limited Avail	
						UltraBase	X6 UltraBase	wireless	wireless	tooth	reader	cells	Preloadwarranty <sup>12</sup>	date
1709-24U	Core Solo T1300	1.66	512M	12.1"	XGA 40GB	Optional	Optional	*Intel 11a/b/g <sup>32</sup>	None	None	Enh 4-cell	Pro	1-yr Feb 06	
1709-7HU	Core Duo T2400	1.83	512M	12.1"	XGA 60GB	Combo	Ultrabase	*Intel 11a/b/g	None	Blue Finger	8-cell	Pro	1-yr Feb 06	
1709-47U	Core Duo T2300	1.66	512M	12.1"	XGA 60GB	Optional	Optional	*Intel 11a/b/g	None	None Finger	Enh 4-cell	Pro	1-yr Feb 06	
1709-96U	Core Duo T2400	1.83	512M	12.1"	XGA 80GB	Combo	Ultrabase	11a/b/g <sup>32</sup>	Verizon	Blue Finger	8-cell	Pro	1-yr Feb 06	
1709-97U	Core Duo T2400	1.83	1GB	12.1"	XGA 100GB	DVD±RW	Ultrabase	11a/b/g	Verizon	Blue Finger	8-cell	Pro	1-yr Feb 06	
1709-A7U	Core Duo T2300E	1.66	512M	12.1"	XGA 60GB	Optional	Optional	*Intel 11a/b/g	None	None Finger	Enh 4-cell	Pro	1-yr May 06	
<ul style="list-style-type: none"> <li>• These small and medium business (SMB) models are part of the US TopSeller™ Program</li> <li>• These 1709 models have a 1-year limited warranty</li> </ul>														
Positioning Processor	<i>Thinnest and lightest; one spindle</i> <b>Intel® Core™ Solo processor T1300 (1.66GHz)</b> with single-core, Enhanced Intel SpeedStep™ technology <sup>1</sup> , Execute Disable Bit, 667MHz bus, and 2MB L2 cache or <b>Intel Core Duo processor T2300, T2300E, or T2400</b> with dual-core, Enhanced Intel SpeedStep™ technology <sup>1</sup> , Execute Disable Bit, 667MHz system bus, and 2MB shared L2 cache											<b>SOFTWARE<sup>14</sup></b> <b>Windows XP Professional</b> - Microsoft® Windows® XP Professional <sup>20</sup> (Service Pack 2) ↳ Disk-to-Disk Recovery		
Memory	<b>512MB</b> or <b>1GB</b> std / 4GB max <sup>31</sup> / PC2-5300 667MHz DDR2 / non-parity / CL5 / dual channel capable / two 200-pin SO-DIMM sockets / one socket available											<b>Preloaded</b> • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center with Maintenance Manager • ThinkVantage System Update • Symantec® Client Security™ • Diskeeper Lite • PC-Doctor™ (diagnostics) • ThinkPad utilities • Adobe® Reader • Google Toolbar • Google Desktop • Picasa from Google • Fingerprint Software • Multimedia Center for Think Offerings • Sonic RecordNOW and Drive Letter Access (combo model) • InterVideo WinDVD (combo model)		
Diskette drive	None standard / use optional USB-based diskette drive													
EIDE Combo	<i>Some: DVD-ROM/CD-RW / 24X/24X/24X/8X<sup>21</sup> speed / removable from X6 UltraBase</i>													
EIDE DVD±RW	<i>Some: DVD burner / Super Multi-Burner (40Y8623) / dual-layer / removable from X6</i>													
Ultrabay™ Slim	Supports Ultrabay Slim devices in optional or standard X6 UltraBase													
Serial ATA disk (SATA150)	<b>40, 60, 80, or 100GB<sup>8</sup></b> (5400 rpm) / 9.5mm high / removable, upgradeable / <b>ThinkPad Shock Mounted Hard Drive / Active Protection System™</b> / supports 2nd disk in optional X6 UltraBase													
Display	<b>12.1"</b> (308mm) <b>XGA (1024x768) TFT color / Active Matrix / 150 nits / anti-glare</b>													
Graphics controller	<b>Intel Graphics Media Accelerator 950 (GMA 950)</b> / integrated in 945GM / 250MHz													
Graphics - external	External monitor support via analog DB-15 connector / no DVI-out support													
Keyboard	89-key / ThinkVantage button / spill-resistant / multimedia Fn keys / Windows, Appl keys standard-size <sup>26</sup> keys / 97% size of T Series / 18.5mm pitch; 2.5mm stroke / TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar <sup>13</sup> , magnifying glass													
TrackPoint®	None													
Touch pad	Illuminates the keyboard to improve visibility in low-light conditions													
ThinkLight™														
Dimensions <sup>3</sup>	<i>without X6 UltraBase: 10.5" x 8.3" x .80-1.39"</i> ; 268mm x 211mm x 20-35mm													
Weight <sup>2</sup>	<i>with 8-cell battery: 3.6 lb (1.64kg); with optional 4-cell battery: 3.15 lb (1.43kg)</i>													
Case material	<i>Color: black; All: magnesium alloy</i>													
Battery - type	Li-Ion Enhanced Cap Battery 4-cell, or Li-Ion 8-cell / supports optional Extended Life Battery on base (for two batteries); supports optional Ultrabay Slim battery in optional X6 UltraBase (for two batteries)													
Battery - life <sup>10</sup>	<i>Enh 4-cell: up to 3.9 hr; 8-cell: up to 7.8 hr</i>													
Architecture	<b>Mobile Intel 945GM Express Chipset / 82945GM Graphics Memory Controller Hub / 82801GBM ICH7-M I/O Controller Hub (SATA300, ATA-100 EIDE, PCI Express x1, PCI bus, USB, LPC interface, [Bluetooth], [fingerprint]) / PCI bus (Ricoh® R5C554 CardBus/1394 combo controller) / LPC bus (PC87382 Super I/O, Atmel® 97SC3203)</b>													
Media slice	<i>Some: X6 UltraBase media slice</i> (see right side)													
Secure Digital slot	One <b>Secure Digital Card</b> slot / supports SD memory cards used in consumer devices													
PC Card slot	One Type I or one Type II / <b>CardBus Plus</b> (34mm ExpressCard via adapter) / door													
IEEE 1394	<b>IEEE 1394 (FireWire) port</b> (4-pin)													
Ports	Three USB (version 2.0) / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / IEEE 1394 (4-pin) / no serial, parallel, keyboard, or mouse ports													
Wireless antenna	<b>UltraConnect™</b> Antenna built into the display cover / on-off switch for all wireless radios													
Mini PCI Express	Two Mini PCI Express slots / only 802.11 wireless is customer upgradeable													
Intel 11a/b/g <sup>32</sup>	<i>Some: 11a/b/g wireless<sup>4</sup>, Mini PCI Express adapter, Intel PRO/Wireless 3945ABG</i>													
11a/b/g <sup>32</sup>	<i>Some: 11a/b/g wireless<sup>4</sup>, ThinkPad 11a/b/g Mini PCIe Adapter, Atheros AR5006EX</i>													
WWAN <sup>16</sup>	<i>Some: Wireless WAN, Sierra Wireless 1xEV-DO Network Adapter, Mini PCIe Adapter, EV-DO/1xRTT, WWAN antenna on display, service contract reqd with Verizon® Wireless</i>													
Modem	<b>56K® V.90 (V.92-designed<sup>29</sup>)</b> modem in Comm Daughter Card / Conexant® chipset													
Bluetooth™	<i>Some: Bluetooth 2.0 wireless / USB 2.0 interface via ICH7-M / LED indicator</i>													
Ethernet	Gigabit ethernet on systemboard / Intel 82573L (MAC/PHY) / PCIe x1 / PXE													
Audio support	High Definition (HD) Audio / AD1981HD codec / mono speaker 0.5 watt / volume down, up, mute buttons / internal microphone / mic input jack (pink) / headphone jack (green)													
Security	Power-on password / hard disk password / supervisor password / security keyhole													
Security chip	<b>Trusted Platform Module</b> / Atmel chip / TCG 1.2-compliant													
Fingerprint reader	<b>Fingerprint reader on palm rest</b> / swipe sensor / supports the security chip													
Limited warranty <sup>12</sup>	<b>1-year - EasyServ™.19</b> onsite pickup and delivery / service upgrades <sup>22</sup> available													
512MB PC2-5300 DDR2 CL5 SODIMM	40Y7733	X60 Enhanced Capacity Battery 4-cell		40Y7001										
1GB PC2-5300 DDR2 CL5 SODIMM	40Y7734	ThinkPad X60 High Capacity 8-cell		40Y7003										
2GB PC2-5300 DDR2 SODIMM	40Y7735	ThinkPad X60 Extended Life Battery		40Y7005										
160GB Disk 9.5mm SATA150 (5400 rpm)	41N5692	ThinkPad External Battery Charger		40Y7625										
160GB Disk 9.5mm SATA150 (7200 rpm)	41N5737	ThinkPad 90W AC/DC Combo Adapter		40Y7630										
USB Portable Diskette Drive	05K9276	ThinkPlus™.22 1-year LOR 9x5 NBD		41C9166										
USB 2.0 Lenovo Multimedia Headset	40Y8518	ThinkPlus 2-year LOR 9x5 NBD		41C9167										
USB 2.0 Security Memory Key 4GB	41U5120	ThinkPlus 3-year LOR 9x5 NBD		41C9168										
USB 2.0 Super Multi-Burner Drive	41N5565	ThinkPlus 5-year LOR 9x5 NBD		41C9173										
11a/b/g Wireless Mini PCI Express Adapter	40Y7026	ThinkPlus 2-year P&L P/U Depot		41C9169										
ThinkPad X6 UltraBase	40Y8116	ThinkPlus 3-year P&L P/U Depot		41C9170										
Lenovo M500 Projector	0037A05	ThinkPlus 4-year P&L P/U Depot		41C9172										
Other accessories on O-X60 sheet	Other accessories at <a href="http://lenovo.com/accessories">lenovo.com/accessories</a>													
	<b>65-watt AC Adapter</b> ROHS-compliant International Warranty Service <sup>17</sup> 24 hour x 7 day <sup>18</sup> toll-free warranty support during the warranty <sup>12</sup>													

See footnotes for important warranty information  
US models announced January 31, February 28, or May 30, 2006  
US models withdrawn effective Nov 2006, Aug 2007, or Oct 2007

\* Powered by Intel Centrino® Duo mobile technology

© Lenovo  
(SM1-3) October 2007

# ThinkPad® X60 (1709) - TopSeller (October 2006) - withdrawn

Created by Lenovo Training Solutions  
Personal Systems Reference (PSREF)

Type-model	Processor	GHz	Memory	Screen	Disk	Optical	UltraBase	802.11 wireless	WWAN	Blue-tooth	Fingerprnt reader	Battery cells	Preloadwarranty <sup>12</sup>	Avail date
1709-H6U	Core 2 Duo T7200	2.00	1GB	12.1" XGA	120GB	DVD±RW	Ultrabase	*Intel 11a/b/g <sup>32</sup>	Verizon Blue	Finger	8-cell	XP Pro	1-yr	Oct 06

- This small and medium business (SMB) model is part of the US TopSeller™ Program
- This 1709 model has a 1-year limited warranty

Positioning Processor	<i>Thinnest and lightest; one spindle</i> <b>Intel® Core™ 2 Duo processor T7200</b> with dual-core, Intel 64 Technology, Enhanced Intel SpeedStep™ technology <sup>1</sup> , Execute Disable Bit, 667MHz system bus, and 4MB shared L2 cache													
Memory	<b>1GB</b> std / 4GB max <sup>31</sup> / PC2-5300 667MHz DDR2 / non-parity / CL5 / dual channel capable / two 200-pin SO-DIMM sockets / one socket available													
Diskette drive	None standard / use optional USB-based diskette drive													
EIDE DVD±RW	DVD burner / Super Multi-Burner (40Y8623) / dual-layer / removable from <i>X6 UltraBase</i>													
Ultrabay™ Slim	Supports Ultrabay Slim devices in optional or standard <i>X6 UltraBase</i>													
Serial ATA disk (SATA150)	<b>120GB<sup>8</sup></b> (5400 rpm) / 9.5mm high / removable, upgradable / <b>ThinkPad Shock Mounted Hard Drive / Active Protection System™</b> / supports 2nd disk in optional <i>X6 UltraBase</i>													
Display	<b>12.1"</b> (308mm) <b>XGA (1024x768) TFT color</b> / Active Matrix / 150 nits / anti-glare													
Graphics controller	<b>Intel Graphics Media Accelerator 950 (GMA 950)</b> / integrated in 945GM / 250MHz													
Graphics - external	External monitor support via analog DB-15 connector / no DVI-out support													
Keyboard	89-key / ThinkVantage button / spill-resistant / multimedia Fn keys / Windows, Appl keys standard-size <sup>26</sup> keys / 97% size of T Series / 18.5mm pitch; 2.5mm stroke / TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar <sup>13</sup> , magnifying glass													
TrackPoint®	None													
Touch pad	Illuminates the keyboard to improve visibility in low-light conditions													
ThinkLight™														
Dimensions <sup>3</sup>	<i>without X6 UltraBase</i> : 10.5" x 8.3" x .80-1.39"; 268mm x 211mm x 20-35mm													
Weight <sup>2</sup>	<i>with 4-cell battery</i> : 3.15 lb (1.43kg); <i>with 8-cell battery</i> : 3.64 lb (1.65kg)													
Case material	Color: black; All: magnesium alloy													
Battery - type	Li-Ion 8-cell / supports optional Extended Life Battery on base (for two batteries) / supports optional Ultrabay Slim battery in X6 UltraBase (for two batteries)													
Battery - life <sup>10</sup>	<i>Enh 4-cell</i> : up to 3.9 hr; <i>8-cell</i> : up to 7.2 hr													
Architecture	<b>Mobile Intel 945GM Express Chipset</b> / 82945GM Graphics Memory Controller Hub / 82801GBM ICH7-M I/O Controller Hub (SATA300, ATA-100 EIDE, PCI Express x1, PCI bus, USB, LPC interface, [Bluetooth], [fingerprint]) / PCI bus (Ricoh® R5C554 CardBus/1394 combo controller) / LPC bus (PC87382 Super I/O, Atmel® 97SC3203)													
Media slice	<b>X6 UltraBase media slice</b> (see right side)													
Secure Digital slot	One <b>Secure Digital Card</b> slot / supports SD memory cards used in consumer devices													
PC Card slot	One Type I or one Type II / <b>CardBus Plus</b> (34mm ExpressCard via adapter) / door													
IEEE 1394	<b>IEEE 1394 (FireWire) port</b> (4-pin)													
Ports	Three USB (version 2.0) / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / IEEE 1394 (4-pin) / no serial, parallel, keyboard, or mouse ports													
Wireless antenna	UltraConnect™ Antenna built into the display cover / on-off switch for all wireless radios													
Mini PCI Express	Two Mini PCI Express slots / only 802.11 wireless is customer upgradable													
Intel 11a/b/g <sup>32</sup>	11a/b/g wireless <sup>4</sup> , Mini PCI Express adapter, Intel PRO/Wireless 3945ABG													
WWAN <sup>16</sup>	Wireless WAN, Sierra Wireless 1xEV-DO Network Adapter, Mini PCIe Adapter, EV-DO1xRTT, WWAN antenna on display, service contract reqd with Verizon® Wireless													
Modem	56K <sup>6</sup> V.90 (V.92-designed <sup>29</sup> ) modem in Comm Daughter Card / Conexant™ chipset													
Bluetooth™	Bluetooth 2.0 wireless / USB 2.0 interface via ICH7-M / LED indicator													
Ethernet	Gigabit ethernet on systemboard / Intel 82573L (MAC/PHY) / PCIe x1 / PXE													
Audio support	High Definition (HD) Audio / AD1981HD codec / mono speaker 0.5 watt / volume down, up, mute buttons / internal microphone / mic input jack (pink) / headphone jack (green)													
Security	Power-on password / hard disk password / supervisor password / security keyhole													
Security chip	<b>Trusted Platform Module</b> / Atmel chip / TCG 1.2-compliant													
Fingerprint reader	<b>Fingerprint reader on palm rest</b> / swipe sensor / supports the security chip													
Limited warranty <sup>12</sup>	<b>1-year</b> - EasyServ™ <sup>19</sup> onsite pickup and delivery / service upgrades <sup>22</sup> available													
512MB PC2-5300 DDR2 CL5 SODIMM	40Y7733	X60 Enhanced Capacity Battery 4-cell	40Y7001											
1GB PC2-5300 DDR2 CL5 SODIMM	40Y7734	ThinkPad X60 High Capacity 8-cell	40Y7003											
2GB PC2-5300 DDR2 SODIMM	40Y7735	ThinkPad X60 Extended Life Battery	40Y7005											
100GB Disk 9.5mm SATA150 (7200 rpm)	41N3013	ThinkPad External Battery Charger	40Y7625											
120GB Disk 9.5mm SATA150 (5400 rpm)	41N5691	ThinkPad 65W AC Adapter	40Y7696											
160GB Disk 9.5mm SATA150 (5400 rpm)	41N5692	ThinkPad 90W AC Adapter	40Y7659											
USB Portable Diskette Drive	05K9276	ThinkPad 90W AC/DC Combo Adapter	40Y7630											
USB 2.0 Lenovo Multimedia Headset	40Y8518	ThinkPad Carrying Case - Expander	73P3597											
USB 2.0 Lenovo Webcam	40Y8519	ThinkPad Carrying Case - BackPack	73P3599											
USB 2.0 Security Memory Key 4GB	41U5120	Lenovo L192 Wide 19" Monitor (black)	6920AB1											
USB 2.0 CD-RW/DVD-ROM Combo II Drive	40Y8637	Lenovo D221 Wide 22" Monitor (black)	6622HB1											
USB 2.0 Portable 120GB Hard Disk	41N8379	ThinkVision® L192p 19" Monitor (black)	9419HC2											
USB 2.0 Super Multi-Burner Drive	41N5565	ThinkVision L201p 20.1" Monitor (black)	9220HB1											
11a/b/g Wireless Mini PCI Express Adpr	40Y7026	ThinkPlus™ <sup>22</sup> 1-year LOR 9x5 NBD	41C9166											
ThinkPad Adjustable Notebook Stand	40Y7676	ThinkPlus 2-year LOR 9x5 NBD	41C9167											
ThinkPad Convertible Monitor Stand	40Y7620	ThinkPlus 3-year LOR 9x5 NBD	41C9168											
ThinkPad X6 UltraBase	40Y8116	ThinkPlus 5-year LOR 9x5 NBD	41C9173											
Lenovo M500 Projector	0037A05	ThinkPlus 2-year P&L P/U Depot	41C9169											
Lenovo C500 Projector	0039A05	ThinkPlus 3-year P&L P/U Depot	41C9170											
Kensington MicroSaver Security Cable	73P2582	ThinkPlus 4-year P&L P/U Depot	41C9172											
Other accessories on O-X60 sheet		Other accessories at <a href="http://lenovo.com/accessories">lenovo.com/accessories</a>												

**SOFTWARE<sup>14</sup>**  
**Windows XP Professional**  
 - Microsoft® Windows® XP Professional<sup>20</sup> (Service Pack 2)  
 ↳ Disk-to-Disk Recovery  
**Preloaded** (only some listed)  
 • Microsoft Office OneNote® 2003  
 • Rescue and Recovery™  
 • Access Connections™  
 • Client Security Solution™  
 • ThinkVantage Productivity Center with Maintenance Manager  
 • ThinkVantage System Update  
 • Symantec® Client Security™  
 • DiskKeeper Lite  
 • PC-Doctor™ (diagnostics)  
 • ThinkPad utilities  
 • Fingerprint Software (fingerprint models)  
 • Multimedia Center for Think Offerings  
 • Sonic RecordNOW and Drive Letter Access (DVD±RW)  
 • InterVideo WinDVD (DVD±RW)  
 • InterVideo WinDVD Creator (DVD±RW models)  
**CD included**  
 • Microsoft Office OneNote 2003  
**License** - CD not included  
 - Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client

Supports ThinkVantage® technologies

**ThinkPad X6 UltraBase™**  
 • Provides desktop expansion and cable management for X60 Series  
 • Easily connects to the bottom of the X60 Series for traveling  
 • Converts ThinkPad to a two-spindle system with optional flat bezel Ultrabay Slim options in left side:  
 – ThinkPad Advanced Ultrabay Battery 3-cell (flat bezel) 40Y6789  
 – ThinkPad DVD Ultrabay Slim Burner (flat bezel) 41N5643  
 – Serial Hard Drive Ultrabay Slim Adapter (flat bezel) 40Y8725  
 Disks supported:  
 • 80GB Disk 5400 rpm 41N5662  
 • 100GB Disk 7200 rpm 41N3013  
 • 120GB Disk 5400 rpm 41N5691  
 • 160GB Disk 5400 rpm 41N5692  
 Other features:  
 • Power button (front)  
 • Stereo speakers (1 watt)  
 • Security key lock, security keyhole, and optional security screw  
 • Serial and parallel ports  
 • Analog DB-15 monitor port  
 • Four USB 2.0 ports  
 • Gigabit ethernet port  
 • Modem port  
 • Microphone in and headphone out  
 • Requires 65 or 90 watt AC adapter  
 • Retractable feet; 1.48 lb; 670g

65-watt AC Adapter  
 ROHS-compliant  
 International Warranty Service<sup>17</sup>  
 24 hour x 7 day<sup>18</sup> toll-free warranty support during the warranty<sup>12</sup>

See footnotes for important warranty information  
 US model announced October 17, 2006  
 US model withdrawn effective August 2007

\* Powered by Intel Centrino® Duo mobile technology



# ThinkPad® X60s (1702) - withdrawn

Personal Systems Reference (PSREF)

Type-model	Processor	GHz	Memory	Screen	Disk	Optical in	ThinkPad UltraBase X6 UltraBase	802.11 wireless	WWAN wireless	Blue-tooth	Fingerprt reader	Battery cells	Workhorse Global	Avail date
1702-3JU	Core Duo L2400	1.66	512MB	12.1" XGA	60GB	Optional	Optional	*Intel 11a/b/g <sup>32</sup>	None			8-cell	W G	Feb 06
1702-3LU	Core Duo L2400	1.66	512MB	12.1" XGA	60GB	Optional	Optional	11a/b/g <sup>32</sup>	None			8-cell	W	Feb 06
1702-3QU	Core Duo L2400	1.66	512MB	12.1" XGA	60GB	Optional	Optional	*Intel 11a/b/g	None		Finger	8-cell	W G	Feb 06
1702-24U	Core Duo L2300	1.50	512MB	12.1" XGA	40GB	Optional	Optional	*Intel 11a/b/g	None			Enh 4-cell	W	Feb 06
1702-4EU	Core Duo L2400	1.66	512MB	12.1" XGA	60GB	Optional	Optional	*Intel 11a/b/g	None	Blue	Finger	8-cell	W	Feb 06
1702-37U	Core Duo L2400	1.66	512MB	12.1" XGA	40GB	Optional	Optional	*Intel 11a/b/g	None			8-cell	W G	Feb 06
1702-94U	Core Duo L2400	1.66	512MB	12.1" <b>UL XGA</b>	40GB	Optional	Optional	11a/b/g	None			Slim 4-cell	W	Feb 06
1702-4GU	Core Duo L2400	1.66	512MB	12.1" XGA	60GB	Optional	Optional	11a/b/g	None	Blue	Finger	8-cell	W	Feb 06
1702-58U	Core Duo L2400	1.66	512MB	12.1" XGA	80GB	Optional	Optional	*Intel 11a/b/g	None	Blue	Finger	8-cell	W	Feb 06
1702-5JU	Core Duo L2400	1.66	512MB	12.1" XGA	80GB	Combo	UltraBase	*Intel 11a/b/g	None	Blue	Finger	8-cell	W	Feb 06
1702-63U	Core Duo L2400	1.66	512MB	12.1" XGA	60GB	Optional	Optional	*Intel 11a/b/g	Verizon	Blue	Finger	8-cell	W	Feb 06
1702-68U	Core Duo L2400	1.66	1GB	12.1" XGA	100GB DVD±RW	UltraBase	UltraBase	*Intel 11a/b/g	Verizon	Blue	Finger	Slim 4-cell	W	Feb 06
Positioning Processor	<i>Thinnest and lightest; one spindle</i>													
Memory	<b>Intel® Core™ Duo processor L2300 (1.50GHz) or L2400 (1.66GHz)</b> with low voltage, dual-core, Enhanced Intel SpeedStep™ technology <sup>1</sup> , Execute Disable Bit, 667MHz system bus, and 2MB shared L2 cache <b>512MB or 1GB</b> std / 4GB max <sup>31</sup> / PC2-5300 667MHz DDR2 / non-parity / CL5 / dual channel capable / two 200-pin SO-DIMM sockets / std memory in one socket / one socket available													
Diskette drive	None standard / use optional USB-based diskette drive													
EIDE Combo	<i>Some:</i> DVD-ROM/CD-RW / 24X/24X/24X/8X <sup>21</sup> speed / removable from X6 UltraBase													
EIDE DVD±RW	<i>Some:</i> DVD burner / Super Multi-Burner (40Y8623) / dual-layer / removable from X6													
Ultrabay™ Slim	Supports Ultrabay Slim devices in optional or standard X6 UltraBase													
Serial ATA disk (SATA150)	<b>40, 60, 80, or 100GB<sup>8</sup></b> (5400 rpm) / 9.5mm high / removable, upgradable / 9.5mm high bay / <b>ThinkPad Shock Mounted Hard Drive / Active Protection System™</b> / supports 2nd disk in optional X6 UltraBase													
Display	<i>Some:</i> <b>12.1"</b> (308mm) <b>XGA (1024x768) TFT color</b> / Active Matrix / 150 nits / anti-glare <i>Some:</i> <b>[UL] 12.1"</b> (308mm) <b>UltraLight XGA (1024x768) TFT color</b> / 180 nits / anti-glare													
Graphics controller	<b>Intel Graphics Media Accelerator 950 (GMA 950)</b> / integrated in 945GM / 200MHz													
Graphics - external	External monitor support via analog DB-15 connector / no DVI-out support													
Keyboard	89-key / ThinkVantage button / spill-resistant / multimedia Fn keys / Windows, Appl keys standard-size <sup>26</sup> keys / 97% size of T Series / 18.5mm pitch; 2.5mm stroke /													
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar <sup>13</sup> , magnifying glass													
Touch pad	None													
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions													
Dimensions <sup>3</sup>	<i>without X6 UltraBase:</i> 10.5" x 8.3" x 0.8-1.1"; 268mm x 211mm x 20-28mm													
Weight <sup>2</sup>	<i>Model 94U with UltraLight display and Slim 4-cell:</i> 2.69 lb (1.22kg); <i>Slim 4-cell batt:</i> 2.89 lb (1.31kg); <i>Enh 4-cell:</i> 3.00 lb (1.36kg); <i>8-cell:</i> 3.46 lb (1.57kg)													
Case material	<i>Color:</i> black; <i>All:</i> magnesium alloy													
Battery - type	Li-Ion Enhanced Cap Battery 4-cell, Li-Ion Slim Line Battery 4-cell, or Li-Ion 8-cell / supports optional Ultrabay Slim battery in optional X6 UltraBase (for two batteries); supports optional Ultrabay Slim battery in optional X6 UltraBase (for two batteries)													
Battery - life <sup>10</sup>	<i>Slim 4-cell:</i> up to 3.0 hr; <i>Enh 4-cell:</i> up to 4.0 hr; <i>8-cell:</i> up to 8.0 hr													
Architecture	<b>Mobile Intel 945GM Express Chipset / 82945GM Graphics Memory Controller Hub / 82801GBM ICH7-M I/O Controller Hub (SATA300, ATA-100 EIDE, PCI Express x1, PCI bus, USB, LPC interface, [Bluetooth], [fingerprint]) / PCI bus (Ricoh® R5C554 CardBus/1394 combo controller) / LPC bus (PC87382 Super I/O, Atmel® 97SC3203)</b>													
Media slice	<i>Some:</i> <b>X6 UltraBase media slice</b> (see right side)													
Secure Digital slot	One <b>Secure Digital Card</b> slot / supports SD memory cards used in consumer devices													
PC Card slot	One Type I or one Type II / <b>CardBus Plus</b> (34mm ExpressCard via adapter) / door													
IEEE 1394	<b>IEEE 1394 (FireWire) port</b> (4-pin)													
Ports	Three USB (version 2.0) / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / IEEE 1394 (4-pin) / no serial, parallel, keyboard, or mouse ports													
Wireless antenna	UltraConnect™ Antenna built into the display cover / on-off switch for all wireless radios													
Mini PCI Express	Two Mini PCI Express slots / only 802.11 wireless is customer upgradable													
Intel 11a/b/g <sup>32</sup>	<i>Some:</i> 11a/b/g wireless <sup>4</sup> , Mini PCI Express adapter, Intel PRO/Wireless 3945ABG													
11a/b/g <sup>32</sup>	<i>Some:</i> 11a/b/g wireless <sup>4</sup> , ThinkPad 11a/b/g Mini PCIe Adapter, Atheros AR5006EX													
WWAN <sup>16</sup>	<i>Some:</i> Wireless WAN, Sierra Wireless 1xEV-DO Network Adapter, Mini PCIe Adapter, EV-DO/1xRTT, WWAN antenna on display, service contract reqd with Verizon® Wireless													
Modem	56K <sup>6</sup> V.90 (V.92-designed <sup>29</sup> ) modem in Comm Daughter Card / Conexant® chipset													
Bluetooth™	<i>Some:</i> Bluetooth 2.0 wireless / USB 2.0 interface via ICH7-M / LED indicator													
Ethernet	Gigabit ethernet on systemboard / Intel 82573L (MAC/PHY) / PCIe x1 / PXE													
Audio support	High Definition (HD) Audio / AD1981HD codec / mono speaker 0.5 watt / volume down, up, mute buttons / internal microphone / mic input jack (pink) / headphone jack (green)													
Security	Power-on password / hard disk password / supervisor password / security keyhole													
Security chip	<b>Trusted Platform Module</b> / Atmel chip / TCG 1.2-compliant													
Fingerprint reader	<i>Some:</i> <b>Fingerprint reader on palm rest</b> / swipe sensor / supports the security chip													
Limited warranty <sup>12</sup>	<b>3-years/1-yr battery</b> - EasyServ™ <sup>19</sup> onsite pickup and delivery / service upgrades <sup>22</sup> avail													
512MB PC2-5300 DDR2 CL5 SODIMM	40Y7733	ThinkPad X6 UltraBase	40Y8116											
1GB PC2-5300 DDR2 CL5 SODIMM	40Y7734	X60 Enhanced Capacity Battery 4-cell	40Y7001											
2GB PC2-5300 DDR2 SODIMM	40Y7735	X60 High Capacity Battery 8-cell	40Y7003											
USB 2.0 Security Memory Key 4GB	41U5120	ThinkPad X60 Extended Life Battery	40Y7005											
160GB Disk 9.5mm SATA150 (7200 rpm)	41N5737	ThinkPlus™ <sup>22</sup> 2-year LOR 9x5 NBD	41C9175											
ThinkVision® L220x Wide 22" LCD Monitor	4433HB2	ThinkPlus 3-year LOR 9x5 NBD	41C9176											
Lenovo M500 Projector	0037A05	ThinkPlus 5-year LOR 9x5 NBD	41C9179											
ThinkPad Adjustable Notebook Stand	40Y7676	ThinkPlus 5-year P&L P/U Depot	41C9180											
Other accessories on O-X60 sheet	Other accessories at <a href="http://lenovo.com/accessories">lenovo.com/accessories</a>													
										<b>SOFTWARE<sup>14</sup></b> <b>Windows XP Professional</b> - Microsoft® Windows® XP Professional <sup>20</sup> (Service Pack 2) ⇨ Disk-to-Disk Recovery <b>Preloaded</b> (only some listed) • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • ThinkVantage System Update • System Migration Assistant • Symantec® Client Security™ • Diskeeper® Lite • PC-Doctor™ (diagnostics) • Google Toolbar • Google Desktop • Picasa from Google • Fingerprint Software (fingerprint models) • Multimedia Center for Think Offerings • Sonic RecordNOW and Drive Letter Access (combo, DVD±RW) • InterVideo WinDVD (combo, DVD±RW models) • InterVideo WinDVD Creator (DVD±RW model)				
										<b>Supports ThinkVantage® technologies</b> <b>ThinkPad X6 UltraBase™</b> • Provides desktop expansion and cable management for X60 Series • Easily connects to the bottom of the X60 Series for traveling • Converts ThinkPad to a two-spindle system with optional flat bezel Ultrabay Slim options in left side: – ThinkPad Advanced Ultrabay Battery 3-cell (flat bezel) 40Y6789 – CD-RW/DVD Combo II Ultrabay Slim Drive (flat bezel) 40Y8621 – ThinkPad DVD Ultrabay Slim Burner (flat bezel) 41N5643 – Serial Hard Drive Ultrabay Slim Adapter (flat bezel) 40Y8725 Disks supported (some listed): • 160GB Disk 7200 rpm 41N5737 <b>Other features:</b> • Power button (front) • Stereo speakers (1 watt) • Security key lock, security keyhole, and optional security screw • Serial and parallel ports • Analog DB-15 monitor port • Four USB 2.0 ports • Gigabit ethernet port • Modem port • Microphone in and headphone out • Requires 65 or 90 watt AC adapter • Retractable feet; 1.48 lb; 670g 65-watt AC Adapter ROHS-compliant International Warranty Service <sup>17</sup> 24 hour x 7 day <sup>18</sup> toll-free warranty support during the warranty <sup>12</sup>				

See footnotes for important warranty information

\* Powered by Intel Centrino® Duo mobile technology

© Lenovo

US models announced January 5, January 31, or February 28, 2006

(KB1-1) October 2007

US models withdrawn effective November 2006, August 2007, or October 2007

# ThinkPad® X60s (1702) - October 2006 - withdrawn

Personal Systems Reference (PSREF)

Type-model	Processor	GHz	Memory	Screen	Optical in Disk	UltraBase	ThinkPad X6 UltraBase	802.11 wireless	WWAN wireless	Blue-tooth	Fingerprt reader	Battery cells	EW Global	9-month Avail date
1702-D5U	Core Duo L2500	1.83	512MB	12.1" XGA	60GB	None	Optional	*Intel 11a/b/g <sup>32</sup>				Enh 4-cell	EW	Oct 06
1702-D6U	Core Duo L2500	1.83	512MB	12.1" XGA	60GB	None	Optional	*Intel 11a/b/g				8-cell	EW Gbl	Oct 06
1702-3WU	Core Duo L2400	1.66	1GB	12.1" XGA	60GB	None	Optional	*Intel 11a/b/g			Finger	8-cell	EW Gbl	Oct 06
1702-D8U	Core Duo L2500	1.83	1GB	12.1" XGA	80GB	None	Optional	*Intel 11a/b/g				8-cell	EW Gbl	Oct 06
1702-E7U	Core Duo L2500	1.83	1GB	12.1" XGA	80GB	None	Optional	*Intel 11a/b/g		Blue	Finger	Enh 4-cell	EW Gbl	Oct 06
1702-F6U	Core Duo L2500	1.83	1GB	12.1" XGA	100G	None	Optional	*Intel 11a/b/g	Verizon	Blue	Finger	8-cell	EW	Oct 06
1702-7CU	Core Duo L2400	1.66	512MB	12.1" <b>UL XGA</b>	60GB	None	Optional	*Intel 11a/b/g				8-cell	EW	Oct 06
1702-H7U	Core Duo L2500	1.83	1GB	12.1" <b>UL XGA</b>	80GB	None	Optional	*Intel 11a/b/g			Finger	8-cell	EW	Oct 06
1702-L6U	Core 2 Duo L7400	1.50	512MB	12.1" XGA	60GB	None	Optional	*Intel 11a/b/g				8-cell	EW Gbl	Mar 07
1702-L8U	Core 2 Duo L7400	1.50	1GB	12.1" XGA	80GB	None	Optional	*Intel 11a/b/g				8-cell	EW Gbl	Mar 07
1702-M7U	Core 2 Duo L7400	1.50	1GB	12.1" XGA	80GB	None	Optional	*Intel 11a/b/g		Blue	Finger	Enh 4-cell	EW Gbl	Mar 07
Positioning	<i>Thinnest and lightest; one spindle</i>													
Processor	<b>Intel® Core™ Duo processor L2400 or L2500</b> with low voltage, dual-core, Enhanced Intel SpeedStep™ technology <sup>1</sup> , Execute Disable Bit, 667MHz system bus, and 2MB shared L2 cache or <b>Intel® Core 2 Duo processor L7400</b> with low voltage, dual-core, Intel 64 Technology, Enhanced Intel SpeedStep™ technology <sup>1</sup> , Execute Disable Bit, 667MHz system bus, and 4MB shared L2 cache													
Memory	<b>512MB or 1GB</b> std / 4GB max <sup>31</sup> / PC2-5300 667MHz DDR2 / non-parity / CL5 / dual-channel capable / two 200-pin SO-DIMM sockets / <i>512MB models:</i> standard memory in 1 socket; 1 socket available; <i>1GB models (italics):</i> std mem in both sockets (512MB each socket); no sockets avail													
Diskette drive	None standard / use optional USB-based diskette drive													
Ultrabay™ Slim	Supports Ultrabay Slim devices in optional or standard <i>X6 UltraBase</i>													
Serial ATA disk (SATA150)	<b>60, 80, or 100GB<sup>8</sup></b> (5400 rpm) / 9.5mm high / removable, upgradable / 9.5mm high bay / <b>ThinkPad Shock Mounted Hard Drive / Active Protection System™</b> / supports 2nd disk in optional <i>X6 UltraBase</i>													
Display	<i>Some:</i> <b>12.1"</b> (308mm) <b>XGA (1024x768) TFT color</b> / Active Matrix / 150 nits / anti-glare <i>Some:</i> <b>[UL] 12.1"</b> (308mm) <b>UltraLight XGA (1024x768) TFT color</b> / 180 nits / anti-glare													
Graphics controller	<b>Intel Graphics Media Accelerator 950 (GMA 950)</b> / integrated in 945GM / 200MHz													
Graphics - external	External monitor support via analog DB-15 connector / no DVI-out support													
Keyboard	89-key / ThinkVantage button / spill-resistant / multimedia Fn keys / Windows, Appl keys standard-size <sup>26</sup> keys / 97% size of T Series / 18.5mm pitch; 2.5mm stroke / TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar <sup>13</sup> , magnifying glass													
TrackPoint®	None													
Touch pad	Illuminates the keyboard to improve visibility in low-light conditions													
ThinkLight™														
Dimensions <sup>3</sup>	<i>without X6 UltraBase:</i> 10.5" x 8.3" x 0.8-1.1"; 268mm x 211mm x 20-28mm													
Weight <sup>2</sup>	<i>Models 7CU/H7U with UltraLight display and 8-cell:</i> beginning at 3.33 lb (1.51kg); <i>Enhanced 4-cell:</i> 3.04 lb (1.38kg); <i>8-cell:</i> 3.53 lb (1.60kg)													
Case material	<i>Color:</i> black; <i>All:</i> magnesium alloy													
Battery - type	Li-Ion Enhanced Cap Battery 4-cell or Li-Ion 8-cell / supports optional Li-Ion Slim Line Battery 4-cell, supports optional Extended Life Battery on base (for two batteries); supports optional Ultrabay Slim battery in optional X6 UltraBase (for two batteries)													
Battery - life <sup>10</sup>	<i>Slim 4-cell:</i> up to 3.2 hr; <i>Enh 4-cell:</i> up to 4.2 hr; <i>8-cell:</i> up to 8.4 hr													
Architecture	<b>Mobile Intel 945GM Express Chipset</b> / 82945GM Graphics Memory Controller Hub / 82801GBM ICH7-M I/O Controller Hub (SATA300, ATA-100 EIDE, PCI Express x1, PCI bus, USB, LPC interface, [Bluetooth], [fingerprint]) / PCI bus (Ricoh® R5C554 CardBus/1394 combo controller) / LPC bus (PC87382 Super I/O, Atmel® 97SC3203)													
Media slice	Optional <b>X6 UltraBase media slice</b> (see right side)													
Secure Digital slot	One <b>Secure Digital Card</b> slot / supports SD memory cards used in consumer devices													
PC Card slot	One Type I or one Type II / <b>CardBus Plus</b> (34mm ExpressCard via adapter) / door													
IEEE 1394	<b>IEEE 1394 (FireWire) port</b> (4-pin)													
Ports	Three USB (version 2.0) / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / IEEE 1394 (4-pin) / no serial, parallel, keyboard, or mouse ports													
Wireless antenna	UltraConnect™ Antenna built into the display cover / on-off switch for all wireless radios													
Mini PCI Express	Two Mini PCI Express slots / only 802.11 wireless is customer upgradable													
Intel 11a/b/g <sup>32</sup>	11a/b/g wireless <sup>4</sup> , Mini PCI Express adapter, Intel PRO/Wireless 3945ABG													
WWAN <sup>16</sup>	<i>Some:</i> Wireless WAN, Sierra Wireless 1xEV-DO Network Adapter, Mini PCIe Adapter, EV-DO/1xRTT, WWAN antenna on display, service contract reqd with Verizon® Wireless													
Modem	56K <sup>6</sup> V.90 (V.92-designed <sup>29</sup> ) modem in Comm Daughter Card / Conexant® chipset													
Bluetooth™	<i>Some:</i> Bluetooth 2.0 wireless / USB 2.0 interface via ICH7-M / LED indicator													
Ethernet	Gigabit ethernet on systemboard / Intel 82573L (MAC/PHY) / PCIe x1 / PXE													
Audio support	High Definition (HD) Audio / AD1981HD codec / mono speaker 0.5 watt / volume down, up, mute buttons / internal microphone / mic input jack (pink) / headphone jack (green)													
Security	Power-on password / hard disk password / supervisor password / security keyhole													
Security chip	<b>Trusted Platform Module</b> / Atmel chip / TCG 1.2-compliant													
Fingerprint reader	<i>Some:</i> <b>Fingerprint reader on palm rest</b> / swipe sensor / supports the security chip													
Limited warranty <sup>12</sup>	<b>3-years</b> /1-yr battery - EasyServ™ <sup>19</sup> onsite pickup and delivery / service upgrades <sup>22</sup> avail													
512MB PC2-5300 DDR2 CL5 SODIMM	40Y7733	ThinkPad X6 UltraBase	40Y8116											
1GB PC2-5300 DDR2 CL5 SODIMM	40Y7734	X60 Enhanced Capacity Battery 4-cell	40Y7001											
USB 2.0 Lenovo Multimedia Headset	40Y8518	X60 High Capacity Battery 8-cell	40Y7003											
USB 2.0 Security Memory Key 4GB	41U5120	ThinkPad X60 Extended Life Battery	40Y7005											
USB 2.0 Portable 120GB Hard Disk	41N8379	ThinkPad External Battery Charger	40Y7625											
USB 2.0 Super Multi-Burner Drive	41N5565	ThinkPad 90W AC/DC Combo Adapter	40Y7630											
160GB Disk 9.5mm SATA150 (7200 rpm)	41N5737	ThinkPlus™ <sup>22</sup> 3-year LOR 9x5 NBD	41C9176											
ThinkVision® L220x Wide 22" LCD Monitor	4433HB2	ThinkPlus 5-year P&L P/U Depot	41C9180											
Other accessories on O-X60 sheet	Other accessories at <a href="http://lenovo.com/accessories">lenovo.com/accessories</a>													
<b>SOFTWARE<sup>14</sup></b> <b>Windows XP Professional</b> - Microsoft® Windows® XP Professional <sup>20</sup> (Service Pack 2) <b>Preloaded</b> <ul style="list-style-type: none"> <li>Rescue and Recovery™</li> <li>Access Connections™</li> <li>Client Security Solution™</li> <li>ThinkVantage Productivity Center with Away Manager</li> <li>ThinkVantage System Update</li> <li>System Migration Assistant</li> <li>Symantec® Client Security™</li> <li>Diskeeper® Lite</li> <li>PC-Doctor™ (diagnostics)</li> <li>ThinkPad Utilities (Power Manager and Presentation Director)</li> <li>Adobe® Reader</li> <li>Google Toolbar</li> <li>Google Desktop</li> <li>Picasa from Google</li> <li>Fingerprint Software (fingerprint models)</li> <li>Multimedia Center for Think Offerings</li> </ul> <b>License</b> - CD not included - Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client Supports ThinkVantage® technologies <b>ThinkPad X6 UltraBase™</b> <ul style="list-style-type: none"> <li>Provides desktop expansion and cable management for X60 Series</li> <li>Easily connects to the bottom of the X60 Series for traveling</li> <li>Converts ThinkPad to a two-spindle system with optional flat bezel Ultrabay Slim options in left side:                         <ul style="list-style-type: none"> <li>ThinkPad Advanced Ultrabay Battery 3-cell (flat bezel) 40Y6789</li> <li>CD-RW/DVD Combo II Ultrabay Slim Drive (flat bezel) 40Y8621</li> <li>ThinkPad DVD Ultrabay Slim Burner (flat bezel) 41N5643</li> <li>Serial Hard Drive Ultrabay Slim Adapter (flat bezel) 40Y8725</li> </ul>                         Disks supported (some listed):                         <ul style="list-style-type: none"> <li>160GB Disk 7200 rpm 41N5737</li> </ul> </li> </ul> <b>Other features:</b> <ul style="list-style-type: none"> <li>Power button (front)</li> <li>Stereo speakers (1 watt)</li> <li>Security key lock, security keyhole, and optional security screw</li> <li>Serial and parallel ports</li> <li>Analog DB-15 monitor port</li> <li>Four USB 2.0 ports</li> <li>Gigabit ethernet port</li> <li>Modem port</li> <li>Microphone in and headphone out</li> <li>Requires 65 or 90 watt AC adapter</li> <li>Retractable feet; 1.48 lb; 670g</li> </ul> 65-watt AC Adapter ROHS-compliant International Warranty Service <sup>17</sup> 24 hour x 7 day <sup>18</sup> toll-free warranty support during the warranty <sup>12</sup>														

See footnotes for important warranty information  
 US models announced October 17, 2006 or April 3, 2007  
 US models withdrawn effective July or October 2007

\* Powered by Intel Centrino® Duo mobile technology

# ThinkPad® X60s (1704) - TopSeller - withdrawn

Personal Systems Reference (PSREF)

Type-model	Processor	GHz	Memory	Screen	Disk	Optical in UltraBase	ThinkPad X6 UltraBase	802.11 wireless	WWAN wireless	Blue-tooth	Fingerprt reader	Battery cells	OneNote	Avail date
1704-3TU	Core Duo L2400	1.66	512MB	12.1" XGA	60GB	Combo	UltraBase	*Intel 11a/b/g <sup>32</sup>			Finger	8-cell		Feb 06
1704-4DU	Core Duo L2400	1.66	512MB	12.1" XGA	60GB	Optional	Optional	*Intel 11a/b/g		Blue	Finger	Enh 4-cell		Feb 06
1704-4JU	Core Duo L2400	1.66	512MB	12.1" XGA	60GB	Combo	UltraBase	*Intel 11a/b/g		Blue	Finger	8-cell		Feb 06
1704-3DU	Core Duo L2400	1.66	256MB	12.1" XGA	60GB	Optional	Optional	*Intel 11a/b/g				8-cell		Feb 06
1704-63U	Core Duo L2400	1.66	512MB	12.1" XGA	60GB	Optional	Optional	*Intel 11a/b/g	Verizon	Blue	Finger	8-cell		Feb 06
1704-66U	Core Duo L2400	1.66	512MB	12.1" XGA	80GB	Combo	UltraBase	11a/b/g <sup>32</sup>	Verizon	Blue	Finger	8-cell		Feb 06
1704-69U	Core Duo L2400	1.66	1GB	12.1" XGA	100GB	DVD±RW	UltraBase	11a/b/g	Verizon	Blue	Finger	8-cell		Feb 06
1704-G3U	Core Duo L2500	1.83	1GB	12.1" XGA	120GB	DVD±RW	UltraBase	ThinkPad 11n <sup>28</sup>	Verizon		Finger	8-cell	Yes	Oct 06

• **These small and medium business (SMB) model is part of the US TopSeller™ Program**  
 • **These 1704 models have a 3-year limited warranty**

Positioning	<i>Thinnest and lightest; one spindle</i>	<b>SOFTWARE<sup>14</sup></b> <b>Windows XP Professional</b> - Microsoft® Windows® XP Professional <sup>20</sup> (Service Pack 2) <b>Preloaded</b> (only some listed) • Model G3U: Microsoft Office OneNote® 2003 • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • System Migration Assistant • Symantec® Client Security™ • Diskeeper® Lite • PC-Doctor™ (diagnostics) • Fingerprint Software (fingerprint models) • Multimedia Center for Think Offerings • Sonic RecordNOW and Drive Letter Access (combo, DVD±RW) • InterVideo WinDVD (combo, DVD, DVD±RW models) • InterVideo WinDVD Creator (DVD±RW models) <b>CD included</b> (Model G3U only) • Microsoft Office OneNote 2003 <b>License</b> - CD not included - Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client Supports ThinkVantage® technologies <b>ThinkPad X6 UltraBase™</b> • Provides desktop expansion and cable management for X60 Series • Easily connects to the bottom of the X60 Series for traveling • Converts ThinkPad to a two-spindle system with optional flat bezel Ultrabay Slim options in left side: – ThinkPad Advanced Ultrabay Battery 3-cell (flat bezel) 40Y6789 – ThinkPad DVD Ultrabay Slim Burner (flat bezel) 41N5643 – Serial Hard Drive Ultrabay Slim Adapter (flat bezel) 40Y8725 Disks supported (some listed): • 160GB Disk 7200 rpm 41N5737 Other features: • Power button (front) • Stereo speakers (1 watt) • Security key lock, security keyhole, and optional security screw • Serial and parallel ports • Analog DB-15 monitor port • Four USB 2.0 ports • Gigabit ethernet port • Modem port • Microphone in and headphone out • Requires 65 or 90 watt AC adapter • Retractable feet; 1.48 lb; 670g 65-watt AC Adapter ROHS-compliant International Warranty Service <sup>17</sup> 24 hour x 7 day <sup>18</sup> toll-free warranty support during the warranty <sup>12</sup>	
Processor	Intel® Core™ Duo processor L2400 or L2500 with low voltage, dual-core, Enhanced Intel SpeedStep™ technology <sup>1</sup> , Execute Disable Bit, 667MHz system bus, and 2MB shared L2 cache		
Memory	256MB, 512MB, or 1GB std / 4GB max <sup>31</sup> / PC2-5300 667MHz DDR2 / non-parity / CL5 / dual channel capable / two 200-pin SO-DIMM sockets / std memory in one socket / one socket available		
Diskette drive	None standard / use optional USB-based diskette drive		
EIDE Combo	Some: DVD-ROM/CD-RW / 24X/24X/24X/8X <sup>21</sup> speed / removable from X6 UltraBase		
EIDE DVD±RW	Some: DVD burner / Super Multi-Burner (40Y8623) / dual-layer / removable from X6		
Ultrabay™ Slim	Supports Ultrabay Slim devices in optional X6 UltraBase		
Serial ATA disk (SATA150)	60, 80, 100 or 120GB <sup>8</sup> (5400 rpm) / 9.5mm high / removable, upgradable / 9.5mm high bay / <b>ThinkPad Shock Mounted Hard Drive / Active Protection System™</b> / supports 2nd disk in optional X6 UltraBase		
Display	12.1" (308mm) XGA (1024x768) TFT color / Active Matrix / 150 nits / anti-glare		
Graphics controller	Intel Graphics Media Accelerator 950 (GMA 950) / integrated in 945GM / 200MHz		
Graphics - external	External monitor support via analog DB-15 connector / no DVI-out support		
Keyboard	89-key / ThinkVantage button / spill-resistant / multimedia Fn keys / Windows, Appl keys standard-size <sup>26</sup> keys / 97% size of T Series / 18.5mm pitch; 2.5mm stroke / TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar <sup>13</sup> , magnifying glass		
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar <sup>13</sup> , magnifying glass		
Touch pad	None		
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions		
Dimensions <sup>3</sup>	without X6 UltraBase: 10.5" x 8.3" x 0.8-1.1"; 268mm x 211mm x 20-28mm		
Weight <sup>2</sup>	with Enh 4-cell: 3.04 lb (1.38kg); with 8-cell: 3.53 lb (1.60kg)		
Case material	Color: black; All: magnesium alloy		
Battery - type	Li-Ion Enhanced Cap Battery 4-cell or Li-Ion 8-cell / supports optional Li-Ion Slim Line Battery 4-cell, supports optional Extended Life Battery on base (for two batteries); supports optional Ultrabay Slim battery in optional X6 UltraBase (for two batteries)		
Battery - life <sup>10</sup>	4-cell: up to 4.2 hr; 8-cell: up to 8.4 hr; with std batt and Extend Life Batt: up to 11.0 hr		
Architecture	Mobile Intel 945GM Express Chipset / 82945GM Graphics Memory Controller Hub / 82801GBM ICH7-M I/O Controller Hub (SATA300, ATA-100 EIDE, PCI Express x1, PCI bus, USB, LPC interface, [Bluetooth], [fingerprint]) / PCI bus (Ricoh® R5C554 CardBus/1394 combo controller) / LPC bus (PC87382 Super I/O, Atmel® 97SC3203)		
Media slice	Some: X6 UltraBase media slice (see right side) One Secure Digital Card slot / supports SD memory cards used in consumer devices		
Secure Digital slot	One Type I or one Type II / CardBus Plus (34mm ExpressCard via adapter) / door		
PC Card slot	IEEE 1394 (FireWire) port (4-pin)		
IEEE 1394	Three USB (version 2.0) / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / IEEE 1394 (4-pin) / no serial, parallel, keyboard, or mouse ports		
Ports			
Wireless antenna	UltraConnect™ Antenna built into the display cover / on-off switch for all wireless radios		
Mini PCI Express	Two Mini PCI Express slots / only 802.11 wireless is customer upgradable		
Intel 11a/b/g <sup>32</sup>	Some: 11a/b/g wireless <sup>4</sup> , Mini PCI Express adapter, Intel PRO/Wireless 3945ABG		
11a/b/g <sup>32</sup>	Some: 11a/b/g wireless <sup>4</sup> , ThinkPad 11a/b/g Mini PCIe Adapter, Atheros AR5006EX		
ThinkPad 11n <sup>28</sup>	Some: 11a/b/g/n wireless <sup>4</sup> , ThinkPad 11a/b/g/n Mini PCI Express Adapter, Atheros AR5008 chipset, MIMO 2x3 for non-WWAN models		
WWAN <sup>16</sup>	Some: Wireless WAN, Sierra Wireless 1xEV-DO Network Adapter, Mini PCIe Adapter, EV-DO/1xRTT, WWAN antenna on display, service contract reqd with Verizon® Wireless		
Modem	56K <sup>6</sup> V.90 (V.92-designed <sup>29</sup> ) modem in Comm Daughter Card / Conexant® chipset		
Bluetooth™	Some: Bluetooth 2.0 wireless / USB 2.0 interface via ICH7-M / LED indicator		
Ethernet	Gigabit ethernet on systemboard / Intel 82573L (MAC/PHY) / PCIe x1 / PXE		
Audio support	High Definition (HD) Audio / AD1981HD codec / mono speaker 0.5 watt / volume down, up, mute buttons / internal microphone / mic input jack (pink) / headphone jack (green)		
Security	Power-on password / hard disk password / supervisor password / security keyhole		
Security chip	Trusted Platform Module / Atmel chip / TCG 1.2-compliant		
Fingerprint reader	Some: Fingerprint reader on palm rest / swipe sensor / supports the security chip		
Limited warranty <sup>12</sup>	3-years/1-yr battery - EasyServ™ <sup>19</sup> onsite pickup and delivery / service upgrades <sup>22</sup> avail		
512MB PC2-5300 DDR2 CL5 SODIMM	40Y7733	X60 Enhanced Cap Battery 4-cell (cyl)	40Y7001
1GB PC2-5300 DDR2 CL5 SODIMM	40Y7734	X60 High Capacity 8-cell (cylindrical)	40Y7003
160GB Disk 9.5mm SATA150 (7200 rpm)	41N5737	X60 Extended Life Battery	40Y7005
USB 2.0 Lenovo Multimedia Headset	40Y8518	ThinkPad X6 UltraBase	40Y8116
USB 2.0 Security Memory Key 4GB	41U5120	ThinkPad External Battery Charger	40Y7625
USB 2.0 Portable 120GB Hard Disk	41N8379	Carrying Case - Leather Attache	73P3600
USB 2.0 Super Multi-Burner Drive	41N5565	ThinkPlus™.22 2-year LOR 9x5 NBD	41C9175
ThinkVision® L194 Wide 19" LCD Monitor	4434HB6	ThinkPlus 3-year LOR 9x5 NBD	41C9176
Lenovo M500 Projector	0037A05	ThinkPlus 5-year P&L P/U Depot	41C9180
Other accessories on O-X60 sheet		Other accessories at <a href="http://lenovo.com/accessories">lenovo.com/accessories</a>	

See footnotes for important warranty information

\* Powered by Intel Centrino® Duo mobile technology

© Lenovo

US models announced January 31, February 28, or October 17, 2006

(KB1-2) October 2007

US models withdrawn effective May or October 2007

# ThinkPad® X60s (1705) - TopSeller - withdrawn

Personal Systems Reference (PSREF)

Type-model	Processor	GHz	Memory	Screen	Disk	Optical in UltraBase	ThinkPad X6 UltraBase	802.11 wireless	WWAN wireless	Blue-tooth	Fingerprt reader	Battery cells	Limited warranty <sup>12</sup>	Avail date		
1705-24U	Core Duo L2300	1.50	512MB	12.1" XGA	40GB	Optional	Optional	* Intel 11a/b/g	None	None	None	Enh 4-cell	1-yr	Feb 06		
<ul style="list-style-type: none"> <li>• <b>This small and medium business (SMB) model is part of the US TopSeller™ Program</b></li> <li>• <b>This 1705 model has a 1-year limited warranty</b></li> </ul>																
Positioning	<i>Thinnest and lightest; one spindle</i>										<b>SOFTWARE<sup>14</sup></b>					
Processor	<b>Intel® Core™ Duo processor L2300 (1.50GHz)</b> with low voltage, dual-core, Enhanced Intel SpeedStep™ technology <sup>1</sup> , Execute Disable Bit, 667MHz system bus, and 2MB shared L2 cache										<b>Windows XP Professional</b>					
Memory	<b>512MB</b> std / 4GB max <sup>31</sup> / PC2-5300 667MHz DDR2 / non-parity / CL5 / dual channel capable / two 200-pin SO-DIMM sockets / std memory in one socket / one socket available										- Microsoft® Windows® XP Professional <sup>20</sup> (Service Pack 2) ↳ Disk-to-Disk Recovery					
Diskette drive	None standard / use optional USB-based diskette drive										<b>Preloaded</b>					
Ultrabay™ Slim	Supports Ultrabay Slim devices in optional X6 UltraBase										• Rescue and Recovery™					
Serial ATA disk (SATA150)	<b>40GB<sup>8</sup></b> (5400 rpm) / 9.5mm high / removable, upgradable / 9.5mm high bay / <b>ThinkPad Shock Mounted Hard Drive / Active Protection System™</b> / supports 2nd disk in optional X6 UltraBase										• Access Connections™					
Display	<b>12.1"</b> (308mm) <b>XGA (1024x768) TFT color</b> / Active Matrix / 150 nits / anti-glare										• Client Security Solution™					
Graphics controller	<b>Intel Graphics Media Accelerator 950 (GMA 950)</b> / integrated in 945GM / 200MHz										• ThinkVantage Productivity Center with Away Manager					
Graphics - external	External monitor support via analog DB-15 connector / no DVI-out support										• ThinkVantage System Update					
Keyboard	89-key / ThinkVantage button / spill-resistant / multimedia Fn keys / Windows, Appl keys standard-size <sup>26</sup> keys / 97% size of T Series / 18.5mm pitch; 2.5mm stroke / TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar <sup>13</sup> , magnifying glass										• System Migration Assistant					
TrackPoint®	None										• Symantec® Client Security™					
Touch pad	None										• Diskeeper® Lite					
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions										• PC-Doctor™ (diagnostics)					
Dimensions <sup>3</sup>	<i>without X6 UltraBase:</i> 10.5" x 8.3" x 0.8-1.1"; 268mm x 211mm x 20-28mm										• ThinkPad Utilities (Power Manager and Presentation Director)					
Weight <sup>2</sup>	<i>with Enh 4-cell:</i> 3.00 lb (1.36kg); <i>with optional 8-cell:</i> 3.46 lb (1.57kg)										• Adobe® Reader					
Case material	<i>Color:</i> black; <i>All:</i> magnesium alloy										• Google Toolbar					
Battery - type	Li-Ion Enhanced Cap Battery 4-cell / supports optional Extended Life Battery on base (for two batteries); supports optional Ultrabay Slim battery in optional X6 UltraBase (for two batteries)										• Google Desktop					
Battery - life <sup>10</sup>	<i>Enh 4-cell:</i> up to 4 hr; <i>with optional 8-cell battery and Extended Life Battery:</i> up to 11 hr										• Picasa from Google					
Architecture	<b>Mobile Intel 945GM Express Chipset</b> / 82945GM Graphics Memory Controller Hub / 82801GBM ICH7-M I/O Controller Hub (SATA300, ATA-100 EIDE, PCI Express x1, PCI bus, USB, LPC interface, [Bluetooth], [fingerprt]) / PCI bus (Ricoh® R5C554 CardBus/1394 combo controller) / LPC bus (PC87382 Super I/O, Atmel® 97SC3203)										• Multimedia Center for Think Offerings					
Media slice	Optional <b>X6 UltraBase media slice</b> (see right side)										<b>License</b> - CD not included					
Secure Digital slot	One <b>Secure Digital Card</b> slot / supports SD memory cards used in consumer devices										- Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client					
PC Card slot	One Type I or one Type II / <b>CardBus Plus</b> (34mm ExpressCard via adapter) / door										Supports ThinkVantage® technologies					
IEEE 1394	<b>IEEE 1394 (FireWire) port</b> (4-pin)										<b>ThinkPad X6 UltraBase™</b>					
Ports	Three USB (version 2.0) / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / IEEE 1394 (4-pin) / no serial, parallel, keyboard, or mouse ports										• Provides desktop expansion and cable management for X60 Series					
Wireless antenna	UltraConnect™ Antenna built into the display cover / on-off switch for all wireless radios										• Easily connects to the bottom of the X60 Series for traveling					
Mini PCI Express	Two Mini PCI Express slots / only 802.11 wireless is customer upgradable										• Converts ThinkPad to a two-spindle system with optional flat bezel					
Intel 11a/b/g <sup>32</sup>	11a/b/g wireless <sup>4</sup> , Mini PCI Express adapter, Intel PRO/Wireless 3945ABG										Ultrabay Slim options in left side:					
WWAN <sup>16</sup>	None										- ThinkPad Advanced Ultrabay Battery 3-cell (flat bezel) 40Y6789					
Modem	56K <sup>6</sup> V.90 (V.92-designed <sup>29</sup> ) modem in Comm Daughter Card / Conexant® chipset										- CD-RW/DVD Combo II Ultrabay Slim Drive (flat bezel) 40Y8621					
Bluetooth™	None										- DVD-ROM Ultrabay Slim Drive (curved bezel) 73P3270					
Ethernet	Gigabit ethernet on systemboard / Intel 82573L (MAC/PHY) / PCIe x1 / PXE										- ThinkPad DVD Ultrabay Slim Burner (flat bezel) 41N5643					
Audio support	High Definition (HD) Audio / AD1981HD codec / mono speaker 0.5 watt / volume down, up, mute buttons / internal microphone / mic input jack (pink) / headphone jack (green)										- Serial Hard Drive Ultrabay Slim Adapter (flat bezel) 40Y8725					
Security	Power-on password / hard disk password / supervisor password / security keyhole										Disks supported:					
Security chip	<b>Trusted Platform Module</b> / Atmel chip / TCG 1.2-compliant										• 100GB Disk 7200 rpm 41N3013					
Fingerprint reader	None										• 120GB Disk 5400 rpm 41N5691					
Limited warranty <sup>12</sup>	<b>1-year</b> - EasyServ™ <sup>19</sup> onsite pickup and delivery / service upgrades <sup>22</sup> avail										• 160GB Disk 5400 rpm 41N5692					
512MB PC2-5300 DDR2 CL5 SODIMM	40Y7733	X60 Enhanced Cap Battery 4-cell (cyl)	40Y7001	1GB PC2-5300 DDR2 CL5 SODIMM	40Y7734	X60 High Capacity 8-cell (cylindrical)	40Y7003	2GB PC2-5300 DDR2 SODIMM	40Y7735	X60 Extended Life Battery	40Y7005	120GB Disk 9.5mm SATA150 (5400 rpm)	41N5691	ThinkPad External Battery Charger <sup>44</sup>	40Y7625	
160GB Disk 9.5mm SATA150 (5400 rpm)	41N5692	ThinkPad Adjustable Notebook Stand	40Y7676	160GB Disk 9.5mm SATA150 (7200 rpm)	41N5737	ThinkPad X6 UltraBase	40Y8116	USB Portable Diskette Drive	05K9276	ThinkPad 65W AC Adapter	40Y7696	USB 2.0 Lenovo Multimedia Headset	40Y8518	ThinkPad 90W AC Adapter	40Y7659	
USB 2.0 Lenovo Webcam	40Y8519	ThinkPad 90W AC/DC Combo Adapter	40Y7630	USB 2.0 Security Memory Key 2GB	41U5119	ThinkPad Carrying Case - Expander	73P3597	USB 2.0 Security Memory Key 4GB	41U5120	ThinkPad Carrying Case - Organizer	73P3598	USB 2.0 CD-RW/DVD-ROM Combo II Drive	40Y8637	ThinkPad Carrying Case - Backpack	73P3599	
USB 2.0 Portable 120GB Hard Disk	41N8379	Carrying Case - Leather Attache	73P3600	USB 2.0 Super Multi-Burner Drive	41N5565	Kensington MicroSaver Security Cable	73P2582	11a/b/g Wireless Mini PCI Express Adpr	40Y7026	ThinkPlus™ <sup>22</sup> 1-year LOR 9x5 NBD	41C9166	ThinkVision® L171p 17" LCD Monitor	9417HC2	ThinkPlus 2-year LOR 9x5 NBD	41C9167	
ThinkVision L190x 19" LCD Monitor	4439HB2	ThinkPlus 3-year LOR 9x5 NBD	41C9168	ThinkVision L193p 19" LCD Monitor	4431HB2	ThinkPlus 5-year LOR 9x5 NBD	41C9173	ThinkVision L194 Wide 19" LCD Monitor	4434HB6	ThinkPlus 2-year P&L P/U Depot	41C9169	ThinkVision L220x Wide 22" LCD Monitor	4433HB2	ThinkPlus 3-year P&L P/U Depot	41C9170	
ThinkPad Adjustable Notebook Stand	40Y7676	ThinkPlus 4-year P&L P/U Depot	41C9172	Lenovo M500 Projector	0037A05	ThinkPlus 5-year P&L P/U Depot	41C9174	Other accessories on O-X60 sheet		Other accessories at <a href="http://lenovo.com/accessories">lenovo.com/accessories</a>		65-watt AC Adapter		ROHS-compliant		

See footnotes for important warranty information  
US model announced January 31, 2006  
US model withdrawn effective October 2007

\* Powered by Intel Centrino® Duo mobile technology

© Lenovo  
(KB1-3) October 2007

# ThinkPad® X61 (7674) - Onsite - withdrawn

Proc- Type-model	essor GHz	Memory	Display	Disk SATA GB <sup>3</sup> rpm	Optical in UltraBase	ThinkPad X6 UltraBase	Mini PCIe 802.11 wireless	Mini PCIe WWAN or Turbo	Blue- tooth	Finger print reader	Bat- tery cells	Preload	Workhorse (W) Global (G) GMP (P)	Avail date
7674-65U	T7300	2.00	1GB	12.1" XGA	80GB 5400	Optional	Optional	* Intel 4965AG	None	Blue	Fing	8	Business 32	W G P Jun 07
7674-74U	T7300	2.00	1GB	12.1" XGA	80GB 5400	Optional	Optional	* Intel 4965AG <sup>32</sup>	None	Blue	Fing	8	XP Pro	W G P Jun 07
7674-66U	T7300	2.00	1GB	12.1" XGA	80GB 5400	Optional	Optional	* Intel 4965AG	None	Blue	Fing	8	XP Pro	W G P Jun 07
7674-4NU	T7300	2.00	<b>2GB</b>	12.1" XGA	120G 5400	Optional	Optional	* Intel 4965AG	None	Blue	Fing	8	Business 32	W G P Jun 07

• **These models are part of the Global Models Plus program with limited onsite service<sup>24</sup> 3-year limited warranty**

Positioning Processor	<i>Thinnest and lightest; one spindle</i> <b>Intel® Core™ 2 Duo processor T7300 with dual-core,</b> Intel 64 Technology, Enhanced Intel SpeedStep® technology <sup>1</sup> , Intel Dynamic Acceleration, Execute Disable Bit, Virtualization Technology, 800MHz bus, and 4MB shared L2 cache										<b>Preloaded operating system<sup>20</sup></b> - <i>Some:</i> Microsoft® Windows® XP Professional - <i>Some:</i> Microsoft Windows Vista® Business Edition (32-bit) ◇ <i>Vista 1GB models:</i> Vista Basic logo ◇ <i>2GB models:</i> Vista Premium logo			
Memory	<b>1GB or 2GB</b> std / 4GB max <sup>31</sup> / PC2-5300 667MHz DDR2, non-parity, dual-channel capable, two 200-pin SO-DIMM sockets; <i>Italics:</i> standard memory in both sockets; no sockets available; <i>Non-italics:</i> standard memory in 1 socket; 1 socket available										<b>Preloaded applications<sup>14</sup></b> (all OSes; only some listed) • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • ThinkVantage System Update • Norton Internet Security™ (90 days of virus definitions) • Diskeeper® Home • PC-Doctor™ (diagnostics) • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader • <i>Some:</i> Fingerprint Software • Microsoft Office 2007 Trial (60-day)			
Diskette drive EIDE DVD±RW Ultrabay™ Slim Serial ATA disk	None (use optional USB-based diskette drive) Option for <i>ThinkPad X6 Tablet UltraBase</i> Supports Ultrabay Slim devices in optional or standard <i>X6 UltraBase</i> <b>80GB<sup>8</sup></b> (5400 rpm), <b>120GB</b> (5400) / SATA 1.5Gb/s, 9.5mm high, removable, upgradable, supports 2nd disk in std or optional <i>X6 UltraBase</i> , ThinkPad Shock Mounted Hard Drive, Active Protection System™										• ThinkPad Utilities (Power Manager and Presentation Director) • Microsoft Office 2007 Trial (60-day)			
Display	<b>12.1"</b> (308mm) <b>XGA (1024x768) TFT color</b> , anti-glare, 150 nits, 4:3 aspect ratio, 300:1 contrast ratio										Supports ThinkVantage® technologies			
Graphics controller Graphics - external	<b>Intel Graphics Media Accelerator X3100 (GMA X3100)</b> , integrated in GM965 External monitor support via analog DB-15 connector / no DVI-out support										<b>ThinkPad X6 UltraBase™</b> • Provides desktop expansion and cable management for X60 Series • Easily connects to the bottom of the X60 Series for traveling • Converts ThinkPad to a two-spindle system with optional flat bezel Ultrabay Slim options in left side: – ThinkPad Advanced Ultrabay Battery II 3-cell (flat) 43R9250 – ThinkPad DVD Ultrabay Slim Burner (flat bezel) 41N5643 – Serial Hard Drive Ultrabay Slim Adapter (flat bezel) 40Y8725 Disks supported: • 250GB Disk 5400 rpm 43R8152 • 320GB Disk 5400 rpm 43N3403			
Keyboard	89-key, ThinkVantage button, spill-resistant, multimedia Fn keys, Windows/Appl keys, standard-size <sup>26</sup> keys 97% size of T Series, 18.5mm pitch, 2.5mm stroke										Other features: • Stereo speakers (1 watt) • Security key lock, security keyhole, and optional security screw • Serial and parallel ports • Analog VGA monitor port (no DVI) • Four USB 2.0 ports • Gigabit ethernet port • Modem port • Microphone in and headphone out • Requires 65 or 90 watt AC adapter • Retractable feet; 1.48 lb; 670g			
TrackPoint® Touch pad ThinkLight™	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar <sup>13</sup> , magnifying glass None Illuminates the keyboard to improve visibility in low-light conditions													
Dimensions <sup>3</sup>	<i>without X6 UltraBase; 4-cell:</i> 10.5" x 8.3" x .80-1.39"; 268mm x 211mm x 20-35mm <i>without X6 UltraBase; 8-cell:</i> 10.5" x 9.4" x .80-1.39"; 268mm x 238mm x 20-35mm <i>with Enhanced 4-cell battery:</i> from 3.11 lb (1.41kg); <i>8-cell:</i> from 3.59 lb (1.63kg) <i>Color:</i> black; <i>All:</i> magnesium alloy										65-watt (GMA graphics) AC Adapter ENERGY STAR® 4.0-compliant RoHS-compliant International Warranty Service <sup>17</sup> 24 hour x 7 day <sup>18</sup> toll-free support during the warranty period <sup>12</sup> via 800-426-7378			
Weight <sup>2</sup> Case material Battery - type	Lithium Ion <b>8-cell</b> ; supports optional Extended Life Battery on base (for two batteries); supports optional Ultrabay Slim battery in optional X6 UltraBase (for two batteries) <i>Enh 4-cell:</i> up to 3.9 hr; <i>8-cell:</i> up to 7.8 hr; <i>8-cell and Extended Life Battery:</i> up to 10.7													
Battery - life <sup>10</sup>	<b>Mobile Intel GM965 Express Chipset</b> (Graphics Memory Controller Hub); <b>ICH8M-Enhanced</b> I/O Controller Hub (SATA 3.0Gb/s, ATA-100 EIDE, PCI Express® x1, PCI bus, USB, LPC bus, [Bluetooth], [fingerprint]) / PCI bus (Ricoh® R5C847 Cardbus/1394/Multicard) / LPC bus (PC87385 Super I/O, Atmel® 97SC3203 TPM)													
Chipset	<i>Option:</i> <b>X6 UltraBase media slice</b> (see right side) One <b>Secure Digital Card</b> slot, supports SD memory cards used in consumer devices One Type I or one Type II, <b>CardBus Plus</b> (34mm ExpressCard via adapter), door Three USB 2.0, DB-15 (external VGA monitor), RJ-11 (modem), RJ-45 (ethernet), IEEE 1394 FireWire 400 (4-pin connector; 1394a-2000 standard)													
Media slice Secure Digital slot PC Card slot Ports	UltraConnect™ II Antenna / on-off switch for all wireless radios Two Mini PCI Express slots / only 802.11 wireless is customer upgradable Intel 4965AG <sup>32</sup> 11a/b/g wireless <sup>4</sup> , Mini PCIe adapter, Intel Wireless WiFi Link 4965AG None None None 56K <sup>9</sup> V.92 <sup>29</sup> modem in Communications Daughter Card <i>Some:</i> Bluetooth 2.0 wireless, USB 2.0 interface via ICH8M, LED indicator Gigabit ethernet on systemboard, Intel 82566MM Nineveh (PHY), PCIe x1, PXE Intel Active Management Technology (AMT) High Definition (HD) Audio, AD1984 codec / mono speaker 0.5 watt / volume up, down, mute buttons / internal microphone, mic input jack (pink), headphone jack (green) Power-on password, hard disk password, supervisor password, security keyhole <b>Trusted Platform Module</b> , Atmel chip, TCG 1.2-compliant <i>Some:</i> <b>Fingerprint reader on palm rest</b> , swipe sensor, supports the security chip													
Wireless antenna Mini PCI Express WWAN Turbo Memory	Power-on password, hard disk password, supervisor password, security keyhole <b>Trusted Platform Module</b> , Atmel chip, TCG 1.2-compliant <i>Some:</i> <b>Fingerprint reader on palm rest</b> , swipe sensor, supports the security chip													
Modem Bluetooth™ Ethernet Intel AMT Audio support	Power-on password, hard disk password, supervisor password, security keyhole <b>Trusted Platform Module</b> , Atmel chip, TCG 1.2-compliant <i>Some:</i> <b>Fingerprint reader on palm rest</b> , swipe sensor, supports the security chip													
Security Security chip Fingerprint reader	Power-on password, hard disk password, supervisor password, security keyhole <b>Trusted Platform Module</b> , Atmel chip, TCG 1.2-compliant <i>Some:</i> <b>Fingerprint reader on palm rest</b> , swipe sensor, supports the security chip													
Limited warranty <sup>12</sup>	<b>3-years/1-year battery, limited onsite service<sup>24</sup></b> , 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time / service upgrades <sup>22</sup> available													
2GB PC2-5300 DDR2 SODIMM 200GB Disk FDE SATA 1.5Gb/s (7200 rpm) ThinkPad X6 UltraBase Other accessories at <a href="http://lenovo.com/accessories">lenovo.com/accessories</a>	40Y7735 41N5738 40Y8116		ThinkPlus™.22 4-year LOR <sup>24</sup> 9x5 NBD ThinkPlus 5-year LOR 9x5 NBD Post-warranty annual maintenance agreements at <a href="http://lenovo.com/thinkplus/warranty">lenovo.com/thinkplus/warranty</a>				12X5630 43R2162							

See footnotes for important warranty information  
US models announced May 31, 2007  
US models withdrawn effective May or November 2008

\* Intel Centrino with vPro™ technology

# ThinkPad® X60 Tablet (6363) - withdrawn

Personal Systems Reference (PSREF)

Type-model	Processor	GHz	Memory	Screen	SATA disk	Optical in UltraBase	X6 Tablet UltraBase	802.11 wireless	WWAN wireless	Blue-tooth	Fingerprt reader	Battery cells	WH TAA	Gbl	Avail date
6363-46U	Core Duo L2400	1.66	1GB	12.1" XGA	80GB			* Intel 11a/b/g <sup>32</sup>	None		Finger	8-cell	WH	Gbl	Dec 06
6363-54U	Core Duo L2500	1.83	1GB	12.1" XGA	60GB			* Intel 11a/b/g	None			8-cell	WH	Gbl	Dec 06
6363-64U	Core Duo L2500	1.83	1GB	12.1" XGA	80GB			* Intel 11a/b/g	None		Finger	8-cell	WH	Gbl	Dec 06
6363-A7U	Core Duo L2500	1.83	1GB	12.1" SXGA+	80GB			* Intel 11a/b/g	None	Blue	Finger	8-cell	WH	Gbl	Dec 06
6363-85U	Core Duo L2500	1.83	1GB	12.1" XGA Touch	80GB			* Intel 11a/b/g	None	Blue	Finger	8-cell	WH	Gbl	Dec 06
6363-34U	Core Duo L2400	1.66	512MB	12.1" XGA	60GB			* Intel 11a/b/g	None			4-cell	WH		Dec 06
6363-5BU	Core Duo L2400	1.66	1GB	12.1" XGA Touch	100G			* Intel 11a/b/g	None	Blue	Finger	8-cell	WH		Feb 07
6363-86U	Core Duo L2500	1.83	1GB	12.1" XGA Touch	100G			* Intel 11a/b/g	None	Blue	Finger	8-cell	WH		Dec 06
6363-2BU	Core Duo L2400	1.66	1GB	12.1" SXGA+	120G	DVD±RW	UltraBase	* Intel 11a/b/g	None	Blue	Finger	8-cell	WH		Feb 07
6363-A8U	Core Duo L2500	1.83	1GB	12.1" SXGA+	120G	DVD±RW	UltraBase	* Intel 11a/b/g	None	Blue	Finger	8-cell	WH		Dec 06
6363-4KU	Core Duo L2400	1.66	1GB	12.1" XGA	80GB	Combo	UltraBase	* Intel 11a/b/g	None	Blue	Finger	4-cell	WH		Feb 07
6363-65U	Core Duo L2500	1.83	1GB	12.1" XGA	80GB	Combo	UltraBase	* Intel 11a/b/g	None	Blue	Finger	4-cell	WH		Dec 06
6363-4GU	Core Duo L2400	1.66	1GB	12.1" XGA	60GB			* Intel 11a/b/g	None		Finger	8-cell	TAA		Dec 06
Positioning	<b>Convertible tablet; one spindle</b>														
US Govt (TAA) <sup>5</sup>	4GU: US Government model (Trade Act Agreement-compliant)														
Processor	<b>Intel® Core™ Duo processor L2400 or L2500</b> with low voltage, <b>dual-core</b> , Enhanced Intel SpeedStep® technology <sup>1</sup> , Execute Disable Bit, 667MHz system bus, and 2MB shared L2 cache														
Memory	<b>512MB or 1GB</b> std / 4GB max <sup>31</sup> / PC2-5300 667MHz DDR2 / non-parity / CL5 / dual-channel capable / two 200-pin SO-DIMM sockets / <i>Some: (italics) standard memory in both sockets; no sockets available; Some: standard memory in 1 socket; 1 socket available</i>														
Ultrabay™ Slim EIDE Combo Serial ATA disk (SATA150)	Supports Ultrabay™ Slim devices in optional <b>ThinkPad X6 Tablet UltraBase</b> <i>Some: DVD-ROM/CD-RW / 24X/24X/24X/8X<sup>21</sup> speed / removable from X6 UltraBase Some: DVD burner / Super Multi-Burner (40Y8623) / dual-layer / removable from X6 60GB<sup>8</sup> (5400 rpm), 80GB (5400 rpm), 100GB (7200 rpm), or 120GB (5400 rpm) / 9.5mm high / removable and upgradable / 9.5mm high bay / <b>ThinkPad Shock Mounted Hard Drive / Active Protection System™</b> / supports 2nd disk in optional X6 Tablet UltraBase</i>														
Display	<i>Some: 12.1" (307mm) XGA (1024x768) TFT color / 4:3 / 185 nits / 170° viewing Some: 12.1" (307mm) SXGA+ (1400x1050) TFT color / 4:3 / 180 nits / 170° viewing Touch: 12.1" (307mm) XGA (1024x768) TFT color / 4:3 / 150 nits / 170° viewing / <b>MultiView</b> (indoor/outdoor), <b>MultiTouch</b> (touchscreen via finger and pen) All: Super Wide Angle FFS / anti-reflective and anti-glare protective coatings / <b>write on screen with standard digitizer pen</b> / pen holder in front base / <b>rotate and swivel hinge</b> in middle bottom of display for tablet mode (portrait or landscape) or picture frame mode (keyboard faces away from user) / buttons on display bottom (power, lock, reboot, rotation, utility, Esc, NavDial/enter)</i>														
Graphics	<b>Intel Graphics Media Accelerator 950 (GMA 950)</b> / integrated in 945GM / 200MHz / external monitor support via analog DB-15 connector / no DVI-out support														
Keyboard	89-key / ThinkVantage button / spill-resistant / multimedia Fn keys / Windows, Appl keys														
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar <sup>13</sup> , magnifying glass														
Dimensions <sup>3</sup>	<i>4-cell: 10.8" x 9.6" x 1.1-1.3"; 274mm x 244mm x 27.4-33.1mm 8-cell: 10.8" x 10.5" x 1.1-1.3"; 274mm x 267mm x 27.4-33.1mm</i>														
Weight <sup>2</sup>	<i>4-cell battery models: 3.7 to 4.1 lb (1.7 to 1.9kg); 8-cell battery models: 4.2 to 4.6lb (1.9 to 2.1kg)</i>														
Case material	Color: black; All: magnesium alloy														
Battery - type	Li-Ion <b>4-cell</b> or <b>8-cell</b> / supports optional Extended Life Battery on base (for two batteries); supports optional Ultrabay Slim battery in optional X6 Tablet UltraBase (for two batteries)														
Battery - life <sup>10</sup>	<i>4-cell: up to 3.3 hr; 8-cell: up to 7.5 hr; with 8-cell and Ultrabay Slim: up to 8.5 hr; with 8-cell and optional Extended Life Battery: up to 9.5 hr</i>														
Chipset	<b>Mobile Intel 945GM Express Chipset</b> / 82945GM Graphics Memory Controller Hub / 82801GBM ICH7-M I/O Controller Hub (SATA300, ATA-100 EIDE, PCI Express x1, PCI bus, USB, LPC bus, [Bluetooth], [fingerprint]) / PCI bus (Ricoh® R5C843 CardBus/1394/SD controller) / LPC bus (PC87382 Super I/O, Atmel® 97SC3203 TPM) <i>Some: <b>ThinkPad X6 Tablet UltraBase</b> (see right side)</i>														
Media slice	One <b>Secure Digital Card</b> slot / supports SD memory cards used in consumer devices														
Secure Digital slot	One Type I or one Type II / <b>CardBus Plus</b> (34mm ExpressCard via adapter) / door														
PC Card Std slot	Three USB (version 2.0) / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / IEEE 1394 port (4-pin) / no serial, parallel, keyboard/mouse ports														
Ports															
Wireless antenna	UltraConnect™ Antenna built into the display cover / on-off switch for all wireless radios														
Mini PCI Express	Two Mini PCI Express slots / only 802.11 wireless is customer upgradable														
Intel 11a/b/g <sup>32</sup>	11a/b/g wireless <sup>4</sup> , Mini PCI Express adapter, Intel PRO/Wireless 3945ABG														
WWAN	None														
Modem	56K <sup>6</sup> V.90 (V.92-designed <sup>29</sup> ) modem in Communication Daughter Card														
Bluetooth™	<i>Some: Bluetooth 2.0 wireless / USB 2.0 interface via ICH7-M / LED indicator</i>														
Ethernet	Gigabit ethernet on systemboard / Intel 82573L (MAC/PHY) / PCIe x1 / PXE														
Audio support	High Definition (HD) Audio / AD1981HD codec / mono speaker, 0.5 watt / volume down, up, mute buttons / internal microphone / mic input jack (pink) / headphone jack (green)														
Security	Power-on password / hard disk password / supervisor password / security keyhole														
Security chip	<b>Trusted Platform Module</b> / Atmel chip / TCG 1.2-compliant														
Fingerprint reader	<i>Some: <b>Fingerprint reader</b> on right base of display / use in tablet or notebook mode / 2-way swipe sensor / supports the security chip</i>														
Limited warranty <sup>12</sup>	<b>3-years/1-yr battery</b> - EasyServ™ <sup>19</sup> depot repair service / service upgrades <sup>22</sup> available														
2GB PC2-5300 DDR2 SODIMM	40Y7735			ThinkPad X6 Tablet UltraBase				41U3120							
Other accessories on O-X60-T sheet				Other accessories at <b>lenovo.com/accessories</b>				65-watt AC Adapter							

**SOFTWARE<sup>14</sup>**

**Windows XP Tablet**

- Microsoft® Windows® XP Tablet PC Edition 2005<sup>20</sup>
- ◇ Disk-to-Disk Recovery

**Preloaded** (only some listed)

- Model 34U: Microsoft Office OneNote® 2003
- Microsoft Education Pack
- Microsoft Experience Pack
- Rescue and Recovery™
- Access Connections™
- Client Security Solution™
- ThinkVantage Productivity Center
- ThinkVantage System Update
- Symantec® Client Security™
- PC-Doctor™ (diagnostics)
- *Some:* Fingerprint Software
- InterVideo VirtualDrive CD/DVD Emulator

**Free trial**

- Zinio Reader

**CD included**

- Model 34U: Microsoft Office OneNote 2003

Supports ThinkVantage® technologies

**ThinkPad X6 Tablet UltraBase**

- Provides desktop expansion and cable mgmt for X60 Tablet
- Connects to the bottom of tablet
- Converts tablet to a two-spindle system with optional flat bezel Ultrabay Slim options in right side:
  - ThinkPad Advanced Ultrabay Battery 3-cell (flat bezel) 40Y6789
  - CD-RW/DVD Combo II Ultrabay Slim Drive (flat bezel) 40Y8621
  - ThinkPad DVD Ultrabay Slim Burner (flat bezel) 41N5643
  - Serial Hard Drive Ultrabay Slim Adapter (flat bezel) 40Y8725
- SATA disks supported (some):
  - 100GB Disk 7200 rpm 41N3013
  - 160GB Disk 7200 rpm 41N5737
  - 250GB Disk 5400 rpm 41R8152

**Other features:**

- Power button (front)
- Stereo speakers (1 watt)
- Security key lock, security keyhole, and optional security screw
- Serial and parallel ports
- Analog DB-15 monitor port (no DVI)
- Four USB 2.0 ports
- Gigabit ethernet port (RJ-45)
- Modem port (RJ-11)
- Microphone in and headphone out
- Requires 65- or 90-watt AC adapter
- 1.48 lb; 670g

See footnotes for important warranty information \* Intel Centrino® processor technology  
 US models announced November 14, 2006 or February 22, 2007  
 US models withdrawn effective July 2007, Nov 2007, or April 2008

# ThinkPad® X60 Tablet (6363) - February 2007 - withdrawn

Created by Lenovo Training Solutions  
Personal Systems Reference (PSREF)

Type-model	Processor	GHz	Memory	Screen	SATA disk	Optical in UltraBase	X6 Tablet UltraBase	802.11 wireless	WWAN wireless	Blue-tooth	Fingerprt reader	Battery cells	WH Gbl	Avail date
6363-38U	Core Duo L2400	1.66	1GB	12.1" XGA	60GB			* Intel 11a/b/g <sup>32</sup>	None			8-cell	WH Gbl	Mar 07
6363-4JU	Core Duo L2400	1.66	1GB	12.1" XGA	80GB			* Intel 11a/b/g	None		Finger	8-cell	WH Gbl	Mar 07
6363-2AU	Core Duo L2400	1.66	1GB	12.1" SXGA+	80GB			* Intel 11a/b/g	None	Blue	Finger	8-cell	WH Gbl	Mar 07
6363-5AU	Core Duo L2400	1.66	1GB	12.1" XGA Touch	80GB			* Intel 11a/b/g	None	Blue	Finger	8-cell	WH Gbl	Mar 07
6363-9CU	Core 2 Duo L7400	1.50	1GB	12.1" XGA	60GB			* Intel 11a/b/g	None			8-cell	WH Gbl	Apr 07
6363-P3U	Core 2 Duo L7400	1.50	1GB	12.1" XGA	80GB			* Intel 11a/b/g	None		Finger	8-cell	WH Gbl	Apr 07
6363-J3U	Core 2 Duo L7400	1.50	1GB	12.1" XGA Touch	80GB			* Intel 11a/b/g	None	Blue	Finger	8-cell	WH Gbl	Apr 07
6363-C7U	Core 2 Duo L7400	1.50	1GB	12.1" SXGA+	80GB			* Intel 11a/b/g	None	Blue	Finger	8-cell	WH Gbl	Apr 07
6363-P5U	Core 2 Duo L7400	1.50	1GB	12.1" XGA	80GB	Combo	UltraBase	* Intel 11a/b/g	None	Blue	Finger	4-cell		Apr 07
<p>• <b>These models have a 3-year limited warranty<sup>12</sup></b></p>														
Positioning Processor	<p><b>Convertible tablet; one spindle</b>  <b>Intel® Core™ Duo processor L2400</b> with low voltage, dual-core, Enhanced Intel SpeedStep™ technology<sup>1</sup>, Execute Disable Bit, 667MHz system bus, and 2MB shared L2 cache or  <b>Intel Core 2 Duo processor L7400</b> with low voltage, dual-core, Intel 64 Technology, Enhanced Intel SpeedStep™ technology<sup>1</sup>, Execute Disable Bit, 667MHz system bus, and 4MB shared L2 cache</p>										<p><b>SOFTWARE<sup>14</sup></b>  <b>Windows XP Tablet</b>                      - Microsoft® Windows® XP Tablet PC Edition 2005<sup>20</sup>  <b>Preloaded</b>                      • Microsoft Education Pack                      • Microsoft Experience Pack                      • Rescue and Recovery™                      • Access Connections™                      • Client Security Solution™                      • ThinkVantage Productivity Center with Away Manager                      • ThinkVantage System Update                      • Symantec® Client Security™                      • Diskeeper® Lite                      • PC-Doctor™ (diagnostics)                      • ThinkPad Utilities (Power Manager and Presentation Director)                      • Adobe® Reader                      • Windows Live™ Toolbar                      • Windows Live Search                      • Picasa from Google                      • Some: Fingerprint Software                      • InterVideo VirtualDrive CD/DVD Emulator  <b>Free trial</b>                      • Zinio Reader  <b>License</b> (CD not included)                      - Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client</p>			
Memory	<p><b>1GB</b> std / <b>4GB</b> max<sup>31</sup> / PC2-5300 667MHz DDR2 / non-parity / CL5 / dual-channel capable / two 200-pin SO-DIMM sockets / <b>P5U:</b> standard memory in both sockets (512MB each socket); no sockets available; <b>Others:</b> standard memory in 1 socket; 1 socket available</p>													
Ultrabay™ Slim EIDE Combo Serial ATA disk (SATA150)	<p>Supports Ultrabay™ Slim devices in optional <b>ThinkPad X6 Tablet UltraBase</b>                      Some: DVD-ROM/CD-RW / 24X/24X/24X/8X<sup>21</sup> speed / removable from <b>X6 UltraBase</b>  <b>60GB<sup>8</sup></b> (5400 rpm) or <b>80GB</b> (5400 rpm) / 9.5mm high / removable and upgradable / 9.5mm high bay / <b>ThinkPad Shock Mounted Hard Drive / Active Protection System™</b> / supports 2nd disk in optional <b>X6 Tablet UltraBase</b></p>													
Display	<p><b>Some:</b> <b>12.1"</b> (307mm) <b>XGA (1024x768)</b> TFT color / 4:3 / 185 nits / 170° viewing  <b>Some:</b> <b>12.1"</b> (307mm) <b>SXGA+ (1400x1050)</b> TFT color / 4:3 / 180 nits / 170° viewing  <b>Touch:</b> <b>12.1"</b> (307mm) <b>XGA (1024x768)</b> TFT color / 4:3 / 150 nits / 170° viewing / <b>MultiView</b> (indoor/outdoor), <b>MultiTouch</b> (touchscreen via finger and pen)  <b>All:</b> Super Wide Angle FFS / anti-reflective and anti-glare protective coatings / <b>write on screen with standard digitizer pen</b> / pen holder in front base / <b>rotate and swivel hinge</b> in middle bottom of display for tablet mode (portrait or landscape) or picture frame mode (keyboard faces away from user) / buttons on display bottom (power, lock, reboot, rotation, utility, Esc, NavDial/enter)</p>													
Graphics	<p><b>Intel Graphics Media Accelerator 950 (GMA 950)</b> / integrated in 945GM / 200MHz / external monitor support via analog DB-15 connector / no DVI-out support</p>													
Keyboard TrackPoint®	<p>89-key / ThinkVantage button / spill-resistant / multimedia Fn keys / Windows, Appl keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar<sup>13</sup>, magnifying glass</p>													
Dimensions <sup>3</sup>	<p><b>4-cell:</b> 10.8" x 9.6" x 1.1-1.3"; 274mm x 244mm x 27.4-33.1mm  <b>8-cell:</b> 10.8" x 10.5" x 1.1-1.3"; 274mm x 267mm x 27.4-33.1mm</p>													
Weight <sup>2</sup>	<p><b>4-cell battery models:</b> 3.7 to 4.1 lb (1.7 to 1.9kg);  <b>8-cell battery models:</b> 4.2 to 4.6lb (1.9 to 2.1kg)</p>													
Case material	<p><b>Color:</b> black; <b>All:</b> magnesium alloy</p>													
Battery - type	<p>Li-Ion <b>4-cell</b> or <b>8-cell</b> / supports optional Extended Life Battery on base (for two batteries); supports optional Ultrabay Slim battery in optional <b>X6 Tablet UltraBase</b> (for two batteries)</p>													
Battery - life <sup>10</sup>	<p><b>4-cell:</b> up to 3.3 hr; <b>8-cell:</b> up to 7.5 hr; <b>with 8-cell and Ultrabay Slim:</b> up to 8.5 hr; <b>with 8-cell and optional Extended Life Battery:</b> up to 9.5 hr</p>													
Architecture	<p><b>Mobile Intel 945GM Express Chipset</b> / 82945GM Graphics Memory Controller Hub / 82801GBM ICH7-M I/O Controller Hub (SATA300, ATA-100 EIDE, PCI Express x1, PCI bus, USB, LPC interface, [Bluetooth], [fingerprint]) / PCI bus (Ricoh® R5C843 CardBus/1394/SD controller) / LPC bus (PC87382 Super I/O, Atmel® 97SC3203 TPM)  <b>Some:</b> <b>ThinkPad X6 Tablet UltraBase</b> (see right side)</p>													
Media slice	<p>One <b>Secure Digital Card</b> slot / supports SD memory cards used in consumer devices</p>													
Secure Digital slot	<p>One Type I or one Type II / <b>CardBus Plus</b> (34mm ExpressCard via adapter) / door</p>													
PC Card Std slot	<p>Three USB (version 2.0) / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / IEEE 1394 port (4-pin) / no serial, parallel, keyboard/mouse ports</p>													
Ports	<p>UltraConnect™ Antenna built into the display cover / on-off switch for all wireless radios</p>													
Wireless antenna	<p>Two Mini PCI Express slots / only 802.11 wireless is customer upgradable</p>													
Mini PCI Express	<p>Intel 11a/b/g<sup>32</sup> / None</p>													
WWAN	<p>None</p>													
Modem	<p>56K<sup>6</sup> V.90 (V.92-designed<sup>29</sup>) modem in Communication Daughter Card</p>													
Bluetooth™	<p><b>Some:</b> Bluetooth 2.0 wireless / USB 2.0 interface via ICH7-M / LED indicator</p>													
Ethernet	<p>Gigabit ethernet on systemboard / Intel 82573L (MAC/PHY) / PCIe x1 / PXE</p>													
Audio support	<p>High Definition (HD) Audio / AD1981HD codec / mono speaker 0.5 watt / volume down, up, mute buttons / internal microphone / mic input jack (pink) / headphone jack (green)</p>													
Security	<p>Power-on password / hard disk password / supervisor password / security keyhole</p>													
Security chip	<p><b>Trusted Platform Module</b> / Atmel chip / TCG 1.2-compliant</p>													
Fingerprint reader	<p><b>Some:</b> <b>Fingerprint reader</b> on right base of display / use in tablet or notebook mode / 2-way swipe sensor / supports the security chip</p>													
<p>Limited warranty<sup>12</sup> <b>3-years/1-yr battery</b> - EasyServ™<sup>19</sup> onsite pickup and delivery / service upgrades<sup>22</sup> avail</p>														
512 MB PC2-5300 DDR2 CL5 SODIMM	40Y7733	ThinkPad X6 Tablet UltraBase	41U3120											
1GB PC2-5300 DDR2 CL5 SODIMM	40Y7734	ThinkPad X60 Tablet Digitizer Pen	41U3143											
2GB PC2-5300 DDR2 SODIMM	40Y7735	ThinkPad X60 Tether (3-pack)	41U4820											
Other accessories on O-X60-T sheet		Other accessories at <a href="http://lenovo.com/accessories">lenovo.com/accessories</a>												
													65-watt AC Adapter	

See footnotes for important warranty information  
 US models announced February 27 or April 3, 2007  
 US models withdrawn effective July or November 2007

\* Powered by Intel Centrino® Duo mobile technology

© Lenovo  
 (DL1-8) October 2007

# ThinkPad® X60 Tablet (6363) - Education - withdrawn

Created by Lenovo Training Solutions  
Personal Systems Reference (PSREF)

Type-model	Processor	GHz	Memory	Screen	SATA disk	Optical in UltraBase	X6 Tablet UltraBase	802.11 wireless	WWAN wireless	Blue-tooth	Fingerprt reader	Limited warranty <sup>12</sup>	WH Gbl	Avail date
6363-R3U	Core Duo L2400	1.66	1GB	12.1" TN XGA Touch	80GB	Optional	Optional	*Intel 11a/b/g <sup>32</sup>	None	Blue	Finger	EasyServ	WH	Apr 07
6363-G4U	Core Duo L2400	1.66	1GB	12.1" TN XGA	80GB	Optional	Optional	*Intel 11a/b/g	None	Blue	Finger	EasyServ	WH	Apr 07
6363-ADU	Core Duo L2500	1.83	1GB	12.1" SXGA+	80GB	Optional	Optional	*Intel 11a/b/g	None	Blue	Finger	EasyServ	WH	Dec 06
6363-8DU	Core Duo L2500	1.83	1GB	12.1" XGA Touch	80GB	Optional	Optional	*Intel 11a/b/g	None	Blue	Finger	EasyServ	WH	Dec 06
6363-6DU	Core Duo L2500	1.83	1GB	12.1" XGA	80GB	Optional	Optional	*Intel 11a/b/g	None	Blue	Finger	EasyServ	WH	Dec 06

• **These models have an EasyServ™<sup>19</sup> onsite pickup and delivery 3-year limited warranty**

These educational models are available only to public or private K-12 (or higher) accredited schools organized and operated exclusively for educational purposes for use by qualified students and teachers.

Positioning Processor	<b>Convertible tablet; one spindle Intel® Core™ Duo processor L2400 or L2500</b> with low voltage, dual-core, Enhanced Intel SpeedStep™ technology <sup>1</sup> , Execute Disable Bit, 667MHz system bus, and 2MB shared L2 cache										<b>SOFTWARE<sup>14</sup></b>			
Memory	<b>1GB</b> std / 4GB max <sup>31</sup> / PC2-5300 667MHz DDR2 / non-parity / CL5 / dual-channel capable / two 200-pin SO-DIMM sockets / standard memory in 1 socket; 1 socket available										<b>Windows XP Tablet</b> - Microsoft® Windows® XP Tablet PC Edition 2005 <sup>20</sup> ⇨ Disk-to-Disk Recovery  <b>Preloaded</b> (only some listed) • Microsoft Office OneNote® 2003 • VitalSource Library education software • Adobe® Photoshop® Elements plus Adobe Premiere® Elements • Microsoft Education Pack • Microsoft Experience Pack • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • ThinkVantage System Update • Symantec® Client Security™ • Diskeeper Lite • PC-Doctor™ (diagnostics) • Fingerprint Software • InterVideo VirtualDrive CD/DVD Emulator			
Ultrabay™ Slim Serial ATA disk (SATA150)	Supports Ultrabay™ Slim devices in optional <i>ThinkPad X60 Tablet UltraBase</i> <b>80GB</b> (5400 rpm) / 9.5mm high / removable and upgradable / 9.5mm high bay / <b>ThinkPad Shock Mounted Hard Drive / Active Protection System™</b> / supports 2nd disk in optional <i>X60 Tablet UltraBase</i>													
Display	<i>Some:</i> <b>12.1"</b> (307mm) <b>TN XGA (1024x768)</b> TFT color / 4:3 / 190 nits / 100° viewing <i>Some:</i> <b>12.1"</b> (307mm) <b>XGA (1024x768)</b> TFT color / 4:3 / 185 nits / 170° viewing <i>Some:</i> <b>12.1"</b> (307mm) <b>SXGA+ (1400x1050)</b> TFT color / 4:3 / 180 nits / 170° viewing <i>Touch:</i> <b>12.1"</b> (307mm) <b>TN XGA (1024x768)</b> TFT color / 4:3 / 155 nits / 100° viewing / <b>MultiView</b> (indoor/outdoor), <b>MultiTouch</b> (touchscreen via finger and pen) <i>Touch:</i> <b>12.1"</b> (307mm) <b>XGA (1024x768)</b> TFT color / 4:3 / 150 nits / 170° viewing / <b>MultiView</b> (indoor/outdoor), <b>MultiTouch</b> (touchscreen via finger and pen) <i>All:</i> Super Wide Angle FFS or Twisted Nematic (TN) / anti-reflective and anti-glare protective coatings / <b>write on screen with standard digitizer pen</b> / pen holder in front base / <b>rotate and swivel hinge</b> in middle bottom of display for tablet mode (portrait or landscape) or picture frame mode (keyboard faces away from user) / buttons on display bottom (power, lock, reboot, rotation, utility, Esc, NavDial/enter)										<b>Free trial</b> • Zinio Reader  <b>CD included</b> • Adobe Photoshop Elements plus Adobe Premiere Elements • Microsoft Office OneNote 2003  <b>License</b> (CD not included) - Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client			
Graphics	<b>Intel Graphics Media Accelerator 950 (GMA 950)</b> / integrated in 945GM / 200MHz / external monitor support via analog DB-15 connector / no DVI-out support										<b>Free trial</b> • Zinio Reader  <b>CD included</b> • Adobe Photoshop Elements plus Adobe Premiere Elements • Microsoft Office OneNote 2003  <b>License</b> (CD not included) - Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client			
Keyboard TrackPoint®	89-key / ThinkVantage button / spill-resistant / multimedia Fn keys / Windows, Appl keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar <sup>13</sup> , magnifying glass										<b>CD included</b> • Adobe Photoshop Elements plus Adobe Premiere Elements • Microsoft Office OneNote 2003  <b>License</b> (CD not included) - Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client			
Dimensions <sup>3</sup>	8-cell: 10.8" x 10.5" x 1.1-1.3"; 274mm x 267mm x 27.4-33.1mm													
Weight <sup>2</sup>	8-cell: 4.2 to 4.6lb (1.9 to 2.1kg)													
Case material	Color: black; All: magnesium alloy													
Battery - type	Li-Ion <b>8-cell</b> / supports optional Extended Life Battery on base (for two batteries); supports optional Ultrabay Slim battery in optional <i>X60 Tablet UltraBase</i> (for two batteries)													
Battery - life <sup>10</sup>	8-cell: up to 7.5 hr; with optional <i>Extended Life Battery</i> : up to 9.5 hr													
Architecture	<b>Mobile Intel 945GM Express Chipset</b> / 82945GM Graphics Memory Controller Hub / 82801GBM ICH7-M I/O Controller Hub (SATA300, ATA-100 EIDE, PCI Express x1, PCI bus, USB, LPC interface, [Bluetooth], [fingerprint]) / PCI bus (Ricoh® R5C843 CardBus/1394/SD controller) / LPC bus (PC87382 Super I/O, Atmel® 97SC3203 TPM) Optional <b>ThinkPad X60 Tablet UltraBase</b> (see right side)										<b>ThinkPad X60 Tablet UltraBase</b> • Provides desktop expansion and cable mgmt for X60 Tablet • Connects to the bottom of tablet • Converts tablet to a two-spindle system with optional flat bezel Ultrabay Slim options in right side: - ThinkPad Advanced Ultrabay Battery 3-cell (flat bezel) 40Y6789 - ThinkPad DVD Ultrabay Slim Burner (flat bezel) 41N5643 - Serial Hard Drive Ultrabay Slim Adapter (flat bezel) 40Y8725 SATA disks supported (some): • 60GB Disk 7200 rpm 41N3012 • 80GB Disk 5400 rpm 41N5662 • 100GB Disk 7200 rpm 41N3013			
Media slice	Secure Digital slot One <b>Secure Digital Card</b> slot / supports SD memory cards used in consumer devices													
PC Card Std slot	One Type I or one Type II / <b>CardBus Plus</b> (34mm ExpressCard via adapter) / door													
Ports	Three USB (version 2.0) / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / IEEE 1394 port (4-pin) / no serial, parallel, keyboard/mouse ports													
Wireless antenna	UltraConnect™ Antenna built into the display cover / on-off switch for all wireless radios													
Mini PCI Express	Two Mini PCI Express slots / only 802.11 wireless is customer upgradable													
Intel 11a/b/g <sup>32</sup>	11a/b/g wireless <sup>4</sup> , Mini PCI Express adapter, Intel PRO/Wireless 3945ABG													
WWAN	None													
Modem	56K <sup>6</sup> V.90 (V.92-designed <sup>29</sup> ) modem in Communication Daughter Card													
Bluetooth™	<i>Some:</i> Bluetooth 2.0 wireless / USB 2.0 interface via ICH7-M / LED indicator													
Ethernet	Gigabit ethernet on systemboard / Intel 82573L (MAC/PHY) / PCIe x1 / PXE													
Audio support	High Definition (HD) Audio / AD1981HD codec / mono speaker 0.5 watt / volume down, up, mute buttons / internal microphone / mic input jack (pink) / headphone jack (green)													
Security	Power-on password / hard disk password / supervisor password / security keyhole													
Security chip	<b>Trusted Platform Module</b> / Atmel chip / TCG 1.2-compliant													
Fingerprint reader	<b>Fingerprint reader</b> on right base of display / use in tablet or notebook mode / 2-way swipe sensor / supports the security chip										Other features: • Power button (front) • Stereo speakers (1 watt) • Security key lock, security keyhole, and optional security screw • Serial and parallel ports • Analog DB-15 monitor port (no DVI) • Four USB 2.0 ports • Gigabit ethernet port (RJ-45) • Modem port (RJ-11) • Microphone in and headphone out • Requires 65- or 90-watt AC adapter • 1.48 lb; 670g			
Limited warranty <sup>12</sup>	<b>3-years/1-yr battery</b> - EasyServ™ <sup>19</sup> onsite pickup and delivery / service upgrades <sup>22</sup> avail													
512MB PC2-5300 DDR2 CL5 SODIMM	40Y7733			ThinkPad X60 Tablet UltraBase				41U3120						
1GB PC2-5300 DDR2 CL5 SODIMM	40Y7734			ThinkPad X60 Tablet Digitizer Pen				41U3143						
2GB PC2-5300 DDR2 SODIMM	40Y7735			ThinkPad X60 Tether (3-pack)				41U4820						
USB 2.0 Lenovo Multimedia Headset	40Y8518			X60 Tablet Li-ion Battery 8-cell				40Y8318						
USB 2.0 Security Memory Key 4GB	41U5120			ThinkPad X60 Extended Life Battery				40Y7005						
USB 2.0 Portable 120GB Hard Disk	41N8379			ThinkPad External Battery Charger				40Y7625						
USB 2.0 Super Multi-Burner Drive	41N5565			ThinkPad X60 Tablet Sleeve				41U3142						
160GB Disk 9.5mm SATA150 (5400 rpm)	41N5692			ThinkPlus™ <sup>22</sup> 2-year LOR 9x5 NBD				41C9175						
Other accessories on O-X60-T sheet				ThinkPlus 3-year LOR 9x5 NBD				41C9176			65-watt AC Adapter			

See footnotes for important warranty information

\* Powered by Intel Centrino® Duo mobile technology

US models announced November 14, 2006 or April 10, 2007

US models withdrawn effective July 2007

© Lenovo  
(DL1-5) August 2007



# ThinkPad® X60 Tablet (6363) - Education (Vista™) - withdrawn

Created by Lenovo Training Solutions  
Personal Systems Reference (PSREF)

Type-model	Processor	GHz	Memory	Screen	SATA disk	Optical in UltraBase	X60 Tablet UltraBase	802.11 wireless	WWAN wireless	Blue-tooth	Fingerprt reader	Limited warranty <sup>12</sup>	Educ Avail preload date
6363-R5U	Core Duo L2400	1.66	1GB	12.1" TN XGA Touch	80GB	Optional	Optional	11a/b/g <sup>32</sup>	None	Blue	Finger	EasyServ HE	Apr 07
6363-G5U	Core Duo L2400	1.66	1GB	12.1" TN XGA	80GB	Optional	Optional	11a/b/g	None	Blue	Finger	EasyServ HE	Apr 07
6363-R6U	Core Duo L2400	1.66	1GB	12.1" TN XGA Touch	80GB	Optional	Optional	11a/b/g	None	Blue	Finger	EasyServ K12	Apr 07
6363-G6U	Core Duo L2400	1.66	1GB	12.1" TN XGA	80GB	Optional	Optional	11a/b/g	None	Blue	Finger	EasyServ K12	Apr 07

• **These models have an EasyServ™.19 onsite pickup and delivery 3-year limited warranty**

These educational models are available only to public or private K-12 (or higher) accredited schools organized and operated exclusively for educational purposes for use by qualified students and teachers.

Positioning Processor	<b>Convertible tablet; one spindle Intel® Core™ Duo processor L2400</b> with low voltage, dual-core, Enhanced Intel SpeedStep™ technology <sup>1</sup> , Execute Disable Bit, 667MHz system bus, and 2MB shared L2 cache								<b>Preloaded operating system<sup>20</sup></b> - Microsoft® Windows® Vista™ Business Edition (32-bit)				
Memory	<b>1GB</b> std / 4GB max <sup>31</sup> / PC2-5300 667MHz DDR2 / non-parity / CL5 / dual-channel capable / two 200-pin SO-DIMM sockets / std mem in both sockets (512MB each socket); no sockets available								<b>Preloaded applications<sup>14</sup></b> (only some listed) • <i>Some (K12):</i> K-12 educ software - VitalSource Library School Edition - Adobe® Instruct Resource Center - Adobe Digital School Collection - Photoshop Elements 5 (and CD) - Premier Elements 3 (and DVD) - Acrobat 8 Professional (and CD) - Contribute 4 (and CD) • <i>Some (HE):</i> Higher ed software - VitalSource Library College Edition - Adobe® Instruct Resource Center - Adobe Photoshop Elements 5 (and CD) - Adobe Premier Elements 3 (and DVD) • Microsoft Education Pack • Microsoft Experience Pack • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • ThinkVantage System Update • Lenovo Multimedia Center • Norton Internet Security • Diskeeper™ Home • PC-Doctor™ (diagnostics) • InterVideo VirtualDrive CD/DVD Emulator				
Ultrabay™ Slim Serial ATA disk (SATA150)	Supports Ultrabay™ Slim devices in optional <i>ThinkPad X60 Tablet UltraBase 80GB</i> (5400 rpm) / 9.5mm high / removable and upgradable / 9.5mm high bay / <b>ThinkPad Shock Mounted Hard Drive / Active Protection System™</b> / supports 2nd disk in optional <i>X60 Tablet UltraBase</i>												
Display	<i>Some:</i> <b>12.1"</b> (307mm) <b>TN XGA (1024x768)</b> TFT color / 4:3 / 190 nits / 100° viewing <i>Touch:</i> <b>12.1"</b> (307mm) <b>TN XGA (1024x768)</b> TFT color / 4:3 / 155 nits / 100° viewing / <b>MultiView</b> (indoor/outdoor), <b>MultiTouch</b> (touchscreen via finger and pen) <i>All:</i> Twisted Nematic (TN) / anti-reflective and anti-glare protective coatings / <b>write on screen with standard digitizer pen</b> / pen holder in front base / <b>rotate and swivel hinge</b> in middle bottom of display for tablet mode (portrait or landscape) or picture frame mode (keyboard faces away from user) / buttons on display bottom (power, lock, reboot, rotation, utility, Esc, NavDial/enter)												
Graphics	<b>Intel Graphics Media Accelerator 950 (GMA 950)</b> / integrated in 945GM / 200MHz / external monitor support via analog DB-15 connector / no DVI-out support												
Keyboard TrackPoint®	89-key / ThinkVantage button / spill-resistant / multimedia Fn keys / Windows, Appl keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar <sup>13</sup> , magnifying glass												
Dimensions <sup>3</sup> Weight <sup>2</sup> Case material Battery - type	8-cell: 10.8" x 10.5" x 1.1-1.3"; 274mm x 267mm x 27.4-33.1mm 8-cell: 4.2 to 4.6lb (1.9 to 2.1kg) <i>Color:</i> black; <i>All:</i> magnesium alloy Li-Ion <b>8-cell</b> / supports optional Extended Life Battery on base (for two batteries); supports optional Ultrabay Slim battery in opt <i>X60 Tablet UltraBase</i> (for two batteries)												
Battery - life <sup>10</sup> Architecture	8-cell: up to 7.5 hr; with optional <i>Extended Life Battery</i> : up to 9.5 hr <b>Mobile Intel 945GM Express Chipset</b> / 82945GM Graphics Memory Controller Hub / 82801GBM ICH7-M I/O Controller Hub (SATA300, ATA-100 EIDE, PCI Express x1, PCI bus, USB, LPC interface, [Bluetooth], [fingerprint]) / PCI bus (Ricoh® R5C843 CardBus/1394/SD controller) / LPC bus (PC87382 Super I/O, Atmel® 97SC3203 TPM)												
Media slice	Optional <b>ThinkPad X60 Tablet UltraBase</b> (see right side)												
Secure Digital slot PC Card Std slot Ports	One <b>Secure Digital Card</b> slot / supports SD memory cards used in consumer devices One Type I or one Type II / <b>CardBus Plus</b> (34mm ExpressCard via adapter) / door Three USB (version 2.0) / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / IEEE 1394 port (4-pin) / no serial, parallel, keyboard/mouse ports								<b>License</b> - CD not included - Lotus® Notes® Stand-alone Client				
Wireless antenna Mini PCI Express 11a/b/g <sup>32</sup> WWAN	UltraConnect™ Antenna built into the display cover / on-off switch for all wireless radios Two Mini PCI Express slots / only 802.11 wireless is customer upgradable 11a/b/g wireless <sup>4</sup> , ThinkPad 11a/b/g Mini PCIe Adapter, Atheros AR5006EX None								Supports ThinkVantage® technologies				
Bluetooth™ Ethernet Audio support	Bluetooth 2.0 wireless / USB 2.0 interface via ICH7-M / LED indicator Gigabit ethernet on systemboard / Intel 82573L (MAC/PHY) / PCIe x1 / PXE High Definition (HD) Audio / AD1981HD codec / mono speaker 0.5 watt / volume down, up, mute buttons / internal microphone / mic input jack (pink) / headphone jack (green)								<b>ThinkPad X60 Tablet UltraBase</b> • Provides desktop expansion and cable mgmt for X60 Tablet • Connects to the bottom of tablet • Converts tablet to a two-spindle system with optional flat bezel Ultrabay Slim options in right side: - ThinkPad Advanced Ultrabay Battery 3-cell (flat bezel) 40Y6789 - ThinkPad DVD Ultrabay Slim Burner (flat bezel) 41N5643 - Serial Hard Drive Ultrabay Slim Adapter (flat bezel) 40Y8725 SATA disks supported (some): • 60GB Disk 7200 rpm 41N3012 • 80GB Disk 5400 rpm 41N5662 • 100GB Disk 7200 rpm 41N3013				
Security Security chip	Power-on password / hard disk password / supervisor password / security keyhole <b>Trusted Platform Module</b> / Atmel chip / TCG 1.2-compliant												
Fingerprint reader	<b>Fingerprint reader</b> on right base of display / use in tablet or notebook mode / 2-way swipe sensor / supports the security chip												
Limited warranty <sup>12</sup>	<b>3-years/1-yr battery</b> - EasyServ™.19 onsite pickup and delivery / service upgrades <sup>22</sup> available												
512 MB PC2-5300 DDR2 CL5 SODIMM	40Y7733	ThinkPad X60 Tablet UltraBase	41U3120	Other features: • Power button (front) • Stereo speakers (1 watt) • Security key lock, security keyhole, and optional security screw • Serial and parallel ports • Analog DB-15 monitor port (no DVI) • Four USB 2.0 ports • Gigabit ethernet port (RJ-45) • Modem port (RJ-11) • Microphone in and headphone out • Requires 65- or 90-watt AC adapter • 1.48 lb; 670g									
1GB PC2-5300 DDR2 CL5 SODIMM	40Y7734	ThinkPad X60 Tablet Digitizer Pen	41U3143										
2GB PC2-5300 DDR2 SODIMM	40Y7735	ThinkPad X60 Tether (3-pack)	41U4820										
USB Gemplus GemPC Smart Card Reader	41N3040	X60 Tablet Li-Ion Battery 4-cell	40Y8314										
USB 2.0 Lenovo Multimedia Headset	40Y8518	X60 Tablet Li-Ion Battery 8-cell	40Y8318										
USB 2.0 Lenovo Webcam	40Y8519	ThinkPad X60 Extended Life Battery	40Y7005										
USB 2.0 Security Memory Key 2GB	41U5119	ThinkPad External Battery Charger	40Y7625										
USB 2.0 Security Memory Key 4GB	41U5120	ThinkPad 65W AC Adapter	40Y7696										
USB 2.0 Portable 120GB Hard Disk	41N8379	ThinkPad X60 Tablet Sleeve	41U3142										
USB 2.0 Super Multi-Burner Drive	41N5565	ThinkPad Carrying Case - Backpack	73P3599										
100GB Disk 9.5mm SATA150 (7200 rpm)	41N3013	ThinkPad Carrying Case - Expander	73P3597										
TrackPoint Cap Collection	73P2698	ThinkPlus™.22 2-year LOR 9x5 NBD	41C9175										
Enh Perf Wireless Keyboard and Mouse	73P4067	ThinkPlus 3-year LOR 9x5 NBD	41C9176										
Other accessories on O-X60-T sheet		Other accessories at <a href="http://lenovo.com/accessories">lenovo.com/accessories</a>		65-watt AC Adapter									

See footnotes for important warranty information  
US models announced April 10, 2007  
US models withdrawn effective July 2007

© Lenovo  
(DL1-11) August 2007

# ThinkPad® X60 Tablet (6363) - Wireless WAN - withdrawn

Personal Systems Reference (PSREF)

Type-model	Processor	GHz	Memory	Screen	SATA disk	Optical in UltraBase	X6 Tablet UltraBase	802.11 wireless	WWAN wireless	Blue-tooth	Fingerprnt reader	WH OneNote	Gbl TAA	Avail date
6363-HBU	Core Duo L2400	1.66	1GB	12.1" SXGA+	80GB			* Intel 11a/b/g <sup>32</sup>	Verizon	Blue	Finger	Yes	WH	Feb 07
6363-C3U	Core Duo L2500	1.83	1GB	12.1" SXGA+	80GB			* Intel 11a/b/g	Verizon	Blue	Finger	Yes	WH	Dec 06
6363-7BU	Core Duo L2400	1.66	1GB	12.1" XGA Touch	120G	DVD±RW	UltraBase	* Intel 11a/b/g	Verizon	Blue	Finger	Yes	WH	Feb 07
6363-94U	Core Duo L2500	1.83	1GB	12.1" XGA Touch	120G	DVD±RW	UltraBase	* Intel 11a/b/g	Verizon	Blue	Finger		WH	Dec 06
6363-74U	Core Duo L2500	1.83	1GB	12.1" XGA	100G	DVD±RW	UltraBase	11a/b/g <sup>32</sup>	Verizon		Finger		WH	Dec 06
6363-75U	Core Duo L2500	1.83	1GB	12.1" XGA	100G	DVD±RW	UltraBase	11a/b/g	Verizon		Finger	Yes	WH	Dec 06
6363-7CU	Core Duo L2400	1.66	1GB	12.1" XGA Touch	120G	DVD±RW	UltraBase	* Intel 11a/b/g	AT&T	Blue	Finger	Yes	WH	Feb 07
6363-95U	Core Duo L2500	1.83	1GB	12.1" XGA Touch	120G	DVD±RW	UltraBase	* Intel 11a/b/g	AT&T	Blue	Finger	Yes	WH	Dec 06
Positioning Processor	<b>Convertible tablet; one spindle Intel® Core™ Duo processor L2400 or L2500</b> with low voltage, <b>dual-core</b> , Enhanced Intel SpeedStep® technology <sup>1</sup> , Execute Disable Bit, 667MHz system bus, and 2MB shared L2 cache										<b>SOFTWARE<sup>14</sup></b>			
Memory	<b>1GB</b> std / 4GB max <sup>31</sup> / PC2-5300 667MHz DDR2 / non-parity / CL5 / dual-channel capable / two 200-pin SO-DIMM sockets / <i>Some: (italics) standard memory in both sockets; no sockets available; Some: standard memory in 1 socket; 1 socket available</i>										<b>Windows XP Tablet</b> - Microsoft® Windows® XP Tablet PC Edition 2005 <sup>20</sup> ♦ Disk-to-Disk Recovery <b>Preloaded (only some listed)</b> • <i>Some:</i> Microsoft Office OneNote® 2003 • Microsoft Education Pack • Microsoft Experience Pack • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • ThinkVantage System Update • System Migration Assistant • Symantec® Client Security™ • Diskeeper® Lite • PC-Doctor™ (diagnostics) • Fingerprint Software • InterVideo VirtualDrive CD/DVD Emulator			
Ultrabay™ Slim EIDE DVD±RW Serial ATA disk (SATA150)	Supports Ultrabay™ Slim devices in optional <b>ThinkPad X6 Tablet UltraBase</b> <i>Some:</i> DVD burner / Super Multi-Burner (40Y8623) / dual-layer / removable from X6 <b>80GB<sup>8</sup></b> (5400 rpm), <b>100GB</b> (5400 rpm), or <b>120GB</b> (5400 rpm) / 9.5mm high / removable and upgradable / 9.5mm high bay / <b>ThinkPad Shock Mounted Hard Drive / Active Protection System™</b> / supports 2nd disk in <b>X6 Tablet UltraBase</b>										<b>Free trial</b> • Zinio Reader <b>CD included</b> • Microsoft Office OneNote 2003			
Display	<i>Some:</i> <b>12.1"</b> (307mm) <b>XGA (1024x768)</b> TFT color / 4:3 / 185 nits / 170° viewing <i>Some:</i> <b>12.1"</b> (307mm) <b>SXGA+ (1400x1050)</b> TFT color / 4:3 / 180 nits / 170° viewing <i>Touch:</i> <b>12.1"</b> (307mm) <b>XGA (1024x768)</b> TFT color / 4:3 / 150 nits / 170° viewing / <b>MultiView</b> (indoor/outdoor), <b>MultiTouch</b> (touchscreen via finger and pen) All: Super Wide Angle FFS / anti-reflective and anti-glare protective coatings / <b>write on screen with standard digitizer pen</b> / pen holder in front base / <b>rotate and swivel hinge</b> in middle bottom of display for tablet mode (portrait or landscape) or picture frame mode (keyboard faces away from user) / buttons on display bottom (power, lock, reboot, rotation, utility, Esc, NavDial/enter)										<b>CD included</b> • Microsoft Office OneNote 2003			
Graphics	<b>Intel Graphics Media Accelerator 950 (GMA 950)</b> / integrated in 945GM / 200MHz / external monitor support via analog DB-15 connector / no DVI-out support										<b>Free trial</b> • Zinio Reader <b>CD included</b> • Microsoft Office OneNote 2003			
Keyboard TrackPoint®	89-key / ThinkVantage button / spill-resistant / multimedia Fn keys / Windows, Appl keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar <sup>13</sup> , magnifying glass													
Dimensions <sup>3</sup> Weight <sup>2</sup> Case material Battery - type	8-cell: 10.8" x 10.5" x 1.1-1.3"; 274mm x 267mm x 27.4-33.1mm 8-cell: 4.2 to 4.6lb (1.9 to 2.1kg) Color: black; All: magnesium alloy Li-Ion <b>8-cell</b> / supports optional Extended Life Battery on base (for two batteries); supports optional Ultrabay Slim battery in <b>X6 Tablet UltraBase</b> (for two batteries)													
Battery - life <sup>10</sup>	with 8-cell: up to 7.5 hr; with 8-cell and Ultrabay Slim: up to 8.5 hr; with 8-cell and optional Extended Life Battery: up to 9.5 hr													
Chipset	<b>Mobile Intel 945GM Express Chipset</b> / 82945GM Graphics Memory Controller Hub / 82801GBM ICH7-M I/O Controller Hub (SATA300, ATA-100 EIDE, PCI Express x1, PCI bus, USB, LPC bus, [Bluetooth], [fingerprint]) / PCI bus (Ricoh® R5C843 CardBus/1394/SD controller) / LPC bus (PC87382 Super I/O, Atmel® 97SC3203 TPM) <i>Some:</i> <b>ThinkPad X6 Tablet UltraBase</b> (see right side)													
Media slice	<b>Secure Digital slot</b> One <b>Secure Digital Card</b> slot / supports SD memory cards used in consumer devices													
PC Card Std slot	One Type I or one Type II / <b>CardBus Plus</b> (34mm ExpressCard via adapter) / door													
Ports	Three USB (version 2.0) / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / IEEE 1394 port (4-pin) / no serial, parallel, keyboard/mouse ports													
Wireless antenna	UltraConnect™ Antenna built into the display cover / on-off switch for all wireless radios													
Mini PCI Express	Two Mini PCI Express slots / only 802.11 wireless is customer upgradable													
Intel 11a/b/g <sup>32</sup>	<i>Some:</i> 11a/b/g wireless <sup>4</sup> , Mini PCI Express adapter, Intel PRO/Wireless 3945ABG													
11a/b/g <sup>32</sup>	<i>Some:</i> 11a/b/g wireless <sup>4</sup> , ThinkPad 11a/b/g Mini PCIe Adapter, Atheros AR5006EX													
WWAN <sup>16,23</sup>	<i>Some:</i> Wireless WAN, Sierra Wireless 1xEV-DO Network Adapter, Mini PCIe Adapter, EV-DO Rev. 0, WWAN antenna on display, service contract reqd with Verizon® Wireless													
	<i>Some:</i> Wireless WAN, GPRS/EDGE/UMTS/HSDPA support, Mini PCIe adapter and SIM, WWAN antenna on display, service contract reqd with AT&T®													
Modem	56K <sup>6</sup> V.90 (V.92-designed <sup>29</sup> ) modem in Communication Daughter Card													
Bluetooth™	<i>Some:</i> Bluetooth 2.0 wireless / USB 2.0 interface via ICH7-M / LED indicator													
Ethernet	Gigabit ethernet on systemboard / Intel 82573L (MAC/PHY) / PCIe x1 / PXE													
Audio support	High Definition (HD) Audio / AD1981HD codec / mono speaker, 0.5 watt / volume down, up, mute buttons / internal microphone / mic input jack (pink) / headphone jack (green)													
Security	Power-on password / hard disk password / supervisor password / security keyhole													
Security chip	<b>Trusted Platform Module</b> / Atmel chip / TCG 1.2-compliant													
Fingerprint reader	<b>Fingerprint reader</b> on right base of display / use in tablet or notebook mode / 2-way swipe sensor / supports the security chip													
Limited warranty <sup>12</sup> <b>3-years/1-yr battery</b> - EasyServ™ <sup>19</sup> depot repair service / service upgrades <sup>22</sup> available														
512MB PC2-5300 DDR2 SODIMM	40Y7733				ThinkPad X6 Tablet UltraBase					41U3120				
1GB PC2-5300 DDR2 SODIMM	40Y7734				ThinkPad X60 Tablet Digitizer Pen					41U3143				
2GB PC2-5300 DDR2 SODIMM	40Y7735				ThinkPad X60 Tether (3-pack)					41U4820				
USB 2.0 Lenovo Webcam	40Y8519				X60 Tablet Li-ion Battery 4-cell					40Y8314				
USB 2.0 Security Memory Key 4GB	41U5120				X60 Tablet Li-ion Battery 8-cell					40Y8318				
USB 2.0 Super Multi-Burner Drive	41N5565				ThinkPad X60 Tablet Sleeve					41U3142				
Other accessories on O-X60-T sheet														
Other accessories at <b>lenovo.com/accessories</b>														
65-watt AC Adapter														

See footnotes for important warranty information

\* Intel Centrino® processor technology

US models announced November 14, 2006 or February 22, 2007

US models withdrawn effective July 2007 or April 2008

© Lenovo  
(DL1-2) April 2008

# ThinkPad® X60 Tablet (6364) - withdrawn

Created by Lenovo Training Solutions  
Personal Systems Reference (PSREF)

Type-model	Processor	GHz	Memory	Screen	SATA disk	Optical UltraBase	X6 Tablet UltraBase	802.11 wireless	WWAN wireless	Blue-tooth	Fingerprt reader	Limited warranty	WH Global	Avail date
6364-38U	Core Duo L2400	1.66	1GB	12.1" XGA	60GB	Optional	Optional	*Intel 11a/b/g <sup>32</sup>	None			Onsite	WH Gbl	Mar 07
6364-4JU	Core Duo L2400	1.66	1GB	12.1" XGA	80GB	Optional	Optional	*Intel 11a/b/g	None		Finger	Onsite	WH Gbl	Mar 07
6364-2AU	Core Duo L2400	1.66	1GB	12.1" SXGA+	80GB	Optional	Optional	*Intel 11a/b/g	None	Blue	Finger	Onsite	WH Gbl	Mar 07
6364-5AU	Core Duo L2400	1.66	1GB	12.1" XGA Touch	80GB	Optional	Optional	*Intel 11a/b/g	None	Blue	Finger	Onsite	WH Gbl	Mar 07

• **These models have a limited onsite service<sup>24</sup> 3-year limited warranty**

Positioning Processor	<b>Convertible tablet; one spindle</b> <b>Intel® Core™ Duo processor L2400</b> with low voltage, dual-core, Enhanced Intel SpeedStep™ technology <sup>1</sup> , Execute Disable Bit, 667MHz system bus, and 2MB shared L2 cache										<b>SOFTWARE<sup>14</sup></b>			
Memory	<b>1GB</b> std / 4GB max <sup>31</sup> / PC2-5300 667MHz DDR2 / non-parity / CL5 / dual-channel capable / two 200-pin SO-DIMM sockets / standard memory in 1 socket / 1 socket available										<b>Windows XP Tablet</b> - Microsoft® Windows® XP Tablet PC Edition 2005 <sup>20</sup> ↳ Disk-to-Disk Recovery			
Ultrabay™ Slim Serial ATA disk (SATA150)	Supports Ultrabay™ Slim devices in optional <i>ThinkPad X6 Tablet UltraBase</i> <b>60GB<sup>8</sup></b> (5400 rpm) or <b>80GB</b> (5400 rpm) / 9.5mm high / removable and upgradable / 9.5mm high bay / <b>ThinkPad Shock Mounted Hard Drive / Active Protection System™</b> / supports 2nd disk in optional <i>X6 Tablet UltraBase</i>										<b>Preloaded</b> • Microsoft Education Pack • Microsoft Experience Pack • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center with Away Manager • ThinkVantage System Update • Symantec® Client Security™ • Diskkeeper® Lite • PC-Doctor™ (diagnostics) • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader • Google Toolbar • Google Desktop • Picasa from Google • <i>Some:</i> Fingerprint Software • InterVideo VirtualDrive CD/DVD Emulator			
Display	<i>Some:</i> <b>12.1"</b> (307mm) <b>XGA (1024x768)</b> TFT color / 4:3 / 185 nits / 170° viewing <i>Some:</i> <b>12.1"</b> (307mm) <b>SXGA+ (1400x1050)</b> TFT color / 4:3 / 180 nits / 170° viewing <i>Touch:</i> <b>12.1"</b> (307mm) <b>XGA (1024x768)</b> TFT color / 4:3 / 150 nits / 170° viewing / <b>MultiView</b> (indoor/outdoor), <b>MultiTouch</b> (touchscreen via finger and pen) <i>All:</i> Super Wide Angle FFS / anti-reflective and anti-glare protective coatings / <b>write on screen with standard digitizer pen</b> / pen holder in front base / <b>rotate and swivel hinge</b> in middle bottom of display for tablet mode (portrait or landscape) or picture frame mode (keyboard faces away from user) / buttons on display bottom (power, lock, reboot, rotation, utility, Esc, NavDial/enter)										<b>Free trial</b> • Zinio Reader			
Graphics	<b>Intel Graphics Media Accelerator 950 (GMA 950)</b> / integrated in 945GM / 200MHz / external monitor support via analog DB-15 connector / no DVI-out support										<b>License</b> (CD not included) - Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client			
Keyboard TrackPoint®	89-key / ThinkVantage button / spill-resistant / multimedia Fn keys / Windows, Appl keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar <sup>13</sup> , magnifying glass										Supports ThinkVantage® technologies			
Dimensions <sup>3</sup>	<i>8-cell:</i> 10.8" x 10.5" x 1.1-1.3"; 274mm x 267mm x 27.4-33.1mm										<b>ThinkPad X6 Tablet UltraBase</b>			
Weight <sup>2</sup>	<i>8-cell:</i> 4.2 to 4.6lb (1.9 to 2.1kg)										• Provides desktop expansion and cable mgmt for X60 Tablet			
Case material	<i>Color:</i> black; <i>All:</i> magnesium alloy										• Connects to the bottom of tablet			
Battery - type	Li-Ion <b>8-cell</b> / supports optional Extended Life Battery on base (for two batteries); supports optional Ultrabay Slim battery in optional <i>X6 Tablet UltraBase</i> (for two batteries)										• Converts tablet to a two-spindle system with optional flat bezel Ultrabay Slim options in right side: - ThinkPad Advanced Ultrabay Battery 3-cell (flat bezel) 40Y6789 - CD-RW/DVD Combo II Ultrabay Slim Drive (flat bezel) 40Y8621 - ThinkPad DVD Ultrabay Slim Burner (flat bezel) 41N5643 - Serial Hard Drive Ultrabay Slim Adapter (flat bezel) 40Y8725 SATA disks supported (some): • 60GB Disk 7200 rpm 41N3012 • 80GB Disk 5400 rpm 41N5662 • 100GB Disk 7200 rpm 41N3013			
Battery - life <sup>10</sup>	<i>8-cell:</i> up to 7.5 hr; <i>with 8-cell and Ultrabay Slim:</i> up to 8.5 hr; <i>with 8-cell and optional Extended Life Battery:</i> up to 9.5 hr										Other features: • Power button (front) • Stereo speakers (1 watt) • Security key lock, security keyhole, and optional security screw • Serial and parallel ports • Analog DB-15 monitor port (no DVI) • Four USB 2.0 ports • Gigabit ethernet port (RJ-45) • Modem port (RJ-11) • Microphone in and headphone out • Requires 65- or 90-watt AC adapter • 1.48 lb; 670g			
Architecture	<b>Mobile Intel 945GM Express Chipset</b> / 82945GM Graphics Memory Controller Hub / 82801GBM ICH7-M I/O Controller Hub (SATA300, ATA-100 EIDE, PCI Express x1, PCI bus, USB, LPC interface, [Bluetooth], [fingerprint]) / PCI bus (Ricoh® R5C843 CardBus/1394/SD controller) / LPC bus (PC87382 Super I/O, Atmel® 97SC3203 TPM) Optional <b>ThinkPad X6 Tablet UltraBase</b> (see right side)										65-watt AC Adapter			
Media slice	One <b>Secure Digital Card</b> slot / supports SD memory cards used in consumer devices													
Secure Digital slot	One Type I or one Type II / <b>CardBus Plus</b> (34mm ExpressCard via adapter) / door													
PC Card Std slot	Three USB (version 2.0) / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / IEEE 1394 port (4-pin) / no serial, parallel, keyboard/mouse ports													
Ports	Wireless antenna UltraConnect™ Antenna built into the display cover / on-off switch for all wireless radios													
Wireless antenna	Two Mini PCI Express slots / only 802.11 wireless is customer upgradable													
Mini PCI Express	Intel 11a/b/g <sup>32</sup> 11a/b/g wireless <sup>3</sup> , Mini PCI Express adapter, Intel PRO/Wireless 3945ABG													
Intel 11a/b/g <sup>32</sup>	None													
WWAN	56K <sup>6</sup> V.90 (V.92-designed <sup>29</sup> ) modem in Communication Daughter Card													
Modem	<i>Some:</i> Bluetooth 2.0 wireless / USB 2.0 interface via ICH7-M / LED indicator													
Bluetooth™	Gigabit ethernet on systemboard / Intel 82573L (MAC/PHY) / PCIe x1 / PXE													
Ethernet	High Definition (HD) Audio / AD1981HD codec / mono speaker / 0.5 watt / volume down, up, mute buttons / internal microphone / mic input jack (pink) / headphone jack (green)													
Audio support	Power-on password / hard disk password / supervisor password / security keyhole													
Security	<b>Trusted Platform Module</b> / Atmel chip / TCG 1.2-compliant													
Security chip	<i>Some:</i> <b>Fingerprint reader</b> on right base of display / use in tablet or notebook mode / 2-way swipe sensor / supports the security chip													
Fingerprint reader	Limited warranty <sup>12</sup> <b>3-year/1-year battery, limited onsite service<sup>24</sup></b> , 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time													
Limited warranty <sup>12</sup>	512 MB PC2-5300 DDR2 CL5 SODIMM 40Y7733										ThinkPad X6 Tablet UltraBase 41U3120			
	1GB PC2-5300 DDR2 CL5 SODIMM 40Y7734										ThinkPad X60 Tablet Digitizer Pen 41U3143			
	2GB PC2-5300 DDR2 SODIMM 40Y7735										ThinkPad X60 Tether (3-pack) 41U4820			
	USB Gemplus GemPC Smart Card Reader 41N3040										X60 Tablet Li-Ion Battery 4-cell 40Y8314			
	USB 2.0 Lenovo Multimedia Headset 40Y8518										X60 Tablet Li-Ion Battery 8-cell 40Y8318			
	USB 2.0 Lenovo Webcam 40Y8519										ThinkPad X60 Extended Life Battery 40Y7005			
	USB 2.0 Security Memory Key 2GB 41U5119										ThinkPad External Battery Charger 40Y7625			
	USB 2.0 Security Memory Key 4GB 41U5120										ThinkPad 65W AC Adapter 40Y7696			
	USB 2.0 Portable 120GB Hard Disk 41N8379										ThinkPad X60 Tablet Sleeve 41U3142			
	USB 2.0 Super Multi-Burner Drive 41N5565										ThinkPad Carrying Case - Backpack 73P3599			
	100GB Disk 9.5mm SATA150 (7200 rpm) 41N3013										ThinkPad Carrying Case - Expander 73P3597			
	TrackPoint Cap Collection 73P2698										ThinkPlus™.22 2-year LOR 9x5 NBD 41C9175			
	Enh Perf Wireless Keyboard and Mouse 73P4067										ThinkPlus 3-year LOR 9x5 NBD 41C9176			
	Other accessories on O-X60-T sheet										Other accessories at <b>lenovo.com/accessories</b>			

See footnotes for important warranty information  
US models announced February 27, 2007  
US models withdrawn effective November 2007

\* Powered by Intel Centrino® Duo mobile technology

© Lenovo  
(DL1-9) October 2007

# ThinkPad® X60 Tablet (6364) - Education - withdrawn

Created by Lenovo Training Solutions  
Personal Systems Reference (PSREF)

Type-model	Processor	GHz	Memory	Screen	SATA disk	Optical UltraBase	802.11 wireless	WWAN wireless tooth	Fingerprt reader	Limited warranty <sup>12</sup>	WH Gbl	Avail date
6364-R3U	Core Duo L2400	1.66	1GB	12.1" TN XGA	80GB	Optional	Optional	*Intel 11a/b/g <sup>32</sup>	None	Blue	Finger	Onsite WH Apr 07
6364-G4U	Core Duo L2400	1.66	1GB	12.1" TN XGA	80GB	Optional	Optional	*Intel 11a/b/g	None	Blue	Finger	Onsite WH Apr 07
6364-ADU	Core Duo L2500	1.83	1GB	12.1" SXGA+	80GB	Optional	Optional	*Intel 11a/b/g	None	Blue	Finger	Onsite WH Dec 06
6364-8DU	Core Duo L2500	1.83	1GB	12.1" XGA Touch	80GB	Optional	Optional	*Intel 11a/b/g	None	Blue	Finger	Onsite WH Dec 06
6364-6DU	Core Duo L2500	1.83	1GB	12.1" XGA	80GB	Optional	Optional	*Intel 11a/b/g	None	Blue	Finger	Onsite WH Dec 06

• **These models have a limited onsite service<sup>24</sup> 3-year limited warranty**

These educational models are available only to public or private K-12 (or higher) accredited schools organized and operated exclusively for educational purposes for use by qualified students and teachers.

Positioning Processor	<b>Convertible tablet; one spindle</b> <b>Intel® Core™ Duo processor L2400 or L2500</b> with low voltage, dual-core, Enhanced Intel SpeedStep™ technology <sup>1</sup> , Execute Disable Bit, 667MHz system bus, and 2MB shared L2 cache							<b>SOFTWARE<sup>14</sup></b> <b>Windows XP Tablet</b> - Microsoft® Windows® XP Tablet PC Edition 2005 <sup>20</sup> ◇ Disk-to-Disk Recovery <b>Preloaded</b> (only some listed) • Microsoft Office OneNote® 2003 • VitalSource Library education software • Adobe® Photoshop® Elements plus Adobe Premiere® Elements • Microsoft Education Pack • Microsoft Experience Pack • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • ThinkVantage System Update • Symantec® Client Security™ • Diskkeeper Lite • PC-Doctor™ (diagnostics) • Fingerprint Software • InterVideo VirtualDrive CD/DVD Emulator				
Memory	<b>1GB</b> std / 4GB max <sup>31</sup> / PC2-5300 667MHz DDR2 / non-parity / CL5 / dual-channel capable / two 200-pin SO-DIMM sockets / standard memory in 1 socket; 1 socket available											
Ultrabay™ Slim Serial ATA disk (SATA150)	Supports Ultrabay™ Slim devices in optional <i>ThinkPad X60 Tablet UltraBase 80GB</i> (5400 rpm) / 9.5mm high / removable and upgradable / 9.5mm high bay / <b>ThinkPad Shock Mounted Hard Drive / Active Protection System™</b> / supports 2nd disk in optional <i>X60 Tablet UltraBase</i>											
Display	<i>Some:</i> <b>12.1"</b> (307mm) <b>TN XGA (1024x768)</b> TFT color / 4:3 / 190 nits / 100° viewing <i>Some:</i> <b>12.1"</b> (307mm) <b>XGA (1024x768)</b> TFT color / 4:3 / 185 nits / 170° viewing <i>Some:</i> <b>12.1"</b> (307mm) <b>SXGA+ (1400x1050)</b> TFT color / 4:3 / 180 nits / 170° viewing <i>Touch:</i> <b>12.1"</b> (307mm) <b>TN XGA (1024x768)</b> TFT color / 4:3 / 155 nits / 100° viewing / <b>MultiView</b> (indoor/outdoor), <b>MultiTouch</b> (touchscreen via finger and pen) <i>Touch:</i> <b>12.1"</b> (307mm) <b>XGA (1024x768)</b> TFT color / 4:3 / 150 nits / 170° viewing / <b>MultiView</b> (indoor/outdoor), <b>MultiTouch</b> (touchscreen via finger and pen) <i>All:</i> Super Wide Angle FFS or Twisted Nematic (TN) / anti-reflective and anti-glare protective coatings / <b>write on screen with standard digitizer pen</b> / pen holder in front base / <b>rotate and swivel hinge</b> in middle bottom of display for tablet mode (portrait or landscape) or picture frame mode (keyboard faces away from user) / buttons on display bottom (power, lock, reboot, rotation, utility, Esc, NavDial/enter)											
Graphics	<b>Intel Graphics Media Accelerator 950 (GMA 950)</b> / integrated in 945GM / 200MHz / external monitor support via analog DB-15 connector / no DVI-out support							<b>Free trial</b> • Zinio Reader				
Keyboard TrackPoint®	89-key / ThinkVantage button / spill-resistant / multimedia Fn keys / Windows, Appl keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar <sup>13</sup> , magnifying glass							<b>CD included</b> • Adobe Photoshop Elements plus Adobe Premiere Elements • Microsoft Office OneNote 2003				
Dimensions <sup>3</sup> Weight <sup>2</sup> Case material Battery - type	<i>8-cell:</i> 10.8" x 10.5" x 1.1-1.3"; 274mm x 267mm x 27.4-33.1mm <i>8-cell:</i> 4.2 to 4.6lb (1.9 to 2.1kg) <i>Color:</i> black; <i>All:</i> magnesium alloy Li-Ion <b>8-cell</b> / supports optional Extended Life Battery on base (for two batteries); supports optional Ultrabay Slim battery in opt <i>X60 Tablet UltraBase</i> (for two batteries) <i>8-cell:</i> up to 7.5 hr; with optional <i>Extended Life Battery:</i> up to 9.5 hr							<b>License</b> (CD not included) - Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client				
Battery - life <sup>10</sup>												
Architecture	<b>Mobile Intel 945GM Express Chipset</b> / 82945GM Graphics Memory Controller Hub / 82801GBM ICH7-M I/O Controller Hub (SATA300, ATA-100 EIDE, PCI Express x1, PCI bus, USB, LPC interface, [Bluetooth], [fingerprint]) / PCI bus (Ricoh® R5C843 CardBus/1394/SD controller) / LPC bus (PC87382 Super I/O, Atmel® 97SC3203 TPM) Optional <b>ThinkPad X60 Tablet UltraBase</b> (see right side)							Supports ThinkVantage® technologies				
Media slice Secure Digital slot PC Card Std slot Ports	One <b>Secure Digital Card</b> slot / supports SD memory cards used in consumer devices One Type I or one Type II / <b>CardBus Plus</b> (34mm ExpressCard via adapter) / door Three USB (version 2.0) / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / IEEE 1394 port (4-pin) / no serial, parallel, keyboard/mouse ports							<b>ThinkPad X60 Tablet UltraBase</b> • Provides desktop expansion and cable mgmt for X60 Tablet • Connects to the bottom of tablet • Converts tablet to a two-spindle system with optional flat bezel Ultrabay Slim options in right side: – ThinkPad Advanced Ultrabay Battery 3-cell (flat bezel) 40Y6789 – ThinkPad DVD Ultrabay Slim Burner (flat bezel) 41N5643 – Serial Hard Drive Ultrabay Slim Adapter (flat bezel) 40Y8725 SATA disks supported (some): • 60GB Disk 7200 rpm 41N3012 • 80GB Disk 5400 rpm 41N5662 • 100GB Disk 7200 rpm 41N3013				
Wireless antenna Mini PCI Express Intel 11a/b/g <sup>32</sup> WWAN Modem Bluetooth™ Ethernet Audio support	UltraConnect™ Antenna built into the display cover / on-off switch for all wireless radios Two Mini PCI Express slots / only 802.11 wireless is customer upgradable 11a/b/g wireless <sup>4</sup> , Mini PCI Express adapter, Intel PRO/Wireless 3945ABG None 56K <sup>6</sup> V.90 (V.92-designed <sup>29</sup> ) modem in Communication Daughter Card <i>Some:</i> Bluetooth 2.0 wireless / USB 2.0 interface via ICH7-M / LED indicator Gigabit ethernet on systemboard / Intel 82573L (MAC/PHY) / PCIe x1 / PXE High Definition (HD) Audio / AD1981HD codec / mono speaker 0.5 watt / volume down, up, mute buttons / internal microphone / mic input jack (pink) / headphone jack (green)											
Security Security chip Fingerprint reader	Power-on password / hard disk password / supervisor password / security keyhole <b>Trusted Platform Module</b> / Atmel chip / TCG 1.2-compliant <b>Fingerprint reader</b> on right base of display / use in tablet or notebook mode / 2-way swipe sensor / supports the security chip							Other features: • Power button (front) • Stereo speakers (1 watt) • Security key lock, security keyhole, and optional security screw • Serial and parallel ports • Analog DB-15 monitor port (no DVI) • Four USB 2.0 ports • Gigabit ethernet port (RJ-45) • Modem port (RJ-11) • Microphone in and headphone out • Requires 65- or 90-watt AC adapter • 1.48 lb; 670g				
Limited warranty <sup>12</sup>	<b>3-year</b> /1-year battery, <b>limited onsite service<sup>24</sup></b> , 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time											
512MB PC2-5300 DDR2 CL5 SODIMM	40Y7733	ThinkPad X60 Tablet UltraBase				41U3120						
1GB PC2-5300 DDR2 CL5 SODIMM	40Y7734	ThinkPad X60 Tablet Digitizer Pen				41U3143						
2GB PC2-5300 DDR2 SODIMM	40Y7735	ThinkPad X60 Tether (3-pack)				41U4820						
USB 2.0 Security Memory Key 4GB	41U5120	X60 Tablet LI-ion Battery 8-cell				40Y8318						
USB 2.0 Portable 120GB Hard Disk	41N8379	ThinkPad X60 Extended Life Battery				40Y7005						
USB 2.0 Super Multi-Burner Drive	41N5565	ThinkPad X60 Tablet Sleeve				41U3142						
100GB Disk 9.5mm SATA150 (7200 rpm)	41N3013	ThinkPad Nylon Carrying Case				10K0207						
Lenovo C500 Projector	0039A05	ThinkPad Carrying Case - Expander				73P3597						
Other accessories on O-X60-T sheet					Other accessories at <a href="http://lenovo.com/accessories">lenovo.com/accessories</a>				65-watt AC Adapter			

See footnotes for important warranty information  
US models announced November 14, 2006 or April 10, 2007  
US models withdrawn effective July 2007

\* Powered by Intel Centrino® Duo mobile technology

© Lenovo  
(DL1-6) August 2007

# ThinkPad® X60 Tablet (6364) - Education (Vista™) - withdrawn

Created by Lenovo Training Solutions  
Personal Systems Reference (PSREF)

Type-model	Processor	GHz	Memory	Screen	SATA disk	Optical in UltraBase	X60 Tablet UltraBase	802.11 wireless	WWAN wireless	Blue-tooth	Fingerprt reader	Limited warranty <sup>12</sup>	Educ Avail preload date
6364-R5U	Core Duo L2400	1.66	1GB	12.1" TN XGA Touch	80GB	Optional	Optional	11a/b/g <sup>32</sup>	None	Blue	Finger	Onsite	HE Apr 07
6364-G5U	Core Duo L2400	1.66	1GB	12.1" TN XGA	80GB	Optional	Optional	11a/b/g	None	Blue	Finger	Onsite	HE Apr 07
6364-R6U	Core Duo L2400	1.66	1GB	12.1" TN XGA Touch	80GB	Optional	Optional	11a/b/g	None	Blue	Finger	Onsite	K12 Apr 07
6364-G6U	Core Duo L2400	1.66	1GB	12.1" TN XGA	80GB	Optional	Optional	11a/b/g	None	Blue	Finger	Onsite	K12 Apr 07
<p>• <b>These models have a limited onsite service<sup>24</sup> 3-year limited warranty</b>                      These educational models are available only to public or private K-12 (or higher) accredited schools organized and operated exclusively for educational purposes for use by qualified students and teachers.</p>													
Positioning Processor	<b>Convertible tablet; one spindle Intel® Core™ Duo processor L2400</b> with low voltage, dual-core, Enhanced Intel SpeedStep™ technology <sup>1</sup> , Execute Disable Bit, 667MHz system bus, and 2MB shared L2 cache										<b>Preloaded operating system<sup>20</sup></b> - Microsoft® Windows® Vista™ Business Edition (32-bit)		
Memory	<b>1GB</b> std / 4GB max <sup>31</sup> / PC2-5300 667MHz DDR2 / non-parity / CL5 / dual-channel capable / two 200-pin SO-DIMM sockets / std mem in both sockets (512MB each socket); no sockets available										<b>Preloaded applications<sup>14</sup></b> (only some listed) <ul style="list-style-type: none"> <li>• <i>Some (K12):</i> K-12 educ software                             <ul style="list-style-type: none"> <li>- VitalSource Library School Edition</li> <li>- Adobe® Instruct Resource Center</li> <li>- Adobe Digital School Collection                                     <ul style="list-style-type: none"> <li>- Photoshop Elements 5 (and CD)</li> <li>- Premier Elements 3 (and DVD)</li> <li>- Acrobat 8 Professional (and CD)</li> <li>- Contribute 4 (and CD)</li> </ul> </li> </ul> </li> <li>• <i>Some (HE):</i> Higher ed software                             <ul style="list-style-type: none"> <li>- VitalSource Library College Edition</li> <li>- Adobe® Instruct Resource Center</li> <li>- Adobe Photoshop Elements 5 (and CD)</li> <li>- Adobe Premier Elements 3 (and DVD)</li> </ul> </li> <li>• Microsoft Education Pack</li> <li>• Microsoft Experience Pack</li> <li>• Rescue and Recovery™</li> <li>• Access Connections™</li> <li>• Client Security Solution™</li> <li>• ThinkVantage Productivity Center</li> <li>• ThinkVantage System Update</li> <li>• Lenovo Multimedia Center</li> <li>• Norton Internet Security                             <ul style="list-style-type: none"> <li>• Diskkeeper™ Home</li> <li>• PC-Doctor™ (diagnostics)</li> <li>• InterVideo VirtualDrive CD/DVD Emulator</li> </ul> </li> </ul>		
Ultrabay™ Slim Serial ATA disk (SATA150)	Supports Ultrabay™ Slim devices in optional <i>ThinkPad X60 Tablet UltraBase 80GB</i> (5400 rpm) / 9.5mm high / removable and upgradable / 9.5mm high bay / <b>ThinkPad Shock Mounted Hard Drive / Active Protection System™</b> / supports 2nd disk in optional <i>X60 Tablet UltraBase</i>												
Display	<i>Some:</i> <b>12.1"</b> (307mm) <b>TN XGA (1024x768)</b> TFT color / 4:3 / 190 nits / 100° viewing <i>Touch:</i> <b>12.1"</b> (307mm) <b>TN XGA (1024x768)</b> TFT color / 4:3 / 155 nits / 100° viewing / <b>MultiView</b> (indoor/outdoor), <b>MultiTouch</b> (touchscreen via finger and pen) <i>All:</i> Twisted Nematic (TN) / anti-reflective and anti-glare protective coatings / <b>write on screen with standard digitizer pen</b> / pen holder in front base / <b>rotate and swivel hinge</b> in middle bottom of display for tablet mode (portrait or landscape) or picture frame mode (keyboard faces away from user) / buttons on display bottom (power, lock, reboot, rotation, utility, Esc, NavDial/enter)												
Graphics	<b>Intel Graphics Media Accelerator 950 (GMA 950)</b> / integrated in 945GM / 200MHz / external monitor support via analog DB-15 connector / no DVI-out support												
Keyboard TrackPoint®	89-key / ThinkVantage button / spill-resistant / multimedia Fn keys / Windows, Appl keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar <sup>13</sup> , magnifying glass												
Dimensions <sup>3</sup> Weight <sup>2</sup> Case material Battery - type	8-cell: 10.8" x 10.5" x 1.1-1.3"; 274mm x 267mm x 27.4-33.1mm 8-cell: 4.2 to 4.6lb (1.9 to 2.1kg) Color: black; All: magnesium alloy Li-Ion <b>8-cell</b> / supports optional Extended Life Battery on base (for two batteries); supports optional Ultrabay Slim battery in opt <i>X60 Tablet UltraBase</i> (for two batteries)												
Battery - life <sup>10</sup>	8-cell: up to 7.5 hr; with optional <i>Extended Life Battery</i> : up to 9.5 hr												
Architecture	<b>Mobile Intel 945GM Express Chipset</b> / 82945GM Graphics Memory Controller Hub / 82801GBM ICH7-M I/O Controller Hub (SATA300, ATA-100 EIDE, PCI Express x1, PCI bus, USB, LPC interface, [Bluetooth], [fingerprint]) / PCI bus (Ricoh® R5C843 CardBus/1394/SD controller) / LPC bus (PC87382 Super I/O, Atmel® 97SC3203 TPM)												
Media slice	Optional <b>ThinkPad X60 Tablet UltraBase</b> (see right side)												
Secure Digital slot PC Card Std slot Ports	One <b>Secure Digital Card</b> slot / supports SD memory cards used in consumer devices One Type I or one Type II / <b>CardBus Plus</b> (34mm ExpressCard via adapter) / door Three USB (version 2.0) / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / IEEE 1394 port (4-pin) / no serial, parallel, keyboard/mouse ports										<b>License</b> - CD not included - Lotus® Notes® Stand-alone Client		
Wireless antenna Mini PCI Express 11a/b/g <sup>32</sup> WWAN	UltraConnect™ Antenna built into the display cover / on-off switch for all wireless radios Two Mini PCI Express slots / only 802.11 wireless is customer upgradable 11a/b/g wireless <sup>4</sup> , ThinkPad 11a/b/g Mini PCIe Adapter, Atheros AR5006EX None										<b>Supports ThinkVantage® technologies</b>  <b>ThinkPad X60 Tablet UltraBase</b> <ul style="list-style-type: none"> <li>• Provides desktop expansion and cable mgmt for X60 Tablet</li> <li>• Connects to the bottom of tablet</li> <li>• Converts tablet to a two-spindle system with optional flat bezel Ultrabay Slim options in right side:                             <ul style="list-style-type: none"> <li>- ThinkPad Advanced Ultrabay Battery 3-cell (flat bezel) 40Y6789</li> <li>- ThinkPad DVD Ultrabay Slim Burner (flat bezel) 41N5643</li> <li>- Serial Hard Drive Ultrabay Slim Adapter (flat bezel) 40Y8725</li> </ul> </li> <li>• SATA disks supported (some):                             <ul style="list-style-type: none"> <li>• 60GB Disk 7200 rpm 41N3012</li> <li>• 80GB Disk 5400 rpm 41N5662</li> <li>• 100GB Disk 7200 rpm 41N3013</li> </ul> </li> </ul>		
Bluetooth™ Ethernet Audio support	Bluetooth 2.0 wireless / USB 2.0 interface via ICH7-M / LED indicator Gigabit ethernet on systemboard / Intel 82573L (MAC/PHY) / PCIe x1 / PXE High Definition (HD) Audio / AD1981HD codec / mono speaker 0.5 watt / volume down, up, mute buttons / internal microphone / mic input jack (pink) / headphone jack (green)												
Security Security chip	Power-on password / hard disk password / supervisor password / security keyhole <b>Trusted Platform Module</b> / Atmel chip / TCG 1.2-compliant												
Fingerprint reader	<b>Fingerprint reader</b> on right base of display / use in tablet or notebook mode / 2-way swipe sensor / supports the security chip												
Limited warranty <sup>12</sup>	<b>3-year/1-year battery, limited onsite service<sup>24</sup>, 8 am - 5 pm, Mon - Fri coverage</b> excluding holidays, next business day response time												
512 MB PC2-5300 DDR2 CL5 SODIMM	40Y7733	ThinkPad X60 Tablet UltraBase	41U3120										
1GB PC2-5300 DDR2 CL5 SODIMM	40Y7734	ThinkPad X60 Tablet Digitizer Pen	41U3143										
2GB PC2-5300 DDR2 SODIMM	40Y7735	ThinkPad X60 Tether (3-pack)	41U4820										
USB Gemplus GemPC Smart Card Reader	41N3040	X60 Tablet Li-Ion Battery 4-cell	40Y8314										
USB 2.0 Lenovo Multimedia Headset	40Y8518	X60 Tablet Li-Ion Battery 8-cell	40Y8318										
USB 2.0 Lenovo Webcam	40Y8519	ThinkPad X60 Extended Life Battery	40Y7005										
USB 2.0 Security Memory Key 2GB	41U5119	ThinkPad External Battery Charger	40Y7625										
USB 2.0 Security Memory Key 4GB	41U5120	ThinkPad 65W AC Adapter	40Y7696										
USB 2.0 Portable 120GB Hard Disk	41N8379	ThinkPad X60 Tablet Sleeve	41U3142										
USB 2.0 Super Multi-Burner Drive	41N5565	ThinkPad Carrying Case - Backpack	73P3599										
100GB Disk 9.5mm SATA150 (7200 rpm)	41N3013	ThinkPad Carrying Case - Expander	73P3597										
TrackPoint Cap Collection	73P2698	Lenovo L191 19" Monitor (black)	6135AB1										
Enh Perf Wireless Keyboard and Mouse	73P4067	Lenovo D221 Wide 22" Monitor (black)	6622HB1										
Other accessories on O-X60-T sheet	Other accessories at <a href="http://lenovo.com/accessories">lenovo.com/accessories</a>										65-watt AC Adapter		

See footnotes for important warranty information  
 US models announced April 10, 2007  
 US models withdrawn effective July 2007

© Lenovo  
 (DL1-10) August 2007

# ThinkPad® X60 Tablet (6366) - TopSeller - withdrawn

Created by Lenovo Training Solutions  
Personal Systems Reference (PSREF)

Type-model	Processor	GHz	Memory	Screen	SATA disk	Optical in UltraBase	X6 Tablet UltraBase	802.11 wireless	WWAN wireless	Blue tooth	Fingerprt reader	Battery cells	Limited warranty <sup>12</sup>	Avail date
6366-4DU	Core Duo L2400	1.66	1GB	12.1" XGA	80GB			*Intel 11a/b/g <sup>32</sup>			Finger	4-cell	3-yr	Dec 06
6366-AJU	Core Duo L2500	1.83	2GB	12.1" SXGA+	100G	DVD±RW	UltraBase	*Intel 11a/b/g		Blue	Finger	8-cell	3-yr	Dec 06
6366-6AU	Core Duo L2500	1.83	1GB	12.1" XGA	80GB	Combo	UltraBase	*Intel 11a/b/g		Blue	Finger	4-cell	3-yr	Dec 06
6366-8KU	Core Duo L2500	1.83	1GB	12.1" XGA Touch	100G			Thinkpad 11n <sup>28</sup>		Blue	Finger	8-cell	3-yr	Dec 06
6366-98U	Core Duo L2500	1.83	2GB	12.1" XGA Touch	120G	DVD±RW	UltraBase	*Intel 11a/b/g	Verizon	Blue	Finger	8-cell	3-yr	Dec 06

- These small and medium business (SMB) models are part of the US TopSeller™ Program
- These models have a 3-year limited warranty<sup>12</sup>

Positioning Processor	<b>Convertible tablet; one spindle Intel® Core™ Duo processor L2400 or L2500</b> with low voltage, dual-core, Enhanced Intel SpeedStep™ technology <sup>1</sup> , Execute Disable Bit, 667MHz system bus, and 2MB shared L2 cache										<b>SOFTWARE<sup>14</sup></b>			
Memory	<b>1GB or 2GB</b> std / 4GB max <sup>31</sup> / PC2-5300 667MHz DDR2 / non-parity / CL5 / dual-channel capable / two 200-pin SO-DIMM sockets / <b>4DU/AJU/6AU/98U:</b> standard memory in both sockets; no sockets avail; <b>8KU:</b> standard memory in 1 socket; 1 socket available										<b>Windows XP Tablet</b> - Microsoft® Windows® XP Tablet PC Edition 2005 <sup>20</sup> ⇨ Disk-to-Disk Recovery  <b>Preloaded</b> (only some listed) • Microsoft Office OneNote® 2003 • Microsoft Education Pack • Microsoft Experience Pack • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • ThinkVantage System Update • Symantec® Client Security™ • Diskeeper Lite • PC-Doctor™ (diagnostics) • Fingerprint Software • InterVideo VirtualDrive CD/DVD Emulator  <b>Free trial</b> • Zinio Reader  <b>CD included</b> • Microsoft Office OneNote 2003  <b>License</b> (CD not included) - Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client			
Ultrabay™ Slim EIDE DVD±RW Serial ATA disk (SATA150)	Supports Ultrabay™ Slim devices in optional <b>ThinkPad X6 Tablet UltraBase</b> Some: DVD-ROM/CD-RW / 24X/24X/24X/8X <sup>21</sup> speed / removable from <b>X6 UltraBase</b> Some: DVD burner / Super Multi-Burner (40Y8623) / dual-layer / removable from <b>X6 80GB</b> (5400 rpm), <b>100GB</b> (5400 rpm), or <b>120GB</b> (5400 rpm) / 9.5mm high / removable and upgradable / 9.5mm high bay / <b>ThinkPad Shock Mounted Hard Drive / Active Protection System™</b> / supports 2nd disk in optional <b>X6 Tablet UltraBase</b>													
Display	Some: <b>12.1"</b> (307mm) <b>XGA (1024x768)</b> TFT color / 4:3 / 185 nits / 170° viewing Some: <b>12.1"</b> (307mm) <b>SXGA+ (1400x1050)</b> TFT color / 4:3 / 180 nits / 170° viewing Touch: <b>12.1"</b> (307mm) <b>XGA (1024x768)</b> TFT color / 4:3 / 150 nits / 170° viewing / <b>MultiView</b> (indoor/outdoor), <b>MultiTouch</b> (touchscreen via finger and pen) All: Super Wide Angle FFS / anti-reflective and anti-glare protective coatings / <b>write on screen with standard digitizer pen</b> / pen holder in front base / <b>rotate and swivel hinge</b> in middle bottom of display for tablet mode (portrait or landscape) or picture frame mode (keyboard faces away from user) / buttons on display bottom (power, lock, reboot, rotation, utility, Esc, NavDial/enter)													
Graphics	<b>Intel Graphics Media Accelerator 950 (GMA 950)</b> / integrated in 945GM / 200MHz / external monitor support via analog DB-15 connector / no DVI-out support													
Keyboard TrackPoint®	89-key / ThinkVantage button / spill-resistant / multimedia Fn keys / Windows, Appl keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar <sup>13</sup> , magnifying glass													
Dimensions <sup>3</sup>	4-cell: 10.8" x 9.6" x 1.1-1.3"; 274mm x 244mm x 27.4-33.1mm 8-cell: 10.8" x 10.5" x 1.1-1.3"; 274mm x 267mm x 27.4-33.1mm													
Weight <sup>2</sup>	4-cell: 3.7 to 4.1 lb (1.7 to 1.9kg); 8-cell: 4.2 to 4.6lb (1.9 to 2.1kg)													
Case material	Color: black; All: magnesium alloy													
Battery - type	Li-Ion <b>4-cell</b> or <b>8-cell</b> / supports optional Extended Life Battery on base (for two batteries); supports optional Ultrabay Slim battery in optional <b>X6 Tablet UltraBase</b> (for two batteries)										Supports ThinkVantage® technologies			
Battery - life <sup>10</sup>	with 4-cell: up to 3.3 hr; with 8-cell: up to 7.5 hr; 8-cell and Ultrabay Slim: up to 8.5 hr with 8-cell and optional <b>Extended Life Battery</b> : up to 9.5 hr										<b>ThinkPad X6 Tablet UltraBase</b> • Provides desktop expansion and cable mgmt for X60 Tablet • Connects to the bottom of tablet • Converts tablet to a two-spindle system with optional flat bezel Ultrabay Slim options in right side: - ThinkPad Advanced Ultrabay Battery 3-cell (flat bezel) 40Y6789 - CD-RW/DVD Combo II Ultrabay Slim Drive (flat bezel) 40Y8621 - DVD-ROM Ultrabay Slim Drive (curved bezel) 73P3270 - ThinkPad DVD Ultrabay Slim Burner (flat bezel) 41N5643 - Serial Hard Drive Ultrabay Slim Adapter (flat bezel) 40Y8725 SATA disks supported (some): • 60GB Disk 7200 rpm 41N3012 • 80GB Disk 5400 rpm 41N5662 • 100GB Disk 7200 rpm 41N3013  Other features: • Power button (front) • Stereo speakers (1 watt) • Security key lock, security keyhole, and optional security screw • Serial and parallel ports • Analog DB-15 monitor port (no DVI) • Four USB 2.0 ports • Gigabit ethernet port (RJ-45) • Modem port (RJ-11) • Microphone in and headphone out • Requires 65- or 90-watt AC adapter • 1.48 lb; 670g  65-watt AC Adapter			
Architecture	<b>Mobile Intel 945GM Express Chipset</b> / 82945GM Graphics Memory Controller Hub / 82801GBM ICH7-M I/O Controller Hub (SATA300, ATA-100 EIDE, PCI Express x1, PCI bus, USB, LPC interface, [Bluetooth], [fingerprint]) / PCI bus (Ricoh® R5C843 CardBus/1394/SD controller) / LPC bus (PC87382 Super I/O, Atmel® 97SC3203 TPM)													
Docking station	Optional <b>ThinkPad X6 Tablet UltraBase</b> (see right side)													
Secure Digital slot	One <b>Secure Digital Card</b> slot / supports SD memory cards used in consumer devices													
PC Card Std slot	One Type I or one Type II / <b>CardBus Plus</b> (34mm ExpressCard via adapter) / door													
Ports	Three USB (version 2.0) / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / IEEE 1394 port (4-pin) / no serial, parallel, keyboard/mouse ports													
Wireless antenna	UltraConnect™ Antenna built into the display cover / on-off switch for all wireless radios													
Mini PCI Express	Two Mini PCI Express slots / only 802.11 wireless is customer upgradable													
Intel 11a/b/g <sup>32</sup>	Some: 11a/b/g wireless <sup>4</sup> , Mini PCI Express adapter, Intel PRO/Wireless 3945ABG													
ThinkPad 11n <sup>28</sup>	Some: 11a/b/g/n wireless <sup>4</sup> , ThinkPad 11a/b/g/n Mini PCI Express Adapter, Atheros AR5008 chipset, MIMO 2x3													
WWAN <sup>16</sup>	Some: Wireless WAN, Sierra Wireless 1xEV-DO Network Adapter, Mini PCIe Adapter, EV-DO/1xRTT, WWAN antenna on display, service contract reqd with Verizon® Wireless													
Modem	56K® V.90 (V.92-designed <sup>29</sup> ) modem in Communication Daughter Card													
Bluetooth™	Some: Bluetooth 2.0 wireless / USB 2.0 interface via ICH7-M / LED indicator													
Ethernet	Gigabit ethernet on systemboard / Intel 82573L (MAC/PHY) / PCIe x1 / PXE													
Audio support	High Definition (HD) Audio / AD1981HD codec / mono speaker 0.5 watt / volume down, up, mute buttons / internal microphone / mic input jack (pink) / headphone jack (green)													
Security	Power-on password / hard disk password / supervisor password / security keyhole													
Security chip	<b>Trusted Platform Module</b> / Atmel chip / TCG 1.2-compliant													
Fingerprint reader	<b>Fingerprint reader</b> on right base of display / use in tablet or notebook mode / 2-way swipe sensor / supports the security chip													
Limited warranty <sup>12</sup>	<b>3-years/1-yr battery</b> - EasyServ™ <sup>19</sup> onsite pickup and delivery / service upgrades <sup>22</sup> avail													
512MB PC2-5300 DDR2 CL5 SODIMM	40Y7733			ThinkPad X6 Tablet UltraBase				41U3120						
1GB PC2-5300 DDR2 CL5 SODIMM	40Y7734			ThinkPad X60 Tablet Sleeve				41U3142						
2GB PC2-5300 DDR2 SODIMM	40Y7735			ThinkPad X60 Tablet Digitizer Pen				41U3143						
Other accessories on O-X60-T sheet				Other accessories at <a href="http://lenovo.com/accessories">lenovo.com/accessories</a>										

See footnotes for important warranty information  
US models announced November 14, 2006  
US models withdrawn effective July 2007

\* Powered by Intel Centrino® Duo mobile technology

© Lenovo  
(DL1-4) August 2007

# ThinkPad® X60 Tablet (6366) - TopSeller (January 2007) - withdrawn

Personal Systems Reference (PSREF)

Type-model	Processor	GHz	Memory	Screen	SATA disk	Optical in UltraBase	X6 Tablet UltraBase	802.11 wireless	WWAN wireless	Blue-tooth	Fingerprt reader	Battery cells	Limited warranty <sup>12</sup>	Avail date
6366-F6U	Core Duo L2400	1.66	1GB	12.1" XGA	80GB	Optional	Optional	*Intel 11a/b/g <sup>32</sup>			Finger	4-cell	3-yr	Jan 07
6366-L5U	Core Duo L2400	1.66	1GB	12.1" XGA	80GB	Combo	UltraBase	*Intel 11a/b/g		Blue	Finger	4-cell	3-yr	Feb 07
6366-L6U	Core Duo L2400	1.66	2GB	12.1" SXGA+	100G	DVD±RW	UltraBase	*Intel 11a/b/g		Blue	Finger	4-cell	3-yr	Feb 07
6366-L4U	Core Duo L2400	1.66	2GB	12.1" XGA <i>Touch</i>	120G	DVD±RW	UltraBase	*Intel 11a/b/g	Verizon	Blue	Finger	8-cell	3-yr	Feb 07

- **These small and medium business (SMB) models are part of the US TopSeller™ Program**
- **These models have a 3-year limited warranty<sup>12</sup>**

Positioning Processor	<b>Convertible tablet; one spindle</b> <b>Intel® Core™ Duo processor L2400</b> with low voltage, <b>dual-core</b> , Enhanced Intel SpeedStep® technology <sup>1</sup> , Execute Disable Bit, 667MHz system bus, and 2MB shared L2 cache										<b>Preloaded operating system<sup>20</sup></b> - Microsoft® Windows® Vista™ Business Edition (32-bit) ↳ Vista Premium logo				
Memory	<b>1GB</b> or <b>2GB</b> std / 4GB max <sup>31</sup> / PC2-5300 667MHz DDR2 / non-parity / CL5 / dual-channel capable / two 200-pin SO-DIMM sockets / standard memory in both sockets / no sockets available										<b>Preloaded applications<sup>14</sup></b> • Microsoft Office OneNote® 2003 • Microsoft Education Pack • Microsoft Experience Pack • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center with Away Manager • ThinkVantage System Update • System Migration Assistant • Norton Internet Security™ (90 days of virus definitions) • Diskeeper® Home • PC-Doctor™ (diagnostics) • ThinkPad Utilities (Power Manager and Presentation Director) • Picasa from Google • Fingerprint Software (fingerprint models) • InterVideo VirtualDrive CD/DVD Emulator				
Ultrabay™ Slim EIDE Combo EIDE DVD±RW Serial ATA disk (SATA150)	<i>Some:</i> Supports Ultrabay™ Slim devices in optional <i>ThinkPad X6 Tablet UltraBase</i> <i>Some:</i> DVD-ROM/CD-RW / 24X/24X/24X/8X <sup>21</sup> speed / removable from <i>X6 UltraBase</i> <i>Some:</i> DVD burner / Super Multi-Burner (40Y8623) / dual-layer / removable from <i>X6 80GB</i> (5400 rpm), <b>100GB</b> (5400 rpm), or <b>120GB</b> (5400 rpm) / 9.5mm high / removable and upgradable / 9.5mm high bay / <b>ThinkPad Shock Mounted Hard Drive / Active Protection System™</b> / supports 2nd disk in optional <i>X6 Tablet UltraBase</i>										<b>CD included</b> • Microsoft Office OneNote 2003  Supports ThinkVantage® technologies  <b>ThinkPad X6 Tablet UltraBase</b> • Provides desktop expansion and cable mgmt for X60 Tablet • Connects to the bottom of tablet • Converts tablet to a two-spindle system with optional flat bezel Ultrabay Slim options in right side: - ThinkPad Advanced Ultrabay Battery 3-cell (flat bezel) 40Y6789 - CD-RW/DVD Combo II Ultrabay Slim Drive (flat bezel) 40Y8621 - DVD-ROM Ultrabay Slim Drive (curved bezel) 73P3270 - ThinkPad DVD Ultrabay Slim Burner (flat bezel) 41N5643 - Serial Hard Drive Ultrabay Slim Adapter (flat bezel) 40Y8725 SATA disks supported (some): • 100GB Disk 7200 rpm 41N3013 • 160GB Disk 7200 rpm 41N5737 • 250GB Disk 5400 rpm 43R8152  Other features: • Power button (front) • Stereo speakers (1 watt) • Security key lock, security keyhole, and optional security screw • Serial and parallel ports • Analog DB-15 monitor port (no DVI) • Four USB 2.0 ports • Gigabit ethernet port (RJ-45) • Modem port (RJ-11) • Microphone in and headphone out • Requires 65- or 90-watt AC adapter • 1.48 lb; 670g  65-watt AC Adapter				
Display	<i>Some:</i> <b>12.1"</b> (307mm) <b>XGA (1024x768)</b> TFT color / 4:3 / 185 nits / 170° viewing <i>Some:</i> <b>12.1"</b> (307mm) <b>SXGA+ (1400x1050)</b> TFT color / 4:3 / 180 nits / 170° viewing <i>Touch:</i> <b>12.1"</b> (307mm) <b>XGA (1024x768)</b> TFT color / 4:3 / 150 nits / 170° viewing / <b>MultiView</b> (indoor/outdoor), <b>MultiTouch</b> (touchscreen via finger and pen) <i>All:</i> Super Wide Angle FFS / anti-reflective and anti-glare protective coatings / <b>write on screen with standard digitizer pen</b> / pen holder in front base / <b>rotate and swivel hinge</b> in middle bottom of display for tablet mode (portrait or landscape) or picture frame mode (keyboard faces away from user) / buttons on display bottom (power, lock, reboot, rotation, utility, Esc, NavDial/enter)														
Graphics	<b>Intel Graphics Media Accelerator 950 (GMA 950)</b> / integrated in 945GM / 200MHz / external monitor support via analog DB-15 connector / no DVI-out support														
Keyboard TrackPoint®	89-key / ThinkVantage button / spill-resistant / multimedia Fn keys / Windows, Appl keys TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar <sup>13</sup> , magnifying glass														
Dimensions <sup>3</sup>	4-cell: 10.8" x 9.6" x 1.1-1.3"; 274mm x 244mm x 27.4-33.1mm 8-cell: 10.8" x 10.5" x 1.1-1.3"; 274mm x 267mm x 27.4-33.1mm														
Weight <sup>2</sup>	4-cell: 3.7 to 4.1 lb (1.7 to 1.9kg); 8-cell: 4.2 to 4.6lb (1.9 to 2.1kg)														
Case material Battery - type	Color: black; <i>All:</i> magnesium alloy Li-Ion <b>4-cell</b> or <b>8-cell</b> / supports optional Extended Life Battery on base (for two batteries); supports optional Ultrabay Slim battery in optional <i>X6 Tablet UltraBase</i> (for two batteries)														
Battery - life <sup>10</sup>	<i>with 4-cell:</i> up to 3.3 hr; <i>with 8-cell:</i> up to 7.5 hr; <i>8-cell and Ultrabay Slim:</i> up to 8.5 hr <i>with 8-cell and optional Extended Life Battery:</i> up to 9.5 hr														
Chipset	<b>Mobile Intel 945GM Express Chipset</b> / 82945GM Graphics Memory Controller Hub / 82801GBM ICH7-M I/O Controller Hub (SATA300, ATA-100 EIDE, PCI Express x1, PCI bus, USB, LPC bus, [Bluetooth], [fingerprint]) / PCI bus (Ricoh® R5C843 CardBus/1394/SD controller) / LPC bus (PC87382 Super I/O, Atmel® 97SC3203 TPM) Standard or optional <b>ThinkPad X6 Tablet UltraBase</b> (see right side)														
Docking station Secure Digital slot PC Card Std slot Ports	One <b>Secure Digital Card</b> slot / supports SD memory cards used in consumer devices One Type I or one Type II / <b>CardBus Plus</b> (34mm ExpressCard via adapter) / door Three USB (version 2.0) / external <b>DB-15</b> monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / IEEE 1394 port (4-pin) / no serial, parallel, keyboard/mouse ports														
Wireless antenna Mini PCI Express Intel 11a/b/g <sup>32</sup> WWAN <sup>16</sup>	UltraConnect™ Antenna built into the display cover / on-off switch for all wireless radios Two Mini PCI Express slots / only 802.11 wireless is customer upgradable 11a/b/g wireless <sup>4</sup> , Mini PCI Express adapter, Intel PRO/Wireless 3945ABG <i>Some:</i> Wireless WAN, Sierra Wireless 1xEV-DO Network Adapter, Mini PCIe Adapter, EV-DO Rev. 0, WWAN antenna on display, service contract reqd with Verizon® Wireless 56K V.90 (V.92-designed <sup>29</sup> ) modem in Communication Daughter Card														
Modem Bluetooth™ Ethernet Audio support	<i>Some:</i> Bluetooth 2.0 wireless / USB 2.0 interface via ICH7-M / LED indicator Gigabit ethernet on systemboard / Intel 82573L (MAC/PHY) / PCIe x1 / PXE High Definition (HD) Audio / AD1981HD codec / mono speaker, 0.5 watt / volume down, up, mute buttons / internal microphone / mic input jack (pink) / headphone jack (green) Power-on password / hard disk password / supervisor password / security keyhole														
Security Security chip Fingerprint reader	<b>Trusted Platform Module</b> / Atmel chip / TCG 1.2-compliant <b>Fingerprint reader</b> on right base of display / use in tablet or notebook mode / 2-way swipe sensor / supports the security chip														
Limited warranty <sup>12</sup>	<b>3-years/1-yr battery</b> - EasyServ™ <sup>19</sup> depot repair service / service upgrades <sup>22</sup> available														
1GB PC2-5300 DDR2 SODIMM	40Y7734	ThinkPad X6 Tablet UltraBase	41U3120												
2GB PC2-5300 DDR2 SODIMM	40Y7735	ThinkPad X60 Tablet Digitizer Pen	41U3143												
USB Portable Diskette Drive	05K9276	ThinkPad X60 Tether (3-pack)	41U4820												
USB 2.0 Security Memory Key 4GB	41U5120	X60 Tablet Li-Ion Battery 4-cell	40Y8314												
USB 2.0 Super Multi-Burner Drive	41N5565	X60 Tablet Li-Ion Battery 8-cell	40Y8318												
250GB Disk 9.5mm SATA150 (5400 rpm)	43R8152	ThinkPad X60 Tablet Sleeve	41U3142												
USB 2.0 Lenovo Enhanced Port Replicator	43R8770	ThinkPlus™.22 2-year LOR 9x5 NBD	41C9175												
Other accessories on O-X60-T sheet	Other accessories at <b>lenovo.com/accessories</b>														

See footnotes for important warranty information  
US models announced January 30 or February 22, 2007  
US models withdrawn effective July 2007 or April 2008

\* Intel Centrino® processor technology

© Lenovo  
(DL1-7) April 2008

# ThinkPad® G40 (January 2004) - withdrawn

Created by Lenovo Training Solutions  
Personal Systems Reference (PSREF)

Type-model	Processor	Speed GHz	Memory	Screen	Disk GB <sup>8</sup>	Optical	Mini PCI Comm Bay wireless	CDC modem	Ethernet on planar	Battery	Workhorse (W) or Global (G) or Entry (E)	Avail date
2388-DAU	Celeron®	2.4	128MB	14.1" XGA	20GB	CD	None	Modem	10/100	6-cell Li-Ion	XP Pro Entry	Jan 2004
2388-DGU	Celeron	2.4	256MB	14.1" XGA	30GB	CD	None	Modem	10/100	12-cell Li-Ion	XP Pro No	Jan 2004
2388-DMU	Celeron	2.4	256MB	14.1" XGA	30GB	Combo	None	Modem	10/100	12-cell Li-Ion	XP Pro No	Jan 2004
2388-DVU	Celeron	2.4	256MB	15.0" XGA	30GB	Combo	None	Modem	10/100	12-cell Li-Ion	XP Pro No	Jan 2004
2388-DXU	Celeron	2.4	256MB	15.0" XGA	40GB	Combo	11b Wi-Fi <sup>32</sup>	Modem	10/100	12-cell Li-Ion	XP Pro No	Jan 2004
2388-EJU	Pentium® 4	2.8	256MB	15.0" XGA	60GB	Combo	11a/b Wi-Fi <sup>27</sup>	Modem	10/100	12-cell Li-Ion	XP Pro No	Jan 2004
2388-EKU	Pentium 4	2.8	256MB	15.0" SXGA+	60GB	Combo	11a/b Wi-Fi	Modem	10/100	12-cell Li-Ion	XP Pro No	Jan 2004
2388-ENU	Pentium 4	3.0	256MB	15.0" XGA	40GB	Combo	11a/b Wi-Fi	Modem	10/100	12-cell Li-Ion	XP Pro No	Jan 2004
Positioning Processor	<i>Powerful desktop replacement; three-spindle system</i> <b>Intel® Celeron 2.4GHz<sup>37</sup></b> with 400MHz system bus or <b>Intel Pentium 4 at 2.8 or 3.0GHz<sup>37</sup></b> with 400MHz system bus										<b>SOFTWARE<sup>14</sup></b> <b>Windows XP Professional</b> - Microsoft® Windows® XP Professional <sup>20</sup> ♦ Disk-to-Disk Recovery (in hidden protected area)  <b>Preloaded</b> • Access IBM • Access Connections • Adobe Reader • Rapid Restore™ PC • RecordNOW and Drive Letter Access (combo models) • InterVideo WinDVD (combo) • Norton AntiVirus (OEM edition) • PC-Doctor™ • ThinkPad Utilities • Update Connector™ <sup>15</sup>  <b>Downloadable</b> • IBM Director Agent • Software Delivery Assistant • System Migration Assistant  <b>License (CD not included)</b> - Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client	
L2 cache	Celeron: <b>128KB</b> ; Pentium 4: <b>512KB</b> ; All: on die (at processor speed) / ECC											
Memory	<b>128 or 256MB</b> std / 1GB max <sup>7</sup> / <b>PC2100</b> 266MHz DDR1 / non-parity / CL2.5 / two 200-pin SO-DIMM sockets / std memory in one socket / one socket available											
Diskette drive	3.5" 1.44MB / fixed, not removable / 12.7mm high											
CD	<i>Some:</i> CD-ROM / 24X-10X <sup>9</sup> speed / fixed, not removable / 12.7mm high											
Combo	<i>Some:</i> DVD-ROM/CD-RW / 24X/10X/24X/8X <sup>21</sup> speed / fixed, not removable / 12.7mm											
Disk	<b>20GB<sup>8</sup> or 40GB or 60GB</b> , 4200 rpm, 9.5mm high / removable / 9.5mm high bay											
Display	<i>Some:</i> <b>14.1"</b> (358.1mm) <b>XGA (1024x768) TFT color</b> / Active Matrix / 150 nits <i>Some:</i> <b>15.0"</b> (381.0mm) <b>XGA (1024x768) TFT color</b> / Active Matrix / 150 nits <i>Some:</i> <b>15.0"</b> (381.0mm) <b>SXGA+ (1400x1050) TFT color</b> / Active Matrix / 150 nits <i>All:</i> one latch to unlatch and open with one hand											
Graphics	<b>Integrated Intel Extreme™ Graphics</b> / Direct AGP / in 852GM GMCH / uses main memory (8 to 32MB with 128MB memory; 8 to 64MB with 256MB+) / 133MHz / DMVT											
Graphics external	External monitor support via analog DB-15 connector / up to 1600x1200 at 85Hz / DDC2B											
EasyPivot	ThinkPad EasyPivot base allows smooth positioning for a comfortable viewing angle											
Keyboard	87-key / Access IBM button / palm rest / pitch: 19mm; stroke: 2.7mm (std-size keys)											
ComfortSlant	ThinkPad ComfortSlant keyboard with built-in incline provides maximum typing comfort											
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar <sup>13</sup> , magnifying glass / soft dome TrackPoint cap / ships with classic dome and soft rim TrackPoint cap											
Touch pad	No touch pad (UltraNav™ multi-pointing system) / no ThinkLight™											
Dimensions <sup>3</sup>	12.9" x 11.1" x 1.5-2.0"; 329mm x 282.5mm x 37.1-50.9mm; <i>Volume:</i> 4 liters											
Weight <sup>2</sup>	with optical drive and battery: <i>DAU:</i> 7.64 lb (3.47kg); <i>DGU:</i> 8.24 lb (3.75kg); <i>DMU:</i> 8.36 lb (3.80kg); <i>DVU/DXU/EJU:</i> 8.54 lb (3.88kg); <i>EKU:</i> 8.58 lb (3.90kg); <i>ENU:</i> 8.85 lb (4.02kg);											
Case material	<i>Color:</i> black; <i>All:</i> Acrylonitrile-Butadiene-Styrene/Polycarbonate (ABS/PC) plastic											
Battery - type	Lithium Ion 6 or 12-cell / intelligent / removable											
Battery - life <sup>10</sup>	<i>DAU:</i> 1.50 hr; <i>DGU/DMU/DVU/DXU:</i> 3.0 hr; <i>EJU/EKU:</i> 2.8 hr; <i>ENU:</i> 2.0 hr											
Architecture	<b>Intel 852GM</b> chipset / 82852GM Graphics Memory Controller Hub (GMCH) / 82801DBM ICH4-M I/O Controller Hub (ATA-100 EIDE, PCI bus, ethernet MAC, Low Pin Count (LPC) interface, USB, Firmware Hub) / PCI bus 2.2 32-bit, 33MHz (TI® PCI1410A CardBus controller, Mini PCI) / LPC bus 33MHz (PC87393F Super I/O for diskette, parallel, PS/2)											
PC Card Std slots	One Type I, one Type II, or one Type III / CardBus 32-bit / PCMCIA 2.1 / integrated door											
Ports	Four USB (Version 2.0) / parallel / external monitor (DB-15) / RJ-11 (modem) / RJ-45 (ethernet) / PS/2 (for keyboard or mouse) / no serial or infrared											
Video out	No video out port											
IEEE 1394	None											
Wireless antenna	<i>Some (wireless models):</i> UltraConnect™ Antenna built into the display cover											
Mini PCI	One Mini PCI type III slot (Communications Bay) / not customer upgradable											
None	<i>Some:</i> empty / not customer upgradable											
11b Wi-Fi <sup>32</sup>	<i>Some:</i> 11b Wi-Fi <sup>32</sup> wireless <sup>4</sup> , Mini PCI, Intersil® Prism 2.5 chipset											
11a/b Wi-Fi <sup>27</sup>	<i>Some:</i> 11a/b Wi-Fi <sup>27</sup> wireless <sup>4</sup> , Mini PCI, Atheros™ AR5001X chipset											
CDC	One Communications Daughter Card (CDC) socket (used by modem) / not accessible											
Modem	56K <sup>6</sup> V.90 (V.92-designed <sup>29</sup> ) modem in CDC / Agere® chipset											
Bluetooth	None											
Ethernet	10/100 ethernet on planar / Broadcom® BCM5901 (PHY/MAC) / PXE / Wake on LAN®											
Audio support	Soft audio / ICH AC97 controller / DirectSound® support / AD1981B AC97 codec / mono speaker / 2 watt / volume up, down, mute buttons / no internal mic / microphone input jack (3.5 mm) / headphone jack (3.5 mm) / no line in jack											
Security	Power-on password / hard disk password / supervisor password / security keyhole											
Security chip	None											
Limited warranty <sup>12</sup>	<b>1 year</b> - EasyServ™ <sup>19</sup> onsite pickup and delivery											
128 MB PC2700 DDR-SDRAM CL2.5 SOD	31P9828	ThinkPad G40 Li-Ion Battery 12-cell	08K8178	ServicePac® <sup>22</sup> 1yr IOR 9x5 NBD	30L9188							
256 MB PC2700 DDR-SDRAM CL2.5 SOD	31P9830	ThinkPad 120W AC Adapter	22P9150	ServicePac 2 yr IOR 9x5 NBD	30L9189							
512 MB PC2700 DDR-SDRAM CL2.5 SOD	31P9832	H Rate Wireless LAN PC Card 128	09N9904	ServicePac 3 yr IOR 9x5 NBD	30L9195							
USB 2.0 Combo Drive	73P4515	11a/b/g Wireless CardBus Adapter	31P9101	ServicePac 4 yr IOR 9x5 NBD	30L9194							
USB 2.0 Portable Multi-Burner	22P9163	ThinkPad Monitor Stand 2001	22P5265	ServicePac 5 yr IOR 9x5 NBD	30L9196							
USB 2.0 Portable 80GB Hard Disk	40Y8726	ThinkPad Nylon Carrying Case	10K0207	ServicePac 2 yr P&L P/U Depot	30L9191							
USB 2.0 Memory Key 256MB	22P9228	ThinkPad Leather Carrying Case	10K0209	ServicePac 3 yr P&L P/U Depot	30L9192							
USB 2.0 Memory Key 512MB	22P9230	Keyboard/Mouse Connector	07G3793	ServicePac 4 yr P&L P/U Depot	69P9195							
Optical 3-Button Travel Wheel Mouse	31P7410	USB Keyboard with UltraNav	31P8950	ServicePac 5 yr P&L P/U Depot	69P9197							
Optical 3-Button ScrollPoint Pro Mouse	31P8700	Enhanced Performance USB Keyboard	73P2620	Other ServicePac options at								
USB Serial Parallel Adapter	22P5298	ThinkVision® E500 Projector	0038A04	<b>ibm.com/services/its/us/source/wamomxeu.pdf</b>								
TrackPoint Cap Collection	73P2698	Other options at <b>lenovo.com/options</b>		Post-warranty annual maintenance agreements at								
GemPC400 Smart Card Reader/Writer	31P8901			<b>ibm.com/services/its/us/source/maspspleu.pdf</b>								

See footnotes for important warranty information  
US models announced January 20, 2004  
US models withdrawn effective January or December 2005



# ThinkPad® G40 (Express) - withdrawn

Created by Lenovo Training Solutions  
Personal Systems Reference (PSREF)

Type-model	Processor	Speed GHz	Memory	Screen	Disk GB <sup>8</sup>	Optical	Mini PCI Comm Bay wireless	CDC modem	Ethernet on planar	Battery	Preload	Small and medium business	Avail date
2384-31U	Celeron®	2.0	256MB	15.0" XGA	20GB	DVD	None	Modem	10/100	12-cell Li-Ion	XP Pro	Yes	May 2003
2384-32U	Pentium® 4	2.4	256MB	15.0" XGA	40GB	Combo	None	Modem	10/100	12-cell Li-Ion	XP Pro	Yes	May 2003
2384-33U	Pentium 4	2.4	256MB	15.0" XGA	40GB	Combo	11b Wi-Fi <sup>32</sup>	Modem	10/100	12-cell Li-Ion	XP Pro	Yes	May 2003
2384-34U	Pentium 4	2.2	256MB	15.0" XGA	40GB	Combo	None	Modem	10/100	12-cell Li-Ion	XP Pro	Yes	Aug 2003
2384-89U	Celeron	2.2	256MB	15.0" XGA	30GB	DVD	None	Modem	10/100	12-cell Li-Ion	XP Pro	Yes	Oct 2003
2384-A9U	Pentium 4	2.6	256MB	15.0" XGA	40GB	Combo	None	Modem	10/100	12-cell Li-Ion	XP Pro	Yes	Oct 2003
2384-B9U	Pentium 4	3.0	256MB	15.0" XGA	40GB	Combo	11a/b Wi-Fi <sup>27</sup>	Modem	10/100	12-cell Li-Ion	XP Pro	Yes	Oct 2003
2384-7NU	Celeron	2.2	256MB	14.1" XGA	30GB	Combo	None	Modem	10/100	12-cell Li-Ion	XP Pro	Yes	Oct 2003
2384-9JU	Pentium 4	2.6	256MB	14.1" XGA	30GB	Combo	None	Modem	10/100	12-cell Li-Ion	XP Pro	Yes	Oct 2003
2384-ATU	Pentium 4	2.6	256MB	15.0" XGA	40GB	Combo	11a/b Wi-Fi	Modem	10/100	12-cell Li-Ion	XP Pro	Yes	Oct 2003
2384-ANU	Pentium 4	2.6	256MB	15.0" XGA	30GB	Combo	None	Modem	10/100	12-cell Li-Ion	XP Pro	Yes	Oct 2003

**These small and medium business (SMB) models are part of the US Think Express Program**

Positioning	<b>Powerful desktop replacement; three-spindle system</b>										<b>SOFTWARE<sup>14</sup></b>		
Processor	Intel® Celeron 2.0 or 2.2GHz <sup>37</sup> with 400MHz system bus or Intel Pentium 4 at 2.2, 2.4, 2.6, or 3.0GHz <sup>37</sup> with 400MHz system bus										<b>Windows XP Professional</b>		
L2 cache	Celeron: 128MB; Pentium 4: 512KB; All: on die (at processor speed) / ECC										- Microsoft® Windows® XP Professional <sup>20</sup>		
Memory	256MB std / 1GB max <sup>7</sup> / PC2100 266MHz DDR1 (DDR-SDRAM) / non-parity / CL2.5 / two 200-pin SO-DIMM sockets / std memory in one socket / one socket available										◇ Disk-to-Disk Recovery (in hidden protected area)		
Diskette drive	3.5" 1.44MB / fixed, not removable / 12.7mm high										<b>Preloaded</b>		
DVD	Some: DVD-ROM / 24X-8X <sup>9</sup> speed / fixed, not removable / 12.7mm high										• Access IBM		
Combo Disk	Some: DVD-ROM/CD-RW / 24X/10X/24X/8X <sup>21</sup> speed / fixed, not removable / 12.7mm 20GB <sup>8</sup> , 30GB, or 40GB / 4200 rpm / 9.5mm high / removable / 9.5mm high bay										- Access Connections		
Display	Some: 14.1" (358.1mm) XGA (1024x768) TFT color / Active Matrix / 150 nits Some: 15.0" (381.0mm) XGA (1024x768) TFT color / Active Matrix / 150 nits All: one latch to unlatch and open with one hand										• Adobe Reader		
Graphics	<b>Integrated Intel Extreme™ Graphics</b> / Direct AGP / in 852GM GMCH / uses main memory (8 to 32MB with 128MB memory; 8 to 64MB with 256MB+) / 133MHz / DMVT										• Rapid Restore™ PC		
Graphics external	External monitor support via analog DB-15 connector / up to 1600x1200 at 85Hz / DDC2B										• RecordNOW and DLA by Veritas (combo models)		
EasyPivot	ThinkPad EasyPivot base allows smooth positioning for a comfortable viewing angle										• Norton AntiVirus (OEM edition)		
Keyboard	87-key / Access IBM button / palm rest / pitch: 19mm; stroke: 2.7mm (std-size keys)										• PC-Doctor™		
ComfortSlant	ThinkPad ComfortSlant keyboard with built-in incline provides maximum typing comfort										• ThinkPad Utilities		
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar <sup>13</sup> , magnifying glass / soft dome TrackPoint cap / ships with classic dome and soft rim TrackPoint cap										• Update Connector™ <sup>15</sup>		
Touch pad	No touch pad (UltraNav™ multi-pointing system) / no ThinkLight™										<b>Downloadable</b>		
Dimensions <sup>3</sup>	12.9" x 11.1" x 1.5-2.0"; 329mm x 282.5mm x 37.1-50.9mm; Volume: 4 liters										• IBM Director Agent		
Weight <sup>2</sup>	with optical drive and battery: 34U: 7.9 lb (3.6kg); Others: 8.36 to 8.54 lb (3.79 to 3.87kg)										• Software Delivery Assistant		
Case material	Color: black; All: Acrylonitrile-Butadiene-Styrene/Polycarbonate (ABS/PC) plastic										• System Migration Assistant		
Battery - type	Lithium Ion 12-cell / intelligent / removable										<b>License</b> (CD not included)		
Battery - life <sup>10</sup>	89U: 3.0 hr; 32U/33U: 3.3 hr; Others: 3.0 hr										- Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client		
Architecture	Intel 852GM chipset / 82852GM Graphics Memory Controller Hub (GMCH) / 82801DBM ICH4-M I/O Controller Hub (ATA-100 EIDE, PCI bus, ethernet MAC, Low Pin Count (LPC) interface, USB, Firmware Hub) / PCI bus 2.2 32-bit, 33MHz (TI® PCI1410A CardBus controller, Mini PCI) / LPC bus 33MHz (PC87393F Super I/O for diskette, parallel, PS/2)										Universal 120 watt AC adapter		
PC Card Std slots	One Type I, one Type II, or one Type III / CardBus 32-bit / PCMCIA 2.1 / integrated door										Asset ID™ <sup>24</sup> (system-specific info in chip accessed over network)		
Ports	Four USB (Version 2.0) / parallel / external monitor (DB-15) / RJ-11 (modem) / RJ-45 (ethernet) / PS/2 (for keyboard or mouse) / no serial or infrared port										PC 2001 and PXE 2.0-compliant		
Video out	No video out port										ACPI 1.0b and 2.0-compliant		
IEEE 1394	None										CIM and DMI 2.0-compliant		
Wireless antenna	None										ImageUltra™ Services available		
Mini PCI	One Mini PCI type III slot (Communications Bay) / not customer upgradable										International Warranty Service <sup>17</sup>		
None	Some: empty / not customer upgradable										24 hour x 7 day <sup>18</sup> toll-free warranty support during the warranty <sup>12</sup> via 800-IBM-SERV (426-7378)		
11b Wi-Fi <sup>32</sup>	Some: 11b Wi-Fi <sup>32</sup> wireless <sup>4</sup> , Mini PCI, Intersil® Prism 2.5 chipset										ServicePac® <sup>22</sup> 1yr IOR 9x5 NBD		
11a/b Wi-Fi <sup>27</sup>	Some: 11a/b Wi-Fi <sup>27</sup> wireless <sup>4</sup> , Mini PCI, Atheros™ AR5001X chipset										30L9188		
CDC	One Communications Daughter Card (CDC) socket (used by modem) / not accessible										ServicePac 2 yr IOR 9x5 NBD		
Modem	56K <sup>6</sup> V.90 (V.92-designed <sup>29</sup> ) modem in CDC / Agere® chipset										30L9189		
Bluetooth	None										ServicePac 3 yr IOR 9x5 NBD		
Ethernet	10/100 ethernet on planar / Broadcom® BCM5901 (PHY/MAC) / PXE / Wake on LAN®										30L9195		
Audio support	Soft audio / ICH AC97 controller / DirectSound® support / AD1981B AC97 codec / mono speaker / 2 watt / volume up, down, mute buttons / no internal mic / microphone input jack (3.5 mm) / headphone jack (3.5 mm) / no line in jack										ServicePac 4 yr IOR 9x5 NBD		
Security	Power-on password / hard disk password / supervisor password / security keyhole										30L9194		
Security chip	None										ServicePac 5 yr IOR 9x5 NBD		
Limited warranty <sup>12</sup>	<b>1 year</b> - EasyServ™ <sup>19</sup> onsite pickup and delivery										30L9196		
Service options	Service upgrades <sup>22</sup> provide up to five years of onsite or depot repair service coverage from date of ThinkPad purchase (including warranty period)										ServicePac 2 yr P&L P/U Depot		
128 MB PC2700 DDR-SDRAM CL2.5 SOD	31P9828				ThinkPad G40 Li-Ion Battery 12-cell				08K8178				
256 MB PC2700 DDR-SDRAM CL2.5 SOD	31P9830				ThinkPad 120W AC Adapter				22P9150				
512 MB PC2700 DDR-SDRAM CL2.5 SOD	31P9832				11a/b/g Wireless CardBus Adapter				31P9101				
USB Portable Diskette Drive	05K9276				ThinkPad Monitor Stand				22P5265				
USB 2.0 Portable Multi-Burner Drive	22P9163				ThinkPad Nylon Carrying Case				10K0207				
USB 2.0 Portable 80GB Hard Disk	40Y8726				ThinkPad Premiere Leather Carrying Case				10K0209				
USB 2.0 Memory Key 256MB	22P9228				Keyboard/Mouse Connector				07G3793				
USB 2.0 Memory Key 512MB	22P9230				USB Keyboard with UltraNav				31P8950				
Optical 3-Button ScrollPoint Pro Mouse	31P8700				M400 Projector				0037A04				
USB Serial Parallel Adapter	22P5298				Other options at <a href="http://lenovo.com/options">lenovo.com/options</a>								
											Other ServicePac options at <a href="http://ibm.com/services/its/us/source/wamomxeu.pdf">ibm.com/services/its/us/source/wamomxeu.pdf</a>		
											Post-warranty annual maintenance agreements at <a href="http://ibm.com/services/its/us/source/maspspleu.pdf">ibm.com/services/its/us/source/maspspleu.pdf</a>		

See footnotes for important warranty information

US models announced May 6, July 29, or October 7, 2003

US models withdrawn effective October 2003, April 2004, January 2005, or December 2005

© Lenovo  
(G40B) October 2005

Type-model	Processor	Speed GHz	L2 cache	Memory	Screen	Diskette drive	Disk GB <sup>8</sup>	Optical	Graphics	Mini PCI Comm Bay wireless	Ethernet on planar	Battery	Preload	Workhorse (W) Global (G) Avail Entry (E) date
2881-26U	Celeron® D 320	2.40	256K	256MB	14.1" XGA	Yes	30GB	Combo	Extreme™ 2	None	10/100	6-cell	XP Pro	No Oct 04
2881-27U	Celeron D 320	2.40	256K	256MB	14.1" XGA	No	30GB	DVD	Extreme 2	None	10/100	12-cell	XP Home	No Oct 04
2881-2GU	Celeron D 320	2.40	256K	256MB	15.0" XGA	Yes	30GB	Combo	Extreme 2	11b/g <sup>32</sup>	10/100	12-cell	XP Pro	No Oct 04
2881-36U	Celeron D 325	2.53	256K	256MB	14.1" XGA	Yes	30GB	Combo	Extreme 2	None	10/100	6-cell	XP Pro	No Oct 04
2881-3GU	Celeron D 325	2.53	256K	256MB	15.0" XGA	Yes	30GB	Combo	Extreme 2	11b/g	10/100	12-cell	XP Pro	No Oct 04
2881-3QU	Celeron D 325	2.53	256K	256MB	15.0" XGA	No	40GB	Combo	Extreme 2	None	10/100	12-cell	XP Pro	No Oct 04
2881-3NU	Celeron D 325	2.53	256K	128MB	15.0" XGA	No	40HS	CD	Extreme 2	None	10/100	6-cell	XP Home	No Oct 04
2881-46U	Celeron D 330	2.66	256K	256MB	14.1" XGA	Yes	30GB	Combo	Extreme 2	None	10/100	6-cell	XP Pro	No Oct 04
2881-4AU	Celeron D 330	2.66	256K	256MB	14.1" XGA	Yes	30GB	Combo	Extreme 2	11b/g	10/100	6-cell	XP Pro	No Oct 04
2881-4CU	Celeron D 330	2.66	256K	256MB	15.0" XGA	Yes	40HS	Combo	Extreme 2	None	10/100	12-cell	XP Pro	No Oct 04
2881-4FU	Celeron D 330	2.66	256K	256MB	15.0" XGA	Yes	30GB	Combo	Extreme 2	11b/g	10/100	12-cell	XP Pro	No Oct 04
2881-58U	Pentium® 4 532	3.06	1MB	256MB	14.1" XGA	Yes	30GB	DVD	Extreme 2	None	10/100	6-cell	XP Pro	No Oct 04
2881-59U	Pentium 4 532	3.06	1MB	256MB	14.1" XGA	Yes	40GB	Combo	Extreme 2	11b/g	10/100	6-cell	XP Pro	No Oct 04
2881-5AU	Pentium 4 532	3.06	1MB	256MB	15.0" SXGA+	No	40HS	Combo	Extreme 2	11b/g	10/100	12-cell	XP Pro	No Oct 04
2881-5LU	Pentium 4 532	3.06	1MB	256MB	15.0" XGA	Yes	40GB	Combo	Extreme 2	11b/g	10/100	12-cell	XP Pro	No Oct 04
2881-5MU	Pentium 4 532	3.06	1MB	256MB	15.0" XGA	Yes	30GB	Combo	Extreme 2	None	10/100	6-cell	XP Pro	No Oct 04
2881-65U	Pentium 4 538	3.2	1MB	256MB	14.1" XGA	Yes	30GB	Combo	Extreme 2	None	10/100	6-cell	XP Pro	No Oct 04
2881-67U	Pentium 4 538	3.2	1MB	256MB	14.1" XGA	Yes	40GB	Combo	Extreme 2	11b/g	10/100	12-cell	XP Pro	No Oct 04
2881-68U	Pentium 4 538	3.2	1MB	256MB	15.0" SXGA+	No	30GB	Combo	Extreme 2	None	10/100	12-cell	XP Pro	No Oct 04
2881-69U	Pentium 4 538	3.2	1MB	256MB	15.0" XGA	Yes	40HS	Combo	Extreme 2	None	10/100	6-cell	XP Pro	No Oct 04
2881-6CU	Pentium 4 538	3.2	1MB	256MB	15.0" XGA	Yes	40HS	Combo	Extreme 2	11b/g	10/100	12-cell	XP Pro	No Oct 04
2881-6JU	Pentium 4 548	3.33	1MB	256MB	14.1" XGA	Yes	40HS	Combo	Extreme 2	None	10/100	12-cell	XP Pro	No Oct 04
Positioning Processor <sup>37</sup>	<i>Powerful desktop replacement; two (models without diskette drive) or three-spindle system</i>											<b>SOFTWARE<sup>14</sup></b>  <b>Windows XP Home models</b> - Microsoft® Windows® XP Home Edition <sup>20</sup> (Service Pack 2) ♦ Disk-to-Disk Recovery (in hidden protected area)  <b>Windows XP Pro models</b> - Microsoft Windows XP Professional <sup>20</sup> (Service Pack 2) ♦ Disk-to-Disk Recovery (in hidden protected area)  <b>Preloaded (all)</b> • Rescue and Recovery™ • Access IBM • Access Connections • Norton AntiVirus (OEM edition) • PC-Doctor™ • ThinkPad Utilities • Adobe Reader • Update Connector™ <sup>15</sup> • RecordNOW and Drive Letter Access powered by Sonic products (combo models) • InterVideo WinDVD (combo, DVD)  <b>Downloadable (all)</b> • IBM Director Agent • Software Delivery Assistant • System Migration Assistant  <b>License (CD not included) (all)</b> - Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client		
L2 cache	Intel® Celeron D Processor 320 (2.40GHz), 325 (2.53GHz), or 330 (2.66GHz) with 533MHz system bus or													
Memory	Mobile Intel Pentium 4 Processor 532 (3.06GHz), 538 (3.2GHz), or 548 (3.33GHz) with enhanced Intel SpeedStep™ technology <sup>1</sup> , Hyper-Threading technology, and 533MHz bus													
Diskette drive	<i>Some: 3.5" 1.44MB / fixed, not removable / 12.7mm high</i>													
CD	<i>Some: CD-ROM / 24X-10X<sup>9</sup> speed / fixed, not removable / 12.7mm high</i>													
DVD	<i>Some: DVD-ROM / 24X-8X<sup>9</sup> speed / single-layer / fixed, not removable / 12.7mm high</i>													
Combo Disk	<i>Some: DVD-ROM/CD-RW / 24X/10X/24X/8X<sup>21</sup> speed / fixed, not removable / 12.7mm</i>													
Display	30GB <sup>8</sup> (4200 rpm), 40GB (4200 rpm), or 40GB HS (5400 rpm), 9.5mm high / removable / 9.5mm high bay													
Graphics	<i>Some: 14.1" (358.1mm) XGA (1024x768) TFT color / Active Matrix / 150 nits</i> <i>Some: 15.0" (381.0mm) XGA (1024x768) TFT color / Active Matrix / 150 nits</i> <i>Some: 15.0" (381.0mm) SXGA+ (1400x1050) TFT color / Active Matrix / 150 nits</i> <i>All: one latch to unlatch and open with one hand</i>													
Graphics external EasyPivot	Integrated Intel Extreme™ Graphics 2 / Direct AGP / in 852GME GMCH / uses main memory (up to 64MB) / 266MHz / DMVT													
Keyboard	External monitor support via analog DB-15 connector / up to 1600x1200 at 85Hz / DDC2B													
ComfortSlant	ThinkPad EasyPivot base allows smooth positioning for a comfortable viewing angle													
TrackPoint®	87-key / Access IBM button / palm rest / pitch: 19mm; stroke: 2.7mm (std-size keys)													
Touch pad	ThinkPad ComfortSlant keyboard with built-in incline provides maximum typing comfort													
Dimensions <sup>3</sup>	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar <sup>13</sup> , magnifying glass / soft dome TrackPoint cap / ships with classic dome and soft rim TrackPoint cap													
Weight <sup>2</sup>	No touch pad (UltraNav™ multi-pointing system) / no ThinkLight™													
Case material	Color: black; All: Acrylonitrile-Butadiene-Styrene/Polycarbonate (ABS/PC) plastic													
Battery - type	Lithium Ion 6-cell or 12-cell / intelligent / removable													
Battery - life	Not published													
Architecture	Intel 852GME chipset / 82852GME Graphics Memory Controller Hub (GMCH) / 82801DBM ICH4-M I/O Controller Hub (ATA-100 EIDE, PCI bus, ethernet MAC, Low Pin Count (LPC) interface, USB, Firmware Hub) / PCI bus 2.2 32-bit, 33MHz (TI® PCI1520 CardBus controller, Mini PCI) / LPC bus 33MHz (PC87391 Super I/O for [diskette], parallel, PS/2)													
PC Card Std slots	Two Type I, two Type II, or one Type III / CardBus 32-bit / PCMCIA 2.1 / integrated door													
Ports	Four USB (Version 2.0) / parallel / external monitor (DB-15) / RJ-11 (modem) / RJ-45 (ethernet) / PS/2 (for keyboard or mouse) / no serial or infrared													
Video out or in IEEE 1394	None													
Wireless antenna	None													
Mini PCI	<i>Some (wireless models): UltraConnect™ Antenna built into the display cover</i>													
11b/g <sup>32</sup>	<i>Some: empty / not customer upgradable</i>													
CDC	<i>Some: 11b/g Wi-Fi<sup>32</sup> wireless<sup>4</sup>, Mini PCI, Atheros™ AR5004G chipset</i>													
Modem	One Communications Daughter Card (CDC) socket (used by modem) / not accessible													
Ethernet	56K <sup>6</sup> V.90 (V.92-designed <sup>29</sup> ) modem in CDC / Conexant® chipset													
Audio support	10/100 ethernet on planar / Broadcom® BCM5901 (PHY/MAC) / PXE / Wake on LAN®													
Security chip	Soft audio / ICH AC97 controller / DirectSound® support / AD90764 AC97 codec / mono speaker / 2 watt / volume up, down, mute buttons / no internal microphone / microphone input jack (3.5 mm) / headphone jack (3.5 mm) / no line in jack													
Limited warranty <sup>12</sup>	Power-on password / hard disk password / supervisor password / security keyhole													
	None													
	EasyServ™ <sup>19</sup> onsite pickup and delivery / service upgrades <sup>22</sup> available													

See footnotes for important warranty information  
US models announced October 19, 2004  
US models withdrawn effective January or December 2005

# ThinkPad® G41 (November 2004) - withdrawn

Created by Lenovo Training Solutions  
Personal Systems Reference (PSREF)

Type-model	Processor	Speed GHz	L2 cache	Memory	Screen	Diskette drive	Disk GB <sup>8</sup>	Optical	Graphics	Mini PCI Comm Bay wireless	Ethernet on planar	Battery	Preload	Workhorse (W) Global (G) Avail Entry (E) date
2881-2CU	Celeron® D 320	2.40	256K	256MB	15.0" XGA	Yes	40GB	Combo	Extreme™ 2	11b/g <sup>32</sup>	10/100	6-cell	XP Pro	No Nov 04
2881-2PU	Celeron D 320	2.40	256K	256MB	14.1" XGA	Yes	30GB	Combo	Extreme 2	None	10/100	12-cell	XP Pro	No Nov 04
2881-2QU	Celeron D 325	2.53	256K	256MB	14.1" XGA	Yes	30GB	Combo	Extreme 2	None	10/100	12-cell	XP Pro	No Nov 04
2881-2RU	Celeron D 330	2.66	256K	256MB	14.1" XGA	Yes	30GB	Combo	Extreme 2	None	10/100	12-cell	XP Pro	No Nov 04
2881-2SU	Celeron D 330	2.66	256K	256MB	14.1" XGA	Yes	30GB	Combo	Extreme 2	11b/g	10/100	12-cell	XP Pro	No Nov 04
2881-A6U	Celeron D 335	2.80	256K	256MB	14.1" XGA	No	30GB	CD	Extreme 2	None	10/100	12-cell	XP Pro	No Jan 05
2881-AFU	Celeron D 335	2.80	256K	256MB	15.0" XGA	Yes	30GB	Combo	Extreme 2	11b/g	10/100	12-cell	XP Pro	No Jan 05
2881-5PU	Pentium® 4 532	3.06	1MB	256MB	14.1" XGA	Yes	40GB	Combo	Extreme 2	11b/g	10/100	12-cell	XP Pro	No Nov 04
Positioning Processor <sup>37</sup>	<b>Powerful desktop replacement; two (models without diskette drive) or three-spindle system</b>										<b>SOFTWARE<sup>14</sup></b>			
L2 cache Memory	Intel® Celeron D Processor 320 (2.40GHz), 325 (2.53GHz), 330 (2.66GHz), or 335 (2.80GHz) with 533MHz system bus or Mobile Intel Pentium 4 Processor 532 (3.06GHz) with enhanced Intel SpeedStep™ technology <sup>1</sup> , Hyper-Threading technology, and 533MHz system bus Celeron: 256KB; Pentium 4: 1MB; All: on die (at processor speed) / ECC 256MB std / 2GB max <sup>7</sup> / PC2700 333MHz DDR1 / non-parity / CL2.5 / two 200-pin SO-DIMM sockets / std memory in one socket / one socket available										Windows XP Professional - Microsoft® Windows® XP Professional <sup>20</sup> (Service Pack 2) ◇ Disk-to-Disk Recovery (in hidden protected area)			
Diskette drive	Some: 3.5" 1.44MB / fixed, not removable / 12.7mm high										Preloaded			
CD Combo Disk	Some: CD-ROM / 24X-10X <sup>9</sup> speed / fixed, not removable / 12.7mm high Some: DVD-ROM/CD-RW / 24X/10X/24X/8X <sup>21</sup> speed / fixed, not removable / 12.7mm 30GB <sup>8</sup> (4200 rpm) or 40GB (4200 rpm), 9.5mm high / removable / 9.5mm high bay										• Rescue and Recovery™ • Access IBM • Access Connections • Norton AntiVirus (OEM edition) • PC-Doctor™ • ThinkPad Utilities • Adobe Reader • Update Connector™ <sup>15</sup> • RecordNOW and Drive Letter Access powered by Sonic products (combo models) • InterVideo WinDVD (combo)			
Display	Some: 14.1" (358.1mm) XGA (1024x768) TFT color / Active Matrix / 150 nits Some: 15.0" (381.0mm) XGA (1024x768) TFT color / Active Matrix / 150 nits All: one latch to unlatch and open with one hand										Downloadable			
Graphics	Integrated Intel Extreme™ Graphics 2 / Direct AGP / in 852GME GMCH / uses main memory (up to 64MB) / 266MHz / DMVT										• IBM Director Agent • Software Delivery Assistant • System Migration Assistant			
Graphics external EasyPivot	External monitor support via analog DB-15 connector / up to 1600x1200 at 85Hz / DDC2B ThinkPad EasyPivot base allows smooth positioning for a comfortable viewing angle										License (CD not included) - Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client			
Keyboard ComfortSlant TrackPoint®	87-key / Access IBM button / palm rest / pitch: 19mm; stroke: 2.7mm (std-size keys) ThinkPad ComfortSlant keyboard with built-in incline provides maximum typing comfort TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar <sup>13</sup> , magnifying glass / soft dome TrackPoint cap / ships with classic dome and soft rim TrackPoint cap										ThinkPad notebooks implement ThinkVantage™ technologies and design; visit <a href="http://thinkpad.com/thinkvantage">thinkpad.com/thinkvantage</a>			
Touch pad	No touch pad (UltraNav™ multi-pointing system) / no ThinkLight™										Universal 120 watt AC adapter PC 2001 and PXE 2.0-compliant ACPI 1.0b and 2.0-compliant CIM and DMI 2.0-compliant ENERGY STAR®-compliant ImageUltra™ Services available International Warranty Service <sup>17</sup> 24 hour x 7 day <sup>18</sup> toll-free warranty support during the warranty <sup>12</sup>			
Dimensions <sup>3</sup> Weight <sup>2</sup>	12.9" x 11.1" x 1.5-2.0"; 329mm x 282.5mm x 37.1-50.9mm; Volume: 4 liters with optical drive and battery: 6-cell: up to 7.71 lb (3.5kg); 12-cell: up to 8.31 lb (3.8kg)										ServicePac®. <sup>22</sup> 1yr IOR 9x5 NBD 30L9188			
Case material	Color: black; All: Acrylonitrile-Butadiene-Styrene/Polycarbonate (ABS/PC) plastic										ServicePac 2 yr IOR 9x5 NBD 30L9189			
Battery - type	Lithium Ion 6-cell or 12-cell / intelligent / removable										ServicePac 3 yr IOR 9x5 NBD 30L9195			
Battery - life	Not published										ServicePac 4 yr IOR 9x5 NBD 30L9194			
Architecture	Intel 852GME chipset / 82852GME Graphics Memory Controller Hub (GMCH) / 82801DBM ICH4-M I/O Controller Hub (ATA-100 EIDE, PCI bus, ethernet MAC, Low Pin Count (LPC) interface, USB, Firmware Hub) / PCI bus 2.2 32-bit, 33MHz (TI® PCI1520 CardBus controller, Mini PCI) / LPC bus 33MHz (PC87391 Super I/O for [diskette], parallel, PS/2)										ServicePac 5 yr IOR 9x5 NBD 30L9196			
PC Card Std slots	Two Type I, two Type II, or one Type II, or one Type III / CardBus 32-bit / PCMCIA 2.1 / integrated door										ServicePac 2 yr P&L P/U Depot 30L9191			
Ports	Four USB (Version 2.0) / parallel / external monitor (DB-15) / RJ-11 (modem) / RJ-45 (ethernet) / PS/2 (for keyboard or mouse) / no serial or infrared										ServicePac 3 yr P&L P/U Depot 30L9192			
Video out or in IEEE 1394	None										ServicePac 4 yr P&L P/U Depot 69P9195			
Wireless antenna	None										ServicePac 5 yr P&L P/U Depot 69P9197			
Mini PCI	One Mini PCI type III slot (Communications Bay) / not customer upgradable										Post-warranty annual maintenance agreements at <a href="http://ibm.com/services/us/its/pdf/maspspleu.pdf">ibm.com/services/us/its/pdf/maspspleu.pdf</a>			
None 11b/g <sup>32</sup>	Some: empty / not customer upgradable Some: 11b/g Wi-Fi <sup>32</sup> wireless <sup>4</sup> , Mini PCI, Atheros™ AR5004G chipset													
CDC Modem	One Communications Daughter Card (CDC) socket (used by modem) / not accessible 56K <sup>6</sup> V.90 (V.92 designed <sup>25</sup> ) modem in CDC / Conexant® chipset													
Ethernet	10/100 ethernet on planar / Broadcom® BCM5901 (PHY/MAC) / PXE / Wake on LAN®													
Audio support	Soft audio / ICH AC97 controller / DirectSound® support / AD90764 AC97 codec / mono speaker / 2 watt / volume up, down, mute buttons / no internal microphone / microphone input jack (3.5 mm) / headphone jack (3.5 mm) / no line in jack													
Security Security chip	Power-on password / hard disk password / supervisor password / security keyhole None													
Limited warranty <sup>12</sup>	1 year - EasyServ™. <sup>19</sup> onsite pickup and delivery / service upgrades <sup>22</sup> available													
128 MB PC2700 DDR-SDRAM CL2.5 SOD	31P9828	ThinkPad G41 Li-Ion Battery 12-cell		08K8178										
256 MB PC2700 DDR-SDRAM CL2.5 SOD	31P9830	ThinkPad Multiple Battery Charger II		22P9040										
512 MB PC2700 DDR-SDRAM CL2.5 SOD	31P9832	ThinkPad 120W AC Adapter		22P9150										
1GB PC2700 DDR-SDRAM CL2.5 SOD	31P9834	11a/b/g Wireless CardBus Adapter		31P9101										
60GB HS Hard Disk 9.5mm (5400 rpm)	73P3357	GemPC400 Smart Card Reader/Writer		31P8901										
80GB HS Hard Disk 9.5mm (5400 rpm)	09N4273	ThinkPad Monitor Stand 2001		22P5265										
USB Numeric Keypad	33L3225	ThinkPad Carrying Case - Expander		73P3597										
USB Portable Diskette Drive	05K9276	ThinkPad Carrying Case - Backpack		73P3599										
USB 2.0 Combo Drive	73P4515	ThinkPad Carrying Case - Organizer		73P3598										
USB 2.0 Portable Multi-Burner Drive	22P9163	USB Keyboard with UltraNav		31P8950										
USB 2.0 Memory Key 256MB	22P9228	USB Travel Keyboard with UltraNav		31P9490										
USB 2.0 Memory Key 512MB	22P9230	Enhanced Performance USB Keyboard		73P2620										
USB Optical Wheel Mouse	06P4069	M400 Projector		0037A04										
Optical 3-Button ScrollPoint Pro Mouse	31P8700	C400 Projector		0039A04										
Kensington® MicroSaver® Security Cable	73P2582	ThinkVision® E500 Projector		0038A05										
SonyEricsson® GC83 EDGE PC Card	26K3393	Other options at <a href="http://lenovo.com/options">lenovo.com/options</a>												

See footnotes for important warranty information  
US models announced November 23, 2004 or January 11, 2005  
US models withdrawn effective December 2005

© Lenovo  
(G4V) October 2005

# ThinkPad® G41 (NVIDIA Graphics) - withdrawn

Created by Lenovo Training Solutions  
Personal Systems Reference (PSREF)

Type-model	Processor	Speed GHz	L2 cache	Memory	Screen	Diskette drive	Disk GB <sup>8</sup>	Disk Optical	Graphics controller and memory	Mini PCI Comm Bay wireless	Ethernet on planar Battery Preload	Workhorse (W) Global (G) Avail	Entry (E) date
2881-73U	Pentium® 4 538	3.2	1MB	512MB	15.0"	SXGA+	No	80HS Combo	Go5200 128M	11b/g <sup>32</sup>	Gb 12-cell XP Pro	No	Oct 04
2881-87U	Pentium 4 532	3.06	1MB	256MB	15.0"	XGA	No	30GB Combo	Go5200 64MB	None	Gb 6-cell XP Pro	No	Oct 04
2881-88U	Pentium 4 532	3.06	1MB	256MB	15.0"	XGA	No	40GB Combo	Go5200 64MB	11b/g	Gb 12-cell XP Pro	No	Oct 04
2881-8DU	Pentium 4 538	3.2	1MB	256MB	15.0"	SXGA+	No	40HS Combo	Go5200 64MB	11b/g	Gb 12-cell XP Pro	No	Oct 04
2881-8JU	Pentium 4 538	3.2	1MB	512MB	15.0"	XGA	No	40HS Combo	Go5200 64MB	None	Gb 12-cell XP Pro	No	Oct 04
2881-8MU	Pentium 4 548	3.33	1MB	512MB	15.0"	SXGA+	No	80HS DVD±RW	Go5200 128M	11a/b/g II <sup>32</sup>	Gb 12-cell XP Pro	No	Oct 04
2881-8NU	Pentium 4 548	3.33	1MB	256MB	15.0"	SXGA+	No	80HS Combo	Go5200 64MB	None	Gb 12-cell XP Pro	No	Oct 04
2881-8PU	Pentium 4 548	3.33	1MB	256MB	15.0"	XGA	No	40HS Combo	Go5200 64MB	11b/g	Gb 12-cell XP Pro	No	Oct 04
2881-8QU	Pentium 4 548	3.33	1MB	256MB	15.0"	XGA	No	40HS Combo	Go5200 64MB	None	Gb 12-cell XP Pro	No	Oct 04
2881-D2U	Pentium 4 552	3.46	1MB	512MB	15.0"	SXGA+	No	80HS DVD±RW	Go5200 128M	11a/b/g II	Gb 12-cell XP Pro	No	Jan 05
2881-D9U	Pentium 4 552	3.46	1MB	256MB	15.0"	XGA	No	40HS Combo	Go5200 64MB	11b/g	Gb 12-cell XP Pro	No	Jan 05
Positioning Processor <sup>37</sup>	<i>Powerful desktop replacement; two (models without diskette drive) or three-spindle system</i> <b>Mobile Intel® Pentium 4 Processor 532 (3.06GHz), 538 (3.2GHz), 548 (3.33GHz), or 552 (3.46GHz)</b> with enhanced Intel SpeedStep™ technology <sup>1</sup> , Hyper-Threading technology, and 533MHz system bus <b>1MB</b> / on die (at processor speed) / ECC <b>256 or 512MB</b> std / 2GB max <sup>7</sup> / <b>PC2700</b> 333MHz DDR1 / non-parity / CL2.5 / two 200-pin SO-DIMM sockets / std memory in one socket / one socket available										<b>SOFTWARE<sup>14</sup></b>		
L2 cache Memory											<b>Windows XP Professional</b> - Microsoft® Windows® XP Professional <sup>20</sup> (Service Pack 2) ♦ Disk-to-Disk Recovery (in hidden protected area)		
Diskette drive	None / use optional USB-based diskette drive										<b>Preloaded</b> • Rescue and Recovery™ • Access IBM • Access Connections • Norton AntiVirus (OEM edition) • PC-Doctor™ • ThinkPad Utilities • Adobe Reader • Update Connector™ <sup>15</sup> • RecordNOW and Drive Letter Access powered by Sonic products (combo, DVD-RW models) • InterVideo WinDVD (combo, DVD±RW models) • InterVideo WinDVD Creator (DVD±RW models) • Simple Backup (DVD±RW)		
DVD±RW Disk	Some: DVD-ROM/CD-RW / 24X/10X/24X/8X <sup>21</sup> speed / fixed, not removable / 12.7mm Some: DVD and CD burner / writes to + and - formats / Multi-Burner Plus / not removable <b>30GB<sup>8</sup></b> (4200 rpm), <b>40GB</b> (4200 rpm), <b>40GB HS</b> (5400 rpm), or <b>80GB HS</b> (5400 rpm) / 9.5mm high / removable / 9.5mm high bay										<b>Downloadable</b> • IBM Director Agent • Software Delivery Assistant • System Migration Assistant <b>License</b> (CD not included) - Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client		
Display	Some: <b>15.0"</b> (381.0mm) <b>XGA (1024x768) TFT color</b> / Active Matrix / 150 nits Some: <b>15.0"</b> (381.0mm) <b>SXGA+ (1400x1050) TFT color</b> / Active Matrix / 150 nits All: one latch to unlatch and open with one hand										<b>ThinkPad notebooks implement ThinkVantage™ technologies and design; visit <a href="http://thinkpad.com/thinkvantage">thinkpad.com/thinkvantage</a></b>  <b>Universal 120 watt AC adapter</b> <b>PC 2001 and PXE 2.0-compliant ACPI 1.0b and 2.0-compliant CIM and DMI 2.0-compliant ENERGY STAR®-compliant ImageUltra™ Services available International Warranty Service<sup>17</sup> 24 hour x 7 day<sup>18</sup> toll-free warranty support during the warranty<sup>12</sup></b>		
Graphics Graphics external EasyPivot	<b>NVIDIA® GeForce™ FX Go5200</b> / NV34M / AGP 4X / 350MHz / <b>64 or 128MB</b> memory External monitor support via analog DB-15 connector / up to 2048x1536 at 72Hz / DDC2B ThinkPad EasyPivot base allows smooth positioning for a comfortable viewing angle										<b>ServicePac®<sup>22</sup> 1 yr IOR 9x5 NBD</b> 30L9188 <b>ServicePac 2 yr IOR 9x5 NBD</b> 30L9189 <b>ServicePac 3 yr IOR 9x5 NBD</b> 30L9195 <b>ServicePac 4 yr IOR 9x5 NBD</b> 30L9194 <b>ServicePac 5 yr IOR 9x5 NBD</b> 30L9196 <b>ServicePac 2 yr P&amp;L P/U Depot</b> 30L9191 <b>ServicePac 3 yr P&amp;L P/U Depot</b> 30L9192 <b>ServicePac 4 yr P&amp;L P/U Depot</b> 69P9195 <b>ServicePac 5 yr P&amp;L P/U Depot</b> 69P9197 <b>Post-warranty annual maintenance agreements at <a href="http://ibm.com/services/us/its/pdf/maspspleu.pdf">ibm.com/services/us/its/pdf/maspspleu.pdf</a></b>		
Keyboard ComfortSlant TrackPoint®	87-key / Access IBM button / palm rest / pitch: 19mm; stroke: 2.7mm (std-size keys) ThinkPad ComfortSlant keyboard with built-in incline provides maximum typing comfort TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar <sup>13</sup> , magnifying glass / soft dome TrackPoint cap / ships with classic dome and soft rim TrackPoint cap No touch pad (UltraNav™ multi-pointing system) / no ThinkLight™												
Touch pad													
Dimensions <sup>3</sup> Weight <sup>2</sup> Case material Battery - type Battery - life	12.9" x 11.1" x 1.5-2.0"; 329mm x 282.5mm x 37.1-50.9mm; <i>Volume</i> : 4 liters with optical drive and battery: <i>6-cell</i> : up to 7.55 lb (3.4kg); <i>12-cell</i> : up to 8.18 lb (3.7kg) <i>Color</i> : black; <i>All</i> : Acrylonitrile-Butadiene-Styrene/Polycarbonate (ABS/PC) plastic Lithium Ion 6-cell or 12-cell / intelligent / removable Not published												
Architecture	<b>Intel 852GME</b> chipset / 82852GME Graphics Memory Controller Hub (GMCH) / 82801DBM ICH4-M I/O Controller Hub (ATA-100 EIDE, PCI bus, ethernet MAC, Low Pin Count (LPC) interface, USB, Firmware Hub) / PCI bus 2.2 32-bit, 33MHz (TI® PCI1520 CardBus controller, Mini PCI) / LPC bus 33MHz (PC87391 Super I/O for [diskette], parallel, PS/2)												
PC Card Std slots Ports	Two Type I, two Type II, or one Type III / CardBus 32-bit / PCMCIA 2.1 / integrated door Four USB (Version 2.0) / parallel / external monitor (DB-15) / RJ-11 (modem) / RJ-45 (ethernet) / PS/2 (for keyboard or mouse) / no serial or infrared												
IEEE 1394 Wireless antenna Mini PCI 11b/g <sup>32</sup> 11a/b/g II <sup>32</sup> CDC Modem Ethernet Audio support	None Some ( <i>wireless models</i> ): UltraConnect™ Antenna built into the display cover One Mini PCI type III slot (Communications Bay) / not customer upgradable Some: empty / not customer upgradable Some: 11b/g Wi-Fi <sup>32</sup> wireless <sup>4</sup> , Mini PCI, Atheros™ AR5004G chipset Some: 11a/b/g wireless <sup>4</sup> , ThinkPad 11a/b/g Mini PCI Adapter II, Atheros™ AR5004X chip One Communications Daughter Card (CDC) socket (used by modem) / not accessible 56K <sup>6</sup> V.90 (V.92-designed <sup>25</sup> ) modem in CDC / Conexant® chipset Gigabit (Gb) ethernet on planar / Broadcom® BCM5705M (PHY/MAC) / PXE, Wake on LAN® Soft audio / ICH AC97 controller / DirectSound® support / AD90764 AC97 codec / mono speaker / 2 watt / volume up, down, mute buttons / no internal microphone / microphone input jack (3.5 mm) / headphone jack (3.5 mm) / no line in jack												
Security Security chip	Power-on password / hard disk password / supervisor password / security keyhole None												
<b>Limited warranty<sup>12</sup> 1 year - EasyServ™<sup>19</sup> onsite pickup and delivery / service upgrades<sup>22</sup> available</b>													
128MB PC2700 DDR-SDRAM CL2.5 SOD	31P9828	ThinkPad G41 Li-Ion Battery 12-cell		08K8178									
256MB PC2700 DDR-SDRAM CL2.5 SOD	31P9830	ThinkPad Multiple Battery Charger II		22P9040									
512MB PC2700 DDR-SDRAM CL2.5 SOD	31P9832	ThinkPad 120W AC Adapter		22P9150									
1GB PC2700 DDR-SDRAM CL2.5 SOD	31P9834	11a/b/g Wireless CardBus Adapter		31P9101									
60GB HS Hard Disk 9.5mm (5400 rpm)	73P3357	ThinkPad Monitor Stand 2001		22P5265									
80GB HS Hard Disk 9.5mm (5400 rpm)	09N4273	ThinkPad Carrying Case - Organizer		73P3598									
USB Portable Diskette Drive	05K9276	ThinkPad Carrying Case - Backpack		73P3599									
USB 2.0 Combo Drive	73P4515	ThinkPad Carrying Case - Leather		73P3600									
USB 2.0 Portable Multi-Burner Drive	22P9163	Enh Perf Wireless Keyboard and Mouse		73P4067									
USB 2.0 Memory Key 512MB	22P9230	USB Travel Keyboard with UltraNav		31P9490									
USB Optical Wheel Mouse	06P4069	Enhanced Performance USB Keyboard		73P2620									
Optical 3-Button ScrollPoint Pro Mouse	31P8700	M400 Projector		0037A04									
Kensington® MicroSaver® Security Cable	73P2582	ThinkVision® E500 Projector		0038A05									
SonyEricsson® GC83 EDGE PC Card	26K3393	Other options at <a href="http://lenovo.com/options">lenovo.com/options</a>											

See footnotes for important warranty information  
 US models announced October 19, 2004 or January 11, 2005  
 US models withdrawn effective December 2005

# ThinkPad® G41 (Education) - withdrawn

Created by Lenovo Training Solutions  
Personal Systems Reference (PSREF)

Type-model	Processor	Speed GHz	L2 cache	Memory	Screen	Diskette drive	Disk GB <sup>8</sup>	Optical	Graphics	Mini PCI Comm Bay wireless	Ethernet on planar	Battery	Preload software	Education software	Avail date
2882-2TU	Celeron® D 320	2.40	256K	256MB	14.1" XGA	Yes	30GB	CD	Extreme™ 2	11b/g <sup>32</sup>	10/100	12-cell	XP Pro	No	Oct 04
2882-3TU	Celeron D 325	2.53	256K	256MB	14.1" XGA	Yes	30GB	CD	Extreme 2	11b/g	10/100	12-cell	XP Pro	No	Oct 04
2882-4UU	Celeron D 330	2.66	256K	256MB	14.1" XGA	Yes	30GB	CD	Extreme 2	11b/g	10/100	12-cell	XP Pro	No	Oct 04
2882-ASU	Celeron D 335	2.80	256K	256MB	14.1" XGA	Yes	30GB	CD	Extreme 2	11b/g	10/100	12-cell	XP Pro	Yes	Jan 05
2882-8XU	Pentium® 4 532	3.06	1MB	256MB	15.0" XGA	No	40HS	Combo	Go5200 64MB	11b/g	Gigabit	12-cell	XP Pro	No	Oct 04

• **The 2882 has an EasyServ™.19 onsite pickup and delivery 3 year limited warranty**

These educational models of the ThinkPad notebook are available only to public or private K-12 (or higher) accredited schools organized and operated exclusively for educational purposes for use by qualified students and teachers.

This model for education is for sale direct from Lenovo or through an Authorized Education Reseller.

The model or models for education are not available for resale to any other organization or individual.

Positioning Processor <sup>37</sup>	<i>Powerful desktop replacement; two (models without diskette drive) or three-spindle system</i> <b>Intel® Celeron D Processor 320 (2.40GHz), 325 (2.53GHz), 330 (2.66GHz), or 335 (2.80GHz)</b> with 533MHz system bus or <b>Mobile Intel Pentium 4 Processor 532 (3.06GHz)</b> with enhanced Intel SpeedStep™ technology <sup>1</sup> , Hyper-Threading technology, and 533MHz system bus										<b>SOFTWARE<sup>14</sup></b>				
L2 cache	<b>Celeron: 256KB; Pentium 4: 1MB; All: on die (at processor speed) / ECC</b>										<b>Windows XP Professional</b> - Microsoft® Windows® XP Professional <sup>20</sup> (Service Pack 2) ◆ Disk-to-Disk Recovery (in hidden protected area)				
Memory	<b>256MB</b> std / <b>2GB</b> max <sup>7</sup> / <b>PC2700</b> 333MHz DDR1 / non-parity / CL2.5 / two 200-pin SO-DIMM sockets / std memory in one socket / one socket available										<b>Preloaded</b> • <b>ASU only:</b> Education software from Vital Source Technologies®: vitalSource KEY™ and Personal Portable library™ • Rescue and Recovery™ • Access IBM • Access Connections • Norton AntiVirus (OEM edition) • PC-Doctor™ • ThinkPad Utilities • Adobe Reader • Update Connector™.15 • RecordNOW and Drive Letter Access powered by Sonic products (combo model) • InterVideo WinDVD (combo model)				
Diskette drive	<i>Some: 3.5" 1.44MB / fixed, not removable / 12.7mm high</i> <i>Some: CD-ROM / 24X-10X<sup>9</sup> speed / fixed, not removable / 12.7mm high</i>										<b>Downloadable</b> • IBM Director Agent • Software Delivery Assistant • System Migration Assistant <b>License</b> (CD not included) - Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client				
Combo Disk	<i>Some: DVD-ROM/CD-RW / 24X/10X/24X/8X<sup>21</sup> speed / fixed, not removable / 12.7mm</i> <b>30GB<sup>8</sup></b> (4200 rpm) or <b>40GB HS</b> (5400 rpm), 9.5mm high / removable / 9.5mm high bay														
Display	<i>Some: 14.1" (358.1mm) XGA (1024x768) TFT color / Active Matrix / 150 nits</i> <i>Some: 15.0" (381.0mm) XGA (1024x768) TFT color / Active Matrix / 150 nits</i> <i>All: one latch to unlatch and open with one hand</i>														
Graphics	<i>Some: Integrated Intel Extreme™ Graphics 2 / Direct AGP / in 852GME GMCH / uses main memory (up to 64MB) / 266MHz / DMVT</i> <i>Some: NVIDIA® GeForce™ FX Go5200 / NV34M / AGP 4X / 350MHz / 64MB memory</i>														
EasyPivot	ThinkPad EasyPivot base allows smooth positioning for a comfortable viewing angle														
Keyboard ComfortSlant TrackPoint®	87-key / Access IBM button / palm rest / pitch: 19mm; stroke: 2.7mm (std-size keys) ThinkPad ComfortSlant keyboard with built-in incline provides maximum typing comfort TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar <sup>13</sup> , magnifying glass / soft dome TrackPoint cap / ships with classic dome and soft rim TrackPoint cap														
Touch pad	No touch pad (UltraNav™ multi-pointing system) / no ThinkLight™														
Dimensions <sup>3</sup>	12.9" x 11.1" x 1.5-2.0"; 329mm x 282.5mm x 37.1-50.9mm; <i>Volume:</i> 4 liters														
Weight <sup>2</sup>	with optical drive and battery: <i>12-cell:</i> up to 8.15 lb (3.7kg)														
Case material	<i>Color:</i> black; <i>All:</i> Acrylonitrile-Butadiene-Styrene/Polycarbonate (ABS/PC) plastic														
Battery - type	Lithium Ion 12-cell / intelligent / removable														
Battery - life	Not published														
Architecture	<b>Intel 852GME</b> chipset / 82852GME Graphics Memory Controller Hub (GMCH) / 82801DBM ICH4-M I/O Controller Hub (ATA-100 EIDE, PCI bus, ethernet MAC, Low Pin Count (LPC) interface, USB, Firmware Hub) / PCI bus 2.2 32-bit, 33MHz (TI® PCI1520 CardBus controller, Mini PCI) / LPC bus 33MHz (PC87391 Super I/O for [diskette], parallel, PS/2)														
PC Card Std slots	Two Type I, two Type II, or one Type III / CardBus 32-bit / PCMCIA 2.1 / integrated door														
Ports	Four USB (Version 2.0) / parallel / external monitor (DB-15) / RJ-11 (modem) / RJ-45 (ethernet) / PS/2 (for keyboard or mouse) / no serial or infrared														
Video out or in	None														
IEEE 1394	None														
Wireless antenna	UltraConnect™ Antenna built into the display cover														
Mini PCI	One Mini PCI type III slot (Communications Bay) / not customer upgradable														
11b/g <sup>32</sup>	11b/g Wi-Fi <sup>32</sup> wireless <sup>4</sup> , Mini PCI, Atheros™ AR5004G chipset														
CDC	One Communications Daughter Card (CDC) socket (used by modem) / not accessible														
Modem	56K <sup>v</sup> V.90 (V.92-designed <sup>29</sup> ) modem in CDC / Conexant® chipset														
Ethernet	<i>Some: 10/100 ethernet on planar / Broadcom® BCM5901 (PHY/MAC) / Wake on LAN®</i> <i>Some: Gigabit ethernet on planar / Broadcom® BCM5705M (PHY/MAC) / Wake on LAN</i>														
Audio support	Soft audio / ICH AC97 controller / DirectSound® support / AD90764 AC97 codec / mono speaker / 2 watt / volume up, down, mute buttons / no internal microphone / microphone input jack (3.5 mm) / headphone jack (3.5 mm) / no line in jack														
Security	Power-on password / hard disk password / supervisor password / security keyhole														
Security chip	None														
Limited warranty <sup>12</sup>	<b>3 years/1 yr battery</b> - EasyServ™.19 onsite pickup and delivery / service upgrades <sup>22</sup> avail														
128 MB PC2700 DDR-SDRAM CL2.5 SOD	31P9828	ThinkPad G41 Li-Ion Battery 12-cell	08K8178	ServicePac 5 yr IOR 9x5 NBD	69P9198										
256 MB PC2700 DDR-SDRAM CL2.5 SOD	31P9830	ThinkPad Multiple Battery Charger II	22P9040	ServicePac 4 yr IOR 9x5 NBD	30L9197										
512 MB PC2700 DDR-SDRAM CL2.5 SOD	31P9832	ThinkPad 120W AC Adapter	22P9150	ServicePac 3 yr IOR 9x5 NBD	30L9197										
1GB PC2700 DDR-SDRAM CL2.5 SOD	31P9834	11a/b/g Wireless CardBus Adapter	31P9101	ServicePac 4 yr IOR 9x5 NBD	69P9198										
60GB HS Hard Disk 9.5mm (5400 rpm)	73P3357	ThinkPad Carrying Case - Expander	73P3597	ServicePac 4 yr P&L P/U Depot	69P9199										
80GB HS Hard Disk 9.5mm (5400 rpm)	09N4273	ThinkPad Carrying Case - BackPack	73P3599	ServicePac 5 yr P&L P/U Depot	69P9201										
USB Portable Diskette Drive	05K9276	ThinkPad Carrying Case - Leather	73P3600	ServicePac options at											
USB 2.0 Combo Drive	73P4515	Enh Perf Wireless Keyboard and Mouse	73P4067	<b>ibm.com/services/its/us/source/wamomxeu.pdf</b>											
USB 2.0 Portable Multi-Burner Drive	22P9163	USB Travel Keyboard with UltraNav	31P9490	Post-warranty annual maintenance agreements at											
USB 2.0 Memory Key 512MB	22P9230	Enhanced Performance USB Keyboard	73P2620	<b>ibm.com/services/its/us/source/maspspleu.pdf</b>											
USB 2.0 Portable 80GB Hard Disk	40Y8726	M400 Projector	0037A04												
TrackPoint Cap Collection	73P2698	C400 Projector	0039A04												
Kensington® MicroSaver® Security Cable	73P2582	ThinkVision® E500 Projector	0038A05												
SonyEricsson® GC83 EDGE PC Card	26K3393	Other options at <a href="http://lenovo.com/options">lenovo.com/options</a>													

See footnotes for important warranty information  
US models announced October 19, 2004 or January 11, 2005  
US models withdrawn effective December 2005

© Lenovo  
(G6) October 2005

# ThinkPad® G41 (TopSeller) - withdrawn

Created by Lenovo Training Solutions  
Personal Systems Reference (PSREF)

Type-model	Processor	Speed GHz	L2 cache	Memory	Screen	Diskette drive	Disk drive GB <sup>8</sup>	Optical	Graphics	Mini PCI Comm Bay wireless	Ethernet on Battery planar cells	Workhorse (W) Global (G) Avail Entry (E)	Date	
2886-2UU	Celeron® D 320	2.40	256K	256MB	15.0" XGA	No	30GB	Combo	Extreme™ 2	11b/g <sup>32</sup>	10/100 12-c	XP Pro	No	Oct 04
2886-23U	Celeron D 320	2.40	256K	256MB	14.1" XGA	No	30GB	Combo	Extreme 2	None	10/100 12-c	XP Pro	No	Oct 04
2886-2VU	Celeron D 320	2.40	256K	256MB	14.1" XGA	No	30GB	CD	Extreme 2	None	10/100 12-c	XP Pro	No	Nov 04
2886-2WU	Celeron D 320	2.40	256K	256MB	14.1" XGA	No	30GB	DVD	Extreme 2	None	10/100 12-c	XP Pro	No	Nov 04
2886-3UU	Celeron D 325	2.53	256K	256MB	15.0" XGA	No	30GB	Combo	Extreme 2	11b/g	10/100 12-c	XP Pro	No	Oct 04
2886-5TU	Pentium® 4 532	3.06	1MB	256MB	15.0" XGA	Yes	40GB	Combo	Extreme 2	11b/g	10/100 6-c	XP Pro	No	Oct 04
2886-78U	Pentium 4 538	3.2	1MB	512MB	15.0" SXGA+	No	80HS	Combo	Go5200 128M	11b/g	Gigabit 12-c	XP Pro	No	Oct 04
2886-79U	Pentium 4 548	3.33	1MB	512MB	15.0" SXGA+	No	80HS	DVD±RW	Go5200 128M	11b/g	Gigabit 12-c	XP Pro	No	Oct 04
2886-92U	Pentium 4 532	3.06	1MB	256MB	15.0" XGA	No	40HS	Combo	Go5200 64MB	11b/g	Gigabit 12-c	XP Pro	No	Oct 04
2886-93U	Pentium 4 538	3.2	1MB	512MB	15.0" SXGA+	No	40HS	Combo	Go5200 64MB	11b/g	Gigabit 12-c	XP Pro	No	Oct 04

These small and medium business (SMB) models are part of the US TopSeller™ Program

Positioning Processor <sup>37</sup>	Powerful desktop replacement; two (models without diskette drive) or three-spindle system Intel® Celeron D Processor 320 (2.40GHz) or 325 (2.53GHz) with 533MHz system bus or Mobile Intel Pentium 4 Processor 532 (3.06GHz), 538 (3.2GHz), or 548 (3.33GHz) with Enhanced Intel SpeedStep™ technology <sup>1</sup> , Hyper-Threading technology, and 533MHz bus Celeron: 256KB; Pentium 4: 1MB; All: on die (at processor speed) / ECC		<b>SOFTWARE<sup>14</sup></b> <b>Windows XP Professional</b> - Microsoft® Windows® XP Professional <sup>20</sup> (Service Pack 2) ✧ Disk-to-Disk Recovery (in hidden protected area)	
L2 cache	256 or 512MB std / 2GB max <sup>7</sup> / PC2700 333MHz DDR1 / non-parity / CL2.5 / two 200-pin SO-DIMM sockets / std memory in one socket / one socket available			
Memory				
Diskette drive	Some: 3.5" 1.44MB / fixed, not removable / 12.7mm high Some: CD-ROM / 24X-10X <sup>9</sup> speed / fixed, not removable / 12.7mm high			
CD	Some: DVD-ROM / 24X-8X <sup>9</sup> speed / single-layer / fixed, not removable / 12.7mm high			
DVD	Some: DVD-ROM/CD-RW / 24X/10X/24X/8X <sup>21</sup> speed / fixed, not removable / 12.7mm			
Combo	Some: DVD and CD burner / writes to + and - formats / Multi-Burner Plus / not removable			
DVD±RW	Some: DVD-ROM/CD-RW / 24X/10X/24X/8X <sup>21</sup> speed / fixed, not removable / 12.7mm			
Disk	Some: DVD and CD burner / writes to + and - formats / Multi-Burner Plus / not removable 30GB <sup>8</sup> (4200 rpm), 40GB (4200 rpm), 40GB HS (5400 rpm), or 80GB HS (5400 rpm) / 9.5mm high / removable / 9.5mm high bay		<b>Preloaded</b> <ul style="list-style-type: none"> <li>Rescue and Recovery™</li> <li>Access Program</li> <li>Access Connections™</li> <li>Norton AntiVirus (OEM edition)</li> <li>PC-Doctor™</li> <li>ThinkPad Utilities</li> <li>Adobe® Reader</li> <li>Update Connector™<sup>15</sup></li> <li>RecordNOW and Drive Letter Access powered by Sonic products (combo, DVD-RW models)</li> <li>InterVideo WinDVD (combo, DVD, DVD±RW models)</li> <li>InterVideo WinDVD Creator (DVD±RW models)</li> <li>Simple Backup (DVD±RW)</li> </ul>	
Display	Some: 14.1" (358.1mm) XGA (1024x768) TFT color / Active Matrix / 150 nits Some: 15.0" (381.0mm) XGA (1024x768) TFT color / Active Matrix / 150 nits Some: 15.0" (381.0mm) SXGA+ (1400x1050) TFT color / Active Matrix / 150 nits All: one latch to unlatch and open with one hand			
Graphics	Some: Integrated Intel Extreme™ Graphics 2 / Direct AGP / in 852GME GMCH / uses main memory (up to 64MB) / 266MHz / DMVT Some: NVIDIA® GeForce™ FX Go5200 / NV34M / AGP 4X / 64 or 128MB memory			
EasyPivot	ThinkPad EasyPivot base allows smooth positioning for a comfortable viewing angle			
Keyboard	87-key / Access IBM button / palm rest / pitch: 19mm; stroke: 2.7mm (std-size keys)			
ComfortSlant	ThinkPad ComfortSlant keyboard with built-in incline provides maximum typing comfort			
TrackPoint®	TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar <sup>13</sup> , magnifying glass soft dome TrackPoint cap / ships with classic dome and soft rim TrackPoint cap		<b>Downloadable</b> <ul style="list-style-type: none"> <li>IBM Director Agent</li> <li>Software Delivery Assistant</li> <li>System Migration Assistant</li> </ul>	
Touch pad	No touch pad (UltraNav™ multi-pointing system) / no ThinkLight™			
Dimensions <sup>3</sup>	12.9" x 11.1" x 1.5-2.0"; 329mm x 282.5mm x 37.1-50.9mm; Volume: 4 liters			
Weight <sup>2</sup>	with optical drive and battery: 6-cell: up to 7.71 lb (3.5kg); 12-cell: up to 7.67 lb (3.5 kg)			
Case material	Color: black; All: Acrylonitrile-Butadiene-Styrene/Polycarbonate (ABS/PC) plastic			
Battery - type	Lithium Ion 6-cell or 12-cell / intelligent / removable			
Battery - life	Not published		<b>License</b> (CD not included) - Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client	
Architecture	Intel 852GME chipset / 82852GME Graphics Memory Controller Hub (GMCH) / 82801DBM ICH4-M I/O Controller Hub (ATA-100 EIDE, PCI bus, ethernet MAC, Low Pin Count (LPC) interface, USB, Firmware Hub) / PCI bus 2.2 32-bit, 33MHz (TI® PCI1520 CardBus controller, Mini PCI) / LPC bus 33MHz (PC87391 Super I/O for [diskette], parallel, PS/2)		Supports ThinkVantage™ technologies; visit <a href="http://thinkpad.com/thinkvantage">thinkpad.com/thinkvantage</a>	
PC Card Std slots	Two Type I, two Type II, or one Type III / CardBus 32-bit / PCMCIA 2.1 / integrated door		Universal 120 watt AC adapter PC 2001 and PXE 2.0-compliant	
Ports	Four USB (Version 2.0) / parallel / external monitor (DB-15) / RJ-11 (modem) / RJ-45 (ethernet) / PS/2 (for keyboard or mouse) / no serial or infrared		ACPI 1.0b and 2.0-compliant CIM and DMI 2.0-compliant ENERGY STAR®-compliant ImageUltra™ Services available International Warranty Service <sup>17</sup> 24 hour x 7 day <sup>18</sup> toll-free warranty support during the warranty <sup>12</sup>	
Wireless antenna	Some (wireless models): UltraConnect™ Antenna built into the display cover		ThinkPlus™ <sup>22</sup> 1-year LOR 9x5 NBD	
Mini PCI	One Mini PCI type III slot (Communications Bay) / not customer upgradable		41C9166	
None	Some: empty / not customer upgradable		ThinkPlus 2-year LOR 9x5 NBD	
11b/g <sup>32</sup>	Some: 11b/g Wi-Fi <sup>32</sup> wireless <sup>4</sup> , Mini PCI, Atheros™ AR5004G chipset		41C9167	
CDC	One Communications Daughter Card (CDC) socket (used by modem) / not accessible		ThinkPlus 3-year LOR 9x5 NBD	
Modem	56K <sup>6</sup> V.90 (V.92-designed <sup>23</sup> ) modem in CDC / Conexant® chipset		41C9168	
Ethernet	Some: 10/100 ethernet on planar / Broadcom® BCM5901 (PHY/MAC) / Wake on LAN® Some: Gigabit ethernet on planar / Broadcom® BCM5705M (PHY/MAC) / Wake on LAN		ThinkPlus 4-year LOR 9x5 NBD	
Audio support	Soft audio / ICH AC97 controller / DirectSound® support / AD90764 AC97 codec / mono speaker, 2 watt / volume up, down, mute buttons / no internal microphone / microphone input jack (3.5 mm) / headphone jack (3.5 mm) / no line in jack		41C9171	
Security	Power-on password / hard disk password / supervisor password / security keyhole		ThinkPlus 5-year LOR 9x5 NBD	
Security chip	None		41C9173	
Limited warranty <sup>12</sup> 1-year - EasyServ™ <sup>19</sup> onsite pickup and delivery / service upgrades <sup>22</sup> available			ThinkPlus 2-year P&L P/U Depot	
256 MB PC2700 DDR-SDRAM CL2.5 SOD	31P9830	ThinkPad G41 Li-Ion Battery 12-cell	08K8178	41C9169
512 MB PC2700 DDR-SDRAM CL2.5 SOD	31P9832	ThinkPad Multiple Battery Charger II	22P9040	41C9170
1GB PC2700 DDR-SDRAM CL2.5 SOD	31P9834	ThinkPad 120W AC Adapter	22P9150	41C9171
40GB HS Hard Disk 9.5mm (5400 rpm)	08K9816	ThinkPad Monitor Stand	22P5265	41C9172
60GB HS Hard Disk 9.5mm (5400 rpm)	73P3357	ThinkPad Carrying Case - Leather	73P3600	41C9173
80GB HS Hard Disk 9.5mm (5400 rpm)	09N4273	USB Keyboard with UltraNav	31P8950	41C9174
USB Portable Diskette Drive	05K9276	USB Travel Keyboard with UltraNav	31P9490	
USB 2.0 Combo Drive	73P4515	Enhanced Performance USB Keyboard	73P2620	
USB 2.0 CD-RW/DVD-ROM Combo II Drive	40Y8637	Lenovo M500 Projector	0037A05	
USB 2.0 Memory Key 512KB	22P9230	ThinkVision® L201p 20.1" Monitor (black)	9320HB1	
USB 2.0 Memory Key 1GB	40Y7421	Other options at <a href="http://lenovo.com/options">lenovo.com/options</a>		

See footnotes for important warranty information  
US models announced on October 19 or November 23, 2004  
US models withdrawn effective October 2006

© Lenovo  
(G7) October 2006

# ThinkPad® G41 (Entry) - withdrawn

Created by Lenovo Training Solutions  
Personal Systems Reference (PSREF)

Type-model	Processor	Speed GHz	L2 cache	Memory	Screen	Diskette drive	Disk GB <sup>8</sup>	Optical	Graphics	Mini PCI Comm Bay wireless	Ethernet on planar	Battery cells	Workhorse (W) Global (G) Avail
2881-22U	Celeron® D 320	2.40	256K	128MB	14.1" XGA	No	30GB	CD	Extreme™ 2	None	10/100	6-cell XP Home	Entry Oct 04
2881-2AU	Celeron D 320	2.40	256K	256MB	14.1" XGA	No	30GB	CD	Extreme 2	None	10/100	6-cell XP Home	Entry Nov 04
2881-28U	Celeron D 320	2.40	256K	128MB	14.1" XGA	Yes	30GB	DVD	Extreme 2	None	10/100	6-cell XP Home	Entry Oct 04
2881-2BU	Celeron D 320	2.40	256K	256MB	14.1" XGA	Yes	30GB	CD	Extreme 2	11b/g <sup>32</sup>	10/100	6-cell XP Pro	Entry Oct 04
2881-2NU	Celeron D 320	2.40	256K	128MB	15.0" XGA	No	30GB	CD	Extreme 2	None	10/100	6-cell XP Home	Entry Oct 04
2881-32U	Celeron D 325	2.53	256K	128MB	14.1" XGA	Yes	30GB	CD	Extreme 2	None	10/100	6-cell XP Home	Entry Oct 04
2881-38U	Celeron D 325	2.53	256K	128MB	14.1" XGA	Yes	30GB	DVD	Extreme 2	None	10/100	6-cell XP Home	Entry Oct 04
2881-3BU	Celeron D 325	2.53	256K	256MB	14.1" XGA	No	30GB	CD	Extreme 2	11b/g	10/100	6-cell XP Pro	Entry Oct 04
2881-42U	Celeron D 330	2.66	256K	128MB	14.1" XGA	Yes	30GB	CD	Extreme 2	None	10/100	6-cell XP Home	Entry Oct 04
2881-47U	Celeron D 330	2.66	256K	128MB	14.1" XGA	Yes	30GB	DVD	Extreme 2	None	10/100	6-cell XP Home	Entry Oct 04
2881-57U	Pentium® 4 532	3.06	1MB	128MB	14.1" XGA	No	30GB	CD	Extreme 2	None	10/100	6-cell XP Home	Entry Oct 04
Positioning Processor <sup>37</sup>	Powerful desktop replacement; two (models without diskette drive) or three-spindle system											<b>SOFTWARE<sup>14</sup></b>	
L2 cache Memory	Intel® Celeron D Processor 320 (2.40GHz), 325 (2.53GHz), or 330 (2.66GHz) with 533MHz system bus or Mobile Intel Pentium 4 Processor 532 (3.06GHz) with enhanced Intel SpeedStep™ technology <sup>1</sup> , Hyper-Threading technology, and 533MHz system bus Celeron: 256KB; Pentium 4: 1MB; All: on die (at processor speed) / ECC 128 or 256MB std / 2GB max <sup>7</sup> / PC2700 333MHz DDR1 / non-parity / CL2.5 / two 200-pin SO-DIMM sockets / std memory in one socket / one socket available											<b>Windows XP Home models</b> - Microsoft® Windows® XP Home Edition <sup>20</sup> (Service Pack 2) ◇ Disk-to-Disk Recovery (in hidden protected area)	
Diskette drive CD DVD Disk	Some: 3.5" 1.44MB / fixed, not removable / 12.7mm high Some: CD-ROM / 24X-10X <sup>9</sup> speed / fixed, not removable / 12.7mm high Some: DVD-ROM / 24X-8X <sup>9</sup> speed / single-layer / fixed, not removable / 12.7mm high 30GB <sup>8</sup> (4200 rpm) / 9.5mm high / removable / 9.5mm high bay											<b>Windows XP Pro models</b> - Microsoft Windows XP Professional <sup>20</sup> (Service Pack 2) ◇ Disk-to-Disk Recovery (in hidden protected area)	
Display	Some: 14.1" (381.0mm) XGA (1024x768) TFT color / Active Matrix / 150 nits Some: 15.0" (381.0mm) XGA (1024x768) TFT color / Active Matrix / 150 nits All: one latch to unlatch and open with one hand											<b>Preloaded (all)</b> • Rescue and Recovery™ • Access IBM • Access Connections • Norton AntiVirus (OEM edition) • PC-Doctor™ • ThinkPad Utilities • Adobe Reader • Update Connector™ <sup>15</sup> • InterVideo WinDVD (DVD)	
Graphics	Integrated Intel Extreme™ Graphics 2 / Direct AGP / in 852GME GMCH / uses main memory (up to 64MB) / 266MHz / DMVT											<b>Downloadable (all)</b> • IBM Director Agent • Software Delivery Assistant • System Migration Assistant  <b>License (CD not included) (all)</b> - Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client	
Graphics external EasyPivot	External monitor support via analog DB-15 connector / up to 1600x1200 at 85Hz / DDC2B ThinkPad EasyPivot base allows smooth positioning for a comfortable viewing angle												
Keyboard ComfortSlant TrackPoint®	87-key / Access IBM button / palm rest / pitch: 19mm; stroke: 2.7mm (std-size keys) ThinkPad ComfortSlant keyboard with built-in incline provides maximum typing comfort TrackPoint® pointing device, "Press-to-Select," Internet Scroll Bar <sup>13</sup> , magnifying glass / soft dome TrackPoint cap / ships with classic dome and soft rim TrackPoint cap												
Touch pad	No touch pad (UltraNav™ multi-pointing system) / no ThinkLight™												
Dimensions <sup>3</sup> Weight <sup>2</sup> Case material Battery - type Battery - life	12.9" x 11.1" x 1.5-2.0"; 329mm x 282.5mm x 37.1-50.9mm; Volume: 4 liters with optical drive and battery: 6-cell: up to 7.52 lb (3.4kg) Color: black; All: Acrylonitrile-Butadiene-Styrene/Polycarbonate (ABS/PC) plastic Lithium Ion 6-cell / intelligent / removable Not published												
Architecture	Intel 852GME chipset / 82852GME Graphics Memory Controller Hub (GMCH) / 82801DBM ICH4-M I/O Controller Hub (ATA-100 EIDE, PCI bus, ethernet MAC, Low Pin Count (LPC) interface, USB, Firmware Hub) / PCI bus 2.2 32-bit, 33MHz (TI® PCI1520 CardBus controller, Mini PCI) / LPC bus 33MHz (PC87391 Super I/O for [diskette], parallel, PS/2)											ThinkPad notebooks implement ThinkVantage™ technologies and design; visit <a href="http://thinkpad.com/thinkvantage">thinkpad.com/thinkvantage</a>	
PC Card Std slots Ports	Two Type I, two Type II, or one Type III / CardBus 32-bit / PCMCIA 2.1 / integrated door Four USB (Version 2.0) / parallel / external monitor (DB-15) / RJ-11 (modem) / RJ-45 (ethernet) / PS/2 (for keyboard or mouse) / no serial or infrared											Universal 120 watt AC adapter PC 2001 and PXE 2.0-compliant ACPI 1.0b and 2.0-compliant CIM and DMI 2.0-compliant ENERGY STAR®-compliant ImageUltra™ Services available International Warranty Service <sup>17</sup> 24 hour x 7 day <sup>18</sup> toll-free warranty support during the warranty <sup>12</sup>	
Wireless antenna Mini PCI None 11b/g <sup>32</sup> CDC Modem Ethernet Audio support	Some (wireless models): UltraConnect™ Antenna built into the display cover One Mini PCI type III slot (Communications Bay) / not customer upgradable Some: empty / not customer upgradable Some: 11b/g Wi-Fi <sup>32</sup> wireless <sup>4</sup> , Mini PCI, Atheros® AR5004G chipset One Communications Daughter Card (CDC) socket (used by modem) / not accessible 56K <sup>6</sup> V.90 (V.92-designed <sup>29</sup> ) modem in CDC / Conexant® chipset 10/100 ethernet on planar / Broadcom® BCM5901 (PHY/MAC) / PXE / Wake on LAN® Soft audio / ICH AC97 controller / DirectSound® support / AD90764 AC97 codec / mono speaker / 2 watt / volume up, down, mute buttons / no internal microphone / microphone input jack (3.5 mm) / headphone jack (3.5 mm) / no line in jack											ServicePac®. <sup>22</sup> 1yr IOR 9x5 NBD 30L9188 ServicePac 2 yr IOR 9x5 NBD 30L9189 ServicePac 3 yr IOR 9x5 NBD 30L9195 ServicePac 4 yr IOR 9x5 NBD 30L9194 ServicePac 5 yr IOR 9x5 NBD 30L9196 ServicePac 2 yr P&L P/U Depot 30L9191 ServicePac 3 yr P&L P/U Depot 30L9192 ServicePac 4 yr P&L P/U Depot 69P9195 ServicePac 5 yr P&L P/U Depot 69P9197	
Security Security chip	Power-on password / hard disk password / supervisor password / security keyhole None											Post-warranty annual maintenance agreements at <a href="http://ibm.com/services/us/its/pdf/maspspleu.pdf">ibm.com/services/us/its/pdf/maspspleu.pdf</a>	
Limited warranty <sup>12</sup> 1 year	EasyServ™. <sup>19</sup> onsite pickup and delivery / service upgrades <sup>22</sup> available												
128MB PC2700 DDR-SDRAM CL2.5 SOD 256MB PC2700 DDR-SDRAM CL2.5 SOD 512MB PC2700 DDR-SDRAM CL2.5 SOD 1GB PC2700 DDR-SDRAM CL2.5 SOD 40GB HS Hard Disk 9.5mm (5400 rpm) 60GB HS Hard Disk 9.5mm (5400 rpm) 80GB HS Hard Disk 9.5mm (5400 rpm) USB Portable Diskette Drive USB 2.0 Combo Drive USB 2.0 Portable Multi-Burner Drive USB 2.0 Memory Key 512MB Optical 3-Button Travel Wheel Mouse TrackPoint Cap Collection Kensington® MicroSaver® Security Cable SonyEricsson® GC83 EDGE PC Card	31P9828 31P9830 31P9832 31P9834 08K9816 73P3357 09N4273 05K9276 73P4515 22P9163 22P9230 31P7410 73P2698 73P2582 26K3393	ThinkPad G41 Li-Ion Battery 12-cell 08K8178 ThinkPad Multiple Battery Charger II 22P9040 ThinkPad 120W AC Adapter 22P9150 11a/b/g Wireless CardBus Adapter 31P9101 GemPC400 Smart Card Reader/Writer 31P8901 ThinkPad Monitor Stand 2001 22P5265 ThinkPad Carrying Case - Expander 73P3597 ThinkPad Carrying Case - Organizer 73P3598 ThinkPad Carrying Case - Leather 73P3600 USB Keyboard with UltraNav 31P8950 USB Travel Keyboard with UltraNav 31P9490 Enhanced Performance USB Keyboard 73P2620 C400 Projector 0039A04 ThinkVision® E500 Projector 0038A05 Other options at <a href="http://lenovo.com/options">lenovo.com/options</a>											

See footnotes for important warranty information  
US models announced October 19 or November 23, 2004  
US models withdrawn effective December 2005

© Lenovo  
(G8) October 2005

# ThinkPad® Z60m (2529) - TopSeller - withdrawn

Created by Lenovo Training Solutions  
Personal Systems Reference (PSREF)

Type-model	Top cover color	Processor	Speed GHz	Memory MB	Wide-screen display	Graphics controller	Disk SATA GB <sup>8</sup>	Disk Optical	Mini PCI 802.11 wireless	Mini PCIe WWAN	Finger print reader	Bat-Chip set	Pre-load	Limited warranty <sup>12</sup>	Avail date
2529-E1U	Black	Celeron® M 360J	1.4	256	15.4" WXGA	GMA 40G	Combo	Intel 11a/b/g <sup>32</sup>	None		GM	6	XP Pro	1-yr	Oct 05
2529-E2U	Black	Celeron M 360J	1.4	512	15.4" WXGA	GMA 60G	DVD±RW	Intel 11a/b/g	None		GM	6	XP Pro	1-yr	Oct 05
2529-E3U	Black	Pentium® M 740	1.73	512	15.4" WXGA	GMA 40G	Combo	*Intel 11a/b/g	None		GM	6	XP Pro	1-yr	Oct 05
2529-E6U	Black	Pentium M 740	1.73	512	15.4" WXGA	GMA 60G	DVD±RW	*Intel 11a/b/g	None	Finger	GM	6	XP Pro	1-yr	Oct 05
2529-E7U	Black	Pentium M 750	1.86	512	15.4" WXGA	X300 60G	Combo	*Intel 11b/g <sup>32</sup>	None	Finger	PM	6	XP Pro	1-yr	Oct 05
2529-E8U	Black	Pentium M 750	1.86	512	15.4" WSXGA+	X300 80G	DVD±RW	*Intel 11b/g	None	Finger	PM	6	XP Pro	1-yr	Oct 05
2529-E9U	Silver	Pentium M 760	2.00	512	15.4" WSXGA+	X600 80G	DVD±RW	*Intel 11a/b/g	None	Blue Finger	PM	9	XP Pro	1-yr	Oct 05
2529-EAU	Silver	Pentium M 760	2.00	1GB	15.4" WSXGA+	X600 100	DVD±RW	*Intel 11a/b/g	None	Blue Finger	PM	9	XP Pro	1-yr	Oct 05
2529-F1U	Black	Celeron M 360J	1.4	256	15.4" WXGA	GMA 40G	Combo	Intel 11a/b/g	None		GM	6	Home	1-yr	Oct 05
2529-F3U	Black	Celeron M 370	1.5	256	15.4" WXGA	GMA 40G	Combo	Intel 11a/b/g	None		GM	6	Home	1-yr	Oct 05
2529-F4U	Black	Celeron M 370	1.5	256	15.4" WXGA	GMA 40G	Combo	Intel 11a/b/g	None		GM	6	XP Pro	1-yr	Oct 05
2529-F5U	Black	Pentium M 740	1.73	256	15.4" WXGA	GMA 40G	Combo	*Intel 11a/b/g	None		GM	6	Home	1-yr	Oct 05
2529-FVU	Black	Celeron M 370	1.5	256	15.4" WXGA	GMA 40G	CD	Intel 11a/b/g	None		GM	6	Home	1-yr	Oct 05
2529-FWU	Black	Celeron M 370	1.5	256	15.4" WXGA	GMA 40G	Combo	Intel 11b/g	None		GM	6	XP Pro	1-yr	Oct 05
2529-FZU	Black	Pentium M 740	1.73	512	15.4" WXGA	GMA 60G	DVD±RW	*Intel 11b/g	None		GM	6	XP Pro	1-yr	Oct 05
2529-O1U	Silver	Pentium M 740	1.73	512	15.4" WX MaxB	X300 40G	Combo	*Intel 11a/b/g	None		PM	6	XP Pro	1-yr	Oct 05
2529-O2U	Silver	Pentium M 750	1.86	512	15.4" WX MaxB	X300 80G	DVD±RW	*Intel 11a/b/g	None		PM	6	Home	1-yr	Oct 05
2529-O3U	Black	Pentium M 740	1.73	512	15.4" WXGA	GMA 40G	Combo	*Intel 11a/b/g	None		GM	6	Home	1-yr	Oct 05
2529-O4U	Black	Pentium M 740	1.73	512	15.4" WXGA	GMA 80G	DVD±RW	*Intel 11a/b/g	None		GM	6	Home	1-yr	Oct 05

- These small and medium business (SMB) models are part of the US TopSeller™ Program
- These 2529 models have a 1-year limited warranty

Positioning Processor	Stylish notebooks for work and life; widescreen display; two-spindle system <b>Intel® Celeron M Processor 360J</b> , or <b>370</b> with XD Bit and 400MHz system bus or <b>Intel Pentium M Processor 740, 750, or 760</b> with Enhanced Intel SpeedStep™ technology <sup>1</sup> , Execute Disable Bit, and 533MHz system bus	<b>SOFTWARE<sup>14</sup></b> <b>Windows XP Professional models</b> - Microsoft® Windows® XP Professional <sup>20</sup> (Service Pack 2) ◇ Disk-to-Disk Recovery <b>Windows XP Home models</b> - Microsoft Windows XP Home Edition <sup>20</sup> (Service Pack 2) ◇ Disk-to-Disk Recovery <b>Preloaded (all)</b> • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • ThinkVantage System Update • Symantec® Client Security • Diskeeper Lite • PC-Doctor™ • ThinkPad utilities • Adobe® Reader • Fingerprint Software (some) • Multimedia Center for Think Offerings • Sonic RecordNOW and Drive Letter Access (combo, DVD±RW) • InterVideo WinDVD (combo, DVD±RW models) • InterVideo WinDVD Creator (DVD±RW models) <b>License - CD not included (all)</b> - Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client
L2 cache Memory	<b>Celeron M: 1 MB; Pentium M: 2MB; All:</b> on die (at processor speed) / ECC <b>256MB, 512MB, or 1GB</b> std / 2GB max <sup>7</sup> / PC2-4200 533MHz <b>DDR2</b> / non-parity / dual channel capable / two 200-pin SO-DIMM sockets / std mem in 1 socket / 1 socket avail	
CD Combo DVD±RW Ultrabay Enhanced Serial ATA disk (SATA150)	<i>Some:</i> CD-ROM / 24X-10X <sup>9</sup> speed / removable from Ultrabay™ Enhanced <i>Some:</i> DVD-ROM/CD-RW / 24X/24X/24X/8X <sup>21</sup> speed / removable from Ultrabay Enhance <i>Some:</i> DVD and CD burner / Multi-Burner Plus / removable from Ultrabay Enhanced One bay for removable devices / Ultrabay Slim-compatible / 12.7mm high / curved bezel <b>40GB<sup>8</sup></b> (5400 rpm), <b>60GB</b> (5400 rpm), <b>80GB</b> (5400 rpm), or <b>100GB</b> (5400 rpm) / 9.5mm high / removable and upgradable / 9.5mm high bay / supports 2nd disk / <b>HDD Protection Pack</b> (shock absorber) / <b>Active Protection System™</b>	
Widescreen display	<i>Some:</i> <b>15.4"</b> (391.0mm) <b>WXGA (1280x800) TFT color</b> / 200 nits / 16:10 aspect ratio <i>Some:</i> <b>15.4"</b> (391.0mm) <b>WXGA (1280x800) TFT color / MaxBright™</b> / 300 nits / 16:10 <i>Some:</i> <b>15.4"</b> (391.0mm) <b>WSXGA+ (1680x1050) TFT color</b> / 200 nits / 16:10 aspect <i>All:</i> stainless steel hinges / one hand activates dual latches / secure screen surround	
Graphics	<i>Some:</i> <b>Intel Graphics Media Accelerator 900 (GMA 900)</b> / integrated in 915GM <i>Some:</i> <b>ATI® MOBILITY™ RADEON® X300</b> / PCI Express x16 / <b>64MB</b> memory <i>Some:</i> <b>ATI MOBILITY RADEON X600</b> / PCI Express x16 / <b>128MB</b> memory	
Keyboard TrackPoint® ThinkLight™	89-key / ThinkVantage button / spill-resistant / multimedia Fn keys / Windows, Appl keys TrackPoint® pointing device / UltraNav® multi-pointing system (touchpad) Illuminates the keyboard to improve visibility in low-light conditions	
Dimensions <sup>3</sup> Weight <sup>2</sup> Case material	(WxDxH): 14.1" x 10.3" x 1.47-1.58"; 357mm x 263mm x 37.3-40.2mm with optical drive and battery: 6-cell: up to 7.0 lb (3.2kg); 9-cell: up to 7.3 lb (3.3kg) <i>Some:</i> black color; Acrylonitrile-Butadiene-Styrene (ABS) plastic <i>Some:</i> top cover: silver color; ABS, aluminum, titanium material; bottom: black, ABS	
Battery - type Battery - life <sup>10</sup>	Lithium Ion <b>6-cell</b> or <b>9-cell</b> / intelligent / supports unique 2nd battery in Ultrabay Enhance <i>6-cell:</i> up to 4.0 hr; <i>9-cell:</i> up to 6.0 hr; <i>9-cell plus Ultrabay battery:</i> up to 8.0 hr	
Architecture	<i>Some:</i> <b>Mobile Intel 915GM Express Chipset</b> / 82915GM Graphics Mem Cont Hub <i>Some:</i> <b>Mobile Intel 915PM Express Chipset</b> / 82915PM Memory Controller Hub <i>All:</i> 82801FBM ICH6-M I/O Controller Hub (SATA150, ATA-100 EIDE, PCI Express x1, PCI bus, ethernet, USB, [Bluetooth], [fingerprint]) / PCI bus (Ricoh® R5C841 CardBus, Mini PCI) / LPC bus (NS PC87382 Super I/O, Atmel® 97SC3201TPM)	
PC Card slot ExpressCard slot Ports	One Type I or Type II slot / CardBus 32-bit / integrated door One ExpressCard/34 or ExpressCard/54 / PCI Express x1 or USB 2.0 / integrated door <b>3-in-1 digital media reader</b> (MultiMediaCard, Memory Stick, Secure Digital) / S-video out port (TV out) / IEEE 1394 (FireWire 400) / three USB 2.0 / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / docking connector / no keyboard or mouse or parallel or serial ports (use USB)	ThinkPad notebooks implement ThinkVantage™ technologies and design; visit <a href="http://thinkpad.com/thinkvantage">thinkpad.com/thinkvantage</a>
Wireless antenna Mini PCI Intel 11b/g <sup>32</sup> Intel 11a/b/g <sup>32</sup> Mini PCI Express WWAN <sup>16</sup> Modem Bluetooth™ Ethernet Audio	UltraConnect™ Antenna built into the display cover / on-off switch for all wireless radios One Mini PCI slot / customer upgradable <i>Some:</i> 11b/g wireless <sup>4</sup> , Mini PCI, Intel PRO/Wireless 2200BG, Intel 82532 chip <i>Some:</i> 11a/b/g wireless <sup>4</sup> , Mini PCI, Intel PRO/Wireless 2915ABG, 82533 chipset One Mini PCI Express slot / not customer upgradable 56K <sup>5</sup> V.90 (V.92-designed <sup>29</sup> ) modem in Comm Daughter Card socket / Conexant® chip <i>Some:</i> Bluetooth 2.0 wireless / USB 2.0 interface via ICH6-M / LED indicator Gigabit ethernet on systemboard / Broadcom BCM5751M (MAC/PHY) / PCIe x1 / PXE High Definition (HD) Audio / AD1981HD codec / stereo speakers, 1 watt / volume up, down, mute buttons / internal microphone / microphone input jack / headphone jack Power-on password / hard disk password / supervisor password / security keyhole	Universal 90 watt AC adapter ThinkPad Roll Cage PC 2001-compliant ACPI 1.0b and 2.0-compliant CIM and DMI 2.0-compliant PXE 2.1-compliant ENERGY STAR®-compliant RoHS-compliant International Warranty Service <sup>17</sup> 24 hour x 7 day <sup>18</sup> toll-free warranty support during the warranty <sup>12</sup>
Security Security chip Fingerprint reader Limited warranty <sup>12</sup>	<b>Trusted Platform Module</b> / Atmel chip / TCG 1.1-compliant <i>Some:</i> <b>Fingerprint reader on palm rest</b> / swipe sensor / integrated with security chip	ThinkPlus™.22 1-year LOR 9x5 NBD 41C9166 ThinkPlus 3-year LOR 9x5 NBD 41C9168 Other ThinkPlus services at <a href="http://lenovo.com/thinkplus/warranty">lenovo.com/thinkplus/warranty</a>

See footnotes for important warranty information \* Powered by Intel Centrino® mobile technology  
US models announced September 20 or October 19, 2005  
US models withdrawn effective June 2006



# ThinkPad® Z60m (2529) - TopSeller (November 2005) - withdrawn

Created by Lenovo Training Solutions  
Personal Systems Reference (PSREF)

Type-model	Top cover color	Olympic logo on cover	Processor	Speed GHz	Memory MB	Wide-screen display	Graphics controller	Disk SATA GB <sup>6</sup>	Optical	Mini PCI 802.11 wireless	Finger print reader	Battery Pre-load	Limited wnty <sup>12</sup>	Avail date
2529-FYU	Black		Celeron® M 360J	1.4	256	15.4" WXGA	GMA 40G	40G	CD	Intel 11b/g <sup>32</sup>		GM 6 Home	1-yr Nov05	
2529-EEU	Black		Pentium® M 740	1.73	256	15.4" WXGA	GMA 40G	40G	CD	* Intel 11b/g		GM 6 Home	1-yr Nov05	
2529-EFU	Silver		Pentium M 740	1.73	512	15.4" WX MaxB	X600	60G	DVD±RW	* Intel 11a/b/g <sup>32</sup>	Blue Finger	PM 6 Pro	1-yr Nov05	
2529-EHU	Silver		Celeron M 370	1.5	512	15.4" WXGA	GMA 60G	60G	DVD±RW	Intel 11b/g		GM 6 Home	1-yr Nov05	
2529-EJU	Silver		Pentium M 740	1.73	256	15.4" WXGA	GMA 40G	40G	Combo	* Intel 11b/g		GM 6 Home	1-yr Nov05	
2529-EKU	Silver		Pentium M 740	1.73	512	15.4" WXGA	GMA 40G	40G	Combo	* Intel 11a/b/g		GM 6 Pro	1-yr Nov05	
2529-ELU	Silver		Pentium M 740	1.73	512	15.4" WXGA	GMA 60G	60G	DVD±RW	* Intel 11a/b/g		GM 6 Pro	1-yr Nov05	
2529-EMU	Silver		Pentium M 740	1.73	1GB	15.4" WX MaxB	X300	100	DVD±RW	* Intel 11a/b/g	Blue Finger	PM 6 Pro	1-yr Nov05	
2529-EZU	Silver	Logo	Pentium M 740	1.73	512	15.4" WX MaxB	X300	80G	DVD±RW	* Intel 11b/g	Blue Finger	PM 6 Home	1-yr Jan 06	

- These small and medium business (SMB) models are part of the US TopSeller™ Program
- These 2529 models have a 1-year limited warranty

		SOFTWARE <sup>14</sup>
Positioning Processor	Stylish notebooks for work and life; widescreen display; two-spindle system Intel® Celeron M Processor 360J or 370 with Execute Disable Bit and 400MHz bus or Intel Pentium M Processor 740 with Enhanced Intel SpeedStep™ technology <sup>1</sup> , Execute Disable Bit, and 533MHz system bus	<b>Windows XP Professional models</b> - Microsoft® Windows® XP Professional <sup>20</sup> (Service Pack 2)
L2 cache Memory	Celeron M: 1 MB; Pentium M: 2MB; All: on die (at processor speed) / ECC 256MB, 512MB, or 1GB std / 2GB max <sup>7</sup> / PC2-4200 533MHz DDR2 / non-parity / dual channel capable / two 200-pin SO-DIMM sockets / standard memory in one socket / one socket available	<b>Windows XP Home models</b> - Microsoft Windows XP Home Edition <sup>20</sup> (Service Pack 2)
CD Combo DVD±RW Ultrabay Enhanced Serial ATA disk (SATA150)	Some: CD-ROM / 24X-10X <sup>9</sup> speed / removable from Ultrabay™ Enhanced Some: DVD-ROM/CD-RW / 24X/24X/24X/8X <sup>21</sup> speed / removable from Ultrabay Enhanced Some: DVD and CD burner / Multi-Burner Plus / removable from Ultrabay Enhanced One bay for removable devices / Ultrabay Slim-compatible / 12.7mm high / curved bezel 40GB <sup>8</sup> , 60GB, 80GB, or 100GB (all 5400 rpm) / 9.5mm high / removable and upgradable / 9.5mm high bay / supports 2nd disk / HDD Protection Pack (shock absorber) / Active Protection System™	<b>Preloaded</b> (all; only some listed) • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • ThinkVantage System Update • Symantec® Client Security • Diskeeper Lite • PC-Doctor™ • Fingerprint Software (some) • Multimedia Center for Think Offerings • Sonic RecordNOW and Drive Letter Access (combo, DVD±RW) • InterVideo WinDVD (combo, DVD±RW models) • InterVideo WinDVD Creator (DVD±RW models)
Widescreen display	Some: 15.4" (391.0mm) WXGA (1280x800) TFT color / 200 nits / 16:10 aspect ratio Some: 15.4" (391.0mm) WXGA (1280x800) TFT color / MaxBright™ / 300 nits / 16:10 All: stainless steel hinges / one hand activates dual latches / secure screen surround	
Olympic logo	Some: Olympic logo on titanium top cover	
Graphics	Some: Intel Graphics Media Accelerator 900 (GMA 900) / integrated in 915GM Some: ATI® MOBILITY™ RADEON® X300 / PCI Express x16 / 64MB memory Some: ATI MOBILITY RADEON X600 / PCI Express x16 / 128MB memory	
Keyboard TrackPoint™ ThinkLight™	89-key / ThinkVantage button / spill-resistant / multimedia Fn keys / Windows, Appl keys TrackPoint® pointing device / UltraNav® multi-pointing system (touchpad) Illuminates the keyboard to improve visibility in low-light conditions	
Dimensions <sup>3</sup> Weight <sup>2</sup> Case material	(WxDxH): 14.1" x 10.3" x 1.47-1.58"; 357mm x 263mm x 37.3-40.2mm with optical drive and battery: 6-cell: up to 7.0 lb (3.2kg) Some: black color; Polycarbonate/Acrylonitrile-Butadiene-Styrene (PC/ABS) plastic Some: top cover: silver color; ABS, aluminum, titanium material; bottom: black, PC/ABS	<b>License</b> - CD not included (all) - Lotus® SmartSuite® Millennium and - Lotus Notes® Stand-alone Client (Notes client not supported on XP Home)
Battery - type Battery - life <sup>10</sup>	Lithium Ion 6-cell / intelligent / supports unique 2nd battery in Ultrabay Enhanced 6-cell: up to 4.0 hr; optional 9-cell: up to 6.0 hr; 9-cell plus Ultrabay battery: up to 8.0 hr	
Architecture	Some: Mobile Intel 915GM Express Chipset / 82915GM Graphics Mem Cont Hub Some: Mobile Intel 915PM Express Chipset / 82915PM Memory Controller Hub All: 82801FBM ICH6-M I/O Controller Hub (SATA150, ATA-100 EIDE, PCI Express x1, PCI bus, ethernet, USB, [Bluetooth], [fingerprint]) / PCI bus (Ricoh® R5C841 CardBus, Mini PCI) / LPC bus (NS PC87382 Super I/O, Atmel® 97SC3201TPM)	ThinkPad notebooks implement ThinkVantage™ technologies and design; visit <a href="http://thinkpad.com/thinkvantage">thinkpad.com/thinkvantage</a>
PC Card slot ExpressCard slot Ports	One Type I or Type II slot / CardBus 32-bit / integrated door One ExpressCard/34 or ExpressCard/54 / PCI Express x1 or USB 2.0 / integrated door 3-in-1 digital media reader (MultiMediaCard, Memory Stick, Secure Digital) / S-video out port (TV out) / IEEE 1394 (FireWire 400) / three USB 2.0 / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / docking connector / no keyboard or mouse or parallel or serial ports (use USB)	Universal 90 watt AC adapter ThinkPad Roll Cage PC 2001-compliant ACPI 1.0b and 2.0-compliant CIM and DMI 2.0-compliant PXE 2.1-compliant ENERGY STAR®-compliant RoHS-compliant International Warranty Service <sup>17</sup> 24 hour x 7 day <sup>18</sup> toll-free warranty support during the warranty <sup>12</sup>
Wireless antenna Mini PCI Intel 11b/g <sup>32</sup> Intel 11a/b/g <sup>32</sup> Mini PCI Express WWAN <sup>16</sup>	UltraConnect™ Antenna built into the display cover / on-off switch for all wireless radios One Mini PCI slot / customer upgradable Some: 11b/g wireless <sup>4</sup> , Mini PCI, Intel PRO/Wireless 2200BG, Intel 82532 chip Some: 11a/b/g wireless <sup>4</sup> , Mini PCI, Intel PRO/Wireless 2915ABG, 82533 chipset	ThinkPlus™.22 1-year LOR 9x5 NBD 41C9166
Modem Bluetooth™ Ethernet Audio	None 56K <sup>5</sup> V.90 (V.92-designed <sup>29</sup> ) modem in Comm Daughter Card socket / Conexant® chip Some: Bluetooth 2.0 wireless / USB 2.0 interface via ICH6-M / LED indicator Gigabit ethernet on systemboard / Broadcom BCM5751M (MAC/PHY) / PCIe x1 / PXE High Definition (HD) Audio / AD1981HD codec / stereo speakers, 1 watt / volume up, down, mute buttons / internal microphone / microphone input jack / headphone jack	ThinkPlus 2-year LOR 9x5 NBD 41C9167 ThinkPlus 3-year LOR 9x5 NBD 41C9168
Security Security chip Fingerprint reader	Power-on password / hard disk password / supervisor password / security keyhole Trusted Platform Module / Atmel chip / TCG 1.1-compliant Some: Fingerprint reader on palm rest / swipe sensor / integrated with security chip	ThinkPlus 4-year LOR 9x5 NBD 41C9171 ThinkPlus 5-year LOR 9x5 NBD 41C9173
Limited warranty <sup>12</sup>	1-year - EasyServ™.19 onsite pickup and delivery / service upgrades <sup>22</sup> available	ThinkPlus 2-year P&L P/U Depot 41C9169 ThinkPlus 3-year P&L P/U Depot 41C9170 ThinkPlus 4-year P&L P/U Depot 41C9172 ThinkPlus 5-year P&L P/U Depot 41C9174
256MB PC2-4200 DDR2 NP CL4 SOD 512MB PC2-4200 DDR2 NP CL4 SOD 1GB PC2-4200 DDR2 NP CL4 SOD Super Multi-Burner Ultrabay Enh Dvr (curved) Serial Hard Drive Ultrabay Slim Adptr (flat) 100GB Disk 9.5mm SATA150 (5400 rpm) Other options on O-Z60M sheet	73P3840 73P3842 73P3844 40Y8624 40Y8725 40Y8721	Z60m/R60 Series Li-Ion Battery 6-cell 40Y6795 Z60m/T60/R60 Li-Ion Battery 9-cell 40Y6797 Advanced Ultrabay Battery 3-cell 40Y6789 ThinkPad Essential Port Replicator 250510W ThinkPad Advanced Mini Dock 250410U ThinkPad Advanced Dock 250310U Other options at <a href="http://lenovo.com/options">lenovo.com/options</a>

See footnotes for important warranty information

\* Powered by Intel Centrino™ mobile technology

© Lenovo

US models announced November 22, 2005 or January 24, 2006

(WR6) August 2006

US models withdrawn effective May or September 2006

# ThinkPad® Z60m (2529) - TopSeller (January 2006) - withdrawn

Created by Lenovo Training Solutions  
Personal Systems Reference (PSREF)

Type-model	Top cover color	Processor	Speed GHz	Memory MB	Wide-screen display	Graphics controller	Disk SATA GB <sup>6</sup>	EIDE optical	Mini PCI 802.11 wireless	Mini PCIe WWAN wireless	Blue-tooth reader	Finger print	Battery Chip set	Pre-load cells	Limited warranty <sup>12</sup>	Avail date
2529-H2U	Black	Celeron® M 380	1.6	256	15.4" WXGA	GMA 40G	40G	Combo	Intel 11b/g <sup>32</sup>	None			GM 6	Home	1-yr	Jan 06
2529-H3U	Black	Pentium® M 760	2.00	512	15.4" WXGA	GMA 100	100	DVD±RW	11a/b/g <sup>32</sup>	None			GM 6	Pro	1-yr	Jan 06
2529-HMU	Black	Celeron M 380	1.6	512	15.4" WXGA	GMA 40G	40G	Combo	11a/b/g	None			GM 6	Home	1-yr	Jan 06
2529-HPU	Black	Pentium M 760	2.00	512	15.4" WXGA	GMA 80G	80G	DVD±RW	11a/b/g	None		Finger	GM 9	Pro	1-yr	Jan 06
2529-HUU	Black	Pentium M 770	2.13	512	15.4" WXGA	X600 100	100	DVD±RW	11a/b/g	Verizon	Blue	Finger	PM 9	Pro	1-yr	Jan 06
2529-HWU	Black	Pentium M 770	2.13	512	15.4" WXGA	X600 100	100	DVD±RW	11a/b/g	Verizon	Blue	Finger	PM 6	Pro	1-yr	Jan 06
2529-R2U	Black	Celeron M 380	1.6	256	15.4" WXGA	GMA 40G	40G	Combo	Intel 11b/g	None			GM 6	Pro	1-yr	Jan 06
2529-R3U	Silver	Pentium M 750	1.86	512	15.4" WX	MaxB X600 80G	80G	DVD±RW	* Intel 11a/b/g <sup>32</sup>	None		Finger	PM 6	Pro	1-yr	Jan 06
2529-R5U	Black	Celeron M 380	1.6	512	15.4" WXGA	GMA 60G	60G	DVD±RW	Intel 11b/g	None			GM 6	Pro	1-yr	Jan 06
2529-R6U	Silver	Celeron M 380	1.6	256	15.4" WXGA	GMA 40G	40G	Combo	Intel 11b/g	None			GM 6	Pro	1-yr	Jan 06
2529-R7U	Silver	Pentium M 750	1.86	512	15.4" WXGA	GMA 60G	60G	Combo	* Intel 11a/b/g	None			GM 6	Pro	1-yr	Jan 06
2529-R8U	Silver	Pentium M 750	1.86	512	15.4" WXGA	GMA 80G	80G	DVD±RW	* Intel 11a/b/g	None			GM 6	Pro	1-yr	Jan 06
2529-R9U	Silver	Pentium M 750	1.86	512	15.4" WX	MaxB X300 60G	60G	Combo	* Intel 11a/b/g	None			PM 6	Pro	1-yr	Jan 06
2529-RAU	Black	Pentium M 750	1.86	512	15.4" WXGA	X300 60G	60G	Combo	* Intel 11a/b/g	None			PM 6	Pro	1-yr	Jan 06
2529-RCU	Silver	Pentium M 770	2.13	1GB	15.4" WX	MaxB X600 100	100	DVD±RW	* Intel 11a/b/g	None	Blue	Finger	PM 9	Pro	1-yr	Jan 06
2529-RBU	Black	Pentium M 750	1.86	512	15.4" WXGA	GMA 80G	80G	Combo	* Intel 11a/b/g	None			GM 6	Pro	1-yr	Feb 06

- These small and medium business (SMB) models are part of the US TopSeller™ Program
- These 2529 models have a 1-year limited warranty

Positioning	<i>Stylish notebooks for work and life; widescreen display; two-spindle system</i>	<b>SOFTWARE<sup>14</sup></b> <b>Windows XP Professional models</b> - Microsoft® Windows® XP Professional <sup>20</sup> (Service Pack 2) ♦ Disk-to-Disk Recovery  <b>Windows XP Home models</b> - Microsoft Windows XP Home Edition <sup>20</sup> (Service Pack 2) ♦ Disk-to-Disk Recovery  <b>Preloaded (all)</b> • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • ThinkVantage System Update • Symantec® Client Security • Diskeeper Lite • PC-Doctor™ • ThinkPad utilities • Adobe® Reader • Fingerprint Software (some) • Multimedia Center for Think Offerings • Sonic RecordNow and Drive Letter Access (combo, DVD±RW) • InterVideo WinDVD (combo, DVD±RW models) • InterVideo WinDVD Creator (DVD±RW models)
Processor	Intel® Celeron M Processor 380 with XD Bit and 400MHz system bus or Intel® Pentium M Processor 750, 760, or 770 with Enhanced Intel SpeedStep™ technology <sup>1</sup> , Execute Disable Bit, and 533MHz system bus	
L2 cache	<i>Celeron M: 1 MB; Pentium M: 2MB; All: on die (at processor speed) / ECC</i>	<b>License - CD not included (all)</b> - Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client
Memory	<b>256MB, 512MB, or 1GB</b> std / 2GB max <sup>7</sup> / PC2-4200 533MHz DDR2 / non-parity / dual channel capable / two 200-pin SO-DIMM sockets / std mem in 1 socket / 1 socket avail	
EIDE Combo	<i>Some: DVD-ROM/CD-RW / 24X/24X/24X/8X<sup>21</sup> speed / removable from Ultrabay Enh</i>	<b>ThinkPad notebooks implement ThinkVantage® technologies and design; visit <a href="http://thinkpad.com/thinkvantage">thinkpad.com/thinkvantage</a></b>  Universal 90 watt AC adapter ThinkPad Roll Cage PC 2001-compliant ACPI 1.0b and 2.0-compliant CIM and DMI 2.0-compliant PXE 2.1-compliant ENERGY STAR®-compliant RoHS-compliant International Warranty Service <sup>17</sup> 24 hour x 7 day <sup>18</sup> toll-free warranty support during the warranty <sup>12</sup>  ThinkPlus™.22 1-year LOR 9x5 NBD 41C9166 ThinkPlus 3-year LOR 9x5 NBD 41C9168 Other ThinkPlus services at <a href="http://lenovo.com/thinkplus/warranty">lenovo.com/thinkplus/warranty</a>
EIDE DVD±RW	<i>Some: DVD burner / Super Multi-Burner (40Y8623) dual-layer, removable Ultrabay Enh</i>	
Ultrabay Enhanced	<i>One bay for removable devices / Ultrabay Slim-compatible / 12.7mm high / curved bezel</i>	
Serial ATA disk (SATA150)	<b>40GB<sup>8</sup></b> (5400 rpm), <b>60GB</b> (5400 rpm), <b>80GB</b> (5400 rpm), or <b>100GB</b> ( <i>H3U</i> : 5400 rpm; <i>others</i> : 7200 rpm) / 9.5mm high / removable and upgradable / 9.5mm high bay / supports 2nd disk / <b>HDD Protection Pack</b> (shock absorber) / <b>Active Protection System™</b>	
Widescreen display	<i>Some: 15.4" (391.0mm) WXGA (1280x800) TFT color / 200 nits / 16:10 aspect ratio</i> <i>Some: 15.4" (391.0mm) WXGA (1280x800) TFT color / MaxBright™ / 300 nits / 16:10</i> <i>All: stainless steel hinges / one hand activates dual latches / secure screen surround</i>	
Graphics	<i>Some: Intel Graphics Media Accelerator 900 (GMA 900) / integrated in 915GM</i> <i>Some: ATI® MOBILITY™ RADEON® X300 / PCI Express x16 / 64MB memory</i> <i>Some: ATI MOBILITY RADEON X600 / PCI Express x16 / 128MB memory</i> <i>X300/X600: DVI pass-through support to opt Advanced Mini Dock and Advanced Dock</i>	
Keyboard	89-key / ThinkVantage button / spill-resistant / multimedia Fn keys / Windows, Appl keys	
TrackPoint®	TrackPoint® pointing device / UltraNav® multi-pointing system (touchpad)	
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions	
Dimensions <sup>3</sup>	(WxDxH): 14.1" x 10.3" x 1.47-1.58"; 357mm x 263mm x 37.3-40.2mm	
Weight <sup>2</sup>	with optical drive and battery: <i>6-cell</i> : up to 7.0 lb (3.2kg); <i>9-cell</i> : up to 7.3 lb (3.3kg)	
Case material	<i>Some: black color; Polycarbonate/Acrylonitrile-Butadiene-Styrene (PC/ABS) plastic</i> <i>Some: top cover: silver color; ABS, aluminum, titanium material; bottom: black, PC/ABS</i>	
Battery - type	Lithium Ion <b>6-cell</b> or <b>9-cell</b> / intelligent / supports unique 2nd battery in Ultrabay Enhanced	
Battery - life <sup>10</sup>	<i>6-cell</i> : up to 4.0 hr; <i>9-cell</i> : up to 6.0 hr; <i>9-cell plus Ultrabay battery</i> : up to 8.0 hr	
Architecture	<i>Some: Mobile Intel 915GM Express Chipset / 82915GM Graphics Mem Cont Hub</i> <i>Some: Mobile Intel 915PM Express Chipset / 82915PM Memory Controller Hub</i> <i>All: 82801FBM ICH6-M I/O Controller Hub (SATA150, ATA-100 EIDE, PCI Express x1, PCI bus, ethernet, USB, [Bluetooth], [fingerprint]) / PCI bus (Ricoh® R5C841 CardBus, Mini PCI) / LPC bus (NS PC87382 Super I/O, Atmel® 97SC3201TPM)</i>	
PC Card slot	One Type I or Type II slot / CardBus 32-bit / integrated door	
ExpressCard slot	One ExpressCard/34 or ExpressCard/54 / PCI Express x1 or USB 2.0 / integrated door	
Ports	<b>3-in-1 digital media reader</b> (MultiMediaCard, Memory Stick, Secure Digital) / S-video out port (TV out) / IEEE 1394 (FireWire 400) / three USB 2.0 / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / docking connector / no keyboard or mouse or parallel or serial ports (use USB)	
Wireless antenna	UltraConnect™ Antenna built into the display cover / on-off switch for all wireless radios	
Mini PCI	One Mini PCI slot / customer upgradable	
Intel 11b/g <sup>32</sup>	<i>Some: 11b/g wireless<sup>4</sup>, Mini PCI, Intel PRO/Wireless 2200BG, Intel 82532 chip</i>	
Intel 11a/b/g <sup>32</sup>	<i>Some: 11a/b/g wireless<sup>4</sup>, Mini PCI, Intel PRO/Wireless 2915ABG, 82533 chipset</i>	
11a/b/g II <sup>32</sup>	<i>Some: 11a/b/g wireless<sup>4</sup>, ThinkPad 11a/b/g Mini PCI Adapter II, Atheros AR5004X chip</i>	
Mini PCI Express	One Mini PCI Express slot / not customer upgradable	
WWAN <sup>16</sup>	<i>Some: Wireless WAN, Sierra Wireless 1xEV-DO Network Adapter, Mini PCIe Adapter, EV-DO/1xRTT, WWAN antenna on display, service contract reqd with Verizon® Wireless</i>	
Modem	56K <sup>9</sup> V.90 (V.92-designed <sup>29</sup> ) modem in Comm Daughter Card socket / Conexant® chip	
Bluetooth™	<i>Some: Bluetooth 2.0 wireless technology / USB 2.0 interface via ICH6-M / LED indicator</i>	
Ethernet	Gigabit ethernet on systemboard / Broadcom BCM5751M (MAC/PHY) / PCIe x1 / PXE	
Audio	High Definition (HD) Audio / AD1981HD codec / stereo speakers, 1 watt / volume up, down, mute buttons / internal microphone / microphone input jack / headphone jack	
Security	Power-on password / hard disk password / supervisor password / security keyhole	
Security chip	<b>Trusted Platform Module</b> / Atmel chip / TCG 1.1-compliant	
Fingerprint reader	<i>Some: Fingerprint reader on palm rest / swipe sensor / integrated with security chip</i>	
Limited warranty <sup>12</sup>	<b>1-year - EasyServ™.19</b> onsite pickup and delivery / service upgrades <sup>22</sup> available	

See footnotes for important warranty information \* Powered by Intel Centrino® mobile technology  
 US models announced January 31 or February 28, 2006  
 US models withdrawn effective October 2006

© Lenovo  
 (WR7) October 2006

# ThinkPad® Z60m (2530) - withdrawn

Created by Lenovo Training Solutions  
Personal Systems Reference (PSREF)

Type-model	Top cover color	Processor	Speed GHz	Memory MB	Wide-screen display	Graphics controller	SATA GB <sup>8</sup>	EIDE optical	Mini PCI 802.11 wireless	Mini PCIe WWAN wireless	Finger print reader	Battery Pre-load	Lim-ited warranty <sup>12</sup>	Avail date
2530-11U	Black	Pentium® M 740	1.73	512	15.4" WXGA	X300	40G	Combo	*Intel 11b/g <sup>32</sup>			PM 6	XP Pro 1-yr	Oct 05
2530-13U	Black	Pentium M 740	1.73	256	15.4" WXGA	GMA 60G	60G	Combo	*Intel 11b/g			GM 6	XP Pro 1-yr	Oct 05
2530-34U	Black	Pentium M 750	1.86	512	15.4" WXGA	X300	60G	DVD±RW	*Intel 11b/g		Blue	PM 9	XP Pro 1-yr	Oct 05
2530-35U	Black	Pentium M 750	1.86	512	15.4" WXGA	X600	80G	Combo	*Intel 11a/b/g <sup>32</sup>			PM 9	XP Pro 1-yr	Oct 05
2530-36U	Black	Pentium M 760	2.00	1GB	15.4" WXGA	X600	80G	DVD±RW	*Intel 11a/b/g	Verizon	Blue Finger	PM 9	XP Pro 1-yr	Oct 05
2530-37U	Black	Pentium M 760	2.00	1GB	15.4" WXGA	X600	80G	DVD±RW	11a/b/g II <sup>32</sup>	Verizon	Blue Finger	PM 9	XP Pro 1-yr	Oct 05
2530-38U	Silver	Pentium M 760	2.00	1GB	15.4" W MaxB	X600	100	DVD±RW	11a/b/g II		Blue Finger	PM 9	XP Pro 1-yr	Oct 05
2530-E4U	Black	Celeron® M 360J	1.4	256	15.4" WXGA	GMA 40G	40G	DVD	Intel 11b/g			GM 6	Home 1-yr	Oct 05
2530-E9U	Silver	Pentium M 760	2.00	512	15.4" WSXGA+	X600	80G	DVD±RW	*Intel 11a/b/g		Blue Finger	PM 9	XP Pro 1-yr	Oct 05
2530-ELU	Silver	Pentium M 740	1.73	512	15.4" WXGA	GMA 60G	60G	DVD±RW	*Intel 11a/b/g			GM 6	XP Pro 1-yr	Nov 05
2530-EMU	Silver	Pentium M 740	1.73	1GB	15.4" W MaxB	X300	100	DVD±RW	*Intel 11a/b/g		Blue Finger	PM 6	XP Pro 1-yr	Nov 05
2530-R7U	Silver	Pentium M 750	1.86	512	15.4" WXGA	GMA 60G	60G	Combo	*Intel 11a/b/g			GM 6	XP Pro 1-yr	Jan 06
2530-R8U	Silver	Pentium M 750	1.86	512	15.4" WXGA	GMA 80G	80G	DVD±RW	*Intel 11a/b/g			GM 6	XP Pro 1-yr	Jan 06
Positioning Processor	<i>Stylish notebooks for work and life; widescreen display; two-spindle system</i> <b>Intel® Celeron M Processor 360J (1.4GHz)</b> with XD Bit and 400MHz system bus or <b>Intel Pentium M Processor 740, 750, or 760</b> with Enhanced Intel SpeedStep™ technology <sup>1</sup> , Execute Disable Bit, and 533MHz system bus											<b>SOFTWARE<sup>14</sup></b>		
L2 cache	<b>Celeron M: 1MB; Pentium M: 2MB; All:</b> on die (at processor speed) / ECC											<b>Windows XP Professional models</b>		
Memory	<b>256MB, 512MB, or 1GB</b> std / 2GB max <sup>7</sup> / PC2-4200 533MHz <b>DDR2</b> / non-parity / dual channel capable / two 200-pin SO-DIMM sockets / 533 mem in 1 socket / 1 socket avail											- Microsoft® Windows® XP Professional <sup>20</sup> (Service Pack 2)		
EIDE DVD	<i>Some:</i> DVD-ROM / 8X-3.3X <sup>9</sup> speed / single-layer / removable from Ultrabay™ Enhanced											<b>Windows XP Home models</b>		
EIDE Combo	<i>Some:</i> DVD-ROM/CD-RW / 24X/24X/24X/8X <sup>21</sup> speed / removable from Ultrabay Enhan											- Microsoft Windows XP Home Edition <sup>20</sup> (Service Pack 2)		
EIDE DVD±RW	<i>Some:</i> DVD and CD burner / Multi-Burner Plus / removable from Ultrabay Enhanced											<b>Reloaded (all)</b>		
EIDE DVD±RW	<i>R8U:</i> DVD burner / Super Multi-Burner (40Y8623) dual-layer, removable Ultrabay Slim											• Rescue and Recovery™		
Ultrabay Enhanced	One bay for removable devices / Ultrabay Slim-compatible / 12.7mm high / curved bezel											• Access Connections™		
Serial ATA disk (SATA150)	<b>40GB<sup>8</sup></b> (5400 rpm), <b>60GB</b> (5400 rpm), <b>80GB</b> (5400 rpm), or <b>100GB</b> (5400 rpm) / 9.5mm high / removable and upgradable / 9.5mm high bay / supports 2nd disk / <b>HDD Protection Pack</b> (shock absorber) / <b>Active Protection System™</b>											• Client Security Solution™		
Widescreen display	<i>Some:</i> <b>15.4"</b> (391.0mm) <b>WXGA (1280x800) TFT color</b> / 200 nits / 16:10 aspect ratio <i>Some:</i> <b>15.4"</b> (391.0mm) <b>WXGA (1280x800) TFT color / MaxBright™</b> / 300 nits / 16:10 <i>Some:</i> <b>15.4"</b> (391.0mm) <b>WSXGA+ (1680x1050) TFT color</b> / 200 nits / 16:10 aspect <i>All:</i> stainless steel hinges / one hand activates dual latches / secure screen surround											• ThinkVantage Productivity Center		
Graphics	<i>Some:</i> <b>ATI Graphics Media Accelerator 900 (GMA 900)</b> / integrated in 915GM <i>Some:</i> <b>ATI MOBILITY™ RADEON® X300</b> / PCI Express x16 / <b>64MB</b> memory <i>Some:</i> <b>ATI MOBILITY RADEON X600</b> / PCI Express x16 / <b>128MB</b> memory <i>X300/X600:</i> DVI pass-through support to opt Advanced Mini Dock and Advanced Dock											• ThinkVantage System Update		
Keyboard	89-key / ThinkVantage button / spill-resistant / multimedia Fn keys / Windows, Appl keys											• Symantec® Client Security		
TrackPoint®	TrackPoint® pointing device / UltraNav® multi-pointing system (touchpad)											• Diskeeper Lite		
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions											• PC-Doctor™		
Dimensions <sup>3</sup>	(WxDxH): 14.1" x 10.3" x 1.47-1.58"; 357mm x 263mm x 37.3-40.2mm											• Fingerprint Software (some)		
Weight <sup>2</sup>	with optical drive and battery: <i>6-cell:</i> up to 7.0 lb (3.2kg); <i>9-cell:</i> up to 7.3 lb (3.3kg)											• Multimedia Center for Think Offerings		
Case material	<i>Some:</i> black color; Polycarbonate/Acrylonitrile-Butadiene-Styrene (PC/ABS) plastic <i>Some:</i> top cover: silver color; ABS, aluminum, titanium material; bottom: black, PC/ABS											• Sonic RecordNOW and Drive Letter Access (combo, DVD±RW)		
Battery - type	Lithium Ion <b>6-cell</b> or <b>9-cell</b> / intelligent / supports unique 2nd battery in Ultrabay Enhan											• InterVideo WinDVD (combo, DVD, DVD±RW models)		
Battery - life <sup>10</sup>	<i>6-cell:</i> up to 4.0 hr; <i>9-cell:</i> up to 6.0 hr; <i>9-cell plus Ultrabay battery:</i> up to 8.0 hr											• InterVideo WinDVD Creator (DVD±RW models)		
Architecture	<i>Some:</i> <b>Mobile Intel 915GM Express Chipset</b> / 82915GM Graphics Mem Cont Hub <i>Some:</i> <b>Mobile Intel 915PM Express Chipset</b> / 82915PM Memory Controller Hub <i>All:</i> 82801FBM ICH6-M I/O Controller Hub (SATA150, ATA-100 EIDE, PCI Express x1, PCI bus, ethernet, USB, [Bluetooth], [fingerprint]) / PCI bus (Ricoh® R5C841 CardBus, Mini PCI) / LPC bus (NS PC87382 Super I/O, Atmel® 97SC3201TPM)											<b>License - CD not included (all)</b>		
PC Card slot	One Type I or Type II slot / CardBus 32-bit / integrated door											- Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client (Notes client not supported on XP Home)		
ExpressCard slot	One ExpressCard/34 or ExpressCard/54 / PCI Express x1 or USB 2.0 / integrated door											ThinkPad notebooks implement ThinkVantage® technologies and design; visit <a href="http://thinkpad.com/thinkvantage">thinkpad.com/thinkvantage</a>		
Ports	<b>3-in-1 digital media reader</b> (MultiMediaCard, Memory Stick, Secure Digital) / S-video out port (TV out) / IEEE 1394 (FireWire 400) / three USB 2.0 / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / docking connector / no keyboard or mouse or parallel or serial ports (use USB)											Universal 90-watt AC adapter ThinkPad Roll Cage (one-piece magnesium frame) ACPI 1.0b and 2.0-compliant CIM and DMI 2.0-compliant PXE 2.1-compliant ENERGY STAR®-compliant RoHS-compliant		
Wireless antenna	UltraConnect™ Antenna built into the display cover / on-off switch for all wireless radios											International Warranty Service <sup>17</sup> 24 hour x 7 day <sup>18</sup> toll-free warranty support during the warranty <sup>12</sup>		
Mini PCI	One Mini PCI slot / customer upgradable <i>Some:</i> 11b/g wireless <sup>4</sup> , Mini PCI, Intel PRO/Wireless 2200BG, Intel 82532 chip											ThinkPlus™.22 1-yr LOR 9x5 NBD 41C9166		
Intel 11b/g <sup>32</sup>	<i>Some:</i> 11a/b/g wireless <sup>4</sup> , Mini PCI, Intel PRO/Wireless 2915ABG, 82533 chipset											ThinkPlus 3-yr LOR 9x5 NBD 41C9168		
Intel 11a/b/g <sup>32</sup>	<i>Some:</i> 11a/b/g wireless <sup>4</sup> , ThinkPad 11a/b/g Mini PCI Adapter II, Atheros AR5004X chip											ThinkPlus 4-yr LOR 9x5 NBD 41C9171		
Mini PCI Express	One Mini PCI Express slot / not customer upgradable											ThinkPlus 5-yr LOR 9x5 NBD 41C9173		
WWAN <sup>16</sup>	<i>Some:</i> Wireless WAN, Sierra Wireless 1xEV-DO Network Adapter, Mini PCIe Adapter, EV-DO/1xRTT, WWAN antenna on display, service contract reqd with Verizon® Wireless 56K® V.90 (V.92-designed <sup>29</sup> ) modem in Comm Daughter Card socket / Conexant® chip											ThinkPlus 3-yr P&L P/U Depot 41C9170		
Modem	<i>Some:</i> Bluetooth 2.0 wireless technology / USB 2.0 interface via ICH6-M / LED indicator											ThinkPlus 5-yr P&L P/U Depot 41C9174		
Bluetooth™	Gigabit ethernet on systemboard / Broadcom BCM5751A (MAC/PHY) / PCIe x1 / PXE High Definition (HD) Audio / AD1981HD codec / stereo speakers, 1 watt / volume up, down, mute buttons / internal microphone / microphone input jack / headphone jack											Other ThinkPlus services at <a href="http://lenovo.com/thinkplus/warranty">lenovo.com/thinkplus/warranty</a>		
Ethernet	Power-on password / hard disk password / supervisor password / security keyhole													
Audio	<b>Trusted Platform Module</b> / Atmel chip / TCG 1.1-compliant													
Security	<i>Some:</i> <b>Fingerprint reader on palm rest</b> / swipe sensor / integrated with security chip													
Security chip														
Fingerprint reader														
Limited warranty <sup>12</sup>	<b>1-year - EasyServ™.19</b> onsite pickup and delivery / service upgrades <sup>22</sup> available													

See footnotes for important warranty information \* Powered by Intel Centrino® mobile technology  
US models announced September 20 or November 22, 2005, or January 31, 2006  
US models withdrawn effective June, September, or October 2006

© Lenovo  
(WR2) October 2006

# ThinkPad® Z60m (2531) - withdrawn

Created by Lenovo Training Solutions  
Personal Systems Reference (PSREF)

Top cover color	Processor	Speed GHz	Memory MB	Wide-screen display	Disk Graphics controller	SATA GB <sup>8</sup>	Optical	Mini PCI 802.11 wireless	Mini PCIe WWAN	Blue-tooth	Finger print reader	Battery Chip set	Workhorse (W) Limited Gbl	Workhorse (W) (G) Avail date				
2531-4HU Black	Pentium® M 740	1.73	512	15.4" WXGA	X300	60G	Combo	* Intel 11b/g <sup>32</sup>				PM 6	3-yr	W Oct 05				
2531-4QU Black	Pentium M 740	1.73	256	15.4" WXGA	GMA	40G	Combo	* Intel 11a/b/g <sup>32</sup>				GM 6	3-yr	W Oct 05				
2531-68U Black	Pentium M 740	1.73	512	15.4" WSXGA+	GMA	40G	Combo	* Intel 11a/b/g			Finger	GM 6	3-yr	W Oct 05				
2531-6DU Black	Pentium M 750	1.86	512	15.4" WSXGA+	GMA	40G	Combo	* Intel 11a/b/g			Finger	GM 6	3-yr	W Oct 05				
2531-6EU Black	Pentium M 760	2.00	512	15.4" WSXGA+	GMA	40G	Combo	* Intel 11a/b/g			Finger	GM 6	3-yr	W Oct 05				
2531-6FU Black	Pentium M 740	1.73	512	15.4" WXGA	X300	60G	Combo	* Intel 11a/b/g				PM 6	3-yr	W Oct 05				
2531-6GU Black	Pentium M 750	1.86	512	15.4" WXGA	X300	60G	DVD±RW	* Intel 11a/b/g				PM 6	3-yr	W Oct 05				
2531-6JU Black	Pentium M 740	1.73	512	15.4" WXGA	X300	60G	Combo	* Intel 11a/b/g			Finger	PM 6	3-yr	W Oct 05				
2531-75U Black	Pentium M 740	1.73	512	15.4" WXGA	X300	60G	DVD±RW	* Intel 11a/b/g			Finger	PM 6	3-yr	W Oct 05				
2531-76U Silver	Pentium M 750	1.86	512	15.4" WSXGA+	X600	80G	DVD±RW	* Intel 11a/b/g			Blue Finger	PM 9	3-yr	W Oct 05				
2531-78U Black	Pentium M 750	1.86	512	15.4" WXGA	X300	60G	DVD±RW	* Intel 11a/b/g			Blue Finger	PM 6	3-yr	W Oct 05				
2531-E1U Black	Celeron® M 360J	1.4	256	15.4" WXGA	GMA	40G	Combo	Intel 11a/b/g				GM 6	3-yr	W Oct 05				
2531-81U Black	Pentium M 750	1.86	512	15.4" WSXGA+	GMA	40G	Combo	* Intel 11a/b/g			Finger	GM 6	3-yr	W Oct 05				
2531-82U Black	Pentium M 760	2.00	512	15.4" WSXGA+	GMA	40G	Combo	* Intel 11b/g			Finger	GM 6	3-yr	W Oct 05				
2531-83U Black	Pentium M 750	1.86	512	15.4" WXGA	X600	60G	DVD±RW	* Intel 11a/b/g	Verizon Blue			PM 6	3-yr	W Oct 05				
2531-84U Black	Pentium M 750	1.86	512	15.4" WXGA	X300	60G	DVD±RW	* Intel 11b/g				PM 6	3-yr	W Oct 05				
Positioning Processor	Stylish notebooks for work and life; widescreen display; two-spindle system <b>Intel® Celeron M Processor 360J (1.4GHz)</b> with XD Bit and 400MHz system bus or <b>Intel Pentium M Processor 740, 750, or 760</b> with Enhanced Intel SpeedStep™ technology <sup>1</sup> , Execute Disable Bit, and 533MHz system bus										<b>SOFTWARE<sup>14</sup></b> <b>Windows XP Professional models</b> - Microsoft® Windows® XP Professional <sup>20</sup> (Service Pack 2) ◆ Disk-to-Disk Recovery (in hidden protected area)							
L2 cache	Celeron M: <b>1 MB</b> ; Pentium M: <b>2MB</b> ; All: on die (at processor speed) / ECC																	
Memory	<b>256MB</b> or <b>512MB</b> std / 2GB max <sup>7</sup> / PC2-4200 533MHz <b>DDR2</b> / non-parity / CL4 / dual channel capable / two 200-pin SO-DIMM sockets / std mem in 1 socket / 1 socket avail										<b>Preloaded</b> • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • ThinkVantage System Update • Symantec® Client Security • Diskeeper Lite • PC-Doctor™ • ThinkPad utilities • Adobe® Reader • Fingerprint Software (fingerprint models) • Multimedia Center for Think Offerings • Sonic RecordNOW and Drive Letter Access • InterVideo WinDVD • InterVideo WinDVD Creator (DVD±RW models) <b>License</b> - CD not included - Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client							
Combo DVD±RW	Some: DVD-ROM/CD-RW / 24X/24X/24X/8X <sup>21</sup> speed / removable from Ultrabay Enhanced																	
Ultrabay Enhanced Serial ATA disk (SATA150)	One bay for removable devices / Ultrabay Slim-compatible / 12.7mm high / curved bezel <b>40GB</b> <sup>8</sup> (5400 rpm), <b>60GB</b> (5400 rpm), or <b>80GB</b> (5400 rpm) / 9.5mm high / removable and upgradable / 9.5mm high bay / supports 2nd disk / <b>HDD Protection Pack</b> (shock absorber) / <b>Active Protection System</b> ™																	
Widescreen display	Some: <b>15.4"</b> (391.0mm) <b>WXGA (1280x800) TFT color</b> / 200 nits / 16:10 aspect ratio Some: <b>15.4"</b> (391.0mm) <b>WSXGA+ (1680x1050) TFT color</b> / 200 nits / 16:10 aspect All: stainless steel hinges / one hand activates dual latches / secure screen surround																	
Graphics	Some: <b>Intel Graphics Media Accelerator 900 (GMA 900)</b> / integrated in 915GM Some: <b>ATI MOBILITY™ RADEON® X300</b> / PCI Express x16 / <b>64MB</b> memory Some: <b>ATI MOBILITY RADEON X600</b> / PCI Express x16 / <b>128MB</b> memory																	
Keyboard TrackPoint® ThinkLight™	89-key / ThinkVantage button / spill-resistant / multimedia Fn keys / Windows, Appl keys TrackPoint® pointing device / UltraNav® multi-pointing system (touchpad) Illuminates the keyboard to improve visibility in low-light conditions																	
Dimensions <sup>3</sup> Weight <sup>2</sup> Case material	(WxDxH): 14.1" x 10.3" x 1.47-1.58"; 357mm x 263mm x 37.3-40.2mm with optical drive and battery: 6-cell: up to 7.0 lb (3.2kg); 9-cell: up to 7.3 lb (3.3kg) Some: black color; Polycarbonate/Acrylonitrile-Butadiene-Styrene (PC/ABS) plastic Some: top cover: silver color; ABS, aluminum, titanium material; bottom: black, PC/ABS																	
Battery - type Battery - life <sup>10</sup>	Lithium Ion <b>6-cell</b> or <b>9-cell</b> / intelligent / supports unique 2nd battery in Ultrabay Enhanced 6-cell: up to 4.0 hr; 9-cell: up to 6.0 hr; 9-cell plus Ultrabay battery: up to 8.0 hr																	
Architecture	Some: <b>Mobile Intel 915GM Express Chipset</b> / 82915GM Graphics Mem Cont Hub Some: <b>Mobile Intel 915PM Express Chipset</b> / 82915PM Memory Controller Hub All: 82801FBM ICH6-M I/O Controller Hub (SATA150, ATA-100 EIDE, PCI Express x1, PCI bus, ethernet, USB, [Bluetooth], [fingerprint]) / PCI bus (RicoH® R5C841 CardBus, Mini PCI) / LPC bus (NS PC87382 Super I/O, Atmel® 97SC3201TPM)																	
PC Card slot ExpressCard slot Ports	One Type I or Type II slot / CardBus 32-bit / integrated door One ExpressCard/34 or ExpressCard/54 / PCI Express x1 or USB 2.0 / integrated door <b>3-in-1 digital media reader</b> (MultiMediaCard, Memory Stick, Secure Digital) / S-video out port (TV out) / IEEE 1394 (FireWire 400) / three USB 2.0 / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / docking connector / no keyboard or mouse or parallel or serial ports (use USB)																	
Wireless antenna Mini PCI Intel 11b/g <sup>32</sup> Intel 11a/b/g <sup>32</sup> Mini PCI Express WWAN <sup>16</sup>	UltraConnect™ Antenna built into the display cover / on-off switch for all wireless radios One Mini PCI slot / customer upgradable Some: 11b/g wireless <sup>4</sup> , Mini PCI, Intel PRO/Wireless 2200BG, Intel 82532 chip Some: 11a/b/g wireless <sup>4</sup> , Mini PCI, Intel PRO/Wireless 2915ABG, 82533 chipset One Mini PCI Express slot / not customer upgradable Some: Wireless WAN, Sierra Wireless 1xEV-DO Network Adapter, Mini PCIe Adapter, EV-DO/1xRTT, WWAN antenna on display, service contract reqd with Verizon® Wireless 56K® V.90 (V.92-designed <sup>29</sup> ) modem in Comm Daughter Card socket / Conexant® chip Some: Bluetooth 2.0 wireless / USB 2.0 interface via ICH6-M / LED indicator																	
Modem Bluetooth™ Ethernet Audio	Gigabit ethernet on systemboard / Broadcom BCM5751M (MAC/PHY) / PCIe x1 / PXE High Definition (HD) Audio / AD1981HD codec / stereo speakers, 1 watt / volume up, down, mute buttons / internal microphone / microphone input jack / headphone jack																	
Security Security chip Fingerprint reader	Power-on password / hard disk password / supervisor password / security keyhole <b>Trusted Platform Module</b> / Atmel chip / TCG 1.1-compliant Some: <b>Fingerprint reader on palm rest</b> / swipe sensor / integrated with security chip																	
Limited warranty <sup>12</sup>	<b>3-year/1-yr battery</b> - EasyServ™ <sup>19</sup> onsite pickup and delivery / service upgrades <sup>22</sup> avail										ThinkPad notebooks implement ThinkVantage™ technologies and design; visit <a href="http://thinkpad.com/thinkvantage">thinkpad.com/thinkvantage</a>  Universal 90 watt AC adapter ThinkPad Roll Cage (one-piece magnesium frame) PC 2001-compliant ACPI 1.0b and 2.0-compliant CIM and DMI 2.0-compliant PXE 2.1-compliant ENERGY STAR™-compliant RoHS-compliant International Warranty Service <sup>17</sup> 24 hour x 7 day <sup>18</sup> toll-free warranty support during the warranty <sup>12</sup>  ThinkPlus™.22 2-year LOR 9x5 NBD 41C9175 ThinkPlus 3-year LOR 9x5 NBD 41C9176 ThinkPlus 4-year LOR 9x5 NBD 41C9177 ThinkPlus 5-year LOR 9x5 NBD 41C9179 ThinkPlus 4-year P&L P/U Depot 41C9178 ThinkPlus 5-year P&L P/U Depot 41C9180 Post-warranty annual maintenance agreements at <a href="http://lenovo.com/thinkplus/warranty">lenovo.com/thinkplus/warranty</a>							
256MB PC2-4200 DDR2 NP CL4 SOD	73P3840	Z60m/R60 Series Li-Ion Battery 6-cell		40Y6795														
512MB PC2-4200 DDR2 NP CL4 SOD	73P3842	Z60m/T60/R60 Li-Ion Battery 9-cell		40Y6797														
1GB PC2-4200 DDR2 NP CL4 SOD	73P3844	ThinkPad Essential Port Replicator		250510W														
CD-RW/DVD Combo Ultrabay Enhanced	73P3275	ThinkPad Advanced Mini Dock		250410U														
Super Multi-Burner Ultrabay Enh Drv (curved)	40Y8624	ThinkPad Advanced Dock		250310U														
Other options on O-Z60M sheet	Other options at <a href="http://lenovo.com/options">lenovo.com/options</a>																	

See footnotes for important warranty information  
US models announced September 20, 2005  
US models withdrawn effective June or September 2006

\* Powered by Intel Centrino® mobile technology

# ThinkPad® Z60m (2531) - January 2006 - withdrawn

Created by Lenovo Training Solutions  
Personal Systems Reference (PSREF)

Type-model	Top cover color	Processor	Speed GHz	Memory MB	Wide-screen display	Graphics controller	Disk SATA GB <sup>8</sup>	EIDE optical	Mini PCI 802.11 wireless	Mini PCIe WWAN wireless	Finger print reader	Battery cells	Limited warranty <sup>12</sup>	Avail date
2531-M7U	Silver	Pentium® M 780	2.26	1GB	15.4" WSXGA+	X600	100G	DVD±RW	* Intel 11a/b/g	None	Blue Finger	9	XP Pro 3-yr	Jan 06
2531-RAU	Black	Pentium M 750	1.86	512	15.4" WXGA	X300	60G	Combo	* Intel 11a/b/g	None	Finger	6	XP Pro 3-yr	Jan 06
2531-MGU	Black	Pentium M 750	1.86	512	15.4" WXGA	GMA	60G	DVD±RW	* Intel 11a/b/g	None	Finger	6	XP Pro 3-yr	Jan 06
2531-R7U	Silver	Pentium M 750	1.86	512	15.4" WXGA	GMA	60G	Combo	* Intel 11a/b/g	None	Finger	6	XP Pro 3-yr	Jan 06
2531-MJU	Black	Pentium M 750	1.86	512	15.4" WSXGA+	X300	60G	DVD±RW	* Intel 11a/b/g	None	Finger	6	XP Pro 3-yr	Jan 06
2531-MKU	Black	Pentium M 750	2.00	512	15.4" WSXGA+	X300	60G	DVD±RW	* Intel 11a/b/g	None	Finger	6	XP Pro 3-yr	Jan 06
2531-RBU	Black	Pentium M 750	1.86	512	15.4" WXGA	GMA	80G	Combo	* Intel 11a/b/g	None	Finger	6	XP Pro 3-yr	Feb 06
Positioning Processor	<i>Stylish notebooks for work and life; widescreen display; two-spindle system</i> <b>Intel Pentium M Processor 750, 760 or 780</b> with Enhanced Intel SpeedStep™ technology <sup>1</sup> , Execute Disable Bit, and 533MHz system bus										<b>SOFTWARE<sup>14</sup></b> <b>Windows XP Professional</b> - Microsoft® Windows® XP Professional <sup>20</sup> (Service Pack 2) ◆ Disk-to-Disk Recovery (in hidden protected area)			
L2 cache Memory	<b>2MB</b> ; on die (at processor speed) / ECC <b>512MB</b> or <b>1GB</b> std / 2GB max <sup>7</sup> / PC2-4200 533MHz <b>DDR2</b> / non-parity / dual channel capable / two 200-pin SO-DIMM sockets / std mem in 1 socket / 1 socket avail										<b>Preloaded</b> • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • ThinkVantage System Update • Symantec® Client Security • Diskeeper Lite • PC-Doctor™ • ThinkPad utilities • Adobe® Reader • Fingerprint Software (fingerprint models) • Multimedia Center for Think Offerings • Sonic RecordNOW and Drive Letter Access • InterVideo WinDVD • InterVideo WinDVD Creator (DVD±RW models)			
EIDE Combo EIDE DVD±RW Ultrabay Enhanced Serial ATA disk (SATA150)	<i>Some:</i> DVD-ROM/CD-RW / 24X/24X/24X/8X <sup>21</sup> speed / removable from Ultrabay Enhance <i>Some:</i> DVD burner / Super Multi-Burner (40Y8623) dual-layer, removable Ultrabay Enhance <i>One bay</i> for removable devices / Ultrabay Slim-compatible / 12.7mm high / curved bezel <b>60GB</b> (5400 rpm), or <b>100GB</b> (7200 rpm) / 9.5mm high / removable and upgradable / 9.5mm high bay / supports 2nd disk / <b>HDD Protection Pack</b> (shock absorber) / <b>Active Protection System™</b>										<b>License - CD not included</b> - Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client			
Widescreen display	<i>Some:</i> <b>15.4"</b> (391.0mm) <b>WXGA (1280x800) TFT color</b> / 200 nits / 16:10 aspect ratio <i>Some:</i> <b>15.4"</b> (391.0mm) <b>WSXGA+ (1680x1050) TFT color</b> / 200 nits / 16:10 aspect <i>All:</i> stainless steel hinges / one hand activates dual latches / secure screen surround													
Graphics	<i>Some:</i> <b>Intel Graphics Media Accelerator 900 (GMA 900)</b> / integrated in 915GM <i>Some:</i> <b>ATI® MOBILITY™ RADEON® X300</b> / PCI Express x16 / <b>64MB</b> memory <i>Some:</i> <b>ATI MOBILITY RADEON X600</b> / PCI Express x16 / <b>128MB</b> memory <i>X300/X600:</i> DVI pass-through support to opt Advanced Mini Dock and Advanced Dock													
Keyboard TrackPoint™ ThinkLight™	89-key / ThinkVantage button / spill-resistant / multimedia Fn keys / Windows, Appl keys TrackPoint® pointing device / UltraNav® multi-pointing system (touchpad) Illuminates the keyboard to improve visibility in low-light conditions													
Dimensions <sup>3</sup> Weight <sup>2</sup> Case material	<i>(WxDxH):</i> 14.1" x 10.3" x 1.47-1.58"; 357mm x 263mm x 37.3-40.2mm with optical drive and battery: <i>6-cell:</i> up to 7.0 lb (3.2kg); <i>9-cell:</i> up to 7.3 lb (3.3kg) <i>Some:</i> black color; Polycarbonate/Acrylonitrile-Butadiene-Styrene (PC/ABS) plastic <i>Some:</i> top cover: silver color; ABS, aluminum, titanium material; bottom: black, PC/ABS													
Battery - type Battery - life <sup>10</sup>	Lithium Ion <b>6-cell</b> or <b>9-cell</b> / intelligent / supports unique 2nd battery in Ultrabay Enhance <i>6-cell:</i> up to 4.0 hr; <i>9-cell:</i> up to 6.0 hr; <i>9-cell plus Ultrabay battery:</i> up to 8.0 hr													
Architecture	<i>Some:</i> <b>Mobile Intel 915GM Express Chipset</b> / 82915GM Graphics Mem Cont Hub <i>Some:</i> <b>Mobile Intel 915PM Express Chipset</b> / 82915PM Memory Controller Hub <i>All:</i> 82801FBM ICH6-M I/O Controller Hub (SATA150, ATA-100 EIDE, PCI Express x1, PCI bus, ethernet, USB, [Bluetooth], [fingerprint]) / PCI bus (Ricoh® R5C841 CardBus, Mini PCI) / LPC bus (NS PC87382 Super I/O, Atmel® 97SC3201TPM)													
PC Card slot ExpressCard slot Ports	One Type I or Type II slot / CardBus 32-bit / integrated door One ExpressCard/34 or ExpressCard/54 / PCI Express x1 or USB 2.0 / integrated door <b>3-in-1 digital media reader</b> (MultiMediaCard, Memory Stick, Secure Digital) / S-video out port (TV out) / IEEE 1394 (FireWire 400) / three USB 2.0 / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / docking connector / no keyboard or mouse or parallel or serial ports (use USB)													
Wireless antenna Mini PCI Intel 11a/b/g <sup>32</sup> Mini PCI Express WWAN <sup>16</sup> Modem Bluetooth™ Ethernet Audio Security Security chip Fingerprint reader	UltraConnect™ Antenna built into the display cover / on-off switch for all wireless radios One Mini PCI slot / customer upgradable 11a/b/g wireless <sup>4</sup> , Mini PCI, Intel PRO/Wireless 2915ABG, 82533 chipset One Mini PCI Express slot / not customer upgradable None 56K <sup>6</sup> V.90 (V.92-designed <sup>29</sup> ) modem in Comm Daughter Card socket / Conexant® chip <i>Some:</i> Bluetooth 2.0 wireless technology / USB 2.0 interface via ICH6-M / LED indicator Gigabit ethernet on systemboard / Broadcom BCM5751M (MAC/PHY) / PCIe x1 / PXE High Definition (HD) Audio / AD1981HD codec / stereo speakers, 1 watt / volume up, down, mute buttons / internal microphone / microphone input jack / headphone jack Power-on password / hard disk password / supervisor password / security keyhole <b>Trusted Platform Module</b> / Atmel chip / TCG 1.1-compliant <i>Some:</i> <b>Fingerprint reader on palm rest</b> / swipe sensor / integrated with security chip										ThinkPad notebooks implement ThinkVantage® technologies and design; visit <a href="http://thinkpad.com/thinkvantage">thinkpad.com/thinkvantage</a>			
Limited warranty <sup>12</sup>	<b>3-year/1-yr battery - EasyServ™.19</b> onsite pickup and delivery / service upgrades <sup>22</sup> avail										Universal 90-watt AC adapter ThinkPad Roll Cage (one-piece magnesium frame) PC 2001-compliant ACPI 1.0b and 2.0-compliant CIM and DMI 2.0-compliant PXE 2.1-compliant ENERGY STAR®-compliant RoHS-compliant International Warranty Service <sup>17</sup> 24 hour x 7 day <sup>18</sup> toll-free warranty support during the warranty <sup>12</sup>			
256MB PC2-4200 DDR2 NP CL4 SOD	73P3840		Z60m/R60 Series Li-Ion Battery 6-cell		40Y6795									
512MB PC2-4200 DDR2 NP CL4 SOD	73P3842		Z60m/T60/R60 Li-Ion Battery 9-cell		40Y6797									
1GB PC2-4200 DDR2 NP CL4 SOD	73P3844		ThinkPad Essential Port Replicator		250510W									
DVD-ROM Ultrabay Enhanced Drive	39X2642		ThinkPad Advanced Mini Dock		250410U									
CD-RW/DVD Combo Ultrabay Enhanced	73P3275		ThinkPad Advanced Dock		250310U									
Super Multi-Burner Ultrabay Enh Drv (curved)	40Y8624		ThinkPad External Battery Charger		40Y7625									
USB Portable Diskette Drive	05K9276		ThinkPad 90W AC Adapter		40Y7659									
USB 2.0/Analog Headset by Sennheiser	40Y8518		11a/b/g Wireless Mini PCI Adapter II		73P4301									
USB 2.0 Memory Key 1GB	40Y7421		Intel PRO/Wireless 2915ABG Mini PCI		41N2990									
USB 2.0 Super Multi-Burner Drive	40Y8638		Verizon Wireless V620 WWAN PC Card <sup>25</sup>		40Y9137									
Serial Hard Drive Ultrabay Slim Adapter	40Y8725		ThinkVision® E500 Projector		0038A05									
ExpressCard Gemplus Smart Card Reader	41N3043		ThinkPad Nylon Carrying Case		10K0207									
80GB Disk 9.5mm SATA150 (5400 rpm)	41N5662		ThinkPad Carrying Case - Backpack		73P3599									
100GB Disk 9.5mm SATA150 (7200 rpm)	41N3013		ThinkPad Advanced Mini Dock		250410U									
Kensington® MicroSaver® Security Cable	73P2582		ThinkVision L201p 20.1" Monitor (black)		9320HB1									
Other options on O-Z60M sheet	Other options at <a href="http://lenovo.com/options">lenovo.com/options</a>													

See footnotes for important warranty information  
US models announced January 31 or February 28, 2006  
US models withdrawn effective October 2006

\* Powered by Intel Centrino® mobile technology

© Lenovo  
(WR8) October 2006

# ThinkPad® Z60m (2531) - Education - withdrawn

Created by Lenovo Training Solutions  
Personal Systems Reference (PSREF)

Type-model	Top cover color	Processor	Speed GHz	Memory MB	Wide-screen display	Graphics controller	Disk SATA GB <sup>a</sup>	EIDE optical	Mini PCI 802.11 wireless	Mini PCIe WWAN wireless	Blue-tooth	Finger print reader	Chip set	Battery cells	Limited warranty <sup>12</sup>	Avail date
2531-1PU	Black	Pentium® M 750	1.86	512	15.4" WXGA	X300	80G	DVD±RW	* Intel 11a/b/g <sup>32</sup>	None		Finger	PM 6	EasyServ	Oct 05	
2531-MWU	Black	Pentium M 750	1.86	512	15.4" WXGA	GMA 80G	DVD±RW	11a/b/g <sup>32</sup>	None	None			GM 9	EasyServ	Jan 06	
2531-MSU	Black	Pentium M 750	1.86	512	15.4" WXGA	GMA 60G	Combo	11a/b/g	None	None			GM 6	EasyServ	Jan 06	
2531-MTU	Black	Pentium M 760	2.00	1GB	15.4" WSXGA+X600	100G	DVD±RW	* Intel 11a/b/g	None	Blue	Finger	PM 9	EasyServ	Jan 06		
2531-MUW	Black	Pentium M 750	1.86	512	15.4" WXGA	X300	60G	Combo	11a/b/g	None		PM 6	EasyServ	Jan 06		
<p>• <b>This model has an EasyServ™.19 onsite pickup and delivery 3-year limited warranty</b>                      These educational models are available only to public or private K-12 (or higher) accredited schools organized and operated exclusively for educational purposes for use by qualified students and teachers.</p>																
Positioning Processor	<p><i>Stylish notebooks for work and life; widescreen display; two-spindle system</i>  <b>Intel® Pentium M Processor 750 or 760</b> with Enhanced Intel SpeedStep™ technology<sup>1</sup>, Execute Disable Bit, and 533MHz system bus</p>										<p><b>SOFTWARE<sup>14</sup></b>  <b>Windows XP Professional models</b>                      - Microsoft® Windows® XP Professional<sup>20</sup> (Service Pack 2)                      ♦ Disk-to-Disk Recovery (in hidden protected area)</p>					
L2 cache Memory	<p><b>2MB</b> / on die (at processor speed) / ECC  <b>512MB</b> or <b>1GB</b> std / 2GB max<sup>7</sup> / PC2-4200 533MHz <b>DDR2</b> / CL4 / dual channel capable two 200-pin SO-DIMM sockets / std mem in one socket / one socket available</p>										<p><b>Preloaded</b>                      • Education software from Vital Source Technologies®: vitalSource KEY™ and Personal Portable library™                      • Rescue and Recovery™                      • Access Connections™                      • Client Security Solution™                      • ThinkVantage Productivity Center                      • ThinkVantage System Update                      • Symantec® Client Security                      • Diskeeper Lite                      • PC-Doctor™                      • ThinkPad utilities                      • Adobe® Reader                      • Multimedia Center for Think Offerings                      • Sonic RecordNOW and Drive Letter Access                      • InterVideo WinDVD                      • InterVideo WinDVD Creator (DVD±RW models)</p>					
Diskette drive EIDE Combo EIDE DVD±RW EIDE DVD±RW Ultrabay Enhanced Serial ATA disk (SATA150)	<p>None standard / use optional USB-based diskette drive  <i>Some:</i> DVD-ROM/CD-RW / 24X/24X/24X/8X<sup>21</sup> speed / removable from Ultrabay Enhance  <i>1PU:</i> DVD and CD burner / Multi-Burner Plus / removable from Ultrabay Enhanced  <i>Some:</i> DVD burner / Super Multi-Burner (40Y8623) dual-layer, removable Ultrabay Enh                      One bay for removable devices / Ultrabay Slim-compatible / 12.7mm high / curved bezel  <b>60</b> or <b>80</b> or <b>100GB</b><sup>8</sup> (5400 rpm) / 9.5mm high / removable and upgradable / 9.5mm high bay / supports 2nd disk / <b>HDD Protection Pack</b> (shock absorber) / <b>Active Protection System™</b></p>										<p><b>Licence - CD not included</b>                      - Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client</p>					
Widescreen display	<p><i>Some:</i> <b>15.4"</b> (391.0mm) <b>WXGA (1280x800)</b> TFT color / 200 nits / 16:10 aspect ratio  <i>Some:</i> <b>15.4"</b> (391.0mm) <b>WSXGA+ (1680x1050)</b> TFT color / 200 nits / 16:10 aspect                      All: stainless steel hinges / one hand activates dual latches / secure screen surround</p>															
Graphics	<p><i>Some:</i> <b>Intel Graphics Media Accelerator 900 (GMA 900)</b> / integrated in 915GM  <i>Some:</i> <b>ATI MOBILITY™ RADEON® X300</b> / PCI Express x16 / <b>64MB</b> memory  <i>Some:</i> <b>ATI MOBILITY RADEON X600</b> / PCI Express x16 / <b>128MB</b> memory                      X300/X600: DVI pass-through support to opt Advanced Mini Dock and Advanced Dock</p>															
Keyboard TrackPoint® ThinkLight™	<p>89-key / ThinkVantage button / spill-resistant / multimedia Fn keys / Windows, Appl keys                      TrackPoint® pointing device / UltraNav® multi-pointing system (touchpad)                      Illuminates the keyboard to improve visibility in low-light conditions</p>															
Dimensions <sup>3</sup> Weight <sup>2</sup> Case material Battery - type Battery - life <sup>10</sup>	<p>(WxDxH): 14.1" x 10.3" x 1.47-1.58"; 357mm x 263mm x 37.3-40.2mm                      with optical drive and battery: <i>6-cell</i>: up to 7.0 lb (3.2kg); <i>9-cell</i>: up to 7.3 lb (3.3kg)                      Black color; Polycarbonate/Acrylonitrile-Butadiene-Styrene (PC/ABS) plastic                      Lithium Ion <b>6-cell</b> or <b>9-cell</b> / intelligent / supports unique 2nd battery in Ultrabay Enhan  <i>6-cell</i>: up to 4.0 hr; <i>9-cell</i>: up to 6.0 hr; <i>9-cell plus Ultrabay battery</i>: up to 8.0 hr</p>															
Architecture	<p><i>Some:</i> <b>Mobile Intel 915GM Express Chipset</b> / 82915GM Graphics Mem Cont Hub  <i>Some:</i> <b>Mobile Intel 915PM Express Chipset</b> / 82915PM Memory Controller Hub                      All: 82801FBM ICH6-M I/O Controller Hub (SATA150, ATA-100 EIDE, PCI Express x1, PCI bus, ethernet, USB, [Bluetooth], [fingerprint]) / PCI bus (Ricoh® R5C841 CardBus, Mini PCI) / LPC bus (NS PC87382 Super I/O, Atmel® 97SC3201TPM)</p>															
PC Card slot ExpressCard slot Ports	<p>One Type I or Type II slot / CardBus 32-bit / integrated door                      One ExpressCard/34 or ExpressCard/54 / PCI Express x1 or USB 2.0 / integrated door  <b>3-in-1 digital media reader</b> (MultiMediaCard, Memory Stick, Secure Digital) / S-video out port (TV out) / IEEE 1394 (FireWire 400) / three USB 2.0 / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / docking connector / no keyboard or mouse or parallel or serial ports (use USB)</p>										<p>ThinkPad notebooks implement ThinkVantage® technologies and design; visit <a href="http://thinkpad.com/thinkvantage">thinkpad.com/thinkvantage</a></p>					
Wireless antenna Mini PCI Intel 11a/b/g <sup>32</sup> 11a/b/g II <sup>32</sup> Mini PCI Express WWAN Modem Bluetooth™ Ethernet Audio	<p>UltraConnect™ Antenna built into the display cover / on-off switch for all wireless radios                      One Mini PCI slot / customer upgradable  <i>Some:</i> 11a/b/g wireless<sup>4</sup>, Mini PCI, Intel PRO/Wireless 2915ABG, 82533 chipset  <i>Some:</i> 11a/b/g wireless<sup>4</sup>, ThinkPad 11a/b/g Mini PCI Adapter II, Atheros AR5004X                      One Mini PCI Express slot / not customer upgradable                      None                      56K<sup>6</sup> V.90 (V.92-designed<sup>29</sup>) modem in Comm Daughter Card socket / Conexant® chip                      Bluetooth 2.0 wireless technology / USB 2.0 interface via ICH6-M / LED indicator                      Gigabit ethernet on systemboard / Broadcom BCM5751M (MAC/PHY) / PCIe x1 / PXE                      High Definition (HD) Audio / AD1981HD codec / stereo speakers, 1 watt / volume up, down, mute buttons / internal microphone / microphone input jack / headphone jack</p>										<p>Universal 90-watt AC adapter                      ThinkPad Roll Cage (one-piece magnesium frame)                      PC 2001-compliant                      ACPI 1.0b and 2.0-compliant                      CIM and DMI 2.0-compliant                      PXE 2.1-compliant                      ENERGY STAR®-compliant                      RoHS-compliant                      International Warranty Service<sup>17</sup>                      24 hour x 7 day<sup>18</sup> toll-free warranty support during the warranty<sup>12</sup></p>					
Security Security chip Fingerprint reader	<p>Power-on password / hard disk password / supervisor password / security keyhole  <b>Trusted Platform Module</b> / Atmel chip / TCG 1.1-compliant  <i>Some:</i> <b>Fingerprint reader on palm rest</b> / swipe sensor / integrated with security chip</p>															
Limited warranty <sup>12</sup>	<p><b>3-year/1-yr battery</b> - EasyServ™.19 onsite pickup and delivery / service upgrades<sup>22</sup> avail</p>															
256MB PC2-4200 DDR2 NP CL4 SOD 512MB PC2-4200 DDR2 NP CL4 SOD 1GB PC2-4200 DDR2 NP CL4 SOD USB Portable Diskette Drive USB Fingerprint Reader USB 2.0 Lenovo Webcam USB 2.0 Memory Key 1GB USB 2.0 Portable 80GB Hard Disk Serial Hard Drive Ultrabay Slim Adapter 100GB Disk 9.5mm SATA150 (7200 rpm) Kensington® MicroSaver® Security Cable Other options on O-Z60M sheet	<p>73P3840 73P3842 73P3844 05K9276 73P4774 40Y8519 40Y7421 40Y8726 40Y8725 41N3013 73P2582</p>		<p>Z60m/R60 Series Li-Ion Battery 6-cell Z60m/T60/R60 Li-Ion Battery 9-cell Advanced Ultrabay Battery 3-cell ThinkPad External Battery Charger ThinkPad 90W AC Adapter 11a/b/g Wireless Mini PCI Adapter II Intel PRO/Wireless 2915ABG Mini PCI Verizon Wireless V620 WWAN PC Card<sup>25</sup> ThinkPad Nylon Carrying Case ThinkPad Advanced Mini Dock Lenovo L192 Wide 19" Monitor (black) Other options at <a href="http://lenovo.com/options">lenovo.com/options</a></p>		<p>40Y6795 40Y6797 40Y6789 40Y7625 40Y7659 73P4301 41N2990 40Y9137 10K0207 250410U 6920AB1</p>						<p>ThinkPlus™.22 2-year LOR 9x5 NBD 41C9175 ThinkPlus 3-year LOR 9x5 NBD 41C9176 ThinkPlus 4-year LOR 9x5 NBD 41C9177 ThinkPlus 5-year LOR 9x5 NBD 41C9179 ThinkPlus 4-year P&amp;L P/U Depot 41C9178 ThinkPlus 5-year P&amp;L P/U Depot 41C9180 Post-warranty annual maintenance agreements at <a href="http://lenovo.com/thinkplus/warranty">lenovo.com/thinkplus/warranty</a></p>					

See footnotes for important warranty information \* Powered by Intel Centrino® mobile technology  
 US models announced September 20, 2005 or January 31, 2006  
 US models withdrawn effective June or October 2006

# ThinkPad® Z60m (2532) - Education - withdrawn

Created by Lenovo Training Solutions  
Personal Systems Reference (PSREF)

Type-model	Top cover color	Processor	Speed GHz	Memory MB	Wide-screen display	Graphics controller	Disk SATA GB <sup>8</sup>	EIDE optical	Mini PCI 802.11 wireless	Mini PCIe WWAN wireless	Blue-tooth	Finger print reader	Battery Chip set	Limited warranty <sup>12</sup>	Avail date
2532-1PU	Black	Pentium® M 750	1.86	512	15.4" WXGA	X300 80G	DVD±RW	* Intel 11a/b/g <sup>32</sup>	None	None	None	Finger	PM 6	Onsite	Oct 05
2532-MWU	Black	Pentium M 750	1.86	512	15.4" WXGA	GMA 80G	DVD±RW	11a/b/g <sup>32</sup>	None	None	None	Finger	GM 9	Onsite	Jan 06
2532-MSU	Black	Pentium M 750	1.86	512	15.4" WXGA	GMA 60G	Combo	11a/b/g	None	None	None	None	GM 6	Onsite	Jan 06
2532-MTU	Black	Pentium M 760	2.00	1GB	15.4" WSXGA+	X600 100G	DVD±RW	* Intel 11a/b/g	None	Blue	Finger	PM 9	Onsite	Jan 06	
2532-MUJ	Black	Pentium M 750	1.86	512	15.4" WXGA	X300 60G	Combo	11a/b/g	None	None	None	PM 6	Onsite	Jan 06	

• **This model has a limited onsite service<sup>24</sup> 3-year limited warranty**

These educational models are available only to public or private K-12 (or higher) accredited schools organized and operated exclusively for educational purposes for use by qualified students and teachers.

Positioning Processor	<i>Stylish notebooks for work and life; widescreen display; two-spindle system</i>										<b>SOFTWARE<sup>14</sup></b>				
L2 cache	Intel® Pentium M Processor 750 or 760 with Enhanced Intel SpeedStep™ technology <sup>1</sup> , Execute Disable Bit, and 533MHz system bus										<b>Windows XP Professional models</b> - Microsoft® Windows® XP Professional <sup>20</sup> (Service Pack 2) ♦ Disk-to-Disk Recovery (in hidden protected area)				
Memory	2MB / on die (at processor speed) / ECC 512MB or 1GB std / 2GB max <sup>7</sup> / PC2-4200 533MHz DDR2 / CL4 / dual channel capable two 200-pin SO-DIMM sockets / std mem in one socket / one socket available														
Diskette drive	None standard / use optional USB-based diskette drive										<b>Preloaded</b> • Education software from Vital Source Technologies®: vitalsource KEY™ and Personal Portable library™ • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • ThinkVantage System Update • Symantec® Client Security • Diskeeper Lite • PC-Doctor™ • ThinkPad utilities • Adobe® Reader • Multimedia Center for Think Offerings • Sonic RecordNOW and Drive Letter Access • InterVideo WinDVD • InterVideo WinDVD Creator (DVD±RW models)				
EIDE Combo	Some: DVD-ROM/CD-RW / 24X/24X/24X/8X <sup>21</sup> speed / removable from Ultrabay Enhance 1PU: DVD and CD burner / Multi-Burner Plus / removable from Ultrabay Enhanced														
EIDE DVD±RW	Some: DVD burner / Super Multi-Burner (40Y8623) dual-layer, removable Ultrabay Enhance										<b>License - CD not included</b> - Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client				
EIDE DVD±RW Ultrabay Enhanced	One bay for removable devices / Ultrabay Slim-compatible / 12.7mm high / curved bezel														
Serial ATA disk (SATA150)	60 or 80 or 100GB <sup>8</sup> (5400 rpm) / 9.5mm high / removable and upgradable / 9.5mm high bay / supports 2nd disk / <b>HDD Protection Pack</b> (shock absorber) / <b>Active Protection System™</b>														
Widescreen display	Some: 15.4" (391.0mm) WXGA (1280x800) TFT color / 200 nits / 16:10 aspect ratio Some: 15.4" (391.0mm) WSXGA+ (1680x1050) TFT color / 200 nits / 16:10 aspect All: stainless steel hinges / one hand activates dual latches / secure screen surround														
Graphics	Some: Intel Graphics Media Accelerator 900 (GMA 900) / integrated in 915GM Some: ATI® MOBILITY™ RADEON® X300 / PCI Express x16 / 64MB memory Some: ATI MOBILITY RADEON X600 / PCI Express x16 / 128MB memory X300/X600: DVI pass-through support to opt Advanced Mini Dock and Advanced Dock														
Keyboard	89-key / ThinkVantage button / spill-resistant / multimedia Fn keys / Windows, Appl keys										• ThinkPad notebooks implement ThinkVantage® technologies and design; visit <a href="http://thinkpad.com/thinkvantage">thinkpad.com/thinkvantage</a>				
TrackPoint®	TrackPoint® pointing device / UltraNav® multi-pointing system (touchpad)														
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions										Universal 90-watt AC adapter ThinkPad Roll Cage (one-piece magnesium frame) PC 2001-compliant ACPI 1.0b and 2.0-compliant CIM and DMI 2.0-compliant PXE 2.1-compliant ENERGY STAR®-compliant RoHS-compliant International Warranty Service <sup>17</sup> 24 hour x 7 day <sup>18</sup> toll-free warranty support during the warranty <sup>12</sup>				
Dimensions <sup>3</sup>	(WxDxH): 14.1" x 10.3" x 1.47-1.58"; 357mm x 263mm x 37.3-40.2mm														
Weight <sup>2</sup>	with optical drive and battery: 6-cell: up to 7.0 lb (3.2kg); 9-cell: up to 7.3 lb (3.3kg)										Post-warranty annual maintenance agreements at <a href="http://lenovo.com/thinkplus/warranty">lenovo.com/thinkplus/warranty</a>				
Case material	Black color; Polycarbonate/Acrylonitrile-Butadiene-Styrene (PC/ABS) plastic														
Battery - type	Lithium Ion 6-cell or 9-cell / intelligent / supports unique 2nd battery in Ultrabay Enhance										See footnotes for important warranty information * Powered by Intel Centrino® mobile technology © Lenovo (WR5) October 2006				
Battery - life <sup>10</sup>	6-cell: up to 4.0 hr; 9-cell: up to 6.0 hr; 9-cell plus Ultrabay battery: up to 8.0 hr														
Architecture	Some: Mobile Intel 915GM Express Chipset / 82915GM Graphics Mem Cont Hub Some: Mobile Intel 915PM Express Chipset / 82915PM Memory Controller Hub All: 82801FBM ICH6-M I/O Controller Hub (SATA150, ATA-100 EIDE, PCI Express x1, PCI bus, ethernet, USB, [Bluetooth], [fingerprint]) / PCI bus (Ricoh® R5C841 CardBus, Mini PCI) / LPC bus (NS PC87382 Super I/O, Atmel® 97SC3201TPM)														
PC Card slot	One Type I or Type II slot / CardBus 32-bit / integrated door										Other options at <a href="http://lenovo.com/options">lenovo.com/options</a>				
ExpressCard slot	One ExpressCard/34 or ExpressCard/54 / PCI Express x1 or USB 2.0 / integrated door														
Ports	3-in-1 digital media reader (MultiMediaCard, Memory Stick, Secure Digital) / S-video out port (TV out) / IEEE 1394 (FireWire 400) / three USB 2.0 / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / docking connector / no keyboard or mouse or parallel or serial ports (use USB)														
Wireless antenna	UltraConnect™ Antenna built into the display cover / on-off switch for all wireless radios										ThinkPad External Battery Charger 40Y7625 ThinkPad 90W AC Adapter 40Y7659 11a/b/g Wireless Mini PCI Adapter II 73P4301 Intel PRO/Wireless 2915ABG Mini PCI 41N2990 Verizon Wireless V620 WWAN PC Card <sup>25</sup> 40Y9137 ThinkPad Advanced Mini Dock 250410U ThinkVision® L201p 20.1" Monitor (blk) 9320HB1				
Mini PCI	One Mini PCI slot / customer upgradable														
Intel 11a/b/g <sup>32</sup>	Some: 11a/b/g wireless <sup>4</sup> , Mini PCI, Intel PRO/Wireless 2915ABG, 82533 chipset										256MB PC2-4200 DDR2 NP CL4 SOD 73P3840 512MB PC2-4200 DDR2 NP CL4 SOD 73P3842 1GB PC2-4200 DDR2 NP CL4 SOD 73P3844				
11a/b/g II <sup>32</sup>	Some: 11a/b/g wireless <sup>4</sup> , ThinkPad 11a/b/g Mini PCI Adapter II, Atheros AR5004X														
Mini PCI Express	One Mini PCI Express slot / not customer upgradable										USB Portable Diskette Drive 05K9276 USB Fingerprint Reader 73P4774 USB 2.0 Memory Key 1GB 40Y7421 USB 2.0 Super Multi-Burner Drive 40Y8638 Serial Hard Drive Ultrabay Slim Adapter 40Y8725 100GB Disk 9.5mm SATA150 (7200 rpm) 41N3013 Kensington® MicroSaver® Security Cable 73P2582				
WWAN	None														
Modem	56K <sup>6</sup> V.90 (V.92-designed <sup>29</sup> ) modem in Comm Daughter Card socket / Conexant® chip										Other options on O-Z60M sheet				
Bluetooth™	Some: Bluetooth 2.0 wireless technology / USB 2.0 interface via ICH6-M / LED indicator														
Ethernet	Gigabit ethernet on systemboard / Broadcom BCM5751M (MAC/PHY) / PCIe x1 / PXE										Other options at <a href="http://lenovo.com/options">lenovo.com/options</a>				
Audio	High Definition (HD) Audio / AD1981HD codec / stereo speakers, 1 watt / volume up, down, mute buttons / internal microphone / microphone input jack / headphone jack														
Security	Power-on password / hard disk password / supervisor password / security keyhole										Other options at <a href="http://lenovo.com/options">lenovo.com/options</a>				
Security chip	<b>Trusted Platform Module</b> / Atmel chip / TCG 1.1-compliant														
Fingerprint reader	Some: <b>Fingerprint reader on palm rest</b> / swipe sensor / integrated with security chip										Other options at <a href="http://lenovo.com/options">lenovo.com/options</a>				
Limited warranty <sup>12</sup>	3-year/1-yr battery, limited onsite service <sup>24</sup> , 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time														

See footnotes for important warranty information  
US models announced September 20, 2005 or January 31, 2006  
US models withdrawn effective June or October 2006

\* Powered by Intel Centrino® mobile technology

© Lenovo (WR5) October 2006

# ThinkPad® Z61m (9450) - TopSeller - withdrawn

Created by Lenovo Training Solutions  
Personal Systems Reference (PSREF)

Type-model	Top cover color	Processor	Speed GHz	Memory MB	Wide-screen display	Graphics controller	Disk SATA GB	EIDE optical	Mini PCI 802.11 wireless	Mini PCle WWAN Blue-tooth	Finger print reader	Chip set	Cam-Pre- era load	Workhorse (W) Gbl (G)	Avail date
9450-32U	Silver	Celeron® M 410	1.46	512	15.4" WXGA	GMA 80G	80G	Combo	11a/b/g <sup>32</sup>			GM	Home		May06
9450-33U	Silver	Core Duo T2300E	1.66	512	15.4" WXGA	GMA 60G	60G	Combo	*Intel 11a/b/g <sup>32</sup>		Finger	GM	Pro	W	May06
9450-32U	Silver	Core Duo T2300E	1.66	512	15.4" WXGA	GMA 60G	60G	Combo	*Intel 11a/b/g		Finger	GM	Pro	W	May06
9450-34U	Silver	Core Duo T2300E	1.66	512	15.4" WXGA	GMA 60G	60G	Combo	*Intel 11a/b/g	Verizon Blue	Finger	GM	Pro	W	May06
9450-35U	Silver	Core Duo T2300E	1.66	512	15.4" WXGA	GMA 80G	80G	DVD±RW	*Intel 11a/b/g		Finger	GM	Pro	W	May06
9450-36U	Silver	Core Duo T2300E	1.66	512	15.4" WSXGA+	X1400	100	DVD±RW	*Intel 11a/b/g		Finger	PM Cam	Pro	W	May06
9450-37U	Silver	Core Duo T2300E	1.66	1GB	15.4" WXGA	GMA 100	100	DVD±RW	*Intel 11a/b/g	Verizon Blue	Finger	GM	Pro	W	May06
9450-38U	Silver	Core Duo T2300E	1.66	1GB	15.4" WSXGA+	X1400	100	DVD±RW	*Intel 11a/b/g	Verizon Blue	Finger	PM Cam	Pro	W	May06
9450-39U	Silver	Core Duo T2500	2.00	1GB	15.4" WSXGA+	X1400	100	DVD±RW	*Intel 11a/b/g	Verizon Blue	Finger	PM Cam	Pro	W	May06
9450-3TU	Black	Celeron M 410	1.46	256	15.4" WXGA	GMA 40G	40G	Combo	11a/b/g		GM	Pro	Gbl		May06

- These small and medium business (SMB) models are part of the US TopSeller™ Program
- These models have a 1-year limited warranty<sup>12</sup>

Positioning	Widescreen multimedia; two spindles	SOFTWARE <sup>14</sup> <b>Windows XP Professional models</b> - Microsoft® Windows® XP Professional <sup>20</sup> (Service Pack 2) ◇ Disk-to-Disk Recovery <b>Windows XP Home models</b> - Microsoft Windows XP Home Edition <sup>20</sup> (Service Pack 2) ◇ Disk-to-Disk Recovery <b>Preloaded (all)</b> • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center with Away Manager • ThinkVantage System Update • Symantec® Client Security™ • Diskeeper® Lite • PC-Doctor™ (diagnostics) • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader • Google Toolbar • Google Desktop • Picasa from Google • Fingerprint Software (fingerprint models) • Multimedia Center for Think Offerings • Sonic RecordNOW and Drive Letter Access (combo, DVD±RW) • InterVideo WinDVD (combo, DVD±RW models) • InterVideo WinDVD Creator (DVD±RW models)  <b>License</b> - CD not included (all) - Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client (Notes client not supported on XP Home)
Processor	Intel® Celeron M Processor 410 with Execute Disable Bit, 533MHz system bus, and 1MB L2 cache or Intel Core™ Duo processor T2300E or T2500 with dual-core, Enhanced Intel SpeedStep™ technology <sup>1</sup> , Execute Disable Bit, 667MHz bus, and 2MB shared L2 cache <b>256MB, 512MB, or 1GB</b> std / 4GB max <sup>21</sup> / PC2-5300 667MHz DDR2 / non-parity / CL5 / dual-channel capable / two 200-pin SO-DIMM sockets / <b>256/512MB models:</b> std memory in one socket; one socket available / <b>1GB models:</b> std memory in two sockets; none available	
Memory	Some: DVD-ROM/CD-RW / 24X/24X/24X/8X <sup>21</sup> speed / removable from Ultrabay™ Enh Some: DVD burner / Super Multi-Burner (40Y8623) dual-layer, removable Ultrabay Enh One modular bay for interchangeable devices / Ultrabay Slim-compatible / 12.7mm high <b>40GB</b> <sup>8</sup> (5400 rpm), <b>60GB</b> (5400 rpm), <b>80GB</b> (5400 rpm), or <b>100GB</b> (5400 rpm) / 9.5mm high / removable and upgradable / 9.5mm high bay / supports 2nd disk / <b>HDD Protection Pack</b> (shock absorber) / <b>Active Protection System™</b>	
EIDE Combo	Some: DVD-ROM/CD-RW / 24X/24X/24X/8X <sup>21</sup> speed / removable from Ultrabay™ Enh	
EIDE DVD±RW	Some: DVD burner / Super Multi-Burner (40Y8623) dual-layer, removable Ultrabay Enh	
Ultrabay Enhanced	One modular bay for interchangeable devices / Ultrabay Slim-compatible / 12.7mm high	
Serial ATA disk (SATA150)	<b>40GB</b> <sup>8</sup> (5400 rpm), <b>60GB</b> (5400 rpm), <b>80GB</b> (5400 rpm), or <b>100GB</b> (5400 rpm) / 9.5mm high / removable and upgradable / 9.5mm high bay / supports 2nd disk / <b>HDD Protection Pack</b> (shock absorber) / <b>Active Protection System™</b>	
Widescreen display (anti-glare)	Some: <b>15.4"</b> (391mm) <b>WXGA (1280x800) TFT color</b> / 150 nits / 16:10 / 300:1 contrst <b>3ZU:</b> <b>15.4"</b> (391mm) <b>WXGA (1280x800) TFT color</b> / 200 nits / 16:10 / 500:1 contrst Some: <b>15.4"</b> (391mm) <b>WSXGA+ (1680x1050) TFT color</b> / 200 nits / 16:10 aspect All: stainless steel hinges / one hand activates dual latches	
Graphics	Some: <b>Intel Graphics Media Accelerator 950</b> / integrated in 945GM / 250MHz Some: <b>ATI® MOBILITY™ Radeon™ X1400 M54</b> / PCI Express x16 / <b>128MB</b> GDDR1 / DVI pass-through support to opt Advanced Mini Dock and Advanced Dock	
Keyboard	89-key / ThinkVantage button / spill-resistant / multimedia Fn keys / Windows, Appl keys	
TrackPoint™	TrackPoint® pointing device / UltraNav® multi-pointing system (touchpad)	
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions	
Dimensions <sup>3</sup>	(WxDxH): 14.1" x 10.3" x 1.47-1.58"; 357mm x 263mm x 37.3-40.2mm	
Weight <sup>2</sup>	with optical drive and battery: <b>6-cell black:</b> starting at 5.94 lb (2.7kg)/6.33 lb (2.9kg); <b>6-cell titanium:</b> starting at 6.47 lb (2.9kg)/6.85 lb (3.1kg)	
Case material	Some: black color; Polycarbonate/Acrylonitrile-Butadiene-Styrene (PC/ABS) plastic Some: top cover: silver color; ABS, aluminum, titanium material; bottom: black, PC/ABS	
Battery - type	Lithium Ion <b>6-cell</b> / intelligent / supports unique 2nd battery in Ultrabay Enhanced	
Battery - life <sup>10</sup>	<b>Celeron models:</b> up to 3.7 hr; <b>6-cell GMA graphics:</b> up to 5.6 hr; <b>6-cell ATI graphics:</b> up to 4.0 hr; <b>9-cell:</b> up to 8.3 hr; <b>9-cell plus Ultrabay batt:</b> up to 10.3	
Architecture	Some: <b>Mobile Intel 945GM Express Chipset</b> / 82945GM Graphics Memory Cont Hub Some: <b>Mobile Intel 945PM Express Chipset</b> / 82945PM Memory Controller Hub All: 82801GBM ICH7-M I/O Controller Hub (SATA300, ATA-100 EIDE, PCI Express x1, PCI bus, USB, LPC interface, [Bluetooth], [fingerprint]) / PCI bus (TI® PCI8412 CardBus controller) / LPC bus (NS PC87382 Super I/O, Atmel® AT97SC3203)	
PC Card slot	One Type I or Type II slot / CardBus 32-bit / integrated door	
ExpressCard slot	One ExpressCard/34 or ExpressCard/54 / PCI Express x1 or USB 2.0 / integrated door	
Ports	<b>4-in-1 digital media reader</b> (MultiMediaCard, Memory Stick, Secure Digital, xD-Picture Card™) / S-video out port (TV out) / IEEE 1394a-2000 (FireWire 400) / three USB 2.0 / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / docking connector / no keyboard or mouse or parallel or serial ports (use USB)	
Wireless antenna	UltraConnect™ Antenna built into the display cover / on-off switch for all wireless radios	
Integrated camera	Some: camera on top of screen / 0.3-megapixel / fixed focus / USB 2.0	
Mini PCI Express	Two Mini PCI Express slots / only 802.11 wireless is customer upgradable Some: 11a/b/g wireless <sup>4</sup> , ThinkPad 11a/b/g Mini PCI Express Adp, Atheros AR5006EX Some: 11a/b/g wireless <sup>4</sup> , Mini PCI Express adapter, Intel PRO/Wireless 3945ABG Some: Wireless WAN, Sierra Wireless 1xEV-DO Network Adapter, Mini PCle Adapter, EV-DO/1xRTT, WWAN antenna on display, service contract reqd with Verizon® Wireless 56K® V.90 (V.92-designed <sup>29</sup> ) modem in Comm Daughter Card socket / Conexant® chip	
Modem	Some: Bluetooth 2.0 wireless technology / USB 2.0 via ICH7-M / LED indicator	
Bluetooth™	Gigabit ethernet on systemboard / Broadcom® BCM5752M (MAC/PHY) / PCle x1 / PXE	
Ethernet	High Definition (HD) Audio / AD1981HD codec / stereo speakers / 1 watt / volume up, down, mute buttons / <b>GMA models:</b> mono microphone; <b>ATI graphics models:</b> stereo microphone / microphone input jack / headphone jack	
Audio	Power-on password / hard disk password / supervisor password / security keyhole <b>Trusted Platform Module</b> / Atmel chip / TCG 1.2-compliant Some: <b>Fingerprint reader on palm rest</b> / swipe sensor / supports the security chip	
Security		
Security chip		
Fingerprint reader		
Limited warranty <sup>12</sup>	<b>1-year</b> - EasyServ™ <sup>19</sup> onsite pickup and delivery / service upgrades <sup>22</sup> available	
		ThinkPlus™.22 1-year LOR 9x5 NBD 41C9166 ThinkPlus 2-year LOR 9x5 NBD 41C9167 ThinkPlus 3-year LOR 9x5 NBD 41C9168 Other ThinkPlus services at <a href="http://lenovo.com/thinkplus/warranty">lenovo.com/thinkplus/warranty</a>

See footnotes for important warranty information  
US models announced May 16 or 30, 2006  
US models withdrawn effective February or September 2007

\* Powered by Intel Centrino® Duo mobile technology



# ThinkPad® Z61m (9450) - TopSeller (October 2006) - withdrawn

Created by Lenovo Training Solutions  
Personal Systems Reference (PSREF)

Top cover color	Processor	Mem-Speed GHz	Mem-ory MB	Wide-screen display	Disk Graphics controller	SATA GB	EIDE optical	Mini PCI 802.11 wireless	Mini PCIe wireless	Finger print reader	Chip set	Cam- era	Note CD	Work- horse Gbl	Avail date
9450-D5U Silver	Core 2 Duo T5500	1.66	1GB	15.4" WXGA	GMA 120	DVD±RW	*Intel 11a/b/g <sup>32</sup>	None	Blue	Finger	GM	CD	No	Oct 06	
9450-D6U Silver	Core 2 Duo T5500	1.66	1GB	15.4" WSXGA+	X1400	120	DVD±RW	*Intel 11a/b/g	None	Blue	Finger	PM	Cam	No	Oct 06
9450-D9U Silver	Core 2 Duo T7200	2.00	1GB	15.4" WSXGA+	X1400	120	DVD±RW	ThinkPad 11n <sup>28</sup>	None	Blue	Finger	PM	Cam	No	Oct 06

- These small and medium business (SMB) models are part of the US TopSeller™ Program
- These models have a 1-year limited warranty<sup>12</sup>

Positioning Processor	<i>Widescreen multimedia; two spindles</i> <b>Intel® Core™ 2 Duo processor T5500</b> or <b>T7200</b> with dual-core, Intel 64 Technology, Enhanced Intel SpeedStep™ technology <sup>1</sup> , Execute Disable Bit, and 667MHz system bus; <i>T5500</i> : 2MB shared L2 cache; <i>T7200</i> : 4MB shared L2 cache										<b>SOFTWARE<sup>14</sup></b> <b>Windows XP Professional</b> - Microsoft® Windows® XP Professional <sup>20</sup> (Service Pack 2) ✦ Disk-to-Disk Recovery <b>Preloaded</b> • <i>Model D5U</i> : Microsoft Office OneNote® 2003 • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center with Away Manager • ThinkVantage System Update • Symantec® Client Security™ • Diskeeper® Lite • PC-Doctor™ (diagnostics) • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader • Google Toolbar • Google Desktop • Picasa from Google • Fingerprint Software (fingerprint models) • Multimedia Center for Think Offerings • Sonic RecordNOW and Drive Letter Access (DVD±RW models) • InterVideo WinDVD (DVD±RW models) • InterVideo WinDVD Creator (DVD±RW models) <b>CD included</b> • <i>Model D5U</i> : Microsoft Office OneNote 2003 <b>License</b> - CD not included - Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client				
Memory	<b>1GB</b> std / 4GB max <sup>31</sup> / PC2-5300 667MHz DDR2 / non-parity / CL5 / dual-channel capable / two 200-pin SO-DIMM sockets / <i>Model D5U</i> : std memory in two sockets; no sockets available; <i>Models D6U/D9U</i> : std memory in one socket; one socket available														
EIDE DVD±RW Ultrabay Enhanced Serial ATA disk (SATA150)	DVD burner / Super Multi-Burner (40Y8623) dual-layer, removable Ultrabay™ Enhanced One modular bay for interchangeable devices / Ultrabay Slim-compatible / 12.7mm high <b>120GB<sup>8</sup></b> (5400 rpm) / 9.5mm high / removable and upgradable / 9.5mm high bay / supports 2nd disk / <b>HDD Protection Pack</b> (shock absorber) / <b>Active Protection System™</b>														
Widescreen display (anti-glare)	<i>Some</i> : <b>15.4"</b> (391mm) <b>WXGA (1280x800) TFT color</b> / 200 nits / 16:10 / 500:1 contrast <i>Some</i> : <b>15.4"</b> (391mm) <b>WSXGA+ (1680x1050) TFT color</b> / 200 nits / 16:10 aspect <i>All</i> : stainless steel hinges / one hand activates dual latches														
Graphics	<i>Some</i> : <b>Intel Graphics Media Accelerator 950</b> / integrated in 945GM / 250MHz <i>Some</i> : <b>ATI® MOBILITY™ Radeon™ X1400 M54</b> / PCI Express x16 / <b>128MB</b> GDDR1 / DVI pass-through support to optional Advanced Mini Dock and Advanced Dock														
Keyboard TrackPoint® ThinkLight™	89-key / ThinkVantage button / spill-resistant / multimedia Fn keys / Windows, Appl keys TrackPoint® pointing device / UltraNav® multi-pointing system (touchpad) Illuminates the keyboard to improve visibility in low-light conditions														
Dimensions <sup>3</sup> Weight <sup>2</sup> Case material Battery - type Battery - life <sup>10</sup>	<i>(WxDxH)</i> : 14.1" x 10.3" x 1.47-1.58"; 357mm x 263mm x 37.3-40.2mm with optical drive and battery: <i>6-cell titanium</i> : starting at 6.47 lb (2.9kg)/6.85 lb (3.1kg) <i>Top cover</i> : silver color; ABS, aluminum, titanium material; <i>bottom</i> : black, PC/ABS Lithium Ion <b>6-cell</b> / intelligent / supports unique 2nd battery in Ultrabay Enhanced <i>6-cell GMA graphics</i> : up to 5.6 hr; <i>6-cell ATI graphics</i> : up to 4.0 hr; <i>9-cell GMA</i> : up to 8.3 hr; <i>9-cell ATI</i> : up to 5.9 hr; <i>9-cell plus Ultrabay batt</i> : up to 10.3														
Architecture	<i>Some</i> : <b>Mobile Intel 945GM Express Chipset</b> / 82945GM Graphics Memory Cont Hub <i>Some</i> : <b>Mobile Intel 945PM Express Chipset</b> / 82945PM Memory Controller Hub <i>All</i> : 82801GBM ICH7-M I/O Controller Hub (SATA300, ATA-100 EIDE, PCI Express x1, PCI bus, USB, LPC interface, [Bluetooth], [fingerprint]) / PCI bus (TI® PCI8412 CardBus controller) / LPC bus (NS PC87382 Super I/O, Atmel® AT97SC3203)														
PC Card slot ExpressCard slot Ports	One Type I or Type II slot / CardBus 32-bit / integrated door One ExpressCard/34 or ExpressCard/54 / PCI Express x1 or USB 2.0 / integrated door <b>4-in-1 digital media reader</b> (MultiMediaCard, Memory Stick, Secure Digital, xD-Picture Card™) / S-video out port (TV out) / IEEE 1394a-2000 (FireWire 400) / three USB 2.0 / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / docking connector / no keyboard or mouse or parallel or serial ports (use USB)														
Wireless antenna Integrated camera Mini PCI Express Intel 11a/b/g <sup>32</sup> ThinkPad 11n <sup>28</sup>	UltraConnect™ Antenna built into the display cover / on-off switch for all wireless radios <i>Some</i> : camera on top of screen / 0.3-megapixel / fixed focus / USB 2.0 Two Mini PCI Express slots / only 802.11 wireless is customer upgradable <i>Some</i> : 11a/b/g wireless <sup>4</sup> , Mini PCI Express adapter, Intel PRO/Wireless 3945ABG <i>Some</i> : 11a/b/g/n wireless <sup>4</sup> , ThinkPad 11a/b/g/n Mini PCI Express Adapter, Atheros AR5008 chipset, <b>MIMO 2x3</b>										Supports ThinkVantage® technologies				
WWAN Modem Bluetooth™ Ethernet Audio	None 56K <sup>6</sup> V.90 (V.92-designed <sup>29</sup> ) modem in Comm Daughter Card socket / Conexant® chip Bluetooth 2.0 wireless technology / USB 2.0 via ICH7-M / LED indicator Gigabit ethernet on systemboard / Broadcom® BCM5752M (MAC/PHY) / PCIe x1 / PXE High Definition (HD) Audio / AD1981HD codec / stereo speakers / 1 watt / volume up, down, mute buttons / <i>GMA models</i> : mono microphone; <i>ATI graphics models</i> : stereo microphone / microphone input jack / headphone jack										65-watt (GMA graphics) or 90 watt (ATI graphics) AC adapter ThinkPad Roll Cage RoHS-compliant International Warranty Service <sup>17</sup> 24 hour x 7 day <sup>18</sup> toll-free warranty support during the warranty <sup>12</sup>				
Security Security chip Fingerprint reader	Power-on password / hard disk password / supervisor password / security keyhole Trusted Platform Module / Atmel chip / TCG 1.2-compliant Fingerprint reader on palm rest / swipe sensor / supports the security chip										ThinkPlus™.22 1-year LOR 9x5 NBD 41C9166 ThinkPlus 2-year LOR 9x5 NBD 41C9167 ThinkPlus 3-year LOR 9x5 NBD 41C9168 ThinkPlus 4-year LOR 9x5 NBD 41C9171 ThinkPlus 5-year LOR 9x5 NBD 41C9173 ThinkPlus 2-year P&L P/U Depot 41C9169 ThinkPlus 3-year P&L P/U Depot 41C9170 ThinkPlus 5-year P&L P/U Depot 41C9174 Other ThinkPlus services at <b>lenovo.com/thinkplus/warranty</b>				
Limited warranty <sup>12</sup>	<b>1-year</b> - EasyServ™.19 onsite pickup and delivery / service upgrades <sup>22</sup> available														
512MB PC2-5300 DDR2 CL5 SODIMM 1GB PC2-5300 DDR2 CL5 SODIMM 2GB PC2-5300 DDR2 SODIMM CD-RW/DVD Combo Ultrabay Enhanced ThinkPad DVD Ultrabay Slim Burner (flat) Serial Hard Drive Ultrabay Slim Adapter 160GB Disk 9.5mm SATA150 (5400 rpm) USB 2.0 Lenovo Multimedia Headset USB 2.0 Security Memory Key 4GB USB 2.0 Super Multi-Burner Drive Other accessories on O-Z60M sheet	40Y7733 40Y7734 40Y7735 73P3275 41N5643 40Y8725 41N5692 40Y8518 41U5120 41N5565		Z60m/R60 Series Li-Ion Battery 6-cell Z60m/T60/R60 Li-Ion Battery 9-cell ThinkPad Essential Port Replicator ThinkPad Advanced Mini Dock ThinkPad Advanced Dock ThinkPad 90W AC Adapter 11a/b/g Wireless Mini PCI Express Adpr Intel PRO/Wireless 3945ABG Mini PCIe ThinkPad Carrying Case - BackPack Lenovo D221 Wide 22" Monitor (black) Other accessories at <b>lenovo.com/accessories</b>		40Y6795 40Y6797 250510W 250410U 250310U 40Y7659 40Y7026 41N3008 73P3599 6622HB1										

See footnotes for important warranty information  
US models announced October 17, 2006  
US models withdrawn effective September 2007

\* Powered by Intel Centrino® Duo mobile technology

© Lenovo  
(WR25-1) September 2007

# ThinkPad® Z61m (9451) - withdrawn

Created by Lenovo Training Solutions  
Personal Systems Reference (PSREF)

Type-model	Top cover color	Processor	Speed GHz	Memory MB	Wide-screen display	Graphics controller	Disk SATA GB	EIDE optical	Mini PCI 802.11 wireless	Mini PCIe WWAN wireless	Blue-tooth	Finger print reader	Chip set	Camera era	Pre-load	Workhorse (W) Gbl (G)	Availability date
9451-NPU	Black	Celeron® M 420	1.60	256	15.4" WXGA	GMA 40G	40G	Combo	11a/b/g <sup>32</sup>	None	None	None	GM	No	XP Pro	G	Oct 06
9451-5UU	Black	Core Duo T2400	1.83	512	15.4" WXGA	GMA 60G	60G	Combo	* Intel 11a/b/g <sup>32</sup>	None	None	Finger	GM	No	XP Pro	W	May06
9451-5VU	Silver	Core Duo T2400	1.83	512	15.4" WXGA	GMA 60G	60G	Combo	* Intel 11a/b/g	None	None	Finger	GM	No	XP Pro	W	May06
9451-5WU	Black	Core Duo T2400	1.83	512	15.4" WSXGA+	X1400	60G	Combo	* Intel 11a/b/g	None	None	Finger	PM	No	XP Pro	W	May06

• **These models have a 1-year limited warranty<sup>12</sup>**

Positioning	<i>Widescreen multimedia; two spindles</i>	<b>SOFTWARE<sup>14</sup></b> <b>Windows XP Professional</b> - Microsoft® Windows® XP Professional <sup>20</sup> (Service Pack 2) ♦ Disk-to-Disk Recovery <b>Preloaded</b> • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center with Away Manager • ThinkVantage System Update • Symantec® Client Security™ • Diskeeper® Lite • PC-Doctor™ (diagnostics) • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader • Google Toolbar • Google Desktop • Picasa from Google • Fingerprint Software (fingerprint models) • Multimedia Center for Think Offerings • Sonic RecordNOW and Drive Letter Access (combo models) • InterVideo WinDVD (combo models) <b>License</b> - CD not included (all) - Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client
Processor	Intel® Celeron M Processor 420 with Execute Disable Bit, 533MHz system bus, and 1MB L2 cache or Intel Core™ Duo processor T2400 with dual-core, Enhanced Intel SpeedStep™ technology <sup>1</sup> , Execute Disable Bit, 667MHz system bus, and 2MB shared L2 cache	
Memory	256MB or 512MB std / 4GB max <sup>31</sup> / PC2-5300 667MHz DDR2 / non-parity / CL5 / dual-channel capable / two 200-pin SO-DIMM sockets / standard memory in one socket / one socket available	
EIDE Combo	DVD-ROM/CD-RW / 24X/24X/24X/8X <sup>21</sup> speed / removable from Ultrabay Enhanced	
Ultrabay Enhanced	One modular bay for interchangeable devices / Ultrabay Slim-compatible / 12.7mm high	
Serial ATA disk (SATA150)	40GB <sup>8</sup> or 60GB (5400 rpm) / 9.5mm high / removable, upgradable / 9.5mm high bay / supports 2nd disk / <b>HDD Protection Pack</b> (shock absorber) / <b>Active Protection System™</b>	
Widescreen display (anti-glare)	<i>Some: 15.4" (391mm) WXGA (1280x800) TFT color / 150 nits / 16:10 aspect / 300:1</i> <i>Some: 15.4" (391mm) WXGA (1280x800) TFT color / 200 nits / 16:10 aspect / 500:1</i> <i>Some: 15.4" (391mm) WSXGA+ (1680x1050) TFT color / 200 nits / 16:10 aspect</i> <i>All: stainless steel hinges / one hand activates dual latches</i>	
Graphics	<i>Some: Intel Graphics Media Accelerator 950 / integrated in 945GM / 250MHz</i> <i>Some: ATI® MOBILITY™ Radeon™ X1400 M54 / PCI Express x16 / 128MB GDDR1 / DVI pass-through support to opt Advanced Mini Dock and Advanced Dock</i>	
Keyboard	89-key / ThinkVantage button / spill-resistant / multimedia Fn keys / Windows, Appl keys	
TrackPoint™	TrackPoint® pointing device / UltraNav® multi-pointing system (touchpad)	
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions	
Dimensions <sup>3</sup>	(WxDxH): 14.1" x 10.3" x 1.47-1.58"; 357mm x 263mm x 37.3-40.2mm	
Weight <sup>2</sup>	with optical drive and battery: <i>6-cell black:</i> starting at 5.94 lb (2.7kg)/6.33 lb (2.9kg); <i>6-cell titanium:</i> starting at 6.47 lb (2.9kg)/6.85 lb (3.1kg)	
Case material	<i>Some: black color; Polycarbonate/Acrylonitrile-Butadiene-Styrene (PC/ABS) plastic</i> <i>Some: top cover: silver color; ABS, aluminum, titanium material; bottom: black, PC/ABS</i>	
Battery - type	Lithium Ion <b>6-cell</b> / intelligent / supports unique 2nd battery in Ultrabay Enhanced	
Battery - life <sup>10</sup>	<i>6-cell Celeron:</i> up to 3.7 hr; <i>6-cell GMA graphics:</i> up to 5.6 hr; <i>6-cell ATI graphics:</i> up to 4.0 hr; <i>optional 9-cell GMA graphics:</i> up to 8.3 hr; <i>9-cell plus Ultrabay battery:</i> up to 10.3 hr	
Architecture	<i>Some: Mobile Intel 945GM Express Chipset / 82945GM Graphics Memory Cont Hub</i> <i>Some: Mobile Intel 945PM Express Chipset / 82945PM Memory Controller Hub</i> <i>All: 82801GBM ICH7-M I/O Controller Hub (SATA300, ATA-100 EIDE, PCI Express x1, PCI bus, USB, LPC interface, [Bluetooth], [fingerprint]) / PCI bus (TI® PCI8412 CardBus controller) / LPC bus (NS PC87382 Super I/O, Atmel® AT97SC3203)</i>	
PC Card slot	One Type I or Type II slot / CardBus 32-bit / integrated door	
ExpressCard slot	One ExpressCard/34 or ExpressCard/54 / PCI Express x1 or USB 2.0 / integrated door	
Ports	<b>4-in-1 digital media reader</b> (MultiMediaCard, Memory Stick, Secure Digital, xD-Picture Card™) / S-video out port (TV out) / IEEE 1394a-2000 (FireWire 400) / three USB 2.0 / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / docking connector / no keyboard or mouse or parallel or serial ports (use USB)	
Wireless antenna	UltraConnect™ Antenna built into the display cover / on-off switch for all wireless radios	
Integrated camera	None	
Mini PCI Express	Two Mini PCI Express slots / only 802.11 wireless is customer upgradable <i>Some: 11a/b/g wireless<sup>4</sup>, ThinkPad 11a/b/g Mini PCI Express Adp, Atheros AR5006EX</i> <i>Some: 11a/b/g wireless<sup>4</sup>, Mini PCI Express adapter, Intel PRO/Wireless 3945ABG</i>	
11a/b/g <sup>32</sup>		
Intel 11a/b/g <sup>32</sup>		
WWAN	None	
Modem	56K <sup>9</sup> V.90 (V.92-designed <sup>29</sup> ) modem in Comm Daughter Card socket / Conexant® chip	
Bluetooth™	None	
Ethernet	Gigabit ethernet on systemboard / Broadcom® BCM5752M (MAC/PHY) / PCIe x1 / PXE	
Audio	High Definition (HD) Audio / AD1981HD codec / stereo speakers / 1 watt / volume up, down, mute buttons / <i>GMA models:</i> mono microphone; <i>ATI graphics models:</i> stereo microphone / microphone input jack / headphone jack	
Security	Power-on password / hard disk password / supervisor password / security keyhole	
Security chip	<b>Trusted Platform Module</b> / Atmel chip / TCG 1.2-compliant	
Fingerprint reader	<i>Some: Fingerprint reader on palm rest / swipe sensor / supports the security chip</i>	
Limited warranty <sup>12</sup>	<b>1-year</b> - EasyServ™, onsite pickup and delivery / service upgrades <sup>22</sup> available	

512MB PC2-5300 DDR2 CL5 SODIMM	40Y7733	Z60m/R60 Series Li-Ion Battery 6-cell	40Y6795
1GB PC2-5300 DDR2 CL5 SODIMM	40Y7734	Z60m/T60/R60 Li-Ion Battery 9-cell	40Y6797
2GB PC2-4200 DDR2 CL4 SODIMM	73P3846	ThinkPad Essential Port Replicator	250510W
CD-RW/DVD Combo Ultrabay Enhanced	73P3275	ThinkPad Advanced Mini Dock	250410U
ThinkPad DVD Ultrabay Slim Burner (flat)	41N5643	ThinkPad Advanced Dock	250310U
USB 2.0 Lenovo Multimedia Headset	40Y8518	ThinkPad 90W AC Adapter	40Y7659
USB 2.0 Security Memory Key 4GB	41U5120	11a/b/g Wireless Mini PCI Express Adpr	40Y7026
USB 2.0 Super Multi-Burner Drive	41N5565	Intel PRO/Wireless 3945ABG Mini PCIe	41N3008
Serial Hard Drive Ultrabay Slim Adapter	40Y8725	ThinkPad Carrying Case - Backpack	73P3599
100GB Disk 9.5mm SATA150 (7200 rpm)	41N3013	Lenovo D221 Wide 22" Monitor (black)	6622HB1
Other accessories on O-Z60M sheet		Other accessories at <a href="http://lenovo.com/accessories">lenovo.com/accessories</a>	

See footnotes for important warranty information  
US models announced May 16 or October 17, 2006  
US models withdrawn effective September 2007

\* Powered by Intel Centrino® Duo processor technology

© Lenovo  
(WR2-2) September 2007

# ThinkPad® Z61m (9451) - Education - withdrawn

Created by Lenovo Training Solutions  
Personal Systems Reference (PSREF)

Type-model	Top cover color	Processor	Speed GHz	Memory MB	Wide-screen display	Graphics controller	Disk SATA GB	EIDE optical	Mini PCI 802.11 wireless	Mini PCIe WWAN wireless	Finger print reader	Chip set	Camera era	Limited warranty <sup>12</sup>	Workhorse (W) Gbl (G) Avail date
9451-E1U	Silver	Celeron® M 410	1.46	512	15.4" WXGA	GMA 60G Combo	60G Combo	Intel 11a/b/g <sup>32</sup>	None	Finger GM	GM	EasyServ	W	May06	
9451-E2U	Black	Celeron M 410	1.46	512	15.4" WXGA	GMA 60G Combo	60G Combo	Intel 11a/b/g	None	Finger GM	GM	EasyServ	W	May06	
9451-E3U	Silver	Core Duo T2400	1.83	512	15.4" WSXGA+	X1400 80G DVD±RW	* Intel 11a/b/g	None	Finger PM	Cam	EasyServ	W	May06		
9451-E4U	Black	Core Duo T2400	1.83	512	15.4" WSXGA+	X1400 80G DVD±RW	* Intel 11a/b/g	None	Finger PM	PM	EasyServ	W	May06		
<p>• <b>These models have an EasyServ™.19 onsite pickup and delivery 1-year limited warranty</b>                      These educational models are available only to public or private K-12 (or higher) accredited schools organized and operated exclusively for educational purposes for use by qualified students and teachers.</p>															
Positioning Processor	Widescreen multimedia; two spindles Intel® Celeron M Processor 410 with Execute Disable Bit, 533MHz system bus, and 1MB L2 cache or Intel Core™ Duo processor T2400 with dual-core, Enhanced Intel SpeedStep™ technology <sup>1</sup> , Execute Disable Bit, 667MHz system bus, and 2MB shared L2 cache											<p><b>SOFTWARE<sup>14</sup></b>  <b>Windows XP Professional</b>                      - Microsoft® Windows® XP Professional<sup>20</sup> (Service Pack 2)                      ♦ Disk-to-Disk Recovery</p> <p><b>Preloaded</b>                      • VitalSource Library education software                      • Adobe® Photoshop® Elements plus Adobe Premiere® Elements                      • Rescue and Recovery™                      • Access Connections™                      • Client Security Solution™                      • ThinkVantage Productivity Center with Away Manager                      • ThinkVantage System Update                      • Symantec® Client Security™                      • Diskeeper® Lite                      • PC-Doctor™ (diagnostics)                      • ThinkPad Utilities (Power Manager and Presentation Director)                      • Adobe® Reader                      • Google Toolbar                      • Google Desktop                      • Picasa from Google                      • Fingerprint Software (fingerprint models)                      • Multimedia Center for Think Offerings                      • Sonic RecordNOW and Drive Letter Access (combo, DVD±RW)                      • InterVideo WinDVD (combo, DVD±RW models)                      • InterVideo WinDVD Creator (DVD±RW models)</p> <p><b>CD</b>                      • Adobe Photoshop Elements plus Adobe Premiere Elements</p> <p><b>License - CD not included</b>                      - Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client</p> <p>Supports ThinkVantage® technologies</p> <p>65-watt (GMA graphics) or 90 watt (ATI graphics) AC adapter                      ThinkPad Roll Cage                      RoHS-compliant                      International Warranty Service<sup>17</sup>                      24 hour x 7 day<sup>18</sup> toll-free warranty support during the warranty<sup>12</sup></p> <p>ThinkPlus™.22 1-year LOR 9x5 NBD 41C9166                      ThinkPlus 2-year LOR 9x5 NBD 40Y6797                      ThinkPlus 3-year LOR 9x5 NBD 250510W                      ThinkPlus 4-year LOR 9x5 NBD 250410U                      ThinkPlus 5-year LOR 9x5 NBD 250310U                      Other ThinkPlus services at <a href="http://lenovo.com/thinkplus/warranty">lenovo.com/thinkplus/warranty</a></p>			
Memory	Some: DVD-ROM/CD-RW / 24X/24X/24X/8X <sup>21</sup> speed / removable from Ultrabay™ Enh Some: DVD burner / Super Multi-Burner (40Y8623) dual-layer, removable Ultrabay Enh One modular bay for interchangeable devices / Ultrabay Slim-compatible / 12.7mm high 512MB std / 4GB max <sup>31</sup> / PC2-5300 667MHz DDR2 / non-parity / CL5 / dual-channel capable / two 200-pin SO-DIMM sockets / standard memory in one socket / one socket available														
EIDE Combo EIDE DVD±RW Ultrabay Enhanced Serial ATA disk (SATA150)	Some: DVD-ROM/CD-RW / 24X/24X/24X/8X <sup>21</sup> speed / removable from Ultrabay™ Enh Some: DVD burner / Super Multi-Burner (40Y8623) dual-layer, removable Ultrabay Enh One modular bay for interchangeable devices / Ultrabay Slim-compatible / 12.7mm high 60GB <sup>8</sup> (5400 rpm) or 80GB (5400 rpm) / 9.5mm high / removable and upgradable / 9.5mm high bay / supports 2nd disk / HDD Protection Pack (shock absorber) / Active Protection System™														
Widescreen display (anti-glare)	Some: 15.4" (391mm) WXGA (1280x800) TFT color / 150 nits / 16:10 aspect ratio Some: 15.4" (391mm) WSXGA+ (1680x1050) TFT color / 200 nits / 16:10 aspect All: stainless steel hinges / one hand activates dual latches														
Graphics	Some: Intel Graphics Media Accelerator 950 / integrated in 945GM / 250MHz Some: ATI® MOBILITY™ Radeon™ X1400 M54 / PCI Express x16 / 128MB GDDR1 / DVI pass-through support to opt Advanced Mini Dock and Advanced Dock														
Keyboard TrackPoint® ThinkLight™	89-key / ThinkVantage button / spill-resistant / multimedia Fn keys / Windows, Appl keys TrackPoint® pointing device / UltraNav® multi-pointing system (touchpad) Illuminates the keyboard to improve visibility in low-light conditions														
Dimensions <sup>3</sup> Weight <sup>2</sup>	(WxDxH): 14.1" x 10.3" x 1.47-1.58"; 357mm x 263mm x 37.3-40.2mm with optical drive and battery: 6-cell black: starting at 5.94 lb (2.7kg)/6.33 lb (2.9kg); 6-cell titanium: starting at 6.47 lb (2.9kg)/6.85 lb (3.1kg)														
Case material	Some: black color; Polycarbonate/Acrylonitrile-Butadiene-Styrene (PC/ABS) plastic Some: top cover: silver color; ABS, aluminum, titanium material; bottom: black, PC/ABS														
Battery - type Battery - life <sup>10</sup>	Lithium Ion 6-cell / intelligent / supports unique 2nd battery in Ultrabay Enhanced 6-cell GMA graphics: up to 5.6 hr; 6-cell ATI graphics: up to 4.0 hr; optional 9-cell GMA graphics: up to 8.3 hr; 9-cell plus Ultrabay battery: up to 10.3 hr														
Architecture	Some: Mobile Intel 945GM Express Chipset / 82945GM Graphics Memory Cont Hub Some: Mobile Intel 945PM Express Chipset / 82945PM Memory Controller Hub All: 82801GBM ICH7-M I/O Controller Hub (SATA300, ATA-100 EIDE, PCI Express x1, PCI bus, USB, LPC interface, [Bluetooth], [fingerprint]) / PCI bus (TI® PCI8412 CardBus controller) / LPC bus (NS PC87382 Super I/O, Atmel® AT97SC3203)														
PC Card slot ExpressCard slot Ports	One Type I or Type II slot / CardBus 32-bit / integrated door One ExpressCard/34 or ExpressCard/54 / PCI Express x1 or USB 2.0 / integrated door 4-in-1 digital media reader (MultiMediaCard, Memory Stick, Secure Digital, xD-Picture Card™) / S-video out port (TV out) / IEEE 1394a-2000 (FireWire 400) / three USB 2.0 / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / docking connector / no keyboard or mouse or parallel or serial ports (use USB)														
Wireless antenna Integrated camera Mini PCI Express Intel 11a/b/g <sup>32</sup> WWAN	UltraConnect™ Antenna built into the display cover / on-off switch for all wireless radios Some: camera on top of screen / 0.3-megapixel / fixed focus / USB 2.0 Two Mini PCI Express slots / only 802.11 wireless is customer upgradable 11a/b/g wireless <sup>4</sup> , Mini PCI Express adapter, Intel PRO/Wireless 3945ABG None														
Modem Bluetooth™ Ethernet Audio	56K <sup>6</sup> V.90 (V.92-designed <sup>29</sup> ) modem in Comm Daughter Card socket / Conexant® chip None Gigabit ethernet on systemboard / Broadcom® BCM5752M (MAC/PHY) / PCIe x1 / PXE High Definition (HD) Audio / AD1981HD codec / stereo speakers / 1 watt / volume up, down, mute buttons / GMA models: mono microphone; ATI graphics models: stereo microphone / microphone input jack / headphone jack														
Security Security chip Fingerprint reader	Power-on password / hard disk password / supervisor password / security keyhole Trusted Platform Module / Atmel chip / TCG 1.2-compliant Fingerprint reader on palm rest / swipe sensor / supports the security chip														
Limited warranty <sup>12</sup>	1-year - EasyServ™.19 onsite pickup and delivery / service upgrades <sup>22</sup> available														
512MB PC2-5300 DDR2 CL5 SODIMM 1GB PC2-5300 DDR2 CL5 SODIMM 2GB PC2-4200 DDR2 CL4 SODIMM DVD-ROM Ultrabay Enhanced Drive CD-RW/DVD Combo Ultrabay Enhanced ThinkPad DVD Ultrabay Slim Burner (flat) USB Portable Diskette Drive USB 2.0 Security Memory Key 4GB USB 2.0 Super Multi-Burner Drive 100GB Disk 9.5mm SATA150 (7200 rpm) Other accessories on O-Z60M sheet	40Y7733 40Y7734 73P3846 39X2642 73P3275 41N5643 05K9276 41U5120 41N5565 41N3013				Z60m/R60 Series Li-Ion Battery 6-cell Z60m/T60/R60 Li-Ion Battery 9-cell ThinkPad Essential Port Replicator ThinkPad Advanced Mini Dock ThinkPad Advanced Dock 11a/b/g Wireless Mini PCI Express Adpr Intel PRO/Wireless 3945ABG Mini PCIe ThinkPad Carrying Case - Backpack Lenovo D221 Wide 22" Monitor (black) ThinkVision® L201p 20.1" Monitor (black) Other accessories at <a href="http://lenovo.com/accessories">lenovo.com/accessories</a>				40Y6795 40Y6797 250510W 250410U 250310U 40Y7026 41N3008 73P3599 6622HB1 9220HB1						

See footnotes for important warranty information  
US models announced May 16 or 30, 2006  
US models withdrawn effective February or September 2007

\* Powered by Intel Centrino® Duo processor technology

# ThinkPad® Z61m (9452) - withdrawn

Created by Lenovo Training Solutions  
Personal Systems Reference (PSREF)

Type-model	Top cover color	Processor	Speed GHz	Memory MB	Wide-screen display	Graphics controller	Disk SATA GB	EIDE optical	Mini PCI 802.11 wireless	Mini PCIe WWAN wireless	Finger print reader	Chip set	Camera	Pre-load	Workhorse (W) Gbl (G) Avail date
9452-5UU	Black	Core Duo T2400	1.83	512	15.4" WXGA	GMA	60G	Combo	* Intel 11a/b/g <sup>32</sup>	None	None	Finger	GM	No	Pro G W May06
9452-5VU	Silver	Core Duo T2400	1.83	512	15.4" WXGA	GMA	60G	Combo	* Intel 11a/b/g	None	None	Finger	GM	No	Pro G W May06
9452-9NU	Black	Core Duo T2400	1.83	512	15.4" WSXGA+	X1400	80G	Combo	* Intel 11a/b/g	None	None	Finger	PM	No	Pro G W May06

• **These models have a 3-year limited warranty<sup>12</sup>**

Positioning	<i>Stylish notebooks for work and life; widescreen display; two-spindle system</i>											<b>SOFTWARE<sup>14</sup></b> <b>Windows XP Professional models</b> - Microsoft® Windows® XP Professional <sup>20</sup> (Service Pack 2) ♦ Disk-to-Disk Recovery  <b>Preloaded</b> • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center with Away Manager • ThinkVantage System Update • Symantec® Client Security™ • Diskeeper Lite • PC-Doctor™ (diagnostics) • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader • Google Toolbar • Google Desktop • Picasa from Google • Fingerprint Software (fingerprint models) • Multimedia Center for Think Offerings • Sonic RecordNOW and Drive Letter Access (combo models) • InterVideo WinDVD (combo models)  <b>License</b> - CD not included (all) - Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client			
Processor	<b>Intel® Core™ Duo processor T2400</b> with dual-core, Enhanced Intel SpeedStep™ technology <sup>1</sup> , Execute Disable Bit, 667MHz system bus, and 2MB L2 cache (shared)														
Memory	<b>512MB</b> std / 4GB max <sup>31</sup> / PC2-5300 667MHz DDR2 / non-parity / CL5 / dual-channel capable / two 200-pin SO-DIMM sockets / standard memory in one socket / one socket available														
EIDE Combo	DVD-ROM/CD-RW / 24X/24X/24X/8X <sup>21</sup> speed / removable from Ultrabay Enhance														
Ultrabay Enhanced	One modular bay for interchangeable devices / Ultrabay Slim-compatible / 12.7mm high														
Serial ATA disk (SATA150)	<b>60GB<sup>8</sup></b> (5400 rpm) or <b>80GB</b> (5400 rpm) / 9.5mm high / removable and upgradable / 9.5mm high bay / supports 2nd disk / <b>HDD Protection Pack</b> (shock absorber) / <b>Active Protection System™</b>														
Widescreen display (anti-glare)	<i>Some: 15.4"</i> (391mm) <b>WXGA (1280x800) TFT color</b> / 150 nits / 16:10 aspect ratio <i>Some: 15.4"</i> (391mm) <b>WSXGA+ (1680x1050) TFT color</b> / 200 nits / 16:10 aspect <i>All:</i> stainless steel hinges / one hand activates dual latches														
Graphics	<i>Some: Intel Graphics Media Accelerator 950</i> / integrated in 945GM / 250MHz <i>Some: ATI® MOBILITY™ RADEON® X1400 M54</i> / PCI Express x16 / <b>128MB</b> GDDR1 / DVI pass-through support to opt Advanced Mini Dock and Advanced Dock														
Keyboard	89-key / ThinkVantage button / spill-resistant / multimedia Fn keys / Windows, Appl keys														
TrackPoint®	TrackPoint® pointing device / UltraNav® multi-pointing system (touchpad)														
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions														
Dimensions <sup>3</sup>	(WxDxH): 14.1" x 10.3" x 1.47-1.58"; 357mm x 263mm x 37.3-40.2mm														
Weight <sup>2</sup>	with optical drive and battery: <i>6-cell black:</i> starting at 5.94 lb (2.7kg)/6.33 lb (2.9kg); <i>6-cell titanium:</i> starting at 6.47 lb (2.9kg)/6.85 lb (3.1kg)														
Case material	<i>Some:</i> black color; Polycarbonate/Acrylonitrile-Butadiene-Styrene (PC/ABS) plastic <i>Some:</i> top cover: silver color; ABS, aluminum, titanium material; bottom: black, PC/ABS														
Battery - type	Lithium Ion <b>6-cell</b> / intelligent / supports unique 2nd battery in Ultrabay Enhanced														
Battery - life <sup>10</sup>	<i>6-cell GMA graphics:</i> up to 5.6 hr; <i>6-cell ATI graphics:</i> up to 4.0 hr; <i>optional 9-cell GMA graphics:</i> up to 8.3 hr; <i>9-cell plus Ultrabay battery:</i> up to 10.3 hr														
Architecture	<i>Some: Mobile Intel 945GM Express Chipset</i> / 82945GM Graphics Memory Cont Hub <i>Some: Mobile Intel 945PM Express Chipset</i> / 82945PM Memory Controller Hub <i>All:</i> 82801GBM ICH7-M I/O Controller Hub (SATA300, ATA-100 EIDE, PCI Express x1, PCI bus, USB, LPC interface, [Bluetooth], [fingerprint]) / PCI bus (TI® PCI8412 CardBus controller) / LPC bus (NS PC87382 Super I/O, Atmel® AT97SC3203)														
PC Card slot	One Type I or Type II slot / CardBus 32-bit / integrated door														
ExpressCard slot	One ExpressCard/34 or ExpressCard/54 / PCI Express x1 or USB 2.0 / integrated door														
Ports	<b>4-in-1 digital media reader</b> (MultiMediaCard, Memory Stick, Secure Digital, xD Picture Card) / S-video out port (TV out) / IEEE 1394a-2000 (FireWire 400) / three USB 2.0 / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / docking connector / no keyboard or mouse or parallel or serial ports (use USB)														
Wireless antenna	UltraConnect™ Antenna built into the display cover / on-off switch for all wireless radios														
Integrated camera	None														
Mini PCI Express	Two Mini PCI Express slots / only 802.11 wireless is customer upgradable														
Intel 11a/b/g <sup>32</sup>	11a/b/g wireless <sup>4</sup> , Mini PCI Express adapter, Intel PRO/Wireless 3945ABG														
WWAN	None														
Modem	56K <sup>6</sup> V.90 (V.92-designed <sup>29</sup> ) modem in Comm Daughter Card socket / Conexant® chip														
Bluetooth™	None														
Ethernet	Gigabit ethernet on systemboard / Broadcom® BCM5752M (MAC/PHY) / PCIe x1 / PXE														
Audio	High Definition (HD) Audio / AD1981HD codec / stereo speakers / 1 watt / volume up, down, mute buttons / <i>GMA models:</i> mono microphone; <i>ATI graphics models:</i> stereo microphone / microphone input jack / headphone jack														
Security	Power-on password / hard disk password / supervisor password / security keyhole														
Security chip	<b>Trusted Platform Module</b> / Atmel chip / TCG 1.2-compliant														
Fingerprint reader	<b>Fingerprint reader on palm rest</b> / swipe sensor / integrated with security chip														
Limited warranty <sup>12</sup>	<b>3-year/1-yr battery</b> - EasyServ™ <sup>19</sup> onsite pickup and delivery / service upgrades <sup>22</sup> avail														
512MB PC2-5300 DDR2 CL5 SODIMM	40Y7733	Z60m/R60 Series Li-Ion Battery 6-cell	40Y6795												
1GB PC2-5300 DDR2 CL5 SODIMM	40Y7734	Z60m/T60/R60 Li-Ion Battery 9-cell	40Y6797												
2GB PC2-4200 DDR2 CL4 SODIMM	73P3846	ThinkPad Essential Port Replicator	250510W												
2GB PC2-5300 DDR2 SODIMM	40Y7735	ThinkPad Advanced Mini Dock	250410U												
DVD-ROM Ultrabay Enhanced Drive	39X2642	ThinkPad Advanced Dock	250310U												
CD-RW/DVD Combo Ultrabay Enhanced	73P3275	ThinkPad External Battery Charger	40Y7625												
Super Multi-Burner Ultrabay Enh Drv (curv)	40Y8624	ThinkPad 90W AC Adapter	40Y7659												
USB Portable Diskette Drive	05K9276	11a/b/g Wireless Mini PCI Express Adpr	40Y7026												
USB Fingerprint Reader	41U3167	Intel PRO/Wireless 3945ABG Mini PCIe	41N3008												
USB 2.0 Memory Key 1GB	40Y7421	Verizon Wireless V620 WWAN PC Card <sup>25</sup>	40Y9137												
USB 2.0 Super Multi-Burner Drive	41N5565	Lenovo M500 Projector	0037A05												
Serial Hard Drive Ultrabay Slim Adapter	40Y8725	ThinkPad Nylon Carrying Case	10K0207												
ExpressCard Gemplus Smart Card Reader	41N3043	ThinkPad Carrying Case - Expander	73P3597												
100GB Disk 9.5mm SATA150 (7200 rpm)	41N3013	ThinkPad Carrying Case - Backpack	73P3599												
Kensington® MicroSaver® Security Cable	73P2582	Lenovo L192 Wide 19" Monitor (black)	6920AB1												
Other options on O-Z60M sheet		Other options at <b>lenovo.com/options</b>													

See footnotes for important warranty information  
US models announced May 16, 2006  
US models withdrawn effective February 2007

\* Powered by Intel Centrino® Duo mobile technology

© Lenovo  
(WR2-3) February 2007

# ThinkPad® Z61m (9452) - October 2006 - withdrawn

Created by Lenovo Training Solutions  
Personal Systems Reference (PSREF)

Type-model	Top cover color	Processor	Speed GHz	Mem-ory	Wide-screen display	Graphics controller	Disk SATA GB	EIDE optical	Mini PCI 802.11 wireless	Mini PCIe WWAN wireless	Blue-tooth	Finger print reader	Chip set	Cam-era	Workhorse (W) Gbl (G)	Avail date
9452-J3U	Black	Core 2 Duo T5600	1.83	1GB	15.4" WXGA	GMA 100	DVD±RW	* Intel 11a/b/g <sup>32</sup>	None	Blue	Finger	GM	No	G W	Oct 06	
9452-J4U	Black	Core 2 Duo T7200	2.00	1GB	15.4" WSXGA+ X1400	120	DVD±RW	* Intel 11a/b/g	None	Blue	Finger	PM	No	G W	Oct 06	
9452-JNU	Black	Core 2 Duo T7200	2.00	1GB	15.4" WXGA	GMA 80G	Combo	* Intel 11a/b/g	None	Blue		GM	No	G W	Oct 06	
9452-JPU	Black	Core 2 Duo T7200	2.00	1GB	15.4" WSXGA+ X1400	80G	Combo	* Intel 11a/b/g	None	Blue		PM	No	G W	Oct 06	

• **These models have a 3-year limited warranty<sup>12</sup>**

Positioning Processor	<i>Widescreen multimedia; two spindles</i> <b>Intel® Core™ 2 Duo processor T5600 or T7200</b> with dual-core, Intel 64 Technology, Enhanced Intel SpeedStep™ technology <sup>1</sup> , Execute Disable Bit, and 667MHz system bus; <i>T5600: 2MB shared L2 cache; T7200: 4MB shared L2 cache</i>											<b>SOFTWARE<sup>14</sup></b> <b>Windows XP Professional</b> - Microsoft® Windows® XP Professional <sup>20</sup> (Service Pack 2) ◆ Disk-to-Disk Recovery <b>Preloaded</b> • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center with Away Manager • ThinkVantage System Update • Symantec® Client Security™ • Diskeeper® Lite • PC-Doctor™ (diagnostics) • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader • Google Toolbar • Google Desktop • Picasa from Google • Fingerprint Software (fingerprint models) • Multimedia Center for Think Offerings • Sonic RecordNOW and Drive Letter Access (combo, DVD±RW) • InterVideo WinDVD (combo, DVD±RW models) • InterVideo WinDVD Creator (DVD±RW models)				
Memory	<b>512MB</b> std / 4GB max <sup>31</sup> / PC2-5300 667MHz DDR2 / non-parity / CL5 / dual-channel capable / two 200-pin SO-DIMM sockets / <i>J4U/JNU:</i> standard memory in both sockets (512MB each socket); no sockets avail; <i>J3U/JPU:</i> standard memory in 1 socket; 1 socket available											- Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client				
EIDE Combo EIDE DVD±RW Ultrabay Enhanced Serial ATA disk (SATA150)	<i>Some:</i> DVD-ROM/CD-RW / 24X/24X/24X/8X <sup>21</sup> speed / removable from Ultrabay™ Enh <i>Some:</i> DVD burner / Super Multi-Burner (40Y8623) dual-layer, removable Ultrabay Enh One modular bay for interchangeable devices / Ultrabay Slim-compatible / 12.7mm high <b>80GB<sup>8</sup></b> (5400 rpm), <b>100GB</b> (7200 rpm), or <b>120GB</b> (5400 rpm) / 9.5mm high / removable and upgradable / 9.5mm high bay / supports 2nd disk / HDD Protection Pack (shock absorber) / Active Protection System™															
Widescreen display (anti-glare)	<i>Some:</i> <b>15.4"</b> (391mm) <b>WXGA (1280x800) TFT color</b> / 200 nits / 16:10 aspect / 500:1 <i>Some:</i> <b>15.4"</b> (391mm) <b>WSXGA+ (1680x1050) TFT color</b> / 200 nits / 16:10 aspect <i>All:</i> stainless steel hinges / one hand activates dual latches															
Graphics	<i>Some:</i> <b>Intel Graphics Media Accelerator 950</b> / integrated in 945GM / 250MHz <i>Some:</i> <b>ATI® MOBILITY™ Radeon™ X1400 M54</b> / PCI Express x16 / <b>128MB</b> GDDR1 / DVI pass-through support to opt Advanced Mini Dock and Advanced Dock															
Keyboard TrackPoint® ThinkLight™	89-key / ThinkVantage button / spill-resistant / multimedia Fn keys / Windows, Appl keys TrackPoint® pointing device / UltraNav® multi-pointing system (touchpad) Illuminates the keyboard to improve visibility in low-light conditions															
Dimensions <sup>3</sup> Weight <sup>2</sup> Case material Battery - type Battery - life <sup>10</sup>	<i>(WxDxH):</i> 14.1" x 10.3" x 1.47-1.58"; 357mm x 263mm x 37.3-40.2mm with optical drive and battery: <i>6-cell black:</i> starting at 5.94 lb (2.7kg)/6.33 lb (2.9kg); Black color; Polycarbonate/Acrylonitrile-Butadiene-Styrene (PC/ABS) plastic Lithium Ion <b>6-cell</b> / intelligent / supports unique 2nd battery in Ultrabay Enhanced <i>6-cell GMA graphics:</i> up to 5.6 hr; <i>6-cell ATI graphics:</i> up to 4.0 hr; <i>optional 9-cell GMA graphics:</i> up to 8.3 hr; <i>9-cell plus Ultrabay battery:</i> up to 10.3 hr															
Architecture	<i>Some:</i> <b>Mobile Intel 945GM Express Chipset</b> / 82945GM Graphics Memory Cont Hub <i>Some:</i> <b>Mobile Intel 945PM Express Chipset</b> / 82945PM Memory Controller Hub <i>All:</i> 82801GBM ICH7-M I/O Controller Hub (SATA300, ATA-100 EIDE, PCI Express x1, PCI bus, USB, LPC interface, [Bluetooth], [fingerprint]) / PCI bus (TI® PCI8412 CardBus controller) / LPC bus (NS PC87382 Super I/O, Atmel® AT97SC3203) One Type I or Type II slot / CardBus 32-bit / integrated door															
PC Card slot ExpressCard slot Ports	One ExpressCard/34 or ExpressCard/54 / PCI Express x1 or USB 2.0 / integrated door <b>4-in-1 digital media reader</b> (MultiMediaCard, Memory Stick, Secure Digital, xD-Picture Card™) / S-video out port (TV out) / IEEE 1394a-2000 (FireWire 400) / three USB 2.0 / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / docking connector / no keyboard or mouse or parallel or serial ports (use USB)															
Wireless antenna Integrated camera Mini PCI Express Intel 11a/b/g <sup>32</sup> WWAN Modem Bluetooth™ Ethernet Audio	UltraConnect™ Antenna built into the display cover / on-off switch for all wireless radios None Two Mini PCI Express slots / only 802.11 wireless is customer upgradable 11a/b/g wireless <sup>4</sup> , Mini PCI Express adapter, Intel PRO/Wireless 3945ABG None 56K <sup>6</sup> V.90 (V.92-designed <sup>29</sup> ) modem in Comm Daughter Card socket / Conexant® chip Bluetooth 2.0 wireless technology / USB 2.0 via ICH7-M / LED indicator Gigabit ethernet on systemboard / Broadcom® BCM5752M (MAC/PHY) / PCIe x1 / PXE High Definition (HD) Audio / AD1981HD codec / stereo speakers / 1 watt / volume up, down, mute buttons / <i>GMA models:</i> mono microphone; <i>ATI graphics models:</i> stereo microphone / microphone input jack / headphone jack Power-on password / hard disk password / supervisor password / security keyhole <b>Trusted Platform Module</b> / Atmel chip / TCG 1.2-compliant											Supports ThinkVantage® technologies				
Security Security chip Fingerprint reader	<b>Trusted Platform Module</b> / Atmel chip / TCG 1.2-compliant <i>Some:</i> <b>Fingerprint reader on palm rest</b> / swipe sensor / supports the security chip											65-watt (GMA graphics) or 90-watt (ATI graphics) AC adapter ThinkPad Roll Cage RoHS-compliant International Warranty Service <sup>17</sup> 24 hour x 7 day <sup>18</sup> toll-free warranty support during the warranty <sup>12</sup>				
Limited warranty <sup>12</sup>	<b>3-year/1-yr battery</b> - EasyServ™ <sup>19</sup> onsite pickup and delivery / service upgrades <sup>22</sup> avail											ThinkPlus™ <sup>22</sup> 2-year LOR 9x5 NBD 41C9175				
512MB PC2-5300 DDR2 CL5 SODIMM	40Y7733			Z60m/R60 Series Li-Ion Battery 6-cell			40Y6795			ThinkPlus 3-year LOR 9x5 NBD			41C9176			
1GB PC2-5300 DDR2 CL5 SODIMM	40Y7734			Z60m/T60/R60 Li-Ion Battery 9-cell			40Y6797			ThinkPlus 4-year LOR 9x5 NBD			41C9177			
2GB PC2-4200 DDR2 CL4 SODIMM	73P3846			ThinkPad Essential Port Replicator			250510W			ThinkPlus 5-year LOR 9x5 NBD			41C9179			
DVD-ROM Ultrabay Enhanced Drive	39X2642			ThinkPad Advanced Mini Dock			250410U			ThinkPlus 4-year P&L P/U Depot			41C9178			
CD-RW/DVD Combo Ultrabay Enhanced	73P3275			ThinkPad Advanced Dock			250310U			Post-warranty annual maintenance agreements at			lenovo.com/thinkplus/warranty			
ThinkPad DVD Ultrabay Slim Burner (flat)	41N5643			ThinkPad External Battery Charger			40Y7625									
USB Fingerprint Reader	41U3167			11a/b/g Wireless Mini PCI Express Adpr			40Y7026									
USB 2.0 Security Memory Key 4GB	41U5120			Intel PRO/Wireless 3945ABG Mini PCIe			41N3008									
USB 2.0 Super Multi-Burner Drive	41N5565			Lenovo M500 Projector			0037A05									
Serial Hard Drive Ultrabay Slim Adapter	40Y8725			Lenovo C500 Projector			0039A05									
ExpressCard Gemplus Smart Card Reader	41N3043			ThinkPad Carrying Case - Backpack			73P3599									
100GB Disk 9.5mm SATA 150 (7200 rpm)	41N3013			Lenovo L192 Wide 19" Monitor (black)			6920AB1									
Other accessories on O-Z60M sheet																

See footnotes for important warranty information  
US models announced October 17, 2006  
US models withdrawn effective September 2007

\* Powered by Intel Centrino® Duo mobile technology

© Lenovo  
(WR25-2) September 2007

# ThinkPad® Z61m (9452) - Education - withdrawn

Created by Lenovo Training Solutions  
Personal Systems Reference (PSREF)

Type-model	Top cover color	Processor	Speed GHz	Memory MB	Wide-screen display	Graphics controller	Disk SATA GB	EIDE optical	Mini PCI 802.11 wireless	Mini PCIe WWAN wireless	Finger print reader	Chip set	Camera	Limited warranty <sup>12</sup>	Workhorse (W) Gbl (G) Avail date
9452-E1U	Silver	Celeron® M 410	1.46	512	15.4" WXGA	GMA 60G	60G	Combo	Intel 11a/b/g <sup>32</sup>	None	Finger	GM		EasyServ	May06
9452-E2U	Black	Celeron M 410	1.46	512	15.4" WXGA	GMA 60G	60G	Combo	Intel 11a/b/g	None	Finger	GM		EasyServ	May06
9452-E3U	Silver	Core Duo T2400	1.83	512	15.4" WSXGA+	X1400	80G	DVD±RW *	Intel 11a/b/g	None	Finger	PM	Cam	EasyServ	W May06
9452-E4U	Black	Core Duo T2400	1.83	512	15.4" WSXGA+	X1400	80G	DVD±RW *	Intel 11a/b/g	None	Finger	PM	Cam	EasyServ	W May06
9452-E7U	Black	Celeron M 420	1.60	512	15.4" WXGA	GMA 80G	80G	Combo	Intel 11a/b/g	None	Finger	GM		EasyServ	May06
9452-E8U	Black	Core Duo T2500	2.00	512	15.4" WSXGA+	X1400	80G	DVD±RW *	Intel 11a/b/g	None	Finger	PM		EasyServ	W May06
9452-E9U	Black	Core Duo T2500	2.00	1GB	15.4" WSXGA+	X1400	100	DVD±RW *	Intel 11a/b/g	None	Finger	PM		EasyServ	W May06
9452-EAU	Silver	Celeron M 420	1.60	512	15.4" WXGA	GMA 80G	80G	Combo	Intel 11a/b/g	None	Finger	GM		EasyServ	May06
9452-EBU	Silver	Core Duo T2500	2.00	512	15.4" WSXGA+	X1400	80G	DVD±RW *	Intel 11a/b/g	None	Finger	PM	Cam	EasyServ	W May06
9452-ECU	Silver	Core Duo T2500	2.00	1GB	15.4" WSXGA+	X1400	100	DVD±RW *	Intel 11a/b/g	None	Finger	PM	Cam	EasyServ	W May06

• **These models have an EasyServ™<sup>19</sup> onsite pickup and delivery 3-year limited warranty**

These educational models are available only to public or private K-12 (or higher) accredited schools organized and operated exclusively for educational purposes for use by qualified students and teachers.

Positioning Processor	<i>Widescreen multimedia; two spindles</i> <b>Intel® Celeron M Processor 410</b> with Execute Disable Bit, 533MHz system bus, and 1MB L2 cache or <b>Intel Core™ Duo processor T2400</b> or <b>T2500</b> with dual-core, Enhanced Intel Speed-Step™ technology <sup>1</sup> , Execute Disable Bit, 667MHz bus, and 2MB L2 cache (shared)										<b>SOFTWARE<sup>14</sup></b>				
Memory	<b>512MB</b> or <b>1GB</b> std / 4GB max <sup>31</sup> / PC2-5300 667MHz DDR2 / non-parity / CL5 / dual-channel capable / two 200-pin SO-DIMM sockets / <b>512MB models:</b> std memory in one socket; one socket available / <b>1GB models:</b> std memory in two sockets; none available										<b>Windows XP Professional</b> - Microsoft® Windows® XP Professional <sup>20</sup> (Service Pack 2) ◆ Disk-to-Disk Recovery				
EIDE Combo EIDE DVD±RW Ultrabay Enhanced Serial ATA disk (SATA150)	<i>Some:</i> DVD-ROM/CD-RW / 24X/24X/24X/8X <sup>21</sup> speed / removable from Ultrabay™ Enh <i>Some:</i> DVD burner / Super Multi-Burner (40Y8623) dual-layer, removable Ultrabay Enh One modular bay for interchangeable devices / Ultrabay Slim-compatible / 12.7mm high <b>60GB</b> <sup>8</sup> (5400 rpm), <b>80GB</b> (5400 rpm), or 100GB (5400 rpm) / 9.5mm high / removable and upgradable / 9.5mm high bay / supports 2nd disk / <b>HDD Protection Pack</b> (shock absorber) / <b>Active Protection System™</b>										<b>Preloaded</b> • VitalSource Library education software • Adobe® Photoshop® Elements plus Adobe Premiere® Elements • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center with Away Manager • ThinkVantage System Update • Symantec® Client Security™ • Diskkeeper® Lite • PC-Doctor™ (diagnostics) • ThinkPad Utilities (Power Manager and Presentation Director)				
Widescreen display (anti-glare)	<i>Some:</i> <b>15.4"</b> (391mm) <b>WXGA (1280x800) TFT color</b> / 150 nits / 16:10 aspect ratio <i>Some:</i> <b>15.4"</b> (391mm) <b>WSXGA+ (1680x1050) TFT color</b> / 200 nits / 16:10 aspect <i>All:</i> stainless steel hinges / one hand activates dual latches										• Adobe Reader • Google Toolbar • Google Desktop • Picasa from Google • Fingerprint Software (fingerprint models) • Multimedia Center for Think Offerings • Sonic RecordNOW and Drive Letter Access (combo, DVD±RW) • InterVideo WinDVD (combo, DVD±RW models) • InterVideo WinDVD Creator (DVD±RW models)				
Graphics	<i>Some:</i> <b>Intel Graphics Media Accelerator 950</b> / integrated in 945GM / 250MHz <i>Some:</i> <b>ATI® MOBILITY™ Radeon™ X1400 M54</b> / PCI Express x16 / <b>128MB</b> GDDR1 / DVI pass-through support to opt Advanced Mini Dock and Advanced Dock										• CD • Adobe Photoshop Elements plus Adobe Premiere Elements				
Keyboard TrackPoint® ThinkLight™	89-key / ThinkVantage button / spill-resistant / multimedia Fn keys / Windows, Appl keys TrackPoint® pointing device / UltraNav® multi-pointing system (touchpad) Illuminates the keyboard to improve visibility in low-light conditions										<b>License - CD not included</b> - Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client				
Dimensions <sup>3</sup> Weight <sup>2</sup>	<i>(WxDxH):</i> 14.1" x 10.3" x 1.47-1.58"; 357mm x 263mm x 37.3-40.2mm with optical drive and battery: <i>6-cell black:</i> starting at 5.94 lb (2.7kg)/6.33 lb (2.9kg); <i>6-cell titanium:</i> starting at 6.47 lb (2.9kg)/6.85 lb (3.1kg)										Supports ThinkVantage® technologies				
Case material	<i>Some:</i> black color; Polycarbonate/Acrylonitrile-Butadiene-Styrene (PC/ABS) plastic <i>Some:</i> top cover: silver color; ABS, aluminum, titanium material; bottom: black, PC/ABS										65-watt (GMA graphics) or 90-watt (ATI graphics) AC adapter ThinkPad Roll Cage RoHS-compliant International Warranty Service <sup>17</sup> 24 hour x 7 day <sup>18</sup> toll-free warranty support during the warranty <sup>12</sup>				
Battery - type Battery - life <sup>10</sup>	Lithium Ion <b>6-cell</b> / intelligent / supports unique 2nd battery in Ultrabay Enhanced <i>6-cell GMA graphics:</i> up to 5.6 hr; <i>6-cell ATI graphics:</i> up to 4.0 hr; <i>optional 9-cell GMA graphics:</i> up to 8.3 hr; <i>9-cell plus Ultrabay battery:</i> up to 10.3 hr										ThinkPlus™ services at <b>lenovo.com/thinkplus/warranty</b>				
Architecture	<i>Some:</i> <b>Mobile Intel 945GM Express Chipset</b> / 82945GM Graphics Memory Cont Hub <i>Some:</i> <b>Mobile Intel 945PM Express Chipset</b> / 82945PM Memory Controller Hub <i>All:</i> 82801GBM ICH7-M I/O Controller Hub (SATA300, ATA-100 EIDE, PCI Express x1, PCI bus, USB, LPC interface, [Bluetooth], [fingerprint]) / PCI bus (TI® PCI8412 CardBus controller) / LPC bus (NS PC87382 Super I/O, Atmel® AT97SC3203)														
PC Card slot ExpressCard slot Ports	One Type I or Type II slot / CardBus 32-bit / integrated door One ExpressCard/34 or ExpressCard/54 / PCI Express x1 or USB 2.0 / integrated door <b>4-in-1 digital media reader</b> (MultiMediaCard, Memory Stick, Secure Digital, xD-Picture Card™) / S-video out port (TV out) / IEEE 1394a-2000 (FireWire 400) / three USB 2.0 / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / docking connector / no keyboard or mouse or parallel or serial ports (use USB)														
Wireless antenna Integrated camera Mini PCI Express Intel 11a/b/g <sup>32</sup> WWAN	UltraConnect™ Antenna built into the display cover / on-off switch for all wireless radios <i>Some:</i> camera on top of screen / 0.3-megapixel / fixed focus / USB 2.0 Two Mini PCI Express slots / only 802.11 wireless is customer upgradable 11a/b/g wireless <sup>4</sup> , Mini PCI Express adapter, Intel PRO/Wireless 3945ABG														
Modem Bluetooth™ Ethernet Audio	56K <sup>9</sup> V.90 (V.92-designed <sup>29</sup> ) modem in Comm Daughter Card socket / Conexant® chip None Gigabit ethernet on systemboard / Broadcom® BCM5752M (MAC/PHY) / PCIe x1 / PXE High Definition (HD) Audio / AD1981HD codec / stereo speakers / 1 watt / volume up, down, mute buttons / <i>GMA models:</i> mono microphone; <i>ATI graphics models:</i> stereo microphone / microphone input jack / headphone jack Power-on password / hard disk password / supervisor password / security keyhole														
Security Security chip Fingerprint reader	<b>Trusted Platform Module</b> / Atmel chip / TCG 1.2-compliant <b>Fingerprint reader on palm rest</b> / swipe sensor / supports the security chip														
Limited warranty <sup>12</sup>	<b>3-year/1-yr battery - EasyServ™<sup>19</sup> onsite pickup and delivery / service upgrades<sup>22</sup> available</b>														

See footnotes for important warranty information  
US models announced May 16 or 30, 2006  
US models withdrawn effective February or September 2007

\* Powered by Intel Centrino® Duo mobile technology

© Lenovo  
(WR2-5) September 2007

# ThinkPad® Z61m (9453) - Education - withdrawn

Created by Lenovo Training Solutions  
Personal Systems Reference (PSREF)

Type-model	Top cover color	Processor	Speed GHz	Memory MB	Wide-screen display	Graphics controller	Disk SATA GB	EIDE optical	Mini PCI 802.11 wireless	Mini PCIe WWAN wireless	Finger print reader	Chip set	Camera	Limited warranty <sup>12</sup>	Workhorse (W) Gbl (G) Avail date	
9453-E1U	Silver	Celeron® M 410	1.46	512	15.4" WXGA	GMA 60G	60G	Combo	Intel 11a/b/g <sup>32</sup>	None	Finger	GM	Onsite		May06	
9453-E2U	Black	Celeron M 410	1.46	512	15.4" WXGA	GMA 60G	60G	Combo	Intel 11a/b/g	None	Finger	GM	Onsite		May06	
9453-E3U	Silver	Core Duo T2400	1.83	512	15.4" WSXGA+	X1400	80G	DVD±RW *	Intel 11a/b/g	None	Finger	PM	Cam	Onsite	W	May06
9453-E4U	Black	Core Duo T2400	1.83	512	15.4" WSXGA+	X1400	80G	DVD±RW *	Intel 11a/b/g	None	Finger	PM	Cam	Onsite	W	May06
9453-E7U	Black	Celeron M 420	1.60	512	15.4" WXGA	GMA 80G	60G	Combo	Intel 11a/b/g	None	Finger	GM	Onsite		May06	
9453-E8U	Black	Core Duo T2500	2.00	512	15.4" WSXGA+	X1400	80G	DVD±RW *	Intel 11a/b/g	None	Finger	PM	Onsite	W	May06	
9453-E9U	Black	Core Duo T2500	2.00	1GB	15.4" WSXGA+	X1400	100	DVD±RW *	Intel 11a/b/g	None	Finger	PM	Onsite	W	May06	
9453-EAU	Silver	Celeron M 420	1.60	512	15.4" WXGA	GMA 80G	60G	Combo	Intel 11a/b/g	None	Finger	GM	Onsite		May06	
9453-EBU	Silver	Core Duo T2500	2.00	512	15.4" WSXGA+	X1400	80G	DVD±RW *	Intel 11a/b/g	None	Finger	PM	Cam	Onsite	W	May06
9453-ECU	Silver	Core Duo T2500	2.00	1GB	15.4" WSXGA+	X1400	100	DVD±RW *	Intel 11a/b/g	None	Finger	PM	Cam	Onsite	W	May06

• **These models have a limited onsite service<sup>24</sup> 3-year limited warranty**

These educational models are available only to public or private K-12 (or higher) accredited schools organized and operated exclusively for educational purposes for use by qualified students and teachers.

Positioning Processor	<i>Widescreen multimedia; two spindles</i> <b>Intel® Celeron M Processor 410</b> with Execute Disable Bit, 533MHz system bus, and 1MB L2 cache or <b>Intel Core™ Duo processor T2400 or T2500</b> with dual-core, Enhanced Intel Speed-Step™ technology <sup>1</sup> , Execute Disable Bit, 667MHz bus, and 2MB L2 cache (shared)											<b>SOFTWARE<sup>14</sup></b> <b>Windows XP Professional</b> - Microsoft® Windows® XP Professional <sup>20</sup> (Service Pack 2)			
Memory	<b>512MB or 1GB</b> std / 4GB max <sup>31</sup> / PC2-5300 667MHz DDR2 / non-parity / CL5 / dual-channel capable / two 200-pin SO-DIMM sockets / <b>512MB models:</b> std memory in one socket; one socket available / <b>1GB models:</b> std memory in two sockets; none available											<b>Preloaded</b> • VitalSource Library education software • Adobe® Photoshop® Elements plus Adobe Premiere® Elements • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center with Away Manager • ThinkVantage System Update • Symantec® Client Security™ • Diskeeper® Lite • PC-Doctor™ (diagnostics) • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader • Google Toolbar • Google Desktop • Picasa from Google • Fingerprint Software (fingerprint models) • Multimedia Center for Think Offerings • Sonic RecordNOW and Drive Letter Access (combo, DVD±RW) • InterVideo WinDVD (combo, DVD±RW models) • InterVideo WinDVD Creator (DVD±RW models)			
EIDE Combo EIDE DVD±RW UltraBay Enhanced Serial ATA disk (SATA150)	<i>Some:</i> DVD-ROM/CD-RW / 24X/24X/24X/8X <sup>21</sup> speed / removable from Ultrabay™ Enh <i>Some:</i> DVD burner / Super Multi-Burner (40Y8623) dual-layer, removable Ultrabay Enh One modular bay for interchangeable devices / Ultrabay Slim-compatible / 12.7mm high <b>60GB</b> <sup>8</sup> (5400 rpm), <b>80GB</b> (5400 rpm), or 100GB (5400 rpm) / 9.5mm high / removable and upgradable / 9.5mm high bay / supports 2nd disk / <b>HDD Protection Pack</b> (shock absorber) / <b>Active Protection System™</b>														
Widescreen display (anti-glare)	<i>Some:</i> <b>15.4"</b> (391mm) <b>WXGA (1280x800) TFT color</b> / 150 nits / 16:10 aspect ratio <i>Some:</i> <b>15.4"</b> (391mm) <b>WSXGA+ (1680x1050) TFT color</b> / 200 nits / 16:10 aspect <i>All:</i> stainless steel hinges / one hand activates dual latches														
Graphics	<i>Some:</i> <b>Intel Graphics Media Accelerator 950</b> / integrated in 945GM / 250MHz <i>Some:</i> <b>ATI® MOBILITY™ Radeon™ X1400 M54</b> / PCI Express x16 / <b>128MB GDDR1</b> / DVI pass-through support to opt Advanced Mini Dock and Advanced Dock														
Keyboard TrackPoint® ThinkLight™	89-key / ThinkVantage button / spill-resistant / multimedia Fn keys / Windows, Appl keys TrackPoint® pointing device / UltraNav® multi-pointing system (touchpad) Illuminates the keyboard to improve visibility in low-light conditions														
Dimensions <sup>3</sup> Weight <sup>2</sup>	<i>(WxDxH):</i> 14.1" x 10.3" x 1.47-1.58"; 357mm x 263mm x 37.3-40.2mm with optical drive and battery: <i>6-cell black:</i> starting at 5.94 lb (2.7kg)/6.33 lb (2.9kg); <i>6-cell titanium:</i> starting at 6.47 lb (2.9kg)/6.85 lb (3.1kg)														
Case material	<i>Some:</i> black color; Polycarbonate/Acrylonitrile-Butadiene-Styrene (PC/ABS) plastic <i>Some:</i> top cover: silver color; ABS, aluminum, titanium material; bottom: black, PC/ABS														
Battery - type Battery - life <sup>10</sup>	Lithium Ion <b>6-cell</b> / intelligent / supports unique 2nd battery in Ultrabay Enhanced <i>6-cell GMA graphics:</i> up to 5.6 hr; <i>6-cell ATI graphics:</i> up to 4.0 hr; <i>optional 9-cell GMA graphics:</i> up to 8.3 hr; <i>9-cell plus Ultrabay battery:</i> up to 10.3 hr														
Architecture	<i>Some:</i> <b>Mobile Intel 945GM Express Chipset</b> / 82945GM Graphics Memory Cont Hub <i>Some:</i> <b>Mobile Intel 945PM Express Chipset</b> / 82945PM Memory Controller Hub <i>All:</i> 82801GBM ICH7-M I/O Controller Hub (SATA300, ATA-100 EIDE, PCI Express x1, PCI bus, USB, LPC interface, [Bluetooth], [fingerprint]) / PCI bus (TI® PCI8412 CardBus controller) / LPC bus (NS PC87382 Super I/O, Atmel® AT97SC3203) One Type I or Type II slot / CardBus 32-bit / integrated door											<b>CD</b> • Adobe Photoshop Elements plus Adobe Premiere Elements <b>License</b> - CD not included - Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client			
PC Card slot ExpressCard slot Ports	One ExpressCard/34 or ExpressCard/54 / PCI Express x1 or USB 2.0 / integrated door <b>4-in-1 digital media reader</b> (MultiMediaCard, Memory Stick, Secure Digital, xD-Picture Card™) / S-video out port (TV out) / IEEE 1394a-2000 (FireWire 400) / three USB 2.0 / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / docking connector / no keyboard or mouse or parallel or serial ports (use USB)														
Wireless antenna Integrated camera Mini PCI Express Intel 11a/b/g <sup>32</sup> WWAN	UltraConnect™ Antenna built into the display cover / on-off switch for all wireless radios <i>Some:</i> camera on top of screen / 0.3-megapixel / fixed focus / USB 2.0 Two Mini PCI Express slots / only 802.11 wireless is customer upgradable 11a/b/g wireless <sup>4</sup> , Mini PCI Express adapter, Intel PRO/Wireless 3945ABG														
Modem Bluetooth™ Ethernet Audio	56K® V.90 (V.92-designed <sup>29</sup> ) modem in Comm Daughter Card socket / Conexant® chip None Gigabit ethernet on systemboard / Broadcom® BCM5752M (MAC/PHY) / PCIe x1 / PXE High Definition (HD) Audio / AD1981HD codec / stereo speakers / 1 watt / volume up, down, mute buttons / <i>GMA models:</i> mono microphone; <i>ATI graphics models:</i> stereo microphone / microphone input jack / headphone jack Power-on password / hard disk password / supervisor password / security keyhole											Supports ThinkVantage® technologies 65-watt (GMA graphics) or 90-watt (ATI graphics) AC adapter ThinkPad Roll Cage RoHS-compliant International Warranty Service <sup>17</sup> 24 hour x 7 day <sup>18</sup> toll-free warranty support during the warranty <sup>12</sup>			
Security Security chip Fingerprint reader	<b>Trusted Platform Module</b> / Atmel chip / TCG 1.2-compliant <b>Fingerprint reader on palm rest</b> / swipe sensor / supports the security chip											Post-warranty annual maintenance agreements at <b>lenovo.com/thinkplus/warranty</b>			
Limited warranty <sup>12</sup>	<b>3-year/1-yr battery, limited onsite service<sup>24</sup></b> , 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time														

See footnotes for important warranty information

\* Powered by Intel Centrino® Duo mobile technology

© Lenovo

US models announced May 16 or 30, 2006

(WR2-6) September 2007

US models withdrawn effective February or September 2007

**Partial list of accessories supported on:**

- ThinkPad Z60m announced on September 20, 2005
- ThinkPad Z61m announced on May 16, 2006
- ThinkPad Z61p announced on July 18, 2006

**Memory (Z60m)**

512MB PC2-5300 DDR2 CL5 SODIMM	40Y7733	ann 01/05/06
1GB PC2-5300 DDR2 CL5 SODIMM	40Y7734	ann 01/05/06

**Memory (Z61m and Z61p)**

512MB PC2-5300 DDR2 CL5 SODIMM	40Y7733	ann 01/05/06
1GB PC2-5300 DDR2 CL5 SODIMM	40Y7734	ann 01/05/06
2GB PC2-5300 DDR2 SODIMM	40Y7735	ann 11/28/06

**Ultrabay Slim 9.5mm (best to use curved bezel options)**

Serial Hard Drive Ultrabay Slim Adapter (flat) <sup>40</sup>	40Y8725	ann 09/20/05
<sup>40</sup> Supported, but not recommended because flat bezel.		
DVD-ROM Ultrabay Slim Drive (curved bezel)	73P3270	ann 10/07/03
Combo II Ultrabay Slim Drive (flat bezel)	40Y8621	ann 09/20/05
ThinkPad DVD Ultrabay Slim Burner (flat)	41N5643	ann 05/31/07

**Ultrabay Enhanced 12.7mm (best to use curved bezel options)**

DVD-ROM Ultrabay Enhanced Drive (curved)	39X2642	ann 03/14/06
CD-RW/DVD Combo Ultrabay Enhanced (cur)	73P3275	ann 10/07/03

**Storage and removable storage**

60GB Disk 9.5mm SATA150 (7200 rpm) <sup>41</sup>	41N3012	ann 01/05/06
80GB Disk 9.5mm SATA150 (5400 rpm) <sup>41</sup>	41N5662	ann 08/15/06
100GB Disk 9.5mm SATA150 (7200 rpm) <sup>41</sup>	41N3013	ann 01/05/06
120GB Disk 9.5mm SATA150 (5400 rpm) <sup>41</sup>	41N5691	ann 03/20/07
160GB Disk 9.5mm SATA150 (5400 rpm) <sup>41</sup>	41N5692	ann 03/20/07

<sup>41</sup> Can be used as the main HDD or with ThinkPad Serial ATA Hard Drive Ultrabay Slim Adapter 40Y8725 in the Ultrabay or in the ThinkPad Advanced Dock 250310U.

USB 2.0 Essential Memory Key 1GB	41U4940	ann 01/23/07
USB 2.0 Essential Memory Key 2GB	41U4944	ann 01/23/07
USB 2.0 Security Memory Key 1GB	41U5118	ann 07/17/07
USB 2.0 Security Memory Key 2GB	41U5119	ann 07/17/07
USB 2.0 Security Memory Key 4GB	41U5120	ann 07/17/07

USB Portable Diskette Drive	05K9276	ann 06/05/00
USB 2.0 CD-RW/DVD-ROM Combo II Drive	40Y8637	ann 01/05/06
USB 2.0 Portable 80GB Hard Disk	41N8378	ann 04/17/07
USB 2.0 Portable 120GB Hard Disk	41N8379	ann 04/17/07
USB 2.0 Super Multi-Burner Drive	41N5565	ann 01/23/07

**Wireless LAN (Mini PCI) [Z60m]**

11a/b/g Wireless Mini PCI Adapter II <sup>42</sup>	73P4301	
--	---------	--

<sup>42</sup> System must be wireless upgradable.

**Wireless LAN (Mini PCI Express) [Z61m and Z61p]**

11a/b/g Wireless Mini PCI Express Adpr <sup>42</sup>	40Y7026	ann 09/20/05
Intel PRO/Wireless 3945ABG Mini PCIe Ad <sup>42</sup>	41N3008	ann 01/05/06

<sup>42</sup> System must be wireless upgradable.

**ThinkPad Expansion**

USB Serial Parallel Adapter	22P5298	ann 10/09/01
ThinkPad Adjustable Notebook Stand	40Y7676	ann 09/20/05
ThinkPad Essential Port Replicator	250510W	ann 09/20/05
ThinkPad Advanced Mini Dock	250410U	ann 09/20/05
ThinkPad Advanced Dock <sup>47</sup>	250310U	ann 09/20/05

<sup>47</sup> ThinkPad Advanced Dock supports dual-head graphics adapters:

- ATI® X1300 256MB Dual Head/TV-out 41U5028
- ATI Radeon™ X300 SE 128MB Dual Head 41U4813

**Batteries**

Z60m/R60 Series Li-Ion Battery 6-cell	40Y6795	ann 09/20/05
Z60m/T60/R60 Li-Ion Battery 9-cell	40Y6797	ann 09/20/05
ThinkPad Advanced Ultrabay Battery 3-cell <sup>43</sup>	40Y6789	ann 09/20/05

<sup>43</sup> Used in Ultrabay Enhanced bay.

ThinkPad External Battery Charger <sup>44</sup>	40Y7625	ann 09/20/05
---	---------	--------------

<sup>44</sup> Requires the ThinkPad 90W AC Adapter

40Y7659 (adapter provided with some systems).

ThinkPad 65W AC Adapter <sup>45</sup>	40Y7696	
<sup>45</sup> Only compatible with the 945GM and GM965 chipset models.		
ThinkPad 90W AC Adapter	40Y7659	ann 09/20/05
ThinkPad 90W AC/DC Combo Adapter	40Y7630	ann 12/13/05
Belkin 1 Outlet Notebook Surge	31P7658	
Belkin Universal Notebook Travel Surge	22P7127	
Belkin Surge Protector	31P7659	

**Data/Video Projectors**

Lenovo M500 Projector	0037A05	ann 02/28/06
Lenovo C500 Projector	0039A05	ann 07/11/06

**Carrying Cases**

Lenovo Carrying Case - Messenger Max	41U5253	ann 05/01/07
Lenovo Carry Case - Performance Backpack	41U5254	ann 05/01/07
ThinkPad Nylon Carrying Case	10K0207	
ThinkPad Carrying Case - Expander	73P3597	
ThinkPad Carrying Case - Backpack	73P3599	
ThinkPad Premiere Leather Carrying Case	10K0209	
ThinkPad Convertible Carrying Case	22P8860	

**Security**

Kensington® Cable Lock from Lenovo	73P2582	ann 12/29/03
USB Gemplus GemPC Smart Card Reader	41N3040	ann 02/21/06
PC Card Gemplus Smart Card Reader	41N3004	ann 12/13/05
ExpressCard Gemplus Smart Card Reader	41N3043	ann 06/27/06
USB Fingerprint Reader	41U3167	ann 10/24/06

**External Keyboard**

TrackPoint Cap Collection	73P2698	ann 12/16/03
USB Numeric Keypad	33L3225	ann 05/01/00
Preferred Pro USB Keyboard	73P5220	ann 06/21/05
Enhanced Performance USB Keyboard	73P2620	ann 03/23/04
Targus Wireless Keypad and Mouse Combo	40Y7721	
Enh Perf Wireless Keyboard and Mouse	73P4067	ann 12/07/04
USB Keyboard with UltraNav	31P8950	ann 01/28/03
USB Travel Keyboard with UltraNav	31P9490	ann 04/27/04
Preferred Pro USB Fingerprint Keyboard	73P4730	ann 02/22/05

**External Mouse**

USB Optical Wheel Mouse	06P4069	ann 05/21/03
Optical 3-Button ScrollPoint® Mouse	31P7405	ann 08/27/02
Optical 3-Button ScrollPoint Pro Mouse	31P8700	ann 10/01/02
Optical 3-Button Travel Wheel Mouse	31P7410	
Lenovo Laser Mouse (USB, PS/2)	41U3074	ann 01/23/07

**Monitors**

Lenovo E75 17" CRT Monitor (16.0" vis) blk	6307BTN	ann 01/16/07
Lenovo L151 15" Monitor (black)	9165AB6	ann 02/28/06
Lenovo L171 17" Monitor (black)	9227AC1	ann 11/07/06
Lenovo L191 19" Monitor (black)	6135AB1	ann 06/27/06
Lenovo L192 Wide 19" Monitor (black)	6920AB1	ann 09/19/06
Lenovo D221 Wide 22" Monitor (black)	6622HB1	ann 11/21/06
ThinkVision® L171p 17" Monitor (black)	9417HC2	ann 10/31/06
ThinkVision L192p 19" Monitor (black)	9419HC2	ann 10/31/06
ThinkVision L201p 20.1" Monitor (black)	9220HB1	ann 10/31/06

**Monitor Accessories<sup>46</sup>**

ThinkVision USB Soundbar	40Y7616	ann 08/23/05
Kensington Cable Lock from Lenovo	73P2582	ann 12/29/03
ThinkPad Convertible Monitor Stand	40Y7620	ann 01/05/06
Radial Arm	19K4464	ann 05/05/00

<sup>46</sup> Compatible on selected Lenovo and ThinkVision monitors.

**Multimedia**

USB 2.0 Lenovo Multimedia Headset	40Y8518	ann 06/27/06
USB 2.0 Lenovo Webcam	40Y8519	ann 08/29/06

Other accessories at [lenovo.com/accessories](http://lenovo.com/accessories)

Need to buy accessories no longer marketed by Lenovo? See [www.itxchange.com/lenovo](http://www.itxchange.com/lenovo) for the Options Continuation Program.



# ThinkPad® Z60t (2511) - TopSeller - withdrawn

Created by Lenovo Training Solutions  
Personal Systems Reference (PSREF)

Type-model	Top cover color	Olympic logo on cover	Processor	Speed GHz	Memory	Wide-screen display	Disk SATA GB <sup>a</sup>	EIDE optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN wireless	Blue-tooth	Finger print reader	Bat-tery cells	Lim-ited warranty <sup>12</sup>	Avail date
2511-3BU	Silver		Pentium® M 760	2.00	512MB	14.0" WXGA	80GB	DVD±RW	11a/b/g <sup>32</sup>		Blue	Finger	7-cell XP Pro	1-yr	Sep 05
2511-E2U	Black		Celeron® M 360J	1.4	256MB	14.0" WXGA	40GB	Combo	11a/b/g			Finger	7-cell XP Pro	1-yr	Sep 05
2511-E3U	Black		Celeron M 360J	1.4	512MB	14.0" WXGA	60GB	DVD±RW	11a/b/g			Finger	7-cell XP Pro	1-yr	Sep 05
2511-E4U	Black		Pentium M 740	1.73	512MB	14.0" WXGA	40GB	Combo	11a/b/g			Finger	7-cell XP Pro	1-yr	Sep 05
2511-E5U	Black		Pentium M 740	1.73	512MB	14.0" WXGA	60GB	DVD±RW	11a/b/g			Finger	7-cell XP Pro	1-yr	Sep 05
2511-E6U	Black		Pentium M 750	1.86	512MB	14.0" WXGA	80GB	DVD±RW	11a/b/g			Finger	7-cell XP Pro	1-yr	Sep 05
2511-E7U	Silver		Pentium M 760	2.00	1GB	14.0" WXGA	100GB	DVD±RW	11a/b/g	Verizon	Blue	Finger	7-cell XP Pro	1-yr	Oct 05
2511-EAU	Black		Celeron M 360	1.4	256MB	14.0" WXGA	40GB	Combo	11a/b/g			Finger	4-cell XP Home	1-yr	Sep 05
2511-EBU	Black		Celeron M 370	1.5	256MB	14.0" WXGA	40GB	Combo	11a/b/g			Finger	4-cell XP Home	1-yr	Sep 05
2511-ECU	Black		Celeron M 370	1.5	256MB	14.0" WXGA	40GB	Combo	11a/b/g			Finger	7-cell XP Pro	1-yr	Sep 05
2511-EDU	Black		Celeron M 370	1.5	512MB	14.0" WXGA	60GB	DVD±RW	11a/b/g			Finger	7-cell XP Pro	1-yr	Sep 05
2511-EEU	Black		Pentium M 740	1.73	256MB	14.0" WXGA	40GB	Combo	11a/b/g			Finger	4-cell XP Home	1-yr	Sep 05
2511-EGU	Black		Pentium M 750	1.86	512MB	14.0" WXGA	60GB	Combo	11a/b/g	Verizon	Blue	Finger	7-cell XP Pro	1-yr	Oct 05
2511-FDU	Silver		Pentium M 750	1.86	512MB	14.0" WXGA	80GB	DVD±RW	11a/b/g	Verizon	Blue	Finger	7-cell XP Pro	1-yr	Oct 05
2511-FEU	Silver		Pentium M 740	1.73	512MB	14.0" WXGA	80GB	DVD±RW	11a/b/g	Verizon	Blue	Finger	7-cell XP Pro	1-yr	Oct 05
2511-FFU	Silver	Logo	Pentium M 760	2.00	512MB	14.0" WXGA	80GB	DVD±RW	11a/b/g		Blue	Finger	4-cell XP Pro	1-yr	Jan 06

- These small and medium business (SMB) models are part of the US TopSeller™ Program
- These 2511 models have a 1-year limited warranty

Positioning	<i>Stylish notebooks for work and life; thin and light; two-spindle system</i>	<b>SOFTWARE<sup>14</sup></b>		
Processor	Intel® Celeron M Processor 360J or 370 with XD Bit and 400MHz system bus or Intel® Pentium M Processor 740 (1.73GHz), 750 (1.86GHz), or 760 (2.00GHz) with Enhanced Intel SpeedStep™ technology <sup>1</sup> , Execute Disable Bit, and 533MHz system bus	<b>Windows XP Professional models</b> - Microsoft® Windows® XP Professional <sup>20</sup> (Service Pack 2) ↔ Disk-to-Disk Recovery (in hidden protected area)		
L2 cache	Celeron M: 1 MB; Pentium M: 2MB; All: on die (at processor speed) / ECC	<b>Windows XP Home models</b> - Microsoft Windows XP Home Edition <sup>20</sup> (Service Pack 2) ↔ Disk-to-Disk Recovery (in hidden protected area)		
Memory	256MB, 512MB, or 1GB std / 2GB max <sup>1</sup> / PC2-4200 533MHz DDR2 / non-parity / dual channel capable / two 200-pin SO-DIMM sockets / std mem in 1 socket / 1 socket avail	<b>Preloaded (all)</b> • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • ThinkVantage System Update • Symantec® Client Security • Diskeeper Lite • PC-Doctor™ • ThinkPad utilities • Adobe® Reader • FingerPrint Software • Multimedia Center for Think Offerings • Sonic RecordNOW and Drive Letter Access (combo, DVD±RW) • InterVideo WinDVD (combo, DVD±RW models) • InterVideo WinDVD Creator (DVD±RW models)		
Diskette drive	None standard / use optional USB-based diskette drive	<b>License</b> - CD not included - Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client		
EIDE Combo	Some: DVD-ROM/CD-RW / 24X/24X/24X/8X <sup>21</sup> speed / removable from Ultrabay Slim	ThinkPad notebooks implement ThinkVantage® technologies and design; visit <a href="http://thinkpad.com/thinkvantage">thinkpad.com/thinkvantage</a>		
EIDE DVD±RW	Some: DVD and CD burner / Multi-Burner Plus / removable from Ultrabay Slim	Universal 90-watt AC adapter ThinkPad Roll Cage (one-piece magnesium frame)		
Ultrabay Slim	One modular bay for interchangeable devices (right side) / 9.5mm high bay / flat bezel	PC 2001-compliant ACPI 1.0b and 2.0-compliant CIM and DMI 2.0-compliant PXE 2.1-compliant ENERGY STAR®-compliant RoHS-compliant International Warranty Service <sup>17</sup>		
Serial ATA disk (SATA150)	40GB <sup>8</sup> (5400 rpm), 60GB (5400 rpm), 80GB (5400 rpm), 100GB (5400 rpm) / 9.5mm high / removable and upgradable / 9.5mm high bay / supports 2nd disk / HDD Protection Pack (shock absorber) / Active Protection System™	24 hour x 7 day <sup>18</sup> toll-free warranty support during the warranty <sup>12</sup>		
Display	Widescreen / 14.0" (356mm) WXGA (1280x768) TFT color / 200 nits / 15:9 ratio / stainless steel hinges / one hand activates dual latches / secure screen surround Some: Olympic logo on titanium top cover			
Olympic logo	Some: Olympic logo on titanium top cover			
Graphics	Intel Graphics Media Accelerator 900 (GMA 900) / integrated graphics in 915GM GMCH / uses main memory (up to 128MB with 256MB+) / 200MHz			
Keyboard	89-key / ThinkVantage button / spill-resistant / multimedia Fn keys / Windows, Appl keys			
TrackPoint®	TrackPoint® pointing device / UltraNav® multi-pointing system (touchpad)			
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions			
Dimensions <sup>3</sup>	(WxDxH): 13.1" x 9.0" x 1.05-1.22"; 334mm x 228mm x 26.6-30.9mm			
Weight <sup>2</sup>	with optical drive and battery: 4-cell: up to 4.8 lb (2.2kg); 7-cell: up to 5.15 lb (2.34 kg)			
Case material	Some: black color; hybrid carbon fiber reinforced polymer (CFRP) material Some: top cover: silver color; CFRP, aluminum, titanium material; bottom: black, CFRP			
Battery - type	Lithium Ion 4-cell or 7-cell / intelligent / supports unique 2nd battery in Ultrabay Slim			
Battery - life <sup>10</sup>	4-cell: up to 3.0 hr; 7-cell: up to 5.0 hr; 7-cell plus Ultrabay Slim battery: up to 7.0 hr			
Architecture	Mobile Intel 915GM Express Chipset / 82915GM Graphics Memory Controller Hub / 82801FBM ICH6-M I/O Controller Hub (SATA150, ATA-100 EIDE, PCI Express x1, PCI bus, ethernet, USB, [Bluetooth], [fingerprint]) / PCI bus (Ricoh® R5C841 CardBus controller) / LPC bus (NS PC87382 Super I/O, Atmel® 97SC3201TPM)			
PC Card slot	One Type I or one Type II / CardBus 32-bit / PCMCIA 2.1 / integrated door			
Ports	S-video out port (TV out) / Secure Digital (SD) / IEEE 1394 (FireWire 400) / docking / three USB 2.0 / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / no keyboard or mouse or parallel or serial ports (use USB)			
Wireless antenna	UltraConnect™ Antenna built into the display cover / on-off switch for all wireless radios			
Mini PCI Express	Two Mini PCI Express slots / only 802.11 wireless is customer upgradable			
11a/b/g <sup>32</sup>	11a/b/g wireless <sup>4</sup> , ThinkPad 11a/b/g Mini PCI Express Adapter, Atheros AR5006EX chip			
WWAN <sup>16</sup>	Some: Wireless WAN, Sierra Wireless 1xEV-DO Network Adapter, Mini PCIe Adapter, EV-DO/1xRTT, WWAN antenna on display, service contract reqd with Verizon® Wireless			
Modem	56K <sup>6</sup> V.90 (V.92-designed <sup>29</sup> ) modem in Comm Daughter Card socket / Conexant® chipset			
Bluetooth™	Some: Bluetooth 2.0 wireless technology / USB 2.0 interface via ICH6-M / LED indicator			
Ethernet	Gigabit ethernet on systemboard / Broadcom BCM5751M (MAC/PHY) / PCIe x1 / PXE			
Audio	High Definition (HD) Audio / AD1981HD codec / stereo speakers, 1 watt / volume up, down, mute buttons / internal microphone / microphone input jack / headphone jack			
Security	Power-on password / hard disk password / supervisor password / security keyhole			
Security chip	Trusted Platform Module / Atmel chip / TCG 1.1-compliant			
Fingerprint reader	Fingerprint reader on palm rest / swipe sensor / integrated with security chip			
Limited warranty <sup>12</sup>	1-year - EasyServ™ <sup>19</sup> onsite pickup and delivery / service upgrades <sup>22</sup> available			
256MB PC2-4200 DDR2 NP CL4 SOD	73P3840	Z60t Series Li-Ion Battery 4-cell	40Y6791	ThinkPlus™ <sup>22</sup> 1-year LOR 9x5 NBD
512MB PC2-4200 DDR2 NP CL4 SOD	73P3842	Z60t Series Li-Ion Battery 7-cell	40Y6793	41C9166
1GB PC2-4200 DDR2 NP CL4 SOD	73P3844	Advanced Ultrabay Battery 3-cell	40Y6789	ThinkPlus 2-year LOR 9x5 NBD
Combo II Ultrabay Slim Drive (flat bezel)	40Y8621	ThinkPad 90W AC Adapter	40Y7659	41C9167
Super Multi-Burner Ultrabay Slim Drive (flat)	40Y8623	ThinkPad Essential Port Replicator	250510W	ThinkPlus 3-year LOR 9x5 NBD
Serial Hard Drive Ultrabay Slim Adptr (flat)	40Y8725	ThinkPad Advanced Mini Dock	250410U	41C9168
100GB Disk 9.5mm SATA150 (5400 rpm)	40Y8721	ThinkPad Advanced Dock	250310U	Other ThinkPlus services at <a href="http://lenovo.com/thinkplus/warranty">lenovo.com/thinkplus/warranty</a>
Other options on O-Z60T sheet		Other options at <a href="http://lenovo.com/options">lenovo.com/options</a>		

See footnotes for important warranty information  
US models announced September 20, 2005 or January 24, 2006  
US models withdrawn effective June or October 2006

© Lenovo  
(MN1) October 2006

# ThinkPad® Z60t (2511) - TopSeller (January 2006) - withdrawn

Created by Lenovo Training Solutions  
Personal Systems Reference (PSREF)

Type-model	Top cover color	Processor	Speed GHz	Memory	Wide-screen display	Graphics controller	SATA GB <sup>8</sup>	EIDE optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN wireless	Blue-tooth	Finger print reader	Bat-tery Preload	Lim-ited warranty <sup>12</sup>	Avail date
2511-H1U	Black	Celeron® M 380	1.6	512MB	14.0" WXGA	GMA 40GB	Combo	11a/b/g <sup>32</sup>					4-cell	Home	1-yr Jan 06
2511-H2U	Black	Pentium M 760	2.0	512MB	14.0" WXGA	GMA 80GB	DVD±RW	11a/b/g				Finger	7-cell	Pro	1-yr Jan 06
2511-H8U	Silver	Pentium M 770	2.13	512MB	14.0" WXGA	GMA 100GB	DVD±RW	11a/b/g		Verizon		Blue Finger	7-cell	Pro	1-yr Jan 06
2511-H9U	Silver	Pentium M 750	1.86	512MB	14.0" WXGA	GMA 80GB	DVD±RW	11a/b/g				Blue Finger	7-cell	Pro	1-yr Jan 06
2511-HAU	Silver	Pentium M 740	1.73	512MB	14.0" WXGA	GMA 80GB	DVD±RW	11a/b/g				Blue Finger	7-cell	Pro	1-yr Jan 06
2511-HBU	Black	Celeron M 370	1.5	256MB	14.0" WXGA	GMA 40GB	Combo	Open; upg <sup>36</sup>		Verizon			4-cell	Home	1-yr Jan 06
2511-HCU	Black	Pentium M 740	1.73	256MB	14.0" WXGA	GMA 40GB	Combo	Open; upg		Verizon			4-cell	Home	1-yr Jan 06
2511-HDU	Silver	Celeron M 370	1.5	256MB	14.0" WXGA	GMA 40GB	Combo	Open; upg					4-cell	Home	1-yr Jan 06
2511-HEU	Silver	Pentium M 740	1.73	256MB	14.0" WXGA	GMA 40GB	Combo	Open; upg					4-cell	Home	1-yr Jan 06
2511-HGU	Silver	Celeron M 370	1.5	256MB	14.0" WXGA	GMA 40GB	Combo	Open; upg		Verizon			4-cell	Home	1-yr Jan 06
2511-HHU	Silver	Pentium M 740	1.73	256MB	14.0" WXGA	GMA 40GB	Combo	Open; upg		Verizon			4-cell	Home	1-yr Jan 06

• These small and medium business (SMB) models are part of the US TopSeller™ Program  
 • These 2511 models have a 1-year limited warranty

Positioning Processor	Stylish notebooks for work and life; thin and light; two-spindle system <b>Intel® Celeron M Processor 370 or 380</b> with XD Bit and 400MHz system bus or <b>Intel® Pentium M Processor 740, 750, 760 or 770</b> with Enhanced Intel SpeedStep™ technology <sup>1</sup> , Execute Disable Bit, and 800MHz system bus	<b>SOFTWARE<sup>14</sup></b> <b>Windows XP Professional models</b> - Microsoft® Windows® XP Professional <sup>20</sup> (Service Pack 2) ↔ Disk-to-Disk Recovery (in hidden protected area)
L2 cache Memory	<b>Celeron M: 1 MB; Pentium M: 2MB; All: on die</b> (at processor speed) / ECC <b>256MB, or 512MB</b> std / 2GB max <sup>7</sup> / PC2-4200 533MHz <b>DDR2</b> / non-parity / dual channel capable / two 200-pin SO-DIMM sockets / std mem in 1 socket / 1 socket avail	<b>Windows XP Home models</b> - Microsoft Windows XP Home Edition <sup>20</sup> (Service Pack 2) ↔ Disk-to-Disk Recovery (in hidden protected area)
Diskette drive EIDE Combo EIDE DVD±RW Ultrabay Slim Serial ATA disk (SATA150)	None standard / use optional USB-based diskette drive <i>Some:</i> DVD-ROM/CD-RW / 24X/24X/24X/8X <sup>21</sup> speed / removable from Ultrabay Slim <i>Some:</i> DVD burner / Super Multi-Burner (40Y8623) dual-layer, removable Ultrabay Slim One modular bay for interchangeable devices (right side) / 9.5mm high bay / flat bezel <b>40GB<sup>8</sup></b> (5400 rpm), <b>80GB</b> (5400 rpm), <b>100GB</b> (7200 rpm) / 9.5mm high / removable and upgradable / 9.5mm high bay / supports 2nd disk / <b>HDD Protection Pack</b> (shock absorber) / <b>Active Protection System™</b>	<b>Preloaded (all)</b> • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • ThinkVantage System Update • Symantec® Client Security • Diskkeeper Lite • PC-Doctor™ • ThinkPad utilities • Adobe® Reader • Fingerprint Software • Multimedia Center for Think Offerings • Sonic RecordNOW and Drive Letter Access (combo, DVD±RW) • InterVideo WinDVD (combo, DVD±RW models) • InterVideo WinDVD Creator (DVD±RW models)
Display	<b>Widescreen / 14.0"</b> (356mm) <b>WXGA (1280x768) TFT color</b> / 200 nits / 15:9 ratio / stainless steel hinges / one hand activates dual latches / secure screen surround	<b>License - CD not included (all)</b> - Lotus® SmartSuite® Millennium and - Lotus Notes® Stand-alone Client (Notes client not supported on XP Home)
Graphics	<b>Intel Graphics Media Accelerator 900 (GMA 900)</b> / integrated graphics in 915GM GMCH / uses main memory (up to 128MB with 256MB+) / 200MHz	ThinkPad notebooks implement ThinkVantage® technologies and design; visit <a href="http://thinkpad.com/thinkvantage">thinkpad.com/thinkvantage</a>
Keyboard TrackPoint® ThinkLight™	89-key / ThinkVantage button / spill-resistant / multimedia Fn keys / Windows, Appl keys TrackPoint® pointing device / UltraNav® multi-pointing system (touchpad) Illuminates the keyboard to improve visibility in low-light conditions	Universal 90-watt AC adapter ThinkPad Roll Cage (one-piece magnesium frame) PC 2001-compliant ACPI 1.0b and 2.0-compliant CIM and DMI 2.0-compliant PXE 2.1-compliant ENERGY STAR®-compliant RoHS-compliant International Warranty Service <sup>17</sup> 24 hour x 7 day <sup>18</sup> toll-free warranty support during the warranty <sup>12</sup>
Dimensions <sup>3</sup> Weight <sup>2</sup> Case material	(WxDxH): 13.1" x 9.0" x 1.05-1.22"; 334mm x 228mm x 26.6-30.9mm with optical drive and battery: <i>4-cell:</i> up to 4.8 lb (2.2kg); <i>7-cell:</i> up to 5.1 lb (2.3 kg) <i>Some:</i> black color; hybrid carbon fiber reinforced polymer (CFRP) material <i>Some:</i> top cover: silver color; CFRP, aluminum, titanium material; bottom: black, CFRP	ThinkPlus 2-year LOR 9x5 NBD 41C9167 ThinkPlus 3-year LOR 9x5 NBD 41C9168
Battery - type Battery - life <sup>10</sup>	Lithium Ion <b>4-cell</b> or <b>7-cell</b> / intelligent / supports unique 2nd battery in Ultrabay Slim <i>4-cell:</i> up to 3.0 hr; <i>7-cell:</i> up to 5.0 hr; <i>7-cell plus Ultrabay Slim battery:</i> up to 7.0 hr	Other ThinkPlus services at <a href="http://lenovo.com/thinkplus/warranty">lenovo.com/thinkplus/warranty</a>
Architecture	<b>Mobile Intel 915GM Express Chipset</b> / 82915GM Graphics Memory Controller Hub / 82801FBM ICH6-M I/O Controller Hub (SATA150, ATA-100 EIDE, PCI Express x1, PCI bus, ethernet, USB, [Bluetooth], [fingerprint]) / PCI bus (Ricoh® R5C841 CardBus controller) / LPC bus (NS PC87382 Super I/O, Atmel® 97SC3201TPM)	
PC Card slot Ports	One Type I or one Type II / CardBus 32-bit / PCMCIA 2.1 / integrated door S-video out port (TV out) / Secure Digital (SD) / IEEE 1394 (FireWire 400) / docking / three USB 2.0 / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / no keyboard or mouse or parallel or serial ports (use USB)	
Wireless antenna Mini PCI Express Wireless upg <sup>36</sup> 11a/b/g <sup>32</sup> WWAN <sup>16</sup>	UltraConnect™ Antenna built into the display cover / on-off switch for all wireless radios Two Mini PCI Express slots / only 802.11 wireless is customer upgradable <i>Some:</i> wireless upgradable with wireless Mini PCI Express options <i>Some:</i> 11a/b/g wireless <sup>4</sup> , ThinkPad 11a/b/g Mini PCI Express Adptr, Atheros AR5006EX <i>Some:</i> Wireless WAN, Sierra Wireless 1xEV-DO Network Adapter, Mini PCIe Adapter, EV-DO/1xRTT, WWAN antenna on display, service contract reqd with Verizon® Wireless 56K <sup>6</sup> V.90 (V.92-designed <sup>29</sup> ) modem in Comm Daughter Card socket / Conexant® chipset <i>Some:</i> Bluetooth 2.0 wireless technology / USB 2.0 interface via ICH6-M / LED indicator Gigabit ethernet on systemboard / Broadcom BCM5751M (MAC/PHY) / PCIe x1 / PXE	
Modem Bluetooth™ Ethernet Audio	High Definition (HD) Audio / AD1981HD codec / stereo speakers, 1 watt / volume up, down, mute buttons / internal microphone / microphone input jack / headphone jack Power-on password / hard disk password / supervisor password / security keyhole	
Security Security chip Fingerprint reader	<b>Trusted Platform Module</b> / Atmel chip / TCG 1.1-compliant <b>Fingerprint reader on palm rest</b> / swipe sensor / integrated with security chip	
Limited warranty <sup>12</sup> <b>1-year</b> - EasyServ™ <sup>19</sup> onsite pickup and delivery / service upgrades <sup>22</sup> available		
256MB PC2-4200 DDR2 NP CL4 SOD 512MB PC2-4200 DDR2 NP CL4 SOD 1GB PC2-4200 DDR2 NP CL4 SOD Combo II Ultrabay Slim Drive (flat bezel) Super Multi-Burner Ultrabay Slim Drive (flat) Serial Hard Drive Ultrabay Slim Adptr (flat) 100GB Disk 9.5mm SATA150 (7200 rpm) USB Portable Diskette Drive USB Serial Parallel Adapter USB 2.0 Memory Key 1GB USB 2.0 Super Multi-Burner Drive Other options on O-Z60T sheet	73P3840 73P3842 73P3844 40Y8621 40Y8623 40Y8725 41N3013 05K9276 22P5298 40Y7421 40Y8638	Z60t Series Li-Ion Battery 4-cell 40Y6791 Z60t Series Li-Ion Battery 7-cell 40Y6793 Advanced Ultrabay Battery 3-cell 40Y6789 ThinkPad 90W AC Adapter 40Y7659 ThinkPad Essential Port Replicator 250510W ThinkPad Advanced Mini Dock 250410U ThinkPad Advanced Dock 250310U ThinkVision® L201p 20.1" Monitor (blk) 9320HB1 ThinkPad Adjustable Notebook Stand 40Y7676 ThinkPad Convertible Monitor Stand 40Y7620 Premiere Leather Carrying Case 10K0209 Other options at <a href="http://lenovo.com/options">lenovo.com/options</a>

See footnotes for important warranty information  
US models announced January 24, 2005  
US models withdrawn effective October 2006

© Lenovo  
(MN7) October 2006

# ThinkPad® Z60t (2512) - withdrawn

Created by Lenovo Training Solutions  
Personal Systems Reference (PSREF)

Type-model	Top cover color	Processor	Speed GHz	Memory	Wide-screen display	Graphics controller	Disk SATA GB <sup>8</sup>	EIDE optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN wireless	Blue-tooth	Finger print reader	Battery cells	Preload	Lim-ited warranty <sup>12</sup>	Avail date
2512-11U	Black	Pentium® M 740	1.73	512MB	14.0" WXGA	GMA	40GB	Combo	11a/b/g <sup>32</sup>	None	None	None	4-cell	XP Pro	1-yr	Sep 05
2512-13U	Black	Celeron® M 360J	1.4	256MB	14.0" WXGA	GMA	40GB	Combo	11a/b/g	None	None	None	4-cell	XP Home	1-yr	Sep 05
2512-JGU	Black	Celeron® M 370	1.5	256MB	14.0" WXGA	GMA	40GB	Combo	11a/b/g	None	None	None	4-cell	XP Home	1-yr	Feb 06

Positioning Processor	<i>Stylish notebooks for work and life; thin and light; two-spindle system</i> <b>Intel® Celeron M Processor 360J or 370</b> with XD Bit and 400MHz system bus or <b>Intel® Pentium M Processor 740 (1.73GHz)</b> with Enhanced Intel SpeedStep™ technology <sup>1</sup> , Execute Disable Bit, and 533MHz system bus											<b>SOFTWARE<sup>14</sup></b> <b>Windows XP Professional models</b> - Microsoft® Windows® XP Professional <sup>20</sup> (Service Pack 2) ↔ Disk-to-Disk Recovery (in hidden protected area)				
L2 cache Memory	<b>Celeron M: 1 MB; Pentium M: 2MB; All: on die</b> (at processor speed) / ECC <b>256MB or 512MB</b> std / 2GB max <sup>7</sup> / PC2-4200 533MHz <b>DDR2</b> / non-parity / CL4 / dual channel capable / two 200-pin SO-DIMM sockets / std mem in 1 socket / 1 socket avail											<b>Windows XP Home models</b> - Microsoft Windows XP Home Edition <sup>20</sup> (Service Pack 2) ↔ Disk-to-Disk Recovery (in hidden protected area)				
Diskette drive	None standard / use optional USB-based diskette drive											<b>Preloaded (all)</b> • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • ThinkVantage System Update • Symantec® Client Security • Diskkeeper Lite • PC-Doctor™ • ThinkPad utilities • Adobe® Reader • Multimedia Center for Think Offerings • Sonic RecordNOW and Drive Letter Access (combo, DVD±RW) • InterVideo WinDVD (combo, DVD±RW models) • InterVideo WinDVD Creator (DVD±RW models) <b>License - CD not included (all)</b> - Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client				
EIDE Combo	DVD-ROM/CD-RW / 24X/24X/24X/8X <sup>21</sup> speed / removable from Ultrabay Slim															
Ultrabay Slim	One modular bay for interchangeable devices (right side) / 9.5mm high bay / flat bezel											visit <a href="http://thinkpad.com/thinkvantage">thinkpad.com/thinkvantage</a>				
Serial ATA disk (SATA150)	<b>40GB<sup>9</sup></b> (5400 rpm) / 9.5mm high / removable and upgradable / 9.5mm high bay / supports 2nd disk / <b>HDD Protection Pack</b> (shock absorber) / <b>Active Protection System™</b>															
Display	<b>Widescreen / 14.0" (356mm) WXGA (1280x768) TFT color</b> / 200 nits / 15:9 ratio / stainless steel hinges / one hand activates dual latches / secure screen surround											Universal 90-watt AC adapter ThinkPad Roll Case (one-piece magnesium frame) PC 2001-compliant ACPI 1.0b and 2.0-compliant CIM and DMI 2.0-compliant PXE 2.1-compliant ENERGY STAR®-compliant RoHS-compliant International Warranty Service <sup>17</sup> 24 hour x 7 day <sup>18</sup> toll-free warranty support during the warranty <sup>12</sup>				
Graphics	<b>Intel Graphics Media Accelerator 900 (GMA 900)</b> / integrated graphics in 915GM GMCH / uses main memory (up to 128MB with 256MB+) / 200MHz															
Keyboard	89-key / ThinkVantage button / spill-resistant / multimedia Fn keys / Windows, Appl keys											ThinkPad notebooks implement ThinkVantage® technologies and design;				
TrackPoint®	TrackPoint® pointing device / UltraNav® multi-pointing system (touchpad)															
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions											ThinkPlus™.22 1-year LOR 9x5 NBD 41C9166				
Dimensions <sup>3</sup>	(WxDxH): 13.1" x 9.0" x 1.05-1.22"; 334mm x 228mm x 26.6-30.9mm															
Weight <sup>2</sup>	with optical drive and battery: 4-cell: up to 4.8 lb (2.2kg)											ThinkPlus 2-year LOR 9x5 NBD 41C9167				
Case material	Black color; hybrid carbon fiber reinforced polymer (CFRP) material															
Battery - type	Lithium Ion 4-cell / intelligent / supports unique 2nd battery in Ultrabay Slim											ThinkPlus 3-year LOR 9x5 NBD 41C9168				
Battery - life <sup>10</sup>	4-cell: up to 2.4 hr; Opt 7-cell: up to 5.0 hr; 7-cell plus Ultrabay Slim battery: up to 7.0 hr															
Architecture	<b>Mobile Intel 915GM Express Chipset</b> / 82915GM Graphics Memory Controller Hub / 82801FBM ICH6-M I/O Controller Hub (SATA150, ATA-100 EIDE, PCI Express x1, PCI bus, ethernet, USB, [Bluetooth], [fingerprint]) / PCI bus (Ricoh® R5C841 CardBus controller) / LPC bus (NS PC87382 Super I/O, Atmel® 97SC3201TPM)											ThinkPlus 4-year LOR 9x5 NBD 41C9171				
PC Card slot	One Type I or one Type II / CardBus 32-bit / PCMCIA 2.1 / integrated door															
Ports	S-video out port (TV out) / Secure Digital (SD) / IEEE 1394 (FireWire 400) / docking / three USB 2.0 / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / no keyboard or mouse or parallel or serial ports (use USB)											ThinkPlus 5-year LOR 9x5 NBD 41C9173				
Wireless antenna	UltraConnect™ Antenna built into the display cover / on-off switch for all wireless radios															
Mini PCI Express	Two Mini PCI Express slots / only 802.11 wireless is customer upgradable											ThinkPlus 2-year P&L P/U Depot 41C9169				
11a/b/g <sup>32</sup>	11a/b/g wireless <sup>4</sup> , ThinkPad 11a/b/g Mini PCI Express Adapter, Atheros AR5006EX chip															
WWAN	None											ThinkPlus 3-year P&L P/U Depot 41C9170				
Modem	56K <sup>6</sup> V.90 (V.92-designed <sup>29</sup> ) modem in Comm Daughter Card socket / Conexant® chipset															
Bluetooth™	None											ThinkPlus 4-year P&L P/U Depot 41C9172				
Ethernet	Gigabit ethernet on systemboard / Broadcom BCM5751M (MAC/PHY) / PCIe x1 / PXE															
Audio	High Definition (HD) Audio / AD1981HD codec / stereo speakers, 1 watt / volume up, down, mute buttons / internal microphone / microphone input jack / headphone jack											ThinkPlus 5-year P&L P/U Depot 41C9174				
Security	Power-on password / hard disk password / supervisor password / security keyhole															
Security chip	<b>Trusted Platform Module</b> / Atmel chip / TCG 1.1-compliant											Other options at <a href="http://lenovo.com/options">lenovo.com/options</a>				
Fingerprint reader	None															
Limited warranty <sup>12</sup>	<b>1-year</b> - EasyServ™.19 onsite pickup and delivery / service upgrades <sup>22</sup> available															
256MB PC2-4200 DDR2 NP CL4 SOD	73P3840			Z60t Series Li-Ion Battery 4-cell						40Y6791			Other options at <a href="http://lenovo.com/options">lenovo.com/options</a>			
512MB PC2-4200 DDR2 NP CL4 SOD	73P3842			Z60t Series Li-Ion Battery 7-cell						40Y6793						
1GB PC2-4200 DDR2 NP CL4 SOD	73P3844			Advanced Ultrabay Battery 3-cell						40Y6789						
USB Portable Diskette Drive	05K9276			ThinkPad External Battery Charger						40Y7625						
USB Fingerprint Reader	73P4774			ThinkPad 90W AC Adapter						40Y7659						
USB 2.0/Analog Headset by Sennheiser	40Y8518			ThinkPad 90W AC/DC Combo Adapter						40Y7630						
USB 2.0 Lenovo Webcam	40Y8519			11a/b/g Wireless Mini PCI Express Adpr						40Y7026						
USB 2.0 Super Multi-Burner Drive	40Y8638			ThinkVision® E500 Projector						0038A05						
USB 2.0 CD-RW/DVD-ROM Combo II Drive	40Y8637			ThinkVision C400 Wireless Projector						0039WA1						
USB 2.0 Portable 80GB Hard Disk	40Y8726			ThinkPad Nylon Carrying Case						10K0207						
USB 2.0 Memory Key 1GB	40Y7421			Premiere Leather Carrying Case						10K0209						
Combo II Ultrabay Slim Drive (flat bezel)	40Y8621			ThinkPad Carrying Case - Expander						73P3597						
Super Multi-Burner Ultrabay Slim Drive (flat)	40Y8623			ThinkPad Carrying Case - Backpack						73P3599						
Serial Hard Drive Ultrabay Slim Adptr (flat)	40Y8725			ThinkPad Essential Port Replicator						250510W						
80GB Disk 9.5mm SATA150 (5400 rpm)	41N5662			ThinkPad Advanced Mini Dock						250410U						
100GB Disk 9.5mm SATA150 (7200 rpm)	41N3013			ThinkPad Advanced Dock						250310U						
Intel PRO/Wireless 3945ABG Mini PCIe	41N3008			ThinkPad Adjustable Notebook Stand						40Y7676						
Enh Perf Wireless Keyboard and Mouse	73P4067			ThinkPad Convertible Monitor Stand						40Y7620						
Preferred Pro USB Fingerprint Keyboard	73P4730			Lenovo L192 Wide 19" Monitor (black)						6920AB1						
Verizon Wireless V620 WWAN PC Card <sup>25</sup>	40Y9137			ThinkVision L192p 19" Monitor (black)						9419HB2						
Other options on O-Z60T sheet																

See footnotes for important warranty information  
US models announced September 20, 2005 or February 28, 2006  
US models withdrawn effective June or October 2006

© Lenovo  
(MN2) October 2006

# ThinkPad® Z60t (2513) - withdrawn

Created by Lenovo Training Solutions  
Personal Systems Reference (PSREF)

Type-model	Top cover color	Processor	Speed GHz	Memory	Wide-screen display	Disk Graphics controller	SATA GB <sup>8</sup>	EIDE optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN wireless	Blue-tooth	Finger print reader	Bat-tery cells	Lim-workhorse (W) mited warranty <sup>12</sup>	Workhorse (W) Gbl (G) Avail date
2513-63U	Black	Pentium® M 740	1.73	512MB	14.0" WXGA	GMA	60GB	Combo	11a/b/g <sup>32</sup>		Blue	Finger	7-cell	3-yr	Sep 05
2513-6PU	Black	Celeron® M 360J	1.4	256MB	14.0" WXGA	GMA	40GB	Combo	11a/b/g				4-cell	3-yr	Sep 05
2513-6RU	Black	Pentium M 750	1.86	512MB	14.0" WXGA	GMA	60GB	DVD±RW	11a/b/g			Finger	7-cell	3-yr	W Sep 05
2513-79U	Black	Pentium M 750	1.86	512MB	14.0" WXGA	GMA	40GB	Combo	11a/b/g			Finger	7-cell	3-yr	W G Sep 05
2513-7BU	Black	Pentium M 750	1.86	512MB	14.0" WXGA	GMA	100GB	DVD±RW	11a/b/g	Verizon	Blue	Finger	7-cell	3-yr	W Oct 05
2513-7DU	Black	Pentium M 750	1.86	512MB	14.0" WXGA	GMA	40GB	Combo	11a/b/g	Verizon	Blue	Finger	7-cell	3-yr	W Oct 05
2513-7EU	Black	Pentium M 750	1.86	512MB	14.0" WXGA	GMA	60GB	DVD±RW	11a/b/g	Verizon	Blue	Finger	7-cell	3-yr	W Oct 05
2513-7FU	Silver	Pentium M 760	2.00	512MB	14.0" WXGA	GMA	60GB	Combo	11a/b/g			Finger	7-cell	3-yr	W Sep 05
2513-7GU	Silver	Pentium M 760	2.00	512MB	14.0" WXGA	GMA	80GB	DVD±RW	11a/b/g			Finger	7-cell	3-yr	W Sep 05
2513-MCU	Silver	Pentium M 780	2.26	1GB	14.0" WXGA	GMA	100GB	DVD±RW	11a/b/g		Blue	Finger	7-cell	3-yr	Jan 06
2513-MHUB	Black	Pentium M 740	1.73	512MB	14.0" WXGA	GMA	60GB	Combo	11a/b/g				4-cell	3-yr	Jan 06
2513-MJU	Silver	Pentium M 760	2.00	512MB	14.0" WXGA	GMA	80GB	Combo	11a/b/g			Finger	7-cell	3-yr	Feb 06
Positioning Processor	Stylish notebooks for work and life; thin and light; two-spindle system											<b>SOFTWARE<sup>14</sup></b>			
L2 cache Memory	Intel® Celeron M Processor 360J (1.4GHz) with XD Bit and 400MHz system bus or Intel® Pentium M Processor 740, 750, 760, or 780 with Enhanced Intel SpeedStep™ technology <sup>1</sup> , Execute Disable Bit, and 800 MHz system bus											<b>Windows XP Professional models</b>			
Diskette drive	None standard / use optional USB-based diskette drive											- Microsoft® Windows® XP Professional <sup>20</sup> (Service Pack 2)			
EIDE Combo	Some: DVD-ROM/CD-RW / 24X/24X/24X/8X <sup>21</sup> speed / removable from Ultrabay Slim											◇ Disk-to-Disk Recovery (in hidden protected area)			
EIDE DVD±RW	Some: DVD and CD burner / Multi-Burner Plus / removable from Ultrabay Slim											<b>Preloaded</b>			
EIDE DVD±RW Ultrabay Slim	MCU: DVD burner / Super Multi-Burner (40Y8623) dual-layer, removable Ultrabay Slim One modular bay for interchangeable devices (right side) / 9.5mm high bay / flat bezel											• Rescue and Recovery™			
Serial ATA disk (SATA150)	40GB <sup>8</sup> (5400 rpm), 60GB (5400 rpm), 80GB (5400 rpm), 100GB (7200 rpm) / 9.5mm high / removable and upgradable / 9.5mm high bay / supports 2nd disk / HDD Protection Pack (shock absorber) / Active Protection System™											• Access Connections™			
Display	Widescreen / 14.0" (356mm) WXGA (1280x768) TFT color / 200 nits / 15:9 ratio / stainless steel hinges / one hand activates dual latches / secure screen surround											• Client Security Solution™			
Graphics	Intel Graphics Media Accelerator 900 (GMA 900) / integrated graphics in 915GM GMCH / uses main memory (up to 128MB with 256MB+) / 200MHz											• ThinkVantage Productivity Center			
Keyboard TrackPoint® ThinkLight™	89-key / ThinkVantage button / spill-resistant / multimedia Fn keys / Windows, Appl keys TrackPoint® pointing device / UltraNav® multi-pointing system (touchpad) Illuminates the keyboard to improve visibility in low-light conditions											• ThinkVantage System Update			
Dimensions <sup>3</sup> Weight <sup>2</sup> Case material	(WxDxH): 13.1" x 9.0" x 1.05-1.22"; 334mm x 228mm x 26.6-30.9mm with optical drive and battery: 4-cell: up to 4.8 lb (2.2kg); 7-cell: up to 5.1 lb (2.3 kg) Some: black color; hybrid carbon fiber reinforced polymer (CFRP) material											• Symantec® Client Security			
Battery - type Battery - life <sup>10</sup>	Lithium Ion 4-cell or 7-cell / intelligent / supports unique 2nd battery in Ultrabay Slim 4-cell: up to 2.4 hr; 7-cell: up to 5.0 hr; 7-cell plus Ultrabay Slim battery: up to 7.0 hr											• Diskeeper Lite			
Architecture	Mobile Intel 915GM Express Chipset / 82915GM Graphics Memory Controller Hub / 82801FMB ICH6-M I/O Controller Hub (SATA150, ATA-100 EIDE, PCI Express x1, PCI bus, ethernet, USB, [Bluetooth], [fingerprint]) / PCI bus (Ricoh® R5C841 CardBus controller) / LPC bus (NS PC87382 Super I/O, Atmel® 97SC3201TPM)											• PC-Doctor™			
PC Card slot Ports	One Type I or one Type II / CardBus 32-bit / PCMCIA 2.1 / integrated door S-video out port (TV out) / Secure Digital (SD) / IEEE 1394 (FireWire 400) / docking / three USB 2.0 / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / no keyboard or mouse or parallel or serial ports (use USB)											• ThinkPad utilities			
Wireless antenna	UltraConnect™ Antenna built into the display cover / on-off switch for all wireless radios											• Adobe® Reader			
Mini PCI Express 11a/b/g <sup>32</sup> WWAN <sup>16</sup>	Two Mini PCI Express slots / only 802.11 wireless is customer upgradable 11a/b/g wireless <sup>4</sup> , ThinkPad 11a/b/g Mini PCI Express Adapter, Atheros AR5006EX chip											• Fingerprint Software (fingerprint models)			
Modem Bluetooth™ Ethernet Audio	Some: Wireless WAN, Sierra Wireless 1xEV-DO Network Adapter, Mini PCIe Adapter, EV-DO/1xRTT, WWAN antenna on display, service contract reqd with Verizon® Wireless 56K <sup>6</sup> V.90 (V.92-designed <sup>29</sup> ) modem in Comm Daughter Card socket / Conexant® chipset											• Multimedia Center for Think Offerings			
Security Security chip Fingerprint reader	Some: Bluetooth 2.0 wireless technology / USB 2.0 interface via ICH6-M / LED indicator Gigabit ethernet on systemboard / Broadcom BCM5751M (MAC/PHY) / PCIe x1 / PXE High Definition (HD) Audio / AD1981HD codec / stereo speakers, 1 watt / volume up, down, mute buttons / internal microphone / microphone input jack / headphone jack Power-on password / hard disk password / supervisor password / security keyhole Trusted Platform Module / Atmel chip / TCG 1.1-compliant											• Sonic RecordNOW and Drive Letter Access (combo, DVD±RW)			
Limited warranty <sup>12</sup> 3-year/1-yr battery - EasyServ™ <sup>19</sup> onsite pickup and delivery / service upgrades <sup>22</sup> avail												• InterVideo WinDVD (combo, DVD±RW models)			
256MB PC2-4200 DDR2 NP CL4 SOD	73P3840	Z60t Series Li-Ion Battery 4-cell	40Y6791	ThinkPad notebooks implement ThinkVantage® technologies and design; visit <a href="http://thinkpad.com/thinkvantage">thinkpad.com/thinkvantage</a>											
512MB PC2-4200 DDR2 NP CL4 SOD	73P3842	Z60t Series Li-Ion Battery 7-cell	40Y6793	Universal 90-watt AC adapter											
1GB PC2-4200 DDR2 NP CL4 SOD	73P3844	Advanced Ultrabay Battery 3-cell	40Y6789	ThinkPad Roll Cage (one-piece magnesium frame)											
USB Portable Diskette Drive	05K9276	ThinkPad 90W AC Adapter	40Y7659	PC 2001-compliant											
USB Fingerprint Reader	73P4774	ThinkPad 90W AC/DC Combo Adapter	40Y7630	ACPI 1.0b and 2.0-compliant											
USB 2.0 Memory Key 1GB	40Y7421	11a/b/g Wireless Mini PCI Express Adpr	40Y7026	CIM and DMI 2.0-compliant											
USB 2.0 CD-RW/DVD-ROM Combo II Drive	40Y8637	ThinkVision® E500 Projector	0038A05	PXE 2.1-compliant											
USB 2.0 Super Multi-Burner Drive	40Y8638	ThinkPad Nylon Carrying Case	10K0207	ENERGY STAR®-compliant											
Combo II Ultrabay Slim Drive (flat bezel)	40Y8621	ThinkPad Carrying Case - Expander	73P3597	RoHS-compliant											
Super Multi-Burner Ultrabay Slim Drive (flat)	40Y8623	ThinkPad Essential Port Replicator	250510W	International Warranty Service <sup>17</sup>											
Serial Hard Drive Ultrabay Slim Adptr (flat)	40Y8725	ThinkPad Advanced Mini Dock	250410U	24 hour x 7 day <sup>18</sup> toll-free warranty support during the warranty <sup>12</sup>											
100GB Disk 9.5mm SATA150 (7200 rpm)	41N3013	ThinkPad Advanced Dock	250310U												
Intel PRO/Wireless 3945ABG Mini PCIe	41N3008	ThinkPad Adjustable Notebook Stand	40Y7676												
Kensington® MicroSaver® Security Cable	73P2582	Lenovo L192 Wide 19" Monitor (black)	6920AB1												
Other options on O-Z60T sheet												Post-warranty annual maintenance agreements at <a href="http://lenovo.com/thinkplus/warranty">lenovo.com/thinkplus/warranty</a>			

See footnotes for important warranty information

US models announced September 20, 2005 and January 24 or February 28, 2006

US models withdrawn effective June, September, or October 2006

© Lenovo  
(MN3) October 2006

# ThinkPad® Z60t (2513) - Education - withdrawn

Created by Lenovo Training Solutions  
Personal Systems Reference (PSREF)

Type-model	Top cover color	Processor	Speed GHz	Memory	Wide-screen display	Graphics controller	Disk SATA GB <sup>8</sup>	Mini PCIe 802.11 wireless	Mini PCIe WWAN wireless	Blue-tooth	Finger print reader	Bat-tery cells	Lim-ited warranty <sup>12</sup>	Education software	Avail date
2513-2GU	Black	Pentium® M 750	1.86	512MB	14.0" WXGA	GMA 60GB	Combo	11a/b/g <sup>32</sup>	None	None	None	7-cell	EasyServ	Yes	Sep 05

• **This model has an EasyServ™,19 onsite pickup and delivery 3-year limited warranty**

These educational models are available only to public or private K-12 (or higher) accredited schools organized and operated exclusively for educational purposes for use by qualified students and teachers.

Positioning Processor	<i>Stylish notebooks for work and life; thin and light; two-spindle system</i>										<b>SOFTWARE<sup>14</sup></b> <b>Windows XP Professional models</b> - Microsoft® Windows® XP Professional <sup>20</sup> (Service Pack 2) ⇨ Disk-to-Disk Recovery (in hidden protected area) <b>Preloaded</b> • Education software from Vital Source Technologies®: vitalsource KEY™ and Personal Portable library™ • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • ThinkVantage System Update • Symantec® Client Security • Diskkeeper Lite • PC-Doctor™ • ThinkPad utilities • Adobe® Reader • Multimedia Center for Think Offerings • Sonic RecordNOW and Drive Letter Access (combo, DVD±RW) • InterVideo WinDVD (combo, DVD±RW models) <b>License</b> - CD not included - Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client				
L2 cache	Intel® Pentium M Processor 750 (1.86GHz) with Enhanced Intel SpeedStep™ technology <sup>1</sup> , Execute Disable Bit, and 533MHz system bus														
Memory	2MB / on die (at processor speed) / ECC 512MB std / 2GB max <sup>7</sup> / PC2-4200 533MHz DDR2 / non-parity / CL4 / dual channel capable / two 200-pin SO-DIMM sockets / std mem in one socket / one socket available														
Diskette drive Combo	None standard / use optional USB-based diskette drive DVD-ROM/CD-RW / 24X/24X/24X/8X <sup>21</sup> speed / removable from Ultrabay Slim														
Ultrabay Slim	One modular bay for interchangeable devices (right side) / 9.5mm high bay / flat bezel														
Serial ATA disk (SATA150)	60GB <sup>8</sup> (5400 rpm) / 9.5mm high / removable and upgradable / 9.5mm high bay / supports 2nd disk / <b>HDD Protection Pack</b> (shock absorber) / <b>Active Protection System™</b>														
Display	<b>Widescreen / 14.0"</b> (358.4mm) <b>WXGA (1280x768) TFT color</b> / 200 nits / 15:9 ratio / stainless steel hinges / one hand activates dual latches / secure screen surround														
Graphics	Intel Graphics Media Accelerator 900 (GMA 900) / integrated graphics in 915GM GMCH / uses main memory (up to 128MB with 256MB+) / 200MHz														
Keyboard	89-key / ThinkVantage button / spill-resistant / multimedia Fn keys / Windows, Appl keys														
TrackPoint™	TrackPoint® pointing device / UltraNav® multi-pointing system (touchpad)														
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions														
Dimensions <sup>3</sup>	(WxDxH): 13.1" x 9.0" x 1.05-1.22"; 334mm x 228mm x 26.6-30.9mm														
Weight <sup>2</sup>	with optical drive and battery: 7-cell: up to 5.1 lb (2.3 kg)														
Case material	Black color; hybrid carbon fiber reinforced polymer (CFRP) material														
Battery - type	Lithium Ion 7-cell / intelligent / supports unique 2nd battery in Ultrabay Slim														
Battery - life <sup>10</sup>	7-cell: up to 5.0 hr; 7-cell plus Ultrabay Slim battery: up to 7.0 hr														
Architecture	Mobile Intel 915GM Express Chipset / 82915GM Graphics Memory Controller Hub / 82801FBM ICH6-M I/O Controller Hub (SATA150, ATA-100 EIDE, PCI Express x1, PCI bus, ethernet, USB, [Bluetooth], [fingerprint]) / PCI bus (Ricoh® R5C841 CardBus controller) / LPC bus (NS PC87382 Super I/O, Atmel® 97SC3201TPM)														
PC Card slot	One Type I or one Type II / CardBus 32-bit / PCMCIA 2.1 / integrated door														
Ports	S-video out port (TV out) / Secure Digital (SD) / IEEE 1394 (FireWire 400) / docking / three USB 2.0 / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / no keyboard or mouse or parallel or serial ports (use USB)														
Wireless antenna	UltraConnect™ Antenna built into the display cover / on-off switch for all wireless radios														
Mini PCI Express	Two Mini PCI Express slots / only 802.11 wireless is customer upgradable														
11a/b/g <sup>32</sup>	11a/b/g wireless <sup>4</sup> , ThinkPad 11a/b/g Mini PCI Express Adapter, Atheros AR5006EX chip														
WWAN	None														
Modem	56K <sup>6</sup> V.90 (V.92-designed <sup>29</sup> ) modem in Comm Daughter Card socket / Conexant® chipset														
Bluetooth™	None														
Ethernet	Gigabit ethernet on systemboard / Broadcom BCM5751M (MAC/PHY) / PCIe x1 / PXE														
Audio	High Definition (HD) Audio / AD1981HD codec / stereo speakers, 1 watt / volume up, down, mute buttons / internal microphone / microphone input jack / headphone jack														
Security	Power-on password / hard disk password / supervisor password / security keyhole														
Security chip	<b>Trusted Platform Module</b> / Atmel chip / TCG 1.1-compliant														
Fingerprint reader	None														
Limited warranty <sup>12</sup>	3-year/1-yr battery - EasyServ™,19 onsite pickup and delivery / service upgrades <sup>22</sup> avail														
256MB PC2-4200 DDR2 NP CL4 SOD	73P3840	Z60t Series Li-Ion Battery 4-cell	40Y6791												
512MB PC2-4200 DDR2 NP CL4 SOD	73P3842	Z60t Series Li-Ion Battery 7-cell	40Y6793												
1GB PC2-4200 DDR2 NP CL4 SOD	73P3844	Advanced Ultrabay Battery 3-cell	40Y6789												
USB Portable Diskette Drive	05K9276	ThinkPad External Battery Charger	40Y7625												
USB Fingerprint Reader	73P4774	ThinkPad 90W AC Adapter	40Y7659												
USB Gemplus GemPC Smart Card Reader	41N3040	ThinkPad 90W AC/DC Combo Adapter	40Y7630												
USB 2.0 Memory Key 1GB	40Y7421	11a/b/g Wireless Mini PCI Express Adpr	40Y7026												
USB 2.0 CD-RW/DVD-ROM Combo II Drive	40Y8637	ThinkVision® E500 Projector	0038A05												
USB 2.0 Super Multi-Burner Drive	40Y8638	ThinkPad Nylon Carrying Case	10K0207												
Combo II Ultrabay Slim Drive (flat bezel)	40Y8621	Premiere Leather Carrying Case	10K0209												
Super Multi-Burner Ultrabay Slim Drive (flat)	40Y8623	ThinkPad Carrying Case - Backpack	73P3599												
Serial Hard Drive Ultrabay Slim Adptr (flat)	40Y8725	Gemplus GemPC Smart Card Reader	41N3004												
60GB Hard Disk 9.5mm SATA (7200 rpm)	41N3012	ThinkPad Essential Port Replicator	250510W												
100GB Hard Disk 9.5mm SATA (5400 rpm)	40Y8721	ThinkPad Advanced Mini Dock	250410U												
100GB Hard Disk 9.5mm SATA (7200 rpm)	41N3013	ThinkPad Advanced Dock	250310U												
Intel PRO/Wireless 3945ABG Mini PCIe	41N3008	ThinkPad Adjustable Notebook Stand	40Y7676												
Optical 3-Button ScrollPoint Pro Mouse	31P8700	ThinkPad Convertible Monitor Stand	40Y7620												
Enh Perf Wireless Keyboard and Mouse	73P4067	ThinkVision L171 17" Monitor (black)	9417AB1												
Preferred Pro USB Fingerprint Keyboard	73P4730	ThinkVision L192p 19" Monitor (black)	9419HB2												
Verizon Wireless V620 WWAN PC Card <sup>25</sup>	40Y9137	ThinkVision L201p 20.1" Monitor (black)	9320HB1												
Other options on O-Z60T sheet															

See footnotes for important warranty information  
US model announced September 20, 2005  
US model withdrawn effective June 2006

© Lenovo  
(MN4) April 2006

# ThinkPad® Z60t (2514) - withdrawn

Created by Lenovo Training Solutions  
Personal Systems Reference (PSREF)

Type-model	Top cover color	Processor	Speed GHz	Memory	Wide-screen display	Graphics controller	Disk SATA GB <sup>8</sup>	EIDE optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN wireless	Blue-tooth	Finger print reader	Bat-tery cells	3-year Limited warranty <sup>12</sup>	Avail date
2514-MHU	Black	Pentium® M 740	1.73	512MB	14.0" WXGA	GMA	60GB	Combo	11a/b/g <sup>32</sup>	None	None	None	4-cell	Onsite	Jan 06
2514-MJU	Silver	Pentium M 760	2.0	512MB	14.0" WXGA	GMA	80GB	Combo	11a/b/g	None	None	Finger	7-cell	Onsite	Feb 06

• **These models have a limited onsite service<sup>24</sup> 3-year limited warranty**

Positioning Processor	<p><i>Stylish notebooks for work and life; thin and light; two-spindle system</i>  <b>Intel® Pentium M Processor 740 or 760</b> with Enhanced Intel SpeedStep™ Technology<sup>1</sup>, Execute Disable Bit, and 533MHz system bus</p>											<p><b>SOFTWARE<sup>14</sup></b>  <b>Windows XP Professional models</b>                      - Microsoft® Windows® XP Professional<sup>20</sup> (Service Pack 2)                      ⇨ Disk-to-Disk Recovery (in hidden protected area)</p>			
L2 cache	<p><b>2MB</b> / on die (at processor speed) / ECC</p>											<p><b>Preloaded</b>                      • Rescue and Recovery™                      • Access Connections™                      • Client Security Solution™                      • ThinkVantage Productivity Center                      • ThinkVantage System Update                      • Symantec® Client Security                      • Diskkeeper Lite                      • PC-Doctor™                      • ThinkPad utilities                      • Adobe® Reader                      • Multimedia Center for Think Offerings                      • Sonic RecordNOW and Drive Letter Access (combo, model)                      • InterVideo WinDVD (combo, model)</p>			
Memory	<p><b>512MB</b> std / 2GB max<sup>2</sup> / PC2-4200 533MHz <b>DDR2</b> / non-parity / CL4 / dual-channel capable / two 200-pin SO-DIMM sockets / std mem in one socket / one socket available</p>											<p><b>License</b> - CD not included                      - Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client</p>			
Diskette drive	None standard / use optional USB-based diskette drive														
EIDE Combo	DVD-ROM/CD-RW / 24X/24X/24X/8X <sup>21</sup> speed / removable from Ultrabay Slim														
Ultrabay Slim	One modular bay for interchangeable devices (right side) / 9.5mm high bay / flat bezel														
Serial ATA disk (SATA150)	<p><b>60 or 80GB<sup>8</sup></b> (5400 rpm) / 9.5mm high / removable and upgradable / 9.5mm high bay / supports 2nd disk / <b>HDD Protection Pack</b> (shock absorber) / <b>Active Protection System™</b></p>														
Display	<p><b>Widescreen / 14.0"</b> (356mm) <b>WXGA (1280x768) TFT color</b> / 200 nits / 15:9 ratio / stainless steel hinges / one hand activates dual latches / secure screen surround</p>														
Graphics	<p><b>Intel Graphics Media Accelerator 900 (GMA 900)</b> / integrated graphics in 915GM GMCH / uses main memory (up to 128MB with 256MB+) / 200MHz</p>														
Keyboard	89-key / ThinkVantage button / spill-resistant / multimedia Fn keys / Windows, Appl keys														
TrackPoint®	TrackPoint® pointing device / UltraNav® multi-pointing system (touchpad)														
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions														
Dimensions <sup>3</sup>	(WxDxH): 13.1" x 9.0" x 1.05-1.22"; 334mm x 228mm x 26.6-30.9mm														
Weight <sup>2</sup>	with optical drive and battery: <b>4-cell</b> : up to 4.8 lb (2.2 kg)														
Case material	<p><i>Some</i>: black color; hybrid carbon fiber reinforced polymer (CFRP) material  <i>Some</i>: top cover: silver color; CFRP, aluminum, titanium material; bottom: black, CFRP</p>														
Battery - type	Lithium Ion <b>4-cell</b> or <b>7-cell</b> / intelligent / supports unique 2nd battery in Ultrabay Slim														
Battery - life <sup>10</sup>	<p><b>4-cell</b>: up to 2.4 hr; <b>7-cell</b>: up to 5 hr; <b>7-cell plus Ultrabay Slim battery</b>: up to 7.0 hr</p>														
Architecture	<p><b>Mobile Intel 915GM Express Chipset</b> / 82915GM Graphics Memory Controller Hub / 82801FBM ICH6-M I/O Controller Hub (SATA150, ATA-100 EIDE, PCI Express x1, PCI bus, ethernet, USB, [Bluetooth], [fingerprint]) / PCI bus (Ricoh® R5C841 CardBus controller) / LPC bus (NS PC87382 Super I/O, Atmel® 97SC3201TPM)</p>														
PC Card slot	One Type I or one Type II / CardBus 32-bit / PCMCIA 2.1 / integrated door														
Ports	<p>S-video out port (TV out) / Secure Digital (SD) / IEEE 1394 (FireWire 400) / docking / three USB 2.0 / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / no keyboard or mouse or parallel or serial ports (use USB)</p>														
Wireless antenna	UltraConnect™ Antenna built into the display cover / on-off switch for all wireless radios														
Mini PCI Express	Two Mini PCI Express slots / only 802.11 wireless is customer upgradable														
11a/b/g <sup>32</sup>	11a/b/g wireless <sup>4</sup> , ThinkPad 11a/b/g Mini PCI Express Adapter, Atheros AR5006EX chip														
WWAN	None														
Modem	56K <sup>6</sup> V.90 (V.92-designed <sup>29</sup> ) modem in Comm Daughter Card socket / Conexant® chipset														
Bluetooth™	None														
Ethernet	Gigabit ethernet on systemboard / Broadcom BCM5751M (MAC/PHY) / PCIe x1 / PXE														
Audio	High Definition (HD) Audio / AD1981HD codec / stereo speakers, 1 watt / volume up, down, mute buttons / internal microphone / microphone input jack / headphone jack														
Security	Power-on password / hard disk password / supervisor password / security keyhole														
Security chip	<b>Trusted Platform Module</b> / Atmel chip / TCG 1.1-compliant														
Fingerprint reader	<i>Some</i> : <b>Fingerprint reader on palm rest</b> / swipe sensor / integrated with security chip														
Limited warranty <sup>12</sup>	<b>3-year/1-year battery, limited onsite service<sup>24</sup>, 8 am - 5 pm, Mon - Fri coverage</b> excluding holidays, next business day response time														
256MB PC2-4200 DDR2 NP CL4 SOD	73P3840	Z60t Series Li-Ion Battery 4-cell	40Y6791	ThinkPad notebooks implement											
512MB PC2-4200 DDR2 NP CL4 SOD	73P3842	Z60t Series Li-Ion Battery 7-cell	40Y6793	ThinkVantage® technologies and design;											
1GB PC2-4200 DDR2 NP CL4 SOD	73P3844	Advanced Ultrabay Battery 3-cell	40Y6789	visit <a href="http://thinkpad.com/thinkvantage">thinkpad.com/thinkvantage</a>											
USB Portable Diskette Drive	05K9276	ThinkPad External Battery Charger	40Y7625												
USB Serial Parallel Adapter	22P5298	ThinkPad 90W AC Adapter	40Y7659												
USB Fingerprint Reader	73P4774	ThinkPad 90W AC/DC Combo Adapter	40Y7630												
USB 2.0 CD-RW/DVD-ROM Combo II Drive	40Y8637	11a/b/g Wireless Mini PCI Express Adpr	40Y7026												
USB 2.0 Portable 80GB Hard Disk	40Y8726	ThinkVision® E500 Projector	0038A05												
USB 2.0 Memory Key 1GB	40Y7421	ThinkPad Nylon Carrying Case	10K0207												
USB 2.0 Super Multi-Burner Drive	40Y8638	Premiere Leather Carrying Case	10K0209												
Combo II Ultrabay Slim Drive (flat bezel)	40Y8621	ThinkPad Carrying Case - Expander	73P3597												
Super Multi-Burner Ultrabay Slim Drive (flat)	40Y8623	ThinkPad Carrying Case - Backpack	73P3599												
Serial Hard Drive Ultrabay Slim Adptr (flat)	40Y8725	ThinkPad Essential Port Replicator	250510W												
100GB Disk 9.5mm SATA150 (5400 rpm)	40Y8721	ThinkPad Advanced Mini Dock	250410U												
Intel PRO/Wireless 3945ABG Mini PCIe	41N3008	ThinkPad Advanced Dock	250310U												
Optical 3-Button Travel Wheel Mouse	31P7410	ThinkPad Adjustable Notebook Stand	40Y7676												
USB Travel Keyboard with UltraNav®	31P9490	Lenovo L192 Wide 19" Monitor (black)	6920AB1												
Enh Perf Wireless Keyboard and Mouse	73P4067	ThinkVision L192p 19" Monitor (black)	9419HB2												
Verizon Wireless V620 WWAN PC Card <sup>25</sup>	40Y9137	ThinkVision L201p 20.1" Monitor (black)	9320HB1												
Other options on O-Z60T sheet		Other options at <a href="http://lenovo.com/options">lenovo.com/options</a>		<p>Post-warranty annual maintenance agreements at <a href="http://lenovo.com/thinkplus/warranty">lenovo.com/thinkplus/warranty</a></p>											

See footnotes for important warranty information  
 US models announced January 24 or February 28, 2006  
 US models withdrawn effective October 2006

© Lenovo  
 (MN6) October 2006

# ThinkPad® Z60t (2514) - Education - withdrawn

Created by Lenovo Training Solutions  
Personal Systems Reference (PSREF)

Type-model	Top cover color	Processor	Speed GHz	Memory	Wide-screen display	Graphics controller	Disk SATA GB <sup>8</sup>	Mini PCIe 802.11 wireless	Mini PCIe WWAN wireless	Blue-tooth	Finger print reader	Bat-tery cells	Lim-ited warranty <sup>12</sup>	Education software	Avail date
2514-2GU	Black	Pentium® M 750	1.86	512MB	14.0" WXGA	GMA	60GB	Combo	11a/b/g <sup>32</sup>	None	None	None	7-cell	Onsite	Yes Sep 05

• **This model has a limited onsite service<sup>24</sup> 3-year limited warranty**

These educational models are available only to public or private K-12 (or higher) accredited schools organized and operated exclusively for educational purposes for use by qualified students and teachers.

Positioning Processor	<i>Stylish notebooks for work and life; thin and light; two-spindle system</i>										<b>SOFTWARE<sup>14</sup></b> <b>Windows XP Professional models</b> - Microsoft® Windows® XP Professional <sup>20</sup> (Service Pack 2) ↔ Disk-to-Disk Recovery (in hidden protected area) <b>Preloaded</b> • Education software from Vital Source Technologies®: vidualsource KEY™ and Personal Portable library™ • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center • ThinkVantage System Update • Symantec® Client Security • Diskkeeper Lite • PC-Doctor™ • ThinkPad utilities • Adobe® Reader • Multimedia Center for Think Offerings • Sonic RecordNOW and Drive Letter Access (combo, DVD±RW) • InterVideo WinDVD (combo, DVD±RW models) <b>License</b> - CD not included - Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client				
L2 cache	Intel® Pentium M Processor 750 (1.86GHz) with Enhanced Intel SpeedStep™ technology <sup>1</sup> , Execute Disable Bit, and 533MHz system bus														
Memory	2MB / on die (at processor speed) / ECC 512MB std / 2GB max* / PC2-4200 533MHz DDR2 / non-parity / CL4 / dual channel capable / two 200-pin SO-DIMM sockets / std mem in one socket / one socket available														
Diskette drive Combo	None standard / use optional USB-based diskette drive														
Ultrabay Slim	DVD-ROM/CD-RW / 24X/24X/24X/8X <sup>21</sup> speed / removable from Ultrabay Slim														
Serial ATA disk (SATA150)	One modular bay for interchangeable devices (right side) / 9.5mm high bay / flat bezel 60GB <sup>8</sup> (5400 rpm) / 9.5mm high / removable and upgradable / 9.5mm high bay / supports 2nd disk / <b>HDD Protection Pack</b> (shock absorber) / <b>Active Protection System™</b>														
Display	<b>Widescreen / 14.0"</b> (358.4mm) <b>WXGA (1280x768) TFT color</b> / 200 nits / 15:9 ratio / stainless steel hinges / one hand activates dual latches / secure screen surround														
Graphics	Intel Graphics Media Accelerator 900 (GMA 900) / integrated graphics in 915GM GMCH / uses main memory (up to 128MB with 256MB+) / 200MHz														
Keyboard	89-key / ThinkVantage button / spill-resistant / multimedia Fn keys / Windows, Appl keys														
TrackPoint™	TrackPoint® pointing device / UltraNav® multi-pointing system (touchpad)														
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions														
Dimensions <sup>3</sup>	(WxDxH): 13.1" x 9.0" x 1.05-1.22"; 334mm x 228mm x 26.6-30.9mm														
Weight <sup>2</sup>	with optical drive and battery: 7-cell: up to 5.1 lb (2.3 kg)														
Case material	Black color; hybrid carbon fiber reinforced polymer (CFRP) material														
Battery - type	Lithium Ion 7-cell / intelligent / supports unique 2nd battery in Ultrabay Slim														
Battery - life <sup>10</sup>	7-cell: up to 5.0 hr; 7-cell plus Ultrabay Slim battery: up to 7.0 hr														
Architecture	<b>Mobile Intel 915GM Express Chipset</b> / 82915GM Graphics Memory Controller Hub / 82801FBM ICH6-M I/O Controller Hub (SATA150, ATA-100 EIDE, PCI Express x1, PCI bus, ethernet, USB, [Bluetooth], [fingerprint]) / PCI bus (Ricoh® R5C841 CardBus controller) / LPC bus (NS PC87382 Super I/O, Atmel® 97SC3201TPM)														
PC Card slot	One Type I or one Type II / CardBus 32-bit / PCMCIA 2.1 / integrated door														
Ports	S-video out port (TV out) / Secure Digital (SD) / IEEE 1394 (FireWire 400) / docking / three USB 2.0 / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / no keyboard or mouse or parallel or serial ports (use USB)														
Wireless antenna	UltraConnect™ Antenna built into the display cover / on-off switch for all wireless radios														
Mini PCI Express	Two Mini PCI Express slots / only 802.11 wireless is customer upgradable														
11a/b/g <sup>32</sup>	11a/b/g wireless <sup>4</sup> , ThinkPad 11a/b/g Mini PCI Express Adapter, Atheros AR5006EX chip														
WWAN	None														
Modem	56K <sup>6</sup> V.90 (V.92-designed <sup>29</sup> ) modem in Comm Daughter Card socket / Conexant® chipset														
Bluetooth™	None														
Ethernet	Gigabit ethernet on systemboard / Broadcom BCM5751M (MAC/PHY) / PCIe x1 / PXE														
Audio	High Definition (HD) Audio / AD1981HD codec / stereo speakers, 1 watt / volume up, down, mute buttons / internal microphone / microphone input jack / headphone jack														
Security	Power-on password / hard disk password / supervisor password / security keyhole														
Security chip	<b>Trusted Platform Module</b> / Atmel chip / TCG 1.1-compliant														
Fingerprint reader	None														
Limited warranty <sup>12</sup> <b>3-years</b> /1-yr battery, <b>limited onsite service<sup>24</sup></b> , 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time															
256MB PC2-4200 DDR2 NP CL4 SOD	73P3840	Z60t Series Li-Ion Battery 4-cell	40Y6791	ThinkPad notebooks implement ThinkVantage™ technologies and design; visit <a href="http://thinkpad.com/thinkvantage">thinkpad.com/thinkvantage</a>											
512MB PC2-4200 DDR2 NP CL4 SOD	73P3842	Z60t Series Li-Ion Battery 7-cell	40Y6793												
1GB PC2-4200 DDR2 NP CL4 SOD	73P3844	Advanced Ultrabay Battery 3-cell	40Y6789												
USB Portable Diskette Drive	05K9276	ThinkPad External Battery Charger	40Y7625												
USB Serial Parallel Adapter	22P5298	ThinkPad 90W AC Adapter	40Y7659												
USB Fingerprint Reader	73P4774	ThinkPad 90W AC/DC Combo Adapter	40Y7630												
USB 2.0 CD-RW/DVD-ROM Combo II Drive	40Y8637	11a/b/g Wireless Mini PCI Express Adpr	40Y7026												
USB 2.0 Portable 80GB Hard Disk	40Y8726	ThinkVision® E500 Projector	0038A05												
USB 2.0 Memory Key 1GB	40Y7421	ThinkPad Nylon Carrying Case	10K0207												
USB 2.0 Super Multi-Burner Drive	40Y8638	Premiere Leather Carrying Case	10K0209												
Combo II Ultrabay Slim Drive (flat bezel)	40Y8621	ThinkPad Carrying Case - Expander	73P3597												
Super Multi-Burner Ultrabay Slim Drive (flat)	40Y8623	ThinkPad Carrying Case - Backpack	73P3599												
Serial Hard Drive Ultrabay Slim Adptr (flat)	40Y8725	ThinkPad Essential Port Replicator	250510W												
100GB Hard Disk 9.5mm SATA (5400 rpm)	40Y8721	ThinkPad Advanced Mini Dock	250410U												
Intel PRO/Wireless 3945ABG Mini PCIe	41N3008	ThinkPad Advanced Dock	250310U												
Optical 3-Button Travel Wheel Mouse	31P7410	ThinkPad Adjustable Notebook Stand	40Y7676												
USB Travel Keyboard with UltraNav®	31P9490	ThinkVision L171 17" Monitor (black)	9417AB1												
Enh Perf Wireless Keyboard and Mouse	73P4067	ThinkVision L192p 19" Monitor (black)	9419HB2												
Verizon Wireless V620 WWAN PC Card <sup>25</sup>	40Y9137	ThinkVision L201p 20.1" Monitor (black)	9320HB1												
Other options on O-Z60T sheet				Other options at <a href="http://lenovo.com/options">lenovo.com/options</a>											
				Post-warranty annual maintenance agreements at <a href="http://lenovo.com/thinkplus/warranty">lenovo.com/thinkplus/warranty</a>											

See footnotes for important warranty information  
US model announced September 20, 2005  
US model withdrawn effective June 2006

© Lenovo  
(MN5) April 2006

# ThinkPad® Z61t (9440) - TopSeller - withdrawn

Created by Lenovo Training Solutions  
Personal Systems Reference (PSREF)

Top cover color	Processor	Speed GHz	Memory	Wide-screen display	Disk SATA GB <sup>6</sup>	EIDE optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN wireless	Blue-tooth	Camera	Finger print reader	Security 1394 chip	Workhorse (W) Gbl (G) Avail date
9440-25U Silver	Celeron® M 410	1.46	512M	14.1" WXGA	60GB Combo		11a/b/g <sup>32</sup>				Finger 1394	Yes	Home May 06
9440-2SU Black	Celeron M 410	1.46	256M	14.1" WXGA	40GB Combo		11a/b/g						Home GMay 06
9440-A4U Black	Celeron M 420	1.60	256M	14.0" WXGA	40GB Combo		11a/b/g						Pro WG Oct 06
9440-A5U Black	Celeron M 420	1.60	256M	14.0" WXGA	40GB Combo		11a/b/g					1394 Yes	Pro WG Oct 06
9440-26U Silver	Core Duo T2300E	1.66	512M	14.1" WXGA	60GB Combo		*Intel 11a/b/g <sup>32</sup>				Finger 1394	Yes	Pro W May 06
9440-27U Silver	Core Duo T2300E	1.66	512M	14.0" WXGA	60GB Combo		*Intel 11a/b/g				Finger 1394	Yes	Pro W May 06
9440-27U Silver	Core Duo T2300E	1.66	512M	14.1" WXGA	80GB Combo		*Intel 11a/b/g	Verizon Blue			Finger 1394	Yes	Pro W May 06
9440-28U Silver	Core Duo T2300E	1.66	512M	14.1" WXGA	80GB DVD±RW		*Intel 11a/b/g				Finger 1394	Yes	Pro W May 06
9440-29U Silver	Core Duo T2300E	1.66	512M	14.1" WXGA+	100G DVD±RW		*Intel 11a/b/g			Cam	Finger 1394	Yes	Pro W May 06
9440-2AU Silver	Core Duo T2300E	1.66	1GB	14.1" WXGA	100G DVD±RW		*Intel 11a/b/g	Verizon Blue			Finger 1394	Yes	Pro W May 06
9440-2BU Silver	Core Duo T2300E	1.66	1GB	14.1" WXGA+	100G DVD±RW		*Intel 11a/b/g	Verizon Blue	Cam		Finger 1394	Yes	Pro W May 06
9440-2CU Silver	Core Duo T2500	2.00	1GB	14.1" WXGA+	100G DVD±RW		*Intel 11a/b/g	Verizon Blue	Cam		Finger 1394	Yes	Pro W May 06

- These small and medium business (SMB) models are part of the US TopSeller™ Program
- These models have a 1-year limited warranty

Positioning Processor	Widescreen multimedia; two spindles Intel® Celeron M Processor 410 or 420 with Execute Disable Bit, 533MHz system bus, and 1MB L2 cache or Intel Core™ Duo processor T2300E or T2500 with dual-core, Enhanced Intel SpeedStep™ technology <sup>1</sup> , Execute Disable Bit, 667MHz bus, and 2MB shared L2 cache	<b>SOFTWARE<sup>14</sup></b> <b>Windows XP Professional models</b> - Microsoft® Windows® XP Professional <sup>20</sup> (Service Pack 2) ↔ Disk-to-Disk Recovery (in hidden protected area) <b>Windows XP Home models</b> - Microsoft Windows XP Home Edition <sup>20</sup> (Service Pack 2) ↔ Disk-to-Disk Recovery (in hidden protected area) <b>Preloaded (all)</b> • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center with Away Manager • ThinkVantage System Update • Symantec® Client Security™ • Diskeeper® Lite • PC-Doctor™ (diagnostics) • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader • Google Toolbar • Google Desktop • Picasa from Google • Fingerprint Software (fingerprint models) • Multimedia Center for Think Offerings • Sonic RecordNOW and Drive Letter Access (combo, DVD±RW) • InterVideo WinDVD (combo, DVD±RW models) • InterVideo WinDVD Creator (DVD±RW models) <b>License</b> - CD not included (all) - Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client (Notes client not supported on XP Home)	
Memory	256MB, 512MB, or 1GB std / 4GB max <sup>31</sup> / PC2-5300 667MHz DDR2 / non-parity / CL5 / dual-channel capable / two 200-pin SO-DIMM sockets / 512MB models: std mem in one socket; 1 socket available / 1GB models: std memory in 2 sockets; none available		
Diskette drive	None standard / use optional USB-based diskette drive		
EIDE Combo	Some: DVD-ROM/CD-RW / 24X/24X/24X/8X <sup>21</sup> speed / removable from Ultrabay Slim		
EIDE DVD±RW	Some: DVD burner / Super Multi-Burner (40Y8623) dual-layer, removable Ultrabay Slim		
Ultrabay Slim	One modular bay for interchangeable devices (right side) / 9.5mm high bay / flat bezel		
Serial ATA disk (SATA150)	40, 60, 80, or 100GB <sup>6</sup> (5400 rpm) / 9.5mm high / removable and upgradable / 9.5mm high bay / supports 2nd disk / HDD Protection Pack (shock absorber) / Active Protection System™		
Display (anti-glare)	Some: Widescreen / 14.0" (356mm) WXGA (1280x768) TFT color / 200 nits / 15:9 Some: Widescreen / 14.1" (358mm) WXGA (1280x800) TFT color / 185 nits / 16:10 Some: Widescreen / 14.1" (358mm) WXGA+ (1440x900) TFT color / 200 nits / 16:10 All: stainless steel hinges / one hand activates dual latches		
Graphics	Intel Graphics Media Accelerator 950 / integrated in 945GM / 250MHz		
Keyboard	89-key / ThinkVantage button / spill-resistant / multimedia Fn keys / Windows, Appl keys		
TrackPoint®	TrackPoint® pointing device / UltraNav® multi-pointing system (touchpad)		
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions		
Dimensions <sup>3</sup>	(WxDxH): 13.1" x 9.0" x 1.05-1.22"; 334mm x 228mm x 26.6-30.9mm		
Weight <sup>2</sup>	with optical drive and battery: 4-cell black: 4.63 lb (2.1kg); 4-cell titanium: 4.88/4.92 lb (2.2/2.2kg)		
Case material	Some: black color; hybrid carbon fiber reinforced polymer (CFRP) material Some: top cover: silver color; CFRP, aluminum, titanium material; bottom: black, CFRP		
Battery - type	Lithium Ion 4-cell / intelligent / supports unique 2nd battery in Ultrabay Slim		
Battery - life <sup>10</sup>	Celeron 4-cell: up to 2.3 hr; Core 4-cell: up to 3.7 hr; optional 7-cell: up to 6.25 hr		
Architecture	Mobile Intel 945GM Express Chipset / 82945GM Graphics Memory Controller Hub / 82801GBM ICH7-M I/O Controller Hub (SATA300, ATA-100 EIDE, PCI Express x1, PCI bus, USB, LPC interface, [Bluetooth], [fingerprint]) / PCI bus (TI® PCI8412 CardBus controller) / LPC bus (NS PC87382 Super I/O, Atmel® AT97SC3203)		
PC Card slot	One Type I or one Type II / CardBus 32-bit / PCMCIA 2.1 / integrated door		
Ports	3-in-1 Multicard Reader (MultiMedia Card, Secure Digital, xD-Picture Card™) / S-external db port (TV out) / some: IEEE 1394 (FireWire 400) / docking / three USB 2.0 / external DB-15 monitor / all except 2SU: infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / no keyboard or mouse or parallel or serial ports (use USB)		
Wireless antenna	UltraConnect™ Antenna built into the display cover / on-off switch for all wireless radios		
Integrated camera	Some: camera on top of screen / 0.3-megapixel / fixed focus / USB 2.0		
Mini PCI Express	One (2SU) or two Mini PCI Express slots / only 802.11 wireless is customer upgradable		
11a/b/g <sup>32</sup>	Some: 11a/b/g wireless <sup>4</sup> , ThinkPad 11a/b/g Mini PCI Express Adp, Atheros AR5006EX		
Intel 11a/b/g <sup>32</sup>	Some: 11a/b/g wireless <sup>4</sup> , Mini PCI Express adapter, Intel PRO/Wireless 3945ABG		
WWAN <sup>16</sup>	Some: Wireless WAN, Sierra Wireless 1xEV-DO Network Adapter, Mini PCIe Adapter, EV-DO/1xRTT, WWAN antenna on display, service contract reqd with Verizon® Wireless 56K® V.90 (V.92-designed <sup>29</sup> ) modem in Comm Daughter Card socket / Conexant® chip		
Modem	Some: Bluetooth 2.0 wireless technology / USB 2.0 interface via ICH7-M / LED indicator		
Bluetooth™	Gigabit ethernet on systemboard / Broadcom® BCM5752M (MAC/PHY) / PCIe x1 / PXE		
Ethernet	High Definition (HD) Audio / AD1981HD codec / stereo speakers / 1 watt / volume up, down, mute buttons / 2SU: mono microphone; others: stereo microphone / microphone input jack / headphone jack		
Audio	Power-on password / hard disk password / supervisor password / security keyhole		
Security	Some: Trusted Platform Module / Atmel chip / TCG 1.2-compliant		
Security chip	Some: Fingerprint reader on palm rest / swipe sensor / supports the security chip		
Fingerprint reader			
Limited warranty <sup>12</sup>	1-year - EasyServ™ <sup>19</sup> onsite pickup and delivery / service upgrades <sup>22</sup> available		
512MB PC2-5300 DDR2 CL5 SODIMM	40Y7733	Z60t Series Li-Ion Battery 4-cell	40Y6791
1GB PC2-5300 DDR2 CL5 SODIMM	40Y7734	Z60t Series Li-Ion Battery 7-cell	40Y6793
2GB PC2-5300 DDR2 SODIMM	40Y7735	Advanced Ultrabay Battery 3-cell	40Y6789
ThinkPad DVD Ultrabay Slim Burner (flat)	41N5643	ThinkPad Essential Port Replicator	250510W
100GB Disk 9.5mm SATA 150 (7200 rpm)	41N3013	ThinkPad Advanced Mini Dock	250410U
Other accessories on O-Z60T sheet		ThinkPad Advanced Dock	250310U
			ThinkPlus™ <sup>22</sup> 1-year LOR 9x5 NBD 41C9166
			ThinkPlus 2-year LOR 9x5 NBD 41C9167
			ThinkPlus 3-year LOR 9x5 NBD 41C9168
			Other ThinkPlus services at <a href="http://lenovo.com/thinkplus/warranty">lenovo.com/thinkplus/warranty</a>

See footnotes for important warranty information \* Powered by Intel Centrino® Duo processor technology  
US models announced May 16, May 30, or October 17, 2006  
US models withdrawn effective February, April, or September 2007

© Lenovo  
(MN2-2) September 2006



# ThinkPad® Z61t (9440) - TopSeller (October 2006) - withdrawn

Created by Lenovo Training Solutions  
Personal Systems Reference (PSREF)

Top cover color	Processor	Speed GHz	Memory	Wide-screen display	Disk SATA GB <sup>8</sup>	EIDE optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN wireless	Blue-tooth	Cam-era	Finger print reader	One Note CD	Workhorse Global	Avail date
9440-A8U <i>Silver</i>	Core 2 Duo T5500	1.66	1GB	14.0" WXGA	80GB	Combo	* Intel 11a/b/g <sup>32</sup>		Blue		Finger	CD	No	Oct 06
9440-ACU <i>Silver</i>	Core 2 Duo T5500	1.66	1GB	14.1" WXGA+	120GB	DVD±RW	* Intel 11a/b/g		Blue	Cam	Finger	CD	No	Oct 06
9440-ADU <i>Silver</i>	Core 2 Duo T7200	2.00	2GB	14.1" WXGA+	120GB	DVD±RW	* Intel 11a/b/g	Verizon	Blue	Cam	Finger	CD	No	Oct 06
9440-AMU <i>Silver</i>	Core 2 Duo T7200	2.00	2GB	14.0" WXGA	120GB	DVD±RW	ThinkPad 11n <sup>28</sup>		Blue	Cam	Finger		No	Oct 06

- These small and medium business (SMB) models are part of the US TopSeller™ Program
- These models have a 1-year limited warranty

Positioning Processor	<i>Widescreen multimedia; two spindles</i> <b>Intel® Core™ 2 Duo processor T5500 or T7200</b> with dual-core, Intel 64 Technology, Enhanced Intel SpeedStep™ technology <sup>1</sup> , Execute Disable Bit, and 667MHz system bus; <i>T5500: 2MB shared L2 cache; T7200: 4MB shared L2 cache</i> <b>1GB or 2GB</b> std / 4GB max <sup>31</sup> / PC2-5300 667MHz DDR2 / non-parity / CL5 / dual-channel capable / two 200-pin SO-DIMM sockets / <i>All: std memory in 2 sockets; no sockets available</i>											
Memory	<b>1GB or 2GB</b> std / 4GB max <sup>31</sup> / PC2-5300 667MHz DDR2 / non-parity / CL5 / dual-channel capable / two 200-pin SO-DIMM sockets / <i>All: std memory in 2 sockets; no sockets available</i>											
Diskette drive	None standard / use optional USB-based diskette drive											
EIDE Combo	<i>Some: DVD-ROM/CD-RW / 24X/24X/24X/8X<sup>21</sup> speed / removable from Ultrabay Slim</i>											
EIDE DVD±RW	<i>Some: DVD burner / Super Multi-Burner (40Y8623) dual-layer, removable Ultrabay Slim</i>											
Ultrabay Slim	One modular bay for interchangeable devices (right side) / 9.5mm high bay / flat bezel											
Serial ATA disk (SATA150)	<b>80GB or 120GB<sup>9</sup></b> (5400 rpm) / 9.5mm high / removable and upgradable / 9.5mm high bay / supports 2nd disk / HDD Protection Pack (shock absorber) / Active Protection System™											
Display (anti-glare)	<i>Some: Widescreen / 14.0" (356mm) WXGA (1280x768) TFT color / 200 nits / 15:9</i> <i>Some: Widescreen / 14.1" (358mm) WXGA+ (1440x900) TFT color / 200 nits / 16:10</i> <i>All: stainless steel hinges / one hand activates dual latches</i>											
Graphics	<b>Intel Graphics Media Accelerator 950</b> / integrated in 945GM / 250MHz / DVI pass-through support to optional Advanced Mini Dock and Advanced Dock											
Keyboard	89-key / ThinkVantage button / spill-resistant / multimedia Fn keys / Windows, Appl keys											
TrackPoint®	TrackPoint® pointing device / UltraNav® multi-pointing system (touchpad)											
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions											
Dimensions <sup>3</sup>	<i>(WxDxH): 13.1" x 9.0" x 1.05-1.22"</i> ; 334mm x 228mm x 26.6-30.9mm											
Weight <sup>2</sup>	with optical drive and battery: <i>4-cell titanium</i> : starting at 4.88/4.92 lb (2.2/2.2kg)											
Case material	<i>Top cover: silver color; CFRP, aluminum, titanium material; Bottom: black, CFRP</i>											
Battery - type	Lithium Ion <b>4-cell</b> / intelligent / supports unique 2nd battery in Ultrabay Slim											
Battery - life <sup>10</sup>	<b>4-cell</b> : up to 3.7 hr; <i>optional 7-cell</i> : up to 6.25 hr											
Architecture	<b>Mobile Intel 945GM Express Chipset</b> / 82945GM Graphics Memory Controller Hub / 82801GBM ICH7-M I/O Controller Hub (SATA300, ATA-100 EIDE, PCI Express x1, PCI bus, USB, LPC interface, [Bluetooth], [fingerprint]) / PCI bus (TI® PCI8412 CardBus controller) / LPC bus (NS PC87382 Super I/O, Atmel® AT97SC3203) One Type I or one Type II / CardBus 32-bit / PCMCIA 2.1 / integrated door <b>3-in-1 Multicard Reader</b> (MultiMedia Card, Secure Digital, xD-Picture Card™) / S-video out port (TV out) / IEEE 1394 (FireWire 400) / docking / three USB 2.0 / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / no keyboard or mouse or parallel or serial ports (use USB)											
PC Card slot	One Type I or one Type II / CardBus 32-bit / PCMCIA 2.1 / integrated door											
Ports	<b>3-in-1 Multicard Reader</b> (MultiMedia Card, Secure Digital, xD-Picture Card™) / S-video out port (TV out) / IEEE 1394 (FireWire 400) / docking / three USB 2.0 / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / no keyboard or mouse or parallel or serial ports (use USB)											
Wireless antenna	UltraConnect™ Antenna built into the display cover / on-off switch for all wireless radios											
Integrated camera	<i>Some: camera on top of screen / 0.3-megapixel / fixed focus / USB 2.0</i>											
Mini PCI Express	Two Mini PCI Express slots / only 802.11 wireless is customer upgradable											
Intel 11a/b/g <sup>32</sup>	<i>Some: 11a/b/g wireless<sup>4</sup>, Mini PCI Express adapter, Intel PRO/Wireless 3945ABG</i>											
ThinkPad 11n <sup>28</sup>	<i>Some: 11a/b/g/n wireless<sup>4</sup>, ThinkPad 11a/b/g/n Mini PCI Express Adapter, Atheros AR5008 chipset, MIMO 2x3</i>											
WWAN <sup>16</sup>	<i>Some: Wireless WAN, Sierra Wireless 1xEV-DO Network Adapter, Mini PCIe Adapter, EV-DO/1xRTT, WWAN antenna on display, service contract reqd with Verizon® Wireless</i>											
Modem	56K <sup>6</sup> V.90 (V.92-designed <sup>29</sup> ) modem in Comm Daughter Card socket / Conexant® chip											
Bluetooth™	Bluetooth 2.0 wireless technology / USB 2.0 interface via ICH7-M / LED indicator											
Ethernet	Gigabit ethernet on systemboard / Broadcom® BCM5752M (MAC/PHY) / PCIe x1 / PXE											
Audio	High Definition (HD) Audio / AD1981HD codec / stereo speakers / 1 watt / volume up, down, mute buttons / 2SU: mono microphone; <i>others</i> : stereo microphone / microphone input jack / headphone jack											
Security	Power-on password / hard disk password / supervisor password / security keyhole											
Security chip	Trusted Platform Module / Atmel chip / TCG 1.2-compliant											
Fingerprint reader	Fingerprint reader on palm rest / swipe sensor / supports the security chip											
Limited warranty <sup>12</sup>	<b>1-year - EasyServ™</b> <sup>19</sup> onsite pickup and delivery / service upgrades <sup>22</sup> available											
512MB PC2-5300 DDR2 CL5 SODIMM	40Y7733	Z60t Series Li-Ion Battery 4-cell	40Y6791									
1GB PC2-5300 DDR2 CL5 SODIMM	40Y7734	Z60t Series Li-Ion Battery 7-cell	40Y6793									
2GB PC2-5300 DDR2 SODIMM	40Y7735	Advanced Ultrabay Battery 3-cell	40Y6789									
USB 2.0 Lenovo Multimedia Headset	40Y8518	ThinkPad External Battery Charger	40Y7625									
USB 2.0 Lenovo Webcam	40Y8519	ThinkPad 90W AC/DC Combo Adapter	40Y7630									
USB 2.0 Security Memory Key 4GB	41U5120	11a/b/g Wireless Mini PCI Express Adpr	40Y7026									
USB 2.0 Portable 120GB Hard Disk	41N8379	Intel PRO/Wireless 3945ABG Mini PCIe	41N3008									
USB 2.0 CD-RW/DVD-ROM Combo II Drive	40Y8637	Lenovo M500 Projector	0037A05									
USB 2.0 Super Multi-Burner Drive	41N5565	Premiere Leather Carrying Case	10K0209									
ThinkPad DVD Ultrabay Slim Burner (flat)	41N5643	ThinkPad Essential Port Replicator	250510W									
100GB Disk 9.5mm SATA150 (7200 rpm)	41N3013	ThinkPad Advanced Mini Dock	250410U									
Preferred Pro USB Fingerprint Keyboard	73P4730	ThinkPad Advanced Dock	250310U									
Other accessories on O-Z60T sheet	Other accessories at <a href="http://lenovo.com/accessories">lenovo.com/accessories</a>											
<b>SOFTWARE<sup>14</sup></b> <b>Windows XP Professional</b> - Microsoft® Windows® XP Professional <sup>20</sup> (Service Pack 2) ↗ Disk-to-Disk Recovery (in hidden protected area) <b>Preloaded</b> • Model A8U/ACU/ADU: Microsoft Office OneNote® 2003 • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center with Away Manager • ThinkVantage System Update • Symantec® Client Security™ • Diskeeper Lite • PC-Doctor™ (diagnostics) • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader • Google Toolbar • Google Desktop • Picasa from Google • Fingerprint Software (fingerprint models) • Multimedia Center for Think Offerings • Sonic RecordNOW and Drive Letter Access (combo, DVD±RW) • InterVideo WinDVD (combo, DVD±RW models) • InterVideo WinDVD Creator (DVD±RW models) <b>CD included</b> • Model A8U/ACU/ADU: Microsoft Office OneNote 2003 <b>License - CD not included</b> - Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client Supports ThinkVantage® technologies Universal 65-watt AC adapter ThinkPad Roll Cage (one-piece magnesium frame) RoHS-compliant International Warranty Service <sup>17</sup> 24 hour x 7 day <sup>18</sup> toll-free warranty support during the warranty <sup>12</sup> ThinkPlus™. <sup>22</sup> 1-year LOR 9x5 NBD 41C9166 ThinkPlus 2-year LOR 9x5 NBD 41C9167 ThinkPlus 3-year LOR 9x5 NBD 41C9168 ThinkPlus 4-year LOR 9x5 NBD 41C9171 ThinkPlus 2-year P&L P/U Depot 41C9169 ThinkPlus 3-year P&L P/U Depot 41C9170 Other ThinkPlus services at <a href="http://lenovo.com/thinkplus/warranty">lenovo.com/thinkplus/warranty</a>												

See footnotes for important warranty information  
US models announced October 17, 2006  
US models withdrawn effective April or September 2007

\* Powered by Intel Centrino® Duo processor technology

# ThinkPad® Z61t (9441) - withdrawn

Created by Lenovo Training Solutions  
Personal Systems Reference (PSREF)

Type-model	Top cover color	Processor	Speed GHz	Memory	Wide-screen display	Graphics controller	Disk SATA GB <sup>8</sup>	EIDE optical	Mini PCIe 802.11 wireless	Finger print reader	1394 port	Security chip	Battery cells	Lim- mited warranty <sup>12</sup>	Workhorse (W) Gbl (G) Avail date
9441-4FU	Silver	Core™ Duo T2400	1.83	512MB	14.1" WXGA	GMA	60GB	Combo *	Intel 11a/b/g <sup>32</sup>	Finger	1394	Yes	4-cell	1-yr	W May 06
9441-4GU	Black	Core Duo T2400	1.83	512MB	14.1" WXGA	GMA	80GB	Combo *	Intel 11a/b/g	Finger	1394	Yes	4-cell	1-yr	W May 06
9441-4HU	Silver	Celeron® M 420	1.60	512MB	14.1" WXGA	GMA	60GB	Combo	Intel 11a/b/g				7-cell	1-yr	W May 06
Positioning Processor	Widescreen multimedia; two spindles <b>Intel® Celeron M Processor 420</b> with Execute Disable Bit, 533MHz system bus, and 1MB L2 cache or <b>Intel Core™ Duo processor T2400</b> with dual-core, Enhanced Intel SpeedStep™ technology <sup>1</sup> , Execute Disable Bit, 667MHz system bus, and 2MB shared L2 cache											<b>SOFTWARE<sup>14</sup></b> <b>Windows XP Professional</b> - Microsoft® Windows® XP Professional <sup>20</sup> (Service Pack 2) ↳ Disk-to-Disk Recovery (in hidden protected area)			
Memory	512MB std / 4GB max <sup>31</sup> / PC2-5300 667MHz DDR2 / non-parity / CL5 / dual-channel capable / two 200-pin SO-DIMM sockets / std memory in 1 socket / 1 socket available											<b>Preloaded</b> • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center with Away Manager • ThinkVantage System Update • Symantec® Client Security™ • Diskeeper Lite • PC-Doctor™ (diagnostics) • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader • Google Toolbar • Google Desktop • Picasa from Google • Fingerprint Software (fingerprint models) • Multimedia Center for Think Offerings • Sonic RecordNOW and Drive Letter Access (combo models) • InterVideo WinDVD (combo models)			
Diskette drive	None standard / use optional USB-based diskette drive											<b>License</b> - CD not included - Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client			
EIDE Combo	DVD-ROM/CD-RW / 24X/24X/24X/8X <sup>21</sup> speed / removable from Ultrabay Slim														
Ultrabay Slim	One modular bay for interchangeable devices (right side) / 9.5mm high bay / flat bezel											Supports ThinkVantage® technologies			
Serial ATA disk (SATA150)	60 or 80GB <sup>8</sup> (5400 rpm) / 9.5mm high / removable and upgradable / 9.5mm high bay / supports 2nd disk / <b>HDD Protection Pack</b> (shock absorber) / <b>Active Protection System™</b>														
Display (anti-glare)	<b>Widescreen / 14.1" (358mm) WXGA (1280x800) TFT color</b> / 185 nits / 16:10 ratio / stainless steel hinges / one hand activates dual latches											Universal 65-watt AC adapter ThinkPad Roll Cage (one-piece magnesium frame) RoHS-compliant International Warranty Service <sup>17</sup> 24 hour x 7 day <sup>18</sup> toll-free warranty support during the warranty <sup>12</sup>			
Graphics	<b>Intel Graphics Media Accelerator 950</b> / integrated in 945GM / 250MHz														
Keyboard	89-key / ThinkVantage button / spill-resistant / multimedia Fn keys / Windows, Appl keys											ThinkPlus™.22 1-year LOR 9x5 NBD 41C9166			
TrackPoint®	TrackPoint® pointing device / UltraNav® multi-pointing system (touchpad)														
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions											ThinkPlus 2-year LOR 9x5 NBD 41C9167			
Dimensions <sup>3</sup>	(WxDxH): 13.1" x 9.0" x 1.05-1.22"; 334mm x 228mm x 26.6-30.9mm														
Weight <sup>2</sup>	with optical drive and battery: 4-cell black: starting at 4.17 lb/4.57 lb (1.9kg/2.1kg); 4-cell titanium: starting at 4.42/4.81 lb (2.0/2.2kg); 7-cell titanium: starting at 4.77/5.17 lb											ThinkPlus 3-year LOR 9x5 NBD 41C9168			
Case material	Some: black color; hybrid carbon fiber reinforced polymer (CFRP) material Some: top cover: silver color; CFRP, aluminum, titanium material; bottom: black, CFRP														
Battery - type	Lithium Ion 4-cell or 7-cell / intelligent / supports unique 2nd battery in Ultrabay Slim											ThinkPlus 4-year LOR 9x5 NBD 41C9171			
Battery - life <sup>10</sup>	4-cell: up to 3.7 hr; Celeron 7-cell: up to 3.9 hr; 7-cell plus Ultrabay battery: up to 8.0 hr														
Architecture	<b>Mobile Intel 945GM Express Chipset</b> / 82945GM Graphics Memory Controller Hub / 82801GBM ICH7-M I/O Controller Hub (SATA300, ATA-100 EIDE, PCI Express x1, PCI bus, USB, LPC interface, [Bluetooth], [fingerprint]) / PCI bus (TI® PCI8412 CardBus controller) / LPC bus (NS PC87382 Super I/O, Atmel® AT97SC3203)											ThinkPlus 5-year LOR 9x5 NBD 41C9173			
PC Card slot	One Type I or one Type II / CardBus 32-bit / PCMCIA 2.1 / integrated door														
Ports	<b>3-in-1 Multicard Reader</b> (MultiMedia Card, Secure Digital, xD-Picture Card™) / S-video out port (TV out) / 4FU/4GU: IEEE 1394 (FireWire 400) / docking / three USB 2.0 / external DB-15 monitor / 4FU/4GU: infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / no keyboard or mouse or parallel or serial ports (use USB)											ThinkPlus 2-year P&L P/U Depot 41C9169			
Wireless antenna	UltraConnect™ Antenna built into the display cover / on-off switch for all wireless radios														
Integrated camera	None											ThinkPlus 3-year P&L P/U Depot 41C9170			
Mini PCI Express	One (4HU) or two Mini PCI Express slots / only 802.11 wireless is customer upgradable														
Intel 11a/b/g <sup>32</sup>	11a/b/g wireless <sup>4</sup> , Mini PCI Express adapter, Intel PRO/Wireless 3945ABG											ThinkPlus 4-year P&L P/U Depot 41C9172			
WWAN	None														
Modem	56K <sup>6</sup> V.90 (V.92-designed <sup>29</sup> ) modem in Comm Daughter Card socket / Conexant® chip											ThinkPlus 5-year P&L P/U Depot 41C9174			
Bluetooth™	None														
Ethernet	Gigabit ethernet on systemboard / Broadcom® BCM5752M (MAC/PHY) / PCIe x1 / PXE											Other accessories on O-Z60T sheet			
Audio	High Definition (HD) Audio / AD1981HD codec / stereo speakers / 1 watt / volume up, down, mute buttons / 4HU: mono microphone; others: stereo microphone / microphone input jack / headphone jack														
Security	Power-on password / hard disk password / supervisor password / security keyhole											Other accessories at <a href="http://lenovo.com/accessories">lenovo.com/accessories</a>			
Security chip	Some: <b>Trusted Platform Module</b> / Atmel chip / TCG 1.2-compliant														
Fingerprint reader	Some: <b>Fingerprint reader on palm rest</b> / swipe sensor / supports the security chip											See footnotes for important warranty information US models announced May 16, 2006 US models withdrawn effective April or September 2007			
Limited warranty <sup>12</sup>	1-year - EasyServ™.19 onsite pickup and delivery / service upgrades <sup>22</sup> available														
512MB PC2-5300 DDR2 CL5 SODIMM	40Y7733			Z60t Series Li-Ion Battery 4-cell			40Y6791								
1GB PC2-5300 DDR2 CL5 SODIMM	40Y7734			Z60t Series Li-Ion Battery 7-cell			40Y6793								
2GB PC2-5300 DDR2 SODIMM	40Y7735			Advanced Ultrabay Battery 3-cell			40Y6789								
USB Portable Diskette Drive	05K9276			ThinkPad External Battery Charger			40Y7625								
USB Fingerprint Reader	41U3167			ThinkPad 65W AC Adapter			40Y7696								
USB Gemplus GemPC Smart Card Reader	41N3040			ThinkPad 90W AC Adapter			40Y7659								
USB 2.0 Lenovo Webcam	40Y8519			ThinkPad 90W AC/DC Combo Adapter			40Y7630								
USB 2.0 Security Memory Key 2GB	41U5119			11a/b/g Wireless Mini PCI Express Adpr			40Y7026								
USB 2.0 Security Memory Key 4GB	41U5120			Lenovo C500 Projector			0039A05								
USB 2.0 Super Multi-Burner Drive	41N5565			Premiere Leather Carrying Case			10K0209								
USB 2.0 Portable 120GB Hard Disk	41N8379			ThinkPad Carrying Case - Expander			73P3597								
Combo II Ultrabay Slim Drive (flat bezel)	40Y8621			ThinkPad Carrying Case - BackPack			73P3599								
ThinkPad DVD Ultrabay Slim Burner (flat)	41N5643			ThinkPad Essential Port Replicator			250510W								
Serial Hard Drive Ultrabay Slim Adptr (flat)	40Y8725			ThinkPad Advanced Mini Dock			250410U								
160GB Disk 9.5mm SATA150 (5400 rpm)	41N5692			ThinkPad Advanced Dock			250310U								
Lenovo Laser Mouse (USB, PS/2)	41U3074			Lenovo L192 Wide 19" Monitor (black)			6920AB1								

See footnotes for important warranty information  
US models announced May 16, 2006  
US models withdrawn effective April or September 2007

\* Powered by Intel Centrino® Duo processor technology

© Lenovo  
(MN2-1) September 2007

# ThinkPad® Z61t (9441) - Education - withdrawn

Created by Lenovo Training Solutions  
Personal Systems Reference (PSREF)

Top cover color	Processor	Speed GHz	Memory	Wide-screen display	Graphics controller	Disk SATA GB <sup>8</sup>	EIDE optical	Mini PCIe 802.11 wireless	Finger print reader	1-year limited warranty <sup>12</sup>	Education software	Workhorse (W) Gbl (G) Avail date
9441-E1U Black	Core™ Duo T2300E	1.66	512MB	14.1" WXGA	GMA 60GB	Combo	11a/b/g <sup>32</sup>	Finger	EasyServ	Yes	W	May 06
9441-E2U Black	Core Duo T2400	1.83	512MB	14.1" WXGA	GMA 60GB	DVD±RW * Intel 11a/b/g <sup>32</sup>	Finger	Cam	EasyServ	Yes	W	May 06
9441-E3U Silver	Core Duo T2300E	1.66	512MB	14.1" WXGA	GMA 60GB	Combo	11a/b/g	Finger	EasyServ	Yes	W	May 06
9441-E4U Silver	Core Duo T2400	1.83	512MB	14.1" WXGA	GMA 60GB	DVD±RW * Intel 11a/b/g	Finger	Cam	EasyServ	Yes	W	May 06
<p>• <b>These models have an EasyServ™<sup>19</sup> onsite pickup and delivery 1-year limited warranty</b> These educational models are available only to public or private K-12 (or higher) accredited schools organized and operated exclusively for educational purposes for use by qualified students and teachers.</p>												
Positioning Processor	<p><b>Widescreen multimedia; two spindles</b> <b>Intel® Core Duo processor T2300E or T2400</b> with dual-core, Enhanced Intel SpeedStep™ technology<sup>1</sup>, Execute Disable Bit, 667MHz system bus, and 2MB shared L2 cache</p>								<p><b>SOFTWARE<sup>14</sup></b> <b>Windows XP Professional</b> - Microsoft® Windows® XP Professional<sup>20</sup> (Service Pack 2) ⇨ Disk-to-Disk Recovery</p>			
Memory	<p><b>512MB</b> std / 4GB max<sup>31</sup> / PC2-5300 667MHz DDR2 / non-parity / CL5 / dual-channel capable / two 200-pin SO-DIMM sockets / standard memory in one socket / one socket available</p>								<p><b>Preloaded</b> • VitalSource Library education software • Adobe® Photoshop® Elements plus Adobe Premiere® Elements • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center with Away Manager • ThinkVantage System Update • Symantec® Client Security™ • Diskeeper Lite • PC-Doctor™ (diagnostics) • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe Reader • Google Toolbar • Google Desktop • Picasa from Google • Multimedia Center for Think Offerings • Sonic RecordNOW and Drive Letter Access (combo, DVD±RW) • InterVideo WinDVD (combo, DVD±RW models) • InterVideo WinDVD Creator (DVD±RW models)</p>			
Diskette drive EIDE Combo EIDE DVD±RW Ultrabay Slim Serial ATA disk (SATA150)	<p>None standard / use optional USB-based diskette drive <i>Some:</i> DVD-ROM/CD-RW / 24X/24X/8X<sup>21</sup> speed / removable from Ultrabay Slim <i>Some:</i> DVD burner / Super Multi-Burner (40Y8623) dual-layer, removable Ultrabay Slim One modular bay for interchangeable devices (right side) / 9.5mm high bay / flat bezel <b>60GB<sup>8</sup></b> (5400 rpm) / 9.5mm high / removable and upgradable / 9.5mm high bay / supports 2nd disk / <b>HDD Protection Pack</b> (shock absorber) / <b>Active Protection System™</b></p>											
Display (anti-glare)	<p><b>Widescreen / 14.1"</b> (358mm) <b>WXGA (1280x800) TFT color</b> / 185 nits / 16:10 ratio / stainless steel hinges / one hand activates dual latches</p>											
Graphics	<p><b>Intel Graphics Media Accelerator 950</b> / integrated in 945GM / 250MHz</p>											
Keyboard TrackPoint™ ThinkLight™	<p>89-key / ThinkVantage button / spill-resistant / multimedia Fn keys / Windows, Appl keys TrackPoint® pointing device / UltraNav® multi-pointing system (touchpad) Illuminates the keyboard to improve visibility in low-light conditions</p>											
Dimensions <sup>3</sup> Weight <sup>2</sup>	<p>(WxDxH): 13.1" x 9.0" x 1.05-1.22"; 334mm x 228mm x 26.6-30.9mm with optical drive and battery: <i>4-cell black:</i> starting at 4.17 lb/4.57 lb (1.9kg/2.1kg); <i>4-cell titanium:</i> starting at 4.42/4.81 lb (2.0/2.2kg)</p>											
Case material	<p><i>Some:</i> black color; hybrid carbon fiber reinforced polymer (CFRP) material <i>Some:</i> top cover: silver color; CFRP, aluminum, titanium material; bottom: black, CFRP</p>											
Battery - type Battery - life <sup>10</sup>	<p>Lithium Ion <b>4-cell</b> / intelligent / supports unique 2nd battery in Ultrabay Slim <i>4-cell:</i> up to 3.7 hr; <i>7-cell:</i> up to 6.25 hr; <i>7-cell plus Ultrabay Slim battery:</i> up to 8.25 hr</p>											
Architecture	<p><b>Mobile Intel 945GM Express Chipset</b> / 82945GM Graphics Memory Controller Hub / 82801GBM ICH7-M I/O Controller Hub (SATA300, ATA-100 EIDE, PCI Express x1, PCI bus, USB, LPC interface, [Bluetooth], [fingerprint]) / PCI bus (TI® PC18412 CardBus controller) / LPC bus (NS PC87382 Super I/O, Atmel® AT97SC3203)</p>											
PC Card slot	<p>One Type I or one Type II / CardBus 32-bit / PCMCIA 2.1 / integrated door</p>											
Ports	<p><b>3-in-1 Multicard Reader</b> (MultiMedia Card, Secure Digital, xD-Picture Card™) / S-video out port (TV out) / IEEE 1394 (FireWire 400) / docking / three USB 2.0 / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / no keyboard or mouse or parallel or serial ports (use USB)</p>											
Wireless antenna	<p>UltraConnect™ Antenna built into the display cover / on-off switch for all wireless radios</p>											
Integrated camera	<p><i>Some:</i> camera on top of screen / 0.3-megapixel / fixed focus / USB 2.0</p>											
Mini PCI Express 11a/b/g <sup>32</sup> Intel 11a/b/g <sup>32</sup> WWAN	<p>Two Mini PCI Express slots / only 802.11 wireless is customer upgradable <i>Some:</i> 11a/b/g wireless<sup>4</sup>, ThinkPad 11a/b/g Mini PCI Express Adp, Atheros AR5006EX <i>Some:</i> 11a/b/g wireless<sup>4</sup>, Mini PCI Express adapter, Intel PRO/Wireless 3945ABG</p>											
Modem Bluetooth™ Ethernet	<p>56K<sup>6</sup> V.90 (V.92-designed<sup>29</sup>) modem in Comm Daughter Card socket / Conexant® chip None Gigabit ethernet on systemboard / Broadcom® BCM5752M (MAC/PHY) / PCIe x1 / PXE</p>											
Audio	<p>High Definition (HD) Audio / AD1981HD codec / stereo speakers / 1 watt / volume up, down, mute buttons / stereo microphone / microphone input jack / headphone jack</p>											
Security Security chip Fingerprint reader	<p>Power-on password / hard disk password / supervisor password / security keyhole <b>Trusted Platform Module</b> / Atmel chip / TCG 1.2-compliant <b>Fingerprint reader on palm rest</b> / swipe sensor / supports the security chip</p>											
Limited warranty <sup>12</sup>	<p><b>1-year - EasyServ™<sup>19</sup> onsite pickup and delivery / service upgrades<sup>22</sup> available</b></p>											
512MB PC2-5300 DDR2 CL5 SODIMM	40Y7733	Z60t Series Li-Ion Battery 4-cell	40Y6791	1GB PC2-5300 DDR2 CL5 SODIMM	40Y7734	Z60t Series Li-Ion Battery 7-cell	40Y6793	2GB PC2-5300 DDR2 SODIMM	40Y7735	Advanced Ultrabay Battery 3-cell	40Y6789	ThinkPlus 2-year LOR 9x5 NBD
USB Portable Diskette Drive	05K9276	ThinkPad External Battery Charger	40Y7625	USB Serial Parallel Adapter	22P5298	ThinkPad 90W AC/DC Combo Adapter	40Y7630	USB Gemplus GemPC Smart Card Reader	41N3040	11a/b/g Wireless Mini PCI Express Adpr	40Y7026	ThinkPlus 3-year LOR 9x5 NBD
USB 2.0 Lenovo Webcam	40Y8519	Intel PRO/Wireless 3945ABG Mini PCIe	41N3008	USB 2.0 Security Memory Key 4GB	41U5120	Lenovo M500 Projector	0037A05	USB 2.0 Super Multi-Burner Drive	41N5565	Premiere Leather Carrying Case	10K0209	ThinkPlus 4-year LOR 9x5 NBD
USB 2.0 Portable 120GB Hard Disk	41N8379	ThinkPad Carrying Case - Expander	73P3597	Combo II Ultrabay Slim Drive (flat bezel)	40Y8621	ThinkPad Carrying Case - BackPack	73P3599	ThinkPad DVD Ultrabay Slim Burner (flat)	41N5643	ThinkPad Essential Port Replicator	250510W	ThinkPlus 5-year LOR 9x5 NBD
Serial Hard Drive Ultrabay Slim Adptr (flat)	40Y8725	ThinkPad Advanced Mini Dock	250410U	ThinkPad DVD Ultrabay Slim Burner (flat)	41N5621	ThinkPad Advanced Dock	250310U	80GB Disk 9.5mm SATA150 (5400 rpm)	41N5662	Lenovo L192 Wide 19" Monitor (black)	6920AB1	ThinkPlus 2-year P&L P/U Depot
100GB Disk 9.5mm SATA150 (7200 rpm)	41N3013	ThinkPad Advanced Dock	250310U	Preferred Pro USB Fingerprint Keyboard	73P4730	ThinkVision® L192p 19" Monitor (black)	9419HC2	Other accessories on O-Z60T sheet		Other accessories at <b>lenovo.com/accessories</b>		ThinkPlus 3-year P&L P/U Depot
												ThinkPlus 4-year P&L P/U Depot
												ThinkPlus 5-year P&L P/U Depot
												41C9174

See footnotes for important warranty information  
US models announced May 16 or 30, 2006  
US models withdrawn effective February, April, or September 2007

\* Powered by Intel Centrino® Duo processor technology

© Lenovo  
(MN2-7) September 2007

# ThinkPad® Z61t (9442) - withdrawn

Created by Lenovo Training Solutions  
Personal Systems Reference (PSREF)

Type-model	Top cover color	Processor	Speed GHz	Memory	Wide-screen display	Graphics controller	Disk SATA GB <sup>8</sup>	EIDE optical	Mini PCIe 802.11 wireless	Finger print reader	Camera	Security chip	Battery cells	Lim- mited warranty <sup>12</sup>	Workhorse (W) Gbl (G) Avail date
9442-4FU	Silver	Core™ Duo T2400	1.83	512MB	14.1" WXGA	GMA	60GB	Combo *	Intel 11a/b/g <sup>32</sup>	Finger	Yes	Yes	4-cell	3-yr	W May 06
9442-4GU	Black	Core Duo T2400	1.83	512MB	14.1" WXGA	GMA	80GB	Combo *	Intel 11a/b/g	Finger	Yes	Yes	4-cell	3-yr	W May 06
9442-88U	Black	Core Duo T2400	1.83	512MB	14.1" WXGA+	GMA	80GB	Combo *	Intel 11a/b/g	Finger	Yes	Yes	4-cell	3-yr	W May 06
9442-89U	Silver	Core Duo T2400	1.83	512MB	14.1" WXGA+	GMA	60GB	Combo *	Intel 11a/b/g	Finger	Yes	Yes	4-cell	3-yr	W May 06
<p>• These models have a 3-year limited warranty</p>															
Positioning	Widescreen multimedia; two spindles														
Processor	Intel® Core Duo processor T2400 with dual-core, Enhanced Intel SpeedStep™ technology <sup>1</sup> , Execute Disable Bit, 667MHz system bus, and 2MB shared L2 cache														
Memory	512MB std / 4GB max <sup>31</sup> / PC2-5300 667MHz DDR2 / non-parity / CL5 / dual-channel capable / two 200-pin SO-DIMM sockets / std memory in 1 socket / 1 socket available														
Diskette drive	None standard / use optional USB-based diskette drive														
EIDE Combo	DVD-ROM/CD-RW / 24X/24X/24X/8X <sup>21</sup> speed / removable from Ultrabay Slim														
Ultrabay Slim	One modular bay for interchangeable devices (right side) / 9.5mm high bay / flat bezel														
Serial ATA disk (SATA150)	60 or 80GB <sup>8</sup> (5400 rpm) / 9.5mm high / removable and upgradable / 9.5mm high bay / supports 2nd disk / <b>HDD Protection Pack</b> (shock absorber) / <b>Active Protection System™</b>														
Display (anti-glare)	Some: <b>Widescreen / 14.1"</b> (358mm) <b>WXGA (1280x800) TFT color</b> / 185 nits / 16:10 Some: <b>Widescreen / 14.1"</b> (358mm) <b>WXGA+ (1440x900) TFT color</b> / 200 nits / 16:10 All: stainless steel hinges / one hand activates dual latches														
Graphics	Intel Graphics Media Accelerator 950 / integrated in 945GM / 250MHz														
Keyboard	89-key / ThinkVantage button / spill-resistant / multimedia Fn keys / Windows, Appl keys														
TrackPoint®	TrackPoint® pointing device / UltraNav® multi-pointing system (touchpad)														
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions														
Dimensions <sup>3</sup>	(WxDxH): 13.1" x 9.0" x 1.05-1.22"; 334mm x 228mm x 26.6-30.9mm														
Weight <sup>2</sup>	with optical drive and battery: <b>4-cell black:</b> starting at 4.17 lb/4.57 lb (1.9kg/2.1kg); <b>4-cell titanium:</b> starting at 4.42/4.81 lb (2.0/2.2kg)														
Case material	Some: black color; hybrid carbon fiber reinforced polymer (CFRP) material Some: top cover: silver color; CFRP, aluminum, titanium material; bottom: black, CFRP														
Battery - type	Lithium Ion <b>4-cell</b> / intelligent / supports unique 2nd battery in Ultrabay Slim														
Battery - life <sup>10</sup>	<b>4-cell:</b> up to 3.7 hr; <b>7-cell:</b> up to 6.25 hr; <b>7-cell plus Ultrabay Slim battery:</b> up to 8.25 hr														
Architecture	<b>Mobile Intel 945GM Express Chipset</b> / 82945GM Graphics Memory Controller Hub / 82801GBM ICH7-M I/O Controller Hub (SATA300, ATA-100 EIDE, PCI Express x1, PCI bus, USB, LPC interface, [Bluetooth], [fingerprint]) / PCI bus (TI® PCI8412 CardBus controller) / LPC bus (NS PC87382 Super I/O, Atmel® AT97SC3203)														
PC Card slot	One Type I or one Type II / CardBus 32-bit / PCMCIA 2.1 / integrated door														
Ports	<b>3-in-1 Multicard Reader</b> (MultiMedia Card, Secure Digital, xD-Picture Card™) / S-video out port (TV out) / IEEE 1394 (FireWire 400) / docking / three USB 2.0 / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / no keyboard or mouse or parallel or serial ports (use USB)														
Wireless antenna	UltraConnect™ Antenna built into the display cover / on-off switch for all wireless radios														
Integrated camera	Some: camera on top of screen / 0.3-megapixel / fixed focus / USB 2.0														
Mini PCI Express	Two Mini PCI Express slots / only 802.11 wireless is customer upgradable														
Intel 11a/b/g <sup>32</sup>	11a/b/g wireless <sup>4</sup> , Mini PCI Express adapter, Intel PRO/Wireless 3945ABG														
WWAN	None														
Modem	56K <sup>6</sup> V.90 (V.92-designed <sup>29</sup> ) modem in Comm Daughter Card socket / Conexant® chip														
Bluetooth™	None														
Ethernet	Gigabit ethernet on systemboard / Broadcom® BCM5752M (MAC/PHY) / PCIe x1 / PXE														
Audio	High Definition (HD) Audio / AD1981HD codec / stereo speakers / 1 watt / volume up, down, mute buttons / stereo microphone / microphone input jack / headphone jack														
Security	Power-on password / hard disk password / supervisor password / security keyhole														
Security chip	<b>Trusted Platform Module</b> / Atmel chip / TCG 1.2-compliant														
Fingerprint reader	<b>Fingerprint reader on palm rest</b> / swipe sensor / supports the security chip														
Limited warranty <sup>12</sup>	<b>3-year/1-yr battery - EasyServ™.19</b> onsite pickup and delivery / service upgrades <sup>22</sup> avail														
512MB PC2-5300 DDR2 CL5 SODIMM	40Y7733	Z60t Series Li-Ion Battery 4-cell	40Y6791												
1GB PC2-5300 DDR2 CL5 SODIMM	40Y7734	Z60t Series Li-Ion Battery 7-cell	40Y6793												
2GB PC2-5300 DDR2 SODIMM	40Y7735	Advanced Ultrabay Battery 3-cell	40Y6789												
USB Portable Diskette Drive	05K9276	ThinkPad External Battery Charger	40Y7625												
USB Fingerprint Reader	41U3167	ThinkPad 65W AC Adapter	40Y7696												
USB Gemplus GemPC Smart Card Reader	41N3040	ThinkPad 90W AC Adapter	40Y7659												
USB 2.0 Lenovo Multimedia Headset	40Y8518	ThinkPad 90W AC/DC Combo Adapter	40Y7630												
USB 2.0 Security Memory Key 2GB	41U5119	11a/b/g Wireless Mini PCI Express Adpr	40Y7026												
USB 2.0 Security Memory Key 4GB	41U5120	Lenovo C500 Projector	0039A05												
USB 2.0 Portable 120GB Hard Disk	41N8379	Premiere Leather Carrying Case	10K0209												
USB 2.0 Super Multi-Burner Drive	41N5565	ThinkPad Carrying Case - Expander	73P3597												
Combo II Ultrabay Slim Drive (flat bezel)	40Y8621	ThinkPad Carrying Case - Backpack	73P3599												
ThinkPad DVD Ultrabay Slim Burner (flat)	41N5643	ThinkPad Essential Port Replicator	250510W												
Serial Hard Drive Ultrabay Slim Adptr (flat)	40Y8725	ThinkPad Advanced Mini Dock	250410U												
80GB Disk 9.5mm SATA150 (5400 rpm)	41N5662	ThinkPad Advanced Dock	250310U												
100GB Disk 9.5mm SATA150 (7200 rpm)	41N3013	Lenovo L192 Wide 19" Monitor (black)	6920AB1												
Preferred Pro USB Fingerprint Keyboard	73P4730	ThinkVision® L192p 19" Monitor (black)	9419HC2												
Other accessories on O-Z60T sheet	Other accessories at <a href="http://lenovo.com/accessories">lenovo.com/accessories</a>														
<p>Supports ThinkVantage® technologies</p> <p>Universal 65-watt AC adapter ThinkPad Roll Cage (one-piece magnesium frame) RoHS-compliant International Warranty Service<sup>17</sup> 24 hour x 7 day<sup>18</sup> toll-free warranty support during the warranty<sup>12</sup> ThinkPlus™.22 2-year LOR 9x5 NBD 41C9175 ThinkPlus 3-year LOR 9x5 NBD 41C9176 ThinkPlus 4-year LOR 9x5 NBD 41C9177 ThinkPlus 5-year LOR 9x5 NBD 41C9179 ThinkPlus 4-year P&amp;L P/U Depot 41C9178 ThinkPlus 5-year P&amp;L P/U Depot 41C9180 Post-warranty annual maintenance agreements at <a href="http://lenovo.com/thinkplus/warranty">lenovo.com/thinkplus/warranty</a></p>															

See footnotes for important warranty information  
US models announced May 16, 2006  
US models withdrawn effective September 2007

\* Powered by Intel Centrino® Duo processor technology

© Lenovo  
(MN2-3) September 2007

# ThinkPad® Z61t (9442) - October 2006 - withdrawn

Created by Lenovo Training Solutions  
Personal Systems Reference (PSREF)

Type-model	Top cover color	Processor	Speed GHz	Memory	Wide-screen display	Graphics con-troller	Disk SATA GB <sup>a</sup>	EIDE optical	Mini PCIe 802.11 wireless	Finger print reader	Cam-era	Bat-tery cells	Workhorse (W) Limited Gbl (G) Avail date
9442-P6U	Black	Core 2 Duo T7200	2.00	1GB	14.0" WXGA	GMA 80GB	DVD±RW	* Intel 11a/b/g <sup>32</sup>	Finger	Cam	4-cell	3-yr	W G Oct 06
9442-PMU	Black	Core 2 Duo T7200	2.00	1GB	14.0" WXGA	GMA 80GB	Combo	* Intel 11a/b/g	Finger	Cam	4-cell	3-yr	W G Oct 06

• **These models have a 3-year limited warranty**

Positioning Processor	<i>Widescreen multimedia; two spindles</i> <b>Intel® Core™ 2 Duo processor T7200</b> with dual-core, Intel 64 Technology, Enhanced Intel SpeedStep™ technology <sup>1</sup> , Execute Disable Bit, 667MHz system bus, and 4MB shared L2 cache										<b>SOFTWARE<sup>14</sup></b> <b>Windows XP Professional</b> - Microsoft® Windows® XP Professional <sup>20</sup> (Service Pack 2) ↳ Disk-to-Disk Recovery (in hidden protected area)		
Memory	<b>1GB</b> / 4GB max <sup>31</sup> / PC2-5300 667MHz DDR2 / non-parity / CL5 / dual-channel capable / two 200-pin SO-DIMM sockets / <i>1GB models:</i> std memory in both sockets (512MB each socket); no sockets avail										<b>Preloaded</b> • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center with Away Manager • ThinkVantage System Update • Symantec® Client Security™ • DiskKeeper Lite • PC-Doctor™ (diagnostics) • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader • Google Toolbar • Google Desktop • Picasa from Google • Fingerprint Software (fingerprint models) • Multimedia Center for Think Offerings • Sonic RecordNOW and Drive Letter Access (combo, DVD±RW) • InterVideo WinDVD (combo, DVD±RW models) • InterVideo WinDVD Creator (DVD±RW models)		
Diskette drive EIDE Combo	None standard / use optional USB-based diskette drive <i>Some:</i> DVD-ROM/CD-RW / 24X/24X/24X/8X <sup>21</sup> speed / removable from Ultrabay Slim										• License - CD not included - Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client		
EIDE DVD±RW Ultrabay Slim	<i>Some:</i> DVD burner / Super Multi-Burner (40Y8623) dual-layer, removable Ultrabay Slim One modular bay for interchangeable devices (right side) / 9.5mm high bay / flat bezel												
Serial ATA disk (SATA150)	<b>80GB<sup>a</sup></b> (5400 rpm) / 9.5mm high / removable and upgradable / 9.5mm high bay / supports 2nd disk / HDD Protection Pack (shock absorber) / Active Protection System™												
Display (anti-glare)	<b>Widescreen / 14.0"</b> (356mm) <b>WXGA (1280x768) TFT color</b> / 200 nits / 15:9 / stainless steel hinges / one hand activates dual latches												
Graphics	<b>Intel Graphics Media Accelerator 950</b> / integrated in 945GM / 250MHz / DVI pass-through support to optional Advanced Mini Dock and Advanced Dock												
Keyboard TrackPoint® ThinkLight™	89-key / ThinkVantage button / spill-resistant / multimedia Fn keys / Windows, Appl keys TrackPoint® pointing device / UltraNav® multi-pointing system (touchpad) Illuminates the keyboard to improve visibility in low-light conditions												
Dimensions <sup>3</sup> Weight <sup>2</sup> Case material	(WxDxH): 13.1" x 9.0" x 1.05-1.22"; 334mm x 228mm x 26.6-30.9mm with optical drive and battery: <i>4-cell black:</i> starting at 4.23 lb/4.63 lb (1.9kg/2.1kg) <i>Some:</i> black color; hybrid carbon fiber reinforced polymer (CFRP) material <i>Some:</i> top cover: silver color; CFRP, aluminum, titanium material; bottom: black, CFRP												
Battery - type Battery - life <sup>10</sup>	Lithium Ion <b>4-cell</b> / intelligent / supports unique 2nd battery in Ultrabay Slim <i>4-cell:</i> up to 3.7 hr; <i>7-cell:</i> up to 6.25 hr; <i>7-cell plus Ultrabay Slim battery:</i> up to 8.25 hr												
Architecture	<b>Mobile Intel 945GM Express Chipset</b> / 82945GM Graphics Memory Controller Hub / 82801GBM ICH7-M I/O Controller Hub (SATA300, ATA-100 EIDE, PCI Express x1, PCI bus, USB, LPC interface, [Bluetooth], [fingerprint]) / PCI bus (TI® PCI8412 CardBus controller) / LPC bus (NS PC87382 Super I/O, Atmel® AT97SC3203)												
PC Card slot Ports	One Type I or one Type II / CardBus 32-bit / PCMCIA 2.1 / integrated door <b>3-in-1 Multicard Reader</b> (MultiMedia Card, Secure Digital, xD-Picture Card™) / S-video out port (TV out) / IEEE 1394 (FireWire 400) / docking / three USB 2.0 / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / no keyboard or mouse or parallel or serial ports (use USB)												
Wireless antenna	UltraConnect™ Antenna built into the display cover / on-off switch for all wireless radios												
Integrated camera	<i>Some:</i> camera on top of screen / 0.3-megapixel / fixed focus / USB 2.0												
Mini PCI Express	Two Mini PCI Express slots / only 802.11 wireless is customer upgradable												
Intel 11a/b/g <sup>32</sup> WWAN	11a/b/g wireless <sup>4</sup> , Mini PCI Express adapter, Intel PRO/Wireless 3945ABG None												
Modem Bluetooth™	56K <sup>6</sup> V.90 (V.92-designed <sup>29</sup> ) modem in Comm Daughter Card socket / Conexant® chip Bluetooth 2.0 wireless / USB 2.0 interface via ICH7-M / LED indicator												
Ethernet Audio	Gigabit ethernet on systemboard / Broadcom® BCM5752M (MAC/PHY) / PCIe x1 / PXE High Definition (HD) Audio / AD1981HD codec / stereo speakers / 1 watt / volume up, down, mute buttons / stereo microphone / microphone input jack / headphone jack												
Security Security chip Fingerprint reader	Power-on password / hard disk password / supervisor password / security keyhole Trusted Platform Module / Atmel chip / TCG 1.2-compliant <i>Some:</i> Fingerprint reader on palm rest / swipe sensor / supports the security chip										Supports ThinkVantage® technologies		
Limited warranty <sup>12</sup>	<b>3-year/1-yr battery - EasyServ™<sup>19</sup> onsite pickup and delivery / service upgrades<sup>22</sup> avail</b>										Universal 65-watt AC adapter ThinkPad Roll Cage (one-piece magnesium frame) RoHS-compliant International Warranty Service <sup>17</sup> 24 hour x 7 day <sup>18</sup> toll-free warranty support during the warranty <sup>12</sup>		
512MB PC2-5300 DDR2 CL5 SODIMM	40Y7733	Z60t Series Li-Ion Battery 4-cell	40Y6791										
1GB PC2-5300 DDR2 CL5 SODIMM	40Y7734	Z60t Series Li-Ion Battery 7-cell	40Y6793										
2GB PC2-5300 DDR2 SODIMM	40Y7735	Advanced Ultrabay Battery 3-cell	40Y6789										
USB Fingerprint Reader	41U3167	ThinkPad External Battery Charger	40Y7625										
USB 2.0 Lenovo Multimedia Headset	40Y8518	ThinkPad 65W AC Adapter	40Y7696										
USB 2.0 Lenovo Webcam	40Y8519	ThinkPad 90W AC Adapter	40Y7659										
USB 2.0 Security Memory Key 2GB	41U5119	ThinkPad 90W AC/DC Combo Adapter	40Y7630										
USB 2.0 Security Memory Key 4GB	41U5120	11a/b/g Wireless Mini PCI Express Adpr	40Y7026										
USB 2.0 CD-RW/DVD-ROM Combo II Drive	40Y8637	Lenovo M500 Projector	0037A05										
USB 2.0 Super Multi-Burner Drive	41N5565	Premiere Leather Carrying Case	10K0209										
Combo II Ultrabay Slim Drive (flat bezel)	40Y8621	ThinkPad Carrying Case - BackPack	73P3599										
ThinkPad DVD Ultrabay Slim Burner (flat)	41N5643	ThinkPad Essential Port Replicator	250510W										
Serial Hard Drive Ultrabay Slim Adptr (flat)	40Y8725	ThinkPad Advanced Mini Dock	250410U										
120GB Disk 9.5mm SATA150 (5400 rpm)	41N5691	ThinkPad Advanced Dock	250310U										
160GB Disk 9.5mm SATA150 (5400 rpm)	41N5692	Lenovo L192 Wide 19" Monitor (black)	6920AB1										
Preferred Pro USB Fingerprint Keyboard	73P4730	ThinkVision® L192p 19" Monitor (black)	9419HC2										
Other accessories on O-Z60T sheet											Other accessories at <a href="http://lenovo.com/accessories">lenovo.com/accessories</a>		

See footnotes for important warranty information  
US models announced October 17, 2006  
US models withdrawn effective September 2007

\* Powered by Intel Centrino® Duo processor technology

© Lenovo  
(MN25-1) September 2007

# ThinkPad® Z61t (9442) - Education - withdrawn

Created by Lenovo Training Solutions  
Personal Systems Reference (PSREF)

Top cover color	Processor	Speed GHz	Memory	Wide-screen display	Graphics controller	Disk SATA GB <sup>8</sup>	EIDE optical	Mini PCIe 802.11 wireless	Finger print reader	3-year limited warranty <sup>12</sup>	Workhorse (W) Education software	Workhorse (W) Gbl Avail date
9442-E1U Black	Core™ Duo T2300E	1.66	512MB	14.1" WXGA	GMA 60GB	60GB	Combo	11a/b/g <sup>32</sup>	Finger	EasyServ	Yes	W May 06
9442-E2U Black	Core Duo T2400	1.83	512MB	14.1" WXGA	GMA 60GB	60GB	DVD±RW	* Intel 11a/b/g <sup>32</sup>	Finger Cam	EasyServ	Yes	May 06
9442-E3U Silver	Core Duo T2300E	1.66	512MB	14.1" WXGA	GMA 60GB	60GB	Combo	11a/b/g	Finger	EasyServ	Yes	W May 06
9442-E4U Silver	Core Duo T2400	1.83	512MB	14.1" WXGA	GMA 60GB	60GB	DVD±RW	* Intel 11a/b/g	Finger Cam	EasyServ	Yes	May 06
9442-E5U Black	Core Duo T2500	2.00	512MB	14.1" WXGA	GMA 80GB	80GB	Combo	* Intel 11a/b/g	Finger	EasyServ	Yes	May 06
9442-E6U Black	Core Duo T2500	2.00	512MB	14.1" WXGA	GMA 80GB	80GB	DVD±RW	* Intel 11a/b/g	Finger	EasyServ	Yes	May 06
9442-E7U Black	Core Duo T2500	2.00	1GB	14.1" WXGA	GMA 100G	100G	DVD±RW	* Intel 11a/b/g	Finger Cam	EasyServ	Yes	May 06
9442-E8U Silver	Core Duo T2500	2.00	512MB	14.1" WXGA	GMA 80GB	80GB	Combo	* Intel 11a/b/g	Finger	EasyServ	Yes	May 06
9442-E9U Silver	Core Duo T2500	2.00	512MB	14.1" WXGA	GMA 80GB	80GB	DVD±RW	* Intel 11a/b/g	Finger	EasyServ	Yes	May 06
9442-EAU Silver	Core Duo T2500	2.00	1GB	14.1" WXGA	GMA 100G	100G	DVD±RW	* Intel 11a/b/g	Finger Cam	EasyServ	Yes	May 06

**• These models have an EasyServ™<sup>19</sup> onsite pickup and delivery 3-year limited warranty**  
These educational models are available only to public or private K-12 (or higher) accredited schools organized and operated exclusively for educational purposes for use by qualified students and teachers.

Positioning Processor	<i>Widescreen multimedia; two spindles</i> <b>Intel® Core Duo processor T2300E, T2400, or T2500</b> with dual-core, Enhanced Intel SpeedStep™ technology <sup>1</sup> , Execute Disable Bit, 667MHz system bus, and 2MB shared L2 cache	<b>SOFTWARE<sup>14</sup></b> <b>Windows XP Professional</b> - Microsoft® Windows® XP Professional <sup>20</sup> (Service Pack 2) ⇨ Disk-to-Disk Recovery <b>Preloaded</b> (only some listed) • VitalSource Library education software • Adobe® Photoshop® Elements plus Adobe Premiere® Elements • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center with Away Manager • ThinkVantage System Update • Symantec® Client Security™ • Diskeeper Lite • PC-Doctor™ (diagnostics) • ThinkPad Utilities (Power Manager and Presentation Director) • Google Toolbar • Google Desktop • Picasa from Google • Multimedia Center for Think Offerings • Sonic RecordNOW and Drive Letter Access (combo, DVD±RW) • InterVideo WinDVD (combo, DVD±RW models) • InterVideo WinDVD Creator (DVD±RW models) <b>CD</b> • Adobe Photoshop Elements plus Adobe Premiere Elements <b>License</b> - CD not included - Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client
Memory	<b>512MB</b> or <b>1GB</b> std / 4GB max <sup>31</sup> / PC2-5300 667MHz DDR2 / non-parity / CL5 / dual-channel capable / two 200-pin SO-DIMM sockets / <b>512MB models:</b> std mem in one socket; one socket available / <b>1GB models:</b> std memory in two sockets; none available	
Diskette drive EIDE Combo EIDE DVD±RW Ultrabay Slim Serial ATA disk (SATA150)	None standard / use optional USB-based diskette drive <i>Some:</i> DVD-ROM/CD-RW / 24X/24X/24X/8X <sup>21</sup> speed / removable from Ultrabay Slim <i>Some:</i> DVD burner / Super Multi-Burner (40Y8623) dual-layer, removable Ultrabay Slim One modular bay for interchangeable devices (right side) / 9.5mm high bay / flat bezel <b>60, 80, or 100GB<sup>8</sup></b> (5400 rpm) / 9.5mm high / removable and upgradable / 9.5mm high bay / supports 2nd disk / <b>HDD Protection Pack</b> (shock absorber) / <b>Active Protection System™</b>	
Display (anti-glare)	<b>Widescreen / 14.1"</b> (358mm) <b>WXGA (1280x800) TFT color</b> / 185 nits / 16:10 ratio / stainless steel hinges / one hand activates dual latches	
Graphics	<b>Intel Graphics Media Accelerator 950</b> / integrated in 945GM / 250MHz	
Keyboard TrackPoint™ ThinkLight™	89-key / ThinkVantage button / spill-resistant / multimedia Fn keys / Windows, Appl keys TrackPoint® pointing device / UltraNav® multi-pointing system (touchpad) Illuminates the keyboard to improve visibility in low-light conditions	
Dimensions <sup>3</sup> Weight <sup>2</sup>	(WxDxH): 13.1" x 9.0" x 1.05-1.22"; 334mm x 228mm x 26.6-30.9mm with optical drive and battery: <i>4-cell black:</i> starting at 4.17 lb/4.57 lb (1.9kg/2.1kg); <i>4-cell titanium:</i> starting at 4.42/4.81 lb (2.0/2.2kg)	
Case material	<i>Some:</i> black color; hybrid carbon fiber reinforced polymer (CFRP) material <i>Some:</i> top cover: silver color; CFRP, aluminum, titanium material; bottom: black, CFRP	
Battery - type Battery - life <sup>10</sup>	Lithium Ion <b>4-cell</b> / intelligent / supports unique 2nd battery in Ultrabay Slim <i>4-cell:</i> up to 3.7 hr; <i>7-cell:</i> up to 6.25 hr; <i>7-cell plus Ultrabay Slim battery:</i> up to 8.25 hr	
Architecture	<b>Mobile Intel 945GM Express Chipset</b> / 82945GM Graphics Memory Controller Hub / 82801GBM ICH7-M I/O Controller Hub (SATA300, ATA-100 EIDE, PCI Express x1, PCI bus, USB, LPC interface, [Bluetooth], [fingerprint]) / PCI bus (TI® PCI8412 CardBus controller) / LPC bus (NS PC87382 Super I/O, Atmel® AT97SC3203)	
PC Card slot Ports	One Type I or one Type II / CardBus 32-bit / PCMCIA 2.1 / integrated door <b>3-in-1 Multicard Reader</b> (MultiMedia Card, Secure Digital, xD-Picture Card™) / S-video out port (TV out) / IEEE 1394 (FireWire 400) / docking / three USB 2.0 / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / no keyboard or mouse or parallel or serial ports (use USB)	
Wireless antenna	UltraConnect™ Antenna built into the display cover / on-off switch for all wireless radios	
Integrated camera	<i>Some:</i> camera on top of screen / 0.3-megapixel / fixed focus / USB 2.0	
Mini PCI Express 11a/b/g <sup>32</sup> Intel 11a/b/g <sup>32</sup> WWAN	Two Mini PCI Express slots / only 802.11 wireless is customer upgradable <i>Some:</i> 11a/b/g wireless <sup>4</sup> , ThinkPad 11a/b/g Mini PCI Express Adp, Atheros AR5006EX <i>Some:</i> 11a/b/g wireless <sup>4</sup> , Mini PCI Express adapter, Intel PRO/Wireless 3945ABG	
Modem	56K <sup>6</sup> V.90 (V.92-designed <sup>29</sup> ) modem in Comm Daughter Card socket / Conexant® chip	
Bluetooth™	None	
Ethernet	Gigabit ethernet on systemboard / Broadcom® BCM5752M (MAC/PHY) / PCIe x1 / PXE	
Audio	High Definition (HD) Audio / AD1981HD codec / stereo speakers / 1 watt / volume up, down, mute buttons / stereo microphone / microphone input jack / headphone jack	
Security	Power-on password / hard disk password / supervisor password / security keyhole	
Security chip	<b>Trusted Platform Module</b> / Atmel chip / TCG 1.2-compliant	
Fingerprint reader	<b>Fingerprint reader on palm rest</b> / swipe sensor / supports the security chip	
Limited warranty <sup>12</sup>	<b>3-year/1-yr battery - EasyServ™<sup>19</sup> onsite pickup and delivery / service upgrades<sup>22</sup> avail</b>	

512MB PC2-5300 DDR2 CL5 SODIMM	40Y7733	Z60t Series Li-Ion Battery 4-cell	40Y6791
1GB PC2-5300 DDR2 CL5 SODIMM	40Y7734	Z60t Series Li-Ion Battery 7-cell	40Y6793
2GB PC2-5300 DDR2 SODIMM	40Y7735	Advanced Ultrabay Battery 3-cell	40Y6789
USB Fingerprint Reader	41U3167	ThinkPad External Battery Charger	40Y7625
USB 2.0 Security Memory Key 4GB	41U5120	ThinkPad 90W AC Adapter	40Y7659
USB 2.0 CD-RW/DVD-ROM Combo II Drive	40Y8637	11a/b/g Wireless Mini PCI Express Adpr	40Y7026
USB 2.0 Super Multi-Burner Drive	41N5565	ThinkPad Essential Port Replicator	250510W
Combo II Ultrabay Slim Drive (flat bezel)	40Y8621	ThinkPad Advanced Mini Dock	250410U
ThinkPad DVD Ultrabay Slim Burner (flat)	41N5643	ThinkPad Advanced Dock	250310U
100GB Disk 9.5mm SATA150 (7200 rpm)	41N3013	ThinkVision® L192p 19" Monitor (black)	9419HC2
Other accessories on O-Z60T sheet		Other accessories at <b>lenovo.com/accessories</b>	

ThinkPlus™ <sup>22</sup> 2-year LOR 9x5 NBD	41C9175
ThinkPlus 3-year LOR 9x5 NBD	41C9176
ThinkPlus 4-year LOR 9x5 NBD	41C9177
ThinkPlus 5-year LOR 9x5 NBD	41C9179
ThinkPlus 4-year P&L P/U Depot	41C9178
ThinkPlus 5-year P&L P/U Depot	41C9180

See footnotes for important warranty information  
US models announced May 16 or May 30, 2006  
US models withdrawn effective April or September 2007

\* Powered by Intel Centrino® Duo processor technology

# ThinkPad® Z61t (9443) - withdrawn

Created by Lenovo Training Solutions  
Personal Systems Reference (PSREF)

Top cover color	Processor	Speed GHz	Memory	Wide-screen display	Graphics controller	Disk SATA GB <sup>8</sup>	EIDE optical	Mini PCIe 802.11 wireless	Finger print reader	Camera	Battery cells	3-year limited warranty <sup>12</sup>	Workhorse (W) Gbl (G)	Avail date
9443-96U Black	Core™ Duo T2300E	1.66	512MB	14.1" WXGA	GMA 60GB	Combo		11a/b/g <sup>32</sup>	Finger		4-cell	Onsite	W	May 06
9443-97U Black	Core Duo T2400	1.83	512MB	14.1" WXGA	GMA 60GB	DVD±RW	*	Intel 11a/b/g <sup>32</sup>	Finger	Cam	4-cell	Onsite	G	May 06
9443-98U Silver	Core Duo T2300E	1.66	512MB	14.1" WXGA	GMA 60GB	Combo		11a/b/g	Finger		4-cell	Onsite	W	May 06
9443-99U Silver	Core Duo T2400	1.83	512MB	14.1" WXGA	GMA 60GB	DVD±RW	*	Intel 11a/b/g	Finger	Cam	4-cell	Onsite	G	May 06
9443-4FU Silver	Core Duo T2400	1.83	512MB	14.1" WXGA	GMA 60GB	Combo	*	Intel 11a/b/g	Finger		4-cell	Onsite	W	May 06
9443-4GU Black	Core Duo T2400	1.83	512MB	14.1" WXGA	GMA 80GB	Combo	*	Intel 11a/b/g	Finger		4-cell	Onsite	W	May 06
9443-88U Black	Core Duo T2400	1.83	512MB	14.1" WXGA+	GMA 80GB	Combo	*	Intel 11a/b/g	Finger		4-cell	Onsite	W	May 06
9443-89U Silver	Core Duo T2400	1.83	512MB	14.1" WXGA+	GMA 60GB	Combo	*	Intel 11a/b/g	Finger	Cam	4-cell	Onsite	W	May 06

**• These models have a limited onsite service<sup>24</sup> 3-year limited warranty**

Positioning Processor	<i>Widescreen multimedia; two spindles</i> <b>Intel® Core Duo processor T2300E or T2400</b> with dual-core, Enhanced Intel Speed-Step™ technology <sup>1</sup> , Execute Disable Bit, 667MHz bus, and 2MB shared L2 cache	<b>SOFTWARE<sup>14</sup></b> <b>Windows XP Professional models</b> - Microsoft® Windows® XP Professional <sup>20</sup> (Service Pack 2) ⇨ Disk-to-Disk Recovery (in hidden protected area) <b>Preloaded</b> • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center with Away Manager • ThinkVantage System Update • Symantec® Client Security™ • Diskeeper® Lite • PC-Doctor™ (diagnostics) • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader • Google Toolbar • Google Desktop • Picasa from Google • Fingerprint Software (fingerprint models) • Multimedia Center for Think Offerings • Sonic RecordNOW and Drive Letter Access (combo, DVD±RW) • InterVideo WinDVD (combo, DVD±RW models) • InterVideo WinDVD Creator (DVD±RW models) <b>License</b> - CD not included - Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client
Memory	<b>512MB</b> std / 4GB max <sup>31</sup> / PC2-5300 667MHz DDR2 / non-parity / CL5 / dual-channel capable / two 200-pin SO-DIMM sockets / std memory in 1 socket / 1 socket available	
Diskette drive	None standard / use optional USB-based diskette drive	
EIDE Combo	<i>Some:</i> DVD-ROM/CD-RW / 24X/24X/24X/8X <sup>21</sup> speed / removable from Ultrabay Slim	
EIDE DVD±RW	<i>Some:</i> DVD burner / Super Multi-Burner (40Y8623) dual-layer, removable Ultrabay Slim	
Ultrabay Slim	One modular bay for interchangeable devices (right side) / 9.5mm high bay / flat bezel	
Serial ATA disk (SATA150)	<b>60 or 80GB<sup>3</sup></b> (5400 rpm) / 9.5mm high / removable and upgradable / 9.5mm high bay / supports 2nd disk / <b>HDD Protection Pack</b> (shock absorber) / <b>Active Protection System™</b>	
Display (anti-glare)	<i>Some:</i> <b>Widescreen / 14.1"</b> (358mm) <b>WXGA (1280x800) TFT color</b> / 185 nits / 16:10 <i>Some:</i> <b>Widescreen / 14.1"</b> (358mm) <b>WXGA+ (1440x900) TFT color</b> / 200 nits / 16:10 <i>All:</i> stainless steel hinges / one hand activates dual latches	
Graphics	<b>Intel Graphics Media Accelerator 950</b> / integrated in 945GM / 250MHz	
Keyboard TrackPoint® ThinkLight™	89-key / ThinkVantage button / spill-resistant / multimedia F n keys / Windows, Appl keys TrackPoint® pointing device / UltraNav® multi-pointing system (touchpad) Illuminates the keyboard to improve visibility in low-light conditions	
Dimensions <sup>3</sup> Weight <sup>2</sup>	<i>(WxDxH):</i> 13.1" x 9.0" x 1.05-1.22"; 334mm x 228mm x 26.6-30.9mm with optical drive and battery: <i>4-cell black:</i> starting at 4.17 lb/4.57 lb (1.9kg/2.1kg); <i>4-cell titanium:</i> starting at 4.42/4.81 lb (2.0/2.2kg)	
Case material	<i>Some:</i> black color; hybrid carbon fiber reinforced polymer (CFRP) material <i>Some:</i> top cover: silver color; CFRP, aluminum, titanium material; bottom: black, CFRP	
Battery - type Battery - life <sup>10</sup>	Lithium Ion <b>4-cell</b> / intelligent / supports unique 2nd battery in Ultrabay Slim <i>4-cell:</i> up to 3.7 hr; <i>7-cell:</i> up to 6.25 hr; <i>7-cell plus Ultrabay Slim battery:</i> up to 8.25 hr	
Architecture	<b>Mobile Intel 945GM Express Chipset</b> / 82945GM Graphics Memory Controller Hub / 82801GBM ICH7-M I/O Controller Hub (SATA300, ATA-100 EIDE, PCI Express x1, PCI bus, USB, LPC interface, [Bluetooth], [fingerprint]) / PCI bus (TI® PCI8412 CardBus controller) / LPC bus (NS PC87382 Super I/O, Atmel® AT97SC3203)	
PC Card slot Ports	One Type I or one Type II / CardBus 32-bit / PCMCIA 2.1 / integrated door <b>3-in-1 Multicard Reader</b> (MultiMedia Card, Secure Digital, xD-Picture Card™) / S-video out port (TV out) / IEEE 1394 (FireWire 400) / docking / three USB 2.0 / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / no keyboard or mouse or parallel or serial ports (use USB)	
Wireless antenna	UltraConnect™ Antenna built into the display cover / on-off switch for all wireless radios	
Integrated camera	<i>Some:</i> camera on top of screen / 0.3-megapixel / fixed focus / USB 2.0	
Mini PCI Express 11a/b/g <sup>32</sup>	Two Mini PCI Express slots / only 802.11 wireless is customer upgradable <i>Some:</i> 11a/b/g wireless <sup>4</sup> , ThinkPad 11a/b/g Mini PCI Express Adp, Atheros AR5006EX	
Intel 11a/b/g <sup>32</sup> WWAN	<i>Some:</i> 11a/b/g wireless <sup>4</sup> , Mini PCI Express adapter, Intel PRO/Wireless 3945ABG	
Modem	None	
Bluetooth™	56K <sup>6</sup> V.90 (V.92-designed <sup>29</sup> ) modem in Comm Daughter Card socket / Conexant® chip	
Ethernet	None	
Audio	Gigabit ethernet on systemboard / Broadcom® BCM5752M (MAC/PHY) / PCIe x1 / PXE High Definition (HD) Audio / AD1981HD codec / stereo speakers / 1 watt / volume up, down, mute buttons / stereo microphone / microphone input jack / headphone jack	
Security	Power-on password / hard disk password / supervisor password / security keyhole	
Security chip	<b>Trusted Platform Module</b> / Atmel chip / TCG 1.2-compliant	
Fingerprint reader	<b>Fingerprint reader on palm rest</b> / swipe sensor / supports the security chip	
Limited warranty <sup>12</sup>	<b>3-year/1-year battery, limited onsite service<sup>24</sup></b> , 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time	

512MB PC2-5300 DDR2 CL5 SODIMM	40Y7733	Z60t Series Li-Ion Battery 4-cell	40Y6791	Supports ThinkVantage® technologies
1GB PC2-5300 DDR2 CL5 SODIMM	40Y7734	Z60t Series Li-Ion Battery 7-cell	40Y6793	
2GB PC2-5300 DDR2 SODIMM	40Y7735	Advanced Ultrabay Battery 3-cell	40Y6789	
USB Portable Diskette Drive	05K9276	ThinkPad External Battery Charger	40Y7625	
USB Fingerprint Reader	41U3167	ThinkPad 90W AC Adapter	40Y7659	
USB 2.0 Security Memory Key 2GB	41U5119	11a/b/g Wireless Mini PCI Express Adpr	40Y7026	
USB 2.0 Security Memory Key 4GB	41U5120	Intel PRO/Wireless 3945ABG Mini PCIe	41N3008	
USB 2.0 CD-RW/DVD-ROM Combo II Drive	40Y8637	Lenovo M500 Projector	0037A05	
USB 2.0 Super Multi-Burner Drive	41N5565	ThinkPad Carrying Case - Expander	73P3597	
Combo II Ultrabay Slim Drive (flat bezel)	40Y8621	ThinkPad Carrying Case - BackPack	73P3599	
ThinkPad DVD Ultrabay Slim Burner (flat)	41N5643	ThinkPad Essential Port Replicator	250510W	
Serial Hard Drive Ultrabay Slim Adptr (flat)	40Y8725	ThinkPad Advanced Mini Dock	250410U	
100GB Disk 9.5mm SATA150 (7200 rpm)	41N3013	ThinkPad Advanced Dock	250310U	
Preferred Pro USB Fingerprint Keyboard	73P4730	Lenovo L192 Wide 19" Monitor (black)	6920AB1	
Other accessories on O-Z60T sheet		Other accessories at <a href="http://lenovo.com/accessories">lenovo.com/accessories</a>		

**Post-warranty annual maintenance agreements at [lenovo.com/thinkplus/warranty](http://lenovo.com/thinkplus/warranty)**

See footnotes for important warranty information  
US models announced May 16 or May 30, 2006  
US models withdrawn effective April or September 2007

\* Powered by Intel Centrino® Duo processor technology

# ThinkPad® Z61t (9443) - October 2006 - withdrawn

Created by Lenovo Training Solutions  
Personal Systems Reference (PSREF)

Type-model color	Processor	Speed GHz	Mem-ory	Wide-screen display	Graphics con-troller	Disk SATA GB <sup>6</sup>	EIDE optical	Mini PCIe 802.11 wireless	Mini PCIe WWAN wireless	Finger print reader	3-year limited workhorse warranty <sup>12</sup>	Workhorse (W) Gbl (G)	Avail date
9443-XAU Black	Core 2 Duo T7200	2.00	1GB	14.0" WXGA	GMA 80GB	80GB	DVD±RW	* Intel 11a/b/g <sup>32</sup>	None	Finger Cam	Onsite	W G	Oct 06
9443-XBU Black	Core 2 Duo T7200	2.00	2GB	14.0" WXGA	GMA 120GB	120GB	DVD±RW	* Intel 11a/b/g	None	Finger Cam	Onsite	W G	Oct 06
9443-XCU Black	Core 2 Duo T7200	2.00	1GB	14.0" WXGA	GMA 80GB	80GB	Combo	* Intel 11a/b/g	None		Onsite	W G	Oct 06
9443-XDU Black	Core 2 Duo T7200	2.00	1GB	14.1" WXGA+	GMA 80GB	80GB	Combo	* Intel 11a/b/g	None		Onsite	W G	Oct 06

• **These models have a limited onsite service<sup>24</sup> 3-year limited warranty**

Positioning Processor	<i>Widescreen multimedia; two spindles</i> <b>Intel® Core™ 2 Duo processor T7200</b> with dual-core, Intel 64 Technology, Enhanced Intel SpeedStep™ technology <sup>1</sup> , Execute Disable Bit, 667MHz system bus, and 4MB shared L2 cache											
Memory	<b>1GB or 2GB</b> std / 4GB max <sup>31</sup> / PC2-5300 667MHz DDR2 / non-parity / CL5 / dual-channel capable / two 200-pin SO-DIMM sockets / <i>1GB models:</i> std memory in both sockets (512MB each socket); no sockets available; <i>2GB model:</i> standard memory in 1 socket; 1 socket available											
Diskette drive EIDE Combo EIDE DVD±RW Ultrabay Slim Serial ATA disk (SATA150)	None standard / use optional USB-based diskette drive <i>Some:</i> DVD-ROM/CD-RW / 24X/24X/24X/8X <sup>21</sup> speed / removable from Ultrabay Slim <i>Some:</i> DVD burner / Super Multi-Burner (40Y8623) dual-layer, removable Ultrabay Slim One modular bay for interchangeable devices (right side) / 9.5mm high bay / flat bezel <b>80GB<sup>8</sup> or 120GB</b> (5400 rpm) / 9.5mm high / removable and upgradable / 9.5mm high bay / supports 2nd disk / HDD Protection Pack (shock absorber) / Active Protection System™											
Display (anti-glare)	<i>Some:</i> <b>Widescreen / 14.0"</b> (356mm) <b>WXGA (1280x768) TFT color</b> / 200 nits / 15:9 <i>Some:</i> <b>Widescreen / 14.1"</b> (358mm) <b>WXGA+ (1440x900) TFT color</b> / 200 nits / 16:10 <i>All:</i> stainless steel hinges / one hand activates dual latches											
Graphics	<b>Intel Graphics Media Accelerator 950</b> / integrated in 945GM / 250MHz / DVI pass-through support to optional Advanced Mini Dock and Advanced Dock											
Keyboard TrackPoint® ThinkLight™	89-key / ThinkVantage button / spill-resistant / multimedia Fn keys / Windows, Appl keys TrackPoint® pointing device / UltraNav® multi-pointing system (touchpad) Illuminates the keyboard to improve visibility in low-light conditions											
Dimensions <sup>3</sup> Weight <sup>2</sup> Case material	<i>(WxDxH):</i> 13.1" x 9.0" x 1.05-1.22"; 334mm x 228mm x 26.6-30.9mm with optical drive and battery: <i>4-cell black:</i> starting at 4.63 lb/4.67 lb (2.1kg/2.1kg) <i>Some:</i> black color; hybrid carbon fiber reinforced polymer (CFRP) material <i>Some:</i> top cover: silver color; CFRP, aluminum, titanium material; bottom: black, CFRP Lithium Ion <b>4-cell</b> / intelligent / supports unique 2nd battery in Ultrabay Slim <i>4-cell:</i> up to 3.7 hr; <i>7-cell:</i> up to 6.25 hr; <i>7-cell plus Ultrabay Slim battery:</i> up to 8.25 hr											
Battery - type Battery - life <sup>10</sup>	Lithium Ion <b>4-cell</b> / intelligent / supports unique 2nd battery in Ultrabay Slim <i>4-cell:</i> up to 3.7 hr; <i>7-cell:</i> up to 6.25 hr; <i>7-cell plus Ultrabay Slim battery:</i> up to 8.25 hr											
Architecture	<b>Mobile Intel 945GM Express Chipset</b> / 82945GM Graphics Memory Controller Hub / 82801GBM ICH7-M I/O Controller Hub (SATA300, ATA-100 EIDE, PCI Express x1, PCI bus, USB, LPC interface, [Bluetooth], [fingerprint]) / PCI bus (TI® PCI8412 CardBus controller) / LPC bus (NS PC87382 Super I/O, Atmel® AT97SC3203)											
PC Card slot Ports	One Type I or one Type II / CardBus 32-bit / PCMCIA 2.1 / integrated door <b>3-in-1 Multicard Reader</b> (MultiMedia Card, Secure Digital, xD-Picture Card™) / S-video out port (TV out) / IEEE 1394 (FireWire 400) / docking / three USB 2.0 / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / no keyboard or mouse or parallel or serial ports (use USB)											
Wireless antenna Integrated camera Mini PCI Express Intel 11a/b/g <sup>32</sup> WWAN Modem Bluetooth™ Ethernet Audio	UltraConnect™ Antenna built into the display cover / on-off switch for all wireless radios <i>Some:</i> camera on top of screen / 0.3-megapixel / fixed focus / USB 2.0 Two Mini PCI Express slots / only 802.11 wireless is customer upgradable 11a/b/g wireless <sup>4</sup> , Mini PCI Express adapter, Intel PRO/Wireless 3945ABG None 56K <sup>6</sup> V.90 (V.92-designed <sup>29</sup> ) modem in Comm Daughter Card socket / Conexant® chip Bluetooth 2.0 wireless technology / USB 2.0 interface via ICH7-M / LED indicator Gigabit ethernet on systemboard / Broadcom® BCM5752M (MAC/PHY) / PCIe x1 / PXE High Definition (HD) Audio / AD1981HD codec / stereo speakers / 1 watt / volume up, down, mute buttons / stereo microphone / microphone input jack / headphone jack											
Security Security chip Fingerprint reader	Power-on password / hard disk password / supervisor password / security keyhole Trusted Platform Module / Atmel chip / TCG 1.2-compliant Fingerprint reader on palm rest / swipe sensor / supports the security chip											
Limited warranty <sup>12</sup>	<b>3-year</b> /1-year battery, <b>limited onsite service<sup>24</sup></b> , 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time											
512MB PC2-5300 DDR2 CL5 SODIMM 1GB PC2-5300 DDR2 CL5 SODIMM 2GB PC2-5300 DDR2 SODIMM USB Portable Diskette Drive USB Fingerprint Reader USB 2.0 Lenovo Webcam USB 2.0 Security Memory Key 4GB USB 2.0 CD-RW/DVD-ROM Combo II Drive USB 2.0 Super Multi-Burner Drive Combo II Ultrabay Slim Drive (flat bezel) ThinkPad DVD Ultrabay Slim Burner (flat) Serial Hard Drive Ultrabay Slim Adptr (flat) 160GB Disk 9.5mm SATA150 (5400 rpm) Preferred Pro USB Fingerprint Keyboard Other accessories on O-Z60T sheet	40Y7733 40Y7734 40Y7735 05K9276 41U3167 40Y8519 41U5120 40Y8637 41N5565 40Y8621 41N5643 40Y8725 41N5692 73P4730				Z60t Series Li-Ion Battery 4-cell Z60t Series Li-Ion Battery 7-cell Advanced Ultrabay Battery 3-cell ThinkPad External Battery Charger ThinkPad 90W AC Adapter 11a/b/g Wireless Mini PCI Express Adptr Intel PRO/Wireless 3945ABG Mini PCIe Lenovo M500 Projector ThinkPad Carrying Case - Expander ThinkPad Carrying Case - BackPack ThinkPad Essential Port Replicator ThinkPad Advanced Mini Dock ThinkPad Advanced Dock Lenovo L192 Wide 19" Monitor (black) Other accessories at <a href="http://lenovo.com/accessories">lenovo.com/accessories</a>				40Y6791 40Y6793 40Y6789 40Y7625 40Y7659 40Y7026 41N3008 0037A05 73P3597 73P3599 250510W 250410U 250310U 6920AB1			
Supports ThinkVantage® technologies												
Universal 65-watt AC adapter ThinkPad Roll Cage (one-piece magnesium frame) RoHS-compliant International Warranty Service <sup>17</sup> 24 hour x 7 day <sup>18</sup> toll-free warranty support during the warranty <sup>12</sup>												
Post-warranty annual maintenance agreements at <a href="http://lenovo.com/thinkplus/warranty">lenovo.com/thinkplus/warranty</a>												

See footnotes for important warranty information  
US models announced October 17, 2006  
US models withdrawn effective September 2007

\* Powered by Intel Centrino® Duo mobile technology

© Lenovo  
(MN25-3) September 2007



# ThinkPad® Z61t (9443) - Education - withdrawn

Created by Lenovo Training Solutions  
Personal Systems Reference (PSREF)

Top cover color	Processor	Speed GHz	Memory	Wide-screen display	Graphics controller	Disk SATA GB <sup>8</sup>	EIDE optical	Mini PCIe 802.11 wireless	Finger print reader	3-year limited warranty <sup>12</sup>	Education software	Workhorse (W) Gbl (G) Avail date
9443-E1U Black	Core™ Duo T2300E	1.66	512MB	14.1" WXGA GMA	60GB	Combo	11a/b/g <sup>32</sup>	Finger	Onsite	Yes	W	May 06
9443-E2U Black	Core Duo T2400	1.83	512MB	14.1" WXGA GMA	60GB	DVD±RW	* Intel 11a/b/g <sup>32</sup>	Finger Cam	Onsite	Yes	W	May 06
9443-E3U Silver	Core Duo T2300E	1.66	512MB	14.1" WXGA GMA	60GB	Combo	11a/b/g	Finger	Onsite	Yes	W	May 06
9443-E4U Silver	Core Duo T2400	1.83	512MB	14.1" WXGA GMA	60GB	DVD±RW	* Intel 11a/b/g	Finger Cam	Onsite	Yes	W	May 06
9443-E5U Black	Core Duo T2500	2.00	512MB	14.1" WXGA GMA	80GB	Combo	* Intel 11a/b/g	Finger	Onsite	Yes	W	May 06
9443-E6U Black	Core Duo T2500	2.00	512MB	14.1" WXGA GMA	80GB	DVD±RW	* Intel 11a/b/g	Finger	Onsite	Yes	W	May 06
9443-E7U Black	Core Duo T2500	2.00	1GB	14.1" WXGA GMA	100G	DVD±RW	* Intel 11a/b/g	Finger Cam	Onsite	Yes	W	May 06
9443-E8U Silver	Core Duo T2500	2.00	512MB	14.1" WXGA GMA	80GB	Combo	* Intel 11a/b/g	Finger	Onsite	Yes	W	May 06
9443-E9U Silver	Core Duo T2500	2.00	512MB	14.1" WXGA GMA	80GB	DVD±RW	* Intel 11a/b/g	Finger	Onsite	Yes	W	May 06
9443-EAU Silver	Core Duo T2500	2.00	1GB	14.1" WXGA GMA	100G	DVD±RW	* Intel 11a/b/g	Finger Cam	Onsite	Yes	W	May 06
<p>• <b>This model has a limited onsite service<sup>24</sup> 3-year limited warranty</b>                      These educational models are available only to public or private K-12 (or higher) accredited schools organized and operated exclusively for educational purposes for use by qualified students and teachers.</p>												
Positioning Processor	<i>Widescreen multimedia; two spindles</i> <b>Intel® Core Duo processor T2300E, T2400, or T2500</b> with dual-core, Enhanced Intel SpeedStep™ technology <sup>1</sup> , Execute Disable Bit, 667MHz system bus, and 2MB shared L2 cache									<b>SOFTWARE<sup>14</sup></b> <b>Windows XP Professional</b> - Microsoft® Windows® XP Professional <sup>20</sup> (Service Pack 2) ⇨ Disk-to-Disk Recovery		
Memory	<b>512MB or 1GB</b> std / 4GB max <sup>31</sup> / PC2-5300 667MHz DDR2 / non-parity / CL5 / dual-channel capable / two 200-pin SO-DIMM sockets / <b>512MB models:</b> std mem in one socket; one socket available / <b>1GB models:</b> std memory in two sockets; none available									<b>Preloaded</b> • VitalSource Library education software • Adobe® Photoshop® Elements plus Adobe Premiere® Elements • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center with Away Manager • ThinkVantage System Update • Symantec® Client Security™ • Diskeeper Lite • PC-Doctor™ (diagnostics) • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe Reader • Google Toolbar • Google Desktop • Picasa from Google • Multimedia Center for Think Offerings • Sonic RecordNOW and Drive Letter Access (combo, DVD±RW) • InterVideo WinDVD (combo, DVD±RW models) • InterVideo WinDVD Creator (DVD±RW models)		
Diskette drive EIDE Combo EIDE DVD±RW Ultrabay Slim Serial ATA disk (SATA150)	None standard / use optional USB-based diskette drive <i>Some:</i> DVD-ROM/CD-RW / 24X/24X/8X <sup>21</sup> speed / removable from Ultrabay Slim <i>Some:</i> DVD burner / Super Multi-Burner (40Y8623) dual-layer, removable Ultrabay Slim One modular bay for interchangeable devices (right side) / 9.5mm high bay / flat bezel <b>60, 80, or 100GB<sup>8</sup></b> (5400 rpm) / 9.5mm high / removable and upgradable / 9.5mm high bay / supports 2nd disk / <b>HDD Protection Pack</b> (shock absorber) / <b>Active Protection System™</b>											
Display (anti-glare)	<b>Widescreen / 14.1"</b> (358mm) <b>WXGA (1280x800) TFT color</b> / 185 nits / 16:10 ratio / stainless steel hinges / one hand activates dual latches											
Graphics	<b>Intel Graphics Media Accelerator 950</b> / integrated in 945GM / 250MHz											
Keyboard TrackPoint™ ThinkLight™	89-key / ThinkVantage button / spill-resistant / multimedia Fn keys / Windows, Appl keys TrackPoint® pointing device / UltraNav® multi-pointing system (touchpad) Illuminates the keyboard to improve visibility in low-light conditions											
Dimensions <sup>3</sup> Weight <sup>2</sup>	<i>(WxDxH):</i> 13.1" x 9.0" x 1.05-1.22"; 334mm x 228mm x 26.6-30.9mm with optical drive and battery: <i>4-cell black:</i> starting at 4.17 lb/4.57 lb (1.9kg/2.1kg); <i>4-cell titanium:</i> starting at 4.42/4.81 lb (2.0/2.2kg)											
Case material	<i>Some:</i> black color; hybrid carbon fiber reinforced polymer (CFRP) material <i>Some:</i> top cover: silver color; CFRP, aluminum, titanium material; bottom: black, CFRP											
Battery - type Battery - life <sup>10</sup>	Lithium Ion <b>4-cell</b> / intelligent / supports unique 2nd battery in Ultrabay Slim <i>4-cell:</i> up to 3.7 hr; <i>7-cell:</i> up to 6.25 hr; <i>7-cell plus Ultrabay Slim battery:</i> up to 8.25 hr											
Architecture	<b>Mobile Intel 945GM Express Chipset</b> / 82945GM Graphics Memory Controller Hub / 82801GBM ICH7-M I/O Controller Hub (SATA300, ATA-100 EIDE, PCI Express x1, PCI bus, USB, LPC interface, [Bluetooth], [fingerprint]) / PCI bus (TI® PCI8412 CardBus controller) / LPC bus (NS PC87382 Super I/O, Atmel® AT97SC3203)											
PC Card slot Ports	One Type I or one Type II / CardBus 32-bit / PCMCIA 2.1 / integrated door <b>3-in-1 Multicard Reader</b> (MultiMedia Card, Secure Digital, xD-Picture Card™) / S-video out port (TV out) / IEEE 1394 (FireWire 400) / docking / three USB 2.0 / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / no keyboard or mouse or parallel or serial ports (use USB)											
Wireless antenna Integrated camera	UltraConnect™ Antenna built into the display cover / on-off switch for all wireless radios <i>Some:</i> camera on top of screen / 0.3-megapixel / fixed focus / USB 2.0											
Mini PCI Express 11a/b/g <sup>32</sup> Intel 11a/b/g <sup>32</sup> WWAN	Two Mini PCI Express slots / only 802.11 wireless is customer upgradable <i>Some:</i> 11a/b/g wireless <sup>4</sup> , ThinkPad 11a/b/g Mini PCI Express Adp, Atheros AR5006EX <i>Some:</i> 11a/b/g wireless <sup>4</sup> , Mini PCI Express adapter, Intel PRO/Wireless 3945ABG											
Modem Bluetooth™ Ethernet Audio	56K <sup>6</sup> V.90 (V.92-designed <sup>29</sup> ) modem in Comm Daughter Card socket / Conexant® chip None Gigabit ethernet on systemboard / Broadcom® BCM5752M (MAC/PHY) / PCIe x1 / PXE High Definition (HD) Audio / AD1981HD codec / stereo speakers / 1 watt / volume up, down, mute buttons / stereo microphone / microphone input jack / headphone jack											
Security Security chip Fingerprint reader	Power-on password / hard disk password / supervisor password / security keyhole <b>Trusted Platform Module</b> / Atmel chip / TCG 1.2-compliant <b>Fingerprint reader on palm rest</b> / swipe sensor / supports the security chip											
Limited warranty <sup>12</sup>	<b>3-years/1-yr battery, limited onsite service<sup>24</sup>, 8 am - 5 pm, Mon - Fri coverage</b> excluding holidays, next business day response time									Supports ThinkVantage® technologies		
512MB PC2-5300 DDR2 CL5 SODIMM	40Y7733	Z60t Series Li-Ion Battery 4-cell				40Y6791						
1GB PC2-5300 DDR2 CL5 SODIMM	40Y7734	Z60t Series Li-Ion Battery 7-cell				40Y6793						
2GB PC2-5300 DDR2 SODIMM	40Y7735	Advanced Ultrabay Battery 3-cell				40Y6789						
USB Portable Diskette Drive	05K9276	ThinkPad 90W AC Adapter				40Y7659						
USB 2.0 Security Memory Key 4GB	41U5120	11a/b/g Wireless Mini PCI Express Adpr				40Y7026						
USB 2.0 Super Multi-Burner Drive	41N5565	ThinkPad Essential Port Replicator				250510W						
Combo II Ultrabay Slim Drive (flat bezel)	40Y8621	ThinkPad Advanced Mini Dock				250410U						
ThinkPad DVD Ultrabay Slim Burner (flat)	41N5643	ThinkPad Advanced Dock				250310U						
100GB Disk 9.5mm SATA150 (7200 rpm)	41N3013	ThinkVision® L192p 19" Monitor (black)				9419HC2						
Other accessories on O-Z60T sheet		Other accessories at <a href="http://lenovo.com/accessories">lenovo.com/accessories</a>										

See footnotes for important warranty information  
US models announced May 16 or May 30, 2006  
US models withdrawn effective April or September 2007

\* Powered by Intel Centrino® Duo processor technology

© Lenovo  
(MN2-6) September 2007

# ThinkPad® Z60t and Z61t Accessories - withdrawn

Created by Lenovo Training Solutions  
Personal Systems Reference (PSREF)

## Partial list of accessories supported on ThinkPad Z60t (and Z61t) originally announced on September 20, 2005 (and May 16, 2006)

### Memory (Z60t)

512MB PC2-5300 DDR2 CL5 SODIMM	40Y7733	ann 01/05/06
1GB PC2-5300 DDR2 CL5 SODIMM	40Y7734	ann 01/05/06

### Memory (Z61t)

512MB PC2-5300 DDR2 CL5 SODIMM	40Y7733	ann 01/05/06
1GB PC2-5300 DDR2 CL5 SODIMM	40Y7734	ann 01/05/06
2GB PC2-5300 DDR2 SODIMM	40Y7735	ann 11/28/06

### Ultrabay Slim 9.5mm (best to use flat bezel options)

Serial Hard Drive Ultrabay Slim Adapter (flat)	40Y8725	ann 09/20/05
Combo II Ultrabay Slim Drive (flat bezel)	40Y8621	ann 09/20/05
ThinkPad DVD Ultrabay Slim Burner (flat)	41N5643	ann 05/31/07

### Ultrabay Enhanced 12.7mm

None

### Storage and removable storage

60GB Disk 9.5mm SATA150 (7200 rpm) <sup>41</sup>	41N3012	ann 01/05/06
80GB Disk 9.5mm SATA150 (5400 rpm) <sup>41</sup>	41N5662	ann 08/15/06
100GB Disk 9.5mm SATA150 (7200 rpm) <sup>41</sup>	41N3013	ann 01/05/06
120GB Disk 9.5mm SATA150 (5400 rpm) <sup>41</sup>	41N5691	ann 03/20/07
160GB Disk 9.5mm SATA150 (5400 rpm) <sup>41</sup>	41N5692	ann 03/20/07

<sup>41</sup> Can be used as the main HDD or with ThinkPad Serial ATA Hard Drive Ultrabay Slim Adapter 40Y8725 in the Ultrabay or in the ThinkPad Advanced Dock 250310U.

USB 2.0 Essential Memory Key 1GB	41U4940	ann 01/23/07
USB 2.0 Essential Memory Key 2GB	41U4944	ann 01/23/07
USB 2.0 Security Memory Key 1GB	41U5118	ann 07/17/07
USB 2.0 Security Memory Key 2GB	41U5119	ann 07/17/07
USB 2.0 Security Memory Key 4GB	41U5120	ann 07/17/07

USB Portable Diskette Drive	05K9276	ann 06/05/00
USB 2.0 CD-RW/DVD-ROM Combo II Drive	40Y8637	ann 01/05/06
USB 2.0 Portable 80GB Hard Disk	41N8378	ann 04/17/07
USB 2.0 Portable 120GB Hard Disk	41N8379	ann 04/17/07
USB 2.0 Super Multi-Burner Drive	41N5565	ann 01/23/07

### Wireless LAN (Mini PCI Express)

11a/b/g Wireless Mini PCI Express Adpr <sup>42</sup>	40Y7026	ann 09/20/05
Intel PRO/Wireless 3945ABG Mini PCIe Ad <sup>42</sup>	41N3008	ann 01/05/06
<sup>42</sup> System must be wireless upgradable.		
Kensington WiFi Finder Plus	40Y7717	

### ThinkPad Expansion

USB Serial Parallel Adapter	22P5298	ann 10/09/01
ThinkPad Adjustable Notebook Stand	40Y7676	ann 09/20/05
ThinkPad Essential Port Replicator	250510W	ann 09/20/05
ThinkPad Advanced Mini Dock	250410U	ann 09/20/05
ThinkPad Advanced Dock <sup>47</sup>	250310U	ann 09/20/05

<sup>47</sup> ThinkPad Advanced Dock supports dual-head graphics adapters:  
- ATI® X1300LE 256MB Dual Head/TV-out 41U5028  
- ATI Radeon™ X300 SE 128MB Dual Head 41U4813

### External Keyboard

TrackPoint Cap Collection	73P2698	ann 12/16/03
USB Numeric Keypad	33L3225	ann 05/01/00
Preferred Pro USB Keyboard	73P5220	ann 06/21/05
Enhanced Performance USB Keyboard	73P2620	ann 03/23/04
Targus Wireless Keypad and Mouse Combo	40Y7721	
Enh Perf Wireless Keyboard and Mouse	73P4067	ann 12/07/04
USB Keyboard with UltraNav	31P8950	ann 01/28/03
USB Travel Keyboard with UltraNav	31P9490	ann 04/27/04
Preferred Pro USB Fingerprint Keyboard	73P4730	ann 02/22/05

### External Mouse

USB Optical Wheel Mouse	06P4069	ann 05/21/03
Optical 3-Button ScrollPoint® Mouse	31P7405	ann 08/27/02
Optical 3-Button ScrollPoint Pro Mouse	31P8700	ann 10/01/02
Optical 3-Button Travel Wheel Mouse	31P7410	
Lenovo Laser Mouse (USB, PS/2)	41U3074	ann 01/23/07

### Batteries

ThinkPad Z60t Series Li-Ion Battery 4-cell	40Y6791	ann 09/20/05
ThinkPad Z60t Series Li-Ion Battery 7-cell	40Y6793	ann 09/20/05
ThinkPad Advanced Ultrabay Battery 3-cell <sup>43</sup>	40Y6789	ann 09/20/05

<sup>43</sup> Used in Ultrabay Slim bay.

ThinkPad External Battery Charger <sup>44</sup>	40Y7625	ann 09/20/05
<sup>44</sup> Requires the ThinkPad 90W AC Adapter 40Y7659 (adapter provided with some systems).		
ThinkPad 65W AC Adapter <sup>45</sup>	40Y7696	

<sup>45</sup> Only compatible with the 945GM and GM965 chipset models.

ThinkPad 90W AC Adapter	40Y7659	ann 09/20/05
ThinkPad 90W AC/DC Combo Adapter	40Y7630	ann 12/13/05
Belkin 1 Outlet Notebook Surge	31P7658	
Belkin Universal Notebook Travel Surge	22P7127	
Belkin Surge Protector	31P7659	

### Data/Video Projectors

Lenovo M500 Projector	0037A05	ann 02/28/06
Lenovo C500 Projector	0039A05	ann 07/11/06

### Carrying Cases

Lenovo Carrying Case - Messenger Max	41U5253	ann 05/01/07
Lenovo Carry Case - Performance Backpack	41U5254	ann 05/01/07
ThinkPad Nylon Carrying Case	10K0207	
ThinkPad Carrying Case - Expander	73P3597	
ThinkPad Carrying Case - Backpack	73P3599	
ThinkPad Premiere Leather Carrying Case	10K0209	
ThinkPad Convertible Carrying Case	22P8860	
ThinkPad Convertible Back Pack	22P8859	

### Security

Kensington® Cable Lock from Lenovo	73P2582	ann 12/29/03
USB Gemplus GemPC Smart Card Reader	41N3040	ann 02/21/06
PC Card Gemplus Smart Card Reader	41N3004	ann 12/13/05
ExpressCard Gemplus Smart Card Reader	41N3043	ann 06/27/06
USB Fingerprint Reader	41U3167	ann 10/24/06

### Monitors

Lenovo E75 17" CRT Monitor (16.0" vis) blk	6307BTN	ann 01/16/07
Lenovo L151 15" Monitor (black)	9165AB6	ann 02/28/06
Lenovo L171 17" Monitor (black)	9227AC1	ann 11/07/06
Lenovo L191 19" Monitor (black)	6135AB1	ann 06/27/06
Lenovo L192 Wide 19" Monitor (black)	6920AB1	ann 09/19/06
Lenovo D221 Wide 22" Monitor (black)	6622HB1	ann 11/21/06
ThinkVision® L171p 17" Monitor (black)	9417HC2	ann 10/31/06
ThinkVision L192p 19" Monitor (black)	9419HC2	ann 10/31/06
ThinkVision L201p 20.1" Monitor (black)	9220HB1	ann 10/31/06

### Monitor Accessories<sup>46</sup>

ThinkVision USB Soundbar	40Y7616	ann 08/23/05
Kensington Cable Lock from Lenovo	73P2582	ann 12/29/03
ThinkPad Convertible Monitor Stand Radial Arm	40Y7620	ann 01/05/06
	19K4464	ann 05/05/00

<sup>46</sup> Compatible on selected Lenovo and ThinkVision monitors.

### Multimedia

USB 2.0 Lenovo Multimedia Headset	40Y8518	ann 06/27/06
USB 2.0 Lenovo Webcam	40Y8519	ann 08/29/06

Other accessories at [lenovo.com/accessories](http://lenovo.com/accessories)

Need to buy accessories no longer marketed by Lenovo? See [www.itxchange.com/lenovo](http://www.itxchange.com/lenovo) for the Options Continuation Program.

# ThinkPad® Z61e (0672) - TopSeller - withdrawn

Created by Lenovo Training Solutions  
Personal Systems Reference (PSREF)

Type-model	Top cover color	Processor	Speed GHz	Memory	Wide-screen display	Graphics controller	Disk SATA GB	EIDE optical	Mini PCI wireless	Mini PCIe wireless	Blue-tooth	Finger print reader	Chip set	Camera	Pre-load	Workhorse (W) Gbl (G)	Avail date
0672-21U	Black	Celeron® M 410	1.46	256MB	15.4" WXGA	GMA	40GB	Combo	11a/b/g <sup>32</sup>	No	No	No	GM	No	XP Home	Gbl	May06
0672-23U	Black	Celeron M 410	1.46	512MB	15.4" WXGA	GMA	60GB	Combo	11a/b/g	No	No	No	GM	No	XP Home	Gbl	May06
0672-24U	Silver	Celeron M 410	1.46	512MB	15.4" WXGA	GMA	60GB	Combo	11a/b/g	No	No	No	GM	No	XP Home	Gbl	May06
0672-B3U	Black	Celeron M 420	1.60	256MB	15.4" WXGA	GMA	40GB	CD	11a/b/g	No	No	No	GM	No	XP Pro	Gbl	Oct 06
0672-25U	Black	Core Solo T1300	1.66	512MB	15.4" WXGA	GMA	60GB	Combo	11a/b/g	No	No	No	GM	No	XP Home	Gbl	May06
0672-26U	Silver	Core Solo T1300	1.66	512MB	15.4" WXGA	GMA	60GB	Combo	11a/b/g	No	No	No	GM	No	XP Home	Gbl	May06
0672-2UU	Black	Core Solo T1400	1.83	512MB	15.4" WXGA	GMA	60GB	Combo	11a/b/g	No	No	No	GM	No	XP Home	Gbl	May06
0672-2VU	Silver	Core Solo T1400	1.83	512MB	15.4" WXGA	GMA	60GB	Combo	11a/b/g	No	No	No	GM	No	XP Home	Gbl	May06

- These small and medium business (SMB) models are part of the US TopSeller™ Program
- These models have a 1-year limited warranty<sup>12</sup>

Positioning Processor	<i>Widescreen multimedia; two spindles</i> <b>Intel® Celeron M Processor 410 or 420</b> with Execute Disable Bit, 533MHz system bus, and 1MB L2 cache or <b>Intel Core™ Solo processor T1300 or T1400</b> with single-core, Enhanced Intel SpeedStep™ technology <sup>1</sup> , Execute Disable Bit, 667MHz bus, and 2MB L2 cache											<b>SOFTWARE<sup>14</sup></b> <b>Windows XP Professional models</b> - Microsoft® Windows® XP Professional <sup>20</sup> (Service Pack 2) ◇ Disk-to-Disk Recovery <b>Windows XP Home models</b> - Microsoft Windows XP Home Edition <sup>20</sup> (Service Pack 2) ◇ Disk-to-Disk Recovery					
Memory	<b>256MB</b> or <b>512MB</b> std / 4GB max <sup>31</sup> / PC2-5300 667MHz DDR2 / non-parity / CL5 / dual-channel capable / two 200-pin SO-DIMM sockets / standard memory in one socket / one socket available											<b>Windows XP Home models</b> - Microsoft Windows XP Home Edition <sup>20</sup> (Service Pack 2) ◇ Disk-to-Disk Recovery					
EIDE CD	<i>Some:</i> CD-ROM / 24X-10X <sup>9</sup> speed / fixed, not removable / 12.7mm high											<b>Preloaded (all)</b> • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center with Away Manager • ThinkVantage System Update • Symantec® Client Security™ • Diskeeper Lite • PC-Doctor™ (diagnostics) • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader • Google Toolbar • Google Desktop • Picasa from Google • Multimedia Center for Think Offerings • Sonic RecordNOW and Drive Letter Access (combo models) • InterVideo WinDVD (combo models)  <b>License - CD not included</b> - Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client (Notes client not supported on XP Home)					
EIDE Combo	<i>Some:</i> DVD-ROM/CD-RW / 24X/24X/24X/8X <sup>21</sup> speed / fixed, not removable / 12.7mm																
Ultrabay Enhanced	None / no support for removable Ultrabay™ options																
Serial ATA disk (SATA150)	<b>40GB<sup>8</sup></b> (5400 rpm) or <b>60GB</b> (5400 rpm) / 9.5mm high / removable and upgradable / 9.5mm high bay / no support for 2nd disk / <b>HDD Protection Pack</b> (shock absorber) / <b>Active Protection System™</b>																
Widescreen display	<b>15.4"</b> (391mm) <b>WXGA (1280x800) TFT color</b> / 16:10 aspect ratio / anti-glare / <i>Model B3U:</i> 200 nits, 500:1 contrast ratio; <i>Other models:</i> 150 nits, 300:1 contrast ratio / stainless steel hinges / one hand activates dual latches																
Graphics	<b>Intel Graphics Media Accelerator 950</b> / integrated in 945GM / 250MHz																
Keyboard (7-row) TrackPoint®	89-key / ThinkVantage button / spill-resistant / multimedia Fn keys / Windows, Appl keys / TrackPoint® pointing device																
Touch pad	No UltraNav® multi-pointing system																
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions																
Dimensions <sup>3</sup>	(WxDxH): 14.1" x 10.3" x 1.47-1.58"; 357mm x 263mm x 37.3-40.2mm																
Weight <sup>2</sup>	with optical drive and battery: <i>6-cell:</i> starting at 5.3 lb/5.8 lb (2.40kg/2.64kg)																
Case material	<i>Some:</i> black color; Polycarbonate/Acrylonitrile-Butadiene-Styrene (PC/ABS) plastic <i>Some:</i> top cover: silver color; ABS, aluminum, titanium material; bottom: black, PC/ABS																
Battery - type	Lithium Ion <b>6-cell</b> / intelligent / no support for 2nd battery in Ultrabay Enhanced																
Battery - life <sup>10</sup>	<i>6-cell:</i> up to 5.6 hr; <i>optional 9-cell:</i> up to 8.3 hr																
Architecture	<b>Mobile Intel 945GM Express Chipset</b> / 82945GM Graphics Memory Controller Hub / 82801GBM ICH7-M I/O Controller Hub (SATA300, ATA-100 EIDE, PCI Express x1, PCI bus, USB, LPC interface) / PCI bus (TI® PCI8412 CardBus controller) / LPC bus (NS PC87382 Super I/O, Atmel® AT97SC3203)																
Docking station	No port replicator or docking station support																
PC Card slot	One Type I or Type II slot / CardBus 32-bit / integrated door																
ExpressCard slot	None																
Ports	<b>4-in-1 digital media reader</b> (MultiMediaCard, Memory Stick, Secure Digital, xD-Picture Card™) / S-video out port (TV out) / IEEE 1394 (FireWire 400) / three USB 2.0 / external DB-15 monitor / RJ-11 (modem) / RJ-45 (ethernet) / no infrared port / no docking connector / no keyboard or mouse or parallel or serial ports (use USB)																
Wireless antenna	UltraConnect™ Antenna built into the display cover / on-off switch for all wireless radios											Supports ThinkVantage® technologies					
Integrated camera	None											65-watt AC adapter ThinkPad Roll Cage RoHS-compliant International Warranty Service <sup>17</sup> 24 hour x 7 day <sup>18</sup> toll-free warranty support during the warranty <sup>12</sup>					
Mini PCI Express	One Mini PCI Express slot / 802.11 wireless is customer upgradable																
11a/b/g <sup>32</sup>	11a/b/g wireless <sup>4</sup> , ThinkPad 11a/b/g Mini PCI Express Adapter, Atheros® AR5006EX																
WWAN	None																
Modem	56K® V.90 (V.92-designed <sup>29</sup> ) modem in Comm Daughter Card socket / Conexant® chip																
Bluetooth™	None																
Ethernet	Gigabit ethernet on systemboard / Broadcom® BCM5752M (MAC/PHY) / PCIe x1 / PXE																
Audio	High Definition (HD) Audio / AD1981HD codec / stereo speakers / 1 watt / volume up, down, mute buttons / mono microphone / microphone input jack / headphone jack																
Security	Power-on password / hard disk password / supervisor password / security keyhole																
Security chip	None																
Fingerprint reader	None																
Limited warranty <sup>12</sup>	<b>1-year - EasyServ™<sup>19</sup></b> onsite pickup and delivery / service upgrades <sup>22</sup> available																
512MB PC2-5300 DDR2 CL5 SODIMM	40Y7733			Z60m/R60 Series Li-Ion Battery 6-cell				40Y6795				ThinkPlus 5-year LOR 9x5 NBD					
1GB PC2-5300 DDR2 CL5 SODIMM	40Y7734			Z60m/T60/R60 Li-Ion Battery 9-cell				40Y6797				41C9173					
2GB PC2-5300 DDR2 SODIMM	40Y7735			ThinkPad External Battery Charger				40Y7625				ThinkPlus 2-year P&L P/U Depot					
USB Portable Diskette Drive	05K9276			ThinkPad 90W AC Adapter				40Y7659				41C9169					
USB Fingerprint Reader	41U3167			11a/b/g Wireless Mini PCI Adapter II				73P4301				ThinkPlus 3-year P&L P/U Depot					
USB 2.0 Security Memory Key 4GB	41U5120			Lenovo M500 Projector				0037A05				41C9170					
USB 2.0 Super Multi-Burner Drive	41N5565			Lenovo C500 Projector				0039A05				ThinkPlus 4-year P&L P/U Depot					
100GB Disk 9.5mm SATA150 (7200 rpm)	41N3013			Lenovo D221 Wide 22" Monitor (black)				6622HB1				41C9172					
Kensington® MicroSaver® Security Cable	73P2582			ThinkPad Carrying Case - Backpack				73P3599				ThinkPlus 5-year P&L P/U Depot					
Other accessories on O-Z60M sheet	Other accessories at <a href="http://lenovo.com/accessories">lenovo.com/accessories</a>											41C9174					

See footnotes for important warranty information  
US models announced May 16, May 30, or October 17, 2006  
US models withdrawn effective February, April, or September 2007

# ThinkPad® Z61e (0673) - withdrawn

Created by Lenovo Training Solutions  
Personal Systems Reference (PSREF)

Type-model	Top cover color	Processor	Speed GHz	Memory	Wide-screen display	Graphics controller	Disk SATA GB	EIDE optical	Mini PCI 802.11 wireless	Mini PCIe WWAN wireless	Blue-tooth	Finger print reader	Chip set	Camera	Pre-load	Workhorse (W) Gbl (G)	Avail date
0673-23U	Black	Celeron® M 410	1.46	512MB	15.4" WXGA	GMA	60GB	Combo	11a/b/g <sup>32</sup>	No	No	No	GM	No	XP Home	No	May06
0673-24U	Silver	Celeron M 410	1.46	512MB	15.4" WXGA	GMA	60GB	Combo	11a/b/g	No	No	No	GM	No	XP Home	No	May06
0673-25U	Black	Core Solo T1300	1.66	512MB	15.4" WXGA	GMA	60GB	Combo	11a/b/g	No	No	No	GM	No	XP Home	No	May06
0673-26U	Silver	Core Solo T1300	1.66	512MB	15.4" WXGA	GMA	60GB	Combo	11a/b/g	No	No	No	GM	No	XP Home	No	May06

• **These models have a 1-year limited warranty<sup>12</sup>**

Positioning Processor	<i>Stylish notebooks for work and life; widescreen display; two-spindle system</i> <b>Intel® Celeron M Processor 410</b> with Execute Disable Bit, 533MHz system bus, and 1MB L2 cache or <b>Intel Core™ Solo processor T1300</b> with single-core, Enhanced Intel SpeedStep™ technology <sup>1</sup> , Execute Disable Bit, 667MHz bus, and 2MB L2 cache	<b>SOFTWARE<sup>14</sup></b> <b>Windows XP Home models</b> - Microsoft® Windows® XP Home Edition <sup>20</sup> (Service Pack 2) ♦ Disk-to-Disk Recovery (in hidden protected area)  <b>Preloaded</b> • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center with Away Manager • ThinkVantage System Update • Symantec® Client Security™ • Diskeeper Lite • PC-Doctor™ (diagnostics) • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader • Google Toolbar • Google Desktop • Picasa from Google • Multimedia Center for Think Offerings • Sonic RecordNOW and Drive Letter Access (combo models) • InterVideo WinDVD (combo models)  <b>License - CD not included</b> - Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client (Notes client not supported on XP Home)			
Memory	DVD-ROM/CD-RW / 24X/24X/24X/8X <sup>21</sup> speed / fixed, not removable / 12.7 mm high None / no support for removable Ultrabay™ options				
EIDE Combo	60GB <sup>8</sup> (5400 rpm) / 9.5mm high / removable and upgradable / 9.5mm high bay / no support for 2nd disk /				
Ultrabay Enhanced Serial ATA disk (SATA150)	<b>HDD Protection Pack</b> (shock absorber) / <b>Active Protection System™</b>				
Widescreen display	<b>15.4"</b> (391mm) <b>WXGA (1280x800) TFT color</b> / 150 nits / 16:10 aspect ratio / anti-glare / stainless steel hinges / one hand activates dual latches				
Graphics	<b>Intel Graphics Media Accelerator 950</b> / integrated in 945GM / 250MHz				
Keyboard (7-row) TrackPoint®	89-key / ThinkVantage button / spill-resistant / multimedia Fn keys / Windows, Appl keys TrackPoint® pointing device				
Touch pad	No UltraNav® multi-pointing system				
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions				
Dimensions <sup>3</sup> Weight <sup>2</sup>	(WxDxH): 14.1" x 10.3" x 1.47-1.58"; 357mm x 263mm x 37.3-40.2mm with optical drive and battery: <i>6-cell</i> : starting at 5.3 lb/5.8 lb (2.40kg/2.64kg)				
Case material	<i>Some</i> : black color; Polycarbonate/Acrylonitrile-Butadiene-Styrene (PC/ABS) plastic <i>Some</i> : top cover: silver color; ABS, aluminum, titanium material; bottom: black, PC/ABS				
Battery - type	Lithium Ion <b>6-cell</b> / intelligent / no support for 2nd battery in Ultrabay Enhanced				
Battery - life <sup>10</sup>	<i>6-cell</i> : up to 5.6 hr; <i>optional 9-cell</i> : up to 8.3 hr				
Architecture	<b>Mobile Intel 945GM Express Chipset</b> / 82945GM Graphics Memory Controller Hub / 82801GBM ICH7-M I/O Controller Hub (SATA300, ATA-100 EIDE, PCI Express x1, PCI bus, USB, LPC interface) / PCI bus (TI® PCI8412 CardBus controller) / LPC bus (NS PC87382 Super I/O, Atmel® AT97SC3203)				
Docking station	No port replicator or docking station support				
PC Card slot	One Type I or Type II slot / CardBus 32-bit / integrated door				
ExpressCard slot	None				
Ports	<b>4-in-1 digital media reader</b> (MultiMediaCard, Memory Stick, Secure Digital, xD Picture Card) / S-video out port (TV out) / IEEE 1394 (FireWire 400) / three USB 2.0 / external DB-15 monitor / RJ-11 (modem) / RJ-45 (ethernet) / no infrared port / no docking connector / no keyboard or mouse or parallel or serial ports (use USB)				
Wireless antenna	UltraConnect™ Antenna built into the display cover / on-off switch for all wireless radios				
Integrated camera	None				
Mini PCI Express	One Mini PCI Express slot / 802.11 wireless is customer upgradable				
11a/b/g <sup>32</sup> WWAN	11a/b/g wireless <sup>4</sup> , ThinkPad 11a/b/g Mini PCI Express Adapter, Atheros® AR5006EX				
Modem	None				
Bluetooth™	56K® V.90 (V.92-designed <sup>29</sup> ) modem in Comm Daughter Card socket / Conexant® chip				
Ethernet	None				
Audio	Gigabit ethernet on systemboard / Broadcom® BCM5752M (MAC/PHY) / PCIe x1 / PXE High Definition (HD) Audio / AD1981HD codec / stereo speakers / 1 watt / volume up, down, mute buttons / mono microphone / microphone input jack / headphone jack				
Security	Power-on password / hard disk password / supervisor password / security keyhole				
Security chip	None				
Fingerprint reader	None				
Limited warranty <sup>12</sup>	<b>1-year - EasyServ™.19</b> onsite pickup and delivery / service upgrades <sup>22</sup> available				
512MB PC2-5300 DDR2 CL5 SODIMM	40Y7733	Z60m/R60 Series Li-Ion Battery 6-cell	40Y6795	ThinkPlus 3-year LOR 9x5 NBD	41C9168
1GB PC2-5300 DDR2 CL5 SODIMM	40Y7734	Z60m/T60/R60 Li-Ion Battery 9-cell	40Y6797	ThinkPlus 4-year LOR 9x5 NBD	41C9171
2GB PC2-4200 DDR2 CL4 SODIMM	73P3846	ThinkPad External Battery Charger	40Y7625	ThinkPlus 5-year LOR 9x5 NBD	41C9173
2GB PC2-5300 DDR2 SODIMM	40Y7735	ThinkPad 90W AC Adapter	40Y7659	ThinkPlus 2-year P&L P/U Depot	41C9169
USB Portable Diskette Drive	05K9276	11a/b/g Wireless Mini PCI Adapter II	73P4301	ThinkPlus 3-year P&L P/U Depot	41C9170
USB Fingerprint Reader	41U3167	Intel PRO/Wireless 2915ABG Mini PCI	41N2990	ThinkPlus 4-year P&L P/U Depot	41C9172
USB 2.0 Memory Key 1GB	40Y7421	Verizon Wireless V620 WWAN PC Card <sup>25</sup>	40Y9137	ThinkPlus 5-year P&L P/U Depot	41C9174
USB 2.0 CD-RW/DVD-ROM Combo II Drv	40Y8637	ThinkVision® E500 Projector	0038A05	Post-warranty annual maintenance agreements at	lenovo.com/thinkplus/warranty
USB 2.0 Super Multi-Burner Drive	41N5565	Lenovo M500 Projector	0037A05		
100GB Disk 9.5mm SATA150 (7200 rpm)	41N3013	ThinkPad Nylon Carrying Case	10K0207		
USB Keyboard with UltraNav	31P8950	ThinkPad Carrying Case - Expander	73P3597		
Kensington® MicroSaver® Security Cable	73P2582	ThinkPad Carrying Case - Backpack	73P3599		
USB Optical Wheel Mouse	06P4069	Lenovo L171 17" Monitor (black)	9227AC1		
Optical 3-Button ScrollPoint® Mouse	31P7405	Lenovo L192 Wide 19" Monitor (black)	6920AB1		
Optical 3-Button ScrollPoint Pro Mouse	31P8700	ThinkVision L171p 17" Monitor (black)	9417HC2		
Optical 3-Button Travel Wheel Mouse	31P7410	ThinkVision L201p 20.1" Monitor (black)	9220HB1		
Other options on O-Z60M sheet		Other options at <a href="http://lenovo.com/options">lenovo.com/options</a>			

See footnotes for important warranty information  
US models announced May 16 or 30, 2006  
US models withdrawn effective February 2007

# ThinkPad® Z61e (0673) - October 2006 - withdrawn

Created by Lenovo Training Solutions  
Personal Systems Reference (PSREF)

Type-model	Top cover color	Processor	Speed GHz	Mem-ory	Wide-screen display	Graphics controller	Disk SATA GB	EIDE optical	Mini PCI 802.11 wireless	Mini PCIe WWAN wireless	Finger print reader	Chip set	Cam-era	Pre-load	Workhorse Global	Avail date
0673-BHU	Black	Core™ 2 Duo T7200	2.00	1GB	15.4" WXGA	GMA	80GB	Combo	*Intel 11a/b/g <sup>32</sup>	No	No	GM	No	XP Pro	No	Oct 06

• **This model has a 1-year limited warranty<sup>12</sup>**

Positioning Processor	<i>Widescreen multimedia; two spindles</i> <b>Intel® Core 2 Duo processor T7200</b> with dual-core, Intel 64 Technology, Enhanced Intel SpeedStep™ technology <sup>1</sup> , Execute Disable Bit, 667MHz system bus, and 4MB shared L2 cache											<b>SOFTWARE<sup>14</sup></b> <b>Windows XP Professional</b> - Microsoft® Windows® XP Professional <sup>20</sup> (Service Pack 2) ♦ Disk-to-Disk Recovery (in hidden protected area)  <b>Preloaded</b> • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center with Away Manager • ThinkVantage System Update • Symantec® Client Security™ • Diskeeper® Lite • PC-Doctor™ (diagnostics) • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader • Google Toolbar • Google Desktop • Picasa from Google • Multimedia Center for Think Offerings • Sonic RecordNOW and Drive Letter Access (combo models) • InterVideo WinDVD (combo models)  <b>License - CD not included</b> - Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client (Notes client not supported on XP Home)				
Memory	<b>1GB</b> std / 4GB max <sup>31</sup> / PC2-5300 667MHz DDR2 / non-parity / CL5 / dual-channel capable / two 200-pin SO-DIMM sockets / standard memory in both sockets (512MB each socket) / no sockets available															
EIDE Combo	DVD-ROM/CD-RW / 24X/24X/24X/8X <sup>21</sup> speed / fixed, not removable / 12.7 mm high															
Ultrabay Enhanced Serial ATA disk (SATA150)	None / no support for removable Ultrabay™ options <b>80GB<sup>8</sup></b> (5400 rpm) / 9.5mm high / removable and upgradable / 9.5mm high bay / no support for 2nd disk / <b>HDD Protection Pack</b> (shock absorber) / <b>Active Protection System™</b>															
Widescreen display	<b>15.4"</b> (391mm) <b>WXGA (1280x800) TFT color</b> / 200 nits / 500:1 / 16:10 / anti-glare / stainless steel hinges / one hand activates dual latches															
Graphics	<b>Intel Graphics Media Accelerator 950</b> / integrated in 945GM / 250MHz															
Keyboard (7-row)	89-key / ThinkVantage button / spill-resistant / multimedia Fn keys / Windows, Appl keys															
TrackPoint®	TrackPoint® pointing device															
Touch pad	No UltraNav® multi-pointing system															
ThinkLight™	Illuminates the keyboard to improve visibility in low-light conditions															
Dimensions <sup>3</sup>	(WxDxH): 14.1" x 10.3" x 1.47-1.58"; 357mm x 263mm x 37.3-40.2mm															
Weight <sup>2</sup>	with optical drive and battery: <i>6-cell</i> : starting at 5.3 lb/5.8 lb (2.40kg/2.64kg)															
Case material	Black color; Polycarbonate/Acrylonitrile-Butadiene-Styrene (PC/ABS) plastic															
Battery - type	Lithium Ion <b>6-cell</b> / intelligent / no support for 2nd battery in Ultrabay Enhanced															
Battery - life <sup>10</sup>	<i>6-cell</i> : up to 5.6 hr; <i>optional 9-cell</i> : up to 8.3 hr															
Architecture	<b>Mobile Intel 945GM Express Chipset</b> / 82945GM Graphics Memory Controller Hub / 82801GBM ICH7-M I/O Controller Hub (SATA300, ATA-100 EIDE, PCI Express x1, PCI bus, USB, LPC interface) / PCI bus (TI® PCI8412 CardBus controller) / LPC bus (NS PC87382 Super I/O, Atmel® AT97SC3203)															
Docking station	No port replicator or docking station support															
PC Card slot	One Type I or Type II slot / CardBus 32-bit / integrated door															
ExpressCard slot	None															
Ports	<b>4-in-1 digital media reader</b> (MultiMediaCard, Memory Stick, Secure Digital, xD-Picture Card™) / S-video out port (TV out) / IEEE 1394 (FireWire 400) / three USB 2.0 / external DB-15 monitor / RJ-11 (modem) / RJ-45 (ethernet) / no infrared port / no docking connector / no keyboard or mouse or parallel or serial ports (use USB)															
Wireless antenna	UltraConnect™ Antenna built into the display cover / on-off switch for all wireless radios															
Integrated camera	None															
Mini PCI Express	One Mini PCI Express slot / 802.11 wireless is customer upgradable															
Intel 11a/b/g <sup>32</sup>	11a/b/g wireless <sup>4</sup> , Mini PCI Express adapter, Intel PRO/Wireless 3945ABG															
WWAN	None															
Modem	56K <sup>6</sup> V.90 (V.92-designed <sup>29</sup> ) modem in Comm Daughter Card socket / Conexant® chip															
Bluetooth™	None															
Ethernet	Gigabit ethernet on systemboard / Broadcom® BCM5752M (MAC/PHY) / PCIe x1 / PXE															
Audio	High Definition (HD) Audio / AD1981HD codec / stereo speakers / 1 watt / volume up, down, mute buttons / mono microphone / microphone input jack / headphone jack															
Security	Power-on password / hard disk password / supervisor password / security keyhole															
Security chip	None															
Fingerprint reader	None															
Limited warranty <sup>12</sup>	<b>1-year</b> - EasyServ™ <sup>19</sup> onsite pickup and delivery / service upgrades <sup>22</sup> available															
512MB PC2-5300 DDR2 CL5 SODIMM	40Y7733	Z60m/R60 Series Li-Ion Battery 6-cell	40Y6795	ThinkPlus™ <sup>22</sup> 1-year LOR 9x5 NBD	41C9166											
1GB PC2-5300 DDR2 CL5 SODIMM	40Y7734	Z60m/T60/R60 Li-Ion Battery 9-cell	40Y6797	ThinkPlus 2-year LOR 9x5 NBD	41C9167											
2GB PC2-5300 DDR2 SODIMM	40Y7735	ThinkPad External Battery Charger	40Y7625	ThinkPlus 3-year LOR 9x5 NBD	41C9168											
USB Portable Diskette Drive	05K9276	ThinkPad 90W AC Adapter	40Y7659	ThinkPlus 4-year LOR 9x5 NBD	41C9171											
USB Fingerprint Reader	41U3167	11a/b/g Wireless Mini PCI Adapter II	73P4301	ThinkPlus 5-year LOR 9x5 NBD	41C9173											
USB 2.0 Lenovo Multimedia Headset	40Y8518	Lenovo M500 Projector	0037A05	ThinkPlus 2-year P&L P/U Depot	41C9169											
USB 2.0 Security Memory Key 4GB	41U5120	Lenovo C500 Projector	0039A05	ThinkPlus 3-year P&L P/U Depot	41C9170											
USB 2.0 CD-RW/DVD-ROM Combo II Drv	40Y8637	ThinkPad Nylon Carrying Case	10K0207	ThinkPlus 4-year P&L P/U Depot	41C9172											
USB 2.0 Super Multi-Burner Drive	41N5565	ThinkPad Carrying Case - Expander	73P3597	ThinkPlus 5-year P&L P/U Depot	41C9174											
120GB Disk 9.5mm SATA150 (5400 rpm)	41N5691	ThinkPad Carrying Case - Organizer	73P3598	Post-warranty annual maintenance agreements at												
160GB Disk 9.5mm SATA150 (5400 rpm)	41N5692	ThinkPad Carrying Case - Backpack	73P3599	<b>lenovo.com/thinkplus/warranty</b>												
USB Keyboard with UltraNav	31P8950	Lenovo L171 17" Monitor (black)	9227AC1													
Kensington® MicroSaver® Security Cable	73P2582	Lenovo L192 Wide 19" Monitor (black)	6920AB1													
USB Optical Wheel Mouse	06P4069	Lenovo D221 Wide 22" Monitor (black)	6622HB1													
Optical 3-Button ScrollPoint® Pro Mouse	31P8700	ThinkVision® L171p 17" Monitor (black)	9417HC2													
Lenovo Laser Mouse (USB, PS/2)	41U3074	ThinkVision L201p 20.1" Monitor (black)	9220HB1													
Other accessories on O-Z60M sheet		Other accessories at <b>lenovo.com/accessories</b>														

See footnotes for important warranty information  
US model announced October 17, 2006  
US model withdrawn effective September 2007

© Lenovo  
(WR25E-1) September 2007

# ThinkPad® Z61e Accessories - withdrawn

Created by Lenovo Training Solutions  
Personal Systems Reference (PSREF)

## Partial list of accessories supported on ThinkPad Z61e originally announced on May 16, 2005

### Memory

512MB PC2-5300 DDR2 CL5 SODIMM	40Y7733	ann 01/05/06
1GB PC2-5300 DDR2 CL5 SODIMM	40Y7734	ann 01/05/06
2GB PC2-5300 DDR2 SODIMM	40Y7735	ann 11/28/06

### Ultrabay Slim 9.5mm

None (no removable bay options)

### Ultrabay Enhanced 12.7mm

None (no removable bay options)

### Storage and removable storage

60GB Disk 9.5mm SATA150 (7200 rpm)	41N3012	ann 01/05/06
80GB Disk 9.5mm SATA150 (5400 rpm)	41N5662	ann 08/15/06
100GB Disk 9.5mm SATA150 (7200 rpm)	41N3013	ann 01/05/06
120GB Disk 9.5mm SATA150 (5400 rpm)	41N5691	ann 03/20/07
160GB Disk 9.5mm SATA150 (5400 rpm)	41N5692	ann 03/20/07

USB 2.0 Essential Memory Key 1GB	41U4940	ann 01/23/07
USB 2.0 Essential Memory Key 2GB	41U4944	ann 01/23/07
USB 2.0 Security Memory Key 1GB	41U5118	ann 07/17/07
USB 2.0 Security Memory Key 2GB	41U5119	ann 07/17/07
USB 2.0 Security Memory Key 4GB	41U5120	ann 07/17/07

USB Portable Diskette Drive	05K9276	ann 06/05/00
USB 2.0 CD-RW/DVD-ROM Combo II Drive	40Y8637	ann 01/05/06
USB 2.0 Portable 80GB Hard Disk	41N8378	ann 04/17/07
USB 2.0 Portable 120GB Hard Disk	41N8379	ann 04/17/07
USB 2.0 Super Multi-Burner Drive	41N5565	ann 01/23/07

### Wireless LAN (Mini PCI Express)

11a/b/g Wireless Mini PCI Adapter II <sup>42</sup>	73P4301	ann 09/20/05
<sup>42</sup> System must be wireless upgradable.		
Kensington WiFi Finder Plus	40Y7717	

### ThinkPad Expansion

USB Serial Parallel Adapter	22P5298	ann 10/09/01
USB 2.0 Port Replicator with Video	40Y8132	ann 02/23/06
ThinkPad Adjustable Notebook Stand	40Y7676	ann 09/20/05

### External Keyboard

TrackPoint Cap Collection	73P2698	ann 12/16/03
USB Numeric Keypad	33L3225	ann 05/01/00
Preferred Pro USB Keyboard	73P5220	ann 06/21/05
Enhanced Performance USB Keyboard	73P2620	ann 03/23/04
Targus Wireless Keypad and Mouse Combo	40Y7721	
Enh Perf Wireless Keyboard and Mouse	73P4067	ann 12/07/04
USB Keyboard with UltraNav	31P8950	ann 01/28/03
USB Travel Keyboard with UltraNav	31P9490	ann 04/27/04
Preferred Pro USB Fingerprint Keyboard	73P4730	ann 02/22/05

### External Mouse

USB Optical Wheel Mouse	06P4069	ann 05/21/03
Optical 3-Button ScrollPoint® Mouse	31P7405	ann 08/27/02
Optical 3-Button ScrollPoint Pro Mouse	31P8700	ann 10/01/02
Optical 3-Button Travel Wheel Mouse	31P7410	
Lenovo Laser Mouse (USB, PS/2)	41U3074	ann 01/23/07

### Multimedia

USB 2.0 Lenovo Multimedia Headset	40Y8518	ann 06/27/06
USB 2.0 Lenovo Webcam	40Y8519	ann 08/29/06

### Batteries

Z60m/R60 Series Li-Ion Battery 6-cell	40Y6795	ann 09/20/05
Z60m/T60/R60 Li-Ion Battery 9-cell	40Y6797	ann 09/20/05
ThinkPad External Battery Charger <sup>44</sup>	40Y7625	ann 09/20/05
<sup>44</sup> Requires the ThinkPad 90W AC Adapter 40Y7659.		

ThinkPad 90W AC Adapter	40Y7659	ann 09/20/05
ThinkPad 90W AC/DC Combo Adapter	40Y7630	ann 12/13/05
Belkin 1 Outlet Notebook Surge	31P7658	
Belkin Universal Notebook Travel Surge	22P7127	
Belkin Surge Protector	31P7659	

### Data/Video Projectors

Lenovo M500 Projector	0037A05	ann 02/28/06
Lenovo C500 Projector	0039A05	ann 07/11/06

### Carrying Cases

Lenovo Carrying Case - Messenger Max	41U5253	ann 05/01/07
Lenovo Carry Case - Performance Backpack	41U5254	ann 05/01/07
ThinkPad Nylon Carrying Case	10K0207	
ThinkPad Carrying Case - Expander	73P3597	
ThinkPad Carrying Case - Backpack	73P3599	
ThinkPad Premiere Leather Carrying Case	10K0209	
ThinkPad Convertible Carrying Case	22P8860	

### Security

Kensington® Cable Lock from Lenovo	73P2582	ann 12/29/03
USB Gemplus GemPC Smart Card Reader	41N3040	ann 02/21/06
PC Card Gemplus Smart Card Reader	41N3004	ann 12/13/05
USB Fingerprint Reader	41U3167	ann 10/24/06

### Monitors

Lenovo E75 17" CRT Monitor (16.0" vis) blk	6307BTN	ann 01/16/07
Lenovo L151 15" Monitor (black)	9165AB6	ann 02/28/06
Lenovo L171 17" Monitor (black)	9227AC1	ann 11/07/06
Lenovo L191 19" Monitor (black)	6135AB1	ann 06/27/06
Lenovo L192 Wide 19" Monitor (black)	6920AB1	ann 09/19/06
Lenovo D221 Wide 22" Monitor (black)	6622HB1	ann 11/21/06
ThinkVision® L171p 17" Monitor (black)	9417HC2	ann 10/31/06
ThinkVision L192p 19" Monitor (black)	9419HC2	ann 10/31/06
ThinkVision L201p 20.1" Monitor (black)	9220HB1	ann 10/31/06

### Monitor Accessories<sup>46</sup>

ThinkVision USB Soundbar	40Y7616	ann 08/23/05
Kensington Cable Lock from Lenovo	73P2582	ann 12/29/03
ThinkPad Convertible Monitor Stand	40Y7620	ann 01/05/06
Radial Arm	19K4464	ann 05/05/00

<sup>46</sup> Compatible on selected Lenovo and ThinkVision monitors.

Other accessories at [lenovo.com/accessories](http://lenovo.com/accessories)

Need to buy accessories no longer marketed by Lenovo? See [www.itxchange.com/lenovo](http://www.itxchange.com/lenovo) for the Options Continuation Program.

# ThinkPad® Z61p (9450) - TopSeller - withdrawn

Created by Lenovo Training Solutions  
Personal Systems Reference (PSREF)

Type-model	Top cover color	Processor	Speed Mem-GHz	Memory	Wide-screen display	Disk GraphicsSATA controller GB	EIDE optical	Mini PCI 802.11 wireless	Mini PCIe WWAN Blue-tooth	Finger print reader	Bat- tery cells	One Note CD	Work- horse Gbl	Avail date																																																																			
9450-3AU	Black	Core Duo T2500	2.00	1GB	15.4"	WUXGA 256MB	100G DVD±RW*	Intel 11a/b/g <sup>32</sup>	None	Blue Finger	6	No	Jul 06																																																																				
9450-A1U	Black	Core 2 Duo T7200	2.00	1GB	15.4"	WUXGA 256MB	100G DVD±RW	ThinkPad 11n <sup>28</sup>	None	Blue Finger	9	No	Oct 06																																																																				
<ul style="list-style-type: none"> <li>• These small and medium business (SMB) models are part of the US TopSeller™ Program</li> <li>• These models have a 1-year limited warranty<sup>12</sup></li> </ul>																																																																																	
Positioning Processor		Widescreen multimedia; two spindles										<b>SOFTWARE<sup>14</sup></b> <b>Windows XP Professional</b> - Microsoft® Windows® XP Professional <sup>20</sup> (Service Pack 2) ◆ Disk-to-Disk Recovery																																																																					
Memory		<b>Intel® Core™ Duo processor T2500</b> with dual-core, Enhanced Intel SpeedStep™ technology <sup>1</sup> , Execute Disable Bit, 667MHz system bus, and 2MB shared L2 cache or <b>Intel Core 2 Duo processor T7200</b> with dual-core, Intel 64 Technology, Enhanced Intel SpeedStep™ technology <sup>1</sup> , Execute Disable Bit, 667MHz system bus, and 4MB shared L2 cache <b>1GB</b> std / 4GB max <sup>31</sup> / PC2-5300 667MHz DDR2 / non-parity / CL5 / dual-channel capable / two 200-pin SO-DIMM sockets / <b>3AU:</b> standard memory in both sockets (512MB each socket); no sockets available; <b>A1U:</b> standard memory in 1 socket; 1 socket available																																																																															
EIDE DVD±RW Ultrabay Enhanced Serial ATA disk (SATA150)		DVD burner / Super Multi-Burner (40Y8623) dual-layer, removable Ultrabay Enhanced One modular bay for interchangeable devices / Ultrabay Slim-compatible / 12.7mm high <b>100GB<sup>8</sup></b> (7200 rpm) / 9.5mm high / removable and upgradable / 9.5mm high bay / supports 2nd disk / <b>HDD Protection Pack</b> (shock absorber) / <b>Active Protection System™</b>										<b>Preloaded</b> • Model A1U: Microsoft Office OneNote® 2003 • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center with Away Manager • ThinkVantage System Update • Symantec® Client Security™ • Diskeeper Lite • PC-Doctor™ (diagnostics) • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader • Google Toolbar • Google Desktop • Picasa from Google • Fingerprint Software (fingerprint models) • Multimedia Center for Think Offerings • Sonic RecordNOW and Drive Letter Access (DVD±RW models) • InterVideo WinDVD (DVD±RW models) • InterVideo WinDVD Creator (DVD±RW models)																																																																					
Widescreen display (anti-glare)		<b>15.4"</b> (391mm) <b>WUXGA (1920x1200) TFT color</b> / 175 nits / 500:1 contrast ratio / 16:10 aspect ratio / stainless steel hinges / one hand activates dual latches																																																																															
Graphics		<b>ATI® MOBILITY™ FireGL™ V5200 M56</b> / PCI Express x16 / <b>256MB</b> memory / DVI pass-through support to optional Advanced Mini Dock and Advanced Dock										<b>CD included</b> • Model A1U: Microsoft Office OneNote 2003 <b>License - CD not included</b> - Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client																																																																					
Keyboard TrackPoint® ThinkLight™		89-key / ThinkVantage button / spill-resistant / multimedia Fn keys / Windows, Appl keys TrackPoint® pointing device / UltraNav® multi-pointing system (touchpad) Illuminates the keyboard to improve visibility in low-light conditions																																																																															
Dimensions <sup>3</sup> Weight <sup>2</sup> Case material Battery - type Battery - life <sup>10</sup>		(WxDxH): 14.1" x 10.3" x 1.47-1.58"; 357mm x 263mm x 37.3-40.2mm with optical drive and battery: <b>6-cell:</b> up to 7.0 lb (3.2kg); <b>9-cell:</b> up to 7.3 lb (3.3kg) Black color; Polycarbonate/Acrylonitrile-Butadiene-Styrene (PC/ABS) plastic Lithium Ion <b>6-cell</b> or <b>9-cell</b> / intelligent / supports unique 2nd battery in Ultrabay Enhance <b>6-cell ATI graphics:</b> up to 4.0 hr; <b>9-cell ATI graphics:</b> up to 5.9 hr; <b>9-cell plus Ultrabay battery:</b> up to 7.9 hr										<b>CD included</b> • Model A1U: Microsoft Office OneNote 2003 <b>License - CD not included</b> - Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client																																																																					
Architecture		<b>Mobile Intel 945PM Express Chipset</b> / 82945PM Memory Controller Hub / 82801GBM ICH7-M I/O Controller Hub (SATA300, ATA-100 EIDE, PCI Express x1, PCI bus, USB, LPC interface, [Bluetooth], [fingerprint]) / PCI bus (TI® PCI8412 CardBus controller) / LPC bus (NS PC87382 Super I/O, Atmel® AT97SC3203)																																																																															
PC Card slot ExpressCard slot Ports		One Type I or Type II slot / CardBus 32-bit / integrated door One ExpressCard/34 or ExpressCard/54 / PCI Express x1 or USB 2.0 / integrated door <b>4-in-1 digital media reader</b> (MultiMediaCard, Memory Stick, Secure Digital, xD-Picture Card™) / S-video out port (TV out) / IEEE 1394a-2000 (FireWire 400) / three USB 2.0 / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / docking connector / no keyboard or mouse or parallel or serial ports (use USB)										<b>CD included</b> • Model A1U: Microsoft Office OneNote 2003 <b>License - CD not included</b> - Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client																																																																					
Wireless antenna Integrated camera Mini PCI Express Intel 11a/b/g <sup>32</sup> ThinkPad 11n <sup>28</sup>		UltraConnect™ Antenna built into the display cover / on-off switch for all wireless radios None Two Mini PCI Express slots / only 802.11 wireless is customer upgradable <b>Some:</b> 11a/b/g wireless <sup>4</sup> , Mini PCI Express adapter, Intel PRO/Wireless 3945ABG <b>Some:</b> 11a/b/g/n wireless <sup>4</sup> , ThinkPad 11a/b/g/n Mini PCI Express Adapter, Atheros AR5008 chipset, <b>MIMO 2x3</b>																																																																															
WWAN Modem Bluetooth™ Ethernet Audio		None 56K <sup>9</sup> V.90 (V.92-designed <sup>29</sup> ) modem in Comm Daughter Card socket / Conexant® chip Bluetooth 2.0 wireless technology / USB 2.0 via ICH7-M / LED indicator Gigabit ethernet on systemboard / Broadcom® BCM5752M (MAC/PHY) / PCIe x1 / PXE High Definition (HD) Audio / AD1981HD codec / stereo speakers / 1 watt / volume up, down, mute buttons / <b>ATI graphics models:</b> stereo microphone / microphone input jack / headphone jack										Supports ThinkVantage® technologies  90-watt (ATI graphics) AC adapter ThinkPad Roll Cage RoHS-compliant International Warranty Service <sup>17</sup> 24 hour x 7 day <sup>18</sup> toll-free warranty support during the warranty <sup>12</sup>																																																																					
Security Security chip Fingerprint reader		Power-on password / hard disk password / supervisor password / security keyhole Trusted Platform Module / Atmel chip / TCG 1.2-compliant Fingerprint reader on palm rest / swipe sensor / supports the security chip																																																																															
Limited warranty <sup>12</sup>		<b>1-year</b> - EasyServ™.19 onsite pickup and delivery / service upgrades <sup>22</sup> available										ThinkPlus™.22 1-year LOR 9x5 NBD 41C9166 ThinkPlus 2-year LOR 9x5 NBD 41C9167 ThinkPlus 3-year LOR 9x5 NBD 41C9168 ThinkPlus 4-year LOR 9x5 NBD 41C9171 ThinkPlus 5-year LOR 9x5 NBD 41C9173 ThinkPlus 2-year P&L P/U Depot 41C9169 ThinkPlus 3-year P&L P/U Depot 41C9170 ThinkPlus 4-year P&L P/U Depot 41C9172 ThinkPlus 5-year P&L P/U Depot 41C9174 Post-warranty annual maintenance agreements at <b>lenovo.com/thinkplus/warranty</b>																																																																					
512MB PC2-5300 DDR2 CL5 SODIMM		40Y7733	Z60m/R60 Series Li-Ion Battery 6-cell		40Y6795	1GB PC2-5300 DDR2 CL5 SODIMM		40Y7734	Z60m/T60/R60 Li-Ion Battery 9-cell		40Y6797				2GB PC2-5300 DDR2 SODIMM		40Y7735	ThinkPad Essential Port Replicator		250510W	DVD-ROM Ultrabay Enhanced Drive		39X2642	ThinkPad Advanced Mini Dock		250410U	CD-RW/DVD Combo Ultrabay Enhanced		73P3275	ThinkPad Advanced Dock		250310U	ThinkPad DVD Ultrabay Slim Burner (flat)		41N5643	ThinkPad External Battery Charger		40Y7625	USB Fingerprint Reader		41U3167	ThinkPad 90W AC Adapter		40Y7659	USB 2.0 Security Memory Key 4GB		41U5120	11a/b/g Wireless Mini PCI Express Adpr		40Y7026	USB 2.0 Super Multi-Burner Drive		41N5565	Intel PRO/Wireless 3945ABG Mini PCIe		41N3008	Serial Hard Drive Ultrabay Slim Adapter		40Y8725	Lenovo M500 Projector		0037A05	100GB Disk 9.5mm SATA150 (7200 rpm)		41N3013	ThinkPad Carrying Case - Backpack		73P3599	USB Keyboard with UltraNav		31P8950	Lenovo L192 Wide 19" Monitor (black)		6920AB1	Kensington® MicroSaver® Security Cable		73P2582	Lenovo D221 Wide 22" Monitor (black)		6622HB1	Other accessories on O-Z60M sheet

See footnotes for important warranty information  
US models announced July 18 or October 17, 2006  
US models withdrawn effective April or September 2007

\* Powered by Intel Centrino® Duo processor technology

# ThinkPad® Z61p (9452) - withdrawn

Created by Lenovo Training Solutions  
Personal Systems Reference (PSREF)

Type-model	Top cover color	Processor	Speed GHz	Mem-ory	Wide-screen display	Graphics controller	Disk SATA GB	EIDE optical	Mini PCI 802.11 wireless	Mini PCIe WWAN Blue-tooth	Finger-print reader	Bat-tery Pre-load	Work-horse Gbl	Avail date
9452-JRU	Black	Core 2 Duo T7200	2.00	1GB	15.4" WUXGA	256MB	100G	DVD±RW*	Intel 11a/b/g <sup>32</sup>	None	Blue Finger	9	Pro W G	Oct06

- This model has a 3-year limited warranty<sup>12</sup>

Positioning Processor	<i>Widescreen multimedia; two spindles</i>										<b>SOFTWARE<sup>14</sup></b> <b>Windows XP Professional</b> - Microsoft® Windows® XP Professional <sup>20</sup> (Service Pack 2) ♦ Disk-to-Disk Recovery <b>Preloaded</b> • Rescue and Recovery™ • Access Connections™ • Client Security Solution™ • ThinkVantage Productivity Center with Away Manager • ThinkVantage System Update • Symantec® Client Security™ • Diskeeper® Lite • PC-Doctor™ (diagnostics) • ThinkPad Utilities (Power Manager and Presentation Director) • Adobe® Reader • Google Toolbar • Google Desktop • Picasa from Google • Fingerprint Software (fingerprint models) • Multimedia Center for Think Offerings • Sonic RecordNow and Drive Letter Access (DVD±RW models) • InterVideo WinDVD (DVD±RW models) • InterVideo WinDVD Creator (DVD±RW models) <b>License - CD not included</b> - Lotus® SmartSuite® Millennium and Lotus Notes® Stand-alone Client			
Memory	<b>Intel® Core™ 2 Duo processor T7200</b> with dual-core, Intel 64 Technology, Enhanced Intel SpeedStep™ technology <sup>1</sup> , Execute Disable Bit, 667MHz system bus, and 4MB shared L2 cache [Virtualization Technology not supported] <b>1GB</b> std / 4GB max <sup>31</sup> / PC2-5300 667MHz DDR2 / non-parity / CL5 / dual-channel capable / two 200-pin SO-DIMM sockets / standard memory in one socket / one socket available													
EIDE DVD±RW Ultrabay Enhanced Serial ATA disk (SATA150)	DVD burner / Super Multi-Burner (40Y8623) dual-layer, removable Ultrabay Enhanced One modular bay for interchangeable devices / Ultrabay Slim-compatible / 12.7mm high <b>100GB<sup>4</sup></b> (7200 rpm) / 9.5mm high / removable and upgradable / 9.5mm high bay / supports 2nd disk / HDD Protection Pack (shock absorber) / Active Protection System™													
Widescreen display (anti-glare)	<b>15.4"</b> (391mm) <b>WUXGA (1920x1200) TFT color</b> / 175 nits / 500:1 contrast ratio / 16:10 aspect ratio / stainless steel hinges / one hand activates dual latches													
Graphics	<b>ATI® MOBILITY™ FireGL™ V5200 M56</b> / PCI Express x16 / <b>256MB</b> memory / DVI pass-through support to optional Advanced Mini Dock and Advanced Dock													
Keyboard TrackPoint® ThinkLight™	89-key / ThinkVantage button / spill-resistant / multimedia Fn keys / Windows, Appl keys TrackPoint® pointing device / UltraNav® multi-pointing system (touchpad) Illuminates the keyboard to improve visibility in low-light conditions													
Dimensions <sup>3</sup> Weight <sup>2</sup> Case material Battery - type Battery - life <sup>10</sup>	(WxDxH): 14.1" x 10.3" x 1.47-1.58"; 357mm x 263mm x 37.3-40.2mm with optical drive and battery: <i>9-cell</i> : up to 7.3 lb (3.3kg) Black color; Polycarbonate/Acrylonitrile-Butadiene-Styrene (PC/ABS) plastic Lithium Ion <b>9-cell</b> / intelligent / supports unique 2nd battery in Ultrabay Enhanced <i>6-cell ATI graphics</i> : up to 4.0 hr; <i>9-cell ATI graphics</i> : up to 5.9 hr; <i>9-cell plus Ultrabay battery</i> : up to 7.9 hr													
Architecture	<b>Mobile Intel 945PM Express Chipset</b> / 82945PM Memory Controller Hub / 82801GBM ICH7-M I/O Controller Hub (SATA300, ATA-100 EIDE, PCI Express x1, PCI bus, USB, LPC interface, [Bluetooth], [fingerprint]) / PCI bus (TI® PCI8412 CardBus controller) / LPC bus (NS PC87382 Super I/O, Atmel® AT97SC3203)													
PC Card slot ExpressCard slot Ports	One Type I or Type II slot / CardBus 32-bit / integrated door One ExpressCard/34 or ExpressCard/54 / PCI Express x1 or USB 2.0 / integrated door <b>4-in-1 digital media reader</b> (MultiMediaCard, Memory Stick, Secure Digital, xD-Picture Card™) / S-video out port (TV out) / IEEE 1394a-2000 (FireWire 400) / three USB 2.0 / external DB-15 monitor / infrared (4Mbps) / RJ-11 (modem) / RJ-45 (ethernet) / docking connector / no keyboard or mouse or parallel or serial ports (use USB)													
Wireless antenna Integrated camera Mini PCI Express Intel 11a/b/g <sup>32</sup> WWAN Modem Bluetooth™ Ethernet Audio	UltraConnect™ Antenna built into the display cover / on-off switch for all wireless radios None Two Mini PCI Express slots / only 802.11 wireless is customer upgradable 11a/b/g wireless <sup>4</sup> , Mini PCI Express adapter, Intel PRO/Wireless 3945ABG None 56K® V.90 (V.92-designed <sup>29</sup> ) modem in Comm Daughter Card socket / Conexant® chip Bluetooth 2.0 wireless technology / USB 2.0 via ICH7-M / LED indicator Gigabit ethernet on systemboard / Broadcom® BCM5752M (MAC/PHY) / PCIe x1 / PXE High Definition (HD) Audio / AD1981HD codec / stereo speakers / 1 watt / volume up, down, mute buttons / <i>ATI graphics models</i> : stereo microphone / microphone input jack / headphone jack													
Security Security chip Fingerprint reader	Power-on password / hard disk password / supervisor password / security keyhole Trusted Platform Module / Atmel chip / TCG 1.2-compliant Fingerprint reader on palm rest / swipe sensor / supports the security chip													
Limited warranty <sup>12</sup>	<b>3-year/1-yr battery - EasyServ™<sup>19</sup> onsite pickup and delivery / service upgrades<sup>22</sup> avail</b>													
512MB PC2-5300 DDR2 CL5 SODIMM	40Y7733	Z60m/R60 Series Li-Ion Battery 6-cell	40Y6795											
1GB PC2-5300 DDR2 CL5 SODIMM	40Y7734	Z60m/T60/R60 Li-Ion Battery 9-cell	40Y6797											
2GB PC2-5300 DDR2 SODIMM	40Y7735	ThinkPad Essential Port Replicator	250510W											
DVD-ROM Ultrabay Enhanced Drive	39X2642	ThinkPad Advanced Mini Dock	250410U											
CD-RW/DVD Combo Ultrabay Enhanced	73P3275	ThinkPad Advanced Dock	250310U											
ThinkPad DVD Ultrabay Slim Burner (flat)	41N5643	ThinkPad External Battery Charger	40Y7625											
USB Fingerprint Reader	41U3167	ThinkPad 90W AC Adapter	40Y7659											
USB 2.0 Lenovo Multimedia Headset	40Y8518	11a/b/g Wireless Mini PCI Express Adpr	40Y7026											
USB 2.0 Security Memory Key 4GB	41U5120	Intel PRO/Wireless 3945ABG Mini PCIe	41N3008											
USB 2.0 Super Multi-Burner Drive	41N5565	Lenovo M500 Projector	0037A05											
Serial Hard Drive Ultrabay Slim Adapter	40Y8725	Lenovo C500 Projector	0039A05											
160GB Disk 9.5mm SATA150 (5400 rpm)	41N5692	ThinkPad Carrying Case - BackPack	73P3599											
USB Keyboard with UltraNav	31P8950	Lenovo L192 Wide 19" Monitor (black)	6920AB1											
Kensington® MicroSaver® Security Cable	73P2582	Lenovo D221 Wide 22" Monitor (black)	6622HB1											
Lenovo Laser Mouse (USB, PS/2)	41U3074	ThinkVision® L201p 20.1" Monitor (black)	9220HB1											
Other accessories on O-Z60M sheet		Other accessories at <a href="http://lenovo.com/accessories">lenovo.com/accessories</a>												
ThinkPlus™ <sup>22</sup> 2-year LOR 9x5 NBD	41C9175	ThinkPlus 3-year LOR 9x5 NBD	41C9176											
ThinkPlus 4-year LOR 9x5 NBD	41C9177	ThinkPlus 5-year LOR 9x5 NBD	41C9179											
ThinkPlus 4-year P&L P/U Depot	41C9178	ThinkPlus 5-year P&L P/U Depot	41C9180											
Post-warranty annual maintenance agreements at <a href="http://lenovo.com/thinkplus/warranty">lenovo.com/thinkplus/warranty</a>														

See footnotes for important warranty information  
US model announced October 17, 2006  
US model withdrawn effective September 2007

\* Powered by Intel Centrino® Duo processor technology

© Lenovo  
(WR25W-1) September 2007



**Availability:** All offers subject to availability. Lenovo reserves the right to alter product offerings and specifications at any time, without notice. Lenovo is not responsible for photographic or typographic errors.

**Warranty:** For a copy of applicable product warranties, write to: Warranty Information, P.O. Box 12195, RTP, NC, 27709, Attn: Dept ZPYA/B676. Lenovo makes no representation or warranty regarding third party products or services.

**Footnotes:**

- <sup>1</sup> With Intel SpeedStep, processor speed may be reduced to conserve battery power.
- <sup>2</sup> **Weight** includes battery and standard optical drive; weight may vary due to vendor components, manufacturing process and options.
- <sup>3</sup> **Thinness** may vary at certain points on the system.
- <sup>4</sup> **Wireless capability:** Requires compatible wireless-enabled options sold separately.
- <sup>5</sup> **TAA:** ThinkPad notebook is compliant with the U.S. Federal Government's country-of-origin requirements prescribed in 48 C.F.R. Subpart 25.4; Trade Act Agreement (TAA) model.
- <sup>6</sup> **Public network download speeds** are limited to 53Kbps. Upload speeds are limited to 31.2Kbps. Compatible phone line and server equipment required. Actual speeds depend on many factors and are often less than the maximum possible.
- <sup>7</sup> **Maximum memory and hard disk drive capacity** may require the replacement of standard component with largest supported component available.
- <sup>8</sup> **Hard drive:** GB = billion bytes, TB = trillion bytes. Accessible capacity is less; up to 4GB is service partition.
- <sup>9</sup> **CD/DVD drive speeds** list maximum rates; rates are variable and are often less than the maximum.
- <sup>10</sup> **Battery:** These model numbers achieved Battery Rundown Time of at least the time shown during testing. A description of the testing available at [lenovo.com/pc/www/thinkpad/batterylife](http://lenovo.com/pc/www/thinkpad/batterylife). Battery life (and recharge times) will vary based on many factors including screen brightness, applications, features, power management, battery conditioning, and other customer preferences.
- <sup>11</sup> **Memory:** For ThinkPad models without a separate video card, memory supports both system and video. Accessible system memory may be up to 64MB less than the amount stated, depending on video mode.
- <sup>12</sup> **Limited warranty:** Support unrelated to a warranty issue may be subject to additional charges.
- <sup>13</sup> **Internet access not included.**
- <sup>14</sup> **Included software** may differ from its retail version (if available), and may not include user manuals or all program functionality. Software license agreements may apply.
- <sup>15</sup> **Update Connector** is available to registered ThinkPad customers during the limited warranty period at no charge. Line charges may apply.
- <sup>16</sup> **Activating Verizon Wireless Service:** Lenovo customers will be contacted after purchase to activate service; requires separate agreement with Verizon Wireless and is subject to the Customer Agreement, Calling Plan, and credit approval. Service and airtime charges will apply; \$175 early termination fee. Verizon Wireless, not Lenovo, is solely responsible for service. Service not available in all areas; purchaser is responsible for verifying that service is available for the intended location before purchasing a computer equipped with WAN card. Network details, coverage limitations, and maps at [www.verizonwireless.com](http://www.verizonwireless.com).
- <sup>17</sup> **International Warranty Service** is available in any country in which this product is sold and serviced. Service delivery methods and parts availability vary by country, may be different from that in the country of purchase, and are subject to change without notice. Fees and restrictions may apply in some countries.
- <sup>18</sup> **Telephone support** may be subject to additional charges, even during the limited warranty period. Response times may vary. May exclude some holidays. If a machine is listed as having "On-site service for select repairs", this means that onsite service is available only for the replacement of select parts. For all other warranty repairs, Lenovo will provide the customer a replacement part for customer installation. The parts for which onsite service is available varies by machine, but may include the processor, power supply, heat sink, system board, or base cover. For ThinkPad notebooks with EasyServ or Courier service, Lenovo will attempt to diagnose and resolve the problem remotely before sending a courier.
- <sup>19</sup> **EasyServ depot repair service:** In the United States call 1-800-426-7378. The customer may be asked certain diagnostic questions before a courier is sent. Your ThinkPad purchase includes this depot repair service, available in the U.S. during the limited warranty period.
- <sup>20</sup> **Operating System:** Level of support varies by operating system. Operating systems not preloaded on the system may not provide full feature functionality. Refer to [lenovo.com/pc/support](http://lenovo.com/pc/support) and enter your machine type and model number for more information.
- <sup>21</sup> **For combination drives**, maximum possible speeds only are given in the following order: CD write, CD rewrite, CD read, DVD read.
- <sup>22</sup> **ThinkPlus Services:** These services are available for machines normally used for business, professional, or trade purposes, rather than personal, family, or household purposes. Not all machine types and models are covered. Service period begins with the equipment date of purchase. Service must be purchased during the original limited product warranty period. Service levels are response time objectives and are not guarantees. If the machine problem turns out to be a Customer Replaceable Unit (CRU), a part will be express shipped to you for quick replacement. Onsite 24x7x2-hour service is not available in all locations. For ThinkPad notebooks requiring LCD or other component replacement, Lenovo may choose to perform service at the depot repair center. Calls must be received by 5 pm local time in order to qualify for Next Business Day service. P&L means parts and labor. P/U means pick-up. See ThinkPlus terms and conditions for complete details and restrictions.

- <sup>23</sup> **Activating AT&T Wireless Service:** Requires separate agreement with AT&T, subject to service agreement, rate plan and coverage maps. AT&T, not Lenovo, is solely responsible for service. Coverage not available in all areas; AT&T BroadbandConnect available in select metropolitan markets. Special credit and tenure restrictions and additional charges may apply to international roaming. A network connection, third-party software, additional hardware, and/or subscription to a third-party service may be required for certain solutions/applications. Additional restrictions apply, including early termination fee; see [www.wireless.att.com](http://www.wireless.att.com) for details. To activate call Lenovo Wireless Activation Hot Line at 1-877-299-4710.
- <sup>24</sup> **Limited onsite service systems** are designed to be repaired during the applicable warranty period primarily with customer-replaceable parts provided by Lenovo. Lenovo will only send a technician onsite to perform a repair if (a) remote telephone diagnosis and/or customer part replacement are unable to resolve the problem, or (b) the part is one of the few designated by Lenovo for onsite replacement. For a list of onsite replaceable parts, contact Lenovo. In the United States call 1-800-426-7378. Support unrelated to a warranty issue may be subject to additional charges. Lenovo onsite repair (LOR), 8 am to 5 pm, Monday through Friday coverage excluding holidays, next business day (NBD) response time.
- <sup>26</sup> **Full-size keyboard:** As defined by ISO/IEC 15412.
- <sup>27</sup> **Based on IEEE 802.11a and 802.11b.** A customer can not upgrade to a different wireless Mini PCI adapter due to FCC regulations. Security screws prevent removal of this adapter. This wireless LAN product has been designed to permit legal operation world-wide in regions which it is approved. This product has been tested and certified to be interoperable by the Wireless Ethernet Compatibility Alliance and is authorized to carry the Wi-Fi logo.
- <sup>28</sup> **The IEEE 802.11n specification (MIMO)** has not been finalized and is currently in draft release. The ThinkPad 11a/b/g/n (11n) Wireless LAN Mini PCI Express Adapters are based on the Draft Release, Version 1.02, of the IEEE 802.11n specification. The Intel Mini PCI Express Adapters are based on the Draft Release, Version 2.0 of the IEEE 802.11n specification. The maximum speed depends on the access point device and the number of integrated antenna used for connection. An adapter with 11a/b, 11a/b/g, or 11a/b/g/n can communicate on any of its supported formats.
- <sup>29</sup> **Modem speeds:** Public network download speeds are limited to 53Kbps. Upload speeds are limited to 48Kbps for V.92 modems. Actual speeds depend on many factors and are often less than the maximum possible. V.92 functions and speeds require compatible phone line and server equipment. Check with your telephone and ISP service providers for availability.
- <sup>30</sup> **Measures only maximum** data transfer rate, not application performance. Many factors affect application performance.
- <sup>31</sup> **Maximum memory capacity** may require the replacement of standard component with largest supported component available. On ThinkPad systems with an Intel 945GM, 945PM, GM965, or PM965 chipset, even though it is possible to physically install 4GB of memory, the actual amount of memory addressable by an operating system will be limited to 3GB. This limitation does not exist with the Intel GM965 and PM965 with the 64-bit operating systems Windows XP Professional 64-bit and Windows Vista 64-bit Editions.
- <sup>32</sup> **Wireless:** Based on IEEE 802.11a, 802.11b, and 802.11g respectively. An adapter with 11a/b, 11b/g, or 11a/b/g can communicate on either/any of these listed formats respectively, the actual connection will be based on the access point to which it connects.

- <sup>33</sup> **Embedded Security Subsystem** may require download of client security software from the Web and requires Internet access, not included.
- <sup>34</sup> **Asset ID** allows system-specific information to be stored in a chip inside the system; it does not have any radio frequency support.
- <sup>35</sup> **Operating system:** Level of support varies by operating system. Operating systems not preloaded on the system may not provide full feature functionality. Refer to [lenovo.com/think/support](http://lenovo.com/think/support) and enter your machine type and model number for more information.
- <sup>36</sup> **Wireless upgradable** allows the system to be wireless-enabled with an optional wireless Mini PCI or Mini PCI Express card. Designed to operate only with Lenovo options.
- <sup>37</sup> **Mobile processors:** Power management reduces processor speed when in battery mode.

This publication was developed for products and services offered in the United States. Lenovo may not offer the products, services or features discussed in this document in other countries. Lenovo may withdraw an offering at any time. Information is subject to change without notice. Consult your local representative for information on offerings available in your area.

Lenovo reserves the right to change specifications or other product information without notice. Lenovo is not responsible for photographic or typographical errors. LENOVO PROVIDES THIS PUBLICATION "AS IS," WITHOUT WARRANTY OF ANY KIND, EITHER EXPRESS OR IMPLIED, INCLUDING THE IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. Some jurisdictions do not allow disclaimer of express or implied warranties in certain transactions, therefore this disclaimer may not apply to you.

The ThinkPad logo consists of the word "ThinkPad" in a bold, black, sans-serif font. A small red dot is positioned above the letter "i". A registered trademark symbol (®) is located to the upper right of the word.

**Trademarks:** Lenovo, the Lenovo logo, New World. New Thinking., Access Connections, Active Protection System, Rescue and Recovery, ThinkPad, ThinkVantage, ThinkVision, ThinkPlus, ThinkCentre, TrackPoint, UltraConnect, UltraNav, and Ultrabay are trademarks or registered trademarks of Lenovo. The Bluetooth word mark and logos are owned by the Bluetooth SIG, Inc. Any use of such marks by Lenovo is under license. Microsoft, Windows, and Vista are registered trademarks of Microsoft Corporation. Intel, the Intel logo, Intel Inside logo, Intel Core and Core Inside, Intel Centrino logo, Pentium, Celeron and Intel SpeedStep are trademarks or registered trademarks of Intel Corporation or its subsidiaries in the United States and other countries. Cisco and Aironet are registered trademarks of Cisco Corporation. Linux is a trademark of Linus Torvalds in the United States, other countries, or both. Other company, product and service names may be trademarks or service marks of others.

**Visit [lenovo.com/safecomputing](http://lenovo.com/safecomputing) periodically for the latest information on safe and effective computing.**

© Lenovo, 2008.  
All rights reserved.

Lenovo  
1009 Think Place  
Morrisville, NC 27560  
U.S.A.

November 2008  
ltwbook.pdf