

ThinkStation

Personal Systems Reference Lenovo ThinkStation Workstations

December 2008 - Version 349



ThinkStation S10 (left)
ThinkStation D10 (right)

lenovo.com

ThinkStation



Lenovo ThinkStation S10



Lenovo ThinkStation S10 (left)
Lenovo ThinkStation D10 (right)



Lenovo ThinkStation S10



Lenovo ThinkStation S10



Lenovo ThinkStation S10



Lenovo ThinkStation S10
with Lenovo ThinkVision Monitor

Name	Type-model	Slot x bay	Processor	GHz	Cores	Mem-ory	Disk(s)	RAID	SATA optical	Graphics adapter(s)	1394 adptry	Sound adptry	ENERGY STAR 4.0	Vista preload	Workhorse Global	Avail date
S10	6423-26U	5x6	E6750	2.66	2	2GB	1 x 250GB ² SATA		DVD±RW	1 x FX370	1394		ES40	Bus64	No	Jan 08
S10	6423-27U	5x6	E6850	3.00	2	2GB	2 x 250GB SATA		DVD±RW	1 x FX1700			ES40	Bus64	No	Jan 08
S10	6423-28U	5x6	E6850	3.00	2	2GB	1 x 146GB SAS		DVD±RW	1 x FX1700			ES40	Bus64	No	Jan 08
S10	6423-29U	5x6	E6850	3.00	2	2GB	2 x 250GB SATA		DVD±RW	1 x FX1700	1394	X-Fi	ES40	Bus64	No	Jan 08
S10	6423-31U	5x6	Q6600	2.40	4	2GB	2 x 250GB SATA		DVD±RW	1 x FX1700	1394	X-Fi	ES40	Bus64	No	Jan 08
S10	6423-32U	5x6	Q6700	2.66	4	2GB	2 x 160GB SATA	1	DVD±RW	2 x NVS290			ES40	Bus64	No	Jan 08

- High performance workstation with premium graphics for specialized professionals
- Environmentally friendly, cool, and quiet with rock solid engineering
- These small and medium business (SMB) models are part of the US TopSeller™ Program

Processor	Intel® Core™ 2 Duo Processor E6750 or E6850 with dual-core, 1333MHz system bus, and 4MB L2 cache or Intel Core 2 Quad Processor Q6600 or Q6700 with quad-core, 1066MHz system bus, and 8MB L2 cache Processor uses FC-LGA6 package, one LGA775 socket		Tower <ul style="list-style-type: none"> • Raven black color; metal case • 6.9"W x 19.0"D x 16.8"H (without handle) • 175mm W x 483mm D x 426mm H • 36 lb (16.4kg) max configuration • 31-liter • Removable handle on top front • Toolless side cover removal • Toolless disk and optical drive removal • Toolless adapter retention • Illuminated front icons • Rack shelf support 	
Implementation	Processor uses FC-LGA6 package, one LGA775 socket			
Memory	2GB std, 8GB max, PC3-8500 1066MHZ DDR3, ECC, dual-channel capable, four 240-pin DIMM sockets; <i>Non-italics:</i> standard memory in two sockets; two sockets available		Bay ① 5.25", 1.6" high, external, std optical Bay ② 5.25", 1.6" high, external, open Bay ③ 3.5", 1" high, external, std media reader Bay ④ 3.5", 1" high, internal, std disk Bay ⑤ 3.5", 1" high, internal, std or opt disk Bay ⑥ 3.5", 1" high, internal, std or opt disk	
Graphics	Two PCI Express® x16 adapters required for quad monitor support, * 76 to 150W adapters use auxiliary power connector from PSU <i>Some:</i> NVIDIA® Quadro® NVS 290, PCIe x16 adapter, 256MB, two single-link DVI via DMS-59 with dual DVI-I dongle, 21W <i>Some:</i> NVIDIA Quadro FX 370, PCIe x16 adapter, 256MB, one single-link and 1 dual-link DVI, dual DVI-I or dual VGA, 25W <i>Some:</i> NVIDIA Quadro FX 1700, PCIe x16 adapter, 512MB, two dual-link DVI, dual DVI-I or dual VGA, HDTV out, 42W		Slot 1: full-length, full-height, PCIe 2.0 x16 (75W* max) Slot 2: full-length, full-height, PCIe 2.0 x16 (75W* max) Slot 3: full-length, full-height, 32-bit PCI 2.3 Slot 4: full-length, full-height, PCIe x4 (x16 mechanical) Slot 5: half-length, full-height, 32-bit PCI 2.3	
Media reader	9-in-1 media reader, internal USB 2.0			
SATA disk(s)	<i>Some:</i> 160GB or 250GB, SATA 3.0Gb/s, 7200 rpm			
SATA controller	Serial ATA, SATA 3.0Gb/s, integrated in ICH9R			
SATA connectors	Six SATA connectors on planar			
SATA DVD±RW	Super Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive (41N5620)			
SAS disk	<i>Some:</i> 146GB, Serial Attached SCSI, 3.0Gb/s, 15000 rpm			
SAS controller	<i>Some:</i> LSI™ LSI SAS3041E-R PCIe x4 adapter, 4-port, 3.0Gb/s, RAID® 0, 1, 1E			
Chipset	Intel X38 Express Chipset, Intel I/O Controller Hub 9 RAID (ICH9R) for RAID 0, 1, 5 support, SMSC® SCH5027D Super I/O			
Front ports	Two USB 2.0, microphone (3.5mm), headphone (3.5mm), FireWire 400 (IEEE 1394)		SECURITY <ul style="list-style-type: none"> • Security chip (see information on left) • Side cover lock (ships with two identical keys) • Padlock loop (in rear for opt padlock; padlock prohibits side cover removal) • Security slot (in rear for optional Kensington® Microsaver® cable; prohibits side cover removal) • Chassis intrusion switch • Power-on password • Administrator password • Boot sequence control • Boot without keyboard, mouse, diskette • Serial port I/O control • USB port disablement (front or all) 	
Rear ports	Eight USB 2.0, serial (9-pin), keyboard (PS/2), mouse (PS/2), two ethernet (RJ-45), five analog audio ports (line-in, microphone-in, front-out, rear-out, center/sub-out), optical S/PDIF digital out <i>Some:</i> FireWire PCI adapter, 1394a-2000, 400Mbps, two 6-pin ports on rear High Definition (HD) Audio, Analog Devices AD1988A codec; <i>Some:</i> Creative Sound Blaster® X-Fi, PCI adapter, high-end sound adapter			
IEEE 1394 adptry	FireWire PCI adapter, 1394a-2000, 400Mbps, two 6-pin ports on rear			
Audio	High Definition (HD) Audio, Analog Devices AD1988A codec; <i>Some:</i> Creative Sound Blaster® X-Fi, PCI adapter, high-end sound adapter			
Speaker	Internal speaker for business audio			
Ethernet	Dual gigabit ethernet on planar, Broadcom® BCM5754 and BCM5755, 2 x PCIe x1			
Security chip	Integrated in ethernet controller BCM5755, TCG 1.2-compliant			
Keyboard	Preferred Pro USB Keyboard (USB connector), 104-key, black			
Mouse	Optical Wheel Mouse (USB connector), black			
Power supply	650 watts with 120mm bottom-mounted variable speed fan, universal, 80 PLUS®			
Cooling	3 to 5 fans (power supply, CPU, rear, opt front PCI [>75W graphics], opt front [SAS])			
Rack mount	Rack shelf support			
Preloaded operating system²⁰	Accessories			
- Microsoft® Windows® Vista® Business Edition (64-bit)	1GB PC3-8500 DDR3 ECC UDIMM	41U5251		
◆ Vista Premium logo	2GB PC3-8500 DDR3 ECC UDIMM	41U5252		
Preloaded applications⁵	500GB SATA 3.0Gb/s Disk (7200 rpm)	43R1990	Supports ThinkVantage® technologies	
• Rescue and Recovery™	750GB SATA 3.0Gb/s Disk (7200 rpm)	43R1991		
• Client Security Solution™	1TB SATA 3.0Gb/s Disk (7200 rpm)	45J7918	RoHS-compliant ENERGY STAR® 4.0-compliant	
• ThinkVantage Productivity Center	Super Multi-Burner DL DVD±RW SATA 1.5Gb/s	41N5620		
• ThinkVantage System Update	Blu-ray Burner/HD-DVD Player SATA 1.5Gb/s	43R1958	LIMITED WARRANTY¹ <ul style="list-style-type: none"> ⇨ 3-year parts and labor ⇨ Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts³, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time) ⇨ ThinkPlus™ services available; see http://lenovo.com/thinkplus/warranty • Onsite service upgrade options (in eligible locations)⁷ • Post warranty maintenance services ⇨ 24 hour x 7 day¹⁴ toll-free support during the warranty period¹ via 800-426-7378 	
• System Migration Assistant	USB 2.0 Lenovo Multimedia Headset	40Y8518		
• Norton Internet Security™ (90 days of virus definitions)	USB 2.0 Ultra Secure Memory Key 8GB	45J5918		
• PC-Doctor™ (diagnostics)	USB 2.0 Portable Secure 320GB Hard Disk	43R2019		
• Adobe® Reader	ThinkVision® L1700p 17" Monitor	9417HE2		
• Microsoft Office 2007 Trial (60-day)	ThinkVision L1940p Wide 19" Monitor	4424HB6		
• Sonic RecordNow and Drive Letter Access (DVD±RW)	ThinkVision L2240p Wide 22" Monitor	4422HB6		
• Corel® WinDVD® (DVD±RW)	ThinkVision L2440x Wide 24" Monitor	4421HB2		
	Wireless Kbd & Opt Wheel Mouse (via USB)	73P4067		
	Laser Tilt Wheel Mouse (USB, PS/2)	41U3074		
	Kensington® Cable Lock from Lenovo	73P2582		
	NVIDIA® Quadro® 512MB FX 570	45J7917		
	NVIDIA Quadro 512MB FX 1700	43R1767		
	NVIDIA Quadro 512MB FX 3700	43R1768		
	NVIDIA Quadro 768MB FX 4600	43R1769		
	Other accessories at lenovo.com/accessories			

See footnotes for important warranty information
US models announced December 18, 2007

ThinkStation® S10 (6423) - TopSeller (April 2008)

Name	Type-model	Slot x bay	Processor	GHz	Cores	Mem-ory	Disk(s)	RAID	SATA optical	Graphics adapter(s)	1394 adptry	Sound adptry	ENERGY STAR 4.0	Preload	Workhorse Global	Avail date
S10	6423-33U	5x6	E6850	3.00	2	2GB	1 x 250GB ² SATA		DVD±RW	1 x NVS290			Pending	XP Pro	No	Apr 08
S10	6423-34U	5x6	E6850	3.00	2	2GB	1 x 250GB SATA		DVD±RW	1 x FX370			Pending	XP Pro	No	Apr 08
S10	6423-35U	5x6	E6850	3.00	2	2GB	1 x 250GB SATA		DVD±RW	1 x FX1700			Pending	XP Pro	No	Apr 08
S10	6423-36U	5x6	QX6850	3.00	4	2GB	1 x 250GB SATA		DVD±RW	1 x FX4600			Pending	XP Pro	No	Apr 08
S10	6423-37U	5x6	E6850	3.00	2	2GB	1 x 250GB SATA		Blu-ray™	1 x FX1700			Pending	XP Pro	No	Apr 08
S10	6423-38U	5x6	QX6850	3.00	4	2GB	1 x 250GB SATA		Blu-ray	1 x FX4600			Pending	XP Pro	No	Apr 08
S10	6423-49U	5x6	E6750	2.66	2	2GB	1 x 250GB SATA		DVD±RW	1 x FX370	1394		Pending	Bus32	No	Apr 08
S10	6423-51U	5x6	E6850	3.00	2	2GB	2 x 250GB SATA		DVD±RW	1 x FX1700			Pending	Bus32	No	Apr 08
S10	6423-52U	5x6	E6850	3.00	2	2GB	1 x 146GB SAS		DVD±RW	1 x FX1700			Pending	Bus32	No	Apr 08
S10	6423-53U	5x6	E6850	3.00	2	2GB	2 x 250GB SATA		DVD±RW	1 x FX1700		X-Fi	Pending	Bus32	No	Apr 08
S10	6423-54U	5x6	Q6600	2.40	4	2GB	2 x 250GB SATA		DVD±RW	1 x FX1700		X-Fi	Pending	Bus32	No	Apr 08
S10	6423-55U	5x6	Q6700	2.66	4	2GB	2 x 160GB SATA	1	DVD±RW	2 x NVS290			Pending	Bus32	No	Apr 08

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Processor	Intel® Core™ 2 Duo Processor E6750 or E6850 with dual-core, 1333MHz system bus, and 4MB L2 cache or Intel Core 2 Quad Processor Q6600 or Q6700 with quad-core, 1066MHz system bus, and 8MB L2 cache or Intel Core 2 Extreme Processor QX6850 with quad-core, 1333MHz system bus, and 8MB L2 cache		Tower	
Implementation	Processor uses FC-LGA6 package, one LGA775 socket		<ul style="list-style-type: none"> • Raven black color; metal case • 6.9"W x 19.0"D x 16.8"H (without handle) • 175mm W x 483mm D x 426mm H • 36 lb (16.4kg) max configuration • 31-liter • Removable handle on top front • Toolless side cover removal • Toolless disk and optical drive removal • Toolless adapter retention • Illuminated front icons • Rack shelf support 	
Memory	2GB std, 8GB max, PC3-8500 1066MHz DDR3, ECC, dual-channel capable, four 240-pin DIMM sockets; <i>Non-italics:</i> standard memory in two sockets; two sockets available			
Graphics	Two PCI Express® x16 adapters required for quad monitor support, * 76 to 150W adapters use auxiliary power connector from PSU Some: NVIDIA® Quadro® NVS 290 , PCIe x16 adapter, 256MB, two single-link DVI via DMS-59 with dual DVI-I dongle, 21W Some: NVIDIA Quadro FX 370 , PCIe x16 adapter, 256MB, one single-link and 1 dual-link DVI, dual DVI-I or dual VGA, 25W Some: NVIDIA Quadro FX 1700 , PCIe x16 adapter, 512MB, two dual-link DVI, dual DVI-I or dual VGA, HDTV out, 42W Some: NVIDIA Quadro FX 4600 , PCIe x16 adapter, 768MB, two slot width, 2 dual-link DVI, dual DVI-I or dual VGA, 134W		<ul style="list-style-type: none"> Bay ① 5.25", 1.6" high, external, std optical Bay ② 5.25", 1.6" high, external, open Bay ③ 3.5", 1" high, external, std media reader Bay ④ 3.5", 1" high, internal, std disk Bay ⑤ 3.5", 1" high, internal, std or opt disk Bay ⑥ 3.5", 1" high, internal, std or opt disk 	
Media reader	9-in-1 media reader, internal USB 2.0		Slot 1: full-length, full-height, PCIe 2.0 x16 (75W* max)	
SATA disk(s)	Some: 160GB or 250GB , SATA 3.0Gb/s, 7200 rpm		Slot 2: full-length, full-height, PCIe 2.0 x16 (75W* max)	
SATA controller	Serial ATA, SATA 3.0Gb/s, integrated in ICH9R		Slot 3: full-length, full-height, 32-bit PCI 2.3	
SATA connectors	Six SATA connectors on planar		Slot 4: full-length, full-height, PCIe x4 (x16 mechanical)	
SATA DVD±RW	Some: Super Multi-Burner DL DVD±RW SATA 1.5Gb/s (41N5620)		Slot 5: half-length, full-height, 32-bit PCI 2.3	
SATA Blu-ray	Some: Blu-ray Burner / HD-DVD Player SATA 1.5Gb/s (43R1958)			
SAS disk	Some: 146GB , Serial Attached SCSI, 3.0Gb/s, 15000 rpm			
SAS controller	Some: LSI™ LSISAS3041E-R PCIe x4 adapter, 4-port, 3.0Gb/s, RAID® 0, 1, 1E			
Chipset	Intel X38 Express Chipset, Intel I/O Controller Hub 9 RAID (ICH9R) for RAID 0, 1, 5 support, SMC® SCH5027D Super I/O		Security	
Front ports	Two USB 2.0, microphone (3.5mm), headphone (3.5mm), FireWire 400 (IEEE 1394)		<ul style="list-style-type: none"> • Security chip (see information on left) • Side cover lock (ships with two identical keys) • Padlock loop (in rear for opt padlock; padlock prohibits side cover removal) • Security slot (in rear for optional Kensington® Microsaver® cable; prohibits side cover removal) • Chassis intrusion switch • Power-on password • Administrator password • Boot sequence control • Boot without keyboard, mouse, diskette • Serial port I/O control • USB port disablement (front or all) 	
Rear ports	Eight USB 2.0, serial (9-pin), keyboard (PS/2), mouse (PS/2), two ethernet (RJ-45), five analog audio ports (line-in, microphone-in, front-out, rear-out, center/sub-out), optical S/PDIF digital out		Supports ThinkVantage® technologies	
IEEE 1394 adptry	Some: FireWire PCI adapter, 1394a-2000, 400Mbps, two 6-pin ports on rear		RoHS-compliant	
Audio	High Definition (HD) Audio, Analog Devices AD1988A codec; Some: Creative Sound Blaster® X-Fi, PCI adapter, high-end sound adapter		Pending: ENERGY STAR® 4.0-compliant	
Speaker	Internal speaker for business audio		Limited Warranty¹	
Ethernet	Dual gigabit ethernet on planar, Broadcom® BCM5754 and BCM5755, 2 x PCIe x1		<ul style="list-style-type: none"> ↔ 3-year parts and labor ↔ Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts³, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time) ↔ ThinkPlus™ services available; see http://lenovo.com/thinkplus/warranty • Onsite service upgrade options (in eligible locations)⁷ ↔ 24 hour x 7 day¹⁴ toll-free support during the warranty period¹ via 800-426-7378 	
Security chip	Integrated in ethernet controller BCM5755, TCG 1.2-compliant			
Keyboard	Preferred Pro USB Keyboard (USB connector), 104-key, black			
Mouse	Optical Wheel Mouse (USB connector), black			
Power supply	650 watts with 120mm bottom-mounted variable speed fan, universal, 80 PLUS®			
Cooling	3 to 5 fans (power supply, CPU, rear, opt front PCI [>75W graphics], opt front [SAS])			
Rack mount	Rack shelf support			
Preloaded operating system²⁰	Accessories			
- Microsoft® Windows® XP Professional	1GB PC3-8500 DDR3 ECC UDIMM		41U5251	
- Microsoft® Windows® Vista® Business Edition (32-bit)	2GB PC3-8500 DDR3 ECC UDIMM		41U5252	
◇ Vista models: Vista Premium logo	750GB SATA 3.0Gb/s Disk (7200 rpm)		43R1991	
Preloaded applications⁵ (all OSes; only some listed)	1TB SATA 3.0Gb/s Disk (7200 rpm)		45J7918	
• Rescue and Recovery™	Super Multi-Burner DL DVD±RW SATA 1.5Gb/s		41N5620	
• ThinkVantage Productivity Center	Blu-ray Burner / HD-DVD Player SATA 1.5Gb/s		43R1958	
• ThinkVantage System Update	USB 2.0 Ultra Secure Memory Key 8GB		45J5918	
• Norton Internet Security™ (90 days of virus definitions)	USB 2.0 Portable Secure 320GB Hard Disk		43R2019	
• Sonic RecordNow and Drive Letter Access (DVD±RW)	ThinkVision® L2240p Wide 22" Monitor		4422HB6	
• Corel® WinDVD® (DVD±RW)	ThinkVision® L2440p Wide 24" Monitor		4420HB2	
	NVIDIA® Quadro® 512MB FX 1700		43R1767	
	NVIDIA Quadro 512MB FX 3700		43R1768	
	NVIDIA Quadro 768MB FX 4600		43R1769	
	Other accessories at lenovo.com/accessories			

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

Name	Type-model	Slot x bay	Processor	GHz	Cores	Mem-ory	Disk(s)	RAID	SATA optical	Graphics adapter(s)	1394 adptr	Sound adptr	ENERGY STAR 4.0 Preload	Workhorse Global	Avail date	
S10	6423-56U	5x6	Q9550	2.83	4	2GB	2 x 250GB ² SATA	None	DVD±RW	1 x FX3700		None	Pending	Bus32	No	Aug 08
S10	6423-57U	5x6	Q9450	2.66	4	2GB	1 x 250GB SATA	None	DVD±RW	1 x FX570		None	Pending	Bus32	No	Aug 08
S10	6423-58U	5x6	E8200	2.66	2	2GB	1 x 250GB SATA	None	DVD±RW	1 x NVS290	1394	None	Pending	Bus64	No	Aug 08
S10	6423-59U	5x6	E8400	3.00	2	2GB	1 x 250GB SATA	None	DVD±RW	1 x FX370		None	Pending	Bus64	No	Aug 08
S10	6423-61U	5x6	E8500	3.16	2	4GB	1 x 146GB SAS	None	DVD±RW	1 x FX1700		None	Pending	Bus64	No	Aug 08
S10	6423-67U	5x6	Q9450	2.66	4	2GB	1 x 250GB SATA	None	DVD±RW	1 x FX570		None	Pending	Bus64	No	Aug 08
S10	6423-68U	5x6	Q9450	2.66	4	4GB	1 x 250GB SATA	None	DVD±RW	1 x FX1700		None	Pending	Bus64	No	Aug 08
S10	6423-69U	5x6	Q9550	2.83	4	4GB	1 x 500GB SATA	None	DVD±RW	1 x FX3700		None	Pending	Bus64	No	Aug 08
S10	6423-72U	5x6	QX9650	3.00	4	4GB	1 x 500GB SATA	None	DVD±RW	1 x FX3700		None	Pending	Bus64	No	Aug 08
S10	6423-H1U	5x6	Q9550	2.83	4	4GB	1 x 500GB SATA	None	DVD±RW	None		None	Pending	Bus64	No	Sep 08
S10	6423-H2U	5x6	E8400	3.00	2	2GB	1 x 250GB SATA	None	DVD±RW	None		None	Pending	Bus64	No	Sep 08
S10	6423-H3U	5x6	Q9550	2.83	4	4GB	1 x 146GB SAS	None	DVD±RW	None		None	Pending	Bus64	No	Sep 08
S10	6423-H4U	5x6	E8400	3.00	2	2GB	1 x 146GB SAS	None	DVD±RW	None		None	Pending	Bus64	No	Sep 08

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Processor	Intel® Core™ 2 Duo Processor E8200, E8400, or E8500 with dual-core, 1333MHz system bus, and 6MB L2 cache or Intel Core 2 Quad Processor Q9450 or Q9550 with quad-core, 1333MHz system bus, and 12MB L2 cache or Intel Core 2 Extreme Processor QX9650 with quad-core, 1333MHz system bus, and 12MB L2 cache	Tower	
Implementation	Processor uses FC-LGA6 package, one LGA775 socket	<ul style="list-style-type: none"> Raven black color; metal case 6.9"W x 19.0"D x 16.8"H (without handle) 175mm W x 483mm D x 426mm H 36 lb (16.4kg) max configuration 31-liter Removable handle on top front Toolless side cover removal Toolless disk and optical drive removal Toolless adapter retention Illuminated front icons Rack shelf support 	
Memory	2GB or 4GB std, 8GB max, PC3-8500 1066MHz DDR3, ECC, dual-channel capable, four 240-pin DIMM sockets; <i>Italics:</i> standard memory in four sockets; no sockets available <i>Non-italics:</i> standard memory in two sockets; two sockets available	<ul style="list-style-type: none"> Bay ① 5.25", 1.6" high, external, std optical Bay ② 5.25", 1.6" high, external, open Bay ③ 3.5", 1" high, external, std media reader Bay ④ 3.5", 1" high, internal, std disk Bay ⑤ 3.5", 1" high, internal, std or opt disk Bay ⑥ 3.5", 1" high, internal, std or opt disk 	
Graphics	Two PCI Express® x16 adapters required for quad monitor support, * 76W to 150W adapters use auxiliary power connector from PSU <i>Some:</i> NVIDIA® Quadro® NVS 290, PCIe x16 adapter, 256MB, two single-link DVI via DMS-59 with dual DVI-I dongle, 21W <i>Some:</i> NVIDIA Quadro FX 370, PCIe x16 adapter, 256MB, one single-link and 1 dual-link DVI, dual DVI-I or dual VGA, 25W <i>Some:</i> NVIDIA Quadro FX 570, PCIe 2.0 x16 adapter, 256MB, two dual-link DVI, dual DVI-I or dual VGA, 38W <i>Some:</i> NVIDIA Quadro FX 1700, PCIe x16 adapter, 512MB, two dual-link DVI, dual DVI-I or dual VGA, HDTV out, 42W <i>Some:</i> NVIDIA Quadro FX 3700, PCIe 2.0 x16 adapter, 512MB, two dual-link DVI, dual DVI-I or dual VGA, 78W	<ul style="list-style-type: none"> Slot 1: full-length, full-height, PCIe 2.0 x16 (75W* max) Slot 2: full-length, full-height, PCIe 2.0 x16 (75W* max) Slot 3: full-length, full-height, 32-bit PCI 2.3 Slot 4: full-length, full-height, PCIe x4 (x16 mechanical) Slot 5: half-length, full-height, 32-bit PCI 2.3 	
Media reader	9-in-1 media reader, internal USB 2.0	Security	
SATA disk(s)	<i>Some:</i> 250GB or 500GB, SATA 3.0Gb/s, 7200 rpm	<ul style="list-style-type: none"> Security chip (see information on left) Side cover lock (ships with two identical keys) Padlock loop (in rear for opt padlock; padlock prohibits side cover removal) Security slot (in rear for optional Kensington® Microsaver® cable; prohibits side cover removal) Chassis intrusion switch Power-on password Administrator password Boot sequence control Boot without keyboard, mouse, diskette Serial port I/O control USB port disablement (front or all) 	
SATA controller	Serial ATA, SATA 3.0Gb/s, integrated in ICH9R	Supports ThinkVantage® technologies	
SATA connectors	Six SATA connectors on planar		
SATA DVD±RW	Super Multi-Burner DL DVD±RW SATA 1.5Gb/s (41N5620)	RoHS-compliant <i>Pending:</i> ENERGY STAR® 4.0-compliant	
SAS disk	<i>Some:</i> 146GB, Serial Attached SCSI, 3.0Gb/s, 15000 rpm		
SAS controller	<i>Some:</i> LSI™ LSISAS3041E-R PCIe x4 adapter, 4-port, 3.0Gb/s, RAID® 0, 1, 1E	Limited Warranty¹ ↳ 3-year parts and labor ↳ Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts ³ , 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time) ↳ ThinkPlus™ services available; see http://lenovo.com/thinkplus/warranty • Onsite service upgrade options (in eligible locations) ⁷ ↳ 24 hour x 7 day ¹⁴ toll-free support during the warranty period ¹ via 800-426-7378	
Chipset	Intel X38 Express Chipset, Intel I/O Controller Hub 9 RAID (ICH9R) for RAID 0, 1, 5 support, SMSC® SCH5027D Super I/O		
Front ports	Two USB 2.0, microphone (3.5mm), headphone (3.5mm), FireWire 400 (IEEE 1394)	Pending: ENERGY STAR® 4.0-compliant	
Rear ports	Eight USB 2.0, serial (9-pin), keyboard (PS/2), mouse (PS/2), two ethernet (RJ-45), five analog audio ports (line-in, microphone-in, front-out, rear-out, center/sub-out), optical S/PDIF digital out		
IEEE 1394 adptr	<i>Some:</i> FireWire PCI adapter, 1394a-2000, 400Mbps, two 6-pin ports on rear	Pending: ENERGY STAR® 4.0-compliant	
Audio	High Definition (HD) Audio, Analog Devices AD1988A codec;		
Speaker	Internal speaker for business audio	Pending: ENERGY STAR® 4.0-compliant	
Ethernet	Dual gigabit ethernet on planar, Broadcom® BCM5754 and BCM5755, 2 x PCIe x1		
Security chip	Integrated in ethernet controller BCM5755, TCG 1.2-compliant	Pending: ENERGY STAR® 4.0-compliant	
Keyboard	Preferred Pro USB Keyboard (USB connector), 104-key, black		
Mouse	Optical Wheel Mouse (USB connector), black	Pending: ENERGY STAR® 4.0-compliant	
Power supply	650 watts with 120mm bottom-mounted variable speed fan, universal, 80 PLUS®		
Cooling	3 to 5 fans (power supply, CPU, rear, opt front PCI [>75W graphics], opt front [SAS])	Pending: ENERGY STAR® 4.0-compliant	
Rack mount	Rack shelf support		
Preloaded operating system²⁰	Accessories	Pending: ENERGY STAR® 4.0-compliant	
- Microsoft® Windows® Vista® Business Edition (32-bit)	1GB PC3-8500 DDR3 ECC UDIMM 41U5251		
- Microsoft Windows Vista Business Edition (64-bit)	2GB PC3-8500 DDR3 ECC UDIMM 41U5252	Pending: ENERGY STAR® 4.0-compliant	
↳ Vista models: Vista Premium logo	750GB SATA 3.0Gb/s Disk (7200 rpm) 43R1991		
Preloaded applications⁵ (all OSes; only some listed)	1TB SATA 3.0Gb/s Disk (7200 rpm) 45J7918	Pending: ENERGY STAR® 4.0-compliant	
• Rescue and Recovery™	Super Multi-Burner DL DVD±RW SATA 1.5Gb/s 41N5620		
• ThinkVantage Productivity Center	Blu-ray Burner / HD-DVD Player SATA 1.5Gb/s 43R1958	Pending: ENERGY STAR® 4.0-compliant	
• ThinkVantage System Update	USB 2.0 Ultra Secure Memory Key 8GB 45J5918		
• Norton Internet Security™	USB 2.0 Portable Secure 320GB Hard Disk 43R2019	Pending: ENERGY STAR® 4.0-compliant	
• Sonic RecordNow and Drive Letter Access (DVD±RW)	ThinkVision® L2240p Wide 22" Monitor 4422HB6		
• Corel® WinDVD® (DVD±RW)	ThinkVision L2440p Wide 24" Monitor 4420HB2	Pending: ENERGY STAR® 4.0-compliant	
	NVIDIA® Quadro® 512MB FX 1700 43R1767		
	NVIDIA Quadro 512MB FX 3700 43R1768	Pending: ENERGY STAR® 4.0-compliant	
	NVIDIA Quadro 768MB FX 4600 43R1769		
	Other accessories at lenovo.com/accessories		

See footnotes for important warranty information

US models announced September 30, 2008; previous models on August 19, 2008

Name	Type-model	Slot x bay	Processor	GHz	Cores	Mem-ory	Disk(s)	RAID	SATA optical	Graphics adapter(s)	1394 adptr	Sound adptr	ENERGY STAR 4.0	Vista preload	Workhorse Global	Avail date
S10	6483-22U	5x6	Q6700	2.66	4	2GB	1 x 250GB ² SATA		DVD±RW	1 x FX4600			ES40	Bus64	No	Jan 08
S10	6483-23U	5x6	E6850	3.00	2	2GB	1 x 146GB SAS		DVD±RW	1 x FX4600				Bus64	No	Jan 08
S10	6483-24U	5x6	QX6850	3.00	4	2GB	1 x 146GB SAS		DVD±RW	1 x FX4600	1394	X-Fi	ES40	Bus64	No	Jan 08
S10	6483-33U	5x6	QX6850	3.00	4	4GB	1 x 146GB SAS		DVD±RW	1 x FX4600	1394	X-Fi	ES40	Bus64	No	Jan 08
S10	6483-25U	5x6	Q6700	2.66	4	2GB	2 x 250GB SATA		DVD±RW	1 x FX1700			ES40	Bus64	No	Jan 08
S10	6483-26U	5x6	E6850	3.00	2	2GB	2 x 250GB SATA		DVD±RW	1 x FX1700			ES40	Bus64	No	Jan 08
S10	6483-27U	5x6	Q6600	2.40	4	2GB	1 x 146GB SAS		DVD±RW	1 x FX1700			ES40	Bus64	No	Jan 08
S10	6483-29U	5x6	Q6700	2.66	4	4GB	2 x 250GB SATA		DVD±RW	1 x FX1700			ES40	Bus64	No	Jan 08
S10	6483-31U	5x6	E6850	3.00	2	2GB	2 x 250GB SATA	1	DVD±RW	1 x FX1700			ES40	Bus64	No	Jan 08
S10	6483-32U	5x6	E6850	3.00	2	2GB	3 x 250GB SATA	5	DVD±RW	1 x FX1700			ES40	Bus64	No	Jan 08
S10	6483-19U	5x6	E6850	3.00	2	2GB	1 x 250GB SATA		DVD±RW	1 x FX1700			ES40	Bus64	No	Jan 08
S10	6483-21U	5x6	QX6800	2.93	4	4GB	2 x 500GB SATA	0	Blu-ray™	2 x FX4600		X-Fi	ES40	Bus64	No	Jan 08

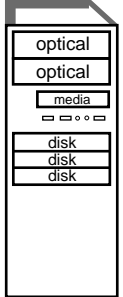
- High performance workstation with premium graphics for specialized professionals
- Environmentally friendly, cool, and quiet with rock solid engineering

Processor	Intel® Core™ 2 Duo Processor E6850 with dual-core, 1333MHz system bus, and 4MB L2 cache or Intel Core 2 Quad Processor Q6600 or Q6700 with quad-core, 1066MHz system bus, and 8MB L2 cache or Intel Core 2 Extreme Processor QX6800 with quad-core, 1066MHz system bus, and 8MB L2 cache or Intel Core 2 Extreme Processor QX6850 with quad-core, 1333MHz system bus, and 8MB L2 cache	Tower	
Implementation	Processor uses FC-LGA6 package, one LGA775 socket	<ul style="list-style-type: none"> • Raven black color; metal case • 6.9"W x 19.0"D x 16.8"H (without handle) • 175mm W x 483mm D x 426mm H • 36 lb (16.4kg) max configuration • 31-liter • Removable handle on top front • Toolless side cover removal • Toolless disk and optical drive removal • Toolless adapter retention • Illuminated front icons • Rack shelf support 	
Memory	2GB or 4GB std, 8GB max, PC3-8500 1066MHz DDR3, ECC, dual-channel capable, four 240-pin DIMM sockets; <i>Italics:</i> standard memory in four sockets; no sockets available <i>Non-italics:</i> standard memory in two sockets; two sockets available	<ul style="list-style-type: none"> Bay ① 5.25", 1.6" high, external, std optical Bay ② 5.25", 1.6" high, external, open Bay ③ 3.5", 1" high, external, std media reader Bay ④ 3.5", 1" high, internal, std disk Bay ⑤ 3.5", 1" high, internal, std or opt disk Bay ⑥ 3.5", 1" high, internal, std or opt disk 	
Graphics	Two PCI Express® x16 adapters required for quad monitor support, * 76 to 150W adapters use auxiliary power connector from PSU <i>Some: NVIDIA® Quadro® FX 1700, PCIe x16 adapter, 512MB, two dual-link DVI, dual DVI-I or dual VGA, HDTV out, 42W</i> <i>Some: NVIDIA Quadro FX 4600, PCIe x16 adapter, 768MB, two slot width, 2 dual-link DVI, dual DVI-I or dual VGA, 134W</i>	<ul style="list-style-type: none"> Slot 1: full-length, full-height, PCIe 2.0 x16 (75W* max) Slot 2: full-length, full-height, PCIe 2.0 x16 (75W* max) Slot 3: full-length, full-height, 32-bit PCI 2.3 Slot 4: full-length, full-height, PCIe x4 (x16 mechanical) Slot 5: half-length, full-height, 32-bit PCI 2.3 	
Media reader	9-in-1 media reader, internal USB 2.0		
SATA disk(s)	<i>Some: 250GB or 500GB, SATA 3.0Gb/s, 7200 rpm</i>		
SATA controller	Serial ATA, SATA 3.0Gb/s, integrated in ICH9R		
SATA connectors	Six SATA connectors on planar		
SATA DVD±RW	<i>Some: Super Multi-Burner DL DVD±RW SATA 1.5Gb/s (41N5620)</i>		
SATA Blu-ray	<i>Some: Blu-ray Burner / HD-DVD Player SATA 1.5Gb/s (43R1958)</i>		
SAS disk	<i>Some: 146GB, Serial Attached SCSI, 3.0Gb/s, 15000 rpm</i>		
SAS controller	<i>Some: LSI™ LSISAS3041E-R PCIe x4 adapter, 4-port, 3.0Gb/s, RAID® 0, 1, 1E</i>		
Chipset	Intel X38 Express Chipset, Intel I/O Controller Hub 9 RAID (ICH9R) for RAID 0, 1, 5 support, SMSC® SCH5027D Super I/O	SECURITY	<ul style="list-style-type: none"> • Security chip (see information on left) • Side cover lock (ships with two identical keys) • Padlock loop (in rear for opt padlock; padlock prohibits side cover removal) • Security slot (in rear for optional Kensington® Microsaver® cable; prohibits side cover removal) • Chassis intrusion switch • Power-on password • Administrator password • Boot sequence control • Boot without keyboard, mouse, diskette • Serial port I/O control • USB port disablement (front or all)
Front ports	Two USB 2.0, microphone (3.5mm), headphone (3.5mm), FireWire 400 (IEEE 1394)		
Rear ports	Eight USB 2.0, serial (9-pin), keyboard (PS/2), mouse (PS/2), two ethernet (RJ-45), five analog audio ports (line-in, microphone-in, front-out, rear-out, center/sub-out), optical S/PDIF digital out		
IEEE 1394 adptr	<i>Some: FireWire PCI adapter, 1394a-2000, 400Mbps, two 6-pin ports on rear</i>		
Audio	High Definition (HD) Audio, Analog Devices AD1988A codec; <i>Some: Creative Sound Blaster® X-Fi, PCI adapter, high-end sound adapter</i>		
Speaker	Internal speaker for business audio		
Ethernet	Dual gigabit ethernet on planar, Broadcom® BCM5754 and BCM5755, 2 x PCIe x1		
Security chip	Integrated in ethernet controller BCM5755, TCG 1.2-compliant		
Keyboard	<i>Model 21U:</i> Lenovo USB Fingerprint Keyboard (USB connector), black <i>Others:</i> Preferred Pro USB Keyboard (USB connector), 104-key, black		
Mouse	Optical Wheel Mouse (USB connector), black		
Power supply	650 watts with 120mm bottom-mounted variable speed fan, universal, 80 PLUS®		
Cooling	3 to 5 fans (power supply, CPU, rear, opt front PCI [>75W graphics], opt front [SAS])		
Rack mount	Rack shelf support		
Preloaded operating system²⁰	Accessories		
- Microsoft® Windows® Vista® Business Edition (64-bit)	1GB PC3-8500 DDR3 ECC UDIMM	41U5251	
◇ Vista Premium logo	2GB PC3-8500 DDR3 ECC UDIMM	41U5252	
Preloaded applications⁵ (only some listed)	1TB SATA 3.0Gb/s Disk (7200 rpm)	45J7918	
• Rescue and Recovery™	750GB SATA 3.0Gb/s Disk (7200 rpm)	43R1991	
• Client Security Solution™	Super Multi-Burner DL DVD±RW SATA 1.5Gb/s	41N5620	
• ThinkVantage Fingerprint Software (fingerprint keyboard model)	Blu-ray Burner / HD-DVD Player SATA 1.5Gb/s	43R1958	
• System Migration Assistant	USB 2.0 Lenovo Webcam	40Y8519	
• Norton Internet Security™	USB 2.0 Ultra Secure Memory Key 8GB	45J5918	
• PC-Doctor™ (diagnostics)	USB 2.0 Portable Secure 320GB Hard Disk	43R2019	
• Microsoft Office 2007 Trial (60-day)	ThinkVision® L2240p Wide 22" Monitor	4422HB6	
• Sonic RecordNow and Drive Letter Access (DVD±RW)	ThinkVision L2440x Wide 24" Monitor	4421HB2	
• Corel® WinDVD® (DVD±RW, Blu-ray)	Wireless Kbd & Opt Wheel Mouse (via USB)	73P4067	
• Ulead® DVD MovieFactory (Blu-ray)	Laser Tilt Wheel Mouse (USB, PS/2)	41U3074	
	NVIDIA® Quadro® 512MB FX 570	45J7917	
	NVIDIA Quadro 512MB FX 1700	43R1767	
	NVIDIA Quadro 512MB FX 3700	43R1768	
	Other accessories at lenovo.com/accessories		
			Supports ThinkVantage® technologies
			RoHS-compliant
			<i>Some: ENERGY STAR 4.0-compliant</i>
			LIMITED WARRANTY¹
			⇒ 3-year parts and labor
			⇒ Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts ³ , 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time)
			⇒ ThinkPlus™ services available; see http://lenovo.com/thinkplus/warranty
			• Onsite service upgrade options (in eligible locations) ⁷
			• Post warranty maintenance services
			⇒ 24 hour x 7 day ¹⁴ toll-free support during the warranty period ¹ via 800-426-7378

See footnotes for important warranty information
US models announced December 18, 2007

Name	Type-model	Slot x bay	Processor	GHz	Cores	Mem-ory	Disk(s)	RAID	SATA optical	Graphics adapter(s)	1394 adptry	Sound adptry	ENERGY STAR 4.0	Preload	Workhorse Global	Avail date
S10	6483-34U	5x6	E6850	3.00	2	2GB	1 x 250GB ² SATA		DVD±RW	1 x NVS290	None	None	Pending	XP Pro	No	Apr 08
S10	6483-35U	5x6	E6850	3.00	2	2GB	1 x 250GB SATA		DVD±RW	1 x FX370	None	None	Pending	XP Pro	No	Apr 08
S10	6483-36U	5x6	E6850	3.00	2	2GB	1 x 250GB SATA		DVD±RW	1 x FX1700	None	None	Pending	XP Pro	No	Apr 08
S10	6483-37U	5x6	QX6850	3.00	4	2GB	1 x 250GB SATA		DVD±RW	1 x FX1700	None	None	Pending	XP Pro	No	Apr 08
S10	6483-38U	5x6	QX6850	3.00	4	2GB	1 x 250GB SATA		DVD±RW	1 x FX4600	None	None	Pending	XP Pro	No	Apr 08
S10	6483-39U	5x6	E6850	3.00	2	2GB	1 x 146GB SAS		DVD±RW	1 x FX1700	None	None	Pending	XP Pro	No	Apr 08
S10	6483-41U	5x6	QX6850	3.00	4	2GB	1 x 146GB SAS		DVD±RW	1 x FX1700	None	None	Pending	XP Pro	No	Apr 08
S10	6483-42U	5x6	QX6850	3.00	4	2GB	1 x 146GB SAS		DVD±RW	1 x FX4600	None	None	Pending	XP Pro	No	Apr 08
S10	6483-43U	5x6	E6850	3.00	2	2GB	2 x 250GB SATA	1	DVD±RW	1 x FX1700	None	None	Pending	XP Pro	No	Apr 08
S10	6483-44U	5x6	QX6850	3.00	4	2GB	2 x 250GB SATA	1	DVD±RW	1 x FX1700	None	None	Pending	XP Pro	No	Apr 08
S10	6483-45U	5x6	QX6850	3.00	4	2GB	2 x 250GB SATA	1	DVD±RW	1 x FX4600	None	None	Pending	XP Pro	No	Apr 08
S10	6483-46U	5x6	E6850	3.00	2	2GB	1 x 250GB SATA		Blu-ray™	1 x FX1700	None	None	Pending	XP Pro	No	Apr 08
S10	6483-47U	5x6	QX6850	3.00	4	2GB	1 x 250GB SATA		Blu-ray	1 x FX4600	None	None	Pending	XP Pro	No	Apr 08
S10	6483-92U	5x6	E6850	3.00	2	2GB	1 x 250GB SATA		DVD±RW	1 x FX1700	None	None	Pending	Bus32	No	Apr 08
S10	6483-93U	5x6	Q6700	2.66	4	2GB	1 x 250GB SATA		DVD±RW	1 x FX4600	None	None	Pending	Bus32	No	Apr 08
S10	6483-94U	5x6	E6850	3.00	2	2GB	2 x 250GB SATA		DVD±RW	1 x FX1700	None	None	Pending	Bus32	No	Apr 08
S10	6483-95U	5x6	E6850	3.00	2	2GB	2 x 250GB SATA	1	DVD±RW	1 x FX1700	None	None	Pending	Bus32	No	Apr 08
S10	6483-96U	5x6	E6850	3.00	2	2GB	3 x 250GB SATA	5	DVD±RW	1 x FX1700	None	None	Pending	Bus32	No	Apr 08

- High performance workstation with premium graphics for specialized professionals
- Environmentally friendly, cool, and quiet with rock solid engineering

Processor	Intel® Core™ 2 Duo Processor E6850 with dual-core, 1333MHz system bus, and 4MB L2 cache or Intel Core 2 Quad Processor Q6700 with quad-core, 1066MHz system bus, and 8MB L2 cache or Intel Core 2 Extreme Processor QX6850 with quad-core, 1333MHz system bus, and 8MB L2 cache	Tower	
Implementation	Processor uses FC-LGA6 package, one LGA775 socket	<ul style="list-style-type: none"> • Raven black color; metal case • 6.9"W x 19.0"D x 16.8"H (without handle) • 175mm W x 483mm D x 426mm H • 36 lb (16.4kg) max configuration • 31-liter • Removable handle on top front • Toolless side cover removal • Toolless disk and optical drive removal • Toolless adapter retention • Illuminated front icons • Rack shelf support 	
Memory	2GB std, 8GB max, PC3-8500 1066MHz DDR3, ECC, dual-channel capable, four 240-pin DIMM sockets; <i>Non-italics</i> : standard memory in two sockets; two sockets available	Bay ① 5.25", 1.6" high, external, std optical Bay ② 5.25", 1.6" high, external, open Bay ③ 3.5", 1" high, external, std media reader Bay ④ 3.5", 1" high, internal, std disk Bay ⑤ 3.5", 1" high, internal, std or opt disk Bay ⑥ 3.5", 1" high, internal, std or opt disk	
Graphics	Two PCI Express® x16 adapters required for quad monitor support, * 76 to 150W adapters use auxiliary power connector from PSU <i>Some</i> : NVIDIA® Quadro® NVS 290, PCIe x16 adapter, 256MB, two single-link DVI via DMS-59 with dual DVI-I dongle, 21W <i>Some</i> : NVIDIA Quadro FX 370, PCIe x16 adapter, 256MB, one single-link and 1 dual-link DVI, dual DVI-I or dual VGA, 25W <i>Some</i> : NVIDIA Quadro FX 1700, PCIe x16 adapter, 512MB, two dual-link DVI, dual DVI-I or dual VGA, HDTV out, 42W <i>Some</i> : NVIDIA Quadro FX 4600, PCIe x16 adapter, 768MB, two slot width, 2 dual-link DVI, dual DVI-I or dual VGA, 134W	Slot 1: full-length, full-height, PCIe 2.0 x16 (75W* max) Slot 2: full-length, full-height, PCIe 2.0 x16 (75W* max) Slot 3: full-length, full-height, 32-bit PCI 2.3 Slot 4: full-length, full-height, PCIe x4 (x16 mechanical) Slot 5: half-length, full-height, 32-bit PCI 2.3	
Media reader	9-in-1 media reader, internal USB 2.0	Security	
SATA disk(s)	<i>Some</i> : 250GB, SATA 3.0Gb/s, 7200 rpm	<ul style="list-style-type: none"> • Security chip (see information on left) • Side cover lock (ships with two identical keys) • Padlock loop (in rear for opt padlock; padlock prohibits side cover removal) • Security slot (in rear for optional Kensington® Microsaver® cable; prohibits side cover removal) • Chassis intrusion switch • Power-on password • Administrator password • Boot sequence control • Boot without keyboard, mouse, diskette • Serial port I/O control • USB port disablement (front or all) 	
SATA controller	Serial ATA, SATA 3.0Gb/s, integrated in ICH9R	Supports ThinkVantage® technologies	
SATA connectors	Six SATA connectors on planar	RoHS-compliant	
SATA DVD±RW	<i>Some</i> : Super Multi-Burner DL DVD±RW SATA 1.5Gb/s (41N5620)	Pending: ENERGY STAR 4.0-compliant	
SATA Blu-ray	<i>Some</i> : Blu-ray Burner / HD-DVD Player SATA 1.5Gb/s (43R1958)	Limited Warranty¹	
SAS disk	<i>Some</i> : 146GB, Serial Attached SCSI, 3.0Gb/s, 15000 rpm	<ul style="list-style-type: none"> ↔ 3-year parts and labor ↔ Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts³, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time) ↔ ThinkPlus™ services available; see http://lenovo.com/thinkplus/warranty ↔ 24 hour x 7 day¹⁴ toll-free support during the warranty period¹ 	
SAS controller	<i>Some</i> : LSI™ LSI3041E-R PCIe x4 adapter, 4-port, 3.0Gb/s, RAID® 0, 1, 1E		
Chipset	Intel X38 Express Chipset, Intel I/O Controller Hub 9 RAID (ICH9R) for RAID 0, 1, 5 support, SMSC® SCH5027D Super I/O		
Front ports	Two USB 2.0, microphone (3.5mm), headphone (3.5mm), FireWire 400 (IEEE 1394)		
Rear ports	Eight USB 2.0, serial (9-pin), keyboard (PS/2), mouse (PS/2), two ethernet (RJ-45), five analog audio ports (line-in, microphone-in, front-out, rear-out, center/sub-out), optical S/PDIF digital out		
IEEE 1394 adptry	None		
Audio	High Definition (HD) Audio, Analog Devices AD1988A codec;		
Speaker	Internal speaker for business audio		
Ethernet	Dual gigabit ethernet on planar, Broadcom® BCM5754 and BCM5755, 2 x PCIe x1		
Security chip	Integrated in ethernet controller BCM5755, TCG 1.2-compliant		
Keyboard	Preferred Pro USB Keyboard (USB connector), 104-key, black		
Mouse	Optical Wheel Mouse (USB connector), black		
Power supply	650 watts with 120mm bottom-mounted variable speed fan, universal, 80 PLUS®		
Cooling	3 to 5 fans (power supply, CPU, rear, opt front PCI [>75W graphics], opt front [SAS])		
Rack mount	Rack shelf support		
Preloaded operating system²⁰	Accessories		
- Microsoft® Windows® XP Professional	1GB PC3-8500 DDR3 ECC UDIMM	41U5251	
- Microsoft Windows Vista® Business Edition (32-bit)	2GB PC3-8500 DDR3 ECC UDIMM	41U5252	
↔ Vista models: Vista Premium logo	750GB SATA 3.0Gb/s Disk (7200 rpm)	43R1991	
Preloaded applications⁵ (all OSes; only some listed)	1TB SATA 3.0Gb/s Disk (7200 rpm)	45J7918	
• Rescue and Recovery™	Blu-ray Burner / HD-DVD Player SATA 1.5Gb/s	43R1958	
• ThinkVantage System Update	USB 2.0 Ultra Secure Memory Key 8GB	45J5918	
• Sonic RecordNow and Drive Letter Access (DVD±RW)	USB 2.0 Portable Secure 320GB Hard Disk	43R2019	
• Corel® WinDVD® (DVD±RW, Blu-ray)	ThinkVision® L2440p Wide 24" Monitor	4420HB2	
• Ulead® DVD MovieFactory (Blu-ray)	NVIDIA® Quadro® 512MB FX 570	45J7917	
	NVIDIA Quadro 512MB FX 1700	43R1767	
	NVIDIA Quadro 512MB FX 3700	43R1768	
	Other accessories at lenovo.com/accessories		

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

Name	Type-model	Slot x bay	Processor	GHzCores	Mem-ory	Disk(s)	RAID	SATA optical	Graphics adapter(s)	1394 adptr	Sound adptr	ENERGY STAR 4.0	Preload	Workhorse Global	Avail date
S10	6483-A1U	5x6	Q9450	2.66	4	2GB 1 x 250GB SATA	None	DVD±RW	1 x FX3700		None	Pending	Bus64	No	Aug 08
S10	6483-A2U	5x6	Q9450	2.66	4	2GB 1 x 250GB SATA	None	DVD±RW	1 x FX570		None	Pending	Bus64	No	Aug 08
S10	6483-A3U	5x6	Q9550	2.83	4	2GB 1 x 250GB SATA	None	DVD±RW	1 x FX570		None	Pending	Bus64	No	Aug 08
S10	6483-A4U	5x6	Q9550	2.83	4	2GB 1 x 250GB SATA	None	DVD±RW	1 x FX3700		None	Pending	Bus64	No	Aug 08
S10	6483-B2U	5x6	Q9450	2.66	4	4GB 1 x 146GB SAS	None	DVD±RW	1 x FX1700	1394	None	Pending	Bus64	No	Aug 08
S10	6483-B3U	5x6	Q9550	2.83	4	4GB 2 x 250GB SATA	None	DVD±RW	1 x FX1700		None	Pending	Bus64	No	Aug 08
S10	6483-B4U	5x6	Q9550	2.83	4	4GB 1 x 146GB SAS	None	DVD±RW	1 x FX3700		None	Pending	Bus64	No	Aug 08
S10	6483-B5U	5x6	QX9650	3.00	4	4GB 2 x 250GB SATA	None	DVD±RW	1 x FX1700		None	Pending	Bus64	No	Aug 08
S10	6483-B8U	5x6	E8200	2.66	2	2GB 1 x 160GB SATA	None	DVD	1 x FX570	1394	None	Pending	Bus64	No	Aug 08
S10	6483-B9U	5x6	E8200	2.66	2	2GB 1 x 160GB SATA	None	DVD	1 x FX3700	1394	None	Pending	Bus64	No	Aug 08
S10	6483-C1U	5x6	E8400	3.00	2	2GB 2 x 250GB SATA	None	DVD±RW	1 x FX1700		None	Pending	Bus64	No	Aug 08
S10	6483-C2U	5x6	E8500	3.16	2	4GB 2 x 250GB SATA	None	DVD±RW	1 x FX3700		None	Pending	Bus64	No	Aug 08
S10	6483-E1U	5x6	QX9650	3.00	4	4GB 2 x 500GB SATA	None	DVD±RW	1 x FX1700		None	Pending	Bus64	No	Aug 08
S10	6483-E2U	5x6	QX9650	3.00	4	4GB 2 x 500GB SATA	None	DVD±RW	1 x FX3700		None	Pending	Bus64	No	Aug 08

Processor	Intel® Core™ 2 Duo Processor E8200, E8400, or E8500 with dual-core, 1333MHz system bus, and 6MB L2 cache or Intel Core 2 Quad Processor Q9450 or Q9550 with quad-core, 1333MHz system bus, and 12MB L2 cache or Intel Core 2 Extreme Processor QX9650 with quad-core, 1333MHz system bus, and 12MB L2 cache Processor uses FC-LGA6 package, one LGA775 socket		Tower <ul style="list-style-type: none"> Raven black color; metal case 6.9"W x 19.0"D x 16.8"H (without handle) 175mm W x 483mm D x 426mm H 36 lb (16.4kg) max configuration 31-liter Removable handle on top front Toolless side cover removal Toolless disk and optical drive removal Toolless adapter retention Illuminated front icons Rack shelf support 	
Implementation	Processor uses FC-LGA6 package, one LGA775 socket			
Memory	2GB or 4GB std, 8GB max, PC3-8500 1066MHz DDR3, ECC , dual-channel capable, four 240-pin DIMM sockets; <i>Italics:</i> standard memory in four sockets; no sockets available <i>Non-italics:</i> standard memory in two sockets; two sockets available			
Graphics	Two PCI Express® x16 adapters required for quad monitor support, * 76 to 150W adapters use auxiliary power connector from PSU Some: NVIDIA® Quadro® FX 570 , PCIe 2.0 x16 adapter, 256MB, two dual-link DVI, dual DVI-I or dual VGA, 38W Some: NVIDIA Quadro FX 1700 , PCIe x16 adapter, 512MB, two dual-link DVI, dual DVI-I or dual VGA, HDTV out, 42W Some: NVIDIA Quadro FX 3700 , PCIe 2.0 x16 adapter, 512MB, two dual-link DVI, dual DVI-I or dual VGA, 78W		Bay ① 5.25", 1.6" high, external, std optical Bay ② 5.25", 1.6" high, external, open Bay ③ 3.5", 1" high, external, std media reader Bay ④ 3.5", 1" high, internal, std disk Bay ⑤ 3.5", 1" high, internal, std or opt disk Bay ⑥ 3.5", 1" high, internal, std or opt disk	
Media reader	9-in-1 media reader, internal USB 2.0		Slot 1: full-length, full-height, PCIe 2.0 x16 (75W* max)	
SATA disk(s)	Some: 160GB, 250GB, or 500GB , SATA 3.0Gb/s, 7200 rpm		Slot 2: full-length, full-height, PCIe 2.0 x16 (75W* max)	
SATA controller	Serial ATA, SATA 3.0Gb/s, integrated in ICH9R		Slot 3: full-length, full-height, 32-bit PCI 2.3	
SATA connectors	Six SATA connectors on planar		Slot 4: full-length, full-height, PCIe x4 (x16 mechanical)	
SATA DVD	Some: DVD-ROM DL SATA1.5Gb/s 16X-48X Max ⁴ (41N5618)		Slot 5: half-length, full-height, 32-bit PCI 2.3	
SATA DVD±RW	Some: Super Multi-Burner DL DVD±RW SATA 1.5Gb/s (41N5620)			
SAS disk	Some: 146GB , Serial Attached SCSI, 3.0Gb/s, 15000 rpm			
SAS controller	Some: LSI™ LSI3041E-R PCIe x4 adapter, 4-port, 3.0Gb/s, RAID® 0, 1, 1E			
Chipset	Intel X38 Express Chipset , Intel I/O Controller Hub 9 RAID (ICH9R) for RAID 0, 1, 5 support, SMSC® SCH5027D Super I/O			Security <ul style="list-style-type: none"> Security chip (see information on left) Side cover lock (ships with two identical keys) Padlock loop (in rear for opt padlock; padlock prohibits side cover removal) Security slot (in rear for optional Kensington® Microsaver® cable; prohibits side cover removal) Chassis intrusion switch Power-on password Administrator password Boot sequence control Boot without keyboard, mouse, diskette Serial port I/O control USB port disablement (front or all)
Front ports	Two USB 2.0, microphone (3.5mm), headphone (3.5mm), FireWire 400 (IEEE 1394)			
Rear ports	Eight USB 2.0, serial (9-pin), keyboard (PS/2), mouse (PS/2), two ethernet (RJ-45), five analog audio ports (line-in, microphone-in, front-out, rear-out, center/sub-out), optical S/PDIF digital out Some: FireWire PCI adapter, 1394a-2000, 400Mbps, two 6-pin ports on rear			
IEEE 1394 adptr	Some: FireWire PCI adapter, 1394a-2000, 400Mbps, two 6-pin ports on rear			
Audio	High Definition (HD) Audio, Analog Devices AD1988A codec;			
Speaker	Internal speaker for business audio			
Ethernet	Dual gigabit ethernet on planar, Broadcom® BCM5754 and BCM5755, 2 x PCIe x1			
Security chip	Integrated in ethernet controller BCM5755, TCG 1.2-compliant			
Keyboard	Preferred Pro USB Keyboard (USB connector), 104-key, black			
Mouse	Optical Wheel Mouse (USB connector), black			
Power supply	650 watts with 120mm bottom-mounted variable speed fan, universal, 80 PLUS®			
Cooling	3 to 5 fans (power supply, CPU, rear, opt front PCI [>75W graphics], opt front [SAS])			
Rack mount	Rack shelf support			
Preloaded operating system²⁰	- Microsoft® Windows® Vista® Business Edition (64-bit) ♦ Vista models: Vista Premium logo			
Preloaded applications⁵	<ul style="list-style-type: none"> Rescue and Recovery™ Client Security Solution™ ThinkVantage Productivity Center ThinkVantage System Update System Migration Assistant Norton Internet Security™ (90 days of virus definitions) PC-Doctor™ (diagnostics) Adobe® Reader Microsoft Office 2007 Trial (60-day) Sonic RecordNow and Drive Letter Access (DVD±RW) Corel® WinDVD® (DVD±RW) 		Accessories <ul style="list-style-type: none"> 1GB PC3-8500 DDR3 ECC UDIMM 41U5251 2GB PC3-8500 DDR3 ECC UDIMM 41U5252 750GB SATA 3.0Gb/s Disk (7200 rpm) 43R1991 1TB SATA 3.0Gb/s Disk (7200 rpm) 45J7918 146GB SAS 3.0Gb/s Disk (15000 rpm) 43R1993 300GB SAS 3.0Gb/s Disk (15000 rpm) 43R1994 Super Multi-Burner DL DVD±RW SATA 1.5Gb/s 41N5620 Blu-ray Burner / HD-DVD Player SATA 1.5Gb/s 43R1958 USB 2.0 Ultra Secure Memory Key 8GB 45J5918 USB 2.0 Portable Secure 320GB Hard Disk 43R2019 ThinkVision® L1940p Wide 19" Monitor 4424HB6 ThinkVision L2240p Wide 22" Monitor 4422HB6 ThinkVision L2440x Wide 24" Monitor 4421HB2 NVIDIA® Quadro® 512MB FX 1700 43R1767 NVIDIA Quadro 512MB FX 3700 43R1768 NVIDIA Quadro 768MB FX 4600 43R1769 Other accessories at lenovo.com/accessories	Supports ThinkVantage® technologies RoHS-compliant Pending: ENERGY STAR® 4.0-compliant Limited Warranty¹ <ul style="list-style-type: none"> 3-year parts and labor Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts³, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time) ThinkPlus™ services available; see http://lenovo.com/thinkplus/warranty Onsite service upgrade options (in eligible locations)⁷ 24 hour x 7 day¹⁴ toll-free support during the warranty period¹ via 800-426-7378

See footnotes for important warranty information
 US models announced August 19, 2008

ThinkStation



Lenovo ThinkStation D10



Lenovo ThinkStation S10 (left)
Lenovo ThinkStation D10 (right)



Lenovo ThinkStation D10



Lenovo ThinkStation D10



ThinkStation Rail Kit (43R1964)



Lenovo ThinkStation D10

Name	Type-model	Slot x bay	Processor(s)	GHz	Memory	Disk(s)	RAID	SATA optical	Graphics adapter(s)	1394 adpdr	Sound adpdr	ENERGY STAR 4.0	Preload	Avail date
D10	6427-27U	7x9	1 x E5430	2.66	2 x 1GB	2 x 250GB	SATA	DVD±RW	1 x FX1700	None		ES40	Bus64	Mar 08
D10	6427-28U	7x9	2 x E5430	2.66	4 x 1GB	2 x 250GB	SATA	DVD±RW	1 x FX1700	None	X-Fi	ES40	Bus64	Mar 08
D10	6427-34U	7x9	2 x E5430	2.66	4 x 1GB	2 x 250GB	SATA	DVD±RW, Blu-ray	1 x FX4600	None	X-Fi	ES40	Bus64	Mar 08
D10	6427-29U	7x9	2 x E5440	2.83	2 x 2GB	2 x 146GB	SAS	DVD±RW	1 x FX1700	None	X-Fi	ES40	Bus64	Mar 08
D10	6427-31U	7x9	2 x E5430	2.66	4 x 1GB	2 x 250GB	SATA	DVD±RW	1 x FX1700	None		ES40	Bus64	Mar 08
D10	6427-32U	7x9	2 x E5430	2.66	2 x 2GB	2 x 146GB	SAS	1 DVD±RW	1 x FX1700	None		ES40	Bus64	Mar 08
D10	6427-33U	7x9	2 x E5430	2.66	2 x 1GB	2 x 250GB	SATA	1 DVD±RW	2 x NVS290	None		ES40	Bus64	Mar 08
ES	D10	6427-73U	7x9	1 x E5430	2.66	2 x 1GB	1 x 250GB	SATA	DVD±RW	1 x FX1700	None	Pending	XP Pro	Apr 08
ES	D10	6427-35U	7x9	1 x E5440	2.83	2 x 1GB	1 x 250GB	SATA	DVD±RW	1 x FX1700	None	Pending	XP Pro	Apr 08
ES	D10	6427-36U	7x9	2 x E5430	2.66	2 x 1GB	1 x 250GB	SATA	DVD±RW	1 x FX4600	None	Pending	XP Pro	Apr 08
ES	D10	6427-37U	7x9	2 x E5440	2.83	2 x 1GB	1 x 250GB	SATA	DVD±RW	1 x FX4600	None	Pending	XP Pro	Apr 08

- High performance workstation with premium graphics for specialized professionals
- Environmentally friendly, cool, and quiet with rock solid engineering
- These small and medium business (SMB) models are part of the US TopSeller™ Program

Processor(s)	One or two processors, Intel® Xeon® processor E5430 or E5440 with quad-core , 1333MHz system bus, and 12MB L2 cache	Tower <ul style="list-style-type: none"> • Raven black color; metal case • 8.3"W x 23.7"D x 17.1"H (without handle) • 210mm W x 602mm D x 434mm H • 65 lb (29.5kg) max configuration • 49-liter • Removable handle on top front • Toolless side cover removal • Toolless disk and optical drive removal • Toolless adapter retention • Illuminated front icons • Rack shelf support or optional rail kit 	
Implementation	Processor uses FC-LGA6 package, two LGA771 sockets		
Memory	2GB or 4GB std, 64GB max, PC2-5300 667MHz DDR2, ECC , fully buffered, 4-channel capable, eight 240-pin DIMM sockets; <i>Non-italics</i> : standard memory in two or four sockets; six or four sockets available	Bay ① 5.25", 1.6" high, external, std optical Bay ② 5.25", 1.6" high, external, open Bay ③ 5.25", 1.6" high, external, open Bay ④ 3.5", 1" high, external, std media reader Bay ⑤ 3.5", 1" high, internal, std disk Bay ⑥ 3.5", 1" high, internal, std disk Bay ⑦ 3.5", 1" high, internal, std or opt disk Bay ⑧ 3.5", 1" high, internal, std or opt disk Bay ⑨ 3.5", 1" high, internal, opt disk	
Graphics	Two PCI Express® x16 adapters required for quad monitor support, * 76 to 150W adapters use auxiliary power connector from PSU Some: NVIDIA® Quadro® NVS 290 , PCIe x16 adapter, 256MB, two single-link DVI via DMS-59 with dual DVI-I dongle, 21W Some: NVIDIA Quadro FX 1700 , PCIe x16 adapter, 512MB, two dual-link DVI, dual DVI-I or dual VGA, HDTV out, 42W Some: NVIDIA Quadro FX 4600 , PCIe x16 adapter, 768MB, two slot width, 2 dual-link DVI, dual DVI-I or dual VGA, 134W	Slot 1: half-length, full-height, PCIe x4 (x8 mechanical) Slot 2: full-length, full-height, PCIe 2.0 x16 (75W* max) Slot 3: full-length, full-height, PCIe x4 (x8 mechanical) Slot 4: full-length, full-height, PCIe 2.0 x16 (75W* max) Slot 5: full-length, full-height, 64-bit PCI-X Slot 6: full-length, full-height, 64-bit PCI-X Slot 7: full-length, full-height, 32-bit PCI 2.3	
Media reader	9-in-1 media reader, internal USB 2.0		
SATA disk(s)	Some: 250GB , SATA 3.0Gb/s, 7200 rpm		
SATA controller	Serial ATA, SATA 3.0Gb/s, integrated in 6321ESB		
SATA connectors	Five SATA connectors on planar		
SATA DVD±RW	Some: Super Multi-Burner DL DVD±RW SATA 1.5Gb/s (41N5620)		
SATA Blu-ray	Some: Blu-ray™ Burner / HD-DVD Player SATA 1.5Gb/s (43R1958)		
SAS disk	Some: 146GB , Serial Attached SCSI, 3.0Gb/s, 15000 rpm		
SAS controller	LSI™ LSISAS1068E chipset, 5 connectors, 3.0Gb/s, RAID® 0, 1, 1E		
Chipset	Intel 5400A Chipset , Intel 6321ESB I/O Controller Hub for RAID 0, 1, 5, 10 support, Winbond® W83627EHG Super I/O		
Front ports	Two USB 2.0, microphone (3.5mm), headphone (3.5mm), FireWire 400 (IEEE 1394)		
Rear ports	Four USB 2.0, serial (9-pin), keyboard (PS/2), mouse (PS/2), two ethernet (RJ-45), six analog audio ports (line-in, mic-in, front-out, side-out, rear-out, center/sub-out), RCA-type coaxial digital in, RCA-type coaxial digital out		
IEEE 1394 adpdr	None		
Audio	High Definition (HD) Audio, Realtek® ALC888 codec; Some: Creative Sound Blaster® X-Fi, PCI adapter, high-end sound adapter		
Speaker	Internal speaker for business audio		
Ethernet	Dual gigabit ethernet on planar, Intel® 82563EB, proprietary Intel bus		
Security chip	Winbond WPCT200 SafeKeeper™ Trusted Platform Module, TCG 1.2-compliant		SECURITY <ul style="list-style-type: none"> • Security chip (see information on left) • Side cover lock (ships with two identical keys) • Padlock loop (in rear for opt padlock; padlock prohibits side cover removal) • Security slot (in rear for optional Kensington® Microsaver® cable; prohibits side cover removal) • Power-on password • Administrator password • Boot sequence control • Boot without keyboard, mouse, diskette • Serial port I/O control • USB port disablement (front or all)
Keyboard	Preferred Pro USB Keyboard (USB connector), 104-key, black		
Mouse	Optical Wheel Mouse (USB connector), black		
Power supply	1000 watts with 120mm bottom-mounted variable speed fan, universal, 80 PLUS®		
Cooling	Five fans (power supply, first processor, second processor, rear, front disk)		
Rack mount	Rack shelf support or optional sliding rack mount rail kit support		
Preloaded operating system²⁰	- Microsoft® Windows® XP Professional - Microsoft Windows Vista® Business Edition (64-bit) ♦ <i>Vista models</i> : Vista Premium logo	Accessories Intel Xeon Quad-Core Processor E5430 43R2012 Intel Xeon Quad-Core Processor E5440 43R2013 2GB PC2-5300 DDR2 ECC FB-DIMM 43R1772 4GB PC2-5300 DDR2 ECC FB-DIMM 43R1773 750GB SATA 3.0Gb/s Disk (7200 rpm) 43R1991 1TB SATA 3.0Gb/s Disk (7200 rpm) 45J7918 73GB SAS 3.0Gb/s Disk (15000 rpm) 43R1992 146GB SAS 3.0Gb/s Disk (15000 rpm) 43R1993 300GB SAS 3.0Gb/s Disk (15000 rpm) 43R1994 Blu-ray Burner / HD-DVD Player SATA 1.5Gb/s 43R1958 ThinkStation Rail Kit 43R1964 USB 2.0 Ultra Secure Memory Key 8GB 45J5918 USB 2.0 Portable Secure 320GB Hard Disk 43R2019 ThinkVision L2440p Wide 24" Monitor 4420HB2 Laser Tilt Wheel Mouse (USB, PS/2) 41U3074 NVIDIA® Quadro® 512MB FX 570 45J7917 NVIDIA Quadro 512MB FX 1700 43R1767 NVIDIA Quadro 512MB FX 3700 43R1768 Other accessories at lenovo.com/accessories	Supports ThinkVantage® technologies RoHS-compliant Some: ENERGY STAR® 4.0-compliant
Preloaded applications⁵ (all OSes; only some listed)	• Rescue and Recovery™ • Client Security Solution™ • ThinkVantage Productivity Center • ThinkVantage System Update • System Migration Assistant • Norton Internet Security™ (90 days of virus definitions) • PC-Doctor™ (diagnostics) • Microsoft Office 2007 Trial (60-day) • Sonic RecordNow and Drive Letter Access (DVD±RW) • Corel® WinDVD® (DVD±RW, Blu-ray) • Ulead® DVD MovieFactory (Blu-ray)		LIMITED WARRANTY¹ ⇨ 3-year parts and labor ⇨ Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts³, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time) ⇨ ThinkPlus™ services available; see http://lenovo.com/thinkplus/warranty ⇨ 24x7¹⁴ toll-free support for warranty issues during the warranty period¹ via 800-426-7378

See footnotes for important warranty information

ES US models announced April 15, 2008; previous models on March 11, 2008

ThinkStation® D10 (6427) - TopSeller (August 2008)

Personal Systems Reference (PSREF)

Name	Type-model	Slot x bay	Processor(s)	GHz	Memory	Disk(s)	RAID	SATA optical	Graphics adapter(s)	1394 adpdr	Sound adpdr	ENERGY STAR 4.0	Preload	Avail date
D10	6427-74U	7x9	2 x E5440	2.83	2 x 1GB	1 x 250GB SATA	None	DVD±RW	1 x FX3700	None	None	Pending	Bus64	Aug 08
D10	6427-88U	7x9	1 x E5450	3.00	2 x 2GB	1 x 146GB SAS	None	DVD±RW	1 x FX3700	None	None	Pending	Bus64	Aug 08
D10	6427-89U	7x9	2 x E5440	2.83	2 x 1GB	1 x 250GB SATA	None	DVD±RW	1 x FX570	None	None	Pending	Bus64	Aug 08
D10	6427-91U	7x9	1 x E5450	3.00	2 x 2GB	1 x 146GB SAS	None	DVD±RW	1 x FX570	None	None	Pending	Bus64	Aug 08
ES	D10	6427-H5U	7x9	1 x E5440	2.83	2 x 2GB	1 x 500GB SATA	None	DVD±RW	None	None	Pending	Bus64	Sep 08
ES	D10	6427-H6U	7x9	1 x E5420	2.50	2 x 2GB	1 x 500GB SATA	None	DVD±RW	None	None	Pending	Bus64	Sep 08
ES	D10	6427-H7U	7x9	1 x E5440	2.83	4 x 2GB	1 x 146GB SAS	None	DVD±RW	None	None	Pending	Bus64	Sep 08
ES	D10	6427-H8U	7x9	1 x E5420	2.50	4 x 2GB	1 x 146GB SAS	None	DVD±RW	None	None	Pending	Bus64	Sep 08

- High performance workstation with premium graphics for specialized professionals
- Environmentally friendly, cool, and quiet with rock solid engineering
- These small and medium business (SMB) models are part of the US TopSeller™ Program

Processor(s)	One or two processors, Intel® Xeon® processor E5420, E5440, or E5450 with quad-core, 1333MHz system bus, and 12MB L2 cache	Tower	<ul style="list-style-type: none"> • Raven black color; metal case • 8.3"W x 23.7"D x 17.1"H (without handle) • 210mm W x 602mm D x 434mm H • 65 lb (29.5kg) max configuration • 49-liter • Removable handle on top front • Toolless side cover removal • Toolless disk and optical drive removal • Toolless adapter retention • Illuminated front icons • Rack shelf support or optional rail kit 	
Implementation	Processor uses FC-LGA6 package, two LGA771 sockets			
Memory	2GB, 4GB, or 8GB std, 64GB max, PC2-5300 667MHz DDR2, ECC, fully buffered, 4-channel capable, eight 240-pin DIMM sockets; <i>Non-italics:</i> standard memory in two or four sockets; six or four sockets available	Bay ① 5.25", 1.6" high, external, std optical	Bay ② 5.25", 1.6" high, external, open	Bay ③ 5.25", 1.6" high, external, open
Graphics	Two PCI Express® x16 adapters required for quad monitor support, * 76W to 150W adapters use auxiliary power connector from PSU <i>Some:</i> NVIDIA® Quadro® FX 570, PCIe 2.0 x16 adapter, 256MB, two dual-link DVI, dual DVI-I or dual VGA, 38W <i>Some:</i> NVIDIA Quadro FX 3700, PCIe 2.0 x16 adapter, 512MB, two dual-link DVI, dual DVI-I or dual VGA, 78W	Bay ④ 3.5", 1" high, external, std media reader	Bay ⑤ 3.5", 1" high, internal, std disk	Bay ⑥ 3.5", 1" high, internal, std disk
Media reader	9-in-1 media reader, internal USB 2.0	Bay ⑦ 3.5", 1" high, internal, std or opt disk	Bay ⑧ 3.5", 1" high, internal, std or opt disk	Bay ⑨ 3.5", 1" high, internal, opt disk
SATA disk(s)	<i>Some:</i> 250GB or 500GB, SATA 3.0Gb/s, 7200 rpm	Slot 1: half-length, full-height, PCIe x4 (x8 mechanical)	Slot 2: full-length, full-height, PCIe 2.0 x16 (75W* max)	Slot 3: full-length, full-height, PCIe x4 (x8 mechanical)
SATA controller	Serial ATA, SATA 3.0Gb/s, integrated in 6321ESB	Slot 4: full-length, full-height, PCIe 2.0 x16 (75W* max)	Slot 5: full-length, full-height, 64-bit PCI-X	Slot 6: full-length, full-height, 64-bit PCI-X
SATA connectors	Five SATA connectors on planar	Slot 7: full-length, full-height, 32-bit PCI 2.3		
SATA DVD±RW	Super Multi-Burner DL DVD±RW SATA 1.5Gb/s (41N5620)			
SAS disk	<i>Some:</i> 146GB, Serial Attached SCSI, 3.0Gb/s, 15000 rpm			
SAS controller	LSI™ LSISAS1068E chipset, 5 connectors, 3.0Gb/s, RAID® 0, 1, 1E			
Chipset	Intel 5400A Chipset, Intel 6321ESB I/O Controller Hub for RAID 0, 1, 5, 10 support, Winbond® W83627EHG Super I/O			
Front ports	Two USB 2.0, microphone (3.5mm), headphone (3.5mm), FireWire 400 (IEEE 1394)			
Rear ports	Four USB 2.0, serial (9-pin), keyboard (PS/2), mouse (PS/2), two ethernet (RJ-45), six analog audio ports (line-in, mic-in, front-out, side-out, rear-out, center/sub-out), RCA-type coaxial digital in, RCA-type coaxial digital out			
IEEE 1394 adpdr	None			
Audio	High Definition (HD) Audio, Realtek® ALC888 codec;			
Speaker	Internal speaker for business audio			
Ethernet	Dual gigabit ethernet on planar, Intel® 82563EB, proprietary Intel bus			
Security chip	Winbond WPCT200 SafeKeeper™ Trusted Platform Module, TCG 1.2-compliant	SECURITY		
Keyboard	Preferred Pro USB Keyboard (USB connector), 104-key, black	<ul style="list-style-type: none"> • Security chip (see information on left) • Side cover lock (ships with two identical keys) • Padlock loop (in rear for opt padlock; padlock prohibits side cover removal) • Security slot (in rear for optional Kensington® Microsaver® cable; prohibits side cover removal) • Power-on password • Administrator password • Boot sequence control • Boot without keyboard, mouse, diskette • Serial port I/O control • USB port disablement (front or all) 		
Mouse	Optical Wheel Mouse (USB connector), black	Supports ThinkVantage® technologies		
Power supply	1000 watts with 120mm bottom-mounted variable speed fan, universal, 80 PLUS®	RoHS-compliant		
Cooling	Five fans (power supply, first processor, second processor, rear, front disk)	Some: ENERGY STAR® 4.0-compliant		
Rack mount	Rack shelf support or optional sliding rack mount rail kit support	LIMITED WARRANTY¹		
Preloaded operating system²⁰	Accessories	<ul style="list-style-type: none"> ↔ 3-year parts and labor ↔ Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts³, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time) ↔ ThinkPlus™ services available; see http://lenovo.com/thinkplus/warranty ↔ 24x7¹⁴ toll-free support for warranty issues during the warranty period¹ via 800-426-7378 		
- Microsoft® Windows® Vista® Business Edition (64-bit)	Intel Xeon Quad-Core Processor E5450 43R2014			
↔ Vista models: Vista Premium logo	2GB PC2-5300 DDR2 ECC FB-DIMM 43R1772			
Preloaded applications⁵	4GB PC2-5300 DDR2 ECC FB-DIMM 43R1773			
• Rescue and Recovery™	750GB SATA 3.0Gb/s Disk (7200 rpm) 43R1991			
• Client Security Solution™	1TB SATA 3.0Gb/s Disk (7200 rpm) 45J7918			
• ThinkVantage Productivity Center	73GB SAS 3.0Gb/s Disk (15000 rpm) 43R1992			
• ThinkVantage System Update	146GB SAS 3.0Gb/s Disk (15000 rpm) 43R1993			
• System Migration Assistant	300GB SAS 3.0Gb/s Disk (15000 rpm) 43R1994			
• Norton Internet Security™ (90 days of virus definitions)	Super Multi-Burner DL DVD±RW SATA1.5Gb/s 41N5620			
• PC-Doctor™ (diagnostics)	Blu-ray Burner / HD-DVD Player SATA 1.5Gb/s 43R1958			
• Adobe® Reader	ThinkStation Rail Kit 43R1964			
• Microsoft Office 2007 Trial (60-day)	USB 2.0 Ultra Secure Memory Key 8GB 45J5918			
• Sonic RecordNow and Drive Letter Access (DVD±RW)	USB 2.0 Portable Secure 320GB Hard Disk 43R2019			
• Corel® WinDVD® (DVD±RW)	ThinkVision® L1940p Wide 19" Monitor 4424HB6			
	ThinkVision L2240p Wide 22" Monitor 4422HB6			
	ThinkVision L2440x Wide 24" Monitor 4421HB2			
	Laser Tilt Wheel Mouse (USB, PS/2) 41U3074			
	Lenovo USB Fingerprint Keyboard 73P4730			
	NVIDIA® Quadro® 512MB FX 570 45J7917			
	NVIDIA Quadro 512MB FX 1700 43R1767			
	NVIDIA Quadro 512MB FX 3700 43R1768			
	NVIDIA Quadro 768MB FX 4600 43R1769			
	Other accessories at lenovo.com/accessories			

See footnotes for important warranty information

ES US models announced September 30, 2008; previous models on August 19, 2008

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Name	Type-model	Slot x bay	Processor(s)	GHz	Memory	Disk(s)	RAID	SATA optical	Graphics adapter(s)	1394 adptr	Sound adptr	ENERGY STAR 4.0	Vista preload	Workhorse Global	Avail date
D10	6493-19U	7x9	1 x E5430	2.66	2 x 1GB	2 x 250GB ²	SATA	DVD±RW	1 x FX1700	None			Bus64	No	Mar 08
D10	6493-21U	7x9	1 x E5440	2.83	2 x 2GB	2 x 146GB	SAS	DVD±RW	1 x FX4600	None			Bus64	No	Mar 08
D10	6493-22U	7x9	2 x X5460	3.16	2 x 2GB	2 x 146GB	SAS	DVD±RW	1 x FX4600	None		ES40	Bus64	No	Mar 08
D10	6493-23U	7x9	1 x E5430	2.66	4 x 1GB	2 x 250GB	SATA	DVD±RW	1 x FX1700	None	X-Fi		Bus64	No	Mar 08
D10	6493-25U	7x9	1 x E5420	2.50	2 x 1GB	2 x 250GB	SATA	DVD±RW	1 x FX1700	None			Bus64	No	Mar 08
D10	6493-26U	7x9	2 x X5460	3.16	4 x 2GB	2 x 146GB	SAS	1 DVD±RW	1 x FX4600	None		ES40	Bus64	No	Mar 08
D10	6493-33U	7x9	2 x X5460	3.16	8 x 2GB	3 x 146GB	SAS	1E DVD±RW	1 x FX4600	None		ES40	Bus64	No	Mar 08
D10	6493-27U	7x9	2 x X5460	3.16	2 x 1GB	2 x 250GB	SATA	1 DVD±RW	2 x NVS290	None		ES40	Bus64	No	Mar 08
D10	6493-31U	7x9	2 x E5440	2.83	2 x 2GB	2 x 146GB	SAS	1 DVD±RW	1 x FX4600	None	X-Fi		Bus64	No	Mar 08
D10	6493-32U	7x9	2 x E5440	2.83	2 x 2GB	3 x 146GB	SAS	1E DVD±RW	1 x FX4600	None	X-Fi		Bus64	No	Mar 08
D10	6493-17U	7x9	2 x E5405	2.00	4 x 1GB	2 x 500GB	SATA	DVD±RW	1 x FX1700	None			Bus64	No	Mar 08
D10	6493-18U	7x9	2 x E5440	2.83	8 x 2GB	4 x 146GB	SAS	0 Blu-ray™	2 x FX4600	None	X-Fi		Bus64	No	Mar 08

- High performance workstation with premium graphics for specialized professionals
- Environmentally friendly, cool, and quiet with rock solid engineering

Processor	One or two processors, Intel® Xeon® processor E5405, E5420, E5430, E5440, or X5460 with quad-core, 1333MHz system bus, and 12MB L2 cache	Tower <ul style="list-style-type: none"> • Raven black color; metal case • 8.3"W x 23.7"D x 17.1"H (without handle) • 210mm W x 602mm D x 434mm H • 65 lb (29.5kg) max configuration • 49-liter • Removable handle on top front • Toolless side cover removal • Toolless disk and optical drive removal • Toolless adapter retention • Illuminated front icons • Rack shelf support or optional rail kit 	
Implementation	Processor uses FC-LGA6 package, two LGA771 sockets		
Memory	2GB, 4GB, 8GB or 16GB std, 64GB max, PC2-5300 667MHz DDR2, ECC , fully buffered, 4-channel capable, eight 240-pin DIMM sockets; <i>Italics:</i> standard memory in eight sockets; no sockets available; <i>Non-italics:</i> standard memory in two or four sockets; six or four sockets available	Bay ① 5.25", 1.6" high, external, std optical Bay ② 5.25", 1.6" high, external, open Bay ③ 5.25", 1.6" high, external, open Bay ④ 3.5", 1" high, external, std media reader Bay ⑤ 3.5", 1" high, internal, std disk Bay ⑥ 3.5", 1" high, internal, std disk Bay ⑦ 3.5", 1" high, internal, std or opt disk Bay ⑧ 3.5", 1" high, internal, std or opt disk Bay ⑨ 3.5", 1" high, internal, opt disk	
Graphics	Two PCI Express® x16 adapters required for quad monitor support, * 76 to 150W adapters use auxiliary power connector from PSU <i>Some:</i> NVIDIA® Quadro® NVS 290 , PCIe x16 adapter, 256MB, two single-link DVI via DMS-59 with dual DVI-I dongle, 21W <i>Some:</i> NVIDIA Quadro FX 1700 , PCIe x16 adapter, 512MB, two dual-link DVI, dual DVI-I or dual VGA, HDTV out, 42W <i>Some:</i> NVIDIA Quadro FX 4600 , PCIe x16 adapter, 768MB, two slot width, 2 dual-link DVI, dual DVI-I or dual VGA, 134W	Slot 1: half-length, full-height, PCIe x4 (x8 mechanical) Slot 2: full-length, full-height, PCIe 2.0 x16 (75W* max) Slot 3: full-length, full-height, PCIe x4 (x8 mechanical) Slot 4: full-length, full-height, PCIe 2.0 x16 (75W* max) Slot 5: full-length, full-height, 64-bit PCI-X Slot 6: full-length, full-height, 64-bit PCI-X Slot 7: full-length, full-height, 32-bit PCI 2.3	
Media reader	9-in-1 media reader, internal USB 2.0		
SATA disk(s)	<i>Some:</i> 250GB or 500GB , SATA 3.0Gb/s, 7200 rpm		
SATA controller	Serial ATA, SATA 3.0Gb/s, integrated in 6321ESB		
SATA connectors	Five SATA connectors on planar		
SATA DVD±RW	<i>Some:</i> Super Multi-Burner DL DVD±RW SATA 1.5Gb/s (41N5620)		
SATA Blu-ray	<i>Some:</i> Blu-ray Burner, SATA 1.5Gb/s (43R1958) HD-DVD Player		
SAS disk	<i>Some:</i> 146GB , Serial Attached SCSI, 3.0Gb/s, 15000 rpm		
SAS controller	LSI™ LSI SAS1068E chipset, 5 connectors, 3.0Gb/s, RAID® 0, 1, 1E		
Chipset	Intel 5400A Chipset , Intel 6321ESB I/O Controller Hub for RAID 0, 1, 5, 10 support, Winbond® W83627EHG Super I/O		
Front ports	Two USB 2.0, microphone (3.5mm), headphone (3.5mm), FireWire 400 (IEEE 1394)		
Rear ports	Four USB 2.0, serial (9-pin), keyboard (PS/2), mouse (PS/2), two ethernet (RJ-45), six analog audio ports (line-in, mic-in, front-out, side-out, rear-out, center/sub-out), RCA-type coaxial digital in, RCA-type coaxial digital out		
IEEE 1394 adptr	None		
Audio	High Definition (HD) Audio, Realtek® ALC888 codec; <i>Some:</i> Creative Sound Blaster® X-Fi, PCI adapter, high-end sound adapter		
Speaker	Internal speaker for business audio		
Ethernet	Dual gigabit ethernet on planar, Intel® 82563EB, proprietary Intel bus		
Security chip	Winbond WPCT200 SafeKeeper™ Trusted Platform Module, TCG 1.2-compliant	SECURITY <ul style="list-style-type: none"> • Security chip (see information on left) • Side cover lock (ships with two identical keys) • Padlock loop (in rear for opt padlock; padlock prohibits side cover removal) • Security slot (in rear for optional Kensington® Microsaver® cable; prohibits side cover removal) • Power-on password • Administrator password • Boot sequence control • Boot without keyboard, mouse, diskette • Serial port I/O control • USB port disablement (front or all) 	
Keyboard	<i>Model 18U:</i> Lenovo USB Fingerprint Keyboard (USB connector), black Preferred Pro USB Keyboard (USB connector), 104-key, black		
Mouse	Optical Wheel Mouse (USB connector), black		
Power supply	1000 watts with 120mm bottom-mounted variable speed fan, universal, 80 PLUS®		
Cooling	Five fans (power supply, first processor, second processor, rear, front disk)		
Rack mount	Rack shelf support or optional sliding rack mount rail kit support		

Preloaded operating system²⁰ - Microsoft® Windows® Vista® Business Edition (64-bit) ♦ Vista Premium logo Preloaded applications⁵ (only some listed)	Accessories Intel Xeon Quad-Core Processor E5420 43R2011 Intel Xeon Quad-Core Processor E5430 43R2012 Intel Xeon Quad-Core Processor E5440 43R2013 2GB PC2-5300 DDR2 ECC FB-DIMM 43R1772 4GB PC2-5300 DDR2 ECC FB-DIMM 43R1773 750GB SATA 3.0Gb/s Disk (7200 rpm) 43R1991 1TB SATA 3.0Gb/s Disk (7200 rpm) 45J7918 146GB SAS 3.0Gb/s Disk (15000 rpm) 43R1993 300GB SAS 3.0Gb/s Disk (15000 rpm) 43R1994 Blu-ray Burner / HD-DVD Player SATA 1.5Gb/s 43R1958 ThinkStation Rail Kit 43R1964 USB 2.0 Ultra Secure Memory Key 8GB 45J5918 USB 2.0 Portable Secure 320GB Hard Disk 43R2019 ThinkVision® L2440p Wide 24" Monitor 4420HB2 NVIDIA® Quadro® 512MB FX 1700 43R1767 NVIDIA Quadro 512MB FX 3700 43R1768 Other accessories at lenovo.com/accessories	Supports ThinkVantage® technologies RoHS-compliant <i>Some:</i> ENERGY STAR® 4.0-compliant LIMITED WARRANTY¹ ⇨ 3-year parts and labor ⇨ Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts ³ , 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time) ⇨ ThinkPlus™ services available; see http://lenovo.com/thinkplus/warranty • Onsite service upgrade options (in eligible locations) ⁷ ⇨ 24x7 ¹⁴ toll-free support for warranty issues during the warranty period ¹ via 800-426-7378
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See footnotes for important warranty information
 US models announced March 11, 2008

Name	Type-model	Slot x bay	Processor(s)	GHz	Memory	Disk(s)	RAID	SATA optical	Graphics adapter(s)	1394 adpdr	Sound adpdr	ENERGY STAR 4.0	Vista preload	Workhorse Global	Avail date
D10	6493-34U	7x9	1 x E5430	2.66	2 x 1GB	1 x 250GB ² SATA		DVD±RW	1 x FX1700	None	None	Pending	XP Pro	No	Apr 08
D10	6493-39U	7x9	1 x E5430	2.66	2 x 1GB	1 x 146GB SAS		DVD±RW	1 x FX1700	None	None	Pending	XP Pro	No	Apr 08
D10	6493-35U	7x9	1 x E5450	3.00	2 x 1GB	1 x 250GB SATA		DVD±RW	1 x FX1700	None	None	Pending	XP Pro	No	Apr 08
D10	6493-41U	7x9	1 x E5450	3.00	2 x 1GB	1 x 146GB SAS		DVD±RW	1 x FX1700	None	None	Pending	XP Pro	No	Apr 08
D10	6493-36U	7x9	1 x X5460	3.16	2 x 1GB	2 x 250GB SATA		DVD±RW	1 x FX4600	None	None	Pending	XP Pro	No	Apr 08
D10	6493-42U	7x9	1 x X5460	3.16	2 x 1GB	2 x 146GB SAS		DVD±RW	1 x FX4600	None	None	Pending	XP Pro	No	Apr 08
D10	6493-45U	7x9	1 x X5460	3.16	2 x 1GB	4 x 250GB SATA	5	DVD±RW	1 x FX4600	None	None	Pending	XP Pro	No	Apr 08
D10	6493-37U	7x9	2 x E5450	3.00	2 x 1GB	2 x 250GB SATA		DVD±RW	1 x FX4600	None	None	Pending	XP Pro	No	Apr 08
D10	6493-43U	7x9	2 x E5450	3.00	2 x 1GB	2 x 146GB SAS		DVD±RW	1 x FX4600	None	None	Pending	XP Pro	No	Apr 08
D10	6493-46U	7x9	2 x E5450	3.00	2 x 1GB	4 x 250GB SATA	5	DVD±RW	1 x FX4600	None	None	Pending	XP Pro	No	Apr 08
D10	6493-38U	7x9	2 x X5460	3.16	2 x 1GB	2 x 250GB SATA		DVD±RW	1 x FX4600	None	None	Pending	XP Pro	No	Apr 08
D10	6493-44U	7x9	2 x X5460	3.16	2 x 1GB	2 x 146GB SAS		DVD±RW	1 x FX4600	None	None	Pending	XP Pro	No	Apr 08
D10	6493-47U	7x9	2 x X5460	3.16	2 x 1GB	4 x 250GB SATA	5	DVD±RW	1 x FX4600	None	None	Pending	XP Pro	No	Apr 08

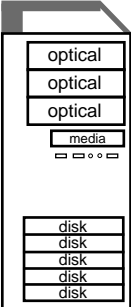
- High performance workstation with premium graphics for specialized professionals
- Environmentally friendly, cool, and quiet with rock solid engineering

Processor	One or two processors, Intel® Xeon® processor E5430, E5450, or X5460 with quad-core, 1333MHz system bus, and 12MB L2 cache	<p>Tower</p> <ul style="list-style-type: none"> • Raven black color; metal case • 8.3"W x 23.7"D x 17.1"H (without handle) • 210mm W x 602mm D x 434mm H • 65 lb (29.5kg) max configuration • 49-liter • Removable handle on top front • Toolless side cover removal • Toolless disk and optical drive removal • Toolless adapter retention • Illuminated front icons • Rack shelf support or optional rail kit 
Implementation	Processor uses FC-LGA6 package, two LGA771 sockets	
Memory	2GB std, 64GB max, PC2-5300 667MHz DDR2, ECC , fully buffered, 4-channel capable, eight 240-pin DIMM sockets; <i>Non-italics:</i> standard memory in two sockets; six sockets available	
Graphics	Two PCI Express® x16 adapters required for quad monitor support, * 76 to 150W adapters use auxiliary power connector from PSU <i>Some:</i> NVIDIA® Quadro® FX 1700 , PCIe x16 adapter, 512MB, two dual-link DVI, dual DVI-I or dual VGA, HDTV out, 42W <i>Some:</i> NVIDIA Quadro FX 4600 , PCIe x16 adapter, 768MB, two slot width, 2 dual-link DVI, dual DVI-I or dual VGA, 134W	
Media reader	9-in-1 media reader, internal USB 2.0	
SATA disk(s)	<i>Some:</i> 250GB , SATA 3.0Gb/s, 7200 rpm	
SATA controller	Serial ATA, SATA 3.0Gb/s, integrated in 6321ESB	
SATA connectors	Five SATA connectors on planar	
SATA DVD±RW	Super Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive	
SATA Blu-ray	None	
SAS disk	<i>Some:</i> 146GB , Serial Attached SCSI, 3.0Gb/s, 15000 rpm	
SAS controller	LSI™ LSISAS1068E chipset, 5 connectors, 3.0Gb/s, RAID® 0, 1, 1E	
Chipset	Intel 5400A Chipset , Intel 6321ESB I/O Controller Hub for RAID 0, 1, 5, 10 support, Winbond® W83627EHG Super I/O	
Front ports	Two USB 2.0, microphone (3.5mm), headphone (3.5mm), FireWire 400 (IEEE 1394)	<p>Bay ① 5.25", 1.6" high, external, std optical</p> <p>Bay ② 5.25", 1.6" high, external, open</p> <p>Bay ③ 5.25", 1.6" high, external, open</p> <p>Bay ④ 3.5", 1" high, external, std media reader</p> <p>Bay ⑤ 3.5", 1" high, internal, std disk</p> <p>Bay ⑥ 3.5", 1" high, internal, std disk</p> <p>Bay ⑦ 3.5", 1" high, internal, std or opt disk</p> <p>Bay ⑧ 3.5", 1" high, internal, std or opt disk</p> <p>Bay ⑨ 3.5", 1" high, internal, opt disk</p>
Rear ports	Four USB 2.0, serial (9-pin), keyboard (PS/2), mouse (PS/2), two ethernet (RJ-45), six analog audio ports (line-in, mic-in, front-out, side-out, rear-out, center/sub-out), RCA-type coaxial digital in, RCA-type coaxial digital out	<p>Slot 1: half-length, full-height, PCIe x4 (x8 mechanical)</p> <p>Slot 2: full-length, full-height, PCIe 2.0 x16 (75W* max)</p> <p>Slot 3: full-length, full-height, PCIe x4 (x8 mechanical)</p> <p>Slot 4: full-length, full-height, PCIe 2.0 x16 (75W* max)</p> <p>Slot 5: full-length, full-height, 64-bit PCI-X</p> <p>Slot 6: full-length, full-height, 64-bit PCI-X</p> <p>Slot 7: full-length, full-height, 32-bit PCI 2.3</p>
IEEE 1394 adpdr	None	<p>SECURITY</p> <ul style="list-style-type: none"> • Security chip (see information on left) • Side cover lock (ships with two identical keys) • Padlock loop (in rear for opt padlock; padlock prohibits side cover removal) • Security slot (in rear for optional Kensington® Microsaver® cable; prohibits side cover removal) • Power-on password • Administrator password • Boot sequence control • Boot without keyboard, mouse, diskette • Serial port I/O control • USB port disablement (front or all) <p>Supports ThinkVantage® technologies</p> <p>RoHS-compliant <i>Pending:</i> ENERGY STAR® 4.0-compliant</p> <p>LIMITED WARRANTY¹</p> <ul style="list-style-type: none"> ↔ 3-year parts and labor ↔ Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts³, 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time) ↔ ThinkPlus™ services available; see http://lenovo.com/thinkplus/warranty ↔ 24x7¹⁴ toll-free support for warranty issues during the warranty period¹ via 800-426-7378
Audio	High Definition (HD) Audio, Realtek® ALC888 codec;	
Speaker	Internal speaker for business audio	
Ethernet	Dual gigabit ethernet on planar, Intel® 82563EB, proprietary Intel bus	
Security chip	Winbond WPCT200 SafeKeeper™ Trusted Platform Module, TCG 1.2-compliant	
Keyboard	Preferred Pro USB Keyboard (USB connector), 104-key, black	
Mouse	Optical Wheel Mouse (USB connector), black	
Power supply	1000 watts with 120mm bottom-mounted variable speed fan, universal, 80 PLUS®	
Cooling	Five fans (power supply, first processor, second processor, rear, front disk)	
Rack mount	Rack shelf support or optional sliding rack mount rail kit support	
Preloaded operating system²⁰	Accessories	
- Microsoft® Windows® XP Professional	Intel Xeon Quad-Core Processor E5430	43R2012
Preloaded applications⁵	Intel Xeon Quad-Core Processor E5450	43R2014
• Rescue and Recovery™	2GB PC2-5300 DDR2 ECC FB-DIMM	43R1772
• Client Security Solution™	4GB PC2-5300 DDR2 ECC FB-DIMM	43R1773
• ThinkVantage Productivity Center	750GB SATA 3.0Gb/s Disk (7200 rpm)	43R1991
• ThinkVantage System Update	1TB SATA 3.0Gb/s Disk (7200 rpm)	45J7918
• System Migration Assistant	146GB SAS 3.0Gb/s Disk (15000 rpm)	43R1993
• Norton Internet Security™	300GB SAS 3.0Gb/s Disk (15000 rpm)	43R1994
(90 days of virus definitions)	Super Multi-Burner DL DVD±RW SATA 1.5Gb/s	41N5620
• PC-Doctor™ (diagnostics)	Blu-ray Burner / HD-DVD Player SATA 1.5Gb/s	43R1958
• Windows Live™ Toolbar	ThinkStation Rail Kit	43R1964
• Windows Live Search	USB 2.0 Ultra Secure Memory Key 8GB	45J5918
• Sonic RecordNow and	USB 2.0 Portable Secure 320GB Hard Disk	43R2019
Drive Letter Access (DVD±RW)	ThinkVision® L2240p Wide 22" Monitor	4422HB6
• Corel® WinDVD® (DVD±RW)	ThinkVision L2440x Wide 24" Monitor	4421HB2
	Kensington® Cable Lock from Lenovo	73P2582
	Laser Tilt Wheel Mouse (USB, PS/2)	41U3074
	Lenovo USB Fingerprint Keyboard	73P4730
	NVIDIA® Quadro® 512MB FX 570	45J7917
	NVIDIA Quadro 512MB FX 1700	43R1767
	NVIDIA Quadro 512MB FX 3700	43R1768
	Other accessories at lenovo.com/accessories	

See footnotes for important warranty information
US models announced April 22, 2008

Name	Type-model	Slot x bay	Processor(s)	GHz	Memory	Disk(s)	RAID	SATA optical	Graphics adapter(s)	1394 adptry	Sound adptry	ENERGY STAR 4.0	Preload	Avail date
D10	6493-73U	7x9	2 x E5450	3.00	4 x 1GB	2 x 250GB	SATA	None	DVD±RW	1 x FX3700	None	None	Pending	Bus64 Aug 08
D10	6493-A2U	7x9	2 x E5450	3.00	4 x 1GB	2 x 250GB	SATA	None	DVD±RW	1 x FX1700	None	None	Pending	Bus64 Aug 08

- **High performance workstation with premium graphics for specialized professionals**
- **Environmentally friendly, cool, and quiet with rock solid engineering**
- **These small and medium business (SMB) models are part of the US TopSeller™ Program**

Processor(s)	Two processors, Intel® Xeon® processor E5450 with quad-core, 1333MHz system bus, and 12MB L2 cache		Processor Processor uses FC-LGA6 package, two LGA771 sockets	Power • Raven black color; metal case • 8.3"W x 23.7"D x 17.1"H (without handle) • 210mm W x 602mm D x 434mm H • 65 lb (29.5kg) max configuration • 49-liter • Removable handle on top front • Toolless side cover removal • Toolless disk and optical drive removal • Toolless adapter retention • Illuminated front icons • Rack shelf support or optional rail kit	
Implementation	Processor uses FC-LGA6 package, two LGA771 sockets				
Memory	4GB std, 64GB max, PC2-5300 667MHz DDR2 , ECC, fully buffered, 4-channel capable, eight 240-pin DIMM sockets; <i>Non-italics:</i> standard memory in two or four sockets; six or four sockets available		Graphics Two PCI Express® x16 adapters required for quad monitor support, * 76 to 150W adapters use auxiliary power connector from PSU <i>Some:</i> NVIDIA® Quadro® FX 1700 , PCIe x16 adapter, 512MB, two dual-link DVI, dual DVI-I or dual VGA, HDTV out, 42W <i>Some:</i> NVIDIA Quadro FX 3700 , PCIe 2.0 x16 adapter, 512MB, two dual-link DVI, dual DVI-I or dual VGA, 78W	Media reader 9-in-1 media reader, internal USB 2.0 SATA disk(s) 250GB, SATA 3.0Gb/s, 7200 rpm SATA controller Serial ATA, SATA 3.0Gb/s, integrated in 6321ESB SATA connectors Five SATA connectors on planar SATA DVD±RW Super Multi-Burner DL DVD±RW SATA 1.5Gb/s (41N5620) SAS disk None SAS controller LSI™ LSISAS1068E chipset, 5 connectors, 3.0Gb/s, RAID® 0, 1, 1E	Bay Bay ① 5.25", 1.6" high, external, std optical Bay ② 5.25", 1.6" high, external, open Bay ③ 5.25", 1.6" high, external, open Bay ④ 3.5", 1" high, external, std media reader Bay ⑤ 3.5", 1" high, internal, std disk Bay ⑥ 3.5", 1" high, internal, std disk Bay ⑦ 3.5", 1" high, internal, std or opt disk Bay ⑧ 3.5", 1" high, internal, std or opt disk Bay ⑨ 3.5", 1" high, internal, opt disk
Graphics	Two PCI Express® x16 adapters required for quad monitor support, * 76 to 150W adapters use auxiliary power connector from PSU <i>Some:</i> NVIDIA® Quadro® FX 1700 , PCIe x16 adapter, 512MB, two dual-link DVI, dual DVI-I or dual VGA, HDTV out, 42W <i>Some:</i> NVIDIA Quadro FX 3700 , PCIe 2.0 x16 adapter, 512MB, two dual-link DVI, dual DVI-I or dual VGA, 78W				
Media reader	9-in-1 media reader, internal USB 2.0		Chipset Intel 5400A Chipset , Intel 6321ESB I/O Controller Hub for RAID 0, 1, 5, 10 support, Winbond® W83627EHG Super I/O	Slot Slot 1: half-length, full-height, PCIe x4 (x8 mechanical) Slot 2: full-length, full-height, PCIe 2.0 x16 (75W* max) Slot 3: full-length, full-height, PCIe x4 (x8 mechanical) Slot 4: full-length, full-height, PCIe 2.0 x16 (75W* max) Slot 5: full-length, full-height, 64-bit PCI-X Slot 6: full-length, full-height, 64-bit PCI-X Slot 7: full-length, full-height, 32-bit PCI 2.3	SECURITY • Security chip (see information on left) • Side cover lock (ships with two identical keys) • Padlock loop (in rear for opt padlock; padlock prohibits side cover removal) • Security slot (in rear for optional Kensington® Microsaver® cable; prohibits side cover removal) • Power-on password • Administrator password • Boot sequence control • Boot without keyboard, mouse, diskette • Serial port I/O control • USB port disablement (front or all)
SATA disk(s)	250GB, SATA 3.0Gb/s, 7200 rpm				
SATA controller	Serial ATA, SATA 3.0Gb/s, integrated in 6321ESB		Keyboard Preferred Pro USB Keyboard (USB connector), 104-key, black Mouse Optical Wheel Mouse (USB connector), black Power supply 1000 watts with 120mm bottom-mounted variable speed fan, universal, 80 PLUS® Cooling Five fans (power supply, first processor, second processor, rear, front disk) Rack mount Rack shelf support or optional sliding rack mount rail kit support	Supports ThinkVantage® technologies RoHS-compliant Some: ENERGY STAR® 4.0-compliant	LIMITED WARRANTY¹ ⇨ 3-year parts and labor ⇨ Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts ³ , 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time) ⇨ ThinkPlus™ services available; see http://lenovo.com/thinkplus/warranty ⇨ 24x7 ¹⁴ toll-free support for warranty issues during the warranty period ¹ via 800-426-7378
SATA connectors	Five SATA connectors on planar				
SATA DVD±RW	Super Multi-Burner DL DVD±RW SATA 1.5Gb/s (41N5620)		Front ports Two USB 2.0, microphone (3.5mm), headphone (3.5mm), FireWire 400 (IEEE 1394) Rear ports Four USB 2.0, serial (9-pin), keyboard (PS/2), mouse (PS/2), two ethernet (RJ-45), six analog audio ports (line-in, mic-in, front-out, side-out, rear-out, center/sub-out), RCA-type coaxial digital in, RCA-type coaxial digital out IEEE 1394 adptry None Audio High Definition (HD) Audio, Realtek® ALC888 codec; Speaker Internal speaker for business audio Ethernet Dual gigabit ethernet on planar, Intel® 82563EB, proprietary Intel bus Security chip Winbond WPCT200 SafeKeeper™ Trusted Platform Module, TCG 1.2-compliant	Other accessories at lenovo.com/accessories	
SAS disk	None				
SAS controller	LSI™ LSISAS1068E chipset, 5 connectors, 3.0Gb/s, RAID® 0, 1, 1E		Preloaded operating system²⁰ - Microsoft® Windows® Vista® Business Edition (64-bit) ⇨ Vista models: Vista Premium logo Preloaded applications⁵ • Rescue and Recovery™ • Client Security Solution™ • ThinkVantage Productivity Center • ThinkVantage System Update • System Migration Assistant • Norton Internet Security™ (90 days of virus definitions) • PC-Doctor™ (diagnostics) • Adobe® Reader • Microsoft Office 2007 Trial (60-day) • Sonic RecordNow and Drive Letter Access (DVD±RW) • Corel® WinDVD® (DVD±RW)		
Chipset	Intel 5400A Chipset, Intel 6321ESB I/O Controller Hub for RAID 0, 1, 5, 10 support, Winbond® W83627EHG Super I/O				
Front ports	Two USB 2.0, microphone (3.5mm), headphone (3.5mm), FireWire 400 (IEEE 1394)		Intel Xeon Quad-Core Processor E5450 43R2014 2GB PC2-5300 DDR2 ECC FB-DIMM 43R1772 4GB PC2-5300 DDR2 ECC FB-DIMM 43R1773 750GB SATA 3.0Gb/s Disk (7200 rpm) 43R1991 1TB SATA 3.0Gb/s Disk (7200 rpm) 45J7918 73GB SAS 3.0Gb/s Disk (15000 rpm) 43R1992 146GB SAS 3.0Gb/s Disk (15000 rpm) 43R1993 300GB SAS 3.0Gb/s Disk (15000 rpm) 43R1994 Super Multi-Burner DL DVD±RW SATA1.5Gb/s 41N5620 Blu-ray Burner / HD-DVD Player SATA 1.5Gb/s 43R1958 ThinkStation Rail Kit 43R1964 USB 2.0 Ultra Secure Memory Key 8GB 45J5918 USB 2.0 Portable Secure 320GB Hard Disk 43R2019 ThinkVision® L1940p Wide 19" Monitor 4424HB6 ThinkVision L2240p Wide 22" Monitor 4422HB6 ThinkVision L2440p Wide 24" Monitor 4420HB2 Laser Tilt Wheel Mouse (USB, PS/2) 41U3074 Lenovo USB Fingerprint Keyboard 73P4730 NVIDIA® Quadro® 512MB FX 570 45J7917 NVIDIA Quadro 512MB FX 1700 43R1767 NVIDIA Quadro 512MB FX 3700 43R1768 NVIDIA Quadro 768MB FX 4600 43R1769		
Rear ports	Four USB 2.0, serial (9-pin), keyboard (PS/2), mouse (PS/2), two ethernet (RJ-45), six analog audio ports (line-in, mic-in, front-out, side-out, rear-out, center/sub-out), RCA-type coaxial digital in, RCA-type coaxial digital out				
IEEE 1394 adptry	None		See footnotes for important warranty information US models announced August 19, 2008	© Lenovo (BARC11-4) August 2008	
Audio	High Definition (HD) Audio, Realtek® ALC888 codec;				
Speaker	Internal speaker for business audio		See footnotes for important warranty information US models announced August 19, 2008	© Lenovo (BARC11-4) August 2008	
Ethernet	Dual gigabit ethernet on planar, Intel® 82563EB, proprietary Intel bus				
Security chip	Winbond WPCT200 SafeKeeper™ Trusted Platform Module, TCG 1.2-compliant		See footnotes for important warranty information US models announced August 19, 2008	© Lenovo (BARC11-4) August 2008	
Keyboard	Preferred Pro USB Keyboard (USB connector), 104-key, black				
Mouse	Optical Wheel Mouse (USB connector), black		See footnotes for important warranty information US models announced August 19, 2008	© Lenovo (BARC11-4) August 2008	
Power supply	1000 watts with 120mm bottom-mounted variable speed fan, universal, 80 PLUS®				
Cooling	Five fans (power supply, first processor, second processor, rear, front disk)		See footnotes for important warranty information US models announced August 19, 2008	© Lenovo (BARC11-4) August 2008	
Rack mount	Rack shelf support or optional sliding rack mount rail kit support				
Preloaded operating system ²⁰	- Microsoft® Windows® Vista® Business Edition (64-bit) ⇨ Vista models: Vista Premium logo Preloaded applications⁵ • Rescue and Recovery™ • Client Security Solution™ • ThinkVantage Productivity Center • ThinkVantage System Update • System Migration Assistant • Norton Internet Security™ (90 days of virus definitions) • PC-Doctor™ (diagnostics) • Adobe® Reader • Microsoft Office 2007 Trial (60-day) • Sonic RecordNow and Drive Letter Access (DVD±RW) • Corel® WinDVD® (DVD±RW)		See footnotes for important warranty information US models announced August 19, 2008	© Lenovo (BARC11-4) August 2008	
Accessories	Intel Xeon Quad-Core Processor E5450 43R2014 2GB PC2-5300 DDR2 ECC FB-DIMM 43R1772 4GB PC2-5300 DDR2 ECC FB-DIMM 43R1773 750GB SATA 3.0Gb/s Disk (7200 rpm) 43R1991 1TB SATA 3.0Gb/s Disk (7200 rpm) 45J7918 73GB SAS 3.0Gb/s Disk (15000 rpm) 43R1992 146GB SAS 3.0Gb/s Disk (15000 rpm) 43R1993 300GB SAS 3.0Gb/s Disk (15000 rpm) 43R1994 Super Multi-Burner DL DVD±RW SATA1.5Gb/s 41N5620 Blu-ray Burner / HD-DVD Player SATA 1.5Gb/s 43R1958 ThinkStation Rail Kit 43R1964 USB 2.0 Ultra Secure Memory Key 8GB 45J5918 USB 2.0 Portable Secure 320GB Hard Disk 43R2019 ThinkVision® L1940p Wide 19" Monitor 4424HB6 ThinkVision L2240p Wide 22" Monitor 4422HB6 ThinkVision L2440p Wide 24" Monitor 4420HB2 Laser Tilt Wheel Mouse (USB, PS/2) 41U3074 Lenovo USB Fingerprint Keyboard 73P4730 NVIDIA® Quadro® 512MB FX 570 45J7917 NVIDIA Quadro 512MB FX 1700 43R1767 NVIDIA Quadro 512MB FX 3700 43R1768 NVIDIA Quadro 768MB FX 4600 43R1769 Other accessories at lenovo.com/accessories				

See footnotes for important warranty information
 US models announced August 19, 2008

Partial list of accessories supported on ThinkStation S10 and D10

Processors

D10:

Intel® Xeon® Quad-Core Processor E5405	43R2009	ann 07/29/08
Intel Xeon Quad-Core Processor E5410	43R2010	ann 07/29/08
Intel Xeon Quad-Core Processor E5420	43R2011	ann 07/29/08
Intel Xeon Quad-Core Processor E5430	43R2012	ann 07/29/08
Intel Xeon Quad-Core Processor E5440	43R2013	ann 07/29/08
Intel Xeon Quad-Core Processor E5450	43R2014	ann 07/29/08
Intel Xeon Quad-Core Processor E5460	43R2016	ann 07/29/08

Memory

S10:

1GB PC3-8500 DDR3 ECC UDIMM	41U5251	ann 12/18/07
2GB PC3-8500 DDR3 ECC UDIMM	41U5252	ann 12/18/07

D10 (install in pairs only):

1GB PC2-5300 DDR2 ECC FB-DIMM	43R1771	ann 03/11/08
2GB PC2-5300 DDR2 ECC FB-DIMM	43R1772	ann 03/11/08
4GB PC2-5300 DDR2 ECC FB-DIMM	43R1773	ann 03/11/08

Optical

DVD-ROM DL SATA1.5Gb/s 16X-48X Max ⁴	41N5618	ann 09/26/06
Super Multi-Burner DL DVD±RW SATA1.5Gb/s	41N5620	ann 09/26/06
Blu-ray Burner / HD-DVD Player SATA1.5Gb/s	43R1958	ann 12/18/07

Storage and removable storage

S10 or D10 preconfigured with SATA disks:

160GB SATA 3.0Gb/s Disk (7200 rpm)	09N4254	ann 05/19/03
250GB SATA 3.0Gb/s Disk (7200 rpm)	41N3015	ann 01/24/06
500GB SATA 3.0Gb/s Disk (7200 rpm)	43R1990	ann 11/06/07
750GB SATA 3.0Gb/s Disk (7200 rpm)	43R1991	ann 12/18/07
1TB SATA 3.0Gb/s Disk (7200 rpm)	45J7918	ann 08/19/08

*S10 preconfigured with SAS disks and the SAS controller,
D10 preconfigured with SAS disks:*

73GB SAS 3.0Gb/s Disk (15000 rpm)	43R1992	ann 03/11/08
146GB SAS 3.0Gb/s Disk (15000 rpm)	43R1993	ann 03/11/08
300GB SAS 3.0Gb/s Disk (15000 rpm)	43R1994	ann 03/11/08

All:

USB Portable Diskette Drive	05K9276	ann 06/05/00
USB 2.0 Essential Memory Key 4GB	45J7904	ann 06/24/08
USB 2.0 Essential Memory Key 8GB	45J7905	ann 07/15/08
USB 2.0 Essential Memory Key 32GB	45K1258	ann 10/28/08
USB 2.0 Security Memory Key 4GB	41U5120	ann 07/17/07
USB 2.0 Ultra Secure Memory Key 2GB	45J5916	ann 08/26/08
USB 2.0 Ultra Secure Memory Key 4GB	45J5917	ann 08/26/08
USB 2.0 Ultra Secure Memory Key 8GB	45J5918	ann 08/26/08

All:

USB 2.0 CD-RW/DVD-ROM Combo II Drive	40Y8637	
USB 2.0 Portable 160GB Hard Disk	43R1784	ann 09/23/08
USB 2.0 Portable Secure 160GB Hard Disk	43R2018	ann 11/18/08
USB 2.0 Portable Secure 320GB Hard Disk	43R2019	ann 11/18/08
USB 2.0 Super Multi-Burner Drive	41N5565	ann 01/23/07

Graphics

NVIDIA® Quadro® 256MB NVS 290	43R1765	ann 12/18/07
NVIDIA Quadro 256MB FX 370	43R1766	ann 12/18/07
NVIDIA Quadro 256MB FX 570	45J7917	ann 08/19/08
NVIDIA Quadro 512MB FX 1700	43R1767	ann 12/18/07
NVIDIA Quadro 512MB FX 3700	43R1768	ann 08/19/08
NVIDIA Quadro 768MB FX 4600	43R1769	ann 12/18/07

Keyboard

Preferred Pro USB Keyboard	73P5220	ann 06/21/05
Enhanced Performance USB Keyboard	73P2620	ann 03/23/04
Wireless Kybd & Opt Wheel Mouse (via USB)	73P4067	ann 12/07/04
Lenovo USB Fingerprint Keyboard	73P4730	ann 02/22/05

Mouse

Optical Wheel Mouse (USB)	06P4069	ann 05/21/03
Optical ScrollPoint® Mouse (USB, PS/2)	31P7405	ann 08/27/02
Laser Tilt Wheel Mouse (USB, PS/2)	41U3074	ann 01/23/07
Lenovo Wireless Laser Mouse (blk, via USB)	45K1696	ann 11/25/08
Lenovo Wireless Laser Mouse (red, via USB)	51J0198	ann 11/25/08

Monitors

ThinkVision® L174 17" Monitor	9227AE1	ann 04/15/08
ThinkVision L1700p 17" Monitor	9417HE2	ann 09/17/08
ThinkVision L1900p 19" Monitor	4431HE1	ann 11/11/08
ThinkVision L1940p Wide 19" Monitor	4424HB6	ann 09/17/08
ThinkVision L200p Wide 20.1" Monitor	4438HB6	ann 04/15/08
ThinkVision L2240p Wide 22" Monitor	4422HB6	ann 09/17/08
ThinkVision L2440p Wide 24" Monitor	4420HB2	ann 09/17/08
ThinkVision L2440x Wide 24" Monitor	4421HB2	ann 09/17/08

Monitor accessories⁴⁶

ThinkVision USB Soundbar	40Y7616	ann 08/23/05
ThinkVision Soundbar	45K1263	ann 09/16/08
Kensington® Cable Lock from Lenovo	73P2582	ann 12/29/03
Kensington Twin Head Cable Lock	45K1620	ann 09/30/08
Radial Arm	19K4464	ann 05/05/00

⁴⁶Compatible 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

Security

Kensington Cable Lock from Lenovo	73P2582	ann 12/29/03
Kensington Twin Head Cable Lock	45K1620	ann 09/30/08
USB Gemplus GemPC Smart Card Reader	41N3040	ann 02/21/06

Rack mount accessories

D10:

ThinkStation Rail Kit	43R1964	ann 03/11/08
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Medialess License Key (MLK)

Microsoft® Office 2007 Basic, English	43R1528	ann 01/31/07
Microsoft Office 2007 Small Business, Engl	43R1534	ann 01/31/07
Microsoft Office 2007 Professional, English	43R1531	ann 01/31/07

Other accessories at <http://www.lenovo.com/accessories>

Accessories Guide pdf at <http://www.lenovo.com/accessoriesguide>

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

Partial list of Lenovo® ThinkPlus Services⁷ for ThinkStation workstations

For more information see:

http://www.lenovo.com/services_warranty/us/en/index.html

<p><u>ThinkPlus service upgrade options</u></p> <p><i>ThinkStation workstation with 3-year Onsite warranty</i> <i>LOR = Lenovo Onsite Repair</i></p> <table border="0"> <tr> <td>4-year LOR 9x5 Next Business Day</td> <td>43R8983</td> </tr> <tr> <td>5-year LOR 9x5 Next Business Day</td> <td>43R8987</td> </tr> </table> <hr/> <p><u>ThinkPlus Secure Business</u></p> <p><i>Lenovo Online Data Backup</i></p> <ul style="list-style-type: none"> • Secure offsite data storage • 256-bit Advanced Encryption System • Data recovery or access in case of an unforeseen event • Automatic, remote management • Choose which business critical data to back up <table border="0"> <tr> <td>1-year Lenovo Online Data Backup - <i>50GB</i></td> <td>45K5849</td> </tr> <tr> <td>1-year Lenovo Online Data Backup - <i>Unlimited</i></td> <td>45K5870</td> </tr> </table>	4-year LOR 9x5 Next Business Day	43R8983	5-year LOR 9x5 Next Business Day	43R8987	1-year Lenovo Online Data Backup - <i>50GB</i>	45K5849	1-year Lenovo Online Data Backup - <i>Unlimited</i>	45K5870	<p><u>ThinkPlus Priority Support for enterprise customers</u></p> <ul style="list-style-type: none"> • 9x5 next-business-day response Lenovo Onsite Repair • 24x7 support with priority routing and advanced level technicians <p><i>ThinkStation workstation with 1-year Onsite warranty</i></p> <table border="0"> <tr> <td>3-year Priority Support</td> <td>45J9080</td> </tr> </table> <p><i>ThinkStation workstation with 3-year Onsite warranty</i></p> <table border="0"> <tr> <td>3-year Priority Support</td> <td>45J9081</td> </tr> <tr> <td>4-year Priority Support</td> <td>45J9082</td> </tr> <tr> <td>5-year Priority Support</td> <td>45J9083</td> </tr> <tr> <td>3-year Priority Support 4-hour response</td> <td>45J9084</td> </tr> <tr> <td>4-year Priority Support 4-hour response</td> <td>45J9085</td> </tr> <tr> <td>5-year Priority Support 4-hour response</td> <td>45J9086</td> </tr> </table>	3-year Priority Support	45J9080	3-year Priority Support	45J9081	4-year Priority Support	45J9082	5-year Priority Support	45J9083	3-year Priority Support 4-hour response	45J9084	4-year Priority Support 4-hour response	45J9085	5-year Priority Support 4-hour response	45J9086
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5-year Priority Support 4-hour response	45J9086																						

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, 500 Park Offices Drive, RTP, NC, 27709, Attn: Dept ZPYA/B600. Lenovo makes no representation or warranty regarding third party products or services.

¹ **Limited warranty:** Support unrelated to a warranty issue may be subject to additional charges.

² **Hard drive:** GB = billion bytes, TB = trillion bytes. Accessible capacity is less.

³ **Systems with limited onsite service** 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.

⁵ **Included software** may differ from its retail version (if available), and may not include user manuals or all program functionality. License agreements may apply.

⁶ **Multi-Burner Plus** (part number 73P3305 or 73P3370) is a DVD±RW device that reads and writes to DVD-RAM, DVD-R, DVD-RW, DVD+R, and DVD+RW. It also reads and writes to CD-R and CD-RW media. 73P3370 also writes to DVD+R double layer media.

⁷ **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. P&L means parts and labor. P/U means pick-up. See ThinkPlus terms and conditions for complete details and restrictions.

⁸ **RAID:** Supported RAID levels for a system will vary from the stated capabilities of the RAID controller due to dependencies on the number and capacity of physical disks in the system and on customer requirements for performance, fault tolerance, or data redundancy.

RAID levels and requirements:

- **RAID 0 (striping)** provides increased performance by writing data across multiple drives.
- **RAID 1 (mirroring)** provides fault tolerance by writing the data on two drives.
- **RAID 5 (striping with parity)** uses distributed parity data to provide fault tolerance more efficiently than RAID 1. Requires three or more drives.
- **RAID 10 (or RAID 1+0)** combines RAID 1 and RAID 0 to create a stripe of mirrors that is fault tolerant while offering increased performance. Requires four drives.

⁹ **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.

¹⁴ **Response times may vary.** May exclude some holidays. Telephone support may be subject to additional charges.

²⁰ **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 and enter your machine type and model number for more information.

ThinkStation

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Lenovo
1009 Think Place
Morrisville, NC 27560
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