

# VIA Embedded Boards

## Quick Guide

Model	Pico-ITX			Nano-ITX	
	EPIA-P710 <b>NEW</b>	EPIA-P700 <b>NEW</b>	EPIA PX	EPIA-N700 <b>NEW</b>	EPIA NX
Processor	1.0 GHz C7 <sup>®</sup>	1.0 GHz C7 <sup>®</sup> / 500 MHz Eden™ ULV	1.0 GHz C7 <sup>®</sup> / 500 MHz Eden™ ULV	1.5 GHz C7 <sup>®</sup> / 500 MHz Eden™ ULV	1.5 GHz C7 <sup>®</sup> /1.2 GHz Eden™
North Bridge	VX800	VX700	VX700	VX800	CX700M2
South Bridge					
Graphics	Integrated VIA Chrome9™ HC3 DX9 3D/2D graphics with MPEG-2/4, WMV9 decoding acceleration	Integrated VIA UniChrome™ Pro II 3D/2D AGP graphics with MPEG-2/4 and WMV9 decoding acceleration	Integrated VIA UniChrome™ Pro II 3D/2D AGP graphics with MPEG-2/4 and WMV9 decoding acceleration	Integrated VIA Chrome9™ HC3 DX9 3D/2D graphics with MPEG-2/4, WMV9 decoding acceleration	Integrated VIA UniChrome™ Pro II 3D/2D AGP graphics with MPEG-2/4 and WMV9 decoding acceleration
System Memory	1 x DDR2 533/667 SDRAM (SODIMM) (max. 2GB)	1 x DDR2 533/667 SDRAM (SODIMM) (max. 1GB)	1 x DDR2 533/667 SDRAM (SODIMM) (max. 1GB)	1 x DDR2 533/667 SDRAM (SODIMM) (max. 2GB)	1 x DDR2 533 SDRAM (SODIMM) (max. 1GB)
USB	N/A	4 x USB 2.0	4 x USB 2.0	4 x USB 2.0	6 x USB 2.0
Audio	HD	HD	HD	HD	HD
LAN	Gigabit	Gigabit	10/100 Mbps	Gigabit	10/100 Mbps (optional Gigabit)
IDE	1 x ATA 100/133	1 x ATA 100/133	1 x ATA 100/133	1 x ATA 100/133	1 x ATA 100/133
SATA	1	1	1	2	2
Expansion Slot	N/A	N/A	N/A	1 Mini PCI	1 Mini PCI
COM Port	N/A	1 (pin header)	1 (pin header)	4 (3 pin headers)	Optional 4 COM ports
TV Out	N/A	N/A	Yes (an add-on card is required)	N/A	Yes (HDTV resolution)
IEEE 1394	N/A	N/A	N/A	N/A	N/A
Operating Temperature	0°C - 50°C	0°C - 50°C	0°C - 50°C	0°C - 60°C	0°C - 50°C
Applications	Built-in module (expansion by SUMIT module)	Built-in module	Built-in module	Industrial application	Digital signage, digital media application
Optional Accessories	P710-A P710-B	P700-A P700-B P700-C PUSB-01 WLAN USB module	PWB-N550PG PUSB-01 WLAN USB module	WLAN Mini PCI WLAN USB module	LVDS-08 PWB-N550 LPC-01 LPC-02 PUSB-01 WLAN USB module WLAN Mini PCI

Nano-ITX	Mini-ITX			
EPIA NR	EPIA-M700 <b>NEW</b>	EPIA SN	EPIA EX	EPIA EK
1.0 GHz C7®	1.5 GHz C7®/1.0 GHz C7®	1.8 GHz C7®/1.0 GHz C7®	1.5 GHz C7®/1.0 GHz C7®	1.0 GHz Luke CoreFusion™/ 800 MHz Luke CoreFusion™
CX700M2	VX800	CN896 VT8251	CX700M2	VT8237R Plus
Integrated VIA UniChrome™ Pro II 3D/2D AGP graphics with MPEG-2/4 and WMV9 decoding acceleration	Integrated VIA Chrome9™ HC3 DX9 3D/2D graphics with MPEG-2/4 and WMV9 decoding acceleration	Integrated VIA Chrome9™ HC 3D/2D graphics with MPEG-2 decoding acceleration & DX9 support	Integrated VIA UniChrome™ Pro II 3D/2D graphics with MPEG-2/4 & WMV9 decoding acceleration	Integrated VIA UniChrome™ Pro AGP graphics with MPEG-2/4 decoding acceleration
1 x DDR2 533 SDRAM (SODIMM) (max. 1GB)	1 x DDR2 533/667 SDRAM (SODIMM) (max. 2GB)	2 x DDR2 533/667 SDRAM (max. 4GB)	1 x DDR2 533 SDRAM (max. 1GB)	1 x DDR 400 SDRAM (max. 1GB)
6 x USB 2.0	6 x USB 2.0	6 x USB 2.0	6 x USB 2.0	8 x USB 2.0
HD	HD	HD 6 Channel	HD	6 Channel
10/100 Mbps (optional Gigabit)	2 x Gigabit	10/100 Mbps + Gigabit	10/100 Mbps (optional Gigabit)	2 x 10/100 Mbps (1 optional Gigabit)
1 x ATA 100/133	1 x ATA 100/133	1 x ATA 100/133	1 x ATA 100/133	2 x ATA 100/133
2	2	4	2	2
1 Mini PCI	1	1 Mini PCI 1 PCIe x16	1	1
2 (pin headers)	2 (1 pin header)	2 (1 pin header)	Optional 4 COM ports	4 (3 pin headers)
N/A	N/A	N/A	Yes (HDTV resolution)	N/A
N/A	N/A	N/A	1 (pin header)	N/A
0°C - 50°C	0°C - 50°C	0°C - 50°C	0°C - 50°C	0°C - 50°C
Factory automation	Digital signage, kiosk	Gaming, digital signage	Digital signage	POS, kiosk
LPC-01 LPC-02 PWB-N550 PUSB-01 WLAN USB module WLAN Mini PCI	DVI-05 EXT-PCI PUSB-01 WLAN USB module	LVDS-08 DVI-04 LPC-01 LPC-02 PUSB-01 WLAN USB module PWB-M120 PCIE-01	EXT-PCI LPC-01 LPC-02 PWB-M120 PUSB-01 WLAN USB module	DVI-03 LVDS-07 EXT-PCI PWB-M120 PUSB-01 WLAN USB module

	Mini-ITX				
Model	EPIA EN	EPIA CN	EPIA LT	EPIA LN	EPIA PE
Processor	1.5 GHz C7®/1.2 GHz Eden™	1.3 GHz C7®/1.0 GHz C7®	1.5 GHz C7®/1.0 GHz C7®	1.0 GHz C7®	1.0 GHz C3®
North Bridge	CN700	CN700	CX700M2	CN700	CLE266
South Bridge	VT8237R Plus	VT8237R Plus		VT8237R Plus	VT8235M
Graphics	Integrated VIA UniChrome™ Pro AGP graphics with MPEG-2 decoding acceleration	Integrated VIA UniChrome™ Pro AGP graphics with MPEG-2 decoding acceleration	Integrated VIA UniChrome™ II 3D/2D AGP graphics with MPEG-2/4 & WMV9 decoding acceleration	Integrated VIA UniChrome™ Pro AGP graphics with MPEG-2 decoding acceleration	Integrated VIA UniChrome™ AGP graphics with MPEG-2 decoding acceleration
System Memory	1 x DDR2 400/533 SDRAM (max. 1GB)	1 x DDR2 400/533 SDRAM (max. 1GB)	1 x DDR2 533/667 SDRAM (max. 1GB)	1 x DDR2 533 (max. 1GB)	1 x DDR 266 SDRAM (max. 1GB)
USB	6 x USB 2.0	8 x USB 2.0	6 x USB 2.0	8 x USB 2.0	6 x USB 2.0
Audio	AC'97 6 Channel	AC'97 6 Channel	HD	6 Channel	2 Channel
LAN	Gigabit	10/100 Mbps	2 x 10/100 Mbps (1 optional Gigabit)	10/100 Mbps	2 x 10/100 Mbps
IDE	2 x ATA 100	2 x ATA 100/133	1 x ATA 100/133	2 x ATA 100/133	2 x ATA 100/133
SATA	2	2	2	2	N/A
Expansion Slot	1	1	1	1	1
COM Port	2 (1 pin header)	1	4 (3 pin headers)	1	4 (3 pin headers)
TV Out	Yes	Yes	Optional	Yes	N/A
IEEE 1394	1 (pin header)	N/A	N/A	N/A	N/A
Operating Temperature	0°C - 50°C	0°C - 50°C	0°C - 50°C	0°C - 50°C	0°C - 50°C
Applications	Digital media application	Entry multimedia application	POS, kiosk, lottery	Thin client, NC	POS, kiosk
Optional Accessories	DVI-03 LVDS-07 EXT-PCI LPC-01 LPC-02 PWB-M120 PUSB-01 WLAN USB module	EXT-PCI PWB-M120 PUSB-01 WLAN USB module	LPC-01 LPC-02 EXT-PCI PWB-M120 PUSB-01 WLAN USB module	EXT-PCI LPC-01 LPC-02 PWB-M120 PUSB-01 WLAN USB module	DVI-01 LVDS-05 EXT-PCI PUSB-01 WLAN USB module

Mini-ITX		Segment Series		
EPIA M	EPIA ML	NAS7040	<b>NEW</b> NAB7500	NAS7800
1.0 GHz C3®/ 600 MHz Eden™	800 MHz C3®/ 667 MHz Eden™	1.8 GHz C7®-D	1.5 GHz C7®	1.5 GHz VIA C7®
CLE266	CLE266	CN896	CN896	CN700
VT8235M	VT8235M	VT8251	VT8251	VT8251
Integrated VIA UniChrome™ AGP graphic with MPEG-2 decoding acceleration	Integrated VIA UniChrome™ AGP graphic with MPEG-2 decoding acceleration	Integrated VIA Chrome9™ HC graphics with 2D/3D and video acceleration	Integrated VIA Chrome9™ HC graphics with 2D/3D and video acceleration	Integrated VIA UniChrome™ Pro integrated graphics with 2D/3D and MPEG-2 decoding acceleration
1 x DDR 266 SDRAM (max. 1GB)	1 x DDR 266 SDRAM (max. 1GB)	2 x DDR2 400/533/667 SDRAM (max. 4GB)	2 x DDR2 533/667 SDRAM (max. 4GB)	1 x DDR2 400/533/667 SDRAM (max. 1GB)
4 x USB 2.0	4 x USB 2.0	4 x USB 2.0	6 x USB 2.0	6 x USB 2.0
6 Channel	6 Channel	N/A	N/A	N/A
10/100 Mbps	10/100 Mbps	Gigabit	5 x Gigabit	Gigabit (1 more optional Gigabit for NAS7800-LST)
2 x ATA 100/133	2 x ATA 100/133	1 x ATA 66/100/133	1 x ATA 100/133	1 x ATA 100/133
N/A	N/A	4	4	4 (8 for NAS7800-LST)
1	1	N/A	1 PCI golden finger 1 Mini PCI	N/A
2 (1 pin headers)	2 (1 pin header)	1 (pin header)	2 (1 pin header)	2 (pin headers)
Yes	Yes (specific SKU)	N/A	N/A	N/A
2 (2 pin headers)	N/A	N/A	N/A	N/A
0°C - 50°C	0°C - 50°C	0°C - 50°C	0°C - 60°C	0°C - 55°C
Digital multimedia device	Digital multimedia device	Storage, server	Network appliance	Storage, server
DVI-01 LVDS-05 EXT-PCI PUSB-01 WLAN USB module	EXT-PCI PUSB-01 WLAN USB module	WLAN USB module	WLAN Mini PCI PUSB-01 WLAN USB module	PUSB-01 WLAN USB module

	VB Series			
Model	VB8001 <b>NEW</b>	VB7007 <b>NEW</b>	VB7002	VB7001
Processor	1.6 GHz Nano™	1.5 GHz C7®-D	1.5 GHz C7®-D	1.5 GHz C7®-D
North Bridge	CN896	CN700	CN896	CN700
South Bridge	VT8237S	VT8237S	VT8237S	VT8237R Plus
Graphics	Integrated VIA Chrome9™ HC graphics with 2D/3D and video acceleration	Integrated VIA UniChrome™ Pro II 3D/2D AGP graphics with MPEG-2 video decoding acceleration	Integrated VIA Chrome9™ HC graphics with 2D/3D and video acceleration	Integrated VIA UniChrome™ Pro AGP graphics with MPEG-2 decoding acceleration
System Memory	2 x DDR2 533/667 SDRAM (max. 4GB)	1 x DDR2 533/667 SDRAM (max. 1GB)	2 x DDR2 533/667 SDRAM (max. 4GB)	1 x DDR2 533 SDRAM (max. 1GB)
USB	6 x USB 2.0	8 x USB 2.0	6 x USB 2.0	6 x USB 2.0
Audio	HD	HD	HD	6 Channel
LAN	Gigabit	2 x 10/100 Mbps (1 optional Gigabit)	10/100 Mbps	10/100 Mbps
IDE	1 x ATA 100/133	1 x ATA 33/66/100/133	1 x ATA 100/133	2 x ATA 100/133
SATA	2	1	2	2
Expansion Slot	1 PCIe x16 1 Mini PCI	1 PCI	1 PCIe x16 1 Mini PCI	1
COM Port	2 (1 pin header)	4 (3 pin headers)	2 (1 pin header)	1
TV Out	N/A	N/A	N/A	Yes
IEEE 1394	N/A	N/A	N/A	N/A
Operating Temperature	0°C - 50°C	0°C - 50°C	0°C - 50°C	0°C - 45°C
Applications	Thin client, IPC	POS, kiosk	Thin client, IPC	Digital multimedia device, set top box
Optional Accessories	LPC-01 LPC-02 PCIE-01 PWB-M120 WLAN Mini PCI PUSB-01 WLAN USB module	PWB-M120 EXT-PCI WLAN USB module	LPC-01 LPC-02 PCIE-01 PWB-M120 WLAN Mini PCI PUSB-01 WLAN USB module	EXT-PCI PWB-M120 WLAN USB module PUSB-01

Model	Em-ITX		Em-ITX I/O Cards		
	EITX-3000 <b>NEW</b>	Model	EMIO-3110 <b>NEW</b>	EMIO-3210 <b>NEW</b>	EMIO-3430 <b>NEW</b>
Processor	1.3 GHz Nano™ ULV 1.0 GHz Nano™ ULV 500 MHz Eden™ ULV	Processor	S3 Graphics 4300E GPU	N/A	N/A
Chipset	VX800	Chipset	N/A	Fintek F81865	N/A
BIOS	Award BIOS 8 MBit SPI Flash BIOS	BIOS	N/A	N/A	N/A
Display	2 x LVDS and 1 x CRT/VGA	Display	2 x HDMI, 2 x DVI, 1 x CRT/ VGA, 1 x TV-Out	N/A	N/A
Memory	1 x DDR2 533/667 200-pin SDRAM SODIMM (max. 2GB)	Memory	64-bit memory bus architecture. Onboard 256 MB GDDR3 SDRAM display memory	N/A	N/A
USB	6 x USB 2.0	USB	N/A	N/A	N/A
Audio	HD	Audio	Dual 6W amplifier, support Line-In, Speaker-out, Mic-in by cable	N/A	Dual 6W amplifier, support Line-In, Speaker-out, Mic-in by cable
LAN	2 x Gigabit Ethernets (2 x 10/100/1000 Base-T)	LAN	N/A	N/A	N/A
SATA	2	Wireless LAN	N/A	N/A	802.11 b/g (optional)
Expansion Slot	1 x Em-IO	Expansion Slot	N/A	N/A	1 x CardBus slot 1 x Mini PCI slot
Printer Port	1	Printer Port	N/A	2	N/A
Com Port	4	Com Port	N/A	6 x RS-232/422/485	N/A
GPIO	8-bit	GPIO	Supports 8-bit GPIO by cable	N/A	N/A
CompactFlash	Card Type I/II	CompactFlash	N/A	N/A	N/A
Operating Temperature	0°C - 60°C	Others	N/A	N/A	Bluetooth 2.0 (optional) 20-Channel GPS receiver (optional)
Applications	POS, Kiosks, digital signage, factory automation	Operating Temperature	0°C - 60°C	0°C - 60°C	0°C - 60°C
Power	Built in AT/ATX of DC to DC power support, accept power input of DC 7V ~ 36V	Applications	Digital signage, POI, gaming	Kiosk, factory automation	Vehicle/fleet management, logistic control