

VIA Embedded Boards

Quick Guide

	Pico-ITXe	Pico-ITX				
Model	EPIA-P710	EPIA-P830 NEW	EPIA-P820	EPIA-P720	EPIA-P700	EPIA PX
Processor	1.0 GHz C7®	1.2 GHz Nano™ E	1.2 GHz Nano™ E	1.0 Eden™ ULV	1.0 GHz C7®/ 500 MHz Eden™ ULV	1.0 GHz C7®/ 500 MHz Eden™ ULV
North Bridge	VX800	VX900	VX855	VX855	VX700	VX700
South Bridge						
Graphics	Integrated VIA Chrome9™ HC3 DX9 3D/2D graphics with MPEG-2, WMV9 decoding acceleration	Integrated VIA Chrome9™ HC DX9 3D/2D graphics with VC1, MPEG-2, WMV9 and H.264 decoding acceleration	Integrated VIA Chrome9™ 3D/2D AGP graphics with MPEG-2, WMV9 & H.264 decoding acceleration	Integrated VIA Chrome9™ 3D/2D AGP graphics with MPEG-2, WMV9 & H.264 decoding acceleration	Integrated VIA UniChrome™ Pro II 3D/2D AGP graphics with MPEG-2 and WMV9 decoding acceleration	Integrated VIA UniChrome™ Pro II 3D/2D AGP graphics with MPEG-2 and WMV9 decoding acceleration
System Memory	1 x DDR2 533/667 SDRAM (SODIMM) (max. 2GB)	1 x DDR3 800/1066 SDRAM (SODIMM) (max. 4GB)	1 x DDR2 800/667 SDRAM (SODIMM) (max. 2GB)	1 x DDR2 800/667 SDRAM (SODIMM) (max. 2GB)	1 x DDR2 533/667 SDRAM (SODIMM) (max. 1GB)	1 x DDR2 533/667 SDRAM (SODIMM) (max. 1GB)
USB	N/A	7 x USB 2.0	6 x USB 2.0	6 x USB 2.0	4 x USB 2.0	4 x USB 2.0
Audio	HD	HD	HD	HD	HD	HD
LAN	1 x Gigabit	1 x Gigabit	1 x Gigabit	1 x Gigabit	1 x Gigabit (optional 10/100 Mbps)	1 x 10/100 Mbps
IDE	1 x ATA 100/133	N/A	1 x ATA 100/133	1 x ATA 100/133	1 x ATA 100/133	1 x ATA 66/100/133
SATA	1	2	1	1	1	1
Expansion Slot	2 SUMIT connectors	Proprietary connector for 2 PCIe x1 and 1 USB	N/A	N/A	N/A	N/A
COM Port	N/A	N/A	N/A	N/A	1 (pin header)	1 (pin header)
TV Out	N/A	N/A	N/A	N/A	N/A	Yes (an add-on card is required)
IEEE 1394	N/A	N/A	N/A	N/A	N/A	N/A
Operating Temperature	0°C - 50°C	0°C - 60°C	0°C - 60°C	0°C - 60°C	0°C - 50°C	0°C - 50°C
Applications	Built-in module (expansion by SUMIT module)	Multimedia device	Digital signage, digital media application	Digital signage, digital media application	Built-in module	Built-in module
Optional Accessories	P710-A P710-B	P830-A WLAN USB module	P720-A WLAN USB module	P720-A WLAN USB module	P700-A P700-B P700-C WLAN USB module	PWB-N550PG WLAN USB module
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Nano-ITX			Mini-ITX		
EPIA-N800	EPIA-N700	EPIA NX	EPIA-M900 NEW	EPIA-M860 NEW	EPIA-M850 NEW
1.3 GHz Nano™ E/ 1.0 GHz Nano™ E	1.5 GHz C7®/ 500 MHz Eden™ ULV/ 1.0 GHz Eden™ ULV	1.5 GHz C7®/ 1.2 GHz Eden™	1.6GHz Nano™ X2	1.0 GHz Nano™ E	1.6 GHz Nano™ E/ 1.2 GHz Nano™ E
VX800	VX800	CX700M2	VX900	VX900	VX900
Integrated VIA Chrome9™ HC3 DX9 3D/2D graphics with MPEG-2, WMV9 decoding acceleration	Integrated VIA Chrome9™ HC3 DX9 3D/2D graphics with MPEG-2, WMV9 decoding acceleration	Integrated VIA UniChrome™ Pro II 3D/2D AGP graphics with MPEG-2 and WMV9 decoding acceleration	Integrated VIA Chrome9™ HC DX9 3D/2D graphics with VC1, MPEG-2, WMV9 and H.264 decoding acceleration	Integrated VIA Chrome9™ HC DX9 3D/2D graphics with VC1, MPEG-2, WMV9 and H.264 decoding acceleration	Integrated VIA Chrome9™ HC DX9 3D/2D graphics with VC1, MPEG-2, WMV9 and H.264 decoding acceleration
1 x DDR2 533/667 SDRAM (max. 2GB)	1 x DDR2 533/667 SDRAM (max. 2GB) 1 x 1GB DDR2 667 SODIMM RAM for N700-10EW	1 x DDR2 533 SDRAM (SODIMM) (max. 1GB)	2 x DDR3 1066 SDRAM (SODIMM) (max. 8GB)	1 x DDR3 1066 SDRAM (max. 4GB)	2 x DDR3 1066/800 SDRAM (max. 8GB)
4 x USB 2.0	4 x USB 2.0	6 x USB 2.0	8 x USB 2.0 2 x USB 3.0 (optional)	7 x USB 2.0	8 x USB 2.0
HD	HD	HD	HD	HD	HD
1 x Gigabit	1 x Gigabit	1 x 10/100 Mbps (optional Gigabit)	1 x Gigabit (1 more optional Gigabit)	1 x Gigabit	1 x Gigabit
N/A	1 x ATA 33/66/100/133	1 x ATA 66/100/133	N/A	N/A	N/A
2	2	2	2	2	2
1 Mini PCI	1 Mini PCI	1 Mini PCI	1 PCI, 1 PCIe x8 (optional)	1 PCI, 1 PCIe x1 1 Mini PCIe	1 PCIe x4
4 (3 pin headers)	4 (3 pin headers)	Optional 4 COM ports	4 (3 pin headers)	4 (3 pin headers)	4 (3 pin headers)
N/A	N/A	Yes (HDTV resolution)	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A
0°C - 60°C	0°C - 60°C -20°C - 70°C (N700-10EW)	0°C - 50°C	0°C - 60°C	0°C - 60°C	0°C - 60°C
Industrial application	Industrial application	Digital signage, digital media application	Digital signage, media application	POS, kiosk, digital signage	Digital signage, media application
WLAN Mini PCI WLAN USB module	WLAN Mini PCI WLAN USB module	LVDS-08 PWB-N550 LPC-01 LPC-02 WLAN USB module WLAN Mini PCI	WLAN USB Module	WLAN USB Module WLAN Mini PCIe PCIE-03	WLAN USB Module PCIE-01
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	Mini-ITX					
Model	EPIA-M840	EPIA-M830	EPIA-M800	EPIA-M700	EPIA EX	EPIA EN
Processor	1.6 GHz Nano™ E/ 1.2 GHz Nano™ E	1.3 GHz Nano™ E/ 1.0 GHz Nano™ E	1.6 GHz Nano™ E/ 1.2 GHz Nano™ E	1.5 GHz C7®/ 1.0 GHz C7®	1.5 GHz C7®/ 1.0 GHz C7®	1.5 GHz C7®/ 1.2 GHz Eden™
North Bridge	VX800	VX800	VX800	VX800	CX700M2	CN700
South Bridge						VT8237R Plus
Graphics	Integrated VIA Chrome9™ HC3 DX9 3D/2D graphics with MPEG-2 and WMV9 decoding acceleration	Integrated VIA Chrome9™ HC3 DX9 3D/2D graphics with MPEG-2 and WMV9 decoding acceleration	Integrated VIA Chrome9™ HC3 DX9 3D/2D graphics with MPEG-2 and WMV9 decoding acceleration	Integrated VIA Chrome9™ HC3 DX9 3D/2D graphics with MPEG-2 and WMV9 decoding acceleration	Integrated VIA UniChrome™ Pro II 3D/2D graphics with MPEG-2 & WMV9 decoding 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. 2GB)	1 x DDR2 533/667 SDRAM (max. 2GB)	1 x DDR2 533/667 SDRAM (max. 2GB)	1 x DDR2 533 SDRAM (max. 1GB)	1 x DDR2 400/533 SDRAM (max. 1GB)
USB	6 x USB 2.0	5 x USB 2.0	6 x USB 2.0	6 x USB 2.0	6 x USB 2.0	6 x USB 2.0
Audio	HD	HD	HD	HD	HD	AC'97 6 Channel
LAN	2 x Gigabit	1 x Gigabit	2 x Gigabit	2 x Gigabit	1 x 10/100 Mbps (1 optional Gigabit)	1 x Gigabit
IDE	1 x ATA 100/133	1 x ATA 100/133	1 x ATA 66/100/133	1 x ATA 66/100/133	1 x ATA 66/100/133	2 x ATA 66/100/133
SATA	2	2	2	2	2	2
Expansion Slot	1 PCIe x4	1 Mini PCIe 1 PCIe x4	1 PCI	1 PCI	1 PCI	1 PCI
COM Port	8 (6 pin headers)	4 (3 pin header)	2 (1 pin header)	2 (1 pin header)	Optional 4 COM ports	2 (1 pin header)
TV Out	N/A	N/A	N/A	N/A	Yes (HDTV resolution)	Yes
IEEE 1394	N/A	N/A	N/A	N/A	1 (pin header)	1 (pin header)
Operating Temperature	0°C - 60°C	0°C - 50°C	0°C - 60°C	0°C - 50°C	0°C - 50°C	0°C - 50°C
Applications	POS, kiosk	POS, kiosk	Digital signage, kiosk	Digital signage, kiosk	Digital signage	Digital media application
Optional Accessories	WLAN USB Module PCIE-01 LPC-01 LPC-02	PWB-M120 LPC-01 LPC-02 WLAN USB Module PCIE-01	HDMI-01 DVI-05 EXT-PCI WLAN USB module	HDMI-01 DVI-05 EXT-PCI WLAN USB module	EXT-PCI LPC-01 LPC-02 PWB-M120 WLAN USB module	LVDS-07 EXT-PCI LPC-01 LPC-02 PWB-M120 WLAN USB module
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Mini-ITX			VB Series		
EPIA CN	EPIA LT	EPIA LN	VB8004 NEW	VB8003	VB8002
1.3 GHz C7®/ 1.0 GHz C7®	1.5 GHz C7®/ 1.0 GHz C7®	1.0 GHz C7®	1.6 GHz Nano™ E/ 1.0 GHz Nano™ E	1.6GHz Nano™	1.6GHz Nano™
CN700	CX700M2	CN700	VX900	VX800	CX700M2
VT8237R Plus		VT8237R Plus			
Integrated VIA UniChrome™ Pro AGP graphics with MPEG-2 decoding acceleration	Integrated VIA UniChrome™ II 3D/2D AGP graphics with MPEG-2 & WMV9 decoding acceleration	Integrated VIA UniChrome™ Pro AGP graphics with MPEG-2 decoding acceleration	Integrated VIA Chrome9™ HC DX9 3D/2D graphics with VC1, MPEG-2, WMV9 and H.264 decoding acceleration	Onboard S3 Chrome 435 ULP supports ChromotionHD™ multimedia video engine, enabling hardware acceleration for H.264, VC-1, MPEG-2, WMV-HD, and AVS	Integrated VIA UniChrome™ Pro II 3D/2D AGP graphics with MPEG-2 and WMV9 decoding acceleration
1 x DDR2 400/533 SDRAM (max. 1GB)	1 x DDR2 533/667 SDRAM (max. 1GB)	1 x DDR2 533 (max. 1GB)	1 x DDR3 1066 SDRAM (max. 4GB)	2 x DDR2 533/667 SDRAM (SODIMM)(max. 4GB)	1 x DDR2 533/667 SDRAM (SODIMM)(max. 1GB)
8 x USB 2.0	6 x USB 2.0	8 x USB 2.0	6 x USB 2.0	6 x USB 2.0	6 x USB 2.0
AC'97 6 Channel	HD	8 Channel	HD	HD	HD
1 x 10/100 Mbps	2 x 10/100 Mbps (1 optional Gigabit)	1 x 10/100 Mbps	1 x Gigabit	2 x Gigabit	1 x Gigabit
2 x ATA 66/100/133	1 x ATA 33/66/100/133	2 x ATA 66/100/133	1	1 x ATA 100/300	1 x ATA 33/66/100/133
2	2	2	1	2	2
1 PCI	1 PCI	1 PCI	Proprietary connector for 1 PCIe x4, 1 PCIe x1 & 1 USB	N/A	1 PCI
1	4 (3 pin headers)	1	2 (1 pin header)	2 (1 pin header)	N/A
Yes	Optional	Yes	N/A	N/A	Yes
N/A	N/A	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 - 60°C	0°C - 50°C
Entry multimedia application	POS, kiosk, lottery	Thin client, NC	Digital signage, gaming, kiosk	Digital signage	Digital multimedia center, home entertainment
EXT-PCI PWB-M120 WLAN USB module	LPC-01 LPC-02 EXT-PCI PWB-M120 WLAN USB module	EXT-PCI LPC-01 LPC-02 PWB-M120 WLAN USB module	WLAN USB Module VB8004-A	LPC-01 LPC-02 PWB-M120 WLAN USB module	EXT-PCI LPC-01 LPC-02 PWB-M120 WLAN USB module
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	VB Series				Em-ITX	
Model	VB8001	VB7007	VB7001	Model	EITX-3002 NEW	EITX-3001
Processor	1.6GHz Nano™	1.6 GHz C7®-D/ 1.0 GHz C7®	1.6 GHz C7®-D	Processor	1.0 GHz Nano™ E/ 1.3 GHz Nano™ E/ 1.6 GHz Nano™ E	1.3 GHz Nano™ E
North Bridge	CN896	CN700	CN700	System Chipset	VX900	VX855
South Bridge	VT8237S	VT8237S	VT8237R Plus	BIOS	AMI BIOS 8MBit SPI Flash BIOS	AMI BIOS 8MBit SPI Flash BIOS
Graphics	Integrated VIA Chrome9™ HC graphics with 2D/3D and video acceleration	Integrated VIA UniChrome™ Pro AGP graphics with MPEG-2 decoding acceleration	Integrated VIA UniChrome™ Pro AGP graphics with MPEG-2 decoding acceleration	Display	1 x HDMI, 1 x CRT/ VGA and 1 x LVDS	1 x HDMI and 1 x CRT/ VGA
System Memory	2 x DDR2 533/667 SDRAM (max. 4GB)	1 x DDR2 533/667 SDRAM (max. 1GB)	1 x DDR2 533 SDRAM (max. 1GB)	Memory	1 x DDR3 1066 204-pin SDRAM SODIMM (max. 4GB)	1 x DDR2 533/667/800 200-pin SDRAM SODIMM (max. 2GB)
USB	6 x USB 2.0	8 x USB 2.0	6 x USB 2.0	USB	2 x USB 3.0, 4 x USB 2.0	5 x USB 2.0 host & 1 x USB device
Audio	HD	HD	8 Channel	Audio	Blu-ray HD	HD
LAN	1 x Gigabit	2 x 10/100 Mbps (1 optional Gigabit)	1 x 10/100 Mbps	LAN	2 x Gigabit	1 x Gigabit
IDE	1 x ATA 66/100/133	1 x ATA 33/66/100/133	2 x ATA 66/100/133	SATA	1	1
SATA	2	2	2	Expansion Slot	1 x Em-IO	N/A
Expansion Slot	1 PCIe x 16 1 Mini PCI	1 PCI	1 PCI	Printer Port	1	N/A
COM Port	2 (1 pin header)	4 (3 pin headers)	1	COM Port	2 x RS-232/422/485 and 2 x RS-232	2 RS-232/422/485 and 2 RS-232
TV Out	N/A	N/A	Yes	Digital IO	8-bit	8-bit
IEEE 1394	N/A	N/A	N/A	Compact Flash	Cfast 1.0	Card Type I/II
Operating Temperature	0°C - 50°C	0°C - 50°C	0°C - 45°C	Operating Temperature	-10°C - 70°C	-10°C - 60°C
Applications	Thin client, IPC	POS, kiosk	Digital multimedia device, set top box	Applications	Digital signage, media application, POS, Kiosk	POS, Kiosks, digital signage, factory automation
Optional Accessories	LPC-01 LPC-02 PCIE-01 PWB-M120 WLAN Mini PCI WLAN USB module	PWB-M120 EXT-PCI WLAN USB module	EXT-PCI PWB-M120 WLAN USB module	Power	Built in AT/ATX of DC to DC power support, accept power input of DC 7V ~ 36V	Built in AT/ATX of DC to DC power support, accept power input of DC 7V ~ 36V
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	Em-ITX		Em-ITX Cards			
Model	EITX-3000	Model	EMIO-3450 NEW	EMIO-3110	EMIO-3210	EMIO-3430
Processor	1.3 GHz Nano™ E / 1.0 GHz Nano™ E	Processor	N/A	S3 Graphics 4300E GPU	N/A	N/A
System Chipset	VX800	Chipset	N/A	N/A	Fintek F81865	N/A
BIOS	Award BIOS 8MBit SPI Flash BIOS	BIOS	N/A	N/A	N/A	N/A
Display	2 x LVDS and 1 x CRT/ VGA	Display	N/A	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	N/A	64-bit memory bus architecture. Onboard 256 MB GDDR3 SDRAM display memory	N/A	N/A
USB	6 x USB 2.0	USB	2 x USB 2.0	N/A	N/A	N/A
Audio	HD	Audio	6-W stereo amplifier, supports Line-in, Speaker-out, Mic-in	6-W stereo amplifier, supports Speaker-out, Mic-in by cable	N/A	6-W stereo amplifier, supports Line-in, Speaker-out, Mic-in
LAN	2 x Gigabit (2 x10/100/1000 Base-T)	LAN	N/A	N/A	N/A	N/A
SATA	2	Wireless LAN	802.11 b/g (optional)	N/A	N/A	802.11 b/g (optional)
Expansion Slot	1 x Em-IO	Expansion Slot	2 x Mini-PCIe slots 1 x SIM slot	N/A	N/A	1 x Card Bus slot 1 x Mini PCI slot
Printer Port	1	Printer Port	N/A	N/A	2	N/A
COM Port	2 RS-232/422/485 and 2 RS-232	COM Port	N/A	N/A	6 x RS-232/422/485	N/A
Digital IO	8-bit	Digital IO	8-bit, plus 5V@max 500mA output power source	N/A	N/A	N/A
Compact Flash	Card Type I/II	Compact Flash	N/A	N/A	N/A	N/A
Operating Temperature	-10°C - 70°C	Others	Bluetooth 2.0 (optional) 20-Channel GPS receiver (optional) 3.5G Mobile Broadband Module	N/A	N/A	Bluetooth 2.0 (optional) 20-Channel GPS receiver (optional)
Applications	POS, Kiosks, digital signage, factory automation	Operating Temperature	-20°C - 70°C	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	Vehicle/fleet management, wireless connectivity	Digital signage, POI, gaming	Kiosk, factory automation	Vehicle/fleet management, logistic control
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