

PPC-3120

12.1" Fanless Panel PC with Intel® Atom™ E3940 Processor



Features

- 12.1" XGA TFT LCD with resistive touchscreen
- Intel® Atom™ E3940, 1.6 GHz, processor
- Up to 8 GB DDR3L 1600/1866 SDRAM
- Supports 1 x internal 2.5" SATA HDD and 1 x mSATA
- Fanless design with low power consumption
- Wide range DC support (9 ~ 32 V_{DC})
- 1 x isolated RS-422/485 with automatic flow control and dual Intel GbE
- Optional GPIO (8 channels, TTL level)
- Optional PCI/PCIe x1 expansion kit



Introduction

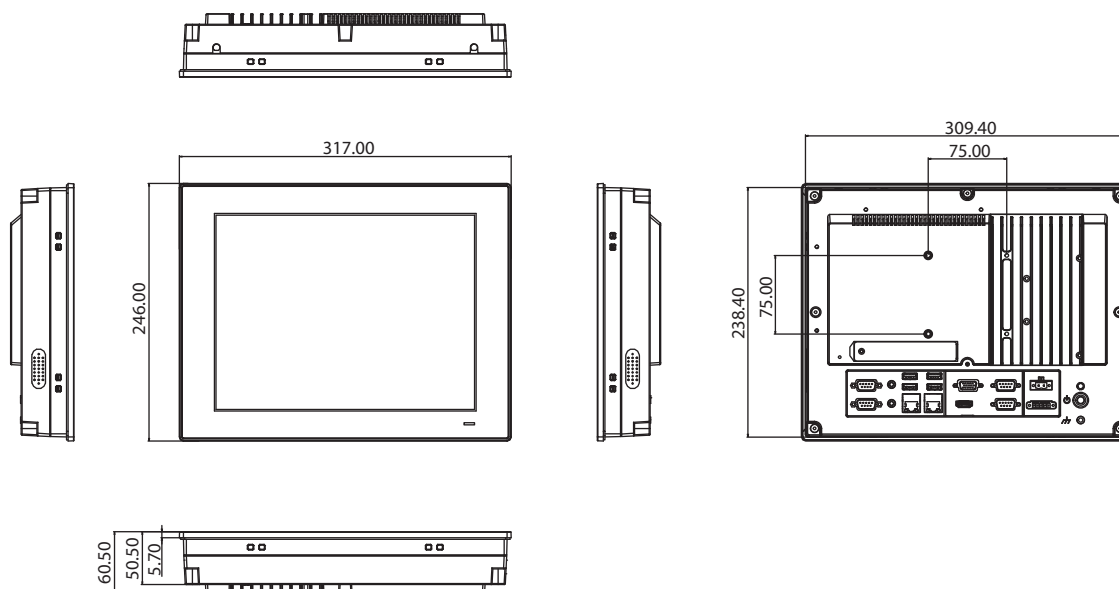
The PPC-3120 is a 12.1" fanless panel PC equipped with a high-performance Intel® Atom™ E3940 quad-core processor that supports wide power input range (9 ~ 32 V_{DC}). The provision of multiple I/O, including 4 x COM, 4 x USB 3.0, 1 x isolated RS-422/485, and dual Intel® Gigabit Ethernet, ensures easy integration and connectivity.

Specifications

System	CPU	Intel® Atom™ E3940 quad core
	Frequency	1.6 GHz
	L2 Cache	2 MB
	Memory	1 x SODIMM DDR3L 1600/1866 MHz (max. 8 GB)
	Storage	1 x 2.5" SATA bay 1 x mSATA bay
	Network (LAN)	2 x 10/100/1000 Mbps Ethernet (Intel I210AT A ver.) or 2.5GbE (Intel I225LM B ver.)
	I/O	5 x Serial ports: 4 x RS-232, 1 x isolated RS-422/485 (Adjustable through BIOS) 4 x USB 3.0 1 x Line-out, 1 x Mic-in 1 x VGA, 1 x HDMI 1 x GPIO (8 channels, TTL level, internal)
	Expansion	1 x Mini PCIe Optional: 1 x PCIe x1 or 1 x PCI
	Watchdog Timer	255 timer levels, set up by software
	Speaker	2 x 1W
Physical Characteristics	Dimensions	317 x 246 x 60.5 mm (12.4 x 9.7 x 2.4 in)
	Weight	3.4 kg (7.5 lb)
OS Support	OS Support	Microsoft® Windows 10 (64-bit), Win 10 LTSC, Linux, Android 8.1
Power Consumption	Input Voltage	9 ~ 32 V _{DC}
	Power Consumption	32W (Burn-in test 8.0 in Windows 10 64bit)
LCD	Display Type	12.1" TFT LED panel with LED backlight
	Max. Resolution	1024 x 768
	Viewing Angle	89 (left), 89 (right), 89 (up), 89 (down)
	Luminance (cd/m ²)	600
	Contrast Ratio	1000
	Backlight Lifetime	50,000 hr (typical)
Touchscreen	Touch Type	5-wire resistive touch
	Light Transmission	80±5% at 550nm wavelength
	Controller	USB interface
	Durability (Touches)	Greater than 35 million touches in one location without failure
Environment	Operating Temperature	0 ~ 50 °C (32 ~ 122 °F) with 2.5" SATA SSD
	Storage Temperature	-40 ~ 60 °C (-40 ~ 140 °F)
	Relative Humidity	10 ~ 95% @ 40 °C (non-condensing)
	Shock	Operating 10 G peak acceleration (11 ms duration), follow IEC 60068-2-27
	Vibration	Operating Random Vibration Test 5~500Hz, 1Grms @with HDD; 2Grms @with SSD, follow IEC 60068-2-64
	EMC	CE, FCC Class B, BSMI
	Safety	CB, CCC, BSMI, UL
	Front Panel Protection	IP66 compliant

Dimensions

Unit: mm



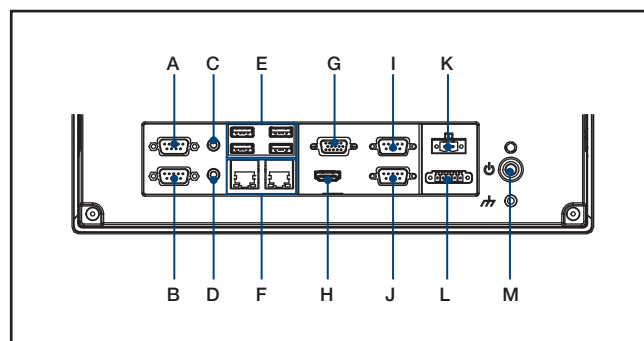
Panel Cutout Dimensions: 311 x 240 mm (12.24 x 9.44 in)

Ordering Information

Part Number	Description
PPC-3120-RE9A	Atom E3940 Fanless PPC with 12.1" LED panel, Res. T/S, assembled in China
PPC-3120-RE9B	Atom E3940 Fanless PPC with 12.1" LED panel, Res. T/S, assembled in China
PPC-3120-RE9AU	Atom E3940 Fanless PPC with 12.1" LED panel, Res. T/S, assembled in Taiwan
PPC-3120-RE9BU	Atom E3940 Fanless PPC with 12.1" LED panel, Res. T/S, assembled in Taiwan
96PSA-A90W190T-3	A/D 100-240V 90W 19V C6 TERMINAL 2 PIN 62368
1700001524	Power cord 3P UL 10A 125V 1.8m
170203183C	Power cord 3P Europe (WS-010+083)183cm
1700008921	Power cord 3P/3P Power supply 1.8M PSE
PPC-174T-WL-MTE	Wall mount kit for PPC series
PPC-ARM-A03	PPC ARM VESA Standard
PPC-STAND-A1E	Stand For PPC Series
96CB-POWER-B-1.8MB	Power code 3P CCC(China) 1.8M
98R3P312000	Add-on box for PCI or PCIe expansion (include PCI / PCIe riser card)
PPC-WLAN-C1E	M.2 Wi-Fi Module with Antenna cable support 2T2R
98R3P612100	TPM 2.0 module

Note:
 PPC-3120-xxxAx: Intel I210AT, 1GbE LAN chipset
 PPC-3120-xxxBx: Intel I225LM, 2.5GbE LAN chipset

I/O



- A. COM4: RS-232
- B. COM5: RS-232
- C. Line Out
- D. Mic In
- E. 4 x USB 3.0
- F. 2 x LAN
- G. VGA
- H. HDMI
- I. COM1: RS-232
- J. COM2: RS-232
- K. DC Inlet and AT/ATX switch
- L. COM3: Isolated RS-422/485
- M. Power Button

Please note: If some optional modules are offered with the system, additional system certificates may be required in certain regions/countries.
 Please contact Advantech for certificate compliance.