

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

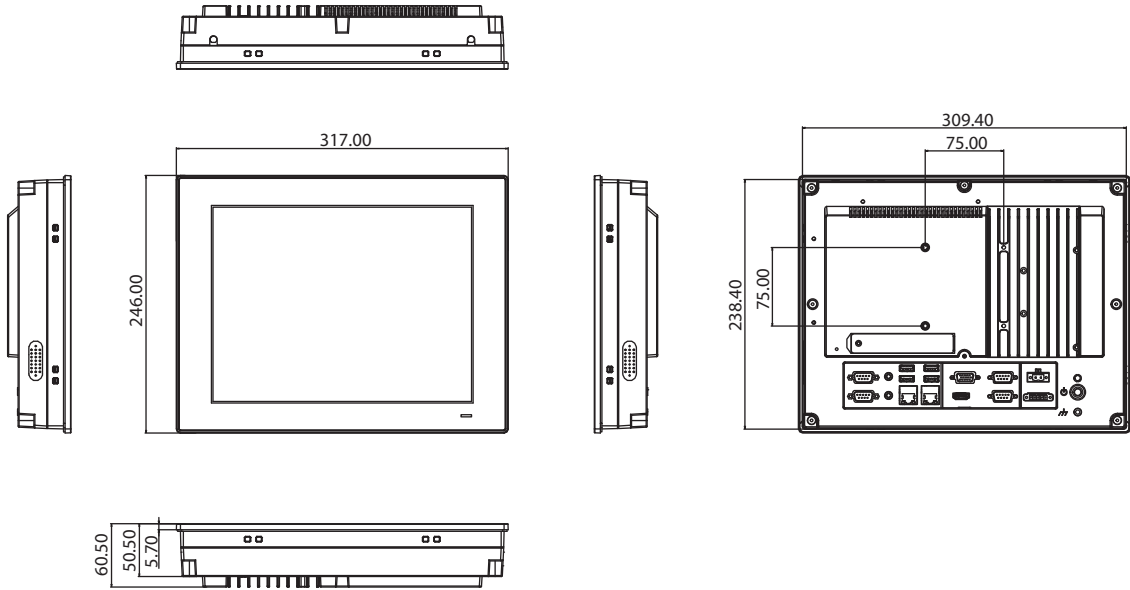
The PPC-3120 is a 12.1" fanless panel PC equipped with a high-performance Intel® Atom™ E3940 quad-core processor that supports wide power input range (9 ~ 32 V_{DC}). The provision of multiple I/O, including 4 x COM, 4 x USB 3.0, 1 x isolated RS-422/485, and dual Intel® Gigabit Ethernet, ensures easy 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 Intel I226LM controller; Speed: 10M / 100M / 1000M / 2.5G |
| | 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 1 x PCIe x1 or 1 x PCI (optional) |
| | 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 IOT LTSC, Linux, Android |
| 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 |
| 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, EN 61000-6-2, BSMI, VCCI, UKCA |
| | Safety | CB, UL, CCC, UKCA |
| Front Panel Protection | IP66 compliant | |

Dimensions

Unit: mm

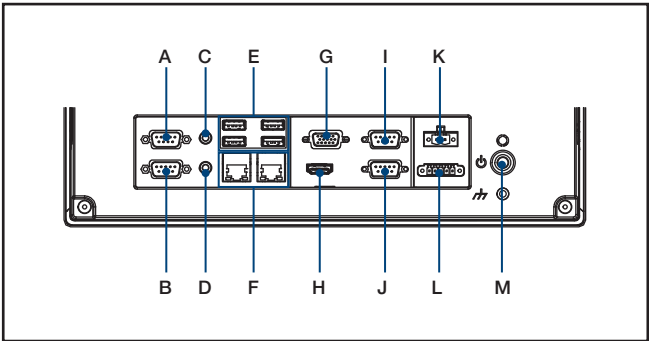


Panel Cutout Dimensions: 311 x 240 mm (12.24 x 9.44 in)

Ordering Information

| Part Number | Description |
|--------------------|--|
| PPC-3120-RE9B | 12.1" PPC w/Intel E3940 , Res. T/S, assembled in China |
| PPC-3120-RE9BU | 12.1" PPC w/Intel E3940 , Res. T/S, assembled in Taiwan |
| 96PSA-A90W190T-3 | Power adapter 100-240V 90W 19V |
| 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 |
| 96CB-POWER-B-1.8MB | Power code 3P CCC(China) 1.8M |
| PPC-174T-WL-MTE | Wall mount kit for PPC series |
| PPC-ARM-A03 | ARM VESA Standard for PPC series |
| PPC-STAND-A1E | Stand For PPC Series |
| 98R3P312000 | Add-on box for PCI or PCIe expansion (include PCI / PCIe riser card) |
| PPC-WLAN-D1 | M.2, WiFi6 +BT5.2, 2T2R, w/Antenna, Mini PCIe adapter |
| 98R3P612100 | TPM 2.0 module |

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.