**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 VDC)
* 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 VDC). 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 i210) |
| I/O | 5 x Serial ports: 4 x RS-232, 1 x isolated RS-422/485 (Adjustable through BIOS) 4 x USB 3.01 x Line-out, 1 x Mic-in1 x VGA, 1 x HDMI1 x GPIO (8 channels, TTL level, internal) |
| Expansion | 1 x Mini PCIeOptional: 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 IoT Enterprise, Linux, Android 6.0 Marshmallow |
| **Power Consumption** | Input Voltage | 9 ~ 32 VDC |
| 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 | 80 (left), 80 (right), 70 (up), 70 (down) |
| Luminance (cd/m2) | 600 |
| Contrast Ratio | 700 |
| 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) |
| 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 | IP65 compliant |

 **General Panel PCs**

All product specifications are subject to change without notice. Last updated: 26-Mar-2019

# PPC-3120

**Ordering Information**

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

309.40

75.00

317.00

Unit: mm

**Dimensions**

60.50

50.50

5.70

|  |  |
| --- | --- |
| **Part Number** | **Description** |
| PPC-3120-RE9A | Atom E3940 Fanless PPC with 12.1" XGA LED backlight, resistive touch |
| 96PSA-A90W19OT-1 | ADP A/D 100-240V 90W 19V W/PFC |
| 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-1.8M | Power code 3P CCC(China) 1.8M |
| 98R3P312000 | Add-on box for PCI or PCIe expansion (include PCI / PCIe riser card) |
| PPC-WLAN-C1E | Wi-Fi Module with Antenna Cable 40cm for PPC |

**I/O**

1. COM4: RS-232

B D F H J L M

G I K

A C E

1. COM5: RS-232
2. Line Out
3. Mic In
4. 4 x USB 3.0
5. 2 x LAN
6. VGA
7. HDMI
8. COM1: RS-232
9. COM2: RS-232
10. DC Inlet and AT/ATX switch
11. COM3: Isolated RS-422/485
12. Power Button

246.00

238.40

75.00

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