

# PPC-412

## 12.1" Fanless Panel PC with Intel® Core™ i5-7300U Processor



### Features

- 12.1" XGA TFT LCD with resistive touchscreen
- Intel® Core™ i5-7300U(default); i7-7600U/i3-7100U(optional) processor with fanless system design
- 1 x isolated RS-422/485 with auto flow
- Wide input power range (9 ~ 32 V<sub>DC</sub>)
- Dual Gigabit Ethernet with IEEE1588 support
- 3 x Independent displays
- 1 x M.2 B key bay (2242) for storage and support SATA RAID 0/1
- 1 x TPM 2.0 internal support (optional)
- Supports VESA 75 mounting interface



### Introduction

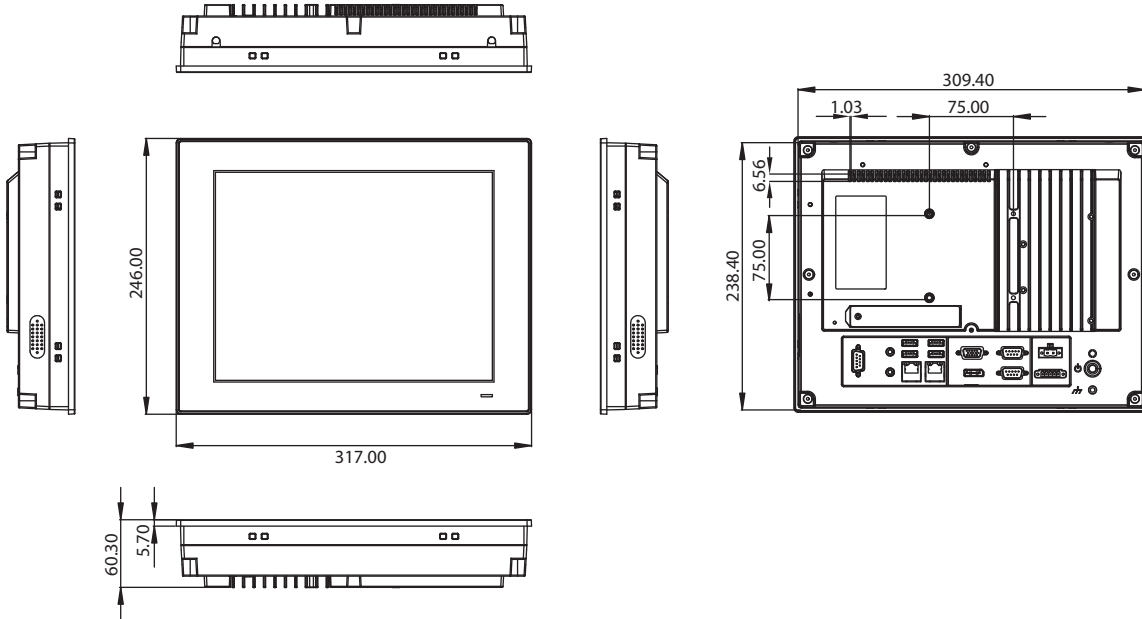
PPC-412 is a new generation industrial interactive panel PC with a 12.1" TFT LCD 1024 x 768 resolution, which features a flat, sleek design to greatly reduce maintenance effort. Pre-installed Intel® Core™ i processor and designed fanless architecture, PPC-412 provide high performance and reliable system for factory automation or variety of industrial applications. Furthermore, with the provision of multiple I/O, dual Intel® Gigabit ethernet, PPC-412 ensures easy integration and connectivity.

### Specifications

|                                 |                                |   |
|---------------------------------|--------------------------------|---|
| <b>System</b>                   | CPU                            | Intel® Core™ i5-7300U dual core (default); i7-7600U/i3-7100U (optional)   |
|                                 | Frequency                      | 2.6 GHz, up to 3.5 GHz with turbo   |
|                                 | L2 Cache                       | 3 MB  |
|                                 | Memory                         | 1 x SODIMM DDR4 1866/2133 MHz, (max. 16 GB)   |
|                                 | Storage                        | 1 x 2.5" SATA bay<br>1 x M.2 2242 B Key slot for Storage(SATA or NVME interface),support SATA RAID 0/1  |
|                                 | Network (LAN)                  | 2 x 10/100/1000 Mbps Ethernet (Intel I219LM; Intel I210AT)  |
|                                 | I/O                            | 3 x RS-232, 1 x RS-422/485 with 1K V <sub>DC</sub> isolation<br>4 x USB 3.0<br>1 x Line-out, 1 x Mic-in<br>1 x DB15 VGA<br>1 x Display Port (1.2)<br>1 x TPM 2.0 internal(optional) |
|                                 | Expansion                      | 1 x Mini PCIe   |
|                                 | Watchdog Timer                 | 255 timer levels, set up by software  |
|                                 | Speaker                        | 2 x 1W  |
| <b>Physical Characteristics</b> | Dimensions                     | 317 x 246 x 60.5 mm (12.4 x 9.7 x 2.4 in)   |
|                                 | Weight                         | 3.4 kg (7.5 lb)   |
| <b>OS Support</b>               | OS Support                     | Microsoft® Windows 10 IOT LTSC(64-Bit), Linux   |
| <b>Power Consumption</b>        | Input Voltage                  | 9 ~ 32 V <sub>DC</sub>  |
|                                 | Power Consumption              | i5-7300U 60W (Burn-in test 8.0 in Windows 10 64bit)   |
| <b>LCD</b>                      | Display Type                   | 12.1" TFT LCD panel   |
|                                 | Max. Resolution                | 1024 x 768  |
|                                 | Viewing Angle                  | 89 (left), 89 (right), 89 (up), 89 (down)   |
|                                 | Luminance (cd/m <sup>2</sup> ) | 600   |
|                                 | Contrast Ratio                 | 1000  |
|                                 | Backlight Lifetime             | 50,000 hr (min.)  |
| <b>Touchscreen</b>              | Touch Type                     | 5-wire resistive  |
|                                 | Light Transmission             | 80±5% at 550nm wavelength   |
|                                 | Controller                     | USB interface   |
| <b>Environment</b>              | Operating Temperature          | 0 ~ 50 °C (32 ~ 122 °F)   |
|                                 | Storage Temperature            | -20 ~ 60 °C (-4 ~ 140 °F)   |
|                                 | Relative Humidity              | 95% @ 40 °C (Non-Condensing)  |
|                                 | Shock                          | Operating 10 G Peak Acceleration (11 ms Duration), Follows IEC 60068-2-27   |
|                                 | Vibration                      | Operating Random Vibration Test 5 ~ 500Hz, 2Grms @with SSD, Follows IEC 60068-2-64  |
|                                 | EMC                            | CE, FCC Class B, EN 61000-6-2,BSMI, UKCA  |
|                                 | Safety                         | CB, UL, CCC, UKCA   |
|                                 | Front Panel Protection         | IP66 compliant  |

**Dimensions**

Unit: mm

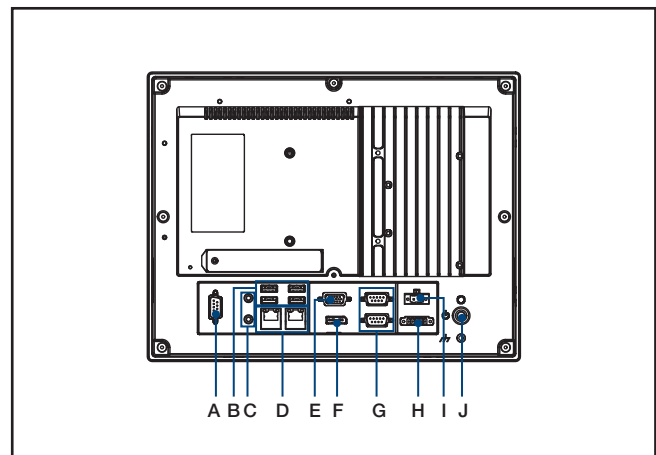


**Cut-Out Dimension: 311 x 240 mm**

**Ordering Information**

| Part Number        | Description   |
|--------------------|---|
| PPC-412-R750A      | 12.1" PPC w/Intel i5-7300U, Res.                      |
| 96PSA-A90W190T-3   | Power adapter 100-240V 90W 19V                        |
| 1700001524         | POWER Cord 3P UL 10A 125V 180cm                       |
| 170203183C         | POWER Code 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-STAND-A1E      | Stand for PPC series                                  |
| PPC-ARM-A03        | ARM VESA Standard for PPC series                      |
| PPC-WLAN-D1        | M.2, WiFi6 +BT5.2, 2T2R, w/Antenna, Mini PCIe adapter |
| 98R3P321110        | TPM 2.0 module for PPC-412/3151/3151W/3211W           |

**I/O View**



- A. 1 x RS-232
- B. 4 x USB3.0
- C. 1 x Mic-In/Line-Out
- D. 2 x Intel Gigabit Ethernet
- E. 1 x VGA
- F. 1 x DisplayPort
- G. 2 x RS-232
- H. 1 x Isolated RS-422/485
- I. 1 x DC inlet and AT/ATX switch
- J. 1 x 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.