

# PPC-3211SW

## 21.5" Fanless Panel PC with Intel® Core™ i Processor



### Features

- Industrial-grade 21.5" LCD panel with 50k backlight lifetime
- True-flat touchscreen with multi-touch projected capacitive control
- High-performance, fanless 6th generation Intel® Core™ i processor
- Up to 16 GB DDR4 SDRAM
- Compact, fanless design with aluminum alloy enclosure
- IP66-rated front panel
- Supports dual displays (1 x external HDMI)
- Supports full-size mini PCIe expansion
- Supports USB 3.0
- Supports VESA 100
- Supports TPM 2.0 (optional)



### Introduction

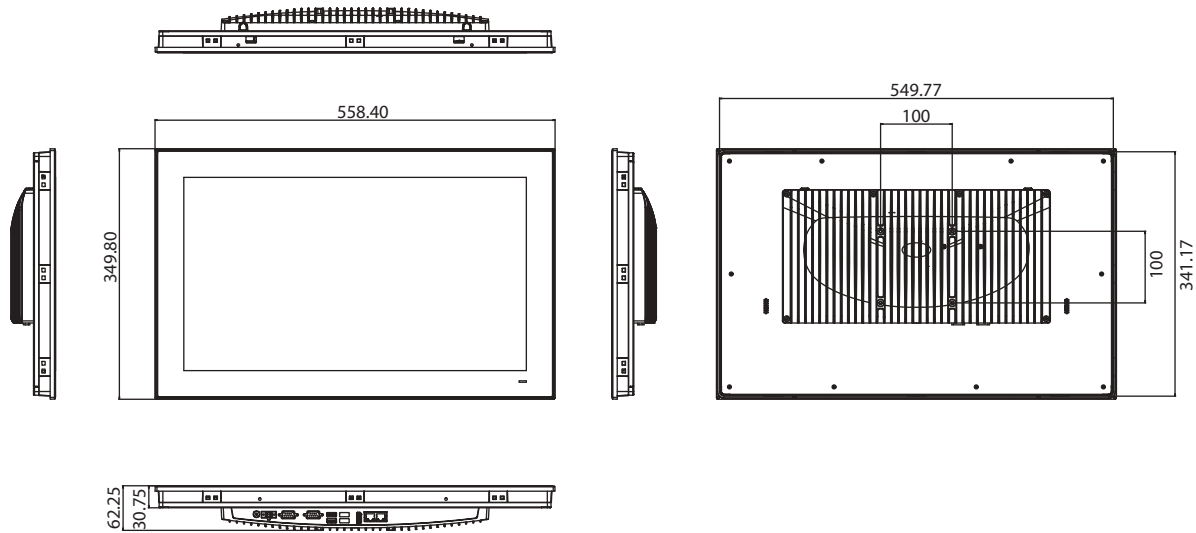
The PPC-3211SW is an all-in-one light panel PC with a wide format 21.5" industrial-grade LCD. Powered by 6th generation Intel® Core™ i processor, PPC-3211SW provides excellent performance, memory, graphics, and peripheral I/O support in a compact, fanless, embedded system. With a high durability design, PPC-3211SW features a true-flat touchscreen with IP66-rated front panel, and die cast aluminum alloy enclosure, making it ideal for diverse applications.

### Specifications

|                                 |                                      |  |                                   |                                   |
|---------------------------------|--------------------------------------|--|-----------------------------------|-----------------------------------|
| <b>System</b>                   | CPU                                  | i3-6100U   | i5-6300U                          | i7-6600U                          |
|                                 | Cores                                | Dual Core  | Dual Core                         | Dual Core                         |
|                                 | Frequency                            | 2.3 GHz  | 2.4 GHz; 3.0 GHz with turbo boost | 2.6 GHz; 3.4 GHz with turbo boost |
|                                 | L3 Cache                             | 3 MB   | 3 MB                              | 4 MB                              |
|                                 | TDP                                  | 15W  | 15W                               | 15W                               |
|                                 | Memory                               | 1 x SODIMM DDR4 1866/2133 MHz (max. 16 GB) (1.2 V)   |                                   |                                   |
|                                 | Storage                              | 1 x 2.5" SATA bay<br>1 x mSATA bay   |                                   |                                   |
|                                 | Network (LAN)                        | 2 x 10/100/1000 Mbps Ethernet (Intel I219LM; Intel I211-AT/I210AT A ver. or Realtek 8119i B ver.)  |                                   |                                   |
|                                 | I/O                                  | 2 x Serial ports: 1 x RS-232, 1 x RS-232/422/485(Adjustable through BIOS)<br>2 x USB 3.0, 2 x USB 2.0<br>1 x HDMI<br>1 x TPM 2.0 internal (optional) |                                   |                                   |
|                                 | Speaker                              | 2 x 1W   |                                   |                                   |
| Expansion                       | 1 x Full-size mini PCIe slot         |  |                                   |                                   |
| Watchdog Timer                  | 255 timer levels, set up by software |  |                                   |                                   |
| <b>Physical Characteristics</b> | Dimensions                           | 558.4 x 349.8 x 62.2 mm (21.9 x 13.7 x 2.4 in)   |                                   |                                   |
|                                 | Weight                               | 6.8 kg (14.9 lb)   |                                   |                                   |
| <b>OS Support</b>               | OS Support                           | Microsoft® Windows 7(32/64-bit)/10(64-bit), WES7P, Windows 10 IOT LTSC, Linux  |                                   |                                   |
| <b>Power Consumption</b>        | Input Voltage                        | 12 ~ 24 V <sub>DC</sub>  |                                   |                                   |
|                                 | Power Consumption                    | 75W  |                                   |                                   |
| <b>LCD</b>                      | Display Type                         | 21.5" TFT LCD (LED backlight)  |                                   |                                   |
|                                 | Resolution                           | 1920 x 1080  |                                   |                                   |
|                                 | Viewing Angle                        | 89 (left), 89 (right), 89 (up), 89 (down)  |                                   |                                   |
|                                 | Luminance (cd/m <sup>2</sup> )       | 300  |                                   |                                   |
|                                 | Contrast Ratio                       | 5000   |                                   |                                   |
|                                 | Backlight Lifetime                   | 50,000 hr  |                                   |                                   |
| <b>Touchscreen</b>              | Touch Type                           | 10-point multi-touch projected capacitive  |                                   |                                   |
|                                 | Light Transmission                   | 90 % ± 3 %   |                                   |                                   |
|                                 | Controller                           | USB interface  |                                   |                                   |
| <b>Environment</b>              | Operating Temperature                | 0 ~ 50 °C (32 ~ 122 °F) for SSD<br>0 ~ 45 °C (32 ~ 113 °F) for HDD   |                                   |                                   |
|                                 | Storage Temperature                  | -20 ~ 60 °C (-4 ~ 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, UL, CCC  |                                   |                                   |
| Front Panel Protection          | IP66 compliant                       |  |                                   |                                   |

## Dimensions

Unit: mm



**Panel Cutout Dimensions: 550.3 x 341.8 mm (21.66 x 13.45 in)**

## Ordering Information

| Part Number        | Description  |
|--------------------|--|
| PPC-3211SW-P65A    | Intel Core i5-6300U Fanless PPC with 21.5" FHD LED panel, P-cap T/S, assembled in China                              |
| PPC-3211SW-P65B    | Intel Core i5-6300U Fanless PPC with 21.5" FHD LED panel, P-cap T/S, assembled in China                              |
| PPC-3211SW-P65AU   | Intel Core i5-6300U Fanless PPC with 21.5" FHD LED panel, P-cap T/S, assembled in Taiwan                             |
| PPC-3211SW-P65BU   | Intel Core i5-6300U Fanless PPC with 21.5" FHD LED panel, P-cap T/S, assembled in Taiwan                             |
| PPC-3211SW-P63A    | Intel Core i3-6100U Fanless PPC with 21.5" FHD LED panel, P-cap T/S, assembled in China                              |
| PPC-3211SW-P63B    | Intel Core i3-6100U Fanless PPC with 21.5" FHD LED panel, P-cap T/S, assembled in China                              |
| PPC-3211SW-P67A    | Intel Core i7-6600U Fanless PPC with 21.5" FHD LED panel, P-cap T/S, assembled in China                              |
| PPC-3211SW-P67B    | Intel Core i7-6600U Fanless Panel PC with 21.5" Fanless PPC with 21.5" FHD LED panel, P-cap T/S, assembled in Taiwan |
| 96PSA-A90W190T-3   | A/D 100-240V 90W 19V C6 TERMINAL 2 PIN 62368   |
| PPC-WLAN-C1E       | M.2 Wi-Fi Module with Antenna cable support 2T2R   |
| PPC-ARM-A03        | ARM VESA Standard (A-CLEVER) for PPC series  |
| PPC-174T-WL-MTE    | Wall mount kit for PPC series  |
| PPC-Stand-A1E      | Stand for PPC series   |
| 1700001524         | Power cord 3P UL 10A 125V 1.8M   |
| 170203183C         | Power cord 3P Europe (WS-010+083) 183cm  |
| 1700008921         | Power cord 3P/3P 1.8M PSE  |
| 96CB-POWER-B-1.8MB | Power code 3P CCC(China) 1.8M  |
| 98R3P315100        | TPM 2.0 module   |

Note:

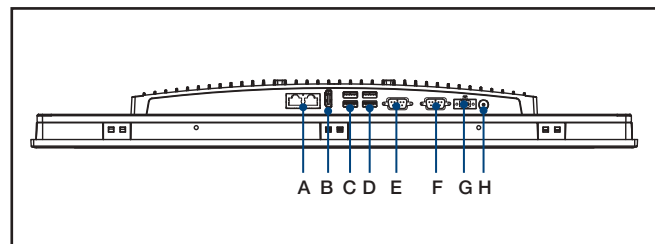
PPC-3211SW-xxxAx: Intel I219LM + I211-AT/I210AT, 2 x 1GbE LAN chipset

PPC-3211SW-xxxBx: Intel I219LM + Realtek 8119i, 2 x 1GbE LAN chipset

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.

## I/O View



- A. 2 x LAN
- B. HDMI
- C. 2 x USB 3.0
- D. 2 x USB 2.0
- E. COM2: RS-232/422/485
- F. COM1: RS-232
- G. DC-In
- H. Power Button