

# PPC-421W

## 21.5" Fanless Widescreen Panel PC with Intel® 13th Gen Core™ i7/i5/i3 Processor



### Features

- 21.5" true-flat Full HD LCD panel with projected capacitive touchscreen, anti-glare coating
- Intel® Core™ i7-1365URE/i5-1345URE/i3-1315URE processor with fanless system design
- Supports PCIe x4 or PCI expansion
- 1 x isolated RS-422/485 with auto flow
- Wide input power range (9 – 32 V<sub>DC</sub>)
- Dual 2500BASE-T Ethernet Supports Time-Sensitive Network(TSN) technology
- 3 x Independent displays
- 1 x M.2 bay (2242/2280) for storage only
- Support TPM2.0 hardware security
- Supports VESA 75/100 mounting interface



### Introduction

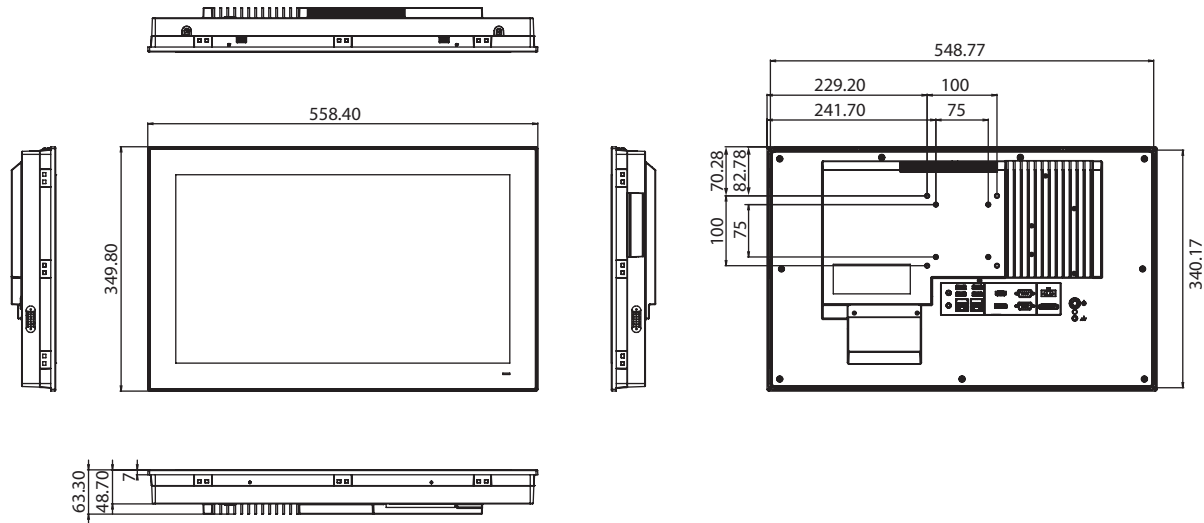
Designed for high-performance computing 13th gen applications, PPC-421W with a 21.5" FHD provides a superior human-machine interface and reliability, with multi-touch screen, rich I/O and aluminum alloy front bezel. The inclusion of PCIe/PCI slot for fieldbus or proprietary card expansion increases the system's compatibility for diverse applications. In addition, Time Sensitive Network(TSN)configuration integrated allows more possibilities for optimized industrial applications.

### Specifications

	CPU	i7-1365URE	i5-1345URE	i3-1315URE
<b>System</b>	Core	10	10	6
	Frequency	1.70 GHz upto 4.9 GHz with Turbo	1.40 GHz upto 4.6 GHz with Turbo	1.20 GHz upto 4.5 GHz with Turbo
	Cache	12 MB Intel® Smart Cache	12 MB Intel® Smart Cache	10 MB Intel® Smart Cache
	Memory	2 x SODIMM, DDR5 4800, max. 32GB x 2		
	Storage	2 x 2.5" SATA bay (Max. 7mm) 1 x M.2 2242/2280 M Key slot for Storage (SATA or NVME PCIe x 4 , support SATA RAID)		
	Network (LAN)	2 x Intel I226LM controller; Speed: 10M / 100M / 1000M / 2.5G		
	I/O	5 x Serial ports: 2 x RS-232, 1 x RS-422/485 with 1K VDC isolation, 2 x RS-232 (on right side optional) 3 x USB 3.2, 1 x USB2.0 1 x Line-Out, 1 x Mic-In 1 x HDMI 1.4 1 x DisplayPort (1.4a) 1 x 8bit GPIO (optional)		
	Expansion	1 x M.2 2230 E Key slot for wireless card 1 x PCIe x 4; 1 x PCI (optional)		
	Watchdog Timer	255 timer levels, set up by software		
	Security	1 x TPM2.0		
Speaker	2 x 1W			
<b>Physical Characteristics</b>	Dimensions	558.4 x 349.8 x 63.8 (22.0 x 13.7 x 2.5 in)		
	Enclosure	Front bezel: Die cast aluminum alloy Rear: PC+ABS		
	Mounting	Panel / VESA (75/100)		
	Weight	7.7 kg (17.1 lb)		
<b>OS Support</b>	OS Support	Microsoft® Windows 11 (64-bit), Win 10 IOT LTSC, Linux		
<b>Power Consumption</b>	Input Voltage	9 – 32 V <sub>DC</sub>		
	Power Consumption	i5-1345URE Typ.75W Max.110W (Burn-in test 8.1 in Windows 10 64bit)		
<b>LCD</b>	Display Type	21.5" TFT LCD (LED backlight)		
	Max. Resolution	1920 x 1080		
	Viewing Angle	89 (Left), 89 (Right), 89 (Up), 89 (Down)		
	Luminance (cd/m <sup>2</sup> )	350		
	Contrast Ratio	1000		
	Backlight Lifetime	30,000 hr (min.)		
<b>Touchscreen</b>	Touch Type	Multi-touch projected capacitive		
	Light Transmission	88 % ± 2 %		
	Controller	USB interface		
<b>Environment</b>	Operating Temperature	-20 – 60 °C (-4 – 140 °F)		
	Storage Temperature	-30 – 60 °C (-22–140 °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

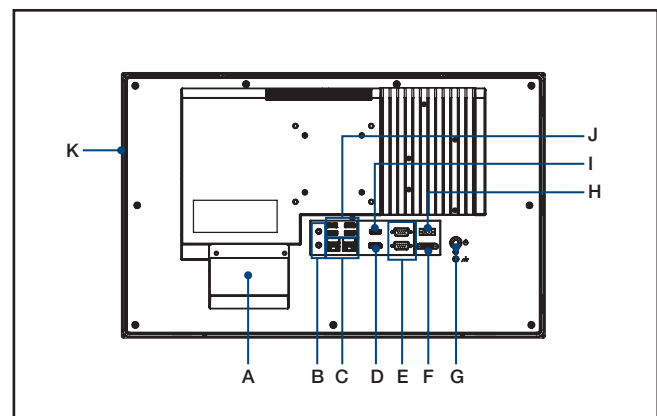


**Panel Cutout Dimensions: 550.3 x 341.8 mm (21.66 x 13.45 in)**

## Ordering Information

Part Number	Description
PPC-421W-PD3A	21.5" PPC w/Intel i3-1315URE, P-CAP
PPC-421W-PD5A	21.5" PPC w/Intel i5-1345URE, P-CAP
PPC-421W-PD7A	21.5" PPC w/Intel i7-1365URE, P-CAP
96PSA-A120W24T2-4	Power adapter 100-240V 120W 24V
1702002600	Power Cable UL/CSA (USA) 180D 125V10A 1.83M
1702002605	Power Cable 90D 220V EUROPEAN 250V/6A 1.8M
1700000237	Power Cord PSE 3P 12A 125V 183cm
96CB-POWER-B-1.8MA	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-D2	M.2, WiFi6 +BT5.2, 2T2R, w/Antenna
98R3P321100	Additional ports module (either two RS-232 or one RS-232 and one GPIO port)
989KB01001E	PClex1 to PCI riser card

## I/O View



- A. 1 x Expansion slot (PCI or PCIe x1)
- B. 1 x Mic-In/Line-Out
- C. 2 x Intel Gigabit Ethernet
- D. 1 x DisplayPort
- E. 2 x RS-232
- F. 1 x Isolated RS-422/485
- G. 1 x Power button
- H. 1 x DC inlet and AT/ATX switch
- I. 1 x HDMI
- J. 3 x USB3.2, 1 x USB2.0
- K. 2 x RS-232 (on right side optional)