

# PPC-6121

## 12.1" Panel PC with 8/9th Generation Intel® Core™ i/Celeron® Processor



### Features

- 12.1" TFT XGA LCD panel with resistive touch control
- 8th/9th generation Intel® Core™ i/Celeron® processor (thermal power design: 35W)
- 2 x 260-pin SO-DIMM DDR4 2666 MHz (max. 32 GB)
- 1 x M.2 2230 (E key)
- 1 x mSATA bay (SATA SSD + mSATA support RAID 0&1)
- 1 x Optional TPM2.0
- 1 x Optional PCI/PCIe x4 expansion kit
- 1 x Isolated RS422/485 (terminal block)
- 1 x VGA and 1 x HDMI
- Dual GbE with Intel® AMT12.0 support



### Introduction

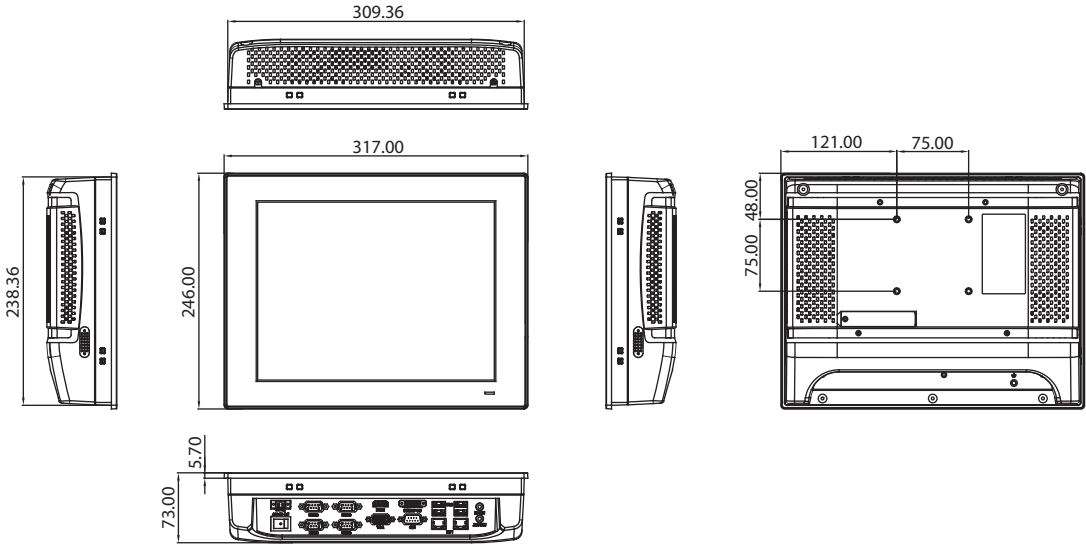
The PPC-6121 is a 12.1" color TFT LCD panel PC that supports 8th/9th generation Intel® Core™ i/Celeron® processors for high-performance computing. Featuring various connectors, PPC-6121 can be easily installed to support diverse application. Additionally, the system's user-friendly interface makes it ideal for information-based applications. The provision of 4 x RS-232, 1 x isolated RS422/485, and dual Intel® Gigabit Ethernet connectors with Intel® AMT support, as well as 1 x expansion slot, makes PPC-6121 a highly reliable and versatile display platform.

### Specifications

	CPU	i7-8700T	i5-8500T	i3-8100T	Pentium G5400T	Celeron G4900T	i7-9700TE	i5-9500TE	i3-9100TE	
<b>Processor System</b>	Cores	6	6	4	2	2	8	6	4	
	Frequency	2.4 GHz (up to 4.0 GHz)	2.1 GHz (up to 3.5 GHz)	3.1 GHz	3.1 GHz	2.9 GHz	1.8 GHz (up to 3.8GHz)	2.2 GHz (up to 3.6GHz)	2.2 GHz (up to 3.2GHz)	
	L3 Cache	12 MB	9 MB	6 MB	4 MB	2 MB	12 MB	9 MB	6 MB	
	TDP	35W	35W	35W	35W	35W	35 W	35 W	35 W	
	Chipset	Q370								
	Memory	2 x 260-pin SO-DIMM DDR4 2666 MHz (max. 32 GB)								
	Storage	1 x 2.5" SATA bay; 1 x mSATA bay (SATA SSD+mSATA support RAID 0&1)								
	Network (LAN)	2 x 10/100/1000 Mbps Ethernet (Intel I219-LM + Intel I210) , supports Intel AMT 12.0 (only i7 /i5 support)								
	I/O ports	4 x RS-232, 1 x RS-422/485 with 1K VDC isolation, 4 x USB3.1 1 x DB15 VGA, 1 x HDMI 1.4 1 x Mic in, 1 x Line out 1 x GPIO(TTL, 8 pin programmable) 1 x TPM2.0 (optional)								
	Expansion	1 x M.2 2230(E key) 1 x PCIe x4 or 1 x PCI (optional)								
	Watchdog Timer	255 timer levels; setup by software								
	Speaker	2 x 1W								
	SYS Fan	40 x 40 x 10 mm (1.57 x 1.57 x 0.39 in)								
<b>Physical Characteristics</b>	Dimensions	317 x 246 x 73mm(12.48 x 9.69 x 2.87 in)								
	Weight	3.8 kg (8.38 lb)								
<b>OS Support</b>	OS Support	Microsoft® Win 10 IOT LTSC(64-bit), Win11, Linux (Ubuntu; Fedora 28)								
<b>Power Consumption</b>	Input Voltage	12 ~ 30V <sub>DC</sub>								
	Power Consumption	120W (Burn-in test 8.1, Windows 10 64bit, i7-8700T, 16G RAM, 500G HDD)								
<b>LCD Display</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								
	Durability (Touches)	Greater than 35 million touches in one location without failure								

**Dimensions**

Unit: mm



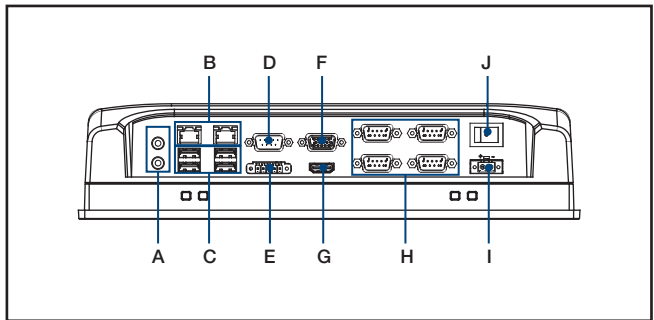
**Panel Cutout Dimensions: 311 x 240 mm (12.24 x 9.44 in)**

<b>Environment</b>	Operating Temperature	0 ~ 50 °C (32 ~ 122 °F)
	Storage Temperature	-40 ~ 90 °C (-40 ~ 194 °F)
	Relative Humidity	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, 2Grms @with SSD, follow IEC 60068-2-64
	EMC	CE, FCC Class A, BSMI, VCCI, UKCA
	Safety	CB, UL, CCC, UKCA
	Front Panel Protection	IP66 compliant

**Ordering Information**

Part Number	Description
PPC-6121-R8IA	12" PPC w/intel 8/9th Core i, Resistive
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 CORD for 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
98R3P612100	TPM2.0 module for PPC-6121
PPC-WLAN-D2	M.2, WiFi6 +BT5.2, 2T2R,w/Antenna
98R36121000	Add-on box for PCI or PCIe expansion (include PCI / PCIe riser card)
96PSA-A150W19P2-4	Power adapter 100-240V 150W 19V

**I/O View**



- A. 1 x Line-out/ Mic-in
- B. 2 x Intel Gigabit Ethernet
- C. 4 x USB3.1
- D. 1 x GPIO
- E. 1 x isolated RS-422/485
- F. 1 x VGA
- G. 1 x HDMI
- H. 4 x RS-232
- I. 1 x DC input
- 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.