

PPC-612

12.1" Configurable Panel PC Chassis for Selectable Mini-ITX Motherboards



Features

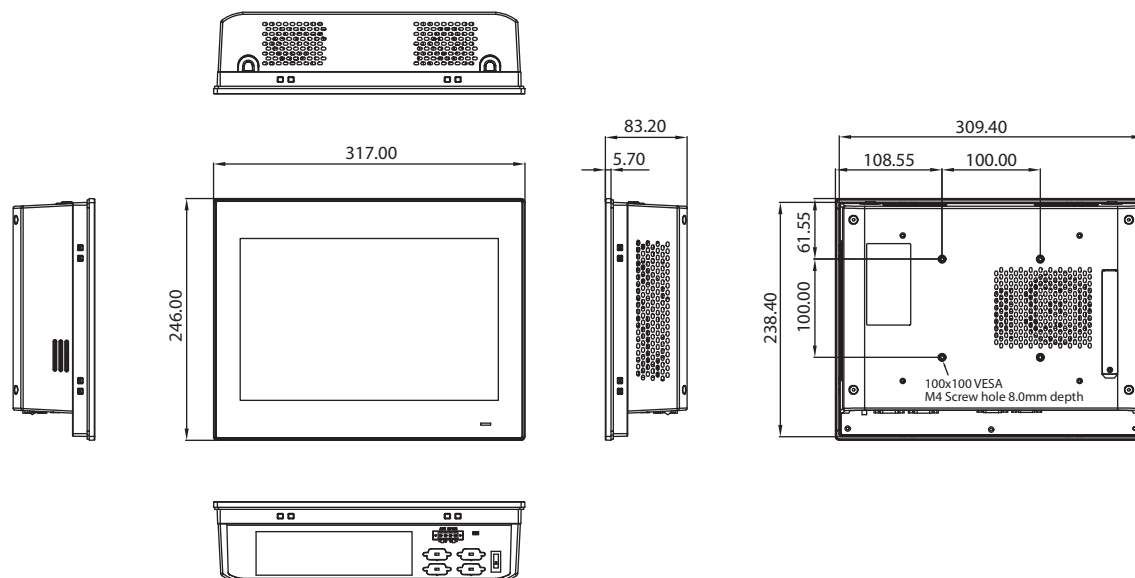
- 12.1" true-flat panel PC with resistive touch (default) or projected capacitive touchscreen (by request)
- Supports certified mini-ITX motherboards (up to 35W TDP processor)
- PCI or PCIe expansion slots
- Front-facing power status LED indicators
- IP66-rated front panel

Specifications

Processor System	M/B	PPC-MB-610B	PPC-MB-620A	PPC-MB-620B
	CPU	Intel® 8/9th Core™ i LGA1151	Intel® 12/13th Core™ i LGA1700	
	TDP	35W		
	Chipset	Q370	H610E	Q670E
	Memory	2 x SODIMM DDR4 , 2666 MHz (max.32 GB)	2 x SODIMM DDR5 , 4800 MHz , (max.64 GB)	
	Network (LAN)	1 x 1Gb Intel i219LM(support AMT12.0 only for i7 & i5) 1 x 2.5Gb Intel i226-LM	LAN1: 1Gb Intel i219LM LAN2: 2.5Gb Intel i226-LM LAN3: 2.5Gb Intel i226-LM	LAN1: 1Gb Intel i219LM (support AMT 16.0 only for i7 & i5) LAN2: 2.5Gb Intel i226-LM
	I/O ports	1 x RS232/422/485, 4 x RS232 , 1x DP, 1 x VGA, 6 x USB3.1, 1 x DIO (8bits), 1 x Line-out, 1 x Mic-in 1 x DC inlet 1 x Power switch	1 x RS232/422/485, 4 x RS232, 1x DP, 1 x HDMI, 1 x DIO (8bits), 4 x USB 3.2, 2 x USB 2.0 , 1 x Line-out, 1 x Mic-in 1 x DC inlet 1 x Power switch	1 x RS232/422/485, 4 x RS232, 1x DP, 1 x HDMI, 6 x USB 3.2 1 x Line-out, 1 x Mic-in, 1 x DIO (8bits), 1 x DC inlet 1 x Power switch
	Expansion	1 x M.2 M key 2280 (PCIe x 4 & SATA) 1 x M.2 E key 2230 (PCIe & USB2.0)	1 x M.2 M key 2280 (PCIe x 4 & SATA) 1 x M.2 E key 2230 (PCIe & USB2.0) 1 x M.2 B key 3042/3052 (PCIe & USB2.0)	1 x M.2 M key 2280 (PCIe x 4 & SATA) 1 x M.2 E key 2230 (PCIe & USB2.0) 1 x M.2 B key 3042/3052 (PCIe & USB3.1 & USB2.0)
		1 x PCI (optional) 1 x PCIe x4 (optional) 1 x PCIe x16 (optional)	1 x PCI (optional) 1 x PCIe x4 (optional) 1 x PCIe x16 (optional, only for PPC-MB-6x0)	1 x PCI (optional) 1 x PCIe x4 (optional) 1 x PCIe x16 (optional, only for PPC-MB-6x0)
	Storage	1 x 2.5" SATA HDD bay		
OS Support	Speaker	2 x 1 W		
	Fan	2 x 12V; 50 x 50 x 20 mm (1.96 x 1.96 x 0.78 in)		
	OS Support	Windows 10 LTSC, Windows 11, Linux	Windows 10 LTSC, Windows 11, Linux	
Physical Characteristics	Dimensions (W x H x D)	317 x 246 x 83.2 mm (12.48 x 9.68 x 3.27 in)		
	Weight	3.98kg (8.76lb)		
Power Consumption	Input Voltage	24V _{DC} ± 20%		
	Power Consumption	120W (Burn-in test 8.1, Windows 10 64bit, 16G RAM, 500G SSD)		
LCD Display	Display Type	12.1" TFT LED panel		
	Max. Resolution	1024 x 768		
	Viewing Angle	89 (left), 89 (right), 89 (up), 89 (down)		
	Luminance(cd/m²)	600		
	Contrast Ratio	1000		
	Backlight Lifetime	50,000 hr		
Touchscreen	Touch Type	5-wire analog resistive		
	Light Transmission	80+/-5%		
	Controller	USB interface		
	Durability (Touches)	35 million touches		
Environment	Operating Temperature	0 ~ 50 °C (32 ~ 122 °F)(With 35W CPU)		
	Storage Temperature	-40 ~ 60 °C (-40 ~ 140 °F)		
	Relative Humidity	95% @ 40 °C (non-condensing)		
	Shock	Operating: 10 G peak acceleration (11 ms duration), IEC 60068-2-27 compliant		
	Vibration	Operating: Random vibration test 5 ~ 500 Hz, 2 Grms @ with SSD, IEC 60068-2-64 compliant		
	EMC	CE,FCC,Class A,UKCA,VCCI		
	Safety	CB,CCC,UL,UKCA		
	Front Panel Protection	IP66 compliant		

Dimensions

Unit: mm



Panel Cutout Dimensions: 311 x 240 mm (2.24 x 9.44 in)

Ordering Information

M/B Part Number	Chassis Part Number	Cooler Part Number
PPC-MB-610B	PPC-612-RTA	1960060732N001
PPC-MB-620A/PPC-MB-620B	PPC-612-RTA	1970005672T001

Note 1. The motherboard, chassis, and cooler should be ordered together to ensure easy configuration.

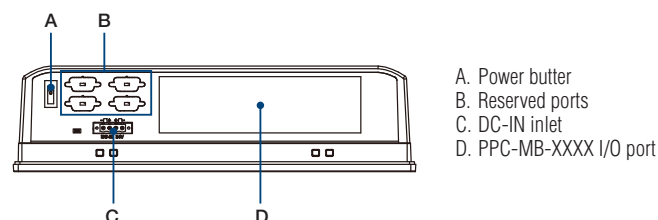
Optional Accessories

Part Number	Description
PPC-WLAN-D2	M.2, WiFi6 +BT5.2, 2T2R, w/Antenna
1702002605	Power cable (EU), 3-pin, 10A, 250V, 1.83M
1702002600	Power cable (USA) UL/CSA, 3-pin, 10A, 125V, 1.83M
1700000237	Power cable PSE(UK), 3-pin, 12A, 125V, 1.83M
96PSA-A150W19P4-4	Power adapter 100-240V 150W 19V
PPC-174T-WL-MTE	Wall mount kit for PPC series
PPC-Stand-A1E	Stand for PPC series
98R46120000	Add-on box for PCIe x4 expansion
98R46120010	Add-on box for PCI expansion
98R46120020	Add-on box for PCIe x16 expansion

CPU Support List

M/B	CPU Type List & Description			
P/N	Model Number	Advantech Part Number	Core NO.	MAX Speed
PPC-MB-610B	i7-8700T	96MPI7C-2.4-12M11T	6	2.4 GHz (up to 4.0GHz)
	i5-8500T	96MPI5C-2.1-9M11T	6	2.1 GHz (up to 3.5GHz)
	i3-8100T	96MPI3C-3.1-6M11T	4	3.1 GHz
	i7-9700TE	96MPI7CR-1.8-12M11	8	1.8 GHz(up to 3.8GHz)
	i5-9500TE	96MPI5CR-2.2-9M11T	6	2.2 GHz(up to 3.6GHz)
PPC-MB-620A/B	i3-9100TE	96MPI3CR-2.2-6M11T	4	2.2 GHz(up to 3.2GHz)
	i9-12900TE	96MPI9A-1.1-30M17	16	1.1GHz (Up to 4.8GHz)
	i7-12700TE	96MPI7A-1.4-25M17	12	1.4GHz (Up to 4.6GHz)
	i5-12500TE	96MPI5A-1.9-18M17	6	1.9GHz (Up to 4.3GHz)
	i3-12100TE	96MPI3A-2.1-12M17	4	2.1GHz (Up to 4.0GHz)
	i9-13900TE	96MPI-13900TE-24E	24	1.0GHz (Up to 5.0GHz)
	i7-13700TE	96MPI-13700TE-16E	16	1.1GHz (Up to 4.8GHz)
	i5-13500TE	96MPI-13500TE-14E	14	1.3GHz (Up to 4.5GHz)
	i3-13100TE	96MPI-13100TE-4E	4	2.4GHz (Up to 4.1GHz)
	i9-14900T	96MPI-14900T-24E	24	1.1GHz(up to 5.5GHz)
	i7-14700T	96MPI-14700T-20E	20	1.3GHz(up to 5.2GHz)
	i5-14500T	96MPI-14500T-14E	14	1.7GHz(up to 4.8GHz)
	i5-14400T	96MPI-14400T-10E	10	1.5GHz(up to 4.5GHz)
	i3-14100T	96MPI-14100T-4E	4	2.7GHz(up to 4.4GHz)

I/O View



- A. Power button
- B. Reserved ports
- C. DC-IN inlet
- D. PPC-MB-XXXX I/O port

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.