

## Features

### Performance for Industrial IoT Applications

- 1.9 GHz Quad-Core Intel® Atom™ E3845 processor
- Up to 8 GB of RAM
- Supports Linux, Windows 10 Operating Systems

### Rugged Design for Demanding Environments

- IP65-compliant fanless panel PC
- Front display sealed against water and dust
- Panel or VESA mounting configurations
- -25°C to +70°C operating temperature range
- SATA controller with 2.5-inch HDD/SSD
- Wide input power: 12-24V DC

### Fast Graphics at High Resolutions

- Projective capacitive multi-touchscreen
- Resolution: 1024 x 768 / 1280 x 1024

### Connectivity and I/O for Embedded Systems

- 2x Gigabit Ethernet ports
- 1x USB 2.0 port (up to 3x with expansion)
- 1x USB 3.0 port
- Watchdog timer

### Expansion Options

- 2x RS-232/422/485 plus 2x USB (default)
- 2x RS-232/422/485 plus 1x RS-232 (optional)
- 1x line-out, 1x RS-232/422/485 plus 2x USB (optional)



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## Product Description

WinSystems' PPC65BP-1x Panel PC Series is IP65-certified and optimized for use in demanding market applications including industrial machinery, utilities, petroleum, transportation, pipeline and food processing, wherever there is need for tight system integration in a minimal foot print.

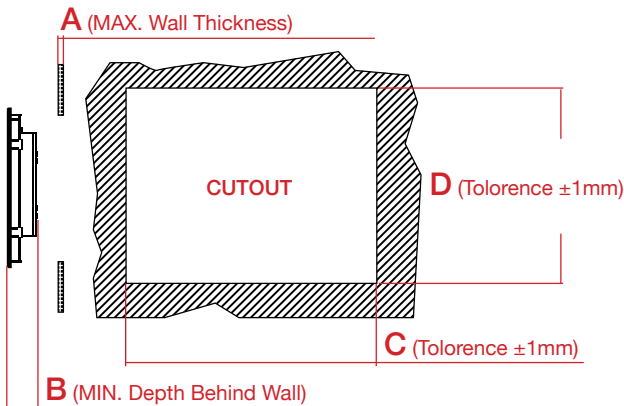
High performance embedded applications will benefit from the PPC65BP-1x's 1.9 GHz Quad-Core Intel® Atom™ E3845 processor. The panel PC is designed and engineered to operate without a fan—even with the quad-core processor—resulting in quieter operation, lower maintenance, and increased product service life.

The front panel and touchscreen of the PPC65BP-1x are environmentally sealed to protect the unit from damaging moisture, dust, and dirt when mounted in an IP65-rated enclosure. It can also be attached to a 75 x 75mm or 100 x 100mm VESA mount.

Applications that require a conventional 2.5" SATA hard drive or 2.5" SATA SSD will benefit from the built-in drive tray that facilitates easy insertion and removal of the drive without the need for a SATA cable.

The PPC65BP-1x series supports operating systems (OS) such as Linux and Windows 10. Contact an Applications Engineer for details on pre-installed operating system options. The unit is engineered to meet and exceed industry standards for RF emissions and susceptibility, is shock- and vibration-resistant, and confirmed to be compliant with FCC Part 15 Class A and CE EN 55022/55024: 2010 Class A.

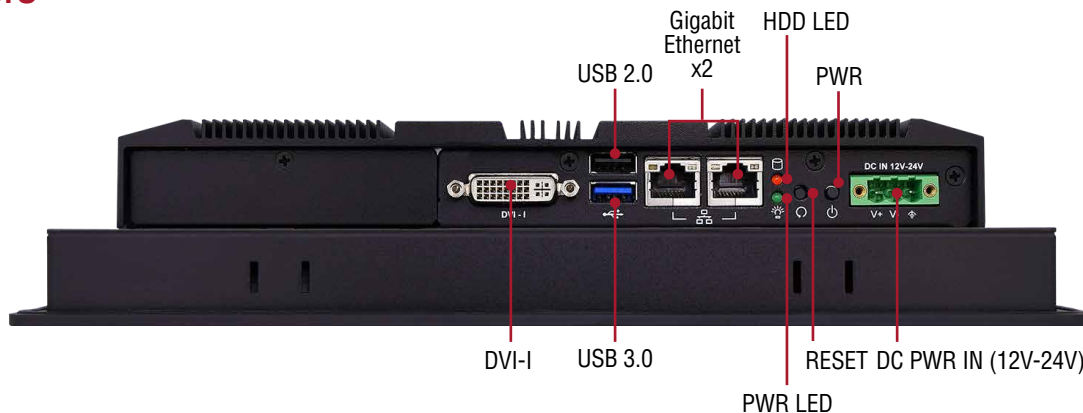
## Mounting/Installation Dimensions



### Panel Mount Cutout Dimensions

Part Number	A (mm)	B (mm)	C (mm)	D (mm)	Brackets (pcs)
PPC65BP-10	<10	52.5	265	222	X 8
PPC65BP-12	<10	52.0	289	244	X 8
PPC65BP-15	<7	50.6	367	293	X 14
PPC65BP-17	<8	57.4	420	358	X 16
PPC65BP-19	<7.8	52.6	463	383	X 20

## Connectors



## Technical Specifications

PART NUMBER	PPC65BP-10	PPC65BP-12	PPC65BP-15	PPC65BP-17	PPC65B-19
<b>DISPLAY</b>	LCD Size: 10.4" Res: XGA 1024 x 768 Brightness: 450 cd/m2 Contrast Ratio: 3000:1	LCD Size: 12.1" Res: XGA 1024 x 768 Brightness: 600 cd/m2 Contrast Ratio: 700:1	LCD Size: 15" Res: XGA 1024 x 768 Brightness: 450 cd/m2 Contrast Ratio: 700:1	LCD Size: 17" Res: SXGA 1280 x 1024 Brightness: 350 cd/m2 Contrast Ratio: 1000:1	LCD Size: 19" Res: SXGA 1280 x 1024 Brightness: 350 cd/m2 Contrast Ratio: 1000:1
	<ul style="list-style-type: none"> <li>• Backlight: LED type</li> <li>• Touch Window: Projective Capacitive Multi-Touch (10 points)</li> </ul>				
<b>SYSTEM</b>	<ul style="list-style-type: none"> <li>• SOC: Intel® Atom™ Quad-Core E3845 (1.91 GHz)</li> <li>• Memory: DDR3L SO-DIMM 1333/1600 MHz max up to 8 GB</li> <li>• BIOS: AMI</li> <li>• Graphics: Intel® Gen7 Graphics</li> <li>• LAN: Chipset Dual Intel® I210IT Gigabit Ethernet</li> <li>• Audio: Realtek High Definition Audio Codec</li> <li>• Watchdog Timer: 1~255 levels reset</li> <li>• Storage Device: 2.5" SATA HDD / SSD, Compact Flash II and SD card</li> <li>• OS: Windows 10, Linux, and other x86 Operating Systems</li> </ul>				
<b>ONBOARD I/O</b>	<ul style="list-style-type: none"> <li>• Serial Ports: 2 x RS-232/422/485 (Expansion: default)</li> <li>• Display: 1 x DVI-I</li> <li>• USB Options: 1 x USB 2.0 and 1 x USB 3.0 or 2 x USB 2.0 (Expansion: default)</li> <li>• Ethernet: 2 x Gigabit Ethernet</li> <li>• Half-Size Mini-PCIe Expansion slot</li> <li>• Others: 1 x SMA Antenna hole for WiFi/3G Solution</li> <li>• Expansion Options:                             <ul style="list-style-type: none"> <li>– Option 1 – 2 x RS-232/422/485, 1 x RS-232</li> <li>– Option 2 – 1 x Line-out, 1 x RS-232/422/485, 2 x USB 2.0</li> </ul> </li> </ul>				
<b>MECHANICAL</b>	Weight: 4 Kg Dimensions (mm): 282 x 238 x 57.3	Weight: 4.2 Kg Dimensions (mm): 305 x 260 x 57.8	Weight: 6 Kg Dimensions (mm): 384 x 310 x 56.6	Weight: 7.5 Kg Dimensions (mm): 437 x 375 x 63.2	Weight: 7.6 Kg Dimensions (mm): 480 x 400 x 60.4
	<ul style="list-style-type: none"> <li>• Mounting (mm): VESA Mount 75 x 75 &amp; 100 x 100; Panel Mount</li> </ul>				
<b>POWER</b>	<ul style="list-style-type: none"> <li>• Power Supply: DC 12-24V input with 3-pin Terminal Block Connector</li> <li>• Power Adaptor: 12V, 5A/60W (Optional)</li> </ul>				
<b>ENVIRONMENTAL</b>	<ul style="list-style-type: none"> <li>• Operational Temperature Range: -25°C to +70°C</li> <li>• Storage Temperature Range: -40°C to +85°C (20-90% non-condensing)</li> <li>• Vibration: 1.0G (SD/CF/SSD) and 0.5G (HDD), Power on &amp; 2.16G, Packaged; 5-500Hz, IEC 60068-2-64</li> <li>• Shock: 15G peak acceleration, 11 ms (Power on condition), IEC 60068-2-27</li> <li>• Drop: Package with Carton from 96.5 cm (1-Corner, 3-Axis, 6-Face), ISTA 2A Standard</li> <li>• Front Panel Protection: IP65 (Front) / IP20 (Rear), IEC 60529 Edition 2.1 Standard</li> <li>• Certification: CE/FCC Class A</li> </ul>				

## Order Information

PART NO. SCHEME	PPC65BP-10-a-b-c	PPC65BP-1x-a-b-c (x = 12, 15, 17, 19)
a = RAM Installed	2 = 2G 4 = 4G 8 = 8G	2 = 2G 4 = 4G 8 = 8G
b = Expansion Opts	0 = 2 x RS-232/422/485 1 = 1 x RS-232/422/485, 1 x Line-out 2 = 1 x Line-out, 2 x USB 2.0	0 = 2 USB 2.0, 2 Serial (RS-232/422/485) 1 = 3 Serial (1x RS-232, 2x RS232/422/485) 2 = 2 USB 2.0, 1 Serial (RS-232/422/485), Audio Line-Out
c = Media & OS	(Contact Application Engineer)	(Contact Application Engineer)

## Expansion and Customization Options

WinSystems offers additional cables, expansion cards, power supplies, and solid state drives to complete your embedded computing solution including data acquisition, communications, location, and other features via PCIe/104 and M.2 interfaces. Our Application Engineers are available to guide you through product selection and customized options.