

### Features

- IP65-compliant 10.4-inch fanless Panel PC
- Front display is sealed against water and dust
- Panel or VESA mounting configurations
- Resolution: 800 x 600
- Five-wire resistive touchscreen
- 1.86GHz Intel® Atom™ D2550 processor
- Intel® NM10 companion chip
- Up to four Gigabytes of RAM
- Two Gigabit Ethernet ports (Intel® 82574L)
- EtherCAT support
- Two USB 2.0 ports (four with expansion)
- Watchdog timer
- SATA controller with 2.5" HDD/SSD
- CompactFlash socket
- Wide input power, 9.6V to 28VDC
- Expansion I/O
  - Two RS-232/422/485 plus two USB (default)
  - Two RS-232/422/485 plus one RS-232 (optional)
  - One line-out, one RS-232/422/485 plus two USB (optional)
- Runs Linux, WES2009, WES7, and Windows® 7
- Less than two inches deep
- Operating temperature: 0°C to +50°C

### Product Description

WinSystems' PPC65-10T Panel PC Series meets IP65 certification for ingress against dust and water. The PPC65-10T is optimized for markets including industrial machinery, utilities, petroleum, transportation, pipeline, food processing that needs tight system integration in a minimal foot print.

High performance embedded applications will benefit from the dual-core 1.86GHz Intel® Atom™ D2550 processor.



The PPC65-10T was engineered to operate without a fan, even with the dual-core processor. This reduces noise, maintenance, and increases the product's life.

The front panel and touchscreen of the PPC65-10T 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. The built-in drive tray allows for easy insertion and removal of the drive and does not require a SATA cable.

The PPC65-10T supports operating systems (OS) such as Linux, Windows XP, Windows WES2009, WES7, and Windows 7. See "Ordering Information" for pre-loaded operating system options.

The PPC65-10T unit was engineered to meet and exceed industry standards for RF emissions, susceptibility and shock/vibration. The PPC65 is tested and compliant with FCC Part 15 Class A and CE EN 55022/55024: 2010 Class A.

# PPC65-10T: IP65-Compliant 10.4-inch Panel PC

## Technical Specifications

Product Number	PPC65-10T-a-0	PPC65-10T-a-1	PPC65-10T-a-2
Front Bezel Protection	IPC65 front / IP20 rear	IPC65 front / IP20 rear	IPC65 front / IP20 rear
LCD Display	10.4" Active Matrix TFT	10.4" Active Matrix TFT	10.4" Active Matrix TFT
Resolution	800x600	800x600	800x600
Max Colors	262K/16.2M	262K/16.2M	262K/16.2M
Brightness	400 cd/m <sup>2</sup>	400 cd/m <sup>2</sup>	400 cd/m <sup>2</sup>
Contrast Ratio	700:1	700:1	700:1
Backlight	LED	LED	LED
Touchscreen	5-wire resistive	5-wire resistive	5-wire resistive
Processor	Dual-Core Intel Atom D2550 1.86GHz	Dual-Core Intel Atom D2550 1.86GHz	Dual-Core Intel Atom D2550 1.86GHz
Chipset	Intel NM10	Intel NM10	Intel NM10
Graphics Controller	Intel GMA 3650	Intel GMA 3650	Intel GMA 3650
Video	Simultaneous operation supported DVI-I up to 1920x1200 @ 60 Hz	Simultaneous operation supported DVI-I up to 1920x1200 @ 60 Hz	Simultaneous operation supported DVI-I up to 1920x1200 @ 60 Hz
Memory (RAM)			
PPC65-10T-2-b	2GB DDR3 SODIMM (Socketed)	2GB DDR3 SODIMM (Socketed)	2GB DDR3 SODIMM (Socketed)
PPC65-10T-4-b	4GB DDR3 SODIMM (Socketed)	4GB DDR3 SODIMM (Socketed)	4GB DDR3 SODIMM (Socketed)
Ethernet	Dual Intel 82574L Gigabit Ethernet EtherCAT Protocol Supported	Dual Intel 82574L Gigabit Ethernet EtherCAT Protocol Supported	Dual Intel 82574L Gigabit Ethernet EtherCAT Protocol Supported
USB	4 USB 2.0 ports	2 USB 2.0 ports	4 USB 2.0 ports
Serial I/O	2 Serial ports (RS-232/422/485)	3 Serial ports (1x RS-232 and 2x RS-232/422/485)	1 Serial port (RS-232/422/485)
Audio	-	-	Realtek HD 1x Line-Out
Storage	Removable 2.5" SATA drawer CompactFlash socket (Types I and II)	Removable 2.5" SATA drawer CompactFlash socket (Types I and II)	Removable 2.5" SATA drawer CompactFlash socket (Types I and II)
Watchdog Timer	Adjustable from 1 second to 255 minutes reset	Adjustable from 1 second to 255 minutes reset	Adjustable from 1 second to 255 minutes reset
Operating System Compatibility	Windows 7, WES7, Windows XP, WES2009, and Linux	Windows 7, WES7, Windows XP, WES2009, and Linux	Windows 7, WES7, Windows XP, WES2009, and Linux
BIOS	AMI	AMI	AMI
Power	+12~24V DC (40W max); (8W sleep)	+12~24V DC (40W max); (8W sleep)	+12~24V DC (40W max); (8W sleep)
Mechanical	Dimensions: 314 x 253 x 47.6 mm Weight: 7.05 lbs (3.2 kg)	Dimensions: 314 x 253 x 47.6 mm Weight: 7.05 lbs (3.2 kg)	Dimensions: 314 x 253 x 47.6 mm Weight: 7.05 lbs (3.2 kg)
Mounting	Panel Mount or VESA (75x75,100x100)	Panel Mount or VESA (75x75,100x100)	Panel Mount or VESA (75x75,100x100)
Operating Temperature Range	0 to 50°C	0 to 50°C	0 to 50°C
Standards Compliance	FCC Class A pursuant to Part 15b EMC Directive 2004/108/EC IEC/EN 60529 Ed. 2.1: Dust-proof IEC/EN 60529 Ed. 2.1: Water-proof	FCC Class A pursuant to Part 15b EMC Directive 2004/108/EC IEC/EN 60529 Ed. 2.1: Dust-proof IEC/EN 60529 Ed. 2.1: Water-proof	FCC Class A pursuant to Part 15b EMC Directive 2004/108/EC IEC/EN 60529 Ed. 2.1: Dust-proof IEC/EN 60529 Ed. 2.1: Water-proof
Mechanical Shock Testing	1.0G(CF)/0.5G (HDD) Power on condition	1.0G(CF)/0.5G (HDD) Power on condition	1.0G(CF)/0.5G (HDD) Power on condition
Random Vibration Testing	15G peak acceleration, 11ms Power on condition	15G peak acceleration, 11ms Power on condition	15G peak acceleration, 11ms Power on condition
Product Number	PPC65-10T-a-0	PPC65-10T-a-1	PPC65-10T-a-2

### Technical Support and Custom Configurations

WinSystems' Applications Engineers are available to answer your questions during all phases of your project.

If you have a hard to fit requirement, ask your Applications Engineer about customized product options. Telephone 1-817-274-7553 or email [Info@WinSystems.com](mailto:Info@WinSystems.com).

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### Ordering Information

PPC65-10T-a-b-ccc Fanless 10-inch IP65-Compliant Panel PC with Touchscreen, Two Ethernet, and RS-232/422/485

- a = 2 2G DDR3 SDRAM
- 4 4G DDR3-SDRAM
- b = 0 4x USB and 2x RS-232/422/485
- 1 2x USB, 1x RS-232/422/485 and 1x RS-232
- 2 4x USB, 1x Line-out, 1x RS-232/422/485
- ccc = Media and operation system installed. See website for details.

