

# Панельные компьютеры серии PPS-3000, PPS-4000, PPS-6000

## ТЕХНИЧЕСКИЕ ХАРАКТЕРИСТИКИ

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Тюмень (3452)66-21-18  
Ульяновск (8422)24-23-59  
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Череповец (8202)49-02-64  
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# PPC-3120

## 12.1" Fanless Panel PC with Intel® Atom™ D2550 Processor

**NEW**



### Features

- 12.1" TFT XGA LED Panel with resistive touchscreen
- Embedded Intel® Atom™ processor D2550 1.86 GHz
- System memory up to 4 GB DDR3 1066 SDRAM
- Supports one internal SATA 2.5" HDD and 1 x mSATA socket
- Optional PCI/PCIe x1 expansion kit
- Fanless design and low power consumption
- Automatic data flow control over RS-485
- Adjust RS-232/422/485 through BIOS
- COM1/COM2 pin9 RI/5V/12V adjustable through BIOS
- LED backlight Auto dimming



### Introduction

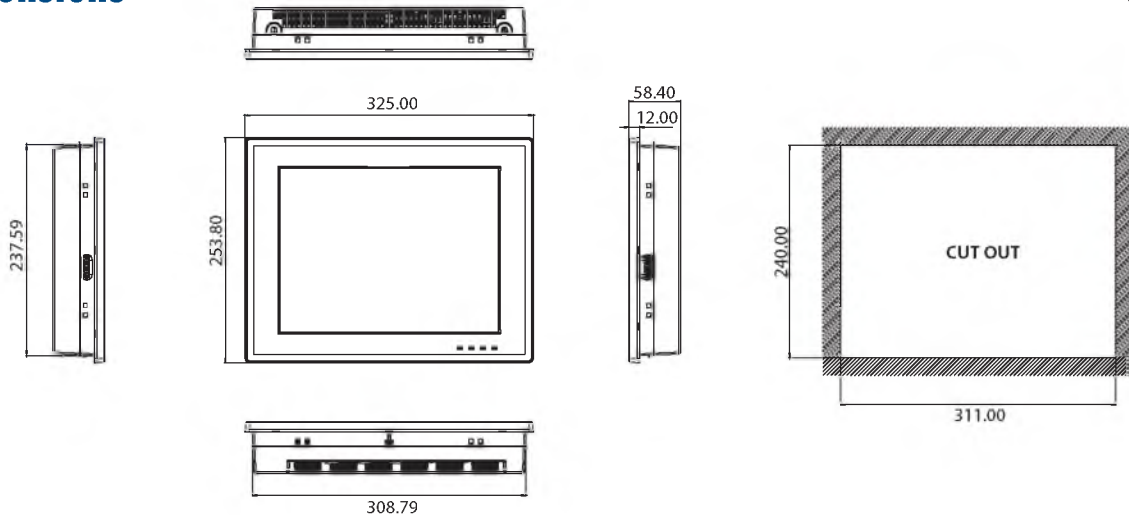
The PPC-3120 is a new 12.1" Panel PC equipped with an Intel Atom processor D2550. Meeting high demands of harsh environments, the fanless design makes PPC-3120 more reliable in different kinds of applications for the machine building industry. In addition, the dual GbE LAN, 4 x serial ports, 4 x USB ports, and GPIO connector make it easier to connect to devices and be integrated into specific solutions. With a user friendly design it comes with an LED indicator on the front panel for power on/off, storage access, and LAN active status.

### Specifications

<b>Processor System</b>	CPU	Intel Atom D2550 1.86 GHz 10W Dual Core CPU on board
	Memory	SODIMM x 1, DDR3 1066, Max 4 GB
	2nd Cache Memory	1 MB
	Chipset	Intel NM10
	Storage	mSATA*1
	HDD	1 x 2.5" SATA HDD Bay (Internal)
	I/O Ports	4 x Serial ports: 3 x RS-232, 1x RS-232/422/485 (Adjustable through BIOS) 4 x USB 2.0 ports 1 x Line-out, 1x MIC-in 1 x DB15 VGA 1 x DB9 GPIO port (8 pin programable)
	Bus Expansion	1x MINI PCI-e (Standard), 1 x PCI / 1 x PCI-e through riser (Optional)
	Network (LAN)	2 x 10/100/1000 Mbps Ethernet
	Speaker	2 x 1W speakers
Watchdog Timer	255 timer levels; setup by software	
Dimensions (W x H x D)	325 x 253.8 x 58.4 mm (12.79" x 10" x 2.3")	
Weight	3.3 kg (7.27 lb)	
<b>OS Support</b>	OS Support	Win XPE, Win XP Pro, WES7 32 bit, Win CE 7.0, Win 7
<b>Power Supply</b>	Input Voltage	DC 12 ~ 30 V
<b>LCD Display</b>	Display Type	12.1" TFT LCD (LED Backlight)
	Max. Resolution	1024 x 768
	Colors	16.2M
	Dot Size (mm)	0.24 x 0.24
	Viewing Angle	80 (left), 80 (right), 70 (up), 70 (down)
	Luminance (cd/m <sup>2</sup> )	600
	Brightness Control	Yes
	Backlight Lifetime	50,000 hrs (typical)
<b>Touchscreen</b>	Touch Type	Analog Resistive 5-wire
	Resolution	2048 x 2048
	Light Transmission	81+/-3%
	Controller	RS-232 interface
	Software Driver Support	Windows 7, XP, CE
	Durability (Touches)	36 million

## Dimensions

Unit: mm



## Specifications

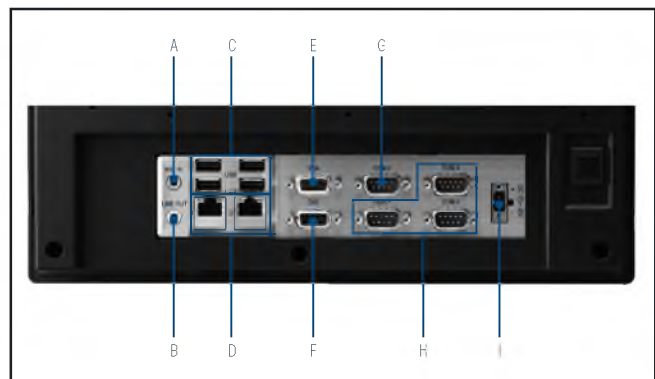
Environment	Operating Temperature	0 ~ 50°C (32 ~ 122°F)
	Storage Temperature	-20 ~ 60°C (-4 ~ 140°F)
	Relative Humidity	10 ~ 95% @ 40°C (non-condensing)
	Shock	Operating 10 G peak acceleration (11 ms duration), follow IEC 60068-2-27
	Vibration	Operating Random Vibration Test 5-500Hz, 1Grms, follow IEC 60068-2-64
	EMC	BSMI, CE, FCC Class B
	Safety	CB, CCC, BSMI, UL
	Front Panel Protection	IP65 compliant

## Ordering Information

Part No.	Description
PPC-3120-RAE	Atom D2550 Fanless PPC with 12.1" XGA LED backlight, touch, without memory
PS-DC19-L157E	19V power adapter module
1700001524	Power cord 3P UL 10A 125V 1.8m
170203183C	Power cord 3P Europe (WS-010+083)183cm
1700008921	Power cord 3P/3P Power supply 1.8M PSE
* PPC-174T-WL-MTE	Wall mount kit for PPC series
* PPC-ARM-A03	PPC ARM VESA Standard
* PPC-3100-STANDE	Desktop Stand for PPC-3100 series
PPC-3100-VESAE	PPC-3100 VESA bracket module
PPC-6150-WLANE	PCIe Half Mini Card WLAN module
PPC-3120-EXPE	Add-on box for PCI or PCIe expansion (include PCI / PCIe riser card)
2070012891	Image WES7P 32-bit Multi V4.12 PPC-3120/3100
2070011967	Image windows XPE WES2009 PPC-3120 V4.3 MUI SA
2070012979	Image WEC7 PPC-3120 V4.00 Eng

\* if you order Wall mount kit / ARM / Desktop stand, please also order PPC-3100-VESAE at the same time.

## I/O



- A. MIC in
- B. Line Out
- C. USB 2.0 x 4
- D. 10/100/1000 Mbps Ethernet x 2
- E. VGA Port
- F. DIO Port
- G. RS-232/422/485 x 1
- H. RS-232 x 3
- I. DC Inlet

# PPC-4151W

## 15.6" Fanless Wide Screen Panel PC with Intel Core i5 / Celeron Processor



### Features

- 15.6" WXGA entirely flat panel with Projected capacitive touchscreen
- High performance Intel Core i CPU with Fanless design
- PCIe x1 or PCI expansion support
- Automatic data flow control over RS-485
- Wide Range DC 9-32V support
- Dual Gigabit Ethernet, support IEEE1588
- 3 x Independent display



### Introduction

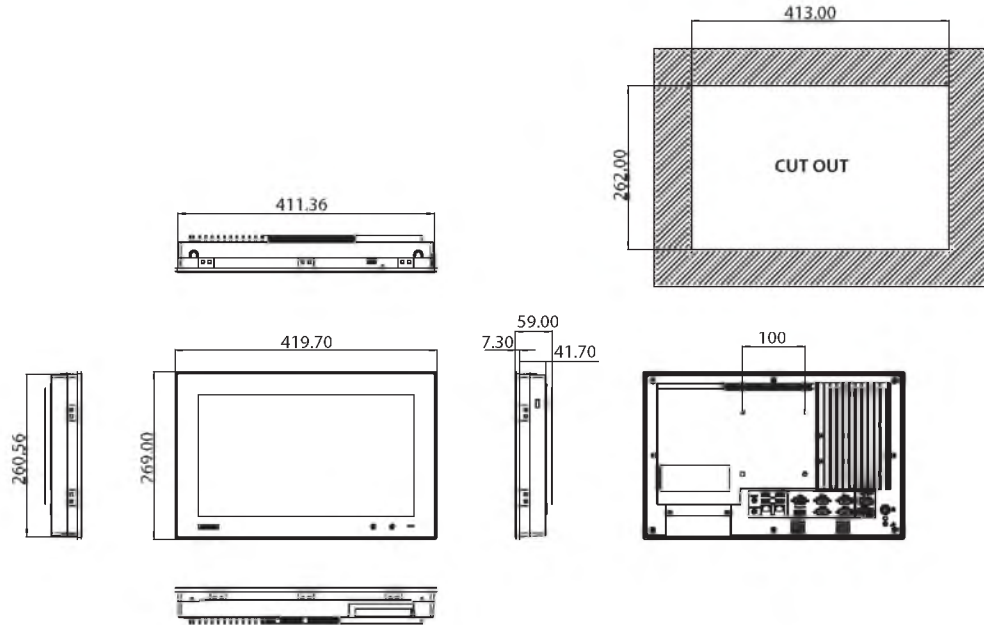
The PPC-4151W is a new generation Panel PC with WXGA (1366 x 768) screen. The most important, system equips with high performance Intel Core i CPU but the heat can be dispatched easily by high efficiency fanless thermal design. This makes HMI a big step forward to consolidate performance and reliability in one system. Besides, with rich I/O as 5 x COM, 5 x USB and dual Gigabit ethernet make it easier to connect to devices and be integrated into machine building industry. In addition, PCIe/PCI expansion to add on field bus or proprietary card makes more application possibility. The last but not least, the multi touch screen makes the HMI more intuitive, brings you the best operate experience.

### Specifications

<b>Processor system</b>	CPU	Intel 4th Generation Core i CPU i5-4300U, 2C, 3M, up to 2.9GHz Celeron 2980U, 2C, 2M, 1.6GHz
	Memory	SO-DIMM x 1, DDR3L1333/1600, Max 8GB
	2nd Cache Memory	3 MB / 2 MB
	Storage	mSATA*1
	HDD	1 x 2.5" SATA HDD Bay
	I/O Ports	5 x Serial ports: 4 x RS-232, 1 x RS-422/485 with isolation 1K V <sub>DC</sub> 4 x USB 3.0 ports in rear side, 1 x USB 2.0 in right side 1 x Line-out, 1x MIC-in 1 x DB15 VGA 1 x Display Port (1.2)
	Bus Expansion	1 x MINI PCIe, 1 x PCIe x1 or 1 x PCI(either one)
	Network (LAN)	2 x 10/100/1000 Mbps Ethernet, Intel I211-AT, Intel I218LM
	Speaker	2 x 1W
	Watchdog Timer	255 timer levels; setup by software
	Dimensions	419.7 x 269 x 59 mm
Weight	5.8 Kg	
<b>OS support</b>	OS Support	Win 7/Win 8/Win 8.1/Linux
<b>Power supply</b>	Input Voltage	DC 9-32V
	Power consumption	i5-4300U: 56W, Celeron 2980U: 45W (8G DDR3L, USB x 4, COM x 4, USB mouse, 2.5" HDD 500G, Win7 64bit, Burn-in 7.0 )
<b>LCD Display</b>	Display Type	15.6" TFT LCD (LED Backlight)
	Max. Resolution	1366 x 768
	Colors	16.7M
	Viewing Angle	85 (left), 85 (right), 85 (up), 85 (down)
	Luminance(cd/m2)	300
	Brightness Control	Yes (by BIOS)
	Backlight Lifetime	50,000 hrs (typ.)
<b>Touchscreen</b>	Touch Type	Projected Capacitive multi touch 10 point
	Resolution	2048 x 2048
	Light Transmission	88 % ± 2 %
	Controller	USB interface
<b>Environment</b>	Operating Temperature	0 - 50° C (32 - 122° F) for SSD, 0-45° C for HDD
	Storage Temperature	-20 - 60° C (-4 - 140° F)
	Relative Humidity	10 - 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, 1Grms, follow IEC 60068-2-64
	EMC	BSMI, CE, FCC Class B
	Safety	CB, CCC, BSMI, UL
Front Panel Protection	IP65 compliant	

## Dimensions

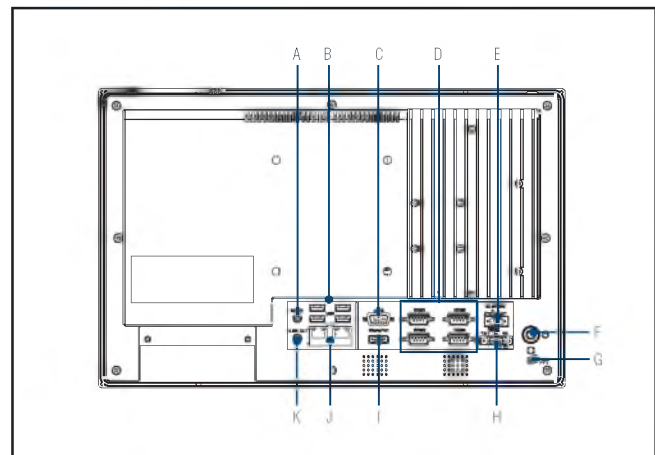
Unit: mm



## Ordering Information

Part NO	Description
PPC-4151W-P5AE	15.6 Wide screen PPC with PCT Multi-touch, Intel Core i5-4300U up to 2.9GHz
PPC-4151W-PCAЕ	15.6 Wide screen PPC with PCT Multi-touch, Intel Celeron 2980U 1.6GHz
PS-DC19-L157E	19V DC power Adapter Module
1700001524	POWER Cord 3P UL 10A 125V 180cm
170203183C	POWER Code 3P Europe (WS-010+083)183cm
1700008921	POWER CORD 3P/3P POWER SUPPLY 1.8M PSE
PPC-174T-WL-MTE	Wall mount kit for PPC series
PPC-4150W-STANDE	Desktop stand kit
PPC-ARM-A03	PPC ARM VESA Standard
PPC-6150-WLANE	Wi-Fi Module with Intel 6205 for PPC series
2070012905	Image WES7P 32-bit Multi PPC-4151W/4211W-P
2070013051	Image WES7P 64-bit Multi PPC-4151W/4211W-P

## I/O Appearance



- A. Mic-in
- B. 4 x USB 3.0
- C. VGA Port
- D. 4 x RS-232
- E. DC Inlet
- F. Power Button
- G. Ground Line
- H. 1 x RS-422/485
- I. Display Port
- J. 2 x 10/100/1000 Mbps Ethernet
- K. Line Out

# PPC-6120

## 12" Panel PC Supporting 4th Generation Intel® Core™ i / Celeron® Processors

**NEW**



### Features

- 12.1" TFT XGA LED Panel with resistive touchscreen
- Supports 4th Generation Intel® Core™ i / Celeron® Processor (Thermal Design Power: 35W/45W)
- System memory supports 2 x 204-pin SODIMM DDR3/DDR3L total up to 16G
- Supports 2 x Mini PCIe sockets, one is included mSATA function.
- Optional one PCI/PCIe x1 expansion kit
- Supports one isolated RS422/485 (terminal block)
- 1 x VGA and 1 x Display port
- Dual GbE, supports Intel AMT9.0
- LED backlight Auto dimming



### Introduction

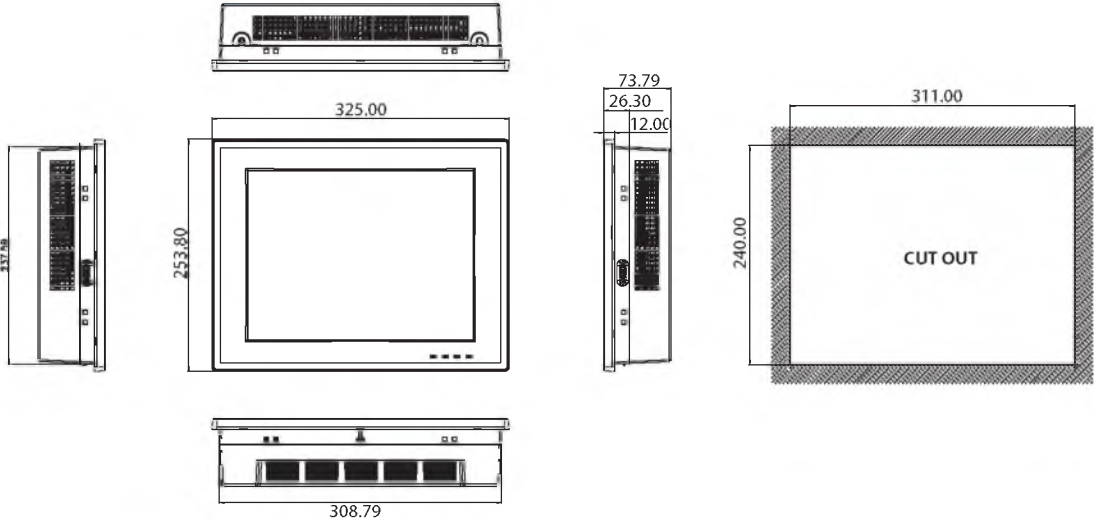
The PPC-6120 is a 12" color TFT LCD Panel PC which supports 4th Generation Intel® Core™ i / Celeron® Processors. It features extremely high computing power, various connectors, and can be installed in virtually any application. In addition, its user-friendly interface makes it a great host for information appliances. Four RS-232, one isolated RS422/485 and Dual Gb Ethernet connectors support Intel AMT, one expansion slot make PPC-6120 highly reliable, and provides a great solution for versatile applications.

### Specifications

<b>Processor System</b>	CPU	4th Generation Intel® Core™ i / Celeron® Processor (Thermal Design Power: 35W/45W)
	Chipset	Intel Q87
	Memory	Supports 2 x 204-pin SODIMM DDR3/DDR3L total up to 16G
	Storage	2.5" SATA HDD bay x1 mSATA x1
	Bus Expansion	1 x MiniPCIe (Standard) 1 x PCIe by 1 / 1 x PCI through riser (Optional)
	Network (LAN)	2 x GbE, supports Intel AMT9.0
	I/O	4 x USB3.0 (Ext.), 2 x USB2.0 (Int. pin head) 4 x RS-232 Serial ports, 1 x Isolated RS422/485 (1KV <sub>DC</sub> ) 1 x Display Port 1.2 1 x DB15 VGA out 1 x Mic in, 1 x Line out
	Speaker	2 x 1W speakers
	Watchdog Timer	255 timer levels; setup by software
	Dimensions (W x H x D)	325 x 253.8 x 73.8
Weight	3.4KG	
<b>OS Support</b>	OS Support	Win7(32bit and 64bit), Win8 (32bit and 64bit), Linux
<b>Power Supply</b>	Input Voltage	DC 12 ~ 30 V
<b>LCD Display</b>	Display Type	12.1" TFT LCD (LED Backlight)
	Max. Resolution	1024 x 768
	Colors	262K
	Dot Size (mm)	0.24 x 0.24
	Viewing Angle	80 (left), 80 (right), 70 (up), 70 (down)
	Luminance (cd/m <sup>2</sup> )	600
	Brightness Control	Yes
<b>Touchscreen</b>	Touch Type	Analog Resistive 5-wire
	Resolution	2048 x 2048
	Light Transmission	80+/-3%
	Controller	RS-232 interface
	Software Driver Support	Win7, Win8, Linux
	Durability (Touches)	36 million

**Dimensions**

Unit: mm



**Specifications**

Environment	Operating Temperature	0 ~ 50°C (32 ~ 122°F)
	Storage Temperature	-20 ~ 60°C (-4 ~ 140°F)
	Relative Humidity	10 ~ 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, 1Grms, follow IEC 60068-2-64
	EMC	BSMI, CE, FCC Class A
	Safety	CB, CCC, BSMI, UL
	Front Panel Protection	IP65 compliant

**Ordering Information**

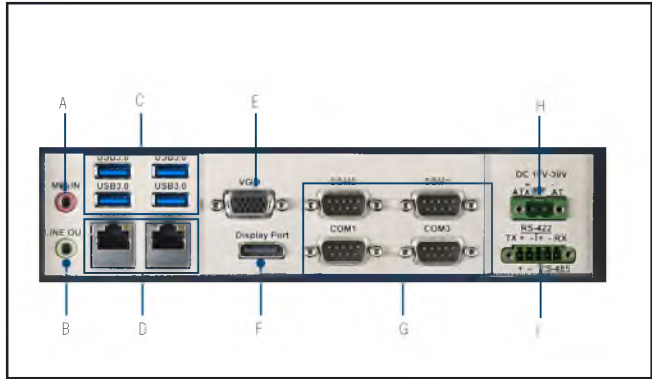
Part No.	Description
PPC-6120-RAE	12.1" 4th Generation Intel® Core™ i / Celeron Panel PC with Resi. T/S
1702002600	Power Cable UL/CSA (USA) 180D 125V10A 1.83M
1702002605	Power Cable 90D 220V EUROPEAN 250V/6A 1.8M
* PPC-174T-WL-MTE	Wall mount kit for PPC series
* PPC-ARM-A03	PPC ARM VESA Standard
* PPC-3100-STANDE	Desktop Stand for PPC-3100 series
PPC-3100-VESAE	PPC-3100 VESA bracket module
PPC-6150-WLANE	PCIe Half Mini Card WLAN module
PPC-6120-EXPE	Add-on box for PCI or PCIe expansion (include PCI / PCIe riser card)
PS-DC19-150AE	19V DC 150W Power Adapter Module For PPC Product
2070012966	Image WES7P 32-bit Multi V4.12 PPC-6120

\* if you order Wall mount kit / ARM / Desktop stand, please also order PPC-3100-VESAE at the same time.

**Supported CPUs**

CPU	4th Generation Intel® Core™ i / Celeron® Processor (Thermal Design Power: 35W/45W)			
	Type	Frequency	Cache	TDP
	I7-4770TE	2.3GHz	8M	45W
	I5-4570TE	2.7GHz	4M	35W
	I3-4330TE	2.4GHz	4M	35W
	PENTIUM-G3320TE	2.3GHz	3M	35W
	Celeron-1820TE	2.2GHz	2M	35W
	I5-4590T	2.0GHz	6M	35W
	I3-4350T	3.1GHz	4M	35W
	I3-4340TE	2.6GHz	4M	35W

**I/O**



- A. MIC in
- B. Line Out
- C. USB 3.0 x 4
- D. 10/100/1000 Mbps Ethernet x 2
- E. VGA Port
- F. Display Port
- G. COM RS-232 x 4
- H. DC Inlet
- I. COM RS-422/485

# PPC-6150

15" Panel PC with Intel® Core™ i3 / i5 / Celeron® Processor



## Features

- Intel® Core™ i3, i5, Celeron 1020E + Intel QM77 PCH
- 1X DDR3/DDR3L SODIMM supports to 8 GB
- Multiple expansion slots including one PCIe x4, one PCI + one PCIe x1, two PCI (optional) and two PCIe x1 (optional)
- Optional second HDD, supports Intel RAID
- One isolated RS-232/422/485 port; (selectable in by BIOS)
- One GPIO/RS-232 (8 channels, TTL level); (by swapping pin header)
- Dual GbE, supports Intel AMT8.0
- Supports iManager, SUSIAccess and Embedded Software APIs

## Introduction

The PPC-6150 is a Panel PC with an Intel Core i3/i5 or Celeron processor, and a 15" color TFT LCD panel. It features extremely high computing power, modular design, excellent connectivity, and can support virtually any application. In addition, its user-friendly interface makes it a great host for information appliances. Two expansion slots, dual hard drives supporting Intel RAID, and one isolated RS-232/422/485 port make the PPC-6150 highly reliable, and provide a great solution for a wide range of applications.

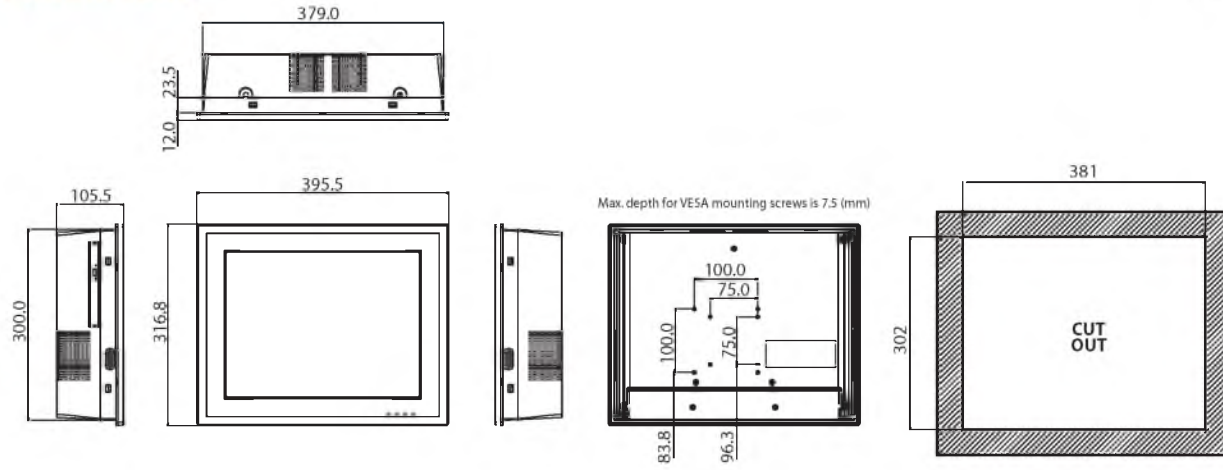
## Specifications

	Intel	Core i5-3610ME	Core i3-3120ME	Celeron 1020E
<b>Processor System</b>	Frequency	2.7 GHz	2.4 GHz	2.2 GHz
	L3 Cache	4M	3M	2M
	Chipset	Intel QM77		
	Memory	1 x 204-pin SODIMM, DDR3 (1600 MHz) / DDRL (1333 MHz), supports up to 8 GB		
	Storage 1	1 x 2.5" SATA bay		
	Storage 2	Either one - Second 2.5" SATA bay (Intel RAID supported, optional) - Slim type 8X or above DVD +/- RW (optional)		
	Network (LAN)	2 x Gigabit Ethernet connectors, Intel AMT supported (GbE1- Intel 82579LM, GbE2 – Intel 82583V)		
	I/O ports	- 4 x COM ports, 1 x isolated RS-232/422/485, 3 x RS-232 - 1 x GPIO/RS-232 (8 channels, TTL level); by pin header - 3 x USB3.0 + 2 x USB2.0 ports		
	Expansion Slots	Either: - one PCI + one PCIe x1 (standard) - one x PCIe x4 (in the accessory box)		
	Additional Expansion	1 x full-size mini PCIe (Supports mSATA) 1 x half-size mini PCIe		
Fan	Two 12V 60 x 60 x 13 (mm) with smart fan control, (70,000 hours continuous test @ 40° C)			
<b>Physical Characteristics</b>	Dimensions	395.5 x 316.8 x 105.5 (mm) (15.6" x 12.5" x 4.15")		
	Weight	6.5 Kg (14.32lb)		
<b>OS Support</b>	OS Support	Win XPE / Win XP Pro / WES7 32 & 64 bit / Windows 7 32 & 64 bit		
<b>Power Supply</b>	Output Rating	150 W (max.)		
	Input Voltage	100 - 240V <sub>ac</sub> , 50/60Hz, 4-2A		
	Power Consumption	With Core i5-3610ME is 61W With Core i3-3120ME is 50W With Celeron 847E is 48W (Burn-in test 7.0 in Windows 7 32-bit)		
<b>LCD Display</b>	Display Type	15" TFT LCD (LED Backlight)		
	Max. Resolution	1024 x 768		
	Colors	262K		
	Dot Size (mm)	0.297 x 0.297		
	Viewing Angle	80 (left), 80 (right), 70 (up), 70 (down)		
	Luminance(cd/m2)	350		
	Contrast Ratio	700		
Backlight Lifetime	50,000 hrs (typical)			



## Dimensions

Unit: mm



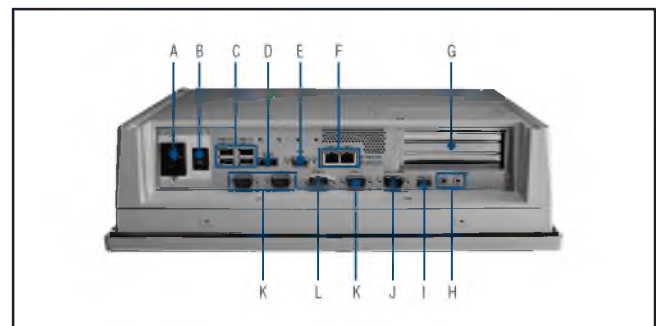
## Specifications (Cont.)

Touchscreen	Touch Type	Analog Resistive 5-wire
	Resolution	2048 x 2048
	Light Transmission	81+/-3%
	Controller	RS-232 interface (COM5), USB interface is available as an option
	Software Driver Support	Windows 7, XP
Environment	Durability (Touches)	36 million
	Operating Temperature	0 ~ 50°C (32 ~ 122°F)
	Storage Temperature	-20 ~ 60°C (-4 ~ 140°F)
	Relative Humidity	10 ~ 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, 1Grms, follows IEC 60068-2-64
	EMC	BSMI, CE, FCC Class A
	Safety	CB, CCC, BSMI, UL
	Front Panel Protection	IP65 compliant

## Ordering Information

Part No.	Description
PPC-6150-Ri5AE	Intel Core i5-3610ME (2.7G) Panel PC with 15" XGA LED backlight and 5-wire resistive T/S, w/o memory
PPC-6150-Ri3AE	Intel Core i3-3120ME (2.4G) Panel PC with 15" XGA LED backlight and 5-wire resistive T/S, w/o memory
PPC-6150-RC10AE	Intel Celeron 1020E (2.2G) Panel PC with 15" XGA LED backlight and 5-wire resistive T/S, w/o memory
PPC-6150-WLANE	WiFi Module with Intel 6205 supports 802.11 abgn, 2T2R
PPC-6150-PCIE	Riser card supports two PCI slots for PPC-6150/PPC-6170
PPC-6150-PCIEE	Riser card supports two PCIe x1 slots for PPC-6150/PPC-6170
PPC-6150-HDDE	Kit to install the second 2.5" SATA HDD for PPC-6150/PPC-6170, w/o HDD
PPC-6150-DVDE	Module with 8X SATA DVD-RW for PPC-6150/PPC-6170
PPC-174T-WL-MTE	Wall mount kit for PPC series
PPC-ARM-A03	PPC ARM VESA Standard
PPC-155T STAND	Stand kit for PPC-6150/PPC-6170
1702002605	Power cord 90D 220V EUROPEAN 250V/6A, 1.8M
1702002600	Power cord UL/CSA(USA) 180D 125V/10A 1.83M
2070011757	WES7 E 32-bit (ENG/JPN/Simplified Chinese/Traditional Chinese), 4 languages with SUSI Access
2070011758	WES7 E 64-bit (ENG/JPN/Simplified Chinese/Traditional Chinese), 4 languages with SUSI Access

## I/O Placement



- A: AC Inlet
- B: Power Switch
- C: USB 3.0 x 2, USB 2.0 x 2
- D: HDMI
- E: VGA
- F: Gigabit Ethernet x 2
- G: 2 Expansion slots
- H: Line out/ Mic in
- I: USB 3.0 x 1
- J: GPIO / RS-232 (by swapping pin header)
- K: RS-232 x 3
- L: Isolated RS-232/422/485 (selecting by BIOS)

# PPC-6170

17" Panel PC with Intel® Core™ i3 / i5 / Celeron® Processor



## Features

- Intel® Core™ i3, i5, Celeron 1020E + Intel QM77 PCH
- 1X DDR3/DDR3L SODIMM support to 8 GB
- Multiple expansion slots including one PCIe x4, one PCI + one PCIe x1, two PCI (optional) and two PCIe x1 (optional)
- Optional second HDD, supports Intel RAID
- One isolated RS-232/422/485 port; (selectable in by BIOS)
- One GPIO/RS-232 (8 channels, TTL level); (by swapping pin header)
- Dual GbE, supports Intel AMT8.0
- Supports iManager, SUSIAccess and Embedded Software APIs

## Introduction

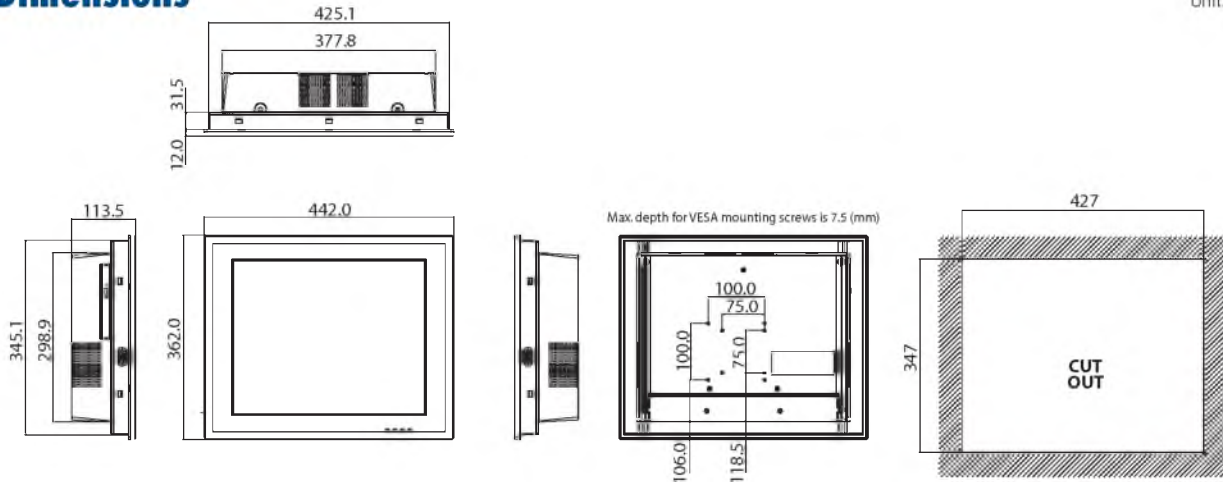
The PPC-6170 is a Panel PC with an Intel Core i3/i5 or Celeron processor, and a 17" color TFT LCD panel. It features extremely high computing power, modular design, excellent connectivity, and can support virtually any application. In addition, its user-friendly interface makes it a great host for information appliances. Two expansion slots, dual hard drives supporting Intel RAID, and one isolated RS-232/422/485 port make the PPC-6170 highly reliable, and provide a great solution for a wide range of applications.

## Specifications

	Intel	Core i5-3610ME	Core i3-3120ME	Celeron 1020E
<b>Processor System</b>	Frequency	2.7 GHz	2.4 GHz	2.2 GHz
	L3 Cache	4M	3M	2M
	Chipset	Intel QM77		
	Memory	1 x 204-pin SODIMM, DDR3 (1600 MHz) / DDRL (1333 MHz), supports up to 8 GB		
	Storage 1	1 x 2.5" SATA bay		
	Storage 2	Either one - Second 2.5" SATA bay (Intel RAID supported, optional) - Slim type 8X or above DVD +/- RW (optional)		
	Network (LAN)	2 x Gigabit Ethernet connectors, Intel AMT supported (GbE1- Intel 82579LM, GbE2 – Intel 82583V)		
	I/O ports	- 4 x COM ports, 1 x isolated RS-232/422/485, 3 x RS-232 - 1 x GPIO/RS-232 (8 channels, TTL level); by pin header - 3 x USB3.0 + 2 x USB2.0 ports		
	Expansion Slots	Either: - one PCI + one PCIe x1 (standard) - one x PCIe x 4 (in the accessory box)		
	Additional Expansion	1 x Full-size mini PCIe (Supports mSATA) 1 x half-size mini PCIe		
Fan	Two 12V 60 x 60 x 13 (mm) with smart fan control, (70,000 hours continuous test @ 40° C)			
<b>Physical Characteristics</b>	Dimensions	442.0 x 362.0 x 113.5 (mm) (17.4" x 14.25" x 4.47")		
	Weight	7.5Kg (16.52lb)		
<b>OS Support</b>	OS Support	Win XPE / Win XP Pro / WES7 32 & 64 bit / Windows 7 32 & 64 bit		
	Output Rating	150 W (max.)		
<b>Power Supply</b>	Input Voltage	100 - 240V <sub>ac</sub> , 50/60Hz, 4-2A		
	Power Consumption	With Core i5-3610ME is 65W With Core i3-3120ME is 55W With Celeron 847E is 53W (Burn-in test 7.0 in Windows 7 32-bit)		
	Display Type	17" TFT LCD (LED Backlight)		
<b>LCD Display</b>	Max. Resolution	1280 x 1024		
	Colors	262K		
	Dot Size (mm)	0.264 x 0.264		
	Viewing Angle	85 (left), 85 (right), 80 (up), 80 (down)		
	Luminance(cd/m2)	350		
	Contrast Ratio	1,000		
	Backlight Lifetime	50, 000 hrs (typical)		

**Dimensions**

Unit: mm



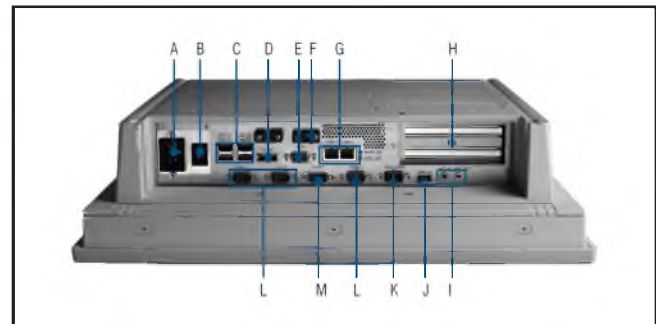
**Specifications (Cont.)**

<b>Touchscreen</b>	Touch Type	Analog Resistive 5-wire
	Resolution	2048 x 2048
	Light Transmission	81+/-3%
	Controller	RS-232 interface (COM5), USB interface is available as an option
	Software Driver Support	Windows 7, XP
	Durability (Touches)	36 million
<b>Environment</b>	Operating Temperature	0 ~ 50°C (32 ~ 122°F)
	Storage Temperature	-20 ~ 60°C (-4 ~ 140°F)
	Relative Humidity	10 ~ 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, 1Grms, follows IEC 60068-2-64
	EMC	BSMI, CE, FCC Class A
	Safety	CB, CCC, BSMI, UL
	Front Panel Protection	IP65 compliant

**Ordering Information**

Part No.	Description
PPC-6170-Ri5AE	Intel Core i5-3610ME (2.7G) Panel PC with 17" XGA LED backlight and 5-wire resistive T/S, w/o memory
PPC-6170-Ri3AE	Intel Core i3-3120ME (2.4G) Panel PC with 17" XGA LED backlight and 5-wire resistive T/S, w/o memory
PPC-6170-RC10AE	Intel Celeron 1020E (2.2G) Panel PC with 17" XGA LED backlight and 5-wire resistive T/S, w/o memory
PPC-6150-WLANE	WiFi Module with Intel 6205 supports 802.11 abgn, 2T2R
PPC-6150-PCIE	Riser card supports two PCI slots for PPC-6150/PPC-6170
PPC-6150-PCIEE	Riser card supports two PCIe x1 slots for PPC-6150/PPC-6170
PPC-6150-HDDE	Kit to install the second 2.5" SATA HDD for PPC-6150/PPC-6170, w/o HDD
PPC-6150-DVDE	Module with 8X SATA DVD-RW for PPC-6150/PPC-6170
PPC-174T-WL-MTE	Wall mount kit for PPC series
PPC-175 RACK-MT	19" Rack Mounting kit for PPC-175
PPC-ARM-A03	PPC ARM VESA Standard
PPC-155T STAND	Stand kit for PPC-6150/PPC-6170
1702002605	Power cord 90D 220V EUROPEAN 250V/6A, 1.8M
1702002600	Power cord UL/CSA(USA) 180D 125V/10A 1.83M
2070011780	WES7 E 32-bit (ENG/JPN/Simplified Chinese/Traditional Chinese), 4 languages with SUSI Access
2070011779	WES7 E64-bit (ENG/JPN/Simplified Chinese/Traditional Chinese), 4 languages with SUSI Access
2070012161	WES7 P 32-bit (ENG/JPN/Simplified Chinese/Traditional Chinese), 4 languages with SLSI Access
2070012186	WES7 P 64-bit (ENG/JPN/Simplified Chinese/Traditional Chinese), 4 languages with SUSI Access

**I/O Placement**



- A: AC Inlet
- B: Power Switch
- C: USB 3.0 x 2, USB 2.0 x 2
- D: HDMI
- E: VGA
- F: Cable clip x 2
- G: Gigabit Ethernet x 2
- H: 2 Expansion slots
- I: Line out / Mic in
- J: USB 3.0 x 1
- K: GPIO / RS-232 (by swapping pin header)
- L: RS232 x 3
- M: Isolated RS-232/422/485 (selecting by BIOS)

# PPC-3150

## 15" Fanless Panel PC with Intel Atom Quad-Core Processor

**NEW**



### Features

- 15" TFT XGA LCD with resistive touchscreen
- Embedded Intel Atom Quad-Core E3845 1.91G
- Fanless and Slim design
- Supports one internal 2.5" SATA HDD, one mSATA socket
- Built-in one PCI or one PCIe x1 expansion slot
- Wide operating temp. range from -20~60°C
- Wide range power input for 9~32V<sub>DC</sub>
- One isolated RS-422/485 with Autoflow, Dual Intel GbE
- One optional GPIO (8 channels, TTL level)

### Introduction

The PPC-3150 is a 15" fanless panel PC that doesn't only deliver high performance with an Intel quad-core Atom processor but also supports a wide operating temp. (-20~60°C) and wide range of power input (9~32V<sub>DC</sub>). It consolidates performance and reliability in one system. With multiple I/Os such as 4 x COM, 1 x USB3.0, 1x isolated RS-422/485 and dual Intel Gigabit Ethernet make it easier to connect to devices and be integrated into machine building industry. The PCI/PCIe expansion is allowed to add on field bus or proprietary card makes more application possibility.

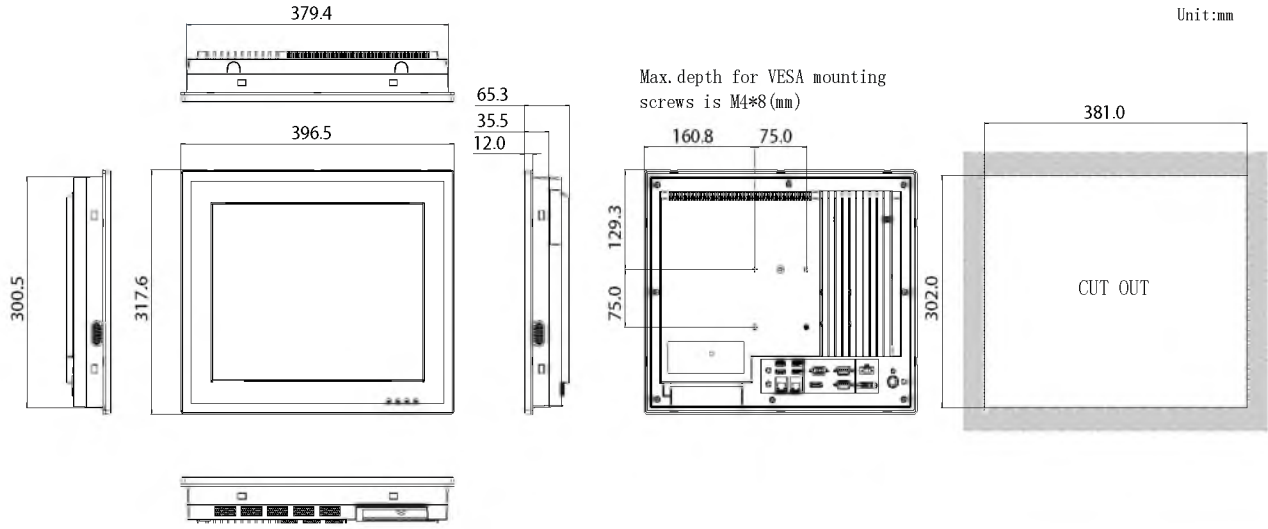
### Specifications

<b>Processor system</b>	CPU	Intel ATOM E3845
	Frequency	1.91GHz
	L3 Cache	2M
	Chipset	Intel Bay-Trial 1
	Memory	1 x 204-pin SODIMM DDR3L support up to 8GB
	Storage 1	1 x 2.5" SATA bay
	Optional Storage & I/O	Either: <ul style="list-style-type: none"> <li>▪ 1 x Full size mSATA</li> <li>▪ CFast card (optional module)</li> <li>▪ CF card (optional module)</li> <li>▪ Internal USB connector for USB dongle (optional module)</li> <li>▪ 2 x DB9 for two RS-232 or one RS-232 and one GPIO (optional module)</li> </ul>
	Network (LAN)	2 x Gigabit Ethernet, Intel AMT supported (Intel I210)
	I/O Ports	<ul style="list-style-type: none"> <li>▪ 1 x isolated RS-422/485 (terminal block)</li> <li>▪ 4 x RS-232, two external and two by internal pin header (need optional module)</li> <li>▪ 1 x GPIO (8 channels, TTL level) by internal pin header (need optional module)</li> <li>▪ 1 x USB3.0 + 3 x USB2.0</li> <li>▪ 2 x Gigabit Ethernet</li> <li>▪ 1 x D-SUB VGA port</li> <li>▪ 1 x DP1.1a</li> <li>▪ 1 x Line-out, 1 x Mic-in, 2 x 1W speaker,</li> </ul>
	Expansion slots	Either <ul style="list-style-type: none"> <li>▪ One PCI (standard)</li> <li>▪ One PCIe x 1 (in the accessory box)</li> </ul>
Other Expansion	1 x Full-size Mini PCIe	
<b>Physical Characteristics</b>	Dimensions	396.5 x 317.6 x 65.3 (15.6" x 12.5" x 2.57")
	Weight	5.3 Kg (11.68 lb)
<b>OS support</b>	OS Support	WES7 / Windows 7 / Windows 8
<b>Power supply</b>	Input Voltage	9-32 V <sub>DC</sub>
	Power Consumption	30W (Burn-In test 7.0 in windows 7 32bits)
<b>LCD Display</b>	Display Type	15" TFT LCD (LED Backlight)
	Max. Resolution	1024 x 768
	Colors	16.7M
	Viewing Angle	80 (left), 80 (right), 70 (up), 70 (down)
	Luminance(cd/m2)	400
	Contrast Ratio	700
	Backlight Lifetime	50, 000 hrs(typ.)

## Dimensions

Unit: mm

Unit: mm



<b>Touchscreen</b>	Touch Type	Analog Resistive 5-wire
	Resolution	2048 x 2048
	Light Transmission	80% ± 3 %
	Controller	USB interface
	Software Driver Supports	Windows7 / Windows 8
	Durability (Touches)	36 million
<b>Environment</b>	Operating Temperature	0 ~ 50°C (32 ~ 122°F) with 2.5" SATA HDD -20 ~ 60°C (-4 ~ 140°F) with -40 ~ 85°C mSATA or 2.5" SATA SSD
	Storage Temperature	-40~60°C (-40~140°F)
	Relative Humidity	10 ~ 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, 1Grms, follow IEC 60068-2-64
	EMC	BSMI, CE, FCC Class A
	Safety	CB, CCC, BSMI, UL
	Front Panel Protection	IP65 compliant

## Ordering Information

Part NO	Description
PPC-3150-RE4AE	Intel Atom E3845 (1.91G) Panel PC with 15" XGA panel, 5-wire resistive T/S, w/o memory
PPC-6150-WLANE	Wi-Fi Module with Intel 6205 support 802.11 abgn, 2T2R
PPC-174T-WL-MTE	Wall mount kit for PPC series
PPC-ARM-A03	PPC ARM VESA Standard
PPC-4150W-STANDE	Stand kit for 15" PPC
PPC-3150-CFE	Module to install CF card for PPC-3150/PPC-3170
PPC-3150-CFASTE	Module to install CFast card for PPC-3150/PPC-3170
PPC-3150-COME	Module to install either two additional RS-232 port or one additional RS-232 and one GPIO for PPC-3150/PPC-3170
PPC-3150-USBE	Module to install internal USB dongle for PPC-3150/PPC-3170
PS-DC19-L157E	19V DC power adapter module for fanless PPC series
1700001524	Power cord 3P UL 10A 125V 1.8M
170203183C	Power cord 3P Europe (WS-010+083) 183cm
1700008921	Power cord 3P/3P 1.8M PSE
2070013015	Image WES7P 32-bit Multi V4.12 for PPC-3150/3170

## I/O Appearance



- A. Expansion slot x1 (PCI or PCIe x1)
- B. Line out/ Mic in
- C. Intel Gigabit Ethernet x 2
- D. DisplayPort x 1
- E. RS-232 x 2
- F. Isolated RS-422/485 x 1
- G. Power Button
- H. DC inlet and AT/ATX switch
- I. VGA x1
- J. USB3.0 x 1 + USB2.0 x 3

# PPC-3170

## 17" Fanless Panel PC with Intel Atom Quad-Core Processor

**NEW**



### Features

- 17" TFT SXGA LCD with resistive touchscreen
- Embedded Intel Atom Quad-Core E3845 1.91G
- Fanless and Slim design
- Supports one internal 2.5" SATA HDD, one mSATA socket
- Built-in one PCI or one PCIe x1 expansion slot
- Wide operating temp. range from -20-60°C
- Wide range power input for 9-32V<sub>DC</sub>
- One isolated RS-422/485 with Autoflow, Dual Intel GbE
- One optional GPIO (8 channels, TTL level)

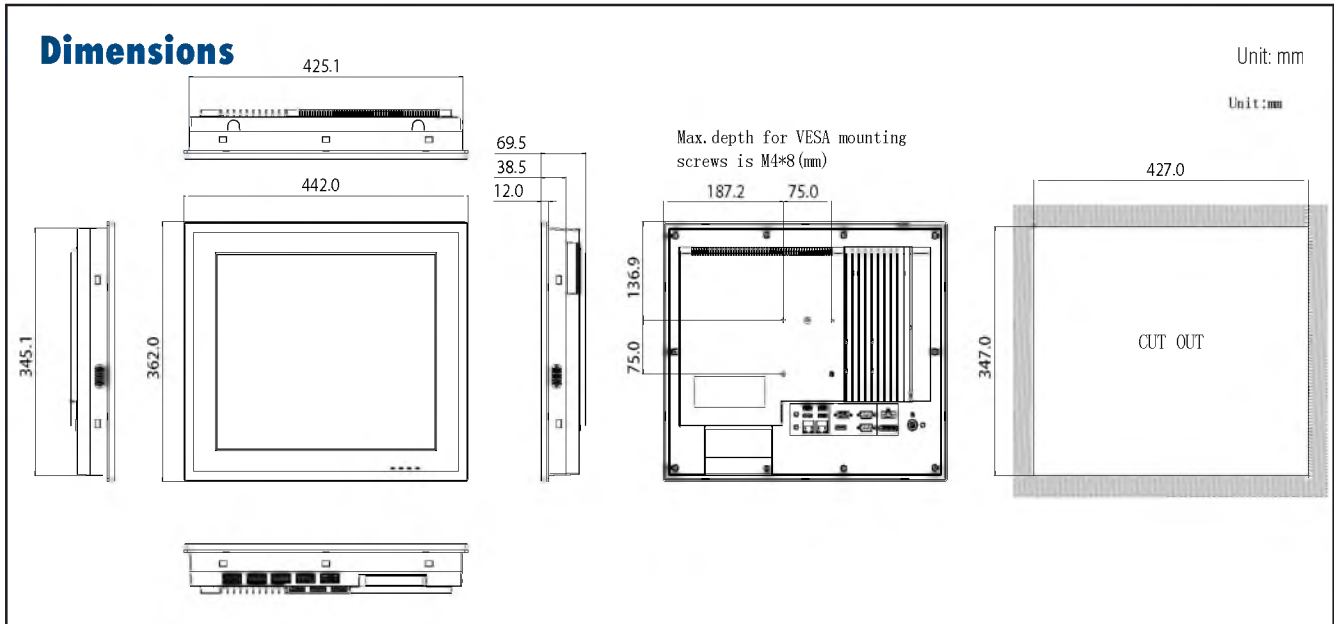
### Introduction

The PPC-3170 is a 17" fanless panel PC that doesn't only deliver high performance with an Intel quad-core Atom processor but also supports a wide operating temp. (-20-60°C) and wide range of power input (9-32V<sub>DC</sub>). It consolidates performance and reliability in one system. With multiple I/Os such as 4 x COM, 1 x USB3.0, 1x isolated RS-422/485 and dual Intel Gigabit Ethernet make it easier to connect to devices and be integrated into machine building industry. The PCI/PCIe expansion is allowed to add on field bus or proprietary card makes more application possibility.

### Specifications

<b>Processor system</b>	CPU	Intel ATOM E3845
	Frequency	1.91GHz
	L3 Cache	2M
	Chipset	Intel Bay-Trial I
	Memory	1 x 204-pin SODIMM DDR3L support up to 8GB
	Storage 1	1 x 2.5" SATA bay
	Optional Storage & I/O	Either: <ul style="list-style-type: none"> <li>▪ 1 x Full size mSATA</li> <li>▪ CFast card (optional module)</li> <li>▪ CF card (optional module)</li> <li>▪ Internal USB connector for USB dongle (optional module)</li> <li>▪ 2 x DB9 for two RS-232 or one RS-232 and one GPIO (optional module)</li> </ul>
	Network (LAN)	2 x Gigabit Ethernet, Intel AMT supported (Intel I210)
	I/O Ports	<ul style="list-style-type: none"> <li>▪ 1 x isolated RS-422/485 (terminal block)</li> <li>▪ 4 x RS-232, two external and two by internal pin header (need optional module)</li> <li>▪ 1 x GPIO (8 channels, TTL level) by internal pin header (need optional module)</li> <li>▪ 1 x USB3.0 + 3 x USB2.0</li> <li>▪ 2 x Gigabit Ethernet</li> <li>▪ 1 x D-SUB VGA port</li> <li>▪ 1 x DP1.1a</li> <li>▪ 1 x Line-out, 1 x Mic-in, 2 x 1W speaker.</li> </ul>
	Expansion slots	Either <ul style="list-style-type: none"> <li>▪ One PCI (standard)</li> <li>▪ One PCIe x 1 (in the accessory box)</li> </ul>
Other Expansion	1 x Full-size Mini PCIe	
<b>Physical Characteristics</b>	Dimensions	442.0 x 362.0 x 69.5 (mm) (17.4" x 14.3" x 2.74")
	Weight	6.3 Kg (13.89lb)
<b>OS support</b>	OS Support	WES7 / Windows 7 / Windows 8
<b>Power supply</b>	Input Voltage	9-32 V <sub>DC</sub>
	Power Consumption	34W (Burn-In test 7.0 in windows 7 32bits)
<b>LCD Display</b>	Display Type	17" TFT LCD (LED Backlight)
	Max. Resolution	1280 x 1024
	Colors	16.7M
	Viewing Angle	80 (left), 80 (right), 60 (up), 80 (down)
	Luminance(cd/m2)	350
	Contrast Ratio	800
	Backlight Lifetime	50,000 hrs.(typ.)

## Dimensions



<b>Touchscreen</b>	Touch Type	Analog Resistive 5-wire
	Resolution	2048 x 2048
	Light Transmission	80% ± 3 %
	Controller	USB interface
	Software Driver Supports	Windows 7 / Windows 8
	Durability (Touches)	36 million
<b>Environment</b>	Operating Temperature	0 ~ 50°C (32 ~ 122°F) with 2.5" SATA HDD -20 ~ 60°C (-4 ~ 140°F) with -40 ~ 85°C mSATA or 2.5" SATA SSD
	Storage Temperature	-40~60°C (-40 ~ 140 °F)
	Relative Humidity	10 ~ 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, 1Grms, follow IEC 60068-2-64
	EMC	BSMI, CE, FCC Class A
	Safety	CB, CCC, BSMI, UL
	Front Panel Protection	IP65 compliant

## Ordering Information

Part NO	Description
PPC-3170-RE4AE	Intel Atom E3845 (1.91G) Panel PC with 17" SXGA panel, 5-wire resistive T/S, w/o memory
PPC-6150-WLANE	Wi-Fi Module with Intel 6205 support 802.11 abgn, 2T2R
PPC-174T-WL-MTE	Wall mount kit for PPC series
PPC-ARM-A03	PPC ARM VESA Standard
PPC-3150-CFE	Module to install CF card for PPC-3150/PPC-3170
PPC-3150-CFASTE	Module to install CFast card for PPC-3150/PPC-3170
PPC-3150-COME	Module to install either two additional RS-232 port or one additional RS-232 and one GPIO for PPC-3150/PPC-3170
PPC-3150-USBE	Module to install internal USB dongle for PPC-3150/PPC-3170
PS-DC19-L157E	19V DC power adapter module for fanless PPC series
1700001524	Power cord 3P UL 10A 125V 1.8M
170203183C	Power cord 3P Europe (WS-010+083) 183cm
1700008921	Power cord 3P/3P 1.8M PSE

## I/O Appearance



- A. Expansion slot x 1 (PCI or PCIe x1)
- B. Line out/ Mic in
- C. Intel Gigabit Ethernet x 2
- D. DisplayPort x 1
- E. RS-232 x 2
- F. Isolated RS-422/485 x 1
- G. Power Button
- H. DC inlet and AT/ATX switch
- I. VGA x1
- J. USB3.0 x 1 + USB2.0 x 3

# PPC-4150W

## 15.6" Fanless Wide Screen Panel PC with Intel Atom Dual-Core Processor



### Features

- 15.6" TFT WXGA LED entirely flat panel with projected capacitive or resistive touch touchscreens
- Fanless design and low power consumption
- Supports one internal SATA 2.5" HDD and 1 x mSATA socket
- PCI or PCIe expansion support
- Adjust RS-232/422/485 through BIOS
- Automatic data flow control over RS-485
- Wide Range DC 12~30V support
- One right side USB port
- Front panel compliant with IP65



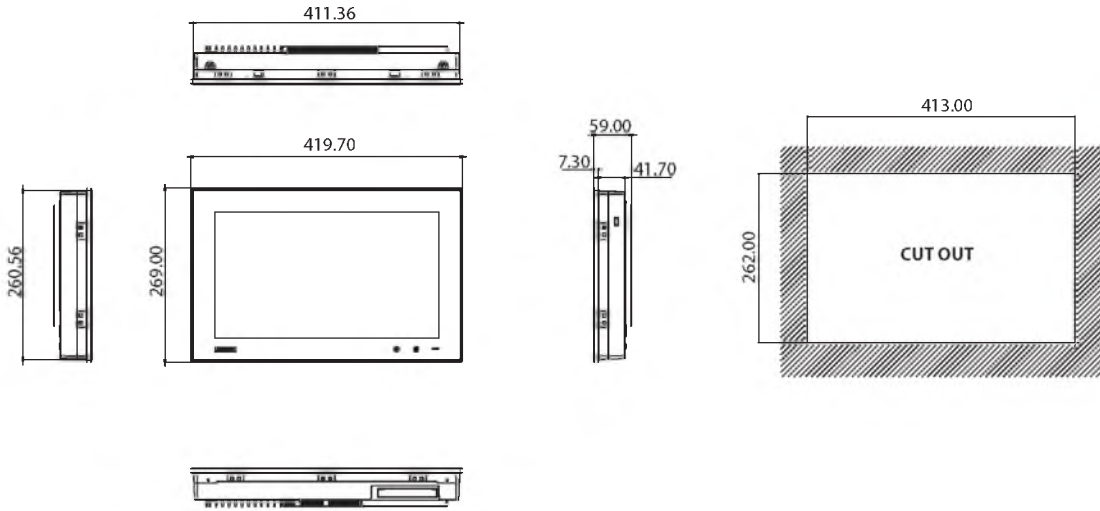
### Specifications

<b>Processor system</b>	CPU	Intel Atom D2550 1.86GHz 10W Dual Core CPU on board	
	Memory	SODIMM x 1, DDR3 1066, Max 4 GB	
	2nd Cache Memory	1 MB	
	Chipset	Intel NM10	
	Storage	mSATA x 1	
	HDD	1 x 2.5" SATA HDD Bay (Internal)	
	I/O Ports	4 x Serial ports: 3 x RS-232, 1 x RS-232/422/485 (Adjustable through BIOS) 5 x USB 2.0 ports (4 in Rear, 1 from right side) 1 x Line-out, 1 x MIC-in 1 x DB15 VGA 1 x DB9 GPIO port (8 pin programmable)	
	Bus Expansion	1 x MINI PCIe, 1 x PClex1 or 1 x PCI	
	Network (LAN)	2 x 10/100/1000 Mbps Ethernet	
	Watchdog Timer	255 timer levels; setup by software	
	Dimensions	419.7 x 269 x 59 mm	
Weight	5.5 Kg		
<b>OS support</b>	OS Support	Win XP/Win XPE/WES7/Win7/WIN CE.Net/Linux(only supports 32-bit)	
<b>Power supply</b>	Input Voltage	DC 12 ~ 30 V	
	Power consumption	36 W (4 GB DDR3, 2.5" HDD 500G, 4 x RS232 loop back, 3 x USB2.0, mouse, Windows7 32 bit)	
<b>LCD Display</b>	Display Type	15.6" TFT LCD (LED Backlight)	
	Max. Resolution	1366 x 768	
	Colors	16.7 M colors	
	Dot Size (mm)	0.252 x 0.252	
	Viewing Angle	85 (left), 85 (right), 80 (up), 80 (down)	
	Luminance	300	
	Brightness Control	Yes	
Backlight Lifetime	50,000 hrs		
<b>Touchscreen</b>	Model	PPC-4150W-PAE	PPC-4150W-RAE
	Touch Type	Projected capacitive multitouch 10 point	Resistive single touch
	Light Transmission	88 % ± 2 %	80 % ± 5 %
	Controller	USB interface	USB interface
<b>Environment</b>	Operating Temperature	0 ~ 50°C (32 ~ 122°F)	
	Storage Temperature	-20 ~ 60°C (-4 ~ 140°F)	
	Relative Humidity	10 ~ 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, 1Grms, follow IEC 60068-2-64	
	EMC	BSMI, CE, FCC Class B	
	Safety	CB, CCC, BSMI, UL	
	Front Panel Protection	IP65 compliant	



**Dimensions**

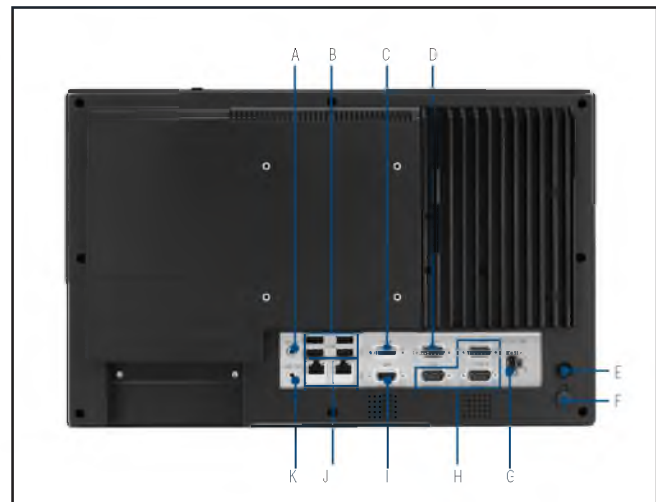
Unit: mm



**Ordering Information**

Part NO	Description
PPC-4150W-PAE	15.6 Wide screen PPC with PCT Multi-touch, Intel Atom D2550 1.86 GHz
PPC-4150W-RAE	15.6 Wide screen PPC with Resistive touch, Intel Atom D2550 1.86 GHz
PPC-6150-WLANE	Wi-Fi Module with Intel 6205 for PPC Series
PS-DC19-L157E	19V DC power Adapter Module
1700001524	POWER Cord 3P UL 10A 125V 180cm
170203183C	POWER Code 3P Europe (WS-010+083)183 cm
1700008921	POWER CORD 3P/3P POWER SUPPLY 1.8 M PSE
PPC-174T-WL-MTE	Wall mount kit A800B for PPC series
PPC-4150W-STANDE	Desktop stand kit
PPC-ARM-A03	PPC ARM VESA Standard
2070012524	Image Win XPE 32-bit Multi PPC-4150W-P
2070012374	Image WES7P 32-bit Multi PPC-4150W-P

**I/O Appearance**



- A. Mic-in
- B. 4 x USB 2.0
- C. VGA Port
- D. 1 x RS232/422/485
- E. Power Button
- F. Ground Line
- G. DC Inlet
- H. 3 x RS232
- I. DIO Port
- J. 2 x 10/100/1000 Mbps Ethernet
- K. Line Out

# PPC-4211W

## 21.5" Fanless Wide Screen Panel PC with Intel Core i5 / Celeron Processor



### Features

- 21.5" Full HD entirely flat panel with Projected capacitive touchscreen
- High performance Intel Core i CPU with Fanless design
- Supports 2 x 2.5" HDD Bay
- PCIe x4 / x1 or PCI expansion support
- Automatic data flow control over RS-485
- Wide Range DC 12-32 V support
- Dual Gigabit Ethernet, support IEEE1588
- 3 x Independent display

### Introduction

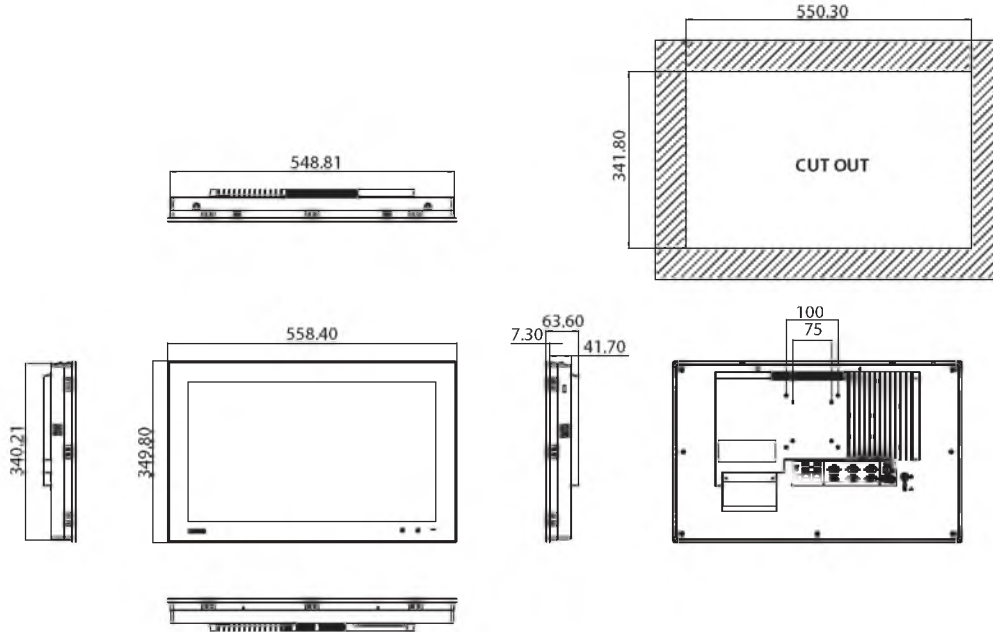
The PPC-4211W is a new generation Panel PC with Full HD (1920 x 1080) screen. The large panel help you to display more yet important information in one screen. The most important, system equips with high performance Intel Core i CPU but the heat can be dispatched easily by high efficiency fanless thermal design. This makes HMI a big step forward to consolidate performance and reliability in one system. Besides, with rich I/O as 5 x COM, 5 x USB and dual Gigabit Ethernet make it easier to connect to devices and be integrated into machine building industry. Moreover, with PCIe x4 expansion to add on field bus or proprietary card makes more application possibility. The last but not least, the multi touch screen makes the HMI more intuitive, brings you the best operate experience.

### Specifications

<b>Processor system</b>	CPU	Intel 4th Generation Core i CPU i5-4300U, 2C, 3M, up to 2.9GHz Celeron 2980U, 2C, 2M, 1.6GHz
	Memory	SO-DIMM x1, DDR3L1333/1600, Max 8GB
	2nd Cache Memory	3 MB / 2 MB
	Storage	mSATA*1
	HDD	2 x 2.5" SATA HDD Bay
	I/O Ports	5 x Serial ports: 4 x RS-232, 1 x RS-422/485 with isolation 1K V <sub>oc</sub> 4 x USB 3.0 ports in rear side, 1 x USB 2.0 in right side 1 x Line-out, 1x MIC-in 1 x DB15 VGA 1 x Display Port (1.2)
	Bus Expansion	1 x MINI PCIe, 1 x PCIe x4 (support x1) or 1 x PCI (either one)
	Network (LAN)	2 x 10/100/1000 Mbps Ethernet, Intel I211-AT, Intel I218LM
	Speaker	2 x 1W
	Watchdog Timer	255 timer levels; setup by software
Dimensions	557.77 x 349.17 x 63.6 mm	
Weight	7.8 Kg	
<b>OS support</b>	OS Support	Win 7/Win 8/Win 8.1/Linux
<b>Power supply</b>	Input Voltage	DC 12-32V
<b>Power Consumption</b>	i5-4300U	66W
	Celeron 2980U	58W (8G DDR3L, USB x 4, COM x 4, USB mouse, 2.5" HDD 500G x 2, Win7 64bit, Burn-in 7.0 )
<b>LCD Display</b>	Display Type	21.5" TFT LCD (LED Backlight)
	Max. Resolution	1920 x 1080
	Colors	16.7M
	Viewing Angle	178 Horizontal, 178 Vertical
	Luminance(cd/m <sup>2</sup> )	300
	Brightness Control	Yes (by BIOS)
	Backlight Lifetime	50,000 hrs(typ.)
<b>Touchscreen</b>	Touch Type	Projected Capacitive multi touch 10 point
	Resolution	2048 x 2048
	Light Transmission	88 % ± 2 %
	Controller	USB interface
<b>Environment</b>	Operating Temperature	0 - 50° C (32 - 122° F)
	Storage Temperature	-20 - 60° C (-4 - 140° F)
	Relative Humidity	10 - 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, 1Grms, follow IEC 60068-2-64
	EMC	BSMI, CE, FCC Class B
	Safety	CB, CCC, BSMI, UL
Front Panel Protection	IP65 compliant	

**Dimensions**

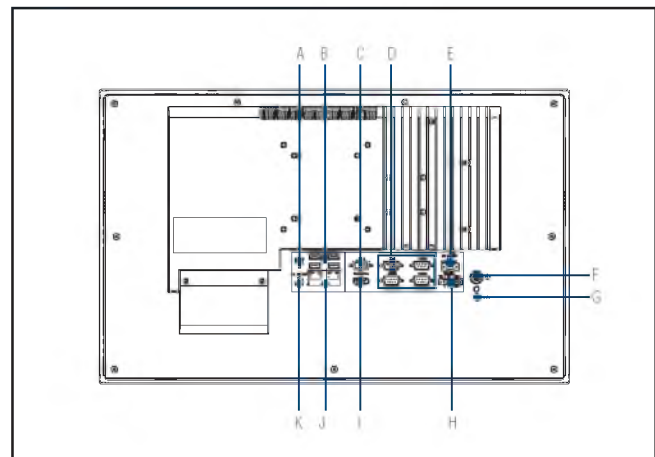
Unit: mm



**Ordering Information**

Part No:	Description
PPC-4211W-P5AE	21.5 Wide screen PPC with PCT Multi-touch, Intel Core i5-4300U up to 2.9GHz
PPC-4211W-PCAЕ	21.5 Wide screen PPC with PCT Multi-touch, Intel Celeron 2980U 1.6GHz
1702002600	Power Cable UL/CSA (USA) 180D 125V10A 1.83M
1702002605	Power Cable 90D 220V EUROPEAN 250V/6A 1.8M
PS-DC19-150AE	19V DC 150W Power Adapter Module For PPC Product
PPC-174T-WL-MTE	Wall mount kit for PPC series
PPC-ARM-A03	PPC ARM VESA Standard
PPC-4211W-WLANE	Wi-Fi Module with Intel 62205 for PPC-4211W
PPC-174 Stand	Stand for PPC series
2070012905	Image WES7P 32-bit Multi V4.12 PPC-4151W/4211W-P
2070013051	Image WES7P 64-bit Multi V4.12 PPC-4151W/4211W-P

**I/O Appearance**



- A. Mic-in
- B. 4 x USB 3.0
- C. VGA Port
- D. 4 x RS-232
- E. DC Inlet
- F. Power Button
- G. Ground Line
- H. 1 x RS-422/485
- I. Display Port
- J. 2 x 10/100/1000 Mbps Ethernet
- K. Line Out

# PPC-3190

## 19" Fanless Panel PC with Intel Atom Quad-Core Processor

**NEW**



### Features

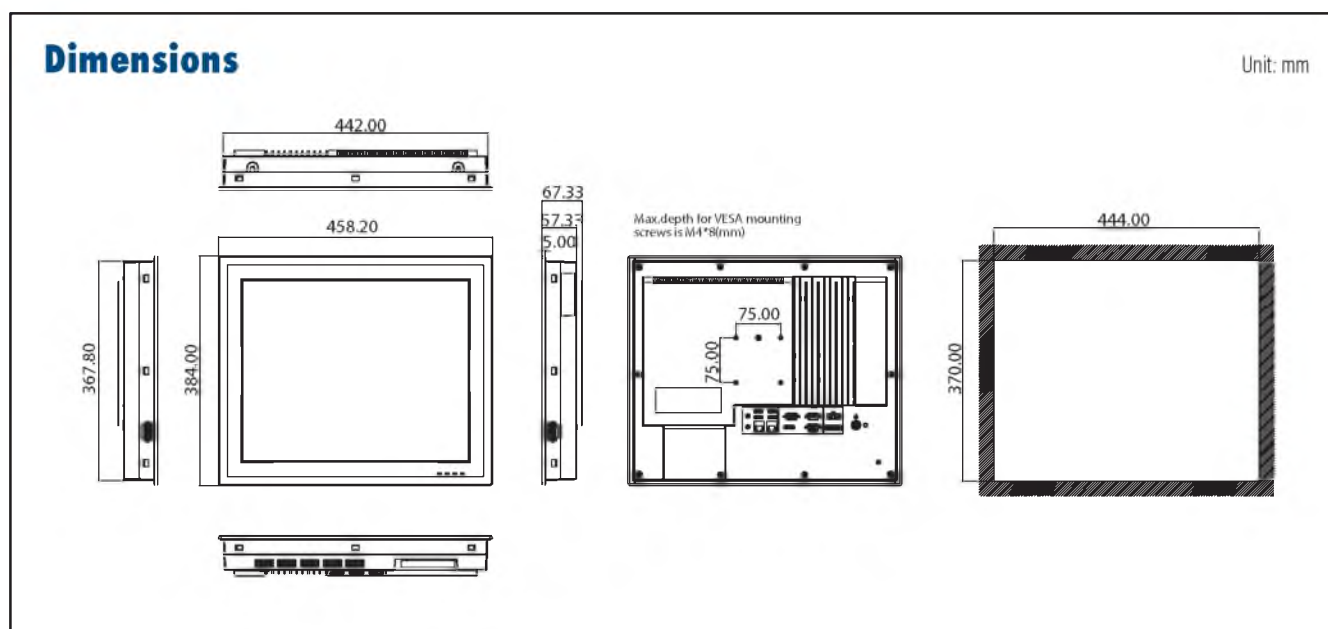
- 19" TFT SXGA LCD with resistive touchscreen
- Embedded Intel Atom Quad-Core E3845 1.91G
- Fanless and Slim design
- Supports one internal 2.5" SATA HDD, one mSATA socket
- Built-in one PCI or one PCIe x1 expansion slot
- Wide operating temp. range from -20~60°C
- Wide range power input for 9~32V<sub>DC</sub>
- One isolated RS-422/485 with Autoflow, Dual Intel GbE
- One optional GPIO (8 channels, TTL level)

### Introduction

The PPC-3190 is a 19" fanless panel PC that doesn't only deliver high performance with an Intel quad-core Atom processor but also supports a wide operating temp. (-20~60°C) and wide range of power input (9~32V<sub>DC</sub>). It consolidates performance and reliability in one system. With multiple I/Os such as 4 x COM, 1 x USB3.0, 1x isolated RS-422/485 and dual Intel Gigabit Ethernet make it easier to connect to devices and be integrated into machine building industry. The PCI/PCIe expansion is allowed to add on field bus or proprietary card makes more application possibility.

### Specifications

Processor system	CPU	Intel ATOM E3845
	Frequency	1.91 GHz
	L3 Cache	2M
	Chipset	Intel Bay-Trial I
	Memory	1 x 204-pin SODIMM DDR3L support up to 8GB
	Storage 1	1 x 2.5" SATA bay
	Optional Storage & I/O	Either: <ul style="list-style-type: none"> <li>▪ 1 x Full size mSATA</li> <li>▪ CFast card (optional module)</li> <li>▪ CF card (optional module)</li> <li>▪ Internal USB connector for USB dongle (optional module)</li> <li>▪ 2 x DB9 for two RS-232 or one RS-232 and one GPIO (optional module)</li> </ul>
	Network (LAN)	2 x Gigabit Ethernet, (Intel I210)
Physical Characteristics	Dimensions	458.2 x 384 x 67.3(mm)(18" x 15" x 2.6")
	Weight	7.9kg (17.3lb)
	OS support	OS Support
Power supply	Input Voltage	9-32 V <sub>DC</sub>
	Power Consumption	27W (Burn-In test 7.0 in windows 7 32bits)
LCD Display	Display Type	19" TFT LCD (LED Backlight)
	Max. Resolution	1280 x 1024
	Colors	16.7M
	Viewing Angle	85 (left), 85 (right), 80 (up), 80 (down)
	Luminance(cd/m2)	350
	Conrast Ratio	1000
	Backlight Lifetime	50,000 hrs (typ.)
Other Expansion	1 x Full-size Mini PCIe	
Expansion slots	Either <ul style="list-style-type: none"> <li>▪ One PCI (standard)</li> <li>▪ One PCIe x 1 (in the accessory box)</li> </ul>	
I/O Ports	<ul style="list-style-type: none"> <li>▪ 1 x isolated RS-422/485 (terminal block)</li> <li>▪ 4 x RS-232, two external and two by internal pin header (need optional module)</li> <li>▪ 1 x GPIO (8 channels, TTL level) by internal pin header (need optional module)</li> <li>▪ 1 x USB3.0 + 3 x USB2.0</li> <li>▪ 2 x Gigabit Ethernet</li> <li>▪ 1 x D-SUB VGA port</li> <li>▪ 1 x DP1.1a</li> <li>▪ 1 x Line-out, 1 x Mic-in, 2 x 1W speaker,</li> </ul>	

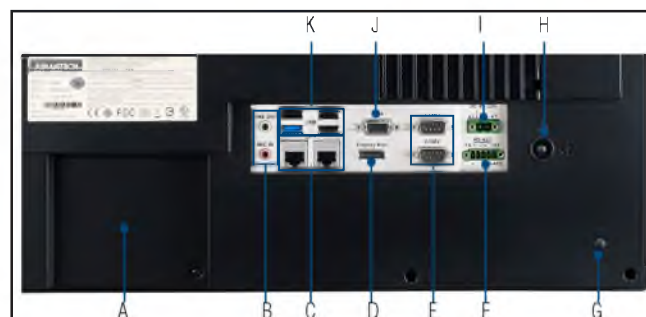


<b>Touchscreen</b>	Touch Type	Analog Resistive 5-wire
	Light Transmission	81% ± 3 %
	Controller	USB interface
	Software Driver Supports	Windows 7 / Windows 8
	Durability (Touches)	36 million
<b>Environment</b>	Operating Temperature	0 ~ 50°C (32 ~ 122°F) with 2.5" SATA HDD -20 ~ 60°C (-4 ~ 140°F) with -40 ~ 85°C mSATA or 2.5" SATA SSD
	Storage Temperature	-20 ~ 60°C (-4 ~ 140°F)
	Relative Humidity	10 ~ 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, 1Grms, follow IEC 60068-2-64
	EMC	BSMI, CE, FCC Class A
	Safety	CB, CCC, BSMI, UL
	Front Panel Protection	IP65 compliant

### Ordering Information

Part NO	Description
PPC-3190-RE4AE	Intel Atom E3845(1.91G),19" SXGA LED&T/S,W/O RAM
PPC-WLAN-A2E	WiFi Module with Antenna Cable 40cm for PPC
PPC-174T-WL-MTE	Wall mount kit for PPC series
PPC-ARM-A03	PPC ARM VESA Standard
PPC-3190-COME	Module to install either two additional RS-232 port or one additional RS-232 and one GPIO for PPC-3190
PPC-3150-USBE	Module to install internal USB dongle for PPC-3150/PPC-3170
PS-DC19-L157E	19V DC power adapter module for fanless PPC series
1700001524	Power cord 3P UL 10A 125V 1.8M
170203183C	Power cord 3P Europe (WS-010+083) 183cm
1700008921	Power cord 3P/3P 1.8M PSE
2070013015	Image WES7P 32-bit Multi V4.12 for PPC-3150/3170
2070013321	Image WES7P 64-bit Multi V4.12 for PPC-3150/3170
PPC-STAND-A1E	Stand For PPC Series (single acting hinge)
PPC-174 Stand	Stand for PPC Series (double acting hinges)

### I/O Appearance



- A. Expansion slot x1 (PCI or PCIe x1)
- B. Line out/ Mic in
- C. Intel Gigabit Ethernet x2
- D. DisplayPort x1
- E. RS-232 x2
- F. Isolated RS-422/485 x1
- G. Ground Line
- H. Power Button
- I. DC inlet and AT/ATX switch
- J. VGA x1
- K. USB3.0 x1 + USB2.0 x3

# PPC-3100

## 10.4" Fanless Panel PC with Intel® Atom™ D2550 Processor



### Features

- 10.4" TFT SVGA LED Panel with resistive touchscreen
- Embedded Intel® Atom™ processor D2550 1.86 GHz
- System memory up to 4 GB DDR3 1066 SDRAM
- Supports one internal SATA 2.5" HDD and 1 x mSATA socket
- Fanless design and low power consumption
- Automatic data flow control over RS-485
- Adjust RS-232/422/485 through BIOS
- COM1/COM2 pin9 RI/5V/12V adjustable through BIOS
- LED backlight Auto dimming



### Introduction

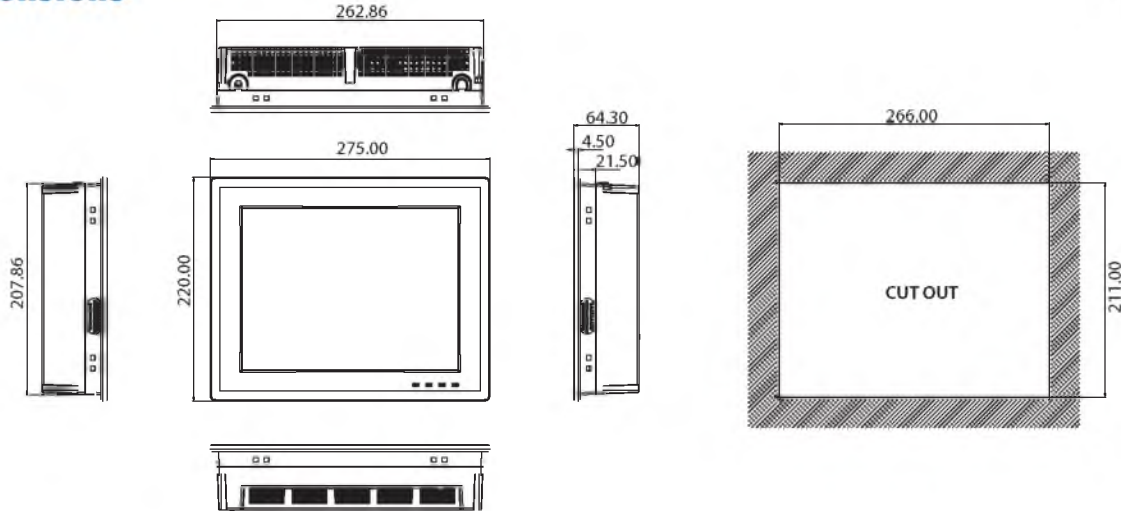
PPC-3100 is a new 10.4" Panel PC equipped with an Intel Atom processor D2550. Meeting high demands of harsh environments, the fanless design makes PPC-3100 more reliable in different kinds of applications for the machine building industry. In addition, the dual GbE LAN, 4 x serial ports, 4 x USB ports, and GPIO connector make it easier to connect to devices and be integrated into specific solutions. With a user friendly design it comes with an LED indicator on the front panel for power on/off, storage access, and LAN active status.

### Specifications

<b>Processor System</b>	CPU	Intel Atom D2550 1.86 GHz 10W Dual Core CPU on board
	Memory	SODIMM x 1, DDR3 1066, Max 4 GB
	2nd Cache Memory	1 MB
	Chipset	Intel NM10
	Storage	mSATA*1
	HDD	1 x 2.5" SATA HDD Bay (Internal)
	I/O Ports	4 x Serial ports: 3 x RS-232, 1x RS-232/422/485 (Adjustable through BIOS) 4 x USB 2.0 ports 1 x Line-out, 1x MIC-in 1 x DB15 VGA 1 x DB9 GPIO port (8 pin programmable)
	Bus Expansion	1x MINI PCIe
	Network (LAN)	2 x 10/100/1000 Mbps Ethernet
	Speaker	2 x 1W speakers
	OS Support	OS Support
<b>Power Supply</b>	Input Voltage	DC 12 - 30 V
<b>LCD Display</b>	Display Type	10.4" TFT LCD (LED Backlight)
	Max. Resolution	800 x 600
	Colors	16.2 M
	Dot Size (mm)	0.264 x 0.264
	Viewing Angle	80 (left), 80 (right), 70 (up), 70 (down)
	Luminance(cd/m2)	400
	Brightness Control	Yes
	Backlight Lifetime	30,000 hrs (typical)
<b>Touchscreen</b>	Touch Type	Analog Resistive 5-wire
	Resolution	2048 x 2048
	Light Transmission	81+/-3%
	Controller	RS-232 interface
	Software Driver Support	Windows 7, XP, CE
	Durability (Touches)	36 million

## Dimensions

Unit: mm



## Specifications

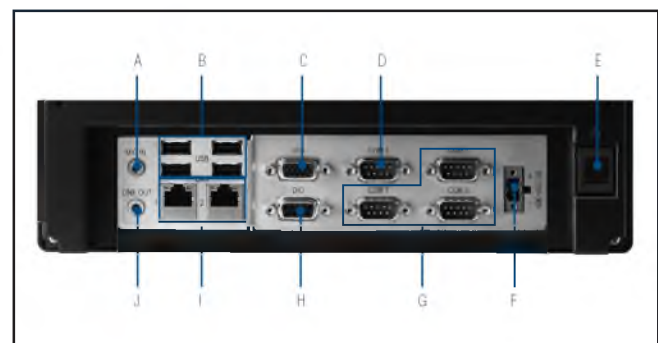
Environment	Operating Temperature	0 ~ 50°C (32 ~ 122°F)
	Storage Temperature	-20 ~ 60°C (-4 ~ 140°F)
	Relative Humidity	10 ~ 95% @ 40°C (non-condensing)
	Shock	Operating 10 G peak acceleration (11 ms duration), follow IEC 60068-2-27
	Vibration	Operating Random Vibration Test 5-500Hz, 1Grms, follow IEC 60068-2-64
	EMC	BSMI, CE, FCC Class B
	Safety	CB, CCC, BSMI, UL
	Front Panel Protection	IP65 compliant

## Ordering Information

Part No.	Description
PPC-3100-RAE	Atom D2550 Fanless Panel PC with 10.4" SVGA LED backlight, touch, without memory
PS-DC19-L157E	19V power adapter module
1700001524	Power cord 3P UL 10A 125V 1.8m
170203183C	Power cord 3P Europe (WS-010+083)183cm
1700008921	Power cord 3P/3P Power supply 1.8M PSE
* PPC-174T-WL-MTE	Wall mount kit for PPC series
* PPC-ARM-A03	PPC ARM VESA Standard
PPC-3100-VESAE	PPC-3100 VESA bracket
PPC-6150-WLANE	PCIe Half Mini Card WLAN module
2070011747	Image XPE WES2009 PPC-3100 V4.3.1 24 multi-languages with SUSI Access
2070012891	Image WES7P 32-bit Multi V4.12 PPC-3120/3100
2070012470	Image WEC7 PPC-3100 V1.0 Eng
PPC-3100-STANDE	Stand desktop stand for PPC-3100/PPC-3120

\* if you order the Wall mount kit / ARM / Desktop stand , please also order PPC-3100-VESAE at the same time.

## I/O



- A. MIC-in
- B. 4 x USB
- C. VGA
- D. RS-232/422/485
- E. Power S/W
- F. DC-in
- G. 3 x RS-232
- H. GPIO
- I. 2 x GbE
- J. LINE out

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