

# PPC-3190

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



### 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

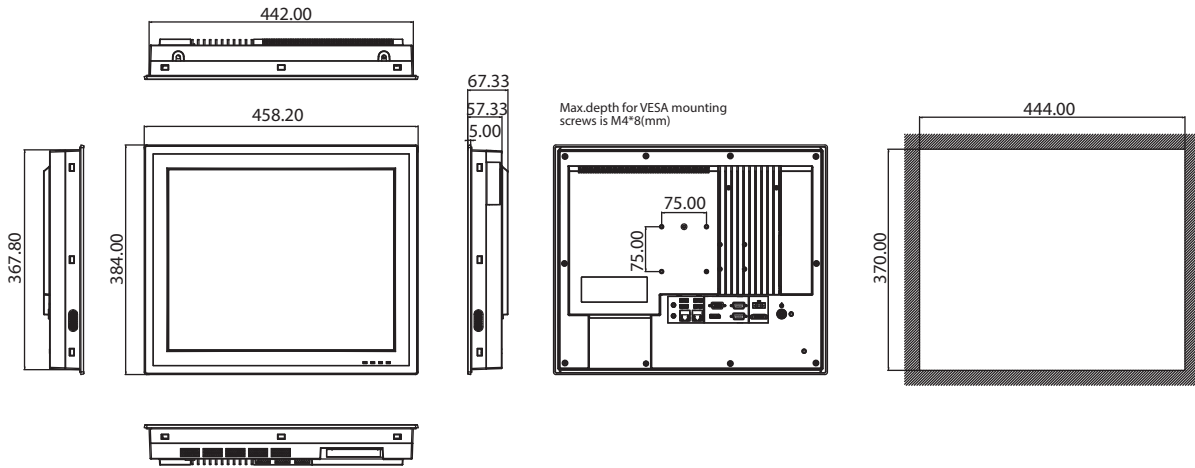
The PPC-3190 is a 19" fanless panel PC that not only delivers high performance with an Intel® quad-core Atom™ processor, but also supports a wide operating temp. (-20~60°C) and wide range of power input (9-32Vdc). It consolidates performance and reliability in one system. With multiple I/Os such as 4 x COM, 1 x USB3.0, 1 x isolated RS-422/485, and dual Intel® Gigabit Ethernet make device connection and integration easy. The PCI/PCIe expansion allows adding field bus or proprietary cards for even more application possibilities.

### Specifications

<b>Processor System</b>	CPU	Intel® Atom™ E3845, Quad core
	Frequency	1.91GHz
	L3 Cache	2 MB
	Memory	1 x SO-DIMM, DDR3L 1333MHz, Max 8 GB
	Storage	1 x 2.5" SATA Bay 1 x mSATA Bay
	Network (LAN)	2 x 10/100/1000 Mbps Ethernet (Intel I210)
	I/O ports	1 x isolated RS-422/485 (terminal block) 4 x RS-232, two external and two by internal pin header (need optional module) 1 x GPIO (8 channels, TTL level) by internal pin header (need optional module) 1 x USB3.0, 3 x USB2.0 1 x VGA 1 x DP1.1a 1 x Line-out, 1 x Mic-in
	Expansion	1 x Mini PCIe 1 x PCI (default); 1 x PCIe x1 (in the accessory box) Optional: 1 x Cfast; 1 x CF card; 1 x Internal USB dongle; 2 x RS-232 or 1 x RS-232 + 1 x GPIO
	Watchdog Timer	255 timer levels, set up by software
	Speaker	2 x 1W
<b>Physical Characteristics</b>	Dimensions	458.2 x 384 x 67.3 mm (18" x 15" x 2.6")
	Weight	7.9 kg (17.3lb)
<b>OS Support</b>	OS Support	Microsoft® WEC7/ WES7 32bit&64bit/ Windows 7 32bit&64bit/Windows 8.1 32bit&64bit/Windows 10 32bit&64bit/Linux
<b>Power Consumption</b>	Input Voltage	9 - 32 Vdc
	Power Consumption	27W (Burn-in test 7.0 in Windows 7 32 bit)
<b>LCD Display</b>	Display Type	19" TFT LED Panel
	Max. Resolution	1280 x 1024
	Viewing Angle	85 (left), 85 (right), 80 (up), 80 (down)
	Luminance (cd/m <sup>2</sup> )	350
	Contrast Ratio	1000
	Backlight Lifetime	50,000 hrs (Min.)
<b>Touchscreen</b>	Touch Type	Analog Resistive 5-wire
	Light Transmission	81+/-3%
	Controller	USB interface
	Durability (Touches)	36 million

## Dimensions

Unit: mm



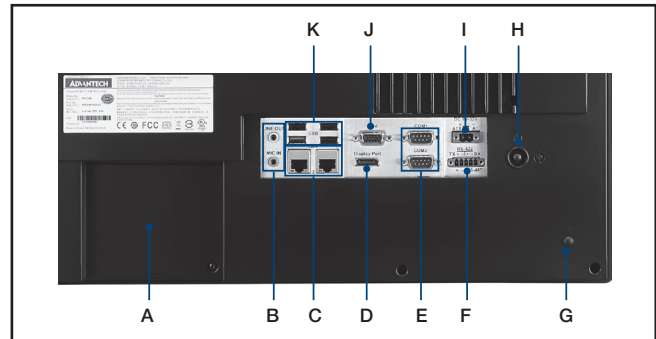
**Cut-out dimensions: 444 x 370 mm**

<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 @with HDD, 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-B1E	Wi-Fi 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-3150-COME	Kit to install extra COMx2/DIOx1 for PPC-3150/3190
96PSA-A90W190T-1	ADP A/D 100-240V 90W 19V W/PFC
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
96CB-POWER-B-1.8M	Power code 3P CCC(China) 1.8M
2070015120	Image WES 7P 32bit MUI v4.17 for PPC-3150/70/90
2070013321	Image WES7P 64-bit Multi V4.12 for PPC-3150/3170
2070014906	Image Win10ENT LTSB 64-bit v6.01 for PPC-3150/3170/3190
PPC-STAND-A1E	Stand For PPC Series
98R3415010E	98 Level For 9663415010E Front USB Cable 100cm
98R3612000E	mSATA/CFast to USB card reader
98R3C31500E	PPC-315/317/319 internal USB dongle kits

## I/O Appearance



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