

# PPC-3181SW

## 18.5" Fanless Panel PC with Intel® Core™ i Processor



### Features

- Industrial-grade 18.5" LCD panel with 50k backlight lifetime
- True-flat touchscreen with multi-touch projected capacitive control
- High-performance, fanless 6th generation Intel® Core™ i processor
- Up to 16 GB DDR4 SDRAM
- Compact, fanless design with aluminum alloy enclosure
- IP66-rated front panel
- Supports dual displays (1 x external HDMI)
- Supports full-size mini PCIe expansion
- Supports USB 3.0
- Supports VESA 100
- Supports TPM 2.0 (optional)



### Introduction

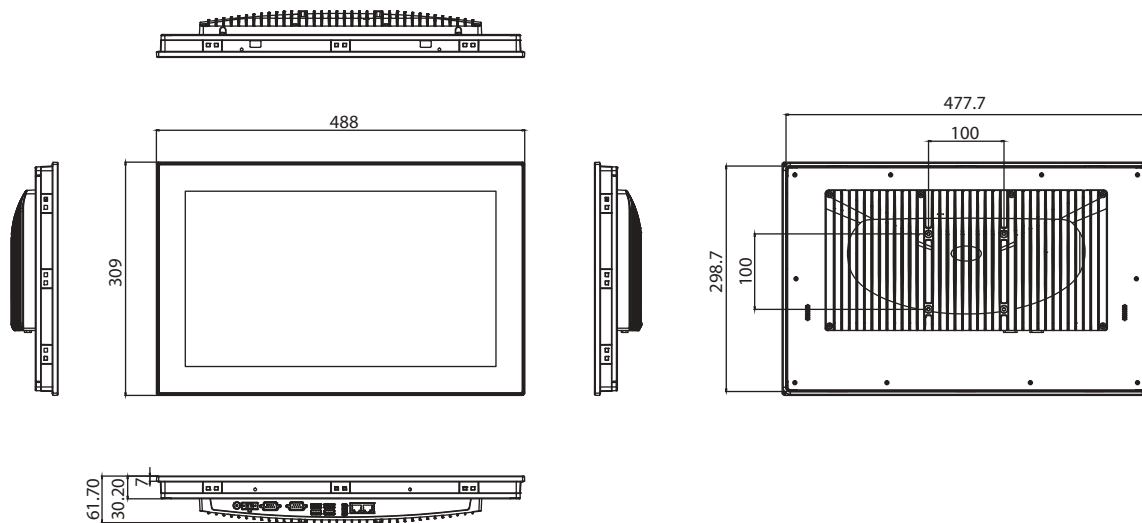
The PPC-3181SW is an all-in-one light panel PC with a wide format 18.5" industrial-grade LCD. Powered by 6th generation Intel® Core™ i processor, PPC-3181SW provides excellent performance, memory, graphics, and peripheral I/O support in a compact, fanless, embedded system. With a high durability design, PPC-3181SW features a true-flat touchscreen with IP66-rated front panel, and die cast aluminum alloy enclosure, making it ideal for diverse applications.

### Specifications

<b>System</b>	CPU	i3-6100U	i5-6300U	i7-6600U
	Cores	Dual Core	Dual Core	Dual Core
	Frequency	2.3 GHz	2.4 GHz; 3.0 GHz with turbo boost	2.6 GHz; 3.4 GHz with turbo boost
	L3 Cache	3 MB	3 MB	4 MB
	TDP	15W	15W	15W
	Memory	1 x SODIMM DDR4 1866/2133 MHz (max. 16 GB) (1.2 V)		
	Storage	1 x 2.5" SATA bay 1 x mSATA bay		
	Network (LAN)	2 x 10/100/1000 Mbps Ethernet (Intel I219LM; Intel I211-AT/I210AT A ver. or Realtek 8119i B ver.)		
	I/O	2 x Serial ports: 1 x RS-232, 1 x RS-232/422/485 (Adjustable through BIOS) 2 x USB 3.0, 2 x USB 2.0 1 x HDMI 1 x TPM 2.0 internal (optional)		
	Speaker	2 x 1W		
Expansion	1 x Full-size mini PCIe slot			
Watchdog Timer	255 timer levels, set up by software			
<b>Physical Characteristics</b>	Dimensions	488 x 309 x 61.7 mm (19.2 x 12.1 x 2.4 in)		
	Weight	5.7 kg (12.56 lb)		
<b>OS Support</b>	OS Support	Microsoft® Windows 7(32/64-bit)/10(64-bit), WES7P, Windows 10 IOT LTSC, Linux		
<b>Power Consumption</b>	Input Voltage	12 ~ 24 V <sub>DC</sub>		
	Power Consumption	65W		
<b>LCD</b>	Display Type	18.5" TFT LCD (LED backlight)		
	Resolution	1366 x 768		
	Viewing Angle	85 (left), 85 (right), 80 (up), 80 (down)		
	Luminance (cd/m <sup>2</sup> )	450		
	Contrast Ratio	1000		
	Backlight Lifetime	50,000 hr		
<b>Touchscreen</b>	Touch Type	10-point multi-touch projected capacitive		
	Light Transmission	90 % ± 3 %		
	Controller	USB interface		
<b>Environment</b>	Operating Temperature	0 ~ 50 °C (32 ~ 122 °F) for SSD 0 ~ 45 °C (32 ~ 113 °F) 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 @with HDD; 2Grms @with SSD, follow IEC 60068-2-64		
	EMC	CE, FCC Class B, BSMI		
	Safety	CB, UL, CCC		
Front Panel Protection	IP66 compliant			

## Dimensions

Unit: mm



**Panel Cutout Dimensions: 479.3 x 300.3 mm (18.87 x 11.82 in)**

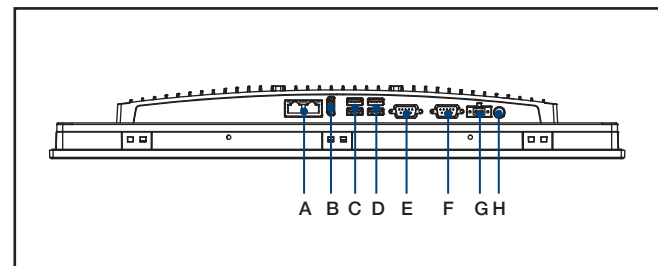
## Ordering Information

Part Number	Description
PPC-3181SW-P65A	Intel Core i5-6300U Fanless PPC with 18.5" LED panel, P-cap T/S, assembled in China
PPC-3181SW-P65B	Intel Core i5-6300U Fanless PPC with 18.5" LED panel, P-cap T/S, assembled in China
PPC-3181SW-P65AU	Intel Core i5-6300U Fanless PPC with 18.5" LED panel, P-cap T/S, assembled in Taiwan
PPC-3181SW-P65BU	Intel Core i5-6300U Fanless PPC with 18.5" LED panel, P-cap T/S, assembled in Taiwan
PPC-3181SW-P63A	Intel Core i3-6100U Fanless PPC with 18.5" LED panel, P-cap T/S, assembled in China
PPC-3181SW-P63B	Intel Core i3-6100U Fanless PPC with 18.5" LED panel, P-cap T/S, assembled in China
PPC-3181SW-P67A	Intel Core i7-6600U Fanless PPC with 18.5" LED panel, P-cap T/S, assembled in China
PPC-3181SW-P67B	Intel Core i7-6600U Fanless PPC with 18.5" LED panel, P-cap T/S, assembled in China
96PSA-A90W190T-3	A/D 100-240V 90W 19V C6 TERMINAL 2 PIN 62368
PPC-WLAN-C1E	M.2 Wi-Fi Module with Antenna cable support 2T2R
PPC-ARM-A03	ARM VESA Standard (A-CLEVER) for PPC series
PPC-174T-WL-MTE	Wall mount kit for PPC series
PPC-Stand-A1E	Stand for 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
96CB-POWER-B-1.8MB	Power code 3P CCC(China) 1.8M
98R3P315100	TPM 2.0 module

Note:  
 PPC-3181SW-xxxAx: Intel I219LM + I211-AT/I210AT, 2 x 1GbE LAN chipset  
 PPC-3181SW-xxxBx: Intel I219LM + Realtek 8119i, 2 x 1GbE LAN chipset

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.

## I/O View



- A. 2 x LAN
- B. HDMI
- C. 2 x USB 3.0
- D. 2 x USB 2.0
- E. COM2: RS-232/422/485
- F. COM1: RS-232
- G. DC-In
- H. Power Button