

# Advantech Panel PCs

Diverse offerings for a wide range of applications

- Introduction
- Benefits and Features
- Selection Guide





**ADVANTECH**

*Enabling an Intelligent Planet*

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Model	PPC-3060S	PPC-3100S/3120S/3150S			PPC-3100/3120		PPC-3150/3170/3190		
	 	   			 		  		
CPU	Intel® Celeron N2807 (1.58 GHz)	Intel® Celeron N2930 (1.86 GHz)			Intel® Atom™ D2550 (1.86 GHz)		Intel® Atom™ E3845, (1.91 GHz)		
Memory	1 x SODIMM DDR3L (up to 4 GB)	1 x SODIMM DDR3L (up to 8 GB)			1 x SODIMM DDR3 (up to 4 GB)		1 x SODIMM DDR3L (up to 8 GB)		
Display Size	6.5"	10.4"	12.1"	15"	10.4"	12.1"	15"	17"	19"
Max. Resolution	640 x 480	800 x 600	1024 x 768	1024 x 768	800 x 600	1024 x 768	1024 x 768	1280 x 1024	1280 x 1024
Luminance (cd/m <sup>2</sup> )	700	400	500	400	400	600	400	350	350
Touchscreen	5-wire resistive	5-wire resistive, (optional) PCT multi-touch			5-wire resistive		5-wire resistive		
Network (LAN)	2 x GbE (Intel® I211)	2 x GbE (Intel® I211)			2 x GbE		2 x GbE (Intel® I210)		
I/O	1 x RS-232, 1x RS-232/422/485 (by BIOS) 2 x USB 2.0, 1 x USB 3.0	1 x RS-232, 1x RS-232/422/485 (by BIOS), 2 x USB 2.0, 1 x USB 3.0			3 x RS-232, 1 x RS-232/422/485 (by BIOS), 4 x USB 2.0 1 x Line-Out, 1 x Mic-In, 1 x VGA, 1 x GPIO,		1 x isolated RS-422/485, 4 x RS-232 (2 x by optional module), 1 x GPIO (8 channels, TTL level), 1 x USB 3.0, 3 x USB 2.0, 1 x VGA, 1 x DP1.1a, 1 x Line-Out, 1 x Mic-In		
Storage	(optional)1 x 2.5" SATA bay, 1 x mSATA bay	(optional)1 x 2.5" SATA bay, 1 x mSATA bay			1 x 2.5" SATA bay, 1 x mSATA bay		1 x 2.5" SATA bay, 1 x mSATA bay		
Expansion Slots	N/A	N/A			(optional) 1 x PCIe x1 or PCI for PPC-3120		1 x PCI or PCIe x1		
Additional Expansion	1 x Full-size Mini PCIe	1 x Full-size Mini PCIe			1 x Full-size Mini PCIe		1 x Full-size Mini PCIe, (optional) 1 x Cfast card,		
Input Power	12 ~ 24 VDC	12 ~ 24 VDC			12 ~ 30 VDC		9 ~ 32 VDC		
Mount Options	Panel, VESA 75	Panel, VESA 75			Panel, VESA 75		Panel, VESA 75		
Operating Temperature	0 ~ 50 °C with SSD	0 ~ 50 °C with SSD			0 ~ 50 °C		-20 ~ 60 °C with SSD		
Dimensions (mm)	198 x 151 x 41	272 x 217 x 46	317 x 246 x 49	392 x 313 x 52	275 x 220 x 65	325 x 254 x 59	397 x 318 x 66	442 x 362 x 70	459 x 384 x 68
Weight	1.5 kg	1.9 kg	2.1 kg	4 kg	2.5 kg	3.3 kg	5.3 kg	6.3 kg	7.9 kg
Operating System	Win 7/8.1/10, WEC 7, Linux, Android	Win 7/8.1/10, WEC 7, Linux, Android			Win XP, Win 7 (32 bit), WEC 7, Linux		Win 7/8.1/10, WEC 7, Linux		

Model	PPC-3151	PPC-4151W/4211W		PPC-6120	PPC-6151C	
	 	 			 	
CPU	6th Gen Intel® Core™ i5-6300U	4th Gen Intel® Core™ i5-4300U/i3-4010U		4th Gen Intel® Core™ i/Celeron® processor	Supports processors with up to 45 W TDP	
Memory	1 x SODIMM DDR4 (up to 16 GB)	1 x SODIMM DDR3L (up to 8 GB)		2 x SODIMM DDR3 (up to 8 GB per SODIMM)	Dependent on the MB specifications	
Display Size	15"	15.6"	21.5"	12.1"	15"	
Max. Resolution	1024 x 768	1366 x 768	1920 x 1080	1024 x 768	1024 x 768	
Luminance (cd/m <sup>2</sup> )	400	400	300	600	400	
Touchscreen	5-wire resistive or PCT multi-touch	5-wire resistive or PCT multi-touch		5-wire resistive	5-wire resistive	
Network (LAN)	2 x GbE (Intel® I211-AT, I219LM)	2 x GbE (Intel® I211-AT, I218LM)		2 x GbE	Dependent on the MB specifications	
I/O	1 x isolated RS-422/485, 4 x RS-232 (2 x by optional module), 1 x GPIO (8 channels, TTL level), 4 x USB 3.0, 1 x VGA, 1 x DP1.2, 1 x Line-Out, 1 x Mic-In	1 x isolated RS-422/485, 4 x RS-232, 4 x USB 3.0 at rear, 1 x USB 2.0 at right side 1 x VGA, 1 x DP1.2 1 x Line-Out, 1 x Mic-In,		1 x isolated RS422/485, 4 x RS-232, 4 x USB 3.0, 1 x DP1.2, 1 x VGA, 1 x Line-Out, 1 x Mic-In	4 x Reserved ports 2 x WLAN antenna ports	
Storage	1 x 2.5" SATA bay, 1 x M.2 bay (22 x 42 mm)	1 x 2.5" SATA bay, 1 x mSATA bay	2 x 2.5" SATA bay, 1 x mSATA bay	1 x 2.5" SATA bay, 1 x mSATA bay	1 x 2.5" SATA bay, or 2 x 2.5" SATA bay	
Expansion Slots	1 x PCIe x4 or PCI	1 x PCIe x4 or PCI		(optional) 1 x PCIe x4 or PCI	2 x PCI or 1 x PCIe x 4	
Additional Expansion	1 x Full-size Mini PCIe, (optional) 1 x Cfast card,	1 x Full-size Mini PCIe		1 x Full-size Mini PCIe	Dependent on the MB specifications	
Input Power	9 ~ 32 VDC	9 ~ 32 VDC	12 ~ 32 VDC	12 ~ 30 VDC	100 ~ 240 VAC @ 50/60 Hz	
Mount Options	Panel, VESA 75	Panel, VESA 100	Panel, VESA 75/100	Panel, VESA 75	Panel, (optional) VESA 75/100	
Operating Temperature	0 ~ 50 °C with SSD	0 ~ 50 °C with SSD	0 ~ 50 °C	0 ~ 50 °C	0 ~ 50 °C	
Dimensions (mm)	392 x 313 x 56	420 x 269 x 59	559 x 350 x 64	325 x 254 x 74	392 x 313 x 104	
Weight	5.4 kg	5.69 kg	7.8 kg	3.8 kg	5.03 kg	
Operating System	Win 7/8.1/10, Linux	Win 7/8.1/10, Linux		Win 7/8.1/10, Linux	Dependent on the MB specifications	



# Advantech's PPC Product Family

## Reliable, Cost-Effective, and High-Performance Industrial Panel PCs

Advantech's PPC (panel PC) product family offers highly scalable, economical solutions in a range of performance classes that support various display sizes to satisfy diverse equipment manufacturing and process automation applications. The PPC product portfolio includes an all-in-one series (PPC-3000/3000S) and a customizable series (PPC-6000C). The all-in-one series features an optimized design, compact form factor, and industrial-grade specifications, such as rich I/O, flexible expansion slots, and a wide operating temperature range. Regarding the customizable series, these products are designed to be equipped with any mini-ITX motherboard according to price and functionality.

### All-in-One Series

Advantech's PPC-3000/3000S series systems are equipped with a fanless, low-power Intel® Core™ i/Atom™ processor. The standard PPC model (PPC-3000 series) features rich I/O and expansion slots that enable system integrators to build complex systems. Meanwhile, the PPC-3000S series systems, which are aimed at industrial IoT applications, are ultra slim devices that feature a stylish appearance to ensure easy integration.

#### All-in-One

- Fanless
- Compact
- Low power consumption

intel Core i

intel Atom

### Configurable Series

Compatible with diverse mini-ITX motherboards, the PPC-6000 series allows system integrators to configure the device according to their exact usage requirements. This flexibility and versatility makes PPC-6000 ideal for applications that require high-performance computing and multiple expansions, such as machine vision operations.

#### Configurable

- Fan
- High computing power
- Selectable motherboard

intel Core i

## Features



### IP65 true flat panel

In addition to IP65 certification for dust and water resistance, Advantech's panel PCs are equipped with a true flat P-CAP/resistive touchscreen, giving the system an elegant and stylish appearance.



### Rich industrial-grade I/O

To ensure excellent connectivity for integrating devices and peripherals, Advantech's PPC systems are equipped with multiple industrial-grade I/O, including isolated RS-422/485, GPIO, RS-232, USB 3.0, DisplayPort, and Line Out ports.



## Standard

- Rich I/O • Slim • Expandable • Wide temperature range

### PPC-3001

PPC-4151W

- 6/4<sup>th</sup> Gen Intel® Core™ i processor
- PCT/resistive touchscreen
- PCIe x4/PCI expansion



## Light

- Essential I/O • Ultra slim

### PPC-3001S

- 6th Gen Intel® Core™ i processor
- PCT touchscreen
- All-metal body



### PPC-3000

PPC-3170

- Intel® Atom™ E3845/D2550 processor
- Wide temperature -20 ~ 60 °C
- Resistive touchscreen
- PCIe x1/PCI expansion



### PPC-3000S

PPC-3120S

- Intel® Atom™ N2930/N2807 processor
- PCT/resistive touchscreen
- All-metal body



### PPC-6000C

- Compatible with various Mini-ITX MBs
- Supports CPUs with up to 45W TDP
- Resistive/PCT touchscreen
- PCIe x4/2 x PCI or PCIe x1



#### Expansion slots

PPC series systems feature expansion slots that support a range of optional riser cards, such as PCI, PCIe x1, and PCIe x4, to enable flexible expansion according to the platform specifications.



#### Wide operating temperature range

All PPC-3000 series systems equipped with an Intel® Atom™ processor support a wide operating temperature range of -20 ~ 60 °C, making them suitable for operation in harsh environments.



#### Wide input power range

With support for a wide input power range of 12 ~ 24 V<sub>DC</sub>, Advantech PPC systems can be operated in various industrial environments without necessitating an additional power converter or generating increased energy costs.



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- All-metal housing



### All-metal body

PPC-3000S series products are designed with an all-metal body to ensure an elegant and streamlined appearance.

## Accessories



### PPC-IPS-AE

A lightweight, intelligent power management module that protects the system from electrical damage and reduces the potential for data losses. This module can serve as a temporary power source during short-term power outages and can ensure safe system shutdowns.



### PPC-STAND-A1E

An elegant desktop stand made of aluminum alloy that supports VESA 75/100. This stand allows users to adjust the vertical viewing angle and can be affixed to surfaces using two screws.



### PPC-ARM-A03

A swivel arm equipped with a C-clamp to enable installation on any surface. The swivel arm supports 360-degree rotation.



### PPC-174T-WL-MTE

A compact wall-mount kit that supports 360-degree rotation and vertical/horizontal viewing angle adjustment.



### PPC-WLAN-B1E

An optional Wi-Fi module with dual antennae and 802.11 a/b/g/n/ac support.