Multi-functional Panel PC Selection Guide



Model Name		Multi-functional Panel Computer							
		PPC-125T	PPC-157T	PPC-6150	PPC-177T	PPC-179T	PPC-6170		
CPU Board		PCM-8200	PCM-8200	MIO-5290 PCM-8207	PCM-8200	PCM-8203	MIO-5290 PCM-8207		
Processor		Socket 478 Supports Intel Core 2 Duo processor up to 2.16 GHz	Supports Socket 478 based Core 2 Duo up to 2.16 GHz	3rd Gen Core i CPU Celeron 847E 1.1 GHz Celeron 1020E 2.2 GHz Core i3-3120ME 2.4 GHz Core i5-3610ME 2.7 GHz	Supports Socket 478 based Core 2 Duo up to 2.16 GHz	LGA775 Socket-based Intel Core 2 Duo Processor up to 3.0 GHz	3rd Gen Core i CPU Celeron 847E 1.1 GHz Celeron 1020E 2.2 GHz Core i3-3120ME 2.4 GHz Core i5-3610ME 2.7 GHz		
Memory	Size	512 MB ~ 4 GB DDR2 SDRAM	Supports up to 4 GB of 667 MHz DDR2 system memory	DDR3 (1600 MHz) / DDRL (1333 MHz), supports up to 8 GB	Supports up to 4 GB of 667 MHz DDR2 system memory	Supports up to 4 GB of 1333 MHz DDR3 system memory	DDR3 (1600 MHz) / DDRL (1333 MHz), supports up to 8 GB		
	Module Type	200-pin SODIMM x 2	ODIMM (socket x 2)	1 x 204-pin SODIMM	SODIMM (socket x 2)	240-pin DIMM x 2	x 204-pin SODIMM		
L2 C	ache Memory	On-die 512 KB ~ 4 M	n-die 512 KB ~ 4 M	MB/3MB	n-die 512 KB ~ 4 M	n-die 512 KB ~ 4 M	MB/3MB		
Storage/Type		Supports 1 x internal CompactFlash Type II socket, 2.5* SATA HDD drive	Supports 1 x internal CompactFlash Type II socket, 2.5" SATA HDD drive	1 x 2.5" SATA bay Either one - Second 2.5" SATA bay (Intel RAID supported, optional) - Slim type 8X or above DVD +/- PtW (optional)	Supports 1 x internal CompactFlash Type II socket, 2.5" SATA HDD drive	Supports 1 x internal CFast Type Il socket, 1 2.5" SATA HDD drive			
	Size/Type	12.1"	15" Color TFT LCD	15" TFT LCD (LED Backlight)	17" Color TFT LCD	17" TFT LCD	17" TFT LCD (LED Backlight)		
	Max. Resolution	1024 x 768	1024 x 768	1024 x 768	1280 x 1024	1280 x 1024	1280 x 1024		
	Max. Colors	262 K	262K	262K	16.7M	16.7 M	262K		
	Pixel Pitch (mm)	0.240 x 0.240	0.297 x 0.297	0.297 x 0.297	0.264 x 0.264	0.264 x 0.264	0.264 x 0.264		
Display	Brightness (cd/m²)	450	350	350	380	380	350		
	Viewing Angle	80°(left), 80°(right), 80°(up), 80°(down)	80°(left), 80°(right), 70°(up), 60°(down)	80°(left), 80°(right), 70°(up), 70°(down)	80°(left), 80°(right), 80°(up), 80°(down)	80°(left), 80°(right), 80°(up), 80°(down)	85°(left), 85°(right), 80°(up), 80°(down)		
	Brightness Control	Yes	Yes	Yes	Yes	Yes	Yes		
	Simultaneous Mode	Yes	Yes	Yes	Yes	Yes	Yes		
	Backlight MTBF	50,000 hrs	50,000 hrs	50,000 hrs	50,000 hrs	50,000 hrs	50,000 hrs		
VGA	Chipset	945GME	945GME	Intel 3rd Gen Core i CPU+QM77	945GME	Intel Q45	Intel 3rd Gen Core i CPU+QM77		
CD-ROM/Combo Drive		Optional extenal module for 1 x slim type optical drive (optional SATA optical drive)	Optional 1 x Slim type optical drive bay (optional SATA optional drive)	Optional 1 x Slim type optical drive bay (optional SATA optional drive)	Optional 1 x Slim type optical drive bay (optional SATA optional drive)	Optional SATA slim type optical drive	Optional 1 x Slim type optical drive bay (optional SATA optional drive)		
DVD-ROM, D\	VD+/- RW Drive Option	Yes	Yes	Yes	Yes	Yes	Yes		
I/O Ports		4 x COM ports (3 x RS-232, 1 x RS-232/422/485) 6 x USB V2.0 ports, 1 x PS/2 mouse & K/B, Mic-in/Line-in/ Line-out, 1 W speakers, 2 x Gigabit Ethernet ports, 1 D-SUB VGA port	1 x RS-232/422/485),	4 x COM ports, 1 x isolated RS-232/422/485, 3 x RS232 1 x GPIO/RS-232 (8 channels, TTL level); by pin header 3 x USB3.0 + 2 x USB2.0 ports 2 x Gigabit Ethernet 1 x D-SUB VGA port 1 x HIDM! 1 x Line-out, 1 x Mic-in, 2 x 1W speaker	4 x COM ports (3 x RS-232, 1 x RS-232/422/485) 4 x USB 2.0 ports, 1 x PS/2 mouse and keyboard interface, Mic-in/Line-in/ Line-out port, 1 W speakers, 2 x Gigabit Ethemet ports, 1 x D-SUB VGA port	3 x serial ports: 2 x RS-232, 1 x RS-232/422/495, 6 x USB2.0 ports, Mic-in, Line-in, Line-out, 1 x D-SUB VGA port, 2 x Gigabit Ethernet ports	4 x COM ports, 1 x isolated RS-232/422/485, 3 x RS232 1 x GPIO/RS-232 (8 channels, TTL level); by pin header 3 x USB3.0 + 2 x USB2.0 ports 2 x Gigabit Ethernet 1 x D-SUB VGA port 1 x HDMI 1 x Line-out, 1 x Mic-in, 2 x 1W speaker		
Bus Expansion		1 x PCI-e Expansion Slot or 1 x PCI slot (Both are available as options) 1 x Mini PCI Socket, 1 x Mini PCI-e socket	1 x PCI-e Expansion Slot (PCI is available as option) 1 x Mini PCI Socket 1 x Mini PCI-e socket	Either: - one PCI + one PCIe x1 (standard) - one x PCIe x 4 (in the accessory box) - two PCIe x 1 (optional) - two PCI (optional)	1 x PCI-e Expansion Slot (PCI is available as option) 1 x Mini PCI Socket 1 x Mini PCI-e socket	1 x PCl + 1 x PCl-E through riser, 1 x Mini PCle	Either: - one PCI + one PCIe x1 (standard) - one x PCIe x 4 (in the accessory box) - two PCIe x 1 (optional) - two PCI (optional)		
Network (LAN)		2 x Gigabit Ethernet ports, Wake on LAN, boot from LAN and LAN teaming supported	2 x Gigabit Ethernet ports, Wake on LAN, boot from LAN and LAN teaming supported	2 x Gigabit Gigabit Ethernet connectors, Intel AMT supported (GbE1: Intel 82579LM, GbE2: Intel 82583V)	2 x Gigabit Ethernet ports, Wake on LAN, boot from LAN and LAN teaming supported	2 x 10/100/1000 Mbps Ethernet	2 x Gigabit Gigabit Ethernet connectors, Intel AMT supported (GbE1: Intel 82579LM, GbE2: Intel 82583V)		
	Output Rating	150 W	150 W	150W	150 W	220 W	150W		
Power	Input Voltage	AC Model: 150 W Input voltage: 100 ~ 240 Vac, 50 ~ 60 Hz, 2 ~ 4 A	100 ~ 240 Vac, 50 ~ 60 Hz, 2 ~ 4 A	100 ~ 240 Vac, 50/60Hz, 4 ~ 2 A	100 ~ 240 Vac, 50 ~ 60 Hz, 2 ~ 4 A	100 ~ 240 Vac @ 50 ~ 60 Hz	100 ~ 240 Vac, 50/60Hz, 4 ~ 2 A		
	Technology	Resistive	Resistive	Resistive	Resistive	Resistive	Resistive		
	Light Transmission	80% (Resistive)	80% (Resistive)	80% (Resistive)	80% (Resistive)	80% (Resistive)	80% (Resistive)		
Touchscreen	OS Support	Windows XPE/XP Pro, Vista	Window XP/XPE/Vista	Win XPE / Win XP Pro / WES7 32 & 64 bit / Windows 7 32 & 64 bit	Windows XPE/XP Pro, Vista, WES7	Windows XPE/XP Pro, Vista, WES7	Win XPE / Win XP Pro / WES7 32 & 64 bit / Windows 7 32 & 64 bit		
Durability (Touches)		35 million (Resistive)	35 million (Resistive)	35 million (Resistive)	35 million (Resistive)	35 million (Resistive)	35 million (Resistive)		
Watchdog Timer		255 level	255 level	255 level	255 level	62 level, 1 ~ 62 seconds	255 level		
Working Temperature		0 ~ 50°C (32 ~ 122°F)	0 ~ 50°C (32 ~ 122°F)	0 ~ 50°C (32 ~ 122°F)	0 ~ 50°C (32 ~ 122°F)	0 ~ 45°C (32 ~ 113°F)	0 ~ 50°C (32 ~ 122°F)		
Front Panel Protection		IP65 compliant	IP65 compliant	IP65 compliant	IP65 compliant	IP65 compliant	IP65 compliant		
Certifi cation		CE, FCC, BSMI, CCC, UL, CB	BSMI, CE, FCC Class B, CCC	CE, FCC, BSMI, CCC, UL	BSMI, CE, FCC Class B, CCC	BSMI, VCCI, UL, CE, FCC, Class B, CCC	CE, FCC, BSMI, CCC, UL		
Dimensions (W x H x D)		376 x 285.55 x 100.95 mm (14.80" x 11.24" x 3.97")	420 x 223.3 x 130.5 mm (16.54" x 12.72" x 5.12")	395.5 x 316.8 x 105.5 mm (15.6" x 12.5" x 4.15")	442 x 362 x 111.5 mm (17.4" x 14.25" x 4.39")	446 x 382 x 149.3 mm (17.56" x 15.04" x 5.88")	442.0 x 362.0 x 113.5 mm (17.4" x 14.25" x 4.47")		
Weight		5.8 kg (12.77 lb)	6 kg (13.22lb)	6.5 Kg (14.32lb)	7.6 kg (16.74 lb)	11.0 kg (27.94 lb)	7.5Kg (16.52lb)		

Regional Service & Customization Centers

China	Taiwan	Netherlands	Poland	USA/ Canada
Kunshan	Taipei	Eindhoven	Warsaw	Milpitas, CA
36-512-5777-5666	886-2-2792-7818	31-40-267-7000	48-22-33-23-740 / 41	1-408-519-3898

Worldwide Offices

Greater China		Asia Pacific		Europe		Americas	
China		Japan		Toll Free	00800-2426-8080	North America	
Toll Free Beijing Shanghai Shenzhen	800-810-0345 86-10-6298-4346 86-21-3632-1616 86-755-8212-4222	Toll Free Tokyo Osaka	0800-500-1055 81-3-6802-1021 81-6-6267-1887	Germany Munich Hilden / D'dorf	49-89-12599-0 49-2103-97-885-0	Toll Free Cincinnati Milpitas Irvine	1-888-576-9668 1-513-742-8895 1-408-519-3898 1-949-420-2500
Chengdu	86-28-8545-0198	Korea		France			. 5 . 5 . 2 5 5 5 5
Hong Kong	852-2720-5118	Toll Free Seoul	080-363-9494 82-2-3663-9494	Paris	33-1-4119-4666	Brazil Toll Free	0800-770-5355
Taiwan Toll Free Neihu Xindian	0800-777-111 886-2-2792-7818 886-2-2218-4567	Singapore Singapore	65-6442-1000	Italy Milano	39-02-9544-961	Saude-São Paulo Mexico Toll Free	55-11-5592-5355 1-800-467-2415
Taichung	886-4-2378-6250	Malaysia		Benelux & Nordic	s	Mexico City	52-55-6275-2777
Kaohsiung	886-7-229-3600	Toll Free Kuala Lumpur Penang	1800-88-1809 60-3-7725-4188 60-4-537-9188	Breda UK Reading	31-76-5233-100 44-0118-929-4540		
		Indonesia	00.04.700.0505	Poland	40.00.00.00.740.44		
		Jakarta	62-21-769-0525	Warsaw	48-22-33-23-740 / 4	1	
		Thailand Bangkok	66-2-248-3140	Russia Toll Free	8-800-550-01-50		
		India		Moscow	7-495-232-1692		
		Toll Free Bangalore	1-800-425-5070 91-80-2545-0206				
		Australia	1000 000 501				
		Toll Free Melbourne Sydney	1300-308-531 61-3-9797-0100 61-2-9476-9300				

Advantech Panel PC Platform

Panel PC Fit for All Integration













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Selection Guide

Fanless Panel PC Selection Guide















		PPC-L62T	PPC-3100	PPC-L128T	PPC-3120	PPC-L157T	PPC-L158T
CPU Board		PCM-8205	PCM-8206	PCM-8201	PCM-8206	PCM-8201	PCM-8204
Processor		Intel Atom N455 (1.66GHz)	Intel Atom Dual core D2550 (1.86) GHz	Intel Atom N270 1.6 GHz	Intel Atom Dual core D2550 (1.86 GHz)	Intel Atom N270 1.6 GHz	Intel Atom Dual cor D525 1.8G
nory	Size	512 MB ~ 2 GB DDR3 SDRAM	Maximum 4GB DDR3 1066	DDR2 533 Up to 2 GB	Maximum 4GB DDR3 1066	DDR2 533 Up to 2 GB	DDR3 800 MHz u 4 GB (2 GB each socke
	Module Type	204-pin SODIMM x 1	204-pin SODIMM x 1	200-pin SODIMM x1	204-pin SODIMM x 1	200-pin SODIMM x1	204-pin SODIMM
2nd Ca	che Memory	512 KB	1MB	512 KB	1MB	512 KB	1 MB
SSD/Type		Supports one CFastsocket	Support 1 x internal mSATA		Support 1 x internal mSATA	Supports one CompactFlash Type II, socket	Supports one CFas Type II, socket
		6.5" TFT LCD, LED Backlight	10.4" TFT LCD, LED backlight	12.1" Color 7	12.1" Golor TFT LCD, LED backlight	15" Color TFT LCD	15" Color TFT LCI LED backlight
	Max. Resolution	640 x 480	800 x 600	1024 x 768	1024 x 768	1024 x 768	1024 x 768
. I	Max. Colors	262 K	262 k	262 K	262 K	262 K	262 K
	Pixel Pitch (mm)	0.207 x 0.207	0.264 x 0.264	0.240 x 0.240	0.240 x 0.240	0.297 x 0.297	0.297 x 0.297
olay	Brightness (cd/m²)	700	400	450/600	600	350	350
i i	Viewing Angle	160°/140°	160°/140°	160°/160°	160°/160°	160°/130°	160°/130°
	Brightness Contr	Yes	Yes	Yes	Yes	Yes	Yes
	Simultaneous Mode	Yes	Yes	Yes	Yes	Yes	Yes
i i	Backlight MTBF	50,000 hrs	30,000 hrs	50,000 hours	50,000 hours	50,000 hours	50.000 hours
àΑ	Chipset	Intel N455 + Intel ICH8M	Intel D2550 Integrated	Intel 945GSE + Intel	Intel D2550 Integrated	Intel 945GSE + Intel ICH7M	Intel D525 + Intel ICH8M
HD	D/Type	Optional 1 x 2.5" drive bay	1 x 2.5" internal SATA drive bay	1 x 2.5" internal SATA drive bay	1 x 2.5" internal SATA drive bay	1 x 2.5" internal SATA drive bay	1 x 2.5" internal SA drive bay
OVD-ROM	l, DVD+/-RWDrive Option	-	-	Optional	-	Optional	Optional
I/O Ports		2 x COM ports, 2 x GbE LAN, 4 x USB, Audio line out	4 x Serial ports: 3 x RS-232, 1x RS-232/422/485 (Adjustable through BIOS) 4 x USB ports 1 x Line-out, 1x MIC-in 1 x DB15 VGA 1 x DB9 GPIO port (8 pin programable)	3 Serial Ports: RS-232 x 2, RS-232/422/485 x 1; 1 GPIO port 1 VGA Port; PS/2 Mouse and Keyboard, Line-in/ Line-out/ Mic-in Built-in 1W x 2 speakers, USB 2.0 ports x 4	4 x Serial ports: 3 x RS-232, 1x RS-232/422/485 (Adjustable through BIOS) 4 x USB ports 1 x Line-out, 1x MIC-in 1 x DB15 VGA 1 x DB9 GPIO port (8 pir programable)	3 Serial Ports: RS-232 x 2, RS-232/422/485 x 1; 1 GPIO port 1 VGA Port; PS/2 Mouse and Keyboard, Line-in/ Line-out/ Mic-in Built-in IW x 2 speakers, USB 2.0 ports x 4	4 x COM ports: 2 x RS-232, 1 x RS-232/422/485 RS232/ GPIO (8 channels, TTL leve 4 x USB 2.0 ports Mic in/ Line out, 1W speaker - 2 x Gigabit Ethernet 1 x D-SUB VGA port 1 x PS/2 mouse and 1 x keyboard interface
Bus Expansion		1 x miniPCle	1 x miniPCle	Optional 1 x expansion slot for PCI/PCIe card 1 x MINI PCIe slot	t Optional 1 x expansion slot for PCI/PCle card 1 x miniPCle slot	Optional 1 x expansion slot for PCI/PCle card 1 x MINI PCle slot	1 x expansion slot PCI/PCIe card 1 x MINI PCIe slot
Netw	ork (LAN)	2 x 10/100/1000 Mbps (RJ-45)	2 x 10/100/1000 Mbps (RJ-45)		2 x 10/100/1000 Mbps (RJ-45)	2 x 10/100/1000 Mbps (RJ-45)	2 x 10/100/1000 M (RJ-45)
wer	Input Voltage	15 ~ 24 Voc	12~30 V _{DC}	12 ~ 24 V _{DC}	12 ~ 30 Vpc	12 ~ 24 V _{DC} , 15 ~ 24 V _{DC} with battery pack	AC Model: 100W 100 ~ 250 Vac/50 60 Hz DC Model: 90W 15 ~ 24 Vbc
	Technology	Resistive	Resistive	Resistive	Resistive	Resistive	Resistive
	Light Transmission	81%	81%	80%	80%	80%	80%
screen		Windows CE, XPE, XP, WIN 7	Windows XPE, WES7, WEC7	Windows XPE/XP Pro, Vista, WES7, CD6.0	Windows XPE, WES7, WEC7	Windows XPE/XP Pro, Vista, WES7	Windows XPE/XP P Vista, WES7, CE6.0
	Durability (Touches)	36 million	36 million	35 million	35 million	35 million	35 million
Watchdog Timer		255 Level	255 Level	255 Level	255 Level	255 Level	255 Level
Working Temperature		0 ~ 50°C (32 ~ 122°F)	0 ~ 50°C (32 ~ 122°F)	0-45°C (32-113°F)	0 ~ 50°C (32 ~ 122°F)	0 ~ 50°C (32-122°F); 0 ~ 35°C with battery	0 ~ 50°C (32-122°F) 0 ~ 35°C with batter
Front Panel Protection		IP65 compliant	IP65 Ccompliant	IP65 compliant	IP65 compliant	IP65 compliant	IP65 compliant
Certification		CE. FCC Class B, BSMI, CCC, UL	CE. FCC Class B, UL, BSMI, CCC	CE. FCC Class B, UL, BSMI, CCC, CB, VCCI	CE. FCC Class B, UL, BSMI, CCC,	CE. FCC Class B, UL, BSMI, CCC, CB, VCCI	CE. FCC Class B, U BSMI, CCC, CB, VC
Dimensions (W x H x D)			275 x 220 x 68 mm (10.83" x 8.74" x 2.68")	340.5 x 269.3 x 70.5 mm (13.41" x 10.6 x 2.78")	325 x 253.8 x 58.4 mm (12.79" x 10" x 2.3")	396.5 x 317.6 x 74.8 mm (15.6" x 12.5" x 2.95")	396.5 x 317.6 x 74.5 mm (15.6" x 12.5" x 2.95
V	Veight	1.5 kg (3.3lb)	3.0 kg (6.6lb)	3.63 kg (7.98 lb)	3.0 kg (6.6lb)	kg (13.2 lb)	6 kg (13.2 lb)
			2.2 (0.0.0)		(0.0.0)		2 (10.2 10)

Panel PC Introduction

Advantech Panel PCs open up new opportunities by integrating computers with industries and applications; they bring computing to places and applications never imagined before. Their slim profiles, comprehensive functionality, high brightness LCDs, and user-friendly touchscreens make them the ideal solution for operator panels, information terminals, ecommerce terminals and human-machine interfaces. Producing high-quality industrial products is Advantech's specialty. Our Panel PCs are built to survive unforgiving environments, such as factory automation facilities, production control points, warehouses and distribution centers, transportation control centers, stations, airports and even refrigerated environments. As an ISO-9001 and ISO-14000 certified organization, Advantech abides by strict quality control standards applied to design, production and shipment. Panel PCs are subject to extensive testing prior to product release including EMI, EMC, temperature and vibration testing, and exposure to dust and liquids.



Installation Accessories

- Panel mount

Key Features of Panel PCs

Panel PCs offer customers unique features for specific application needs. Customers can choose CPU, operatin system, LCD, touchscreen and sunlight readable features. All the best standard and customized solutions are available for their applications.



Most updated platform

• 3rd Gen Intel® Core™

PPCs focus on new CPU technology so that the customer can take advantage of better CPU computing / graphic performance and even lower power consumption. With the most updated platform, customer can get the best cost effective products.

Full Range LCD

Advantech panel PCs provide a wide range of panel size options from 6.5 to 17 TFT LCD, and also 15.6/18.5/21.5 in widescreen format.



Auto Dimming

Ambient light may change throughout the day. With an auto-dimming function, the backlight is adjusted automatically by sensing environmental light level. Not only making operating them more comfortable, but also saving more power.





To enhance system reliability, isolation prevents irregular power and avoids system crashes caused by voltage spikes from devices connected

Key Benefits for Your Systems



ADVANTECH CTOS

With an optimized and modular design, its never been easier to meet customer's varied requirements. CTOS provides a great value added service to save customer's time and money on system configuration.



Configure To Order Services

Fully supported customization services

Although 'off-the-shelf' PPCs provide an excellent array of features, customers' needs are unlimited. With our quick and efficient R&D capabilities we provide a customization service from mechanical modification, software image distribution, I/Oadjustment and so on. The benefit to customers is that they get more unique products to fulfill different applications.



Cost-effective

The PPC focuses on the machine builder and industrial process monitoring market. By adopting the most up-to-date technology and optimized mechanical design PPCs provide you with the best combination of cost versus performance products to fit your integration needs. However, system reliability is never sacrificed and a PPC is always your bet choice.

LED Indicators

- Multiple standard mounting options
- Desktop stand
- Wall mount

Power on/off

LAN Active

Most customers embed PPCs and it's

important to identify the system status from

/ off status, storage being accessed and

friendly LED indicator, you can easily check

Ethernet transfer status. With the user

if any issues occur on your systems.

the front bezel LED. It displays the power on

Storage Access

- Auto Dimming sensor









IP65 Front Panel With advanced mechanical design, we provide

IP65 Compliant

the an IP65 grade dustproof and waterproof front bezel. It protects the PPC in harsh environments and keeps it operating.



SUSIAccess support

With SUSIAccess, providing customers with remote devices monitoring, switch machines, desktop connection, system recovery and system protection features and so on that help customers to multiple clients through a single console for remote device management. The services are also designed to be cloud-based. It provides on-demand software services so SIs can download & upgrade applications when they need.



Excellent Extensibility Expansion

To use in different scenarios, PPCs provide multiple options on miniPCle, PCl and PClex1 standard expansions cards. Through this flexible design, customers can add on field bus cards to communicate with their own devic



Support

The Dual HDD design provides Intel RAID 0/1 to ensure data protection and help customers easily recover from a crashed system.