

PANEL PC



NODKA offers several series of Panel PC products, which are all integrated with excellent design and powerful performance, and meet the different expectation to appearance, performance, function, and Active Area. Over 54 models for your choice, and we support you with highly integrated HMI solutions.

Display Module Option:



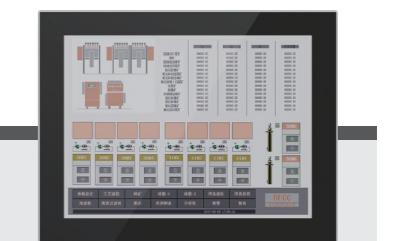
TPC6000-A series

Resistive touch screen, aluminum panel is covered with PET film, front panel IP65 protection level, size option 8", 10.4", 12.1", 15", 17", 19" and 21.5".



TPC6000-C series

Bezel free capacitive touch screen, integrated aluminum frame, front panel IP65 protection level, size option 12.1", 15", 17", 18.5", 19" and 21.5".



TPC6000-D series

Bezel free resistive touch screen, integrated aluminum frame, front panel IP65 protection level, size option 12.1", 15" and 17".

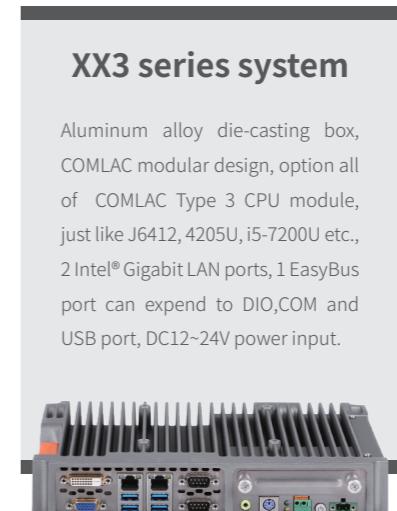


System box option:



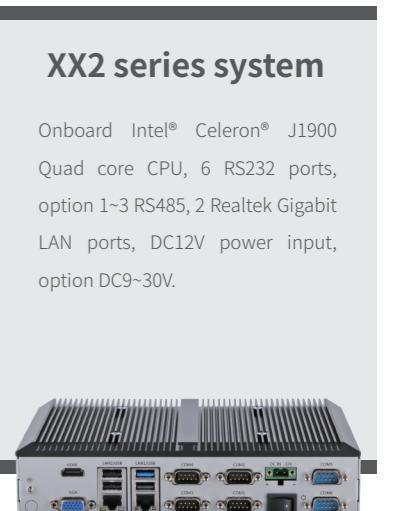
XX4 series system

Support the 6/7/8/9th Gen. Intel® Core™ i3 i5 i7, Pentium® and Celeron® LGA1151 socket CPU, 1 M.2 (M key 2280 PCIe Gen3x4 lane) and 1 mini SATA, option 3/5 Intel® Gigabit LAN ports, 4 RS232/485 ports, DC12~24V power input.



XX3 series system

Aluminum alloy die-casting box, COMLAC modular design, option all of COMLAC Type 3 CPU module, just like J6412, 4205U, i5-7200U etc., 2 Intel® Gigabit LAN ports, 1 EasyBus port can expand to DIO, COM and USB port, DC12~24V power input.



XX2 series system

Onboard Intel® Celeron® J1900 Quad core CPU, 6 RS232 ports, option 1~3 RS485, 2 Realtek Gigabit LAN ports, DC12V power input, option DC9~30V.

TPC6000-A SERIES

Rugged Industrial Panel PC with Resistive Touch Screen



TPC6000-A Series is the fanless industrial resistive touchscreen Panel PC with PET film. IP65 water and dust proof panel, stylish enclosure, and reliable modular structure. Through flexible combination among the different panel sizes and system boxes, customer could get various solution, and replace system or upgrade the platform without changing cabinet design, which is convenient to product maintenance, replacement, production and upgrade in future.

- OS : Windows7/WES7, Windows10, Linux, Vxworks and QNX.
- CPU : Intel® Celeron® J6412, J1900, 4205U and Intel® Core™ i3 i5 i7.
- Size: 8", 10.4", 12.1", 15", 17", 19" and 21.5".



Rugged industrial grade design
Rugged metal box construction, aluminum front panel with IP65 compliant.



Wide Work Temperature:-20°C~60°C
Product is with wide temperature components integrated, system operating temperature supports -20 up to +60°C, suitable for major industrial applications.



Neutral front Panel
Neutral front panel design without logo, accept print logo service, as well as neutral packing optional.



Quickly to do functional setup and maintenance
The case is designed for quick maintenance that a special location of the BIOS battery and RS232/485 jumper for setup and maintenance but not open the machine.



5-wire resistive touch screen
5-wire resistive touch, with water, dust, oil proof, click life is 50 million times.



Supports EtherCAT and Jumbo Frames
The Ethernet ports with high speed EtherCAT and jumbo frames support.



Flexible modular design
Product is with modular design structure, easy for maintenance and upgrade.



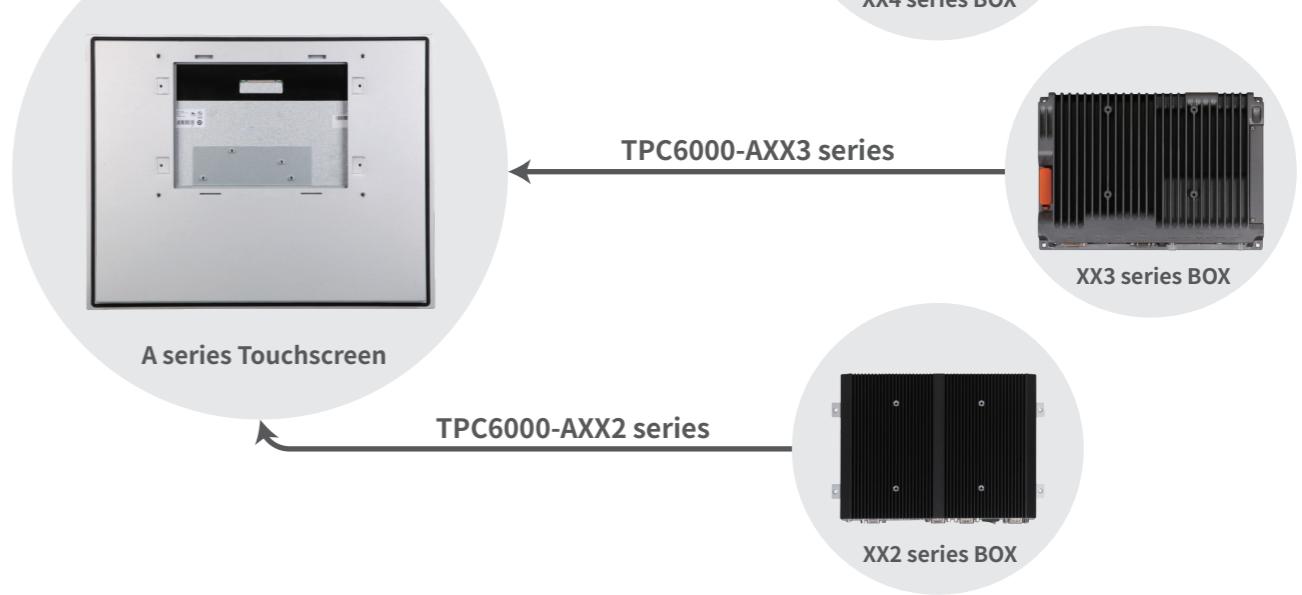
DC12V/24V Power input
DC 12V power input, optional DC24V, with surge power, over voltage and reverse polarity protection, with phoenix terminal contact.



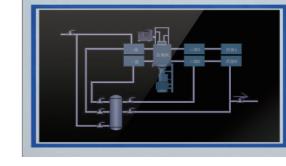
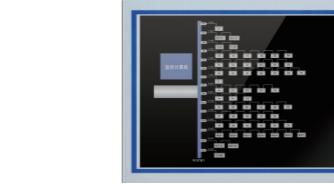
Easybus design
There is a Easybus extension design, it can be various bus via Mini PCIe.



Vaiour mounting options
VESA Mount,PanelMount,Open frame, etc.



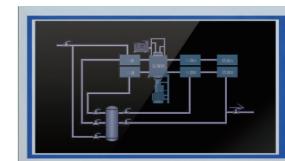
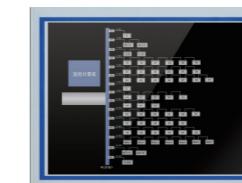
TCP6000-AXX4 SERIES



	Model No.	TPC6000-A104	TPC6000-A124	TPC6000-A154
Processor	CPU	Intel® Core™ 6/7/8/9th i7/i5/i3 , Pentium® and Celeron® LGA1151 type CPU. Max.65W TDP		
	BIOS	AMI UEFI 64Mbit		
	Chipset	H110		
	Memory	DDR4-2400 MHz, 2×SO-DIMM Slot, Up to 32GB		
	Storage interface	1×M.2 (M Key 2280 PCIe Gen3×4 Lane) + 1×mSATA		
I/O	Ethernet	3×Intel 10/100/1000Mbps controller		
	USB	4×USB3.0 / 2×USB2.0		
	COM	4×RS232 / RS485 Interface with surge protection, RS485 support automatic flow control		
	Expansion slot	1×Mini PCIe slot, extensible 3G, WiFi wireless card		
	I/O port	8DI + 8DO Wet contact input (24V), OC gate output (24V 300mA)		
Physical	Dimension (W×H×D)	300.5mm×234.5mm×77mm (11.83"×9.23"×3.03")	321mm×243mm×77mm (12.64"×9.57"×3.03")	395mm×313mm×81mm (15.55"×12.32"×3.19")
	Cut out size	282mm×222mm (11.10"×8.74")	304mm×230mm (11.97"×9.06")	376mm×300mm (14.80"×11.81")
	Net Weight	3.95kg	4.4kg	5.8kg
OS	OS	Windows 7, Windows 7 Embedded, Windows 8, Windows 10, Linux, VxWorks, QNX		
Power	DC input	DC 12~24V±10%, Support reverse connection protection, over voltage protection, over current		
	Idle Mode Power Consumption	22Watt	25Watt	28Watt
LCD	LCD Type	10.4" SVGA TFT	12.1" XGA TFT	15" XGA TFT
	Resolution	800×600	1024×768	1024×768
	Colors	16.2MB	16.7MB	16.2MB
	Active Area (W×H)	211.2mm×158.4mm (8.31"×6.24")	246mm×184mm (9.69"×7.24")	304mm×228mm (11.97"×8.98")
	Backlight	WLED	WLED	WLED
	MTBF (hour)	30000hrs	30000hrs	50000hrs
	Pixel Pitch (H×V)	0.264×0.264	0.240×0.240	0.297×0.297
	Luminance	350cd/m ²	350cd/m ²	350cd/m ²
	Contrast Ratio	800 : 1	800 : 1	700 : 1
	Viewing Angle	(L) 80 / (R) 80 / (T) 65 / (B) 75	(L) 80 / (R) 80 / (T) 80 / (B) 80	(L) 80 / (R) 80 / (T) 80 / (B) 80
Touchscreen	Touchscreen type	Resistive touch screen		
	Resolution	4096×4096		
	Transmittance	> 75%		
	Controller interface	USB		
	Driver Support	Windows 7, Windows8, Windows10, Linux		
	Response Time (touch Pen)	< 5ms		
	Surface Hardness	Mohs' Hardness 3H		
	Click Life	250g / 35,000,000 times		
	Draw life	250g / 5,000,000 times		
			Resistive touch screen	
Environmental	Work Temperature	-20 ~ 60°C (-4~140°F)(Wide temperature SSD) / 0 ~ 45°C (32~113°F)(General temperature HDD/SSD)		
	Storage Temperature	-30 ~ 80°C (-22~176°F)		
	Relative Humidity	5 ~ 95% RH@40°C (Non-condensation)		
	Vibration	Operating Random Vibration Test 5~500Hz, 1.5Grms@with SSD, follow IEC 60068-2-64		
	Shock	Operating 20G peak acceleration (11ms duration), follow IEC 60068-2-27		
	EMC	CE/FCC Class B		
	Water-proof	Front panel IP65		
			-20 ~ 60°C (-4~140°F)(Wide temperature SSD) / 0 ~ 45°C (32~113°F)(General temperature HDD/SSD)	
			-30 ~ 80°C (-22~176°F)	

	TPC6000-A174	TPC6000-A194	TPC6000-A2154
	Intel® Core™ 6/7/8/9th i7/i5/i3 , Pentium® and Celeron® LGA1151 type CPU. Max.65W TDP	AMI UEFI 64Mbit	Intel® Core™ 6/7/8/9th i7/i5/i3 , Pentium® and Celeron® LGA1151 type CPU. Max.65W TDP
	H110	H110	H110
	DDR4-2400 MHz, 2×SO-DIMM Slot, Up to 32GB	DDR4-2400 MHz, 2×SO-DIMM Slot, Up to 32GB	DDR4-2400 MHz, 2×SO-DIMM Slot, Up to 32GB
	1×M.2 (M Key 2280 PCIe Gen3×4 Lane) + 1×mSATA		1×M.2 (M Key 2280 PCIe Gen3×4 Lane) + 1×mSATA
	3×Intel 10/100/1000Mbps controller	4×USB3.0 / 2×USB2.0	3×Intel 10/100/1000Mbps controller
	4×RS232 / RS485 Interface with surge protection, RS485 support automatic flow control	1×Mini PCIe slot, extensible 3G, WiFi wireless card	4×RS232 / RS485 Interface with surge protection, RS485 support automatic flow control
	1×Mini PCIe slot, extensible 3G, WiFi wireless card	8DI + 8DO Wet contact input (24V) , OC gate output (24V 300mA)	1×Mini PCIe slot, extensible 3G, WiFi wireless card
	434mm×342mm×81mm (17.09"×13.46"×3.19")	466mm×370mm×80mm (18.35"×14.57"×3.15")	550mm×342mm×87mm (21.65"×13.46"×3.43")
	411mm×325mm (16.18"×12.80")	443mm×352mm (17.44"×13.86")	533mm×325mm (20.98"×12.80")
	6.5kg	7.5kg	8.5kg
	Windows 7, Windows 7 Embedded, Windows 8, Windows 10, Linux, VxWorks, QNX	Windows 7, Windows 7 Embedded, Windows 8, Windows 10, Linux, VxWorks, QNX	Windows 7, Windows 7 Embedded, Windows 8, Windows 10, Linux, VxWorks, QNX
	DC 12~24V±10%, Support reverse connection protection, over voltage protection, over current	DC 12~24V±10%, Support reverse connection protection, over voltage protection, over current	DC 12~24V±10%, Support reverse connection protection, over voltage protection, over current
	30Watt	35Watt	40Watt
	17" SXGA TFT	19" SXGA TFT	21.5" Full HD TFT
	1280×1024	1280×1024	1920×1080
	16.7MB	16.7MB	16.7MB
	338mm×270mm (13.31"×10.63")	376.3mm×301mm (14.81"×11.85")	476mm×268mm (18.74"×10.55")
	WLED	WLED	WLED
	50000hrs	30000hrs	50000hrs
	0.264×0.264	0.294×0.294	0.248×0.248
	350cd/m ²	250cd/m ²	250cd/m ²
	1000 : 1	1000 : 1	1000 : 1
	(L) 85 / (R) 85 / (T) 80 / (B) 80	(L) 85 / (R) 85 / (T) 80 / (B) 80	(L) 89 / (R) 89 / (T) 89 / (B) 89
	Resistive touch screen	4096×4096	
	> 75%	USB	
	Windows 7, Windows8, Windows10, Linux	Windows 7, Windows8, Windows10, Linux	
	< 5ms	Mohs' Hardness 3H	
	250g / 35,000,000 times	250g / 5,000,000 times	
	250g / 5,000,000 times	250g / 5,000,000 times	
	-20 ~ 60°C (-4~140°F)(Wide temperature SSD) / 0 ~ 45°C (32~113°F)(General temperature HDD/SSD)		
	-30 ~ 80°C (-22~176°F)		
	5 ~ 95% RH@40°C (Non-condensation)		
	Operating Random Vibration Test 5~500Hz, 1.5Grms@with SSD, follow IEC 60068-2-64		
	Operating 20G peak acceleration (11ms duration), follow IEC 60068-2-27		
	CE/FCC Class B		
	Front panel IP65		
		-20 ~ 60°C (-4~140°F)(Wide temperature SSD) / 0 ~ 45°C (32~113°F)(General temperature HDD/SSD)	
		-30 ~ 80°C (-22~176°F)	
		5 ~ 95% RH@40°C (Non-condensation)	
		Operating Random Vibration Test 5~500Hz, 1.5Grms@with SSD, follow IEC 60068-2-64	
		Operating 20G peak acceleration (11ms duration), follow IEC 60068-2-27	
		CE/FCC Class B	
		Front panel IP65	

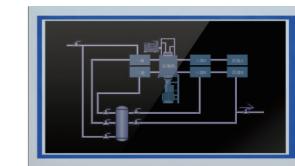
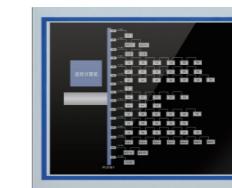
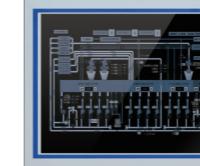
TCP6000-AXX3 SERIES



Model No.	TPC6000-A103	TPC6000-A123	TPC6000-A153
Processor	CPU	Intel® Celeron® J6412 / 4205U / J1900 / Core™ i5 7200U	
	Main Frequency	Quad core 2.0GHz / Dual Core 1.8GHz / Quad core 2.0GHz / Dual Core 2.5GHz	
	L3 Cache	1.5MB/2MB/2MB/3MB	
	Chipset	Integrated PCH-LP	
	Memory	1×DDR4-2400MHz, max 16GB / 1×DDR4-2400MHz, max 16GB / 1×DDR3L-1333MHz, max 8GB / 1×DDR3L-1600MHz, max 8GB	
I/O	Storage interface	1×2.5" SATA bay + 1×mSATA	
	Ethernet	2×Intel 1000Mbps RJ-45 with surge protection, lightning protection design and 15KV ESD protection	
	Audio	Optional	
	USB	4×USB3.0 / 2.0/1.1	
	COM	2×RS232 / RS485 with surge protection, RS485 support automatic flow control	
	Expansion slot	1×Mini-PCIe slot, extensible 3G,WIFI wireless card; 1×EasyBUS slot	
Physical	I/O port	DVI-D / 2×GLAN / 4×USB / 2×COM / 2×PS2 / Line-out / Mic-in	
	Dimension (W×H×D)	300.5mm×234.5mm×69mm (11.83"×9.23"×2.72")	321mm×243mm×69mm (12.64"×9.57"×2.72")
	Cut out size(W×H)	282mm×222mm (11.10"×8.74")	304mm×230mm (11.97"×9.06")
OS	Net Weight	3.65kg	4.1kg
	OS	Windows 7, Windows 7 Embedded, Windows 8, Windows 10, Linux, VxWorks, QNX	
Power	DC input	DC 12~24V±10%, support reverse polarity protection, overvoltage protection, overcurrent protection	
	Power Dissipation (Max.)	33.6Watt	36.6Watt
LCD	LCD Type	10.4" SVGA TFT	12.1" XGA TFT
	Resolution	800×600	1024×768
	Colors	16.2MB	16.7MB
	Active Area (W×H)	211.2mm×158.4mm (8.31"×6.24")	246mm×184mm (9.69"×7.24")
	Backlight	WLED	WLED
	MTBF (hour)	30000hrs	30000hrs
	Pixel Pitch (H×V)	0.264×0.264	0.240×0.240
	Luminance	350cd/m ²	350cd/m ²
	Contrast Ratio	800 : 1	800 : 1
	Viewing Angle	(L) 80 / (R) 80 / (T) 65 / (B) 75	(L) 80 / (R) 80 / (T) 80 / (B) 80
Touchscreen	Touchscreen type	Resistive touch screen	Resistive touch screen
	Resolution	4096×4096	4096×4096
	Transmittance	> 75%	> 75%
	Controller interface	USB	USB
	Driver Support	Windows 7, Windows8, Windows10, Linux	Windows 7, Windows8, Windows10, Linux
	Response Time (touch Pen)	< 5ms	< 5ms
	Surface Hardness	Mohs' Hardness 3H	Mohs' Hardness 3H
	Click Life	250g / 35,000,000 times	250g / 35,000,000 times
	Draw life	250g / 5,000,000 times	250g / 5,000,000 times
Environmental	Work Temperature	-20 ~ 60°C (-4~140°F)(Wide temperature SSD) / 0 ~ 45°C (32~113°F)(General temperature HDD/SSD)	-20 ~ 60°C (-4~140°F)(Wide temperature SSD) / 0 ~ 45°C (32~113°F)(General temperature HDD/SSD)
	Storage Temperature	-30 ~ 80°C (-22~176°F)	-30 ~ 80°C (-22~176°F)
	Relative Humidity	5 ~ 95% RH@40°C (Non-condensation)	5 ~ 95% RH@40°C (Non-condensation)
	Vibration	Operating Random Vibration Test 5~500Hz, 1.5Grms@with SSD, follow IEC 60068-2-64	Operating Random Vibration Test 5~500Hz, 1.5Grms@with SSD, follow IEC 60068-2-64
	Shock	Operating 20G peak acceleration (11ms duration), follow IEC 60068-2-27	Operating 20G peak acceleration (11ms duration), follow IEC 60068-2-27
	EMC	CE/FCC Class B	CE/FCC Class B
	Water-proof	Front panel IP65	Front panel IP65

Model No.	TPC6000-A173	TPC6000-A193	TPC6000-A2153
CPU	Intel® Celeron® J6412 / 4205U / J1900 / Core™ i5 7200U	Intel® Celeron® J6412 / 4205U / J1900 / Core™ i5 7200U	Intel® Celeron® J6412 / 4205U / J1900 / Core™ i5 7200U
Main Frequency	Quad core 2.0GHz / Dual Core 1.8GHz / Quad core 2.0GHz / Dual Core 2.5GHz	Quad core 2.0GHz / Dual Core 1.8GHz / Quad core 2.0GHz / Dual Core 2.5GHz	Quad core 2.0GHz / Dual Core 1.8GHz / Quad core 2.0GHz / Dual Core 2.5GHz
L3 Cache	1.5MB/2MB/2MB/3MB	1.5MB/2MB/2MB/3MB	1.5MB/2MB/2MB/3MB
Chipset	Integrated PCH-LP	Integrated PCH-LP	Integrated PCH-LP
Memory	1×DDR4-2400MHz, max 16GB / 1×DDR4-2400MHz, max 16GB / 1×DDR3L-1333MHz, max 8GB / 1×DDR3L-1600MHz, max 8GB	1×DDR4-2400MHz, max 16GB / 1×DDR4-2400MHz, max 16GB / 1×DDR3L-1333MHz, max 8GB / 1×DDR3L-1600MHz, max 8GB	1×DDR4-2400MHz, max 16GB / 1×DDR4-2400MHz, max 16GB / 1×DDR3L-1333MHz, max 8GB / 1×DDR3L-1600MHz, max 8GB
Storage interface	1×2.5" SATA bay + 1×mSATA	1×2.5" SATA bay + 1×mSATA	1×2.5" SATA bay + 1×mSATA
Ethernet	2×Intel 1000Mbps RJ-45 with surge protection, lightning protection design and 15KV ESD protection	2×Intel 1000Mbps RJ-45 with surge protection, lightning protection design and 15KV ESD protection	2×Intel 1000Mbps RJ-45 with surge protection, lightning protection design and 15KV ESD protection
Audio	Optional	Optional	Optional
USB	4×USB3.0 / 2.0/1.1	4×USB3.0 / 2.0/1.1	4×USB3.0 / 2.0/1.1
COM	2×RS232 / RS485 with surge protection, RS485 support automatic flow control	2×RS232 / RS485 with surge protection, RS485 support automatic flow control	2×RS232 / RS485 with surge protection, RS485 support automatic flow control
Expansion slot	1×Mini-PCIe slot, extensible 3G,WIFI wireless card; 1×EasyBUS slot	1×Mini-PCIe slot, extensible 3G,WIFI wireless card; 1×EasyBUS slot	1×Mini-PCIe slot, extensible 3G,WIFI wireless card; 1×EasyBUS slot
I/O port	DVI-D / 2×GLAN / 4×USB / 2×COM / 2×PS2 / Line-out / Mic-in	DVI-D / 2×GLAN / 4×USB / 2×COM / 2×PS2 / Line-out / Mic-in	DVI-D / 2×GLAN / 4×USB / 2×COM / 2×PS2 / Line-out / Mic-in
Dimension (W×H×D)	300.5mm×234.5mm×69mm (11.83"×9.23"×2.72")	321mm×243mm×69mm (12.64"×9.57"×2.87")	434mm×342mm×73mm (17.09"×13.46"×2.87")
Cut out size(W×H)	282mm×222mm (11.10"×8.74")	304mm×230mm (11.97"×9.06")	411mm×325mm (16.18"×12.80")
Net Weight	3.65kg	4.1kg	6.35kg
OS	Windows 7, Windows 7 Embedded, Windows 8, Windows 10, Linux, VxWorks, QNX	Windows 7, Windows 7 Embedded, Windows 8, Windows 10, Linux, VxWorks, QNX	Windows 7, Windows 7 Embedded, Windows 8, Windows 10, Linux, VxWorks, QNX
Power	DC 12~24V±10%, support reverse polarity protection, overvoltage protection, overcurrent protection	DC 12~24V±10%, support reverse polarity protection, overvoltage protection, overcurrent protection	DC 12~24V±10%, support reverse polarity protection, overvoltage protection, overcurrent protection
LCD	10.4" SVGA TFT	12.1" XGA TFT	17" SXGA TFT
Resolution	800×600	1024×768	1280×1024
Colors	16.2MB	16.7MB	16.7MB
Active Area (W×H)	211.2mm×158.4mm (8.31"×6.24")	246mm×184mm (9.69"×7.24")	304mm×228mm (11.97"×8.98")
Backlight	WLED	WLED	WLED
MTBF (hour)	30000hrs	30000hrs	50000hrs
Pixel Pitch (H×V)	0.264×0.264	0.240×0.240	0.264×0.264
Luminance	350cd/m ²	350cd/m ²	350cd/m ²
Contrast Ratio	800 : 1	800 : 1	1000 : 1
Viewing Angle	(L) 80 / (R) 80 / (T) 65 / (B) 75	(L) 80 / (R) 80 / (T) 80 / (B) 80	(L) 85 / (R) 85 / (T) 80 / (B) 80
Touchscreen	Resistive touch screen	Resistive touch screen	Resistive touch screen
Resolution	4096×4096	4096×4096	4096×4096
Transmittance	> 75%	> 75%	> 75%
Controller interface	USB	USB	USB
Driver Support	Windows 7, Windows8, Windows10, Linux	Windows 7, Windows8, Windows10, Linux	Windows 7, Windows8, Windows10, Linux
Response Time (touch Pen)	< 5ms	< 5ms	< 5ms
Surface Hardness	Mohs' Hardness 3H	Mohs' Hardness 3H	Mohs' Hardness 3H
Click Life	250g / 35,000,000 times	250g / 35,000,000 times	250g / 35,000,000 times
Draw life	250g / 5,000,000 times	250g / 5,000,000 times	250g / 5,000,000 times
Environmental	-20 ~ 60°C (-4~140°F)(Wide temperature SSD) / 0 ~ 45°C (32~113°F)(General temperature HDD/SSD)	-20 ~ 60°C (-4~140°F)(Wide temperature SSD) / 0 ~ 45°C (32~113°F)(General temperature HDD/SSD)	-20 ~ 60°C (-4~140°F)(Wide temperature SSD) / 0 ~ 45°C (32~113°F)(General temperature HDD/SSD)
Work Temperature	-30 ~ 80°C (-22~176°F)	-30 ~ 80°C (-22~176°F)	-30 ~ 80°C (-22~176°F)
Storage Temperature	5 ~ 95% RH@40°C (Non-condensation)	5 ~ 95% RH@40°C (Non-condensation)	5 ~ 95% RH@40°C (Non-condensation)
Relative Humidity	< 5ms	< 5ms	< 5ms
Vibration	Operating Random Vibration Test 5~500Hz, 1.5Grms@with SSD, follow IEC 60068-2-64	Operating Random Vibration Test 5~500Hz, 1.5Grms@with SSD, follow IEC 60068-2-64	Operating Random Vibration Test 5~500Hz, 1.5Grms@with SSD, follow IEC 60068-2-64
Shock	Operating 20G peak acceleration (11ms duration), follow IEC 60068-2-27	Operating 20G peak acceleration (11ms duration), follow IEC 60068-2-27	Operating 20G peak acceleration (11ms duration), follow IEC 60068-2-27
EMC	CE/FCC Class B	CE/FCC Class B	CE/FCC Class B
Water-proof	Front panel IP65	Front panel IP65	Front panel IP65

TCP6000-AXX2 SERIES



Model No.	TPC6000-A082	TPC6000-A102	TPC6000-A122	
Processor	CPU	Intel® Celeron® J1900		
	Main Frequency	Quad core 2.0GHz		
	L3 Cache	2MB		
	Chipset	Intel Bay trail SOC		
	Memory	1×DDR3L-1333, max 8GB		
	Storage interface	1×2.5" SATA bay + 1×mSATA		
I/O	Ethernet	2×Realtek 1000Mbps RJ-45 with surge protection, lightning protection design and 15KV ESD protection		
	Audio	Optional		
	USB	1×USB3.0 / 2.0 / 1.1, 3×USB2.0 / 1.1		
	COM	1×RS232 / 485 (COM1), 5×RS232 (Optional 2xRS48,RS485 support automatic flow control)		
	Expansion slot	1×Mini PCIe slot, extensible 3G,WIFI wireless card		
	I/O port	VGA / HDMI / 2×GLAN / 4×USB / 6×COM		
Physical	Dimension (W×H×D)	236mm×188mm×69mm (9.29"×7.40"×2.72")	300.5mm×234.5mm×78mm (11.83"×9.23"×3.07")	321mm×243mm×78mm (12.64"×9.57"×3.07")
	Cut out size(W×H)	219mm×171mm (8.62"×6.73")	282mm×222mm (11.10"×8.74")	304mm×230mm (11.97"×9.06")
	Net Weight	2.4kg	3.3kg	3.85kg
OS	OS	Windows 7, Windows 7 Embedded, Windows 8, Windows 10, Linux, VxWorks, QNX		
Power	DC input	DC 12V, support reverse polarity protection, +9~+30V (Option)		
	Power Dissipation (Max.)	33Watt	33.6Watt	36.6Watt
LCD	LCD Type	8" SVGA TFT	10.4" SVGA TFT	12.1" XGA TFT
	Resolution	800×600	800×600	1024×768
	Colors	16.7MB	16.2MB	16.7MB
	Active Area (W×H)	162mm×121.5mm (6.38"×4.78")	211.2mm×158.4mm (8.31"×6.24")	246mm×184mm (9.69"×7.24")
	Backlight	WLED	WLED	WLED
	MTBF (hour)	30000hrs	30000hrs	30000hrs
	Pixel Pitch (H×V)	0.2025×0.2025	0.264×0.264	0.240×0.240
	Luminance	250cd/m ²	350cd/m ²	350cd/m ²
	Contrast Ratio	500 : 1	800 : 1	800 : 1
	Viewing Angle	(L) 75 / (R) 75 / (T) 75 / (B) 75	(L) 80 / (R) 80 / (T) 65 / (B) 75	(L) 80 / (R) 80 / (T) 80 / (B) 80
Touchscreen	Touchscreen type	Resistive touch screen		
	Resolution	4096×4096		
	Transmittance	> 75%		
	Controller interface	USB		
	Driver Support	Windows 7, Windows8, Windows10, Linux		
	Response Time (touch Pen)	< 5ms		
	Surface Hardness	Mohs' Hardness 3H		
	Click Life	250g / 35,000,000 times		
	Draw life	250g / 5,000,000 times		
	Work Temperature	-20 ~ 60°C (-4~140°F)(Wide temperature SSD) / 0 ~ 45°C (32~113°F)(General temperature HDD/SSD)		
Environmental	Storage Temperature	-30 ~ 80°C (-22~176°F)		
	Relative Humidity	5 ~ 95% RH@40°C (Non-condensation)		
	Vibration	Operating Random Vibration Test 5~500Hz, 1.5Grms@with SSD, follow IEC 60068-2-64		
	Shock	Operating 20G peak acceleration (11ms duration), follow IEC 60068-2-27		
	EMC	Front panel IP65		
	Water-proof			

Model No.	TPC6000-A152	TPC6000-A172	TPC6000-A192	TPC6000-A2152
		Intel® Celeron® J1900		
		Quad core 2.0GHz		
		2MB		
		Intel Bay trail SOC		
		1×DDR3L-1333, max 8GB		
		1×2.5" SATA bay + 1×mSATA		
		2×Realtek 1000Mbps RJ-45 with surge protection, lightning protection design and 15KV ESD protection		
		Optional		
		1×USB3.0 / 2.0 / 1.1, 3×USB2.0 / 1.1		
		1×RS232 / 485 (COM1), 5×RS232 (Optional 2xRS48,RS485 support automatic flow control)		
		1×Mini PCIe slot, extensible 3G,WIFI wireless card		
		VGA / HDMI / 2×GLAN / 4×USB / 6×COM		
		395mm×313mm×73mm (15.55"×12.32"×2.87")	434mm×342mm×73mm (17.09"×13.46"×2.87")	466mm×370mm×72mm (18.35"×14.57"×2.83")
		376mm×300mm (14.80"×11.81")	411mm×325mm (16.18"×12.80")	443mm×352mm (17.44"×13.86")
		5.15kg	6.05kg	6.9kg
		Windows 7, Windows 7 Embedded, Windows 8, Windows 10, Linux, VxWorks, QNX		
		DC 12V, support reverse polarity protection, +9~+30V (Option)		
		38.6Watt	40.6Watt	42.6Watt
		15" XGA TFT	17" SXGA TFT	19" SXGA TFT
		1024×768	1280×1024	1280×1024
		16.2MB	16.7MB	16.7MB
		304mm×228mm (11.97"×8.98")	338mm×270mm (13.31"×10.63")	376.3mm×301mm (14.81"×11.85")
		WLED	WLED	WLED
		50000hrs	50000hrs	30000hrs
		0.297×0.297	0.264×0.264	0.294×0.294
		350cd/m ²	350cd/m ²	250cd/m ²
		700 : 1	1000 : 1	1000 : 1
		(L) 80 / (R) 80 / (T) 80 / (B) 80	(L) 85 / (R) 85 / (T) 80 / (B) 80	(L) 85 / (R) 85 / (T) 80 / (B) 80
		Resistive touch screen		
		4096×4096		
		> 75%		
		USB		
		Windows 7, Windows8, Windows10, Linux		
		< 5ms		
		Mohs' Hardness 3H		
		250g / 35,000,000 times		
		250g / 5,000,000 times		
		-20 ~ 60°C (-4~140°F)(Wide temperature SSD) / 0 ~ 45°C (32~113°F)(General temperature HDD/SSD)		
		-30 ~ 80°C (-22~176°F)		
		5 ~ 95% RH@40°C (Non-condensation)		
		Operating Random Vibration Test 5~500Hz, 1.5Grms@with SSD, follow IEC 60068-2-64		
		Operating 20G peak acceleration (11ms duration), follow IEC 60068-2-27		
		CE/FCC Class B		
		Front panel IP65		

TPC6000-C SERIES

Modular Industrial Panel PC with Bezel free Capacitive Multi-touch



TPC6000-C series is fanless industrial Panel PC with projected capacitive touch panel, IP65 water and dust proof panel, stylish enclosure, and reliable modular structure. Through flexible combination among the different panel sizes and system boxes, customer could get various solution, and replace system or upgrade the platform without changing cabinet design, which is convenient to product maintenance, replacement, production and upgrade in future.

- OS : Windows7/WES7, Windows10, Linux, Vxworks and QNX.
- CPU : Intel® Celeron® J6412, J1900, 4205U and Intel® Core™ i3 i5 i7.
- Size : 12.1", 15", 17", 18.5", 19" and 21.5".



Rugged industrial grade design

Rugged metal box construction, aluminum front panel with IP65 compliant.



Wide Work Temperature:-20°C~60°C

Product is with wide temperature components integrated, system operating temperature supports -20 up to +60°C, suitable for major industrial applications.



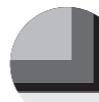
Neutral front Panel

Neutral front panel design without logo, accept print logo service, as well as neutral packing optional.



Quickly to do functional setup and maintenance

The case is designed for quick maintenance that a special location of the BIOS battery and RS232/485 jumper for setup and maintenance but not open the machine.



Projected capacitive touch screen

With multi-point projection capacitive, stylish design and the best touch experience, with click life of 50 million times.



Flexible modular design

Product is with modular design structure, easy for maintenance and upgrade.



Easybus design

There is a Easybus extension design, it can be various bus via Mini PCIe.



Supports EtherCAT and Jumbo Frames

The Ethernet ports with high speed EtherCAT and jumbo frames support.



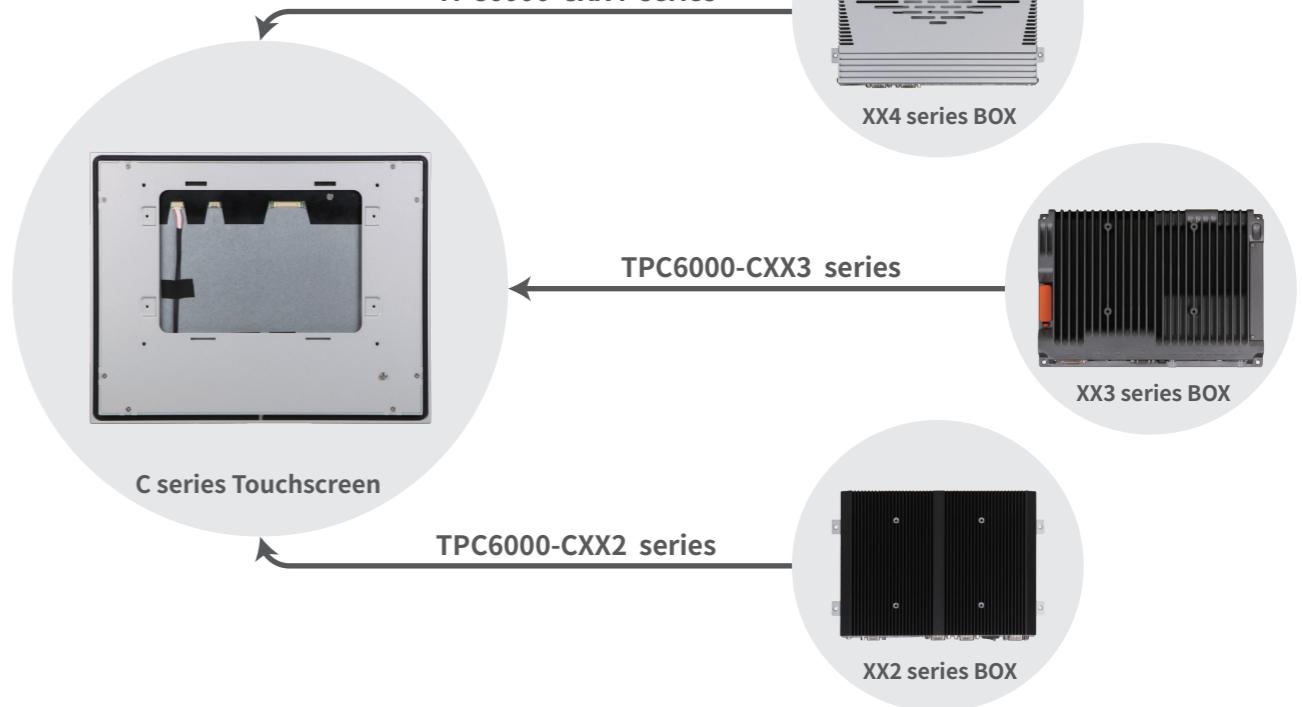
DC12V/24V Power input

DC 12V power input, optional DC24V, with surge power, over voltage and reverse polarity protection, with phoenix terminal contact.

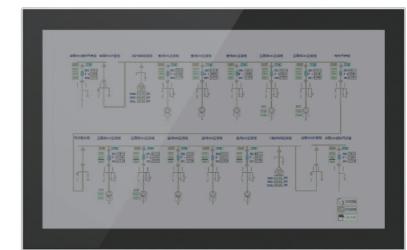
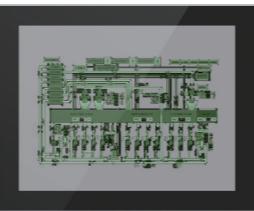


Vaiour mounting options

VESA Mount,PanelMount,Open frame, etc.



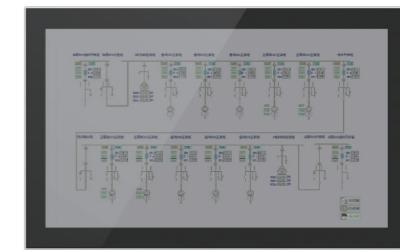
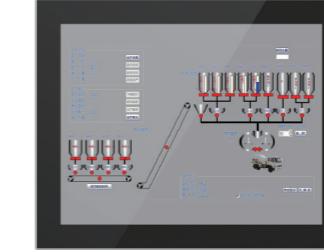
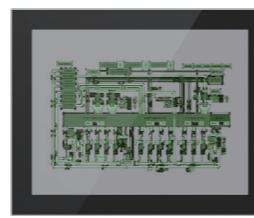
TCP6000-CXX4 SERIES



Model No.	TPC6000-C124	TPC6000-C154	TPC6000-C174	
Processor	CPU	Intel® Core™ 6/7/8/9th i7/i5/i3 , Pentium® and Celeron® LGA1151 type CPU. Max.65W TDP		
	BIOS	AMI UEFI 64Mbit		
	Chipset	H110		
	Memory	DDR4-2400 MHz, 2×SO-DIMM Slot, Up to 32GB		
	Storage interface	1×M.2 (M Key 2280 PCIe Gen3×4 Lane) + 1×mSATA		
I/O	Ethernet	3×Intel 10/100/1000Mbps controller		
	USB	4×USB3.0 / 2×USB2.0		
	COM	4×RS232 / RS485 Interface with surge protection, RS485 support automatic flow control		
	Expansion slot	1×Mini-PCIe slot, extensible 3G, WiFi wireless card		
	I/O port	8DI + 8DO Wet contact input (24V), OC gate output (24V 300mA)		
Physical	Dimension(W×H×D)	321mm×247mm×74mm (12.64"×9.72"×2.91")	371mm×295mm×74mm (14.60"×11.61"×2.91")	428mm×342mm×74mm (16.85"×13.46"×2.91")
	Cut out size(W×H)	304mm×230mm (11.97"×9.06")	354mm×278mm (13.94"×10.94")	411mm×325mm (16.18"×12.80")
	Net Weight	3.7kg	4.7kg	5.7kg
OS	OS	Windows 7, Windows 7 Embedded, Windows 8, Windows 10, Linux, VxWorks, QNX		
Power	DC input	DC 12~24V±10%, support reverse polarity protection, overvoltage protection, overcurrent protection		
	Idle Mode Power Consumption	25Watt	28Watt	
LCD	LCD Type	12.1" XGA TFT	15" XGA TFT	
	Resolution	1024×768	1024×768	
	Colors	16.7MB	16.2MB	
	Active Area (W×H)	246mm×184mm (9.69"×7.24")	304mm×228mm (11.97"×8.98")	
	Backlight	WLED	WLED	
	MTBF (hour)	30000hrs	50000hrs	
	Pixel Pitch (H×V)	0.240×0.240	0.297×0.297	
	Luminance	350cd/m²	350cd/m²	
	Contrast Ratio	800 : 1	700 : 1	
	Viewing Angle	(L) 80 / (R) 80 / (T) 80 / (B) 80	(L) 80 / (R) 80 / (T) 80 / (B) 80	
Touchscreen	Touchscreen type	Capacitive Touchscreen		
	Transmittance	> 87%		
	Controller interface	USB		
	Driver Support	Windows7, Windows 8, Windows 10, Linux		
	Multi-touch	10 points (windows system)		
	Surface Hardness	Mohs' Hardness 7H		
Environmental	Work Temperature	-20 ~ 60°C (-4~140°F)(Wide temperature SSD) / 0 ~ 45°C (32~113°F)(General temperature HDD/SSD)		
	Storage Temperature	-30 ~ 80°C (-22~176°F)		
	Relative Humidity	5 ~ 95% RH@40°C (Non-condensation)		
	Vibration	Operating Random Vibration Test 5~500Hz, 1.5Grms@with SSD, follow IEC 60068-2-64		
	Shock	Operating 20G peak acceleration (11ms duration), follow IEC 60068-2-27		
	EMC	CE/FCC Class B		
	Water-proof	Front panel IP65		

Model No.	TPC6000-C1854	TPC6000-C194	TPC6000-C2154
CPU	Intel® Core™ 6/7/8/9th i7/i5/i3 , Pentium® and Celeron® LGA1151 type CPU. Max.65W TDP	AMI UEFI 64Mbit	AMI UEFI 64Mbit
BIOS		H110	H110
Chipset		DDR4-2400 MHz, 2×SO-DIMM Slot, Up to 32GB	DDR4-2400 MHz, 2×SO-DIMM Slot, Up to 32GB
Memory		1×M.2 (M Key 2280 PCIe Gen3×4 Lane) + 1×mSATA	1×M.2 (M Key 2280 PCIe Gen3×4 Lane) + 1×mSATA
Ethernet		3×Intel 10/100/1000Mbps controller	3×Intel 10/100/1000Mbps controller
USB		4×USB3.0 / 2×USB2.0	4×USB3.0 / 2×USB2.0
COM		4×RS232 / RS485 Interface with surge protection, RS485 support automatic flow control	4×RS232 / RS485 Interface with surge protection, RS485 support automatic flow control
Expansion slot		1×Mini-PCIe slot, extensible 3G, WiFi wireless card	1×Mini-PCIe slot, extensible 3G, WiFi wireless card
I/O port		8DI + 8DO Wet contact input (24V) , OC gate output (24V 300mA)	8DI + 8DO Wet contact input (24V) , OC gate output (24V 300mA)
Dimension(W×H×D)	480mm×304mm×74mm (18.90"×11.97"×2.91")	460mm×369mm×74mm (18.11"×14.53"×2.91")	550mm×342mm×74mm (21.65"×13.46"×2.91")
Cut out size(W×H)	463mm×287mm (18.23"×11.30")	442mm×351mm (17.40"×13.82")	533mm×325mm (20.98"×12.80")
Net Weight	5.9kg	6.5kg	6.9kg
OS	Windows 7, Windows 7 Embedded, Windows 8, Windows 10, Linux, VxWorks, QNX		
Power	DC 12~24V±10%, support reverse polarity protection, overvoltage protection, overcurrent protection	DC 12~24V±10%, support reverse polarity protection, overvoltage protection, overcurrent protection	DC 12~24V±10%, support reverse polarity protection, overvoltage protection, overcurrent protection
Idle Mode Power Consumption	34Watt	37Watt	40Watt
LCD Type	18.5" WXGA TFT	19" SXGA TFT	21.5" Full HD TFT
Resolution	1366×768	1280×1024	1920×1080
Colors	16.7MB	16.7MB	16.7MB
Active Area (W×H)	409.8mm×230.4mm (16.13"×9.07")	376.3mm×301mm (14.81"×11.85")	476mm×268mm (18.74"×10.55")
Backlight	WLED	WLED	WLED
MTBF (hour)	50000hrs	30000hrs	50000hrs
Pixel Pitch (H×V)	0.300×0.300	0.294×0.294	0.248×0.248
Luminance	450cd/m²	250cd/m²	250cd/m²
Contrast Ratio	1000 : 1	1000 : 1	1000 : 1
Viewing Angle	(L) 85 / (R) 85 / (T) 80 / (B) 80	(L) 85 / (R) 85 / (T) 80 / (B) 80	(L) 89 / (R) 89 / (T) 89 / (B) 89
Touchscreen type	Capacitive Touchscreen		
Transmittance	> 87%		
Controller interface	USB		
Driver Support	Windows7, Windows 8, Windows 10, Linux		
Multi-touch	10 points (windows system)		
Surface Hardness	Mohs' Hardness 7H		
Work Temperature	-20 ~ 60°C (-4~140°F)(Wide temperature SSD) / 0 ~ 45°C (32~113°F)(General temperature HDD/SSD)		
Storage Temperature	-30 ~ 80°C (-22~176°F)		
Relative Humidity	5 ~ 95% RH@40°C (Non-condensation)		
Vibration	Operating Random Vibration Test 5~500Hz, 1.5Grms@with SSD, follow IEC 60068-2-64		
Shock	Operating 20G peak acceleration (11ms duration), follow IEC 60068-2-27		
EMC	CE/FCC Class B		
Water-proof	Front panel IP65		

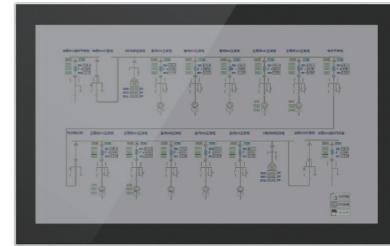
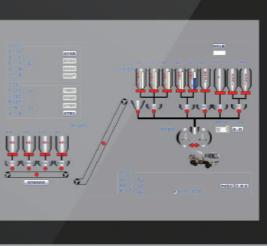
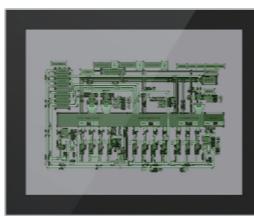
TCP6000-CXX3 SERIES



Model No.	TPC6000-C123	TPC6000-C153	TPC6000-C173
Processor	CPU Intel® Celeron® J6412 / 4205U / J1900 / Core™ i5 7200U		
	Main Frequency Quad core 2.0GHz / Dual Core 1.8GHz / Quad core 2.0GHz / Dual Core 2.5GHz		
	L3 Cache 1.5MB/2MB/2MB/3MB		
	Chipset Integrated PCH-LP		
	Memory 1×DDR4-2400MHz, max 16GB / 1×DDR4-2400MHz, max 16GB / 1×DDR3L-1333MHz, max 8GB / 1×DDR3L-1600MHz, max 8GB		
	Storage interface 1×2.5" SATA bay + 1×mSATA		
I/O	Ethernet 2×Intel 1000Mbps RJ-45 with surge protection, lightning protection design and 15KV ESD protection		
	Audio Optional		
	USB 4×USB3.0 / 2.0/1.1		
	COM 2×RS232 / RS485 with surge protection, RS485 support automatic flow control		
	Expansion slot 1×Mini-PCIe slot, extensible 3G,WIFI wireless card; 1×EasyBUS slot		
	I/O port DVI-D / 2×GLAN / 4×USB / 2×COM / 2×PS2 / Line-out / Mic-in		
Physical	Dimension(W×H×D) 321mm×247mm×66mm (12.64"×9.72"×2.60")	371mm×295mm×66mm (14.60"×11.61"×2.60")	428mm×342mm×66mm (16.85"×13.46"×2.60")
	Cut out size(W×H) 304mm×230mm (11.97"×9.06")	354mm×278mm (13.94"×10.94")	411mm×325mm (16.18"×12.80")
	Net Weight 3.54kg	4.54kg	5.54kg
OS	OS Windows 7, Windows 7 Embedded, Windows 8, Windows 10, Linux, VxWorks, QNX		
Power	DC input DC 12~24V±10%, support reverse polarity protection, overvoltage protection, overcurrent protection		
	Power Dissipation (Max.) 37Watt	36.6Watt	38.6Watt
LCD	LCD Type 12.1" XGA TFT	15" XGA TFT	17" SXGA TFT
	Resolution 1024×768	1024×768	1280×1024
	Colors 16.7MB	16.2MB	16.7MB
	Active Area (W×H) 246mm×184mm (9.69"×7.24")	304mm×228mm (11.97"×8.98")	338mm×270mm (13.31"×10.63")
	Backlight WLED	WLED	WLED
	MTBF (hour) 30000hrs	50000hrs	50000hrs
	Pixel Pitch (H×V) 0.240×0.240	0.297×0.297	0.264×0.264
	Luminance 350cd/m ²	350cd/m ²	350cd/m ²
	Contrast Ratio 800 : 1	700 : 1	1000 : 1
Touchscreen	Viewing Angle (L) 80 / (R) 80 / (T) 80 / (B) 80	(L) 80 / (R) 80 / (T) 80 / (B) 80	(L) 85 / (R) 85 / (T) 80 / (B) 80
	Touchscreen type Capacitive Touchscreen		
	Transmittance > 87%		
	Controller interface USB		
	Driver Support Windows7, Windows 8, Windows 10, Linux		
	Multi-touch 10 points (windows system)		
Environmental	Surface Hardness Mohs' Hardness 7H		
	Work Temperature -20 ~ 60°C (-4~140°F)(Wide temperature SSD) / 0 ~ 45°C (32~113°F)(General temperature HDD/SSD)		
	Storage Temperature -30 ~ 80°C (-22~176°F)		
	Relative Humidity 5 ~ 95% RH@40°C (Non-condensation)		
	Vibration Operating Random Vibration Test 5~500Hz, 1.5Grms@with SSD, follow IEC 60068-2-64		
	Shock Operating 20G peak acceleration (11ms duration), follow IEC 60068-2-27		
	EMC CE/FCC Class B		
	Water-proof Front panel IP65		

Model No.	TPC6000-C1853	TPC6000-C193	TPC6000-C2153
CPU	Intel® Celeron® J6412 / 4205U / J1900 / Core™ i5 7200U		
Main Frequency	Quad core 2.0GHz / Dual Core 1.8GHz / Quad core 2.0GHz / Dual Core 2.5GHz		
L3 Cache	1.5MB/2MB/2MB/3MB		
Chipset	Integrated PCH-LP		
Memory	1×DDR4-2400MHz, max 16GB / 1×DDR4-2400MHz, max 16GB / 1×DDR3L-1333MHz, max 8GB / 1×DDR3L-1600MHz, max 8GB		
Storage interface	1×2.5" SATA bay + 1×mSATA		
Ethernet	2×Intel 1000Mbps RJ-45 with surge protection, lightning protection design and 15KV ESD protection		
Audio	Optional		
USB	4×USB3.0 / 2.0/1.1		
COM	2×RS232 / RS485 with surge protection, RS485 support automatic flow control		
Expansion slot	1×Mini-PCIe slot, extensible 3G,WIFI wireless card; 1×EasyBUS slot		
I/O port	DVI-D / 2×GLAN / 4×USB / 2×COM / 2×PS2 / Line-out / Mic-in		
Dimension(W×H×D)	480mm×304mm×66mm (18.90"×11.97"×2.60")	460mm×369mm×66mm (18.11"×14.53"×2.60")	550mm×342mm×66mm (21.65"×13.46"×2.60")
Cut out size(W×H)	463mm×287mm (18.23"×11.30")	442mm×351mm (17.40"×13.82")	533mm×325mm (20.98"×12.80")
Net Weight	5.8kg	6.38kg	6.76kg
OS	OS Windows 7, Windows 7 Embedded, Windows 8, Windows 10, Linux, VxWorks, QNX		
Power	DC 12~24V±10%, support reverse polarity protection, overvoltage protection, overcurrent protection		
DC input	DC 12~24V±10%, support reverse polarity protection, overvoltage protection, overcurrent protection		
Power Dissipation (Max.)	40.6Watt	42.6Watt	48Watt
LCD	18.5" HD TFT 1366×768	19" SXGA TFT 1280×1024	21.5" Full HD TFT 1920×1080
LCD Type	18.5" HD TFT	19" SXGA TFT	21.5" Full HD TFT
Resolution	16.7MB	16.7MB	16.7MB
Colors	304mm×230mm (11.97"×9.06")	409.8mm×230.4mm (16.13"×9.07")	476mm×268mm (18.74"×10.55")
Active Area (W×H)	354mm×278mm (13.94"×10.94")	376.3mm×301mm (14.81"×11.85")	
Backlight	WLED	WLED	WLED
MTBF (hour)	30000hrs	30000hrs	50000hrs
Pixel Pitch (H×V)	0.297×0.297	0.294×0.294	0.248×0.248
Luminance	0.264×0.264	250cd/m ²	250cd/m ²
Contrast Ratio	700 : 1	1000 : 1	1000 : 1
Viewing Angle	(L) 80 / (R) 80 / (T) 80 / (B) 80	(L) 85 / (R) 85 / (T) 80 / (B) 80	(L) 89 / (R) 89 / (T) 89 / (B) 89
Touchscreen	Capacitive Touchscreen > 87%	Capacitive Touchscreen > 87%	Capacitive Touchscreen USB
Driver Support	Windows7, Windows 8, Windows 10, Linux	Windows7, Windows 8, Windows 10, Linux	Windows7, Windows 8, Windows 10, Linux
Multi-touch	10 points (windows system)	10 points (windows system)	Mohs' Hardness 7H
Surface Hardness	Mohs' Hardness 7H		
Environmental	-20 ~ 60°C (-4~140°F)(Wide temperature SSD) / 0 ~ 45°C (32~113°F)(General temperature HDD/SSD)	-20 ~ 60°C (-4~140°F)(Wide temperature SSD) / 0 ~ 45°C (32~113°F)(General temperature HDD/SSD)	
Work Temperature	-30 ~ 80°C (-22~176°F)	-30 ~ 80°C (-22~176°F)	
Storage Temperature	5 ~ 95% RH@40°C (Non-condensation)	5 ~ 95% RH@40°C (Non-condensation)	
Relative Humidity			
Vibration	Operating Random Vibration Test 5~500Hz, 1.5Grms@with SSD, follow IEC 60068-2-64	Operating Random Vibration Test 5~500Hz, 1.5Grms@with SSD, follow IEC 60068-2-64	
Shock	Operating 20G peak acceleration (11ms duration), follow IEC 60068-2-27	Operating 20G peak acceleration (11ms duration), follow IEC 60068-2-27	
EMC	CE/FCC Class B	CE/FCC Class B	
Water-proof	Front panel IP65	Front panel IP65	

TCP6000-CXX2 SERIES



Model No.	TPC6000-C122	TPC6000-C152	TPC6000-C172	TPC6000-C1852	TPC6000-C192	TPC6000-C2152
Processor	CPU	Intel® Celeron® J1900			Intel® Celeron® J1900	
	Main Frequency	Quad core 2.0GHz			Quad core 2.0GHz	
	L3 Cache	2MB			2MB	
	Chipset	Intel Bay trail SOC			Intel Bay trail SOC	
	Memory	1×DDR3L-1333, max 8GB			1×DDR3L-1333, max 8GB	
	Storage interface	1×2.5" SATA bay + 1×mSATA			1×2.5" SATA bay + 1×mSATA	
I/O	Ethernet	2×Realtek 1000Mbps RJ-45 with surge protection, lightning protection design and 15KV ESD protection			2×Realtek 1000Mbps RJ-45 with surge protection, lightning protection design and 15KV ESD protection	
	Audio	Optional			Optional	
	USB	1×USB3.0 / 2.0 / 1.1, 3×USB2.0 / 1.1			1×USB3.0 / 2.0 / 1.1, 3×USB2.0 / 1.1	
	COM	1×RS232 / 485 (COM1), 5×RS232 (Optional 2xRS48,RS485 support automatic flow control)			1×RS232 / 485 (COM1), 5×RS232 (Optional 2xRS48,RS485 support automatic flow control)	
	Expansion slot	1×Mini-Pcie slot, extensible 3G,WIFI wireless card			1×Mini-Pcie slot, extensible 3G,WIFI wireless card	
	I/O port	VGA / HDMI / 2×GLAN / 4×USB / 6×COM			VGA / HDMI / 2×GLAN / 4×USB / 6×COM	
Physical	Dimension(W×H×D)	321mm×247mm×75mm (12.64"×9.72"×2.95")	371mm×295mm×75mm (14.60"×11.61"×2.95")	428mm×342mm×75mm (16.85"×13.46"×2.95")	480mm×304mm×75mm (18.90"×11.97"×2.95")	550mm×342mm×75mm (21.65"×13.46"×2.95")
	Cut out size(W×H)	304mm×230mm (11.97"×9.06")	354mm×278mm (13.94"×10.94")	411mm×325mm (16.18"×12.80")	463mm×287mm (18.23"×11.30")	533mm×325mm (20.98"×12.80")
	Net Weight	3.34kg	4.34kg	5.34kg	5.8kg	6.18kg
OS	OS	Windows 7, Windows 7 Embedded, Windows 8, Windows 10, Linux, VxWorks, QNX			Windows 7, Windows 7 Embedded, Windows 8, Windows 10, Linux, VxWorks, QNX	
Power	DC input	DC 12V, support reverse polarity protection, +9~+30V (Option)			DC 12V, support reverse polarity protection, +9~+30V (Option)	
	Power Dissipation (Max.)	36.6Watt	38.6Watt	40.6Watt	42.6Watt	44.6Watt
LCD	LCD Type	12.1" XGA TFT	15" XGA TFT	17" SXGA TFT	18.5" HD TFT	19" SXGA TFT
	Resolution	1024×768	1024×768	1280×1024	1366×768	1280×1024
	Colors	16.7MB	16.2MB	16.7MB	16.7MB	16.7MB
	Active Area (W×H)	246mm×184mm (9.69"×7.24")	304mm×228mm (11.97"×8.98")	338mm×270mm (13.31"×10.63")	409.8mm×230.4mm (16.13"×9.07")	376.3mm×301mm (14.81"×11.85")
	Backlight	WLED	WLED	WLED	WLED	WLED
	MTBF (hour)	30000hrs	50000hrs	50000hrs	30000hrs	30000hrs
	Pixel Pitch (H×V)	0.240×0.240	0.297×0.297	0.264×0.264	0.300×0.300	0.294×0.294
	Luminance	350cd/m ²	350cd/m ²	350cd/m ²	250cd/m ²	250cd/m ²
	Contrast Ratio	800 : 1	700 : 1	1000 : 1	1000 : 1	1000 : 1
Touchscreen	Viewing Angle	(L) 80 / (R) 80 / (T) 80 / (B) 80	(L) 80 / (R) 80 / (T) 80 / (B) 80	(L) 85 / (R) 85 / (T) 80 / (B) 80	(L) 85 / (R) 85 / (T) 80 / (B) 80	(L) 85 / (R) 85 / (T) 80 / (B) 80
	Touchscreen type	Capacitive Touchscreen			Capacitive Touchscreen	
	Transmittance	> 87%			> 87%	
	Controller interface	USB			USB	
	Driver Support	Windows7, Windows 8, Windows 10, Linux			Windows7, Windows 8, Windows 10, Linux	
	Multi-touch	10 points (windows system)			10 points (windows system)	
Environmental	Surface Hardness	Mohs' Hardness 7H			Mohs' Hardness 7H	
	Work Temperature	-20 ~ 60°C (-4~140°F)(Wide temperature SSD) / 0 ~ 45°C (32~113°F)(General temperature HDD/SSD)			-20 ~ 60°C (-4~140°F)(Wide temperature SSD) / 0 ~ 45°C (32~113°F)(General temperature HDD/SSD)	
	Storage Temperature	-30 ~ 80°C (-22~176°F)			-30 ~ 80°C (-22~176°F)	
	Relative Humidity	5 ~ 95% RH@40°C (Non-condensation)			5 ~ 95% RH@40°C (Non-condensation)	
	Vibration	Operating Random Vibration Test 5~500Hz, 1.5Grms@with SSD, follow IEC 60068-2-64			Operating Random Vibration Test 5~500Hz, 1.5Grms@with SSD, follow IEC 60068-2-64	
	Shock	Operating 20G peak acceleration (11ms duration), follow IEC 60068-2-27			Operating 20G peak acceleration (11ms duration), follow IEC 60068-2-27	
	EMC	CE/FCC Class B			CE/FCC Class B	
	Water-proof	Front panel IP65			Front panel IP65	

TPC6000-D SERIES

Modular Industrial Panel PC with Bezel free Resistive Touchscreen



TPC6000-D Series is the fanless industrial Panel PC with bezel free resistive touchscreen. IP65 water and dust proof panel, stylish enclosure, and reliable modular structure. Through flexible combination among the different panel sizes and system boxes, customer could get various solution, and replace system or upgrade the platform without changing cabinet design, which is convenient to product maintenance, replacement, production and upgrade in future.

- OS : Windows7/WES7, Windows10, Linux, Vxworks and QNX.
- CPU : Intel® Celeron® J6412, J1900, 4205U and Intel® Core™ i3 i5 i7.
- Size : 12.1", 15" and 17".



Rugged industrial grade design
Rugged metal box construction, aluminum front panel with IP65 compliant.



Wide Work Temperature:-20°C~60°C
Product is with wide temperature components integrated, system operating temperature supports -20 up to +60°C, suitable for major industrial applications.



Neutral front Panel
Neutral front panel design without logo, accept print logo service, as well as neutral packing optional.



Quickly to do functional setup and maintenance
The case is designed for quick maintenance that a special location of the BIOS battery and RS232/485 jumper for setup and maintenance but not open the machine.



5-wire resistive touch screen
5-wire resistive touch, with water, dust, oil proof, click life is 50 million times.



Supports EtherCAT and Jumbo Frames
The Ethernet ports with high speed EtherCAT and jumbo frames support.



Flexible modular design
Product is with modular design structure, easy for maintenance and upgrade.



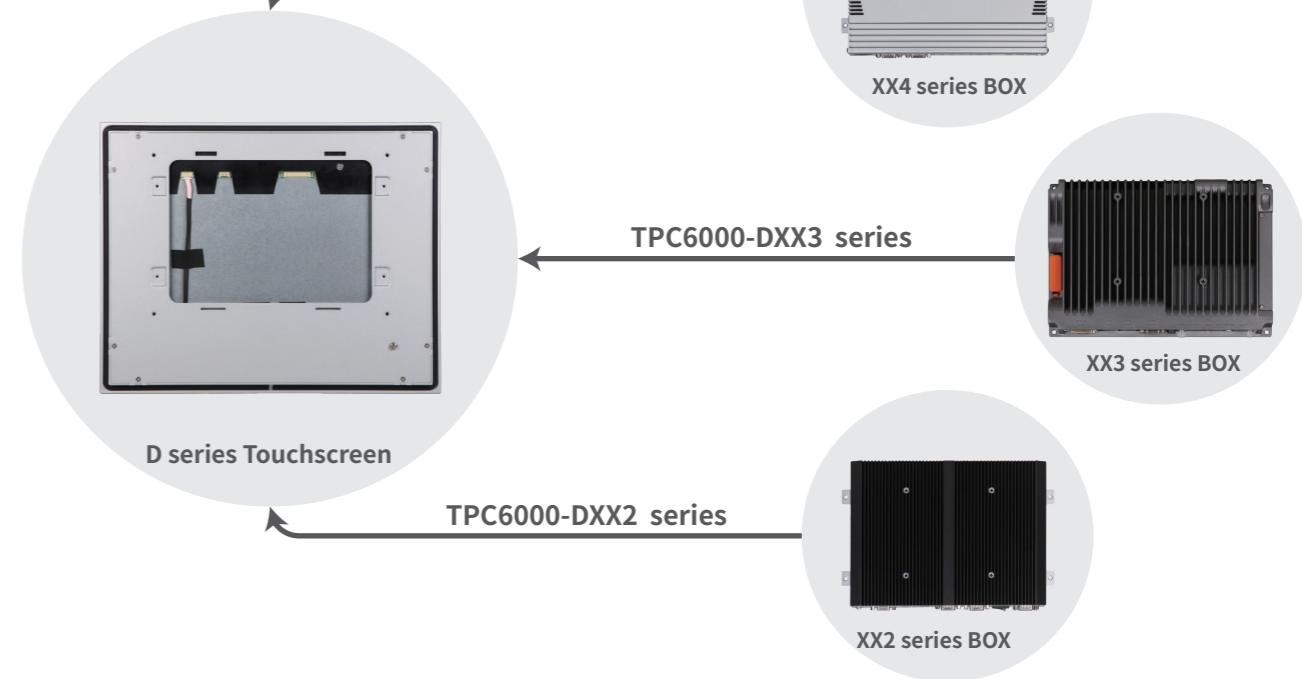
DC12V/24V Power input
DC 12V power input, optional DC24V, with surge power, over voltage and reverse polarity protection, with phoenix terminal contact.



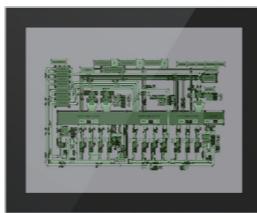
Easybus design
There is a Easybus extension design, it can be various bus via Mini PCIe.



Vaiour mounting options
VESA Mount,PanelMount,Open frame, etc.

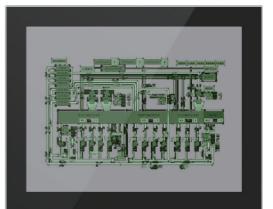


TCP6000-DXX4 SERIES



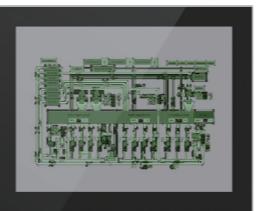
	Model No.	TPC6000-D124	TPC6000-D154	TPC6000-D174
Processor	CPU	Intel® Core™ 6/7/8/9th i7/i5/i3 , Pentium® and Celeron® LGA1151 type CPU. Max.65W TDP		
	BIOS	AMI UEFI 64Mbit		
	Chipset	H110		
	Memory	DDR4-2400 MHz, 2×SO-DIMM Slot, Up to 32GB		
	Storage interface	1×M.2 (M Key 2280 PCIe Gen3×4 Lane) + 1×mSATA		
I/O	Ethernet	3×Intel 10/100/1000Mbps controller		
	USB	4×USB3.0 / 2×USB2.0		
	COM	4×RS232 / RS485 Interface with surge protection, RS485 support automatic flow control		
	Expansion slot	1×Mini-PCIe slot, extensible 3G, WiFi wireless card		
	I/O port	8DI + 8DO Wet contact input (24V), OC gate output (24V 300mA)		
Physical	Dimension (W×H×D)	321mm×247mm×74mm (12.64"×9.72"×2.91")	371mm×295mm×74mm (14.60"×11.61"×2.91")	428mm×342mm×74mm (16.85"×13.46"×2.91")
	Cut out size	304mm×230mm (11.97"×9.06")	354mm×278mm (13.94"×10.94")	411mm×325mm (16.18"×12.80")
	Net Weight	3.7kg	4.7kg	5.7kg
OS	OS	Windows 7, Windows 7 Embedded, Windows 8, Windows 10, Linux, VxWorks, QNX		
Power	DC input	DC 12~24V±10%, Support reverse connection protection, over voltage protection, over current		
	Idle Mode Power Consumption	25Watt	28Watt	30Watt
LCD	LCD Type	12.1" XGA TFT	15" XGA TFT	17" SXGA TFT
	Resolution	1024×768	1024×768	1280×1024
	Colors	16.7MB	16.2MB	16.7MB
	Active Area (W×H)	246mm×184mm (9.69"×7.24")	304mm×228mm (11.97"×8.98")	338mm×270mm (13.31"×10.63")
	Backlight	WLED	WLED	WLED
	MTBF (hour)	30000hrs	50000hrs	50000hrs
	Pixel Pitch (H×V)	0.240×0.240	0.297×0.297	0.264×0.264
	Luminance	350cd/m²	350cd/m²	350cd/m²
	Contrast Ratio	800 : 1	700 : 1	1000 : 1
	Viewing Angle	(L) 80 / (R) 80 / (T) 80 / (B) 80	(L) 80 / (R) 80 / (T) 80 / (B) 80	(L) 85 / (R) 85 / (T) 80 / (B) 80
Touchscreen	Touchscreen type	Resistive touch screen		
	Resolution	4096×4096		
	Transmittance	> 75%		
	Controller interface	USB		
	Driver Support	Windows 7, Windows8, Windows10, Linux		
	Response Time (touch Pen)	< 5ms		
	Surface Hardness	Mohs' Hardness 3H		
	Click Life	250g / 35,000,000 times		
	Draw life	250g / 5,000,000 times		
	Work Temperature	-20 ~ 60°C (-4~140°F)(Wide temperature SSD) / 0 ~ 45°C (32~113°F)(General temperature HDD/SSD)		
Environmental	Storage Temperature	-30 ~ 80°C (-22~176°F)		
	Relative Humidity	5 ~ 95% RH@40°C (Non-condensation)		
	Vibration	Operating Random Vibration Test 5~500Hz, 1.5Grms@with SSD, follow IEC 60068-2-64		
	Shock	Operating 20G peak acceleration (11ms duration), follow IEC 60068-2-27		
	EMC	CE/FCC Class B		
	Water-proof	Front panel IP65		

TCP6000-DXX3 SERIES



	Model No.	TPC6000-D123	TPC6000-D153	TPC6000-D173
Processor	CPU	Intel® Celeron® J6412 / 4205U / J1900 / Core™ i5 7200U		
	Main Frequency	Quad core 2.0GHz / Dual Core 1.8GHz / Quad core 2.0GHz / Dual Core 2.5GHz		
	L3 Cache	1.5MB/2MB/2MB/3MB		
	Chipset	Integrated PCH-LP		
	Memory	1×DDR4-2400MHz, max16GB/1×DDR4-2400MHz, max16GB/1×DDR3L-1333MHz, max8GB/1×DDR3L-1600MHz, max8GB		
I/O	Storage interface	1×2.5" SATA bay + 1×mSATA		
	Ethernet	2×Intel 1000Mbps RJ-45 with surge protection, lightning protection design and 15kV ESD protection		
	Audio	Optional		
	USB	4×USB3.0 / 2.0/1.1		
	COM	2×RS232 / RS485 with surge protection, RS485 support automatic flow control		
	Expansion slot	1×Mini-PCIe slot, extensible 3G, WiFi wireless card; 1×EasyBUS slot		
Physical	I/O port	DVI-D / 2×GLAN / 4×USB / 2×COM / 2×PS2 / Line-out / Mic-in		
	Dimension (W×H×D)	321mm×247mm×66mm (12.64"×9.72"×2.60")	371mm×295mm×66mm (14.60"×11.61"×2.60")	428mm×342mm×66mm (16.85"×13.46"×2.60")
	Cut out size(W×H)	304mm×230mm (11.97"×9.06")	354mm×278mm (13.94"×10.94")	411mm×325mm (16.18"×12.80")
OS	Net Weight	3.54kg	4.54kg	5.54kg
Power	OS	Windows 7, Windows 7 Embedded, Windows 8, Windows 10, Linux, VxWorks, QNX		
	DC input	DC 12~24V±10%, support reverse polarity protection, overvoltage protection, overcurrent protection		
LCD	Idle Mode Power Consumption	36.6Watt	38.6Watt	40.6Watt
	LCD Type	12.1" XGA TFT	15" XGA TFT	17" SXGA TFT
	Resolution	1024×768	1024×768	1280×1024
	Colors	16.7MB	16.2MB	16.7MB
	Active Area (W×H)	246mm×184mm (9.69"×7.24")	304mm×228mm (11.97"×8.98")	338mm×270mm (13.31"×10.63")
	Backlight	WLED	WLED	WLED
	MTBF (hour)	30000hrs	50000hrs	50000hrs
	Pixel Pitch (H×V)	0.240×0.240	0.297×0.297	0.264×0.264
	Luminance	350cd/m²	350cd/m²	350cd/m²
	Contrast Ratio	800 : 1	700 : 1	1000 : 1
Touchscreen	Viewing Angle	(L) 80 / (R) 80 / (T) 80 / (B) 80	(L) 80 / (R) 80 / (T) 80 / (B) 80	(L) 85 / (R) 85 / (T) 80 / (B) 80
	Touchscreen type	Resistive touch screen		
	Resolution	4096×4096		
	Transmittance	> 75%		
	Controller interface	USB		
	Driver Support	Windows 7, Windows8, Windows10, Linux		
	Response Time (touch Pen)	< 5ms		
	Surface Hardness	Mohs' Hardness 3H		
	Click Life	250g / 35,000,000 times		
	Draw life	250g / 5,000,000 times		
Environmental	Work Temperature	-20 ~ 60°C (-4~140°F)(Wide temperature SSD) / 0 ~ 45°C (32~113°F)(General temperature HDD/SSD)		
	Storage Temperature	-30 ~ 80°C (-22~176°F)		
	Relative Humidity	5 ~ 95% RH@40°C (Non-condensation)		
	Vibration	Operating Random Vibration Test 5~500Hz, 1.5Grms@with SSD, follow IEC 60068-2-64		
	Shock	Operating 20G peak acceleration (11ms duration), follow IEC 60068-2-27		
	EMC	CE/FCC Class B		
	Water-proof	Front panel IP65		

TCP6000-DXX2 SERIES



Model No.	TPC6000-D122	TPC6000-D152	TPC6000-D172	
Processor	CPU	Intel® Celeron® J1900		
	Main Frequency	Quad core 2.0GHz		
	L3 Cache	2MB		
	Chipset	Intel Bay trail SOC		
	Memory	1×DDR3L-1333, max 8GB		
	Storage interface	1×2.5" SATA bay + 1×mSATA		
I/O	Ethernet	2×Realtek 1000Mbps RJ-45 with surge protection, lightning protection design and 15KV ESD protection		
	Audio	Optional		
	USB	1×USB3.0 / 2.0 / 1.1, 3×USB2.0 / 1.1		
	COM	1×RS232 / 485 (COM1), 5×RS232 (Optional 2xRS48,RS485 support automatic flow control)		
	Expansion slot	1×Mini PCIe slot, extensible 3G,WIFI wireless card		
	I/O port	VGA / HDMI / 2×GLAN / 4×USB / 6×COM		
Physical	Dimension (W×H×D)	321mm×247mm×75mm (12.64"×9.72"×2.95")	371mm×295mm×75mm (14.60"×11.61"×2.95")	428mm×342mm×75mm (16.85"×13.46"×2.95")
	Cut out size(W×H)	304mm×230mm (11.97"×9.06")	354mm×278mm (13.94"×10.94")	411mm×325mm (16.18"×12.80")
	Net Weight	3.3kg	4.34kg	5.34kg
OS	OS	Windows 7, Windows 7 Embedded, Windows 8, Windows 10, Linux, VxWorks, QNX		
Power	DC input	DC 12V, support reverse polarity protection, +9~+30V (Option)		
	Idle Mode Power Consumption	36.6Watt	38.6Watt	40.6Watt
LCD	LCD Type	12.1" XGA TFT	15" XGA TFT	17" SXGA TFT
	Resolution	1024×768	1024×768	1280×1024
	Colors	16.7MB	16.2MB	16.7MB
	Active Area (W×H)	246mm×184mm (9.69"×7.24")	304mm×228mm (11.97"×8.98")	338mm×270mm (13.31"×10.63")
	Backlight	WLED	WLED	WLED
	MTBF (hour)	30000hrs	50000hrs	50000hrs
	Pixel Pitch (H×V)	0.240×0.240	0.297×0.297	0.264×0.264
	Luminance	350cd/m ²	350cd/m ²	350cd/m ²
	Contrast Ratio	800 : 1	700 : 1	1000 : 1
Touchscreen	Viewing Angle	(L) 80 / (R) 80 / (T) 80 / (B) 80	(L) 80 / (R) 80 / (T) 80 / (B) 80	(L) 85 / (R) 85 / (T) 80 / (B) 80
	Touchscreen type	Resistive touch screen		
Environmental	Resolution	4096×4096		
	Transmittance	> 75%		
	Controller interface	USB		
	Driver Support	Windows 7, Windows8, Windows10, Linux		
	Response Time (touch Pen)	< 5ms		
	Surface Hardness	Mohs' Hardness 3H		
	Click Life	250g / 35,000,000 times		
	Draw life	250g / 5,000,000 times		
	Work Temperature	-20 ~ 60°C (-4~140°F)(Wide temperature SSD) / 0 ~ 45°C (32~113°F)(General temperature HDD/SSD)		
	Storage Temperature	-30 ~ 80°C (-22~176°F)		
	Relative Humidity	5 ~ 95% RH@40°C (Non-condensation)		
	Vibration	Operating Random Vibration Test 5~500Hz, 1.5Grms@with SSD, follow IEC 60068-2-64		
	Shock	Operating 20G peak acceleration (11ms duration), follow IEC 60068-2-27		
	EMC	CE/FCC Class B		
	Water-proof	Front panel IP65		



For Your Future

Automation Computing Solutions.

WP SERIES

WP Series Industrial Panel PCs - Designed for Harsh Environments



WP series Stainless steel Resistive/Multi-touch Panel PC is designed to meet the challenges in critical environments. It supports a wide operating temperature range from -20°C to 60°C and can withstand vibration. PC combined with a fully IP69K rated water/dust-proof enclosure and 6 x M12-type connectors, can resist ingress of high-temperature steam and pressure washing, well suited for food and chemical industry, as well as outdoor applications such as gas station or parking management system.

The stainless steel design protects all connections and cables against contamination and chemical influences. WP series is control and operating devices that meet strict hygiene requirements, which is quite important in the pharmaceutical, agriculture, food, beverage and chemical industries.

- OS : Windows7/WES7, Windows10, Linux.
- CPU : Intel® Celeron®J1900
- Size : 15", 19" and 21.5".



Rugged IP69K stainless steel case

High-strength 304 stainless steel housing that meets IP69K protection resistance detergent.



Neutral front Panel

Neutral front panel design without logo, accept print logo service, as well as neutral packing optional.



Excellent touch accuracy

Touchscreen with water, dust, oil proof, click life is 50 million times.



Flexible modular design

Intel® Celeron® J1900, Intel® Core™ i5-7200, easy for maintenance and upgrade.



Fanless design

Fanless design but working temperature is -20 to 60 °C.



M12 type plug

All interfaces use waterproof aviation plugs which are waterproof, corrosion-resistant, chemical-resistant, detergent-resistant, and disinfectant-resistant.



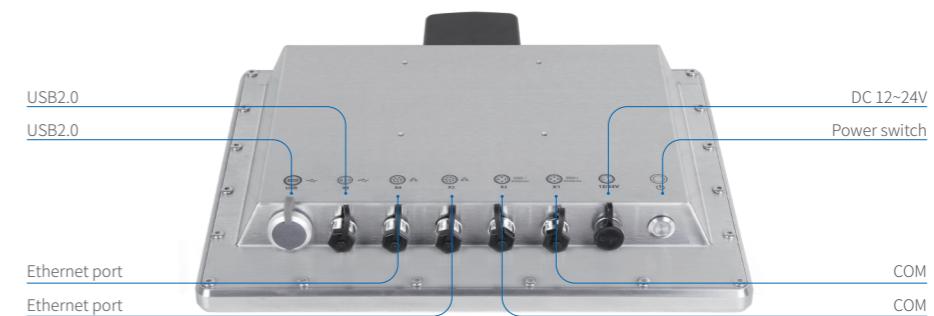
Supports EtherCAT and Jumbo Frames

The Ethernet ports with high speed EtherCAT and jumbo frames support.



DC12V/24V Power input

DC 12V power input, optional DC24V, with surge power, over voltage and reverse polarity protection.



WPXXXXT-R1 SERIES



Model No.		WP1501T-R1	WP1901T-R1	WP2151T-R1
Processor	CPU	Intel® Celeron® J1900		
	Main Frequency	Quad core 2.0GHz		
	L3 Cache	2MB		
	Chipset	Intel Bay trail SOC		
	Memory	1×DDR3L-1333, max 8GB		
	Storage interface	1×mSATA		
I/O	Ethernet	2×Intel 1000Mbps		
	Audio	NULL		
	USB	2×USB2.0		
	COM	2×RS232(option RS485 before ordering)		
	Expansion slot	Mini-Pcie slot, Option either Wifi or 4G/3G module (Default: wifi)		
Physical	Dimension (W×H×D)	360mm×284mm×54mm (14.17"×11.18"×2.13")	440mm×365mm×54mm (17.32"×14.37"×2.13")	540mm×332mm×54mm (21.26"×13.07"×2.13")
	Mounting	Wall-mounted, Desktop, VESA	Wall-mounted, Desktop, VESA	Wall-mounted, Desktop, VESA
	Net Weight	5.4kg	7.9kg	8.6kg
OS	OS	Windows7, Windows8, Windows10, Linux		
Power	DC input	DC 12~24V±10%, Support reverse connection protection, over current protection		
	Idle Mode Power Consumption	38.6Watt	42Watt	46Watt
LCD	LCD Type	15" XGA TFT	19" SXGA TFT	21.5" Full HD TFT
	Resolution	1024×768	1280×1024	1920×1080
	Colors	16.2MB	16.7MB	16.7MB
	Active Area (W×H)	304mm×228mm (11.97"×8.98")	376.3mm×301mm (14.81"×11.85")	476mm×268mm (18.74"×10.55")
	Backlight	WLED	WLED	WLED
	MTBF (hour)	50000hrs	30000hrs	50000hrs
	Pixel Pitch (H×V)	0.297×0.297	0.294×0.294	0.248×0.248
	Luminance	350cd/m ²	250cd/m ²	250cd/m ²
	Contrast Ratio	700 : 1	1000 : 1	1000 : 1
	Viewing Angle	(L) 80 / (R) 80 / (T) 80 / (B) 80	(L) 85 / (R) 89 / (T) 89 / (B) 89	(L) 89 / (R) 85 / (T) 80 / (B) 89
Touchscreen	Touchscreen type	Resistive touch screen		
	Resolution	4096×4096		
	Transmittance	> 75%		
	Controller interface	USB		
	Driver Support	Windows 7, Windows8, Windows10, Linux		
	Response Time (touch Pen)	< 5ms		
	Surface Hardness	Mohs' Hardness 3H		
	Click Life	250g / 35,000,000 times		
	Draw life	250g / 5,000,000 times		
Environmental	Work Temperature	-20 ~ 60°C (-4~140°F)(Wide temperature SSD) / 0 ~ 45°C (32~113°F)(General temperature HDD/SSD)		
	Storage Temperature	-30 ~ 80°C (-22~176°F)		
	Relative Humidity	5 ~ 95% RH@40°C (Non-condensation)		
	Vibration	Operating Random Vibration Test 5~500Hz, 1.5Grms@with SSD, follow IEC 60068-2-64		
	Shock	Operating 20G peak acceleration (11ms duration), follow IEC 60068-2-27		
	EMC	CE/FCC Class B		
	Water-proof	The whole machine IP69K		

WPXXXXT-C SERIES



Model No.		WP1501T-C	WP1901T-C	WP2151T-C
Processor	CPU	Intel® Celeron® J1900		
	Main Frequency	Quad core 2.0GHz		
	L3 Cache	2MB		
	Chipset	Intel Bay trail SOC		
	Memory	1×DDR3L-1333, max 8GB		
	Storage interface	1×mSATA		
I/O	Ethernet	2×Intel 1000Mbps		
	Audio	NULL		
	USB	2×USB2.0		
	COM	2×RS232(option RS485 before ordering)		
	Expansion slot	Mini-Pcie slot, Option either Wifi or 4G/3G module (Default: wifi)		
Physical	Dimension(W×H×D)	360mm×284mm×54mm (14.17"×11.18"×2.13")	440mm×365mm×54mm (17.32"×14.37"×2.13")	540mm×332mm×54mm (21.26"×13.07"×2.13")
	Cut out size(W×H)	Wall-mounted, Desktop, VESA	Wall-mounted, Desktop, VESA	Wall-mounted, Desktop, VESA
	Net Weight	5.3kg	7.9kg	8.6kg
OS	OS	Windows7, Windows8, Windows10, Linux		
Power	DC input	DC 12~24V±10%, Support reverse connection protection, over current protection		
	Power Dissipation (Max.)	38.6Watt	42Watt	46Watt
LCD	LCD Type	15" XGA TFT	19" SXGA TFT	21.5" Full HD TFT
	Resolution	1024×768	1280×1024	1920×1080
	Colors	16.2MB	16.7MB	16.7MB
	Active Area (W×H)	304mm×228mm (11.97"×8.98")	376.3mm×301mm (14.81"×11.85")	476mm×268mm (18.74"×10.55")
	Backlight	WLED	WLED	WLED
	MTBF (hour)	50000hrs	30000hrs	50000hrs
	Pixel Pitch (H×V)	0.297×0.297	0.294×0.294	0.248×0.248
	Luminance	350cd/m ²	250cd/m ²	250cd/m ²
	Contrast Ratio	700 : 1	1000 : 1	1000 : 1
	Viewing Angle	(L) 80 / (R) 80 / (T) 80 / (B) 80	(L) 85 / (R) 89 / (T) 89 / (B) 89	(L) 89 / (R) 85 / (T) 80 / (B) 89
Touchscreen	Touchscreen type	Capacitive Touchscreen		
	Transmittance	> 87%		
	Controller interface	USB		
	Driver Support	Windows7, Windows8, Windows10, Linux		
	Multi-touch	10 points (windows system)		
	Surface Hardness	Mohs' Hardness 7H		
Environmental	Work Temperature	-20 ~ 60°C (-4~140°F)(Wide temperature SSD) / 0 ~ 45°C (32~113°F)(General temperature HDD/SSD)		
	Storage Temperature	-30 ~ 80°C (-22~176°F)		
	Relative Humidity	5 ~ 95% RH@40°C (Non-condensation)		
	Vibration	Operating Random Vibration Test 5~500Hz, 1.5Grms@with SSD, follow IEC 60068-2-64		
	Shock	Operating 20G peak acceleration (11ms duration), follow IEC 60068-2-27		
	EMC	CE/FCC Class B		
	Water-proof	The whole machine IP69K		