



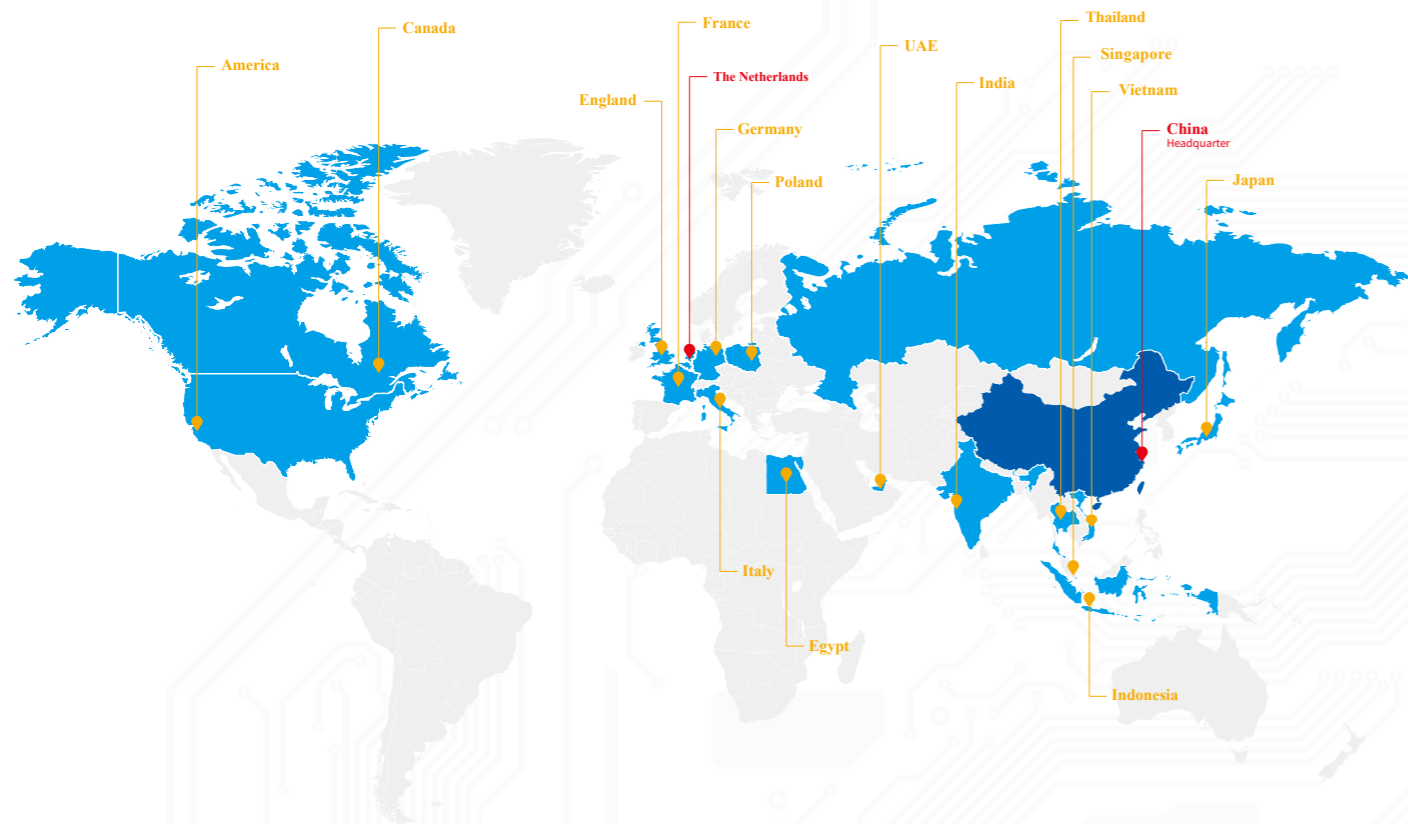
**KEEP IMPROVING AND MAKING  
BETTER PANEL PC**

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- **COMLAC INSIDE**
- **INDUSTRIAL OPERATION PANEL**
- **INDUSTRIAL MONITOR & PANEL PC**
- **EMBEDDED INDUSTRIAL COMPUTER**
- **CONTROL CABINET AUTOMATION PC**



◆ Nodka office

◆ Local partner

#### NODKA GLOBAL LOCATION

NODKA local sales and service team, offer the optimized solution and service support to our customers in different territory.

NODKA is a leading Chinese manufacturer of Industrial Embedded Systems and Fanless Panel PC products with more than 20 years of experience for automation computing solution.

We offer product and service to over 5,000 clients in China and more than 30 overseas countries, and offer the applications cover Industrial Automation, Power Automation, Communication and Transportation, etc. Currently there are 17 branch offices in China and 1 branch office in the Netherlands, more than 14 countries around the world with qualified partners and distributors.

NODKA has own R&D team, precision sheet machinery factory, SMT plant and system assembly plant in Suzhou city, besides, we have lab for initial EMC, Wide Temperature, Vibration, ESD, Impulse and Surge testing.

COMLAC Module Computer



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## YOUR FUTURE AUTOMATION COMPUTING SOLUTIONS

NODKA offers more than 150 industrial computer related products and widely used in Industrial Automation, CNC machinery, Data Acquisition, Process Control, Motion Control, Machine Vision and so on.

We endeavor to Industrial product design, production, maintain and service support, and not be involved in the competition with our customers.

Nodka offers X86 and ARM high-quality based products and adhering to provide industrial-grade and military-grade products which more than 7+ years life cycle, and try to more than 10+ years. We provide free lifecycle maintenance to customers, including OS upgrades, bug check, product tracking, technical consulting and support services. With the change of market requirement and continuously technical innovation, Nodka will continuously improve capability on troubleshooting and problem solving, to grow with our partner together.



# COMLAC

## Computer on Module like Automobile Chassis



COMLAC is a multi-functional small form factor computer core module, developed by NODKA and followed X86 modular bus standard. Based on years of experience and research with ETX, COM Express, Qseven, SMARC modular bus and combined with latest technology and development with X86, so new bus standard is proposed and designed for the needs of low power consumption and smaller dimension, as well as high performance. COMLAC keeps not only the high capability of COM Express, but also the advantage of Qseven and SMARC for smaller size, lower cost and failure rate, which gives COMLAC a stronger vitality and competitiveness.

### The modular concept of Carrier Board:

- The designer of carrier board could decide the physical structure of carrier board and equipment, bring no restrict to form factor (such as ATX, Mini-ITX, 3.5 inch or 5.25 inch).
- Through the compatibility design, the same carrier board can be compatible with different CPU core modules, which brings advantage of flexibility for platform exchange and upgrade, as well as the better cost control.
- Modularize the most complex part of motherboard, help reduce R&D cost and accelerate time to market process.
- Can reduce current and future design risks.
- Fast implementation of own hardware circuit design to Carrier board, help reduce the connection cables and add-on cards around device, improve product integration and reliability.
- Enable customer to import new technology quickly, reserve possibility of the further development.

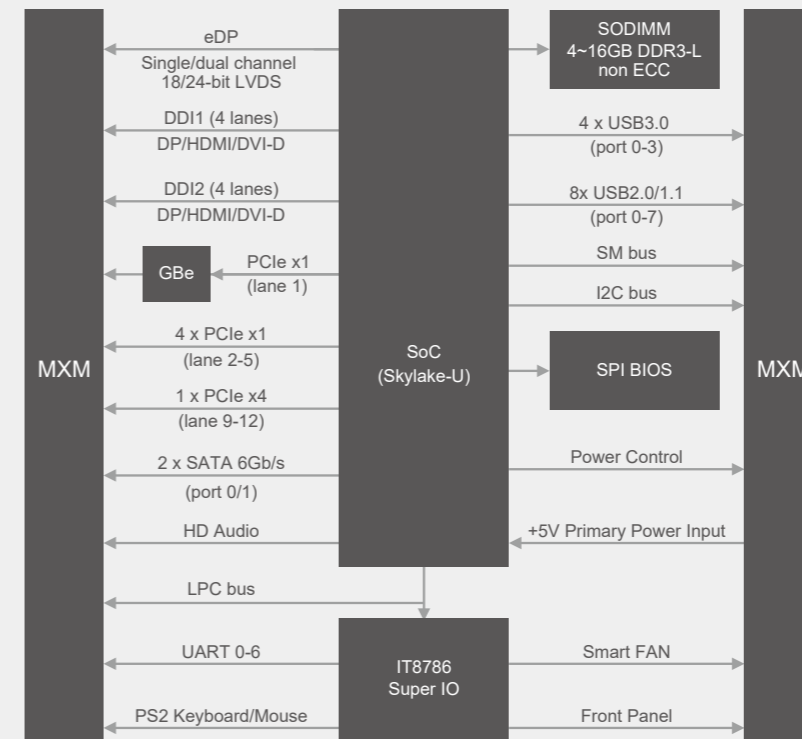


### What is COMLAC ?

COMLAC CPU modules choose low-power x86 SOC, and is designed with low power range between 10W ~ 30W and small size of 82 \* 95 mm. COMLAC CPU modules can offer the powerful computing performance based on Intel's latest Core-I platform, are suitable for applications that require low power but high performance, so that it is typically used in portable devices and fixed embedded systems. CPU core and supported circuits (including memory, BIOS, power timing control, CPU power supply, Ethernet, etc.) are all integrated on the CPU module.

The COMLAC CPU module will be integrated with the carrier board, which is with specific functions required by application, such as VGA / DVI / HDMI, LCD interface, audio codec, touch controller, wireless, interface protection, and customer designed circuits, etc. Such modular design can provide a lot of advantage to customers, such as flexibility of product upgrade, fast time to market, diversification, lower cost and power consumption as well as smaller physical size.

### COMLAC Diagram Functional:



### COMLAC development services and technical support

- COMLAC specification consulting, introduction and training.
- Product selection assistance, accessories selection assistance X86 architecture analysis
- Carrier board design guidance information
- Schematic reference
- Technical design assistance
- Schematic design and audit assistance
- PCB design and audit assistance
- Thermal design and audit assistance
- PCBA process assistance
- BIOS function customization (boot screen, default settings, etc.)
- Faulty analysis, positioning and troubleshooting

### COMLAC Type3 Revision1.0

<b>MXM Connector</b>		<b>MXM Connector</b>
One Gigabit Ethernet port		Four GPIO pins
LPC Interface		Keyboard/Mouse
Two Serial ATA channels		+5V primary power input
High definition Audio		External SMB Bus
Four USB3.0 ports		External I2C Bus
Eight USB2.0 ports		Power Control
Four PCI Express Lanes x1		Front Panel signal
One PCI Express lanes x4		Smart Fan Control
One eDP Interface		SDIO Interface
Two DDI Interface		Six Serial Ports

### About COMLAC Connector

The COMLAC standard uses a high-speed MXM-III connector. The MXM connector is known for its high-speed signal transmission, and is typically used as a transmission interface for PCI Express image acquisition cards in notebooks. It is also widely applied for military and industrial computer core module (such as Qseven and SMARC) because of its advantage of compact physical structure, high-speed transmission, impact resistance, and vibration resistance. NODKA CPU core module is with same connector and with dimension of 82 mm \* 95 mm, which is based on latest Intel Core-I Platform. The MXM-III connector selected by NODKA COMLAC standard provides 314 electrical contacts, and supports third-generation PCI-Express transfer rate, and wide temperature range of -55°C to + 85°C.

# COMLAC Core Modules



Model No.	NK-L316-4205U	NK-L315-7200U	
<b>Processor</b>	CPU	Intel® Celeron® 4205U	Intel® Core™ i5-7200U
	Base Frequency	1.8GHz	2.5GHz
	Max Turbo Frequency	-	3.1GHz
	CPU TDP	15W	15W
	Chipset	Integrated PCH-LP	Integrated PCH-LP
	BIOS	AMI UEFI 128Mbit	AMI UEFI 128Mbit
	Memory	DDR4-2133MHz SODIMM, support up to 16GB	DDR3L-1600MHz SODIMM, support up to 8GB
<b>Graphics</b>	Controller	Intel® HD Graphics 610	Intel® HD Graphics 620
	Base/Turbo Memory	300/900MHz	300/1000MHz
	Graphics Memory	Intel DVMT	Intel DVMT
	3D/HW Acceleration	Direct3D 2015/11.2/11.1/10/9, Direct2D, OpenGL 5.0, OpenCL 2.1/2.0/1.2 HW Decode: H.265/HEVC, H.264/AVC, VP9, VP8, MPEG2, WMV9/VC1, JPEG/MJPEG HW Encode: H.265/HEVC, H.264/AVC, VP9, VP8, MPEG2, JPEG	Direct3D 2015/11.2/11.1/10/9, Direct2D, OpenGL 5.0, OpenCL 2.1/2.0/1.2 HW Decode: H.265/HEVC, H.264/AVC, VP9, VP8, MPEG2, WMV9/VC1, JPEG/MJPEG HW Encode: H.265/HEVC, H.264/AVC, VP9, VP8, MPEG2, JPEG
<b>Display</b>	LCD	eDP up to 3840×2160 @ 60Hz 24bpp or 4096×2304 @ 60Hz 24bpp Convert to LVDS support 2 channels 18/24-bit, up to 1920×1200 @ 60Hz	eDP up to 3840×2160 @ 60Hz 24bpp or 4096×2304 @ 60Hz 24bpp Convert to LVDS support 2 channels 18/24-bit, up to 1920×1200 @ 60Hz
	DDI	2 Ports, configurable to HDMI1.4/DVI/Displayport1.2 HDMI up to 4096×2160 @ 24Hz 24bpp DVI up to 1920×1200 @ 60Hz DP up to 4096×2304 @ 60Hz 24bpp Or convert to VGA up to 1920×1200 @ 60Hz	2 Ports, configurable to HDMI1.4/DVI/Displayport1.2 HDMI up to 4096×2160 @ 24Hz 24bpp DVI up to 1920×1200 @ 60Hz DP up to 4096×2304 @ 60Hz 24bpp Or convert to VGA up to 1920×1200 @ 60Hz
	Multi-Display	Support 3 Independent display	Support 3 Independent display
<b>Expansion</b>	PCI Express x1	PCI Express Gen3 (8.0GT/s), Celeron Only support PCI Express Gen2 (5.0GT/s) 5 PCIe×1 or 4 PCIe×1 + 1 PCIe×4 (support up to 5 devices and 8 lanes)	PCI Express Gen3 (8.0GT/s), Celeron Only support PCI Express Gen2 (5.0GT/s) 5 PCIe×1 or 4 PCIe×1 + 1 PCIe×4 (support up to 5 devices and 8 lanes)
	Audio Interface	Intel HD Audio Interface	
	LPC	Yes (24MHz)	
<b>Serial Bus</b>	SMBus	Yes	
	I2C Bus	Yes	
<b>Ethernet</b>	Speed	10/100/1000Mbps	
	GbE	Intel GbE LAN	
<b>H/W Monitor</b>	WatchDog Timer	Output system reset, Programmable counter from 1-255 seconds	
	Smart Fan	1×4 pin DC smart fan control	
<b>IO</b>	COMLAC Connector	MXM3.0	
	SATA	2×SATA Gen3, up to 6.0 Gb/s (600MB/s)	
	USB3.0	4 Ports	4 Ports
	USB2.0	8 Ports	8 Ports
	GPIO	4-bits general purpose input/output	
	COM port	6×COM, COM1-2: 9-wire RS232, COM3-6: 3-wire RS232	
	Keyboard/Mouse	1	
	Front Panel	Power Switch, Reset, Power LED, HDD LED	
<b>Power</b>	Power Type	Single +5V±5% DC power input	
	Power Consumption (Typical)	7.5W	7.5W
	Power Consumption (Max.)	25W	25W
	Power Management	ACPI	
	Battery	Lithium 3V / 210mAH	
<b>Environmental</b>	Operating	-20~70°C (-4~158°F) (Operating humidity: 40°C @ 95% RH Non-Condensing)	
	Storage	-40~85°C and 60°C @ 95% RH Non-Condensing	



Model No.	NK-L313-J3455	NK-L312-J1900	
<b>Processor</b>	CPU	Intel® Celeron® J3455	Intel® Celeron® J1900
	Base Frequency	1.5GHz	2.0GHz
	Max Turbo Frequency	2.3GHz	2.42GHz
	CPU TDP	10W	10W
	Chipset	Integrated PCH-LP	Integrated PCH-LP
	BIOS	AMI UEFI 128Mbit	AMI UEFI 64Mbit
	Memory	1×DDR3L-1333/1600/1866MHz SODIMM, support up to 8GB	1×DDR3L-1333MHz SODIMM, support up to 8GB
<b>Graphics</b>	Controller	Intel® HD Graphics 500	Intel® HD Graphics Z3700
	Base/Turbo Memory	250/750MHz	688/854MHz
	Graphics Memory	Intel DVMT	Intel DVMT
	3D/HW Acceleration	Direct3D 2015/11.2/11.1/10/9, Direct2D, OpenGL 5.0, OpenCL 2.1/2.0/1.2 HW Decode: H.265/HEVC, H.264/AVC, VP9, VP8, MPEG2, WMV9/VC1, JPEG/MJPEG HW Encode: H.265/HEVC, H.264/AVC, VP9, VP8, MPEG2, JPEG	Direct3D 2015/11.2/11.1/10/9, Direct2D, OpenGL 5.0, OpenCL 2.1/2.0/1.2 HW Decode: H.265/HEVC, H.264/AVC, VP9, VP8, MPEG2, WMV9/VC1, JPEG/MJPEG HW Encode: H.265/HEVC, H.264/AVC, VP9, VP8, MPEG2, JPEG
<b>Display</b>	LCD	eDP up to 3840×2160 @ 60Hz 24bpp or 4096×2304 @ 60Hz 24bpp Convert to LVDS support 2 channels 18/24-bit, up to 1920×1200 @ 60Hz	eDP up to 3840×2160 @ 60Hz 24bpp or 4096×2304 @ 60Hz 24bpp Convert to LVDS support 2 channels 18/24-bit, up to 1920×1200 @ 60Hz
	DDI	2 Ports, configurable to HDMI1.4/DVI/Displayport1.2 HDMI up to 4096×2160 @ 24Hz 24bpp DVI up to 1920×1200 @ 60Hz DP up to 4096×2304 @ 60Hz 24bpp Or convert to VGA up to 1920×1200 @ 60Hz	2 Ports, configurable to HDMI1.4/DVI/Displayport1.2 HDMI up to 4096×2160 @ 24Hz 24bpp DVI up to 1920×1200 @ 60Hz DP up to 4096×2304 @ 60Hz 24bpp Or convert to VGA up to 1920×1200 @ 60Hz
	Multi-Display	Support 3 Independent display	Support 3 Independent display
<b>Expansion</b>	PCI Express x1	PCI Express Gen3 (8.0GT/s), Celeron Only support PCI Express Gen2 (5.0GT/s) 5 PCIe×1 or 4 PCIe×1 + 1 PCIe×4 (support up to 5 devices and 8 lanes)	PCI Express Celeron Only support PCI Express Gen2 (5.0GT/s) 4 PCIe×1 + 4 PCIe×1 (support up to 4 devices and 4 lanes)
	Audio Interface	Intel HD Audio Interface	
	LPC	Yes (24MHz)	
<b>Serial Bus</b>	SMBus	Yes	
	I2C Bus	Yes	
<b>Ethernet</b>	Speed	10/100/1000Mbps	
	GbE	Intel GbE LAN	
<b>H/W Monitor</b>	WatchDog Timer	Output system reset, Programmable counter from 1-255 seconds	
	Smart Fan	1×4 pin DC smart fan control	
<b>IO</b>	COMLAC Connector	MXM3.0	
	SATA	2×SATA Gen3, up to 6.0 Gb/s (600MB/s)	
	USB3.0	4 Ports	1 Ports
	USB2.0	8 Ports	8 Ports
	GPIO	4-bits general purpose input/output	
	COM port	6×COM, COM1-2: 9-wire RS232, COM3-6: 3-wire RS232	
	Keyboard/Mouse	1	
	Front Panel	Power Switch, Reset, Power LED, HDD LED	
<b>Power</b>	Power Type	Single +5V±5% DC power input	
	Power Consumption (Typical)	7.5W	10W
	Power Consumption (Max.)	25W	-
	Power Management	ACPI	
	Battery	Lithium 3V / 210mAH	
<b>Environmental</b>	Operating	-20~70°C (-4~158°F) (Operating humidity: 40°C @ 95% RH Non-Condensing)	
	Storage	-40~85°C and 60°C @ 95% RH Non-Condensing	

# Industrial Operation Panel with Swing ARM

NODKA Industrial Operation Panel combines the swing arm control box with industrial computer system and display, and in more compact, highly-integrated and stylish design. Widely used in all kinds of machine tools, automobile manufacturing, petrochemical, food, pharmaceutical machinery and other automatic equipment, testing equipment and human-computer interaction equipment.

Industrial Operation Panels are available either with a touch screen monitor (IDP59 series) or with additional PC system (ICP68 series), with projected capacitive touch screens are available in sizes ranging from 15" to 21.5" and offer full IP65 protection. Buttons, selector switches, key switches and an integrated E-stop button provide exceptional user comfort.

ICP68 series support NODKA COMLAC INSIDE design, option a variety of CPU options, just like J1900, 4205U and i5-7200U. Interfaces option 2 Intel gigabit RJ45 ports, 4 USB and 2 RS232/485 ports.



To adapt optimally to the requests from different application, button panel can be individually customized. The list of possible adaptations endless, including virtually any arrangement of standard keys, illuminated ring keys and push buttons in various colors, a custom keypad module is also available.

NODKA Industrial Operation Panels support both pendant and pedestal mounting, the panels are designed to allow easy access to all buttons and cables.

# ICP69 SERIES



Model No.	ICP6915	ICP6919	ICP69185	ICP69215	
<b>Processor</b>	CPU	Intel® Celeron® 4205U/J1900/Core™ i5 7200U			
	Main Frequency	Dual Core 1.8GHz/Quad core 2.0GHz/Dual Core 2.5GHz			
	L3 Cache	2MB/2MB/3MB			
	Memory	1×DDR4-2400MHz, max 16GB / 1×DDR3L-1333MHz, max 8GB / 1×DDR3L-1600MHz, max 8GB			
	Storage interface	1×2.5" SATA HDD + 1×mSATA			
<b>I/O</b>	Ethernet	2×Intel 1000Mbps RJ-45 Ethernet interface			
	Audio	Optional			
	USB	4×USB3.0/2.0/1.1			
	Serial port	2×RS232 / RS485 with surge protection, RS485 support automatic flow control			
	Expansion slot	1×Mini-PCIe slot, extensible 3G, WIFI wireless card			
	<b>Physical</b>	Weight	8.3KG	11.30KG	10.24KG
Pensile Direction		Optional Up or Down			
Fixed Stand of Cantilever		Suitable for full series			
Handle of Operation Panel		Standard			
Operation Button		Nodka Standard: USB, Rotatable switch, Push button (Green , Red ),Key switch, Emergency stop switch			
Dimension (W×H×D)		507mm×386mm×139.5mm	573mm×437mm×139.5mm	593mm×372mm×139.5mm	664mm×411mm×139.5mm
<b>OS</b>		OS Windows 7, Windows 8, Windows 10, Linux			
<b>Power</b>	DC input	DC 12~24V support reverse polarity protection, overvoltage protection, overcurrent protection			
	Power Dissipation (Max)	Depend on the processor	Depend on the processor	Depend on the processor	Depend on the processor
<b>LCD</b>	LCD Type	15" XGA TFT	19" SXGA TFT	18.5" HD TFT	21.5" Full HD TFT
	Resolution	1024×768	1280×1024	1366×768	1920×1080
	Colors	16.7MB	16.7MB	16.7MB	16.7MB
	Active Area (W×H)	304.13mm×228.10mm	376.32mm×301.06mm	409.8mm×230.4mm	476.64mm×268.11mm
	Backlight	LED	LED	LED	LED
	MTBF (hour)	30000hrs	30000hrs	30000hrs	30000hrs
	Pixel Pitch (H×V)	0.297×0.297	0.294×0.294	0.248×0.248	0.248×0.248
	Luminance	420cd/m <sup>2</sup>	250cd/m <sup>2</sup>	250cd/m <sup>2</sup>	250cd/m <sup>2</sup>
	Contrast Ratio	800:1	1000:1	1000:1	3000:1
	Viewing Angle	80 / 80 / 80 / 80	85 / 85 / 80 / 80	85 / 85 / 80 / 80	89 / 89 / 89 / 89
<b>Touchscreen</b>	Touchscreen type	Capacitive touch screen			
	Transmittance	> 87%			
	Response Time (touch pen)	< 5ms			
	Surface Hardness	Mohs' Hardness 7H			
	Click Life	250g / 100,000,000 times	250g / 100,000,000 times	250g / 100,000,000 times	250g / 100,000,000 times
	Multi-touch	10 points	10 points	10 points	10 points
	<b>Environmental</b>	Work Temperature	-10 ~ 60°C (14~140°F)	-10 ~ 60°C (14~140°F)	-10 ~ 60°C (14~140°F)
Storage Temperature		-20 ~ 80°C (-4 ~ 176°F)	-20 ~ 80°C (-4 ~ 176°F)	-20 ~ 80°C (-4 ~ 176°F)	-20 ~ 80°C (-4 ~ 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		IP65			

# IDP59 SERIES



Model No.	IDP5915	IDP5919	IDP59185	IDP59215	
<b>Input interface</b>	Signal input	VGA+DVI input			
	Communication interface	USB2.0 input			
<b>Physical</b>	Weight	8.3KG	11.30KG	10.24KG	14.30KG
	Pensile Direction	Optional Up or Down			
	Fixed Stand of Cantilever	Suitable for full series			
	Handle of Operation Panel	Standard			
	Keyboard tray	Optional			
	Operation Button	Nodka Standard: USB, Rotatable switch, Push button (Green , Red ),Key switch, Emergency stop switch			
	Dimension (W×H×D)	507mm×386mm×139.5mm	573mm×437mm×139.5mm	593mm×372mm×139.5mm	664mm×411mm×139.5mm
<b>Power</b>	DC input	DC 12~24V support reverse polarity protection, overvoltage protection, overcurrent protection			
	Power Dissipation (Max)	Depend on the processor	Depend on the processor	Depend on the processor	Depend on the processor
<b>LCD</b>	LCD Type	15" XGA TFT	19" SXGA TFT	18.5" HD TFT	21.5" Full HD TFT
	Resolution	1024×768	1280×1024	1366×768	1920×1080
	Colors	16.7MB	16.7MB	16.7MB	16.7MB
	Active Area (W×H)	304.13mm×228.10mm	376.32mm×301.06mm	409.8mm×230.4mm	476.64mm×268.11mm
	Backlight	LED	LED	LED	LED
	MTBF (hour)	30000hrs	30000hrs	30000hrs	30000hrs
	Pixel Pitch (H×V)	0.297×0.297	0.294×0.294	0.248×0.248	0.248×0.248
	Luminance	420cd/m <sup>2</sup>	250cd/m <sup>2</sup>	250cd/m <sup>2</sup>	250cd/m <sup>2</sup>
	Contrast Ratio	800:1	1000:1	1000:1	3000:1
	Viewing Angle	80 / 80 / 80 / 80	85 / 85 / 80 / 80	85 / 85 / 80 / 80	89 / 89 / 89 / 89
<b>Touchscreen</b>	Touchscreen type	Capacitive Touchscreen			
	Transmittance	> 87%			
	Response Time (touch pen)	< 5ms			
	Surface Hardness	Mohs' Hardness 7H			
	Click Life	250g / 100,000,000 times	250g / 100,000,000 times	250g / 100,000,000 times	250g / 100,000,000 times
	Multi-touch	10 points	10 points	10 points	10 points
	<b>Environmental</b>	Work Temperature	-10 ~ 60°C (14~140°F)	-10 ~ 60°C (14~140°F)	-10 ~ 60°C (14~140°F)
Storage Temperature		-20 ~ 80°C (-4 ~ 176°F)	-20 ~ 80°C (-4 ~ 176°F)	-20 ~ 80°C (-4 ~ 176°F)	-20 ~ 80°C (-4 ~ 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		IP65			

# 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:



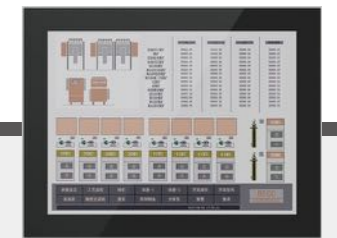
### TPC6000-A series

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 10.4",12.1",15",15.6",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", 15.6" 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.



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



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



**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.



**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.



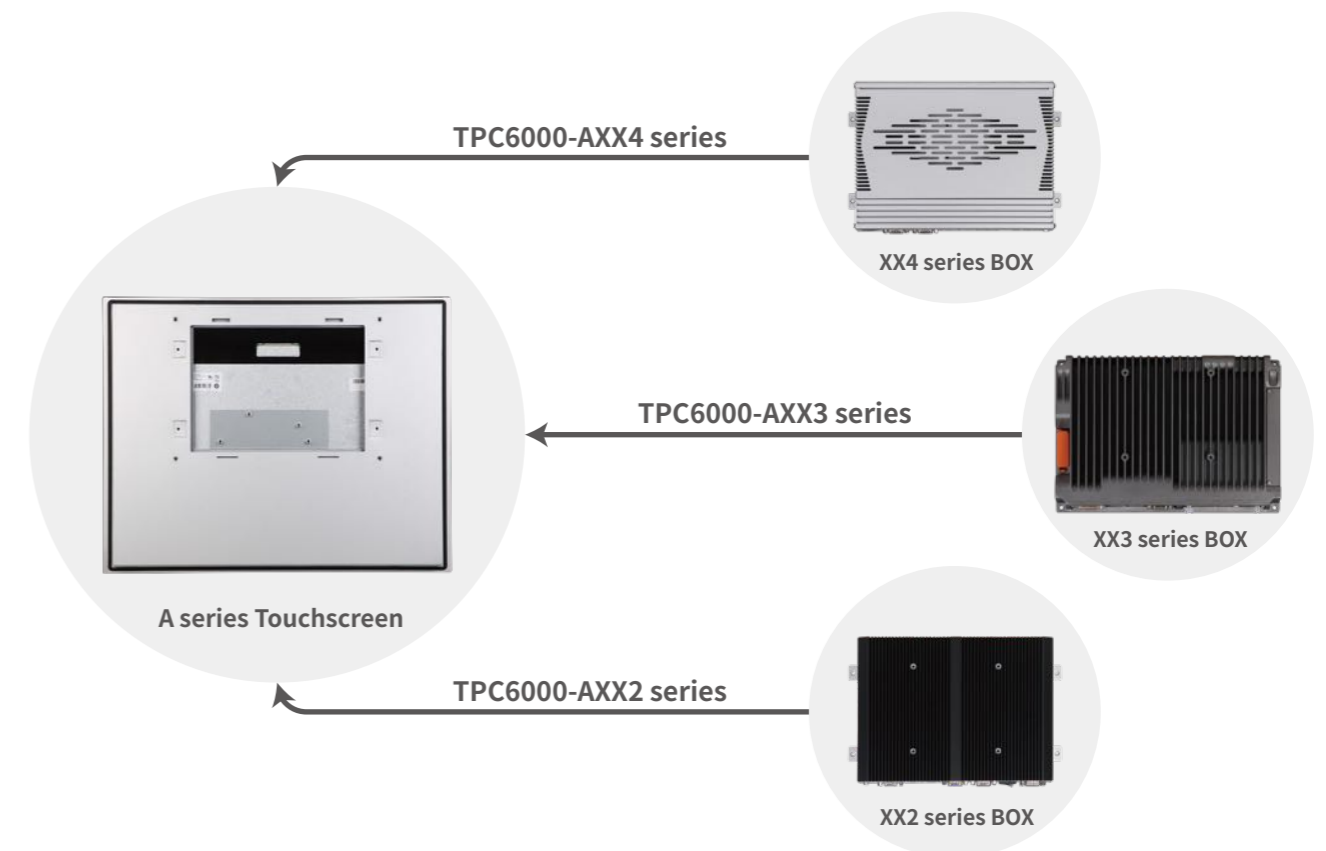
**Supports EtherCAT and Jumbo Frames**  
The Ethernet ports with high speed EtherCAT and jumbo frames support.



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



**Various mounting options**  
VESA Mount, Panel Mount, etc.



# TPC6000-AXX4 SERIES

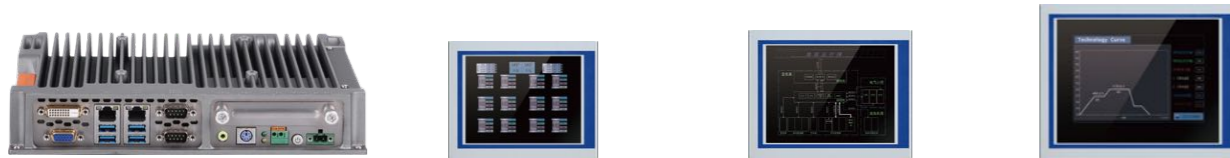


Model No.		TPC6000-A104	TPC6000-A124	TPC6000-A154
Processor	CPU	Intel® Core™ 6/7/8/9th i7/i5/i3, Pentium® and Celeron® LGA1151 type CPU. Max.65W TDP		
	BIOS	AMI UEFI 64Mbit		
	Chipset	H110		
	Memory	DDR4-2400 MHz, 2×SO-DIMM Slot, Up to 32GB		
	Storage interface	1×M.2 (M Key 2280 PCIe Gen3×4 Lane) + 1×mSATA		
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 <sup>2</sup>	350cd/m <sup>2</sup>	350cd/m <sup>2</sup>
	Contrast Ratio	800 : 1	800 : 1	700 : 1
	Viewing Angle	80 / 80 / 65 / 75	80 / 80 / 80 / 80	80 / 80 / 80 / 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		
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		



		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		
		H110		
		DDR4-2400 MHz, 2×SO-DIMM Slot, Up to 32GB		
		1×M.2 (M Key 2280 PCIe Gen3×4 Lane) + 1×mSATA		
		3×Intel 10/100/1000Mbps controller		
		4×USB3.0 / 2×USB2.0		
		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)		
		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		
		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 <sup>2</sup>	250cd/m <sup>2</sup>	250cd/m <sup>2</sup>
		1000 : 1	1000 : 1	1000 : 1
		85 / 85 / 80 / 80	85 / 85 / 80 / 80	89 / 89 / 89 / 89
		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-AXX3 SERIES



Model No.	TPC6000-A103	TPC6000-A123	TPC6000-A153	
<b>Processor</b>	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			
<b>I/O</b>	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			
<b>Physical</b>	Dimension (W×H×D)	300.5mm×234.5mm×69mm (11.83"×9.23"×2.72")	321mm×243mm×69mm (12.64"×9.57"×2.72")	395mm×313mm×73mm (15.55"×12.32"×2.87")
	Cut out size(W×H)	282mm×222mm (11.10"×8.74")	304mm×230mm (11.97"×9.06")	376mm×300mm (14.80"×11.81")
	Net Weight	3.65kg	4.1kg	5.45kg
<b>OS</b>	OS Windows 7, Windows 7 Embedded, Windows 8, Windows 10, Linux, VxWorks, QNX			
<b>Power</b>	DC input	DC 12~24V±10% , support reverse polarity protection, overvoltage protection, overcurrent protection		
	Power Dissipation (Max.)	33.6Watt	36.6Watt	38.6Watt
<b>LCD</b>	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 <sup>2</sup>	350cd/m <sup>2</sup>	350cd/m <sup>2</sup>
	Contrast Ratio	800 : 1	800 : 1	700 : 1
	Viewing Angle	80 / 80 / 65 / 75	80 / 80 / 80 / 80	80 / 80 / 80 / 80
<b>Touchscreen</b>	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			
<b>Environmental</b>	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		

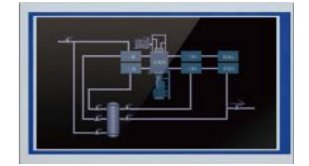
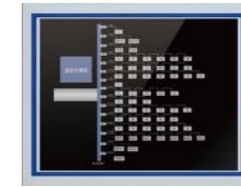
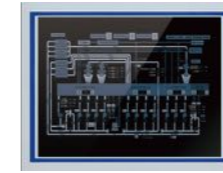


TPC6000-A173	TPC6000-A193	TPC6000-A2153
Intel® Celeron® J6412 / 4205U / J1900 / Core™ i5 7200U		
Quad core 2.0GHz / Dual Core 1.8GHz / Quad core 2.0GHz / Dual Core 2.5GHz		
1.5MB/2MB/2MB/3MB		
Integrated PCH-LP		
1×DDR4-2400MHz, max 16GB / 1×DDR4-2400MHz, max 16GB / 1×DDR3L-1333MHz, max 8GB / 1×DDR3L-1600MHz, max 8GB		
1×2.5" SATA bay + 1×mSATA		
2×Intel 1000Mbps RJ-45 with surge protection, lightning protection design and 15KV ESD protection		
Optional		
4×USB3.0 / 2.0/1.1		
2×RS232 / RS485 with surge protection, RS485 support automatic flow control		
1×Mini-PCIe slot, extensible 3G, WIFI wireless card; 1×EasyBUS slot		
DVI-D / 2×GLAN / 4×USB / 2×COM / 2×PS2 / Line-out / Mic-in		
434mm×342mm×73mm (17.09"×13.46"×2.87")	466mm×370mm×72mm (18.35"×14.57"×2.83")	550mm×342mm×79mm (21.65"×13.46"×3.11")
411mm×325mm (16.18"×12.80")	443mm×352mm (17.44"×13.86")	533mm×325mm (20.98"×12.80")
6.35kg	7.15kg	8.3kg
Windows 7, Windows 7 Embedded, Windows 8, Windows 10, Linux, VxWorks, QNX		
DC 12~24V±10% , support reverse polarity protection, overvoltage protection, overcurrent protection		
40.6Watt	42.6Watt	46.4Watt
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 <sup>2</sup>	250cd/m <sup>2</sup>	250cd/m <sup>2</sup>
1000 : 1	1000 : 1	1000 : 1
85 / 85 / 80 / 80	85 / 85 / 80 / 80	89 / 89 / 89 / 89
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-AXX2 SERIES



Model No.	TPC6000-A082	TPC6000-A102	TPC6000-A122	
<b>Processor</b>	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		
<b>I/O</b>	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 2xRS485, 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		
<b>Physical</b>	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	Windows 7, Windows 7 Embedded, Windows 8, Windows 10, Linux, VxWorks, QNX		
<b>Power</b>	DC input	DC 12V, support reverse polarity protection, +9~+30V (Option)		
	Power Dissipation (Max.)	33Watt	33.6Watt	36.6Watt
<b>LCD</b>	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 <sup>2</sup>	350cd/m <sup>2</sup>	350cd/m <sup>2</sup>
	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
<b>Touchscreen</b>	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		
<b>Environmental</b>	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		



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 2xRS485, 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")	550mm×342mm×79mm (21.65"×13.46"×3.11")
376mm×300mm (14.80"×11.81")	411mm×325mm (16.18"×12.80")	443mm×352mm (17.44"×13.86")	533mm×325mm (20.98"×12.80")
5.15kg	6.05kg	6.9kg	8.18kg
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	46.4Watt
15" XGA TFT	17" SXGA TFT	19" SXGA TFT	21.5" Full HD TFT
1024×768	1280×1024	1280×1024	1920×1080
16.2MB	16.7MB	16.7MB	16.7MB
304mm×228mm (11.97"×8.98")	338mm×270mm (13.31"×10.63")	376.3mm×301mm (14.81"×11.85")	476mm×268mm (18.74"×10.55")
WLED	WLED	WLED	WLED
50000hrs	50000hrs	30000hrs	50000hrs
0.297×0.297	0.264×0.264	0.294×0.294	0.248×0.248
350cd/m <sup>2</sup>	350cd/m <sup>2</sup>	250cd/m <sup>2</sup>	250cd/m <sup>2</sup>
700 : 1	1000 : 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	(L) 89 / (R) 89 / (T) 89 / (B) 89
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 : 10.4", 12.1", 15", 15.6", 17", 18.5", 19" and 21.5".



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



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



**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.



**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.



**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.



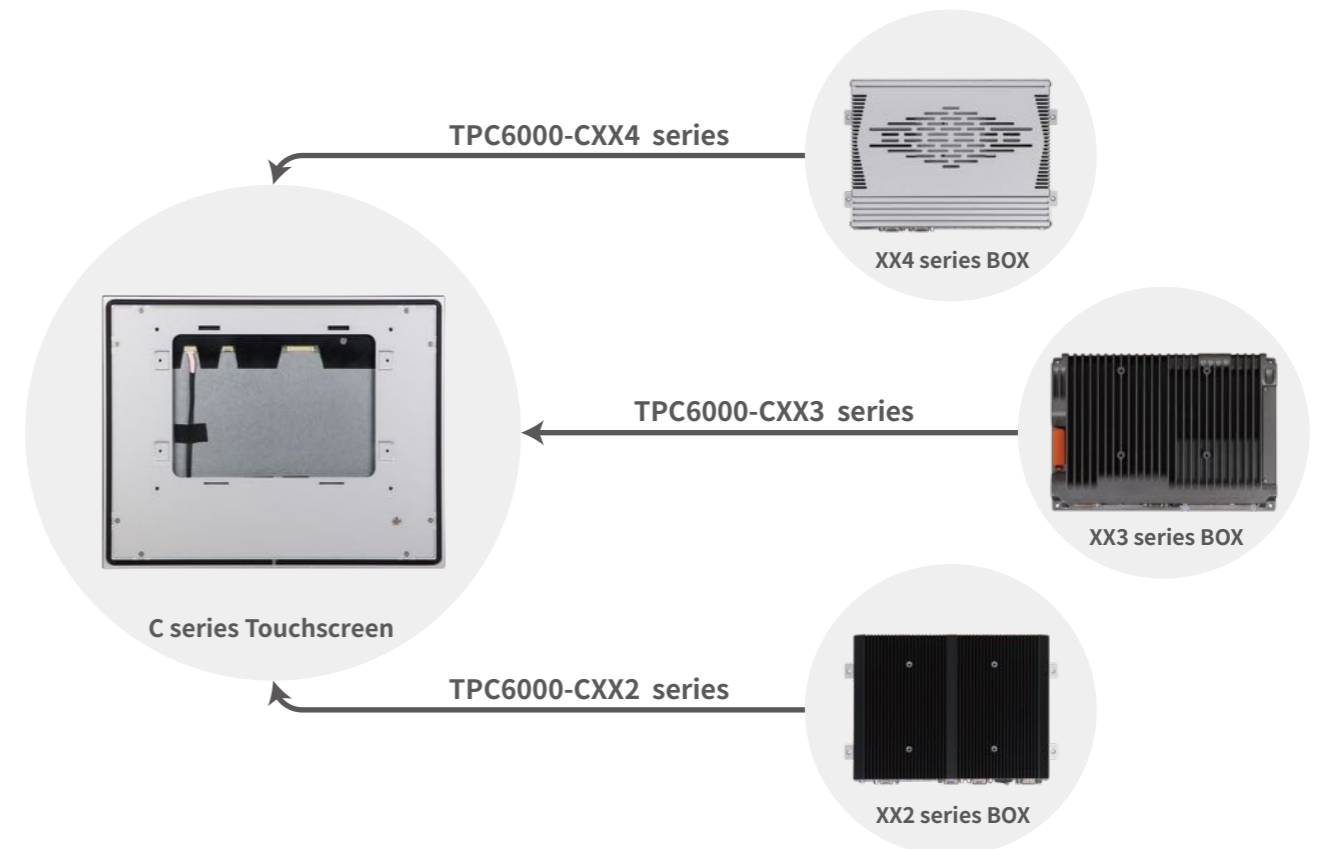
**Supports EtherCAT and Jumbo Frames**  
The Ethernet ports with high speed EtherCAT and jumbo frames support.



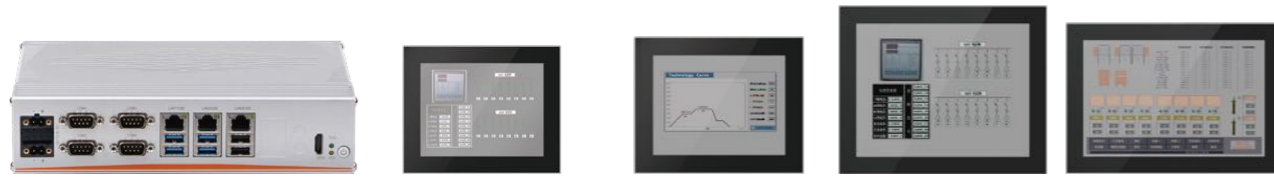
**DC12V/24V Power input**  
DC 12V power input, optional DC24V, with surge power, over voltage and reverse polarity protection, with phoenix terminal contact.



**Various mounting options**  
VESA Mount, Panel Mount, etc.



# TPC6000-CXX4 SERIES

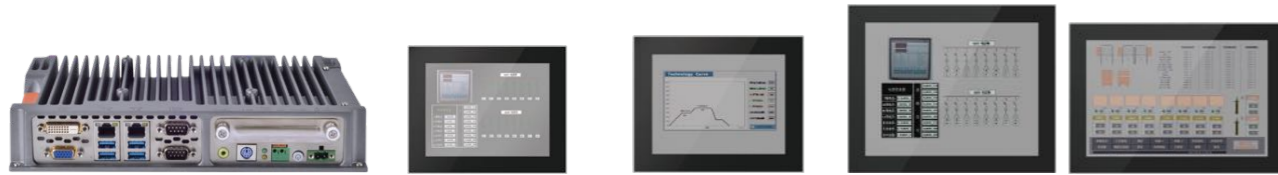


Model No.	TPC6000-C104	TPC6000-C124	TPC6000-C154	TPC6000-C1564	
<b>Processor</b>	CPU	Intel® Core™ 6/7/8/9th i7/i5/i3, Pentium® and Celeron® LGA1151 type CPU. Max.65W TDP			
	BIOS	AMI UEFI 64Mbit			
	Chipset	H110			
	Memory	DDR4-2400 MHz, 2×SO-DIMM Slot, Up to 32GB			
	Storage interface	1×M.2 (M Key 2280 PCIe Gen3×4 Lane) + 1×mSATA			
<b>I/O</b>	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)			
<b>Physical</b>	Dimension(W×H×D)	298.5mm×238.5mm×74mm (11.75"×9.38"×2.91")	321mm×247mm×74mm (12.64"×9.72"×2.91")	371mm×295mm×74mm (14.60"×11.61"×2.91")	405mm×258mm×74mm (15.94"×10.16"×2.91")
	Cut out size(W×H)	280.5mm×220.5mm (11.04"×8.68")	304mm×230mm (11.97"×9.06")	354mm×278mm (13.94"×10.94")	387mm×240mm (15.24"×9.44")
	Net Weight	3.4kg	3.7kg	4.7kg	5.2kg
<b>OS</b>	OS	Windows 7, Windows 7 Embedded, Windows 8, Windows 10, Linux, VxWorks, QNX			
<b>Power</b>	DC input	DC 12~24V±10%, support reverse polarity protection, overvoltage protection, overcurrent protection			
	Idle Mode Power Consumption	25Watt	25Watt	28Watt	30Watt
<b>LCD</b>	LCD Type	10.4" XGA TFT	12.1" XGA TFT	15" XGA TFT	15.6" TFT
	Resolution	1024×768	1024×768	1024×768	1366×768
	Colors	16.7MB	16.7MB	16.2MB	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")	344.232mm×193.536mm (13.55"×7.62")
	Backlight	LED	WLED	WLED	LED
	MTBF (hour)	30000hrs	30000hrs	50000hrs	50000hrs
	Pixel Pitch (H×V)	0.206×0.206	0.240×0.240	0.297×0.297	0.252×0.252
	Luminance	350cd/m <sup>2</sup>	350cd/m <sup>2</sup>	350cd/m <sup>2</sup>	400cd/m <sup>2</sup>
	Contrast Ratio	900 : 1	800 : 1	700 : 1	800 : 1
	Viewing Angle	75 / 75 / 75 / 75	80 / 80 / 80 / 80	80 / 80 / 80 / 80	85 / 85 / 50 / 80
<b>Touchscreen</b>	Touchscreen type	Capacitive Touchscreen			
	Transmittance	> 87%			
	Controller interface	USB			
	Driver Support	Windows7, Windws 8, Windows 10, Linux			
	Multi-touch	10 points (windows system)			
	Surface Hardness	Mohs' Hardness 7H			
<b>Environmental</b>	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			

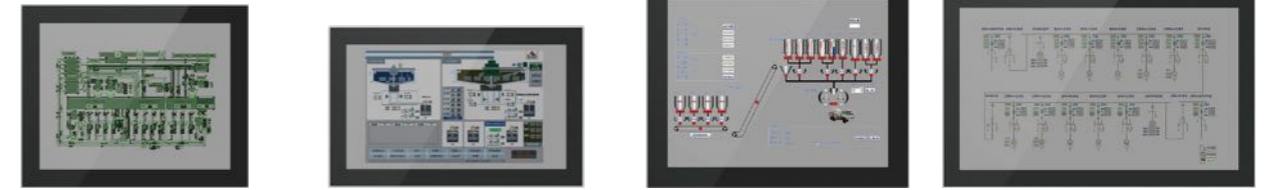


TPC6000-C174	TPC6000-C1854	TPC6000-C194	TPC6000-C2154
Intel® Core™ 6/7/8/9th i7/i5/i3, Pentium® and Celeron® LGA1151 type CPU. Max.65W TDP			
AMI UEFI 64Mbit			
H110			
DDR4-2400 MHz, 2×SO-DIMM Slot, Up to 32GB			
1×M.2 (M Key 2280 PCIe Gen3×4 Lane) + 1×mSATA			
3×Intel 10/100/1000Mbps controller			
4×USB3.0 / 2×USB2.0			
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)			
428mm×342mm×74mm (16.85"×13.46"×2.91")	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")
411mm×325mm (16.18"×12.80")	463mm×287mm (18.23"×11.30")	442mm×351mm (17.40"×13.82")	533mm×325mm (20.98"×12.80")
5.7kg	5.9kg	6.5kg	6.9kg
Windows 7, Windows 7 Embedded, Windows 8, Windows 10, Linux, VxWorks, QNX			
DC 12~24V±10%, support reverse polarity protection, overvoltage protection, overcurrent protection			
30Watt	34Watt	37Watt	40Watt
17" SXGA TFT	18.5" WXGA TFT	19" SXGA TFT	21.5" Full HD TFT
1280×1024	1366×768	1280×1024	1920×1080
16.7MB	16.7MB	16.7MB	16.7MB
338mm×270mm (13.31"×10.63")	409.8mm×230.4mm (16.13"×9.07")	376.3mm×301mm (14.81"×11.85")	476mm×268mm (18.74"×10.55")
WLED	WLED	WLED	WLED
50000hrs	50000hrs	30000hrs	50000hrs
0.264×0.264	0.300×0.300	0.294×0.294	0.248×0.248
350cd/m <sup>2</sup>	450cd/m <sup>2</sup>	250cd/m <sup>2</sup>	250cd/m <sup>2</sup>
1000 : 1	1000 : 1	1000 : 1	1000 : 1
85 / 85 / 80 / 80	85 / 85 / 80 / 80	85 / 85 / 80 / 80	89 / 89 / 89 / 89
Capacitive Touchscreen			
> 87%			
USB			
Windows7, Windws 8, Windows 10, Linux			
10 points (windows system)			
Mohs' Hardness 7H			
-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-CXX3 SERIES

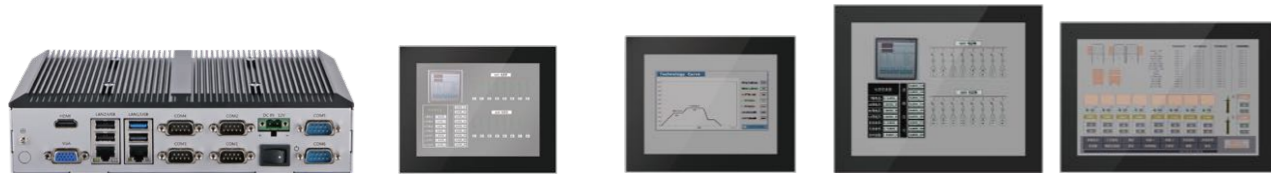


Model No.	TPC6000-C1043	TPC6000-C1123	TPC6000-C1153	TPC6000-C1563
<b>Processor</b>	CPU			
	Intel® Celeron® J6412 / 4205U / J1900 / Core™ i5 7200U			
	Main Frequency			
	Quad core 2.0GHz / Dual Core 1.8GHz / Quad core 2.0GHz / Dual Core 2.5GHz			
	L3 Cache			
	1.5MB/2MB/2MB/3MB			
<b>I/O</b>	Chipset			
	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			
<b>Physical</b>	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			
<b>OS</b>	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			
<b>Power</b>	Dimension(W×H×D)			
	298.5mm×238.5mm×65mm (11.75"×9.38"×2.60") 280.5mm×220.5mm (11.04"×8.68")	321mm×247mm×66mm (12.64"×9.72"×2.60") 304mm×230mm (11.97"×9.06")	371mm×295mm×66mm (14.60"×11.61"×2.60") 354mm×278mm (13.94"×10.94")	405mm×258mm×66mm (15.94"×10.16"×2.60") 387mm×240mm (15.24"×9.44")
	3.46kg	3.54kg	4.54kg	4.8kg
<b>LCD</b>	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			
	Power Dissipation (Max.)			
	35Watt	37Watt	36.6Watt	42Watt
	LCD Type			
	10.4" XGA TFT	12.1" XGA TFT	15" XGA TFT	15.6" TFT
	Resolution			
	1024×768	1024×768	1024×768	1366×768
	Colors			
16.7MB	16.7MB	16.2MB	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")	344.232mm×193.536mm (13.55"×7.62")	
Backlight				
LED	WLED	WLED	LED	
MTBF (hour)				
30000hrs	30000hrs	50000hrs	50000hrs	
Pixel Pitch (H×V)				
0.206×0.206	0.240×0.240	0.297×0.297	0.252×0.252	
Luminance				
350cd/m <sup>2</sup>	350cd/m <sup>2</sup>	350cd/m <sup>2</sup>	400cd/m <sup>2</sup>	
Contrast Ratio				
900 : 1	800 : 1	700 : 1	800 : 1	
Viewing Angle				
75 / 75 / 75 / 75	80 / 80 / 80 / 80	80 / 80 / 80 / 80	85 / 85 / 50 / 80	
<b>Touchscreen</b>	Touchscreen type			
	Capacitive Touchscreen			
	Transmittance			
	> 87%			
	Controller interface			
	USB			
<b>Environmental</b>	Driver Support			
	Windows7, Windws 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				

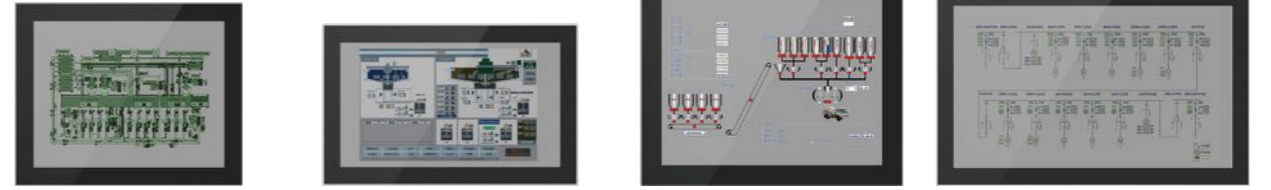


Model No.	TPC6000-C173	TPC6000-C1853	TPC6000-C193	TPC6000-C2153
<b>Processor</b>	CPU			
	Intel® Celeron® J6412 / 4205U / J1900 / Core™ i5 7200U			
	Main Frequency			
	Quad core 2.0GHz / Dual Core 1.8GHz / Quad core 2.0GHz / Dual Core 2.5GHz			
	L3 Cache			
	1.5MB/2MB/2MB/3MB			
<b>I/O</b>	Chipset			
	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			
<b>Physical</b>	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			
<b>OS</b>	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			
<b>Power</b>	Dimension(W×H×D)			
	428mm×342mm×66mm (16.85"×13.46"×2.60") 411mm×325mm (16.18"×12.80")	480mm×304mm×66mm (18.90"×11.97"×2.60") 463mm×287mm (18.23"×11.30")	460mm×369mm×66mm (18.11"×14.53"×2.60") 442mm×351mm (17.40"×13.82")	550mm×342mm×66mm (21.65"×13.46"×2.60") 533mm×325mm (20.98"×12.80")
	5.54kg	5.8kg	6.38kg	6.76kg
<b>LCD</b>	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			
	Power Dissipation (Max.)			
	38.6Watt	40.6Watt	42.6Watt	48Watt
	LCD Type			
	17" SXGA TFT	18.5" HD TFT	19" SXGA TFT	21.5" Full HD TFT
	Resolution			
	1280×1024	1366×768	1280×1024	1920×1080
	Colors			
16.7MB	16.7MB	16.7MB	16.7MB	
Active Area (W×H)				
338mm×270mm (13.31"×10.63")	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	WLED	
MTBF (hour)				
50000hrs	30000hrs	30000hrs	50000hrs	
Pixel Pitch (H×V)				
0.264×0.264	0.300×0.300	0.294×0.294	0.248×0.248	
Luminance				
350cd/m <sup>2</sup>	250cd/m <sup>2</sup>	250cd/m <sup>2</sup>	250cd/m <sup>2</sup>	
Contrast Ratio				
1000 : 1	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) 85 / (R) 85 / (T) 80 / (B) 80	(L) 89 / (R) 89 / (T) 89 / (B) 89	
<b>Touchscreen</b>	Touchscreen type			
	Capacitive Touchscreen			
	Transmittance			
	> 87%			
	Controller interface			
	USB			
<b>Environmental</b>	Driver Support			
	Windows7, Windws 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				

# TPC6000-CXX2 SERIES



Model No.	TPC6000-C1042	TPC6000-C122	TPC6000-C152	TPC6000-C1562	
<b>Processor</b>	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			
<b>I/O</b>	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 2xRS485, 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			
<b>Physical</b>	Dimension(W×H×D)	298.5mm×238.5mm×65mm (11.75"×9.38"×2.60")	321mm×247mm×75mm (12.64"×9.72"×2.95")	371mm×295mm×75mm (14.60"×11.61"×2.95")	405mm×258mm×75mm (15.94"×10.16"×2.95")
	Cut out size(W×H)	280.5mm×220.5mm (11.04"×8.68")	304mm×230mm (11.97"×9.06")	354mm×278mm (13.94"×10.94")	387mm×240mm (15.24"×9.44")
	Net Weight	3.46kg	3.34kg	4.34kg	4.8kg
<b>OS</b>	OS	Windows 7, Windows 7 Embedded, Windows 8, Windows 10, Linux, VxWorks, QNX			
<b>Power</b>	DC input	DC 12V, support reverse polarity protection, +9~+30V (Option)			
	Power Dissipation (Max.)	34.6Watt	36.6Watt	38.6Watt	38.6Watt
<b>LCD</b>	LCD Type	10.4" XGA TFT	12.1" XGA TFT	15" XGA TFT	15.6" TFT
	Resolution	1024×768	1024×768	1024×768	1366×768
	Colors	16.7MB	16.7MB	16.2MB	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")	344.232mm×193.536mm (13.55"×7.62")
	Backlight	LED	WLED	WLED	LED
	MTBF (hour)	30000hrs	30000hrs	50000hrs	50000hrs
	Pixel Pitch (H×V)	0.206×0.206	0.240×0.240	0.297×0.297	0.252×0.252
	Luminance	350cd/m <sup>2</sup>	350cd/m <sup>2</sup>	350cd/m <sup>2</sup>	400cd/m <sup>2</sup>
	Contrast Ratio	900 : 1	800 : 1	700 : 1	800 : 1
	Viewing Angle	75 / 75 / 75 / 75	80 / 80 / 80 / 80	80 / 80 / 80 / 80	85 / 85 / 50 / 80
<b>Touchscreen</b>	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			
<b>Environmental</b>	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			



TPC6000-C172	TPC6000-C1852	TPC6000-C192	TPC6000-C2152
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 2xRS485, RS485 support automatic flow control)			
1×Mini-PCIe slot, extensible 3G, WIFI wireless card			
VGA / HDMI / 2×GLAN / 4×USB / 6×COM			
428mm×342mm×75mm (16.85"×13.46"×2.95")	480mm×304mm×75mm (18.90"×11.97"×2.95")	460mm×369mm×75mm (18.11"×14.53"×2.95")	550mm×342mm×75mm (21.65"×13.46"×2.95")
411mm×325mm (16.18"×12.80")	463mm×287mm (18.23"×11.30")	442mm×351mm (17.40"×13.82")	533mm×325mm (20.98"×12.80")
5.34kg	5.8kg	6.18kg	6.76kg
Windows 7, Windows 7 Embedded, Windows 8, Windows 10, Linux, VxWorks, QNX			
DC 12V, support reverse polarity protection, +9~+30V (Option)			
40.6Watt	42.6Watt	44.6Watt	48Watt
17" SXGA TFT	18.5" HD TFT	19" SXGA TFT	21.5" Full HD TFT
1280×1024	1366×768	1280×1024	1920×1080
16.7MB	16.7MB	16.7MB	16.7MB
338mm×270mm (13.31"×10.63")	409.8mm×230.4mm (16.13"×9.07")	376.3mm×301mm (14.81"×11.85")	476mm×268mm (18.74"×10.55")
WLED	WLED	WLED	WLED
50000hrs	30000hrs	30000hrs	50000hrs
0.264×0.264	0.300×0.300	0.294×0.294	0.248×0.248
350cd/m <sup>2</sup>	250cd/m <sup>2</sup>	250cd/m <sup>2</sup>	250cd/m <sup>2</sup>
1000 : 1	1000 : 1	1000 : 1	1000 : 1
(L) 85 / (R) 85 / (T) 80 / (B) 80	(L) 85 / (R) 85 / (T) 80 / (B) 80	(L) 85 / (R) 85 / (T) 80 / (B) 80	(L) 89 / (R) 89 / (T) 89 / (B) 89
Capacitive Touchscreen			
> 87%			
USB			
Windows7, Windows 8, Windows 10, Linux			
10 points (windows system)			
Mohs' Hardness 7H			
-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-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", 15.6" and 17".



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



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



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



**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.



**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.



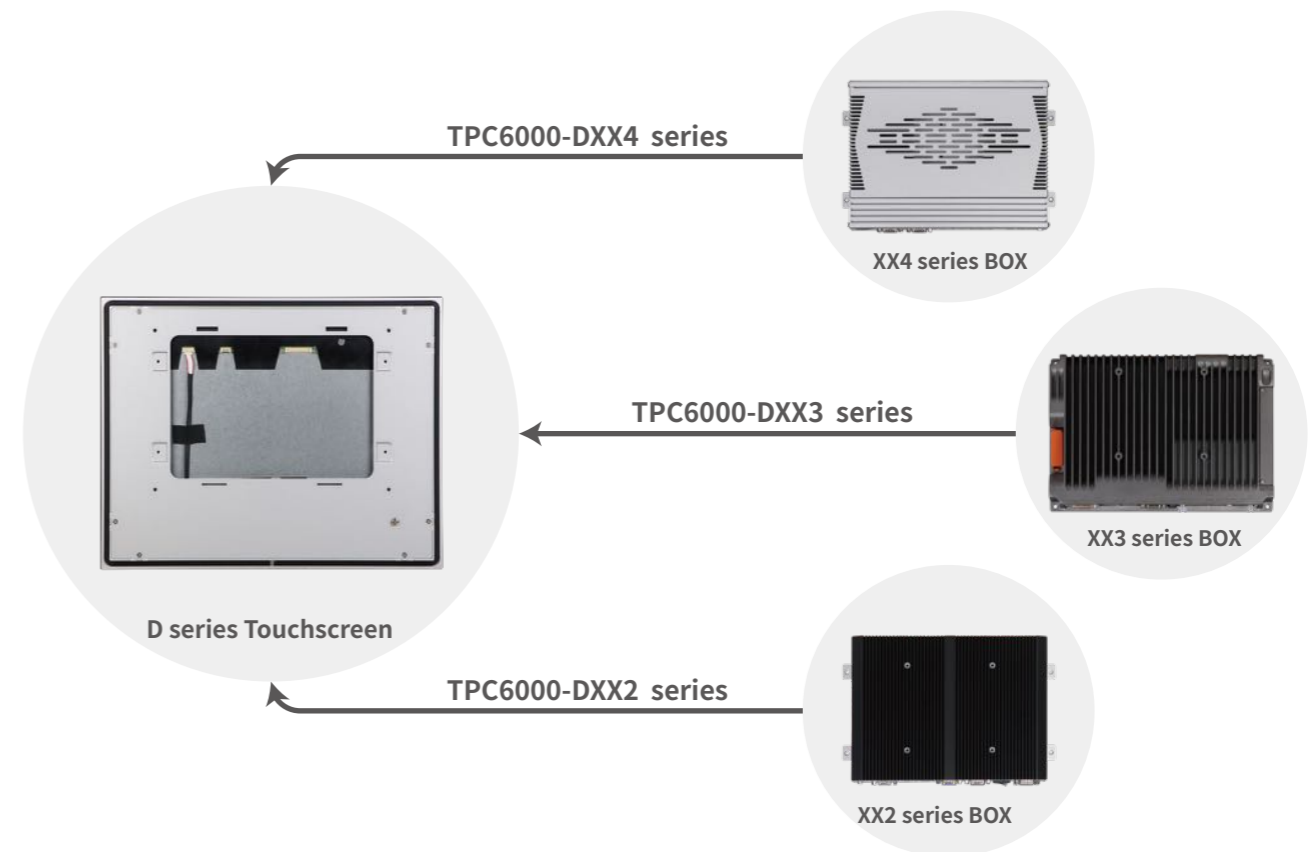
**Supports EtherCAT and Jumbo Frames**  
The Ethernet ports with high speed EtherCAT and jumbo frames support.



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



**Various mounting options**  
VESA Mount, Panel Mount, etc.

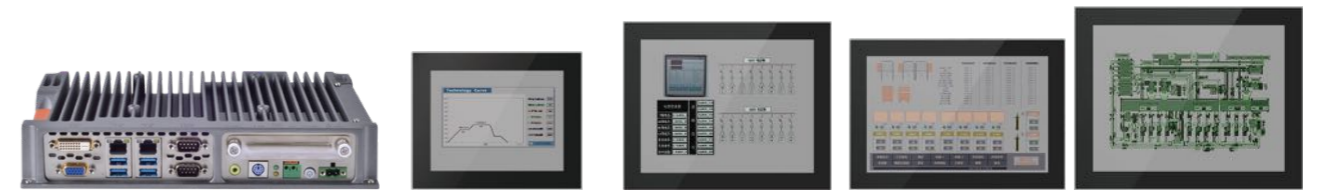


# TPC6000-DXX4 SERIES



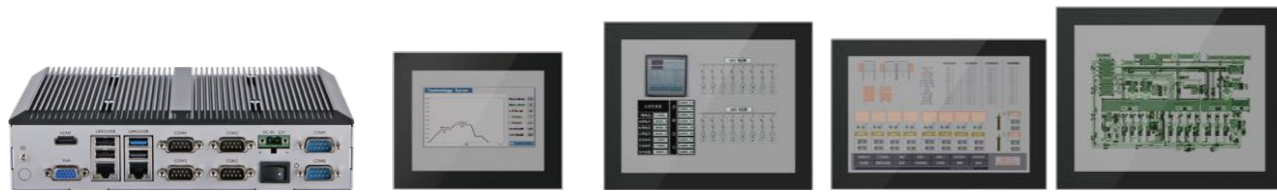
Model No.	TPC6000-D124	TPC6000-D154	TPC6000-D1564	TPC6000-D174	
<b>Processor</b>	CPU	Intel® Core™ 6/7/8/9th i7/i5/i3, Pentium® and Celeron® LGA1151 type CPU. Max.65W TDP			
	BIOS	AMI UEFI 64Mbit			
	Chipset	H110			
	Memory	DDR4-2400 MHz, 2× SO-DIMM Slot, Up to 32GB			
	Storage interface	1× M.2 (M Key 2280 PCIe Gen3×4 Lane) + 1× mSATA			
	<b>I/O</b>	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)			
<b>Physical</b>		Dimension (W×H×D)	321mm×247mm×74mm (12.64"×9.72"×2.91")	371mm×295mm×74mm (14.60"×11.61"×2.91")	405mm×258mm×74mm (15.94"×10.16"×2.91")
	Cut out size	304mm×230mm (11.97"×9.06")	354mm×278mm (13.94"×10.94")	387mm×240mm (15.24"×9.44")	411mm×325mm (16.18"×12.80")
	Net Weight	3.7kg	4.7kg	4.7kg	5.7kg
<b>OS</b>	OS	Windows 7, Windows 7 Embedded, Windows 8, Windows 10, Linux, VxWorks, QNX			
<b>Power</b>	DC input	DC 12~24V±10%, Support reverse connection protection, over voltage protection, over current			
	Idle Mode Power Consumption	25Watt	28Watt	28Watt	30Watt
<b>LCD</b>	LCD Type	12.1" XGA TFT	15" XGA TFT	15.6" TFT	17" SXGA TFT
	Resolution	1024×768	1024×768	1366×768	1280×1024
	Colors	16.7MB	16.2MB	16.7MB	16.7MB
	Active Area (W×H)	246mm×184mm (9.69"×7.24")	304mm×228mm (11.97"×8.98")	344.232mm×193.536mm (13.55"×7.62")	338mm×270mm (13.31"×10.63")
	Backlight	WLED	WLED	LED	WLED
	MTBF (hour)	30000hrs	50000hrs	50000hrs	50000hrs
	Pixel Pitch (H×V)	0.240×0.240	0.297×0.297	0.252×0.252	0.264×0.264
	Luminance	350cd/m <sup>2</sup>	350cd/m <sup>2</sup>	400cd/m <sup>2</sup>	350cd/m <sup>2</sup>
	Contrast Ratio	800 : 1	700 : 1	800 : 1	1000 : 1
	Viewing Angle	80/ 80/ 80/ 80	80/ 80/ 80/ 80	85/ 85/ 50/ 80	85/ 85/ 80/ 80
<b>Touchscreen</b>	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			
<b>Environmental</b>	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			

# TPC6000-DXX3 SERIES



Model No.	TPC6000-D123	TPC6000-D153	TPC6000-D1563	TPC6000-D173	
<b>Processor</b>	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			
<b>I/O</b>	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			
<b>Physical</b>	Dimension (W×H×D)	321mm×247mm×66mm (12.64"×9.72"×2.60")	371mm×295mm×66mm (14.60"×11.61"×2.60")	405mm×258mm×66mm (15.94"×10.16"×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")	387mm×240mm (15.24"×9.44")	411mm×325mm (16.18"×12.80")
	Net Weight	3.54kg	4.54kg	4.54kg	5.54kg
<b>OS</b>	OS	Windows 7, Windows 7 Embedded, Windows 8, Windows 10, Linux, VxWorks, QNX			
<b>Power</b>	DC input	DC 12~24V±10%, support reverse polarity protection, overvoltage protection, overcurrent protection			
	Power Dissipation (Max.)	36.6Watt	38.6Watt	<48Watt	40.6Watt
<b>LCD</b>	LCD Type	12.1" XGA TFT	15" XGA TFT	15.6" TFT	17" SXGA TFT
	Resolution	1024×768	1024×768	1366×768	1280×1024
	Colors	16.7MB	16.2MB	16.7MB	16.7MB
	Active Area (W×H)	246mm×184mm (9.69"×7.24")	304mm×228mm (11.97"×8.98")	344.232mm×193.536mm (13.55"×7.62")	338mm×270mm (13.31"×10.63")
	Backlight	WLED	WLED	LED	WLED
	MTBF (hour)	30000hrs	50000hrs	50000hrs	50000hrs
	Pixel Pitch (H×V)	0.240×0.240	0.297×0.297	0.252×0.252	0.264×0.264
	Luminance	350cd/m <sup>2</sup>	350cd/m <sup>2</sup>	400cd/m <sup>2</sup>	350cd/m <sup>2</sup>
	Contrast Ratio	800 : 1	700 : 1	800 : 1	1000 : 1
	Viewing Angle	80/ 80/ 80/ 80	80/ 80/ 80/ 80	85/ 85/ 50/ 80	85/ 85/ 80/ 80
<b>Touchscreen</b>	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			
<b>Environmental</b>	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			

# TPC6000-DXX2 SERIES



Model No.	TPC6000-D122	TPC6000-D152	TPC6000-D1562	TPC6000-D172	
<b>Processor</b>	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			
<b>I/O</b>	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 2xRS485, 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			
<b>Physical</b>	Dimension (W×H×D)	321mm×247mm×75mm (12.64"×9.72"×2.95")	371mm×295mm×75mm (14.60"×11.61"×2.95")	405mm×258mm×75mm (15.94"×10.16"×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")	387mm×240mm (15.24"×9.44")	411mm×325mm (16.18"×12.80")
	Net Weight	3.3kg	4.34kg	4.8kg	5.34kg
<b>OS</b>	OS	Windows 7, Windows 7 Embedded, Windows 8, Windows 10, Linux, VxWorks, QNX			
<b>Power</b>	DC input	DC 12V, support reverse polarity protection, +9~+30V (Option)			
	Power Dissipation (Max.)	36.6Watt	38.6Watt	38.6Watt	40.6Watt
<b>LCD</b>	LCD Type	12.1" XGA TFT	15" XGA TFT	15.6" TFT	17" SXGA TFT
	Resolution	1024×768	1024×768	1366×768	1280×1024
	Colors	16.7MB	16.2MB	16.7MB	16.7MB
	Active Area (W×H)	246mm×184mm (9.69"×7.24")	304mm×228mm (11.97"×8.98")	344.232mm×193.536mm (13.55"×7.62")	338mm×270mm (13.31"×10.63")
	Backlight	WLED	WLED	LED	WLED
	MTBF (hour)	30000hrs	50000hrs	50000hrs	50000hrs
	Pixel Pitch (H×V)	0.240×0.240	0.297×0.297	0.252×0.252	0.264×0.264
	Luminance	350cd/m <sup>2</sup>	350cd/m <sup>2</sup>	400cd/m <sup>2</sup>	350cd/m <sup>2</sup>
	Contrast Ratio	800 : 1	700 : 1	800 : 1	1000 : 1
Viewing Angle	80/ 80/ 80/ 80	80/ 80/ 80/ 80	85/ 85/ 50/ 80	85/ 85/ 80/ 80	
<b>Touchscreen</b>	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				
<b>Environmental</b>	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.



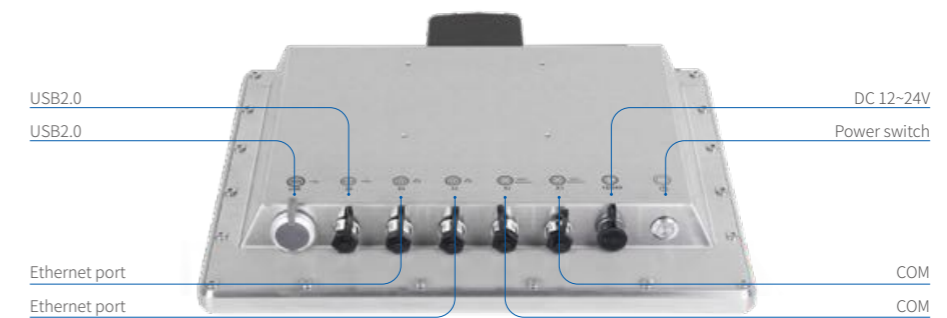
**M12 type plug**  
All interfaces use waterproof aviation plugs which are waterproof, corrosion-resistant, chemical-resistant, detergent-resistant, and disinfectant-resistant.



**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.



# WPXXXT-R1 SERIES



Model No.		WP1501T-R1	WP1901T-R1	WP2151T-R1
<b>Processor</b>	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		
<b>I/O</b>	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)		
<b>Physical</b>	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	Windows7, Windows8, Windows10, Linux		
<b>Power</b>	DC input	DC 12~24V±10% , Support reverse connection protection, over current protection		
	Idle Mode Power Consumption	38.6Watt	42Watt	46Watt
<b>LCD</b>	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 <sup>2</sup>	250cd/m <sup>2</sup>	250cd/m <sup>2</sup>
	Contrast Ratio	700 : 1	1000 : 1	1000 : 1
	Viewing Angle	80 / 80 / 80 / 80	85 / 85 / 80 / 80	89 / 89 / 89 / 89
<b>Touchscreen</b>	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		
<b>Environmental</b>	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		

# WPXXXT-C SERIES



Model No.		WP1501T-C	WP1901T-C	WP2151T-C
<b>Processor</b>	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		
<b>I/O</b>	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)		
<b>Physical</b>	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	Windows7, Windows8, Windows10, Linux		
<b>Power</b>	DC input	DC 12~24V±10% , Support reverse connection protection, over current protection		
	Power Dissipation (Max.)	38.6Watt	42Watt	46Watt
<b>LCD</b>	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 <sup>2</sup>	250cd/m <sup>2</sup>	250cd/m <sup>2</sup>
	Contrast Ratio	700 : 1	1000 : 1	1000 : 1
	Viewing Angle	80 / 80 / 80 / 80	85 / 85 / 80 / 80	89 / 89 / 89 / 89
<b>Touchscreen</b>	Touchscreen type	Capacitive Touchscreen		
	Transmittance	> 87%		
	Controller interface	USB		
	Driver Support	Windows7, Windws 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)		
<b>Environmental</b>	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		

# Touch Screen Monitor



NODKA offers several series of Touch monitor products in different panel size, which are including 8",10.4",12.1",15",17",18.5",19" and 21.5", with 5-wire resistive and bezel free resistive touch screen, IR touch and Projected capacitive Click life screen for your choice, provides RS232 or USB touch interface, supports VGA,DVI or HDMI input, with VESA,Panel,Open frame and Rack mounting options.



**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.

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

**Flexible modular design**  
Display module option resistive touch,bezel free capacitive touch and bezel free resistive touch, box option XXX2, XXX3 and XXX4 system.

**Vaiour mounting options**  
Support Panel mounted and Wall mounted with VESA stand.

## Display module option:



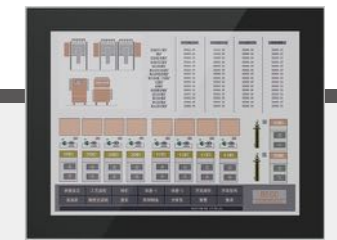
### PANEL5000-A Series

Resistive touch screen monitor, optional size: 8",10.4",12.1",15",17", 19" and 21.5".



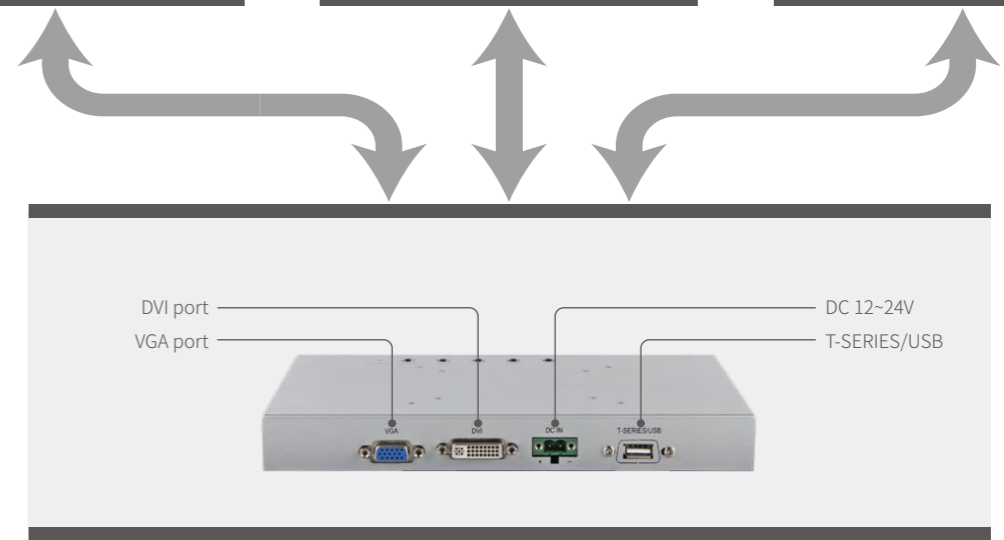
### PANEL5000-C Series

Capacitive touch screen monitor, optional size:10.4",12.1",15",15.6",17" 18.5", 19"and 21.5".



### PANEL5000-D Series

Bezel free and resistive touch screen monitor,optional size: 12.1",15",15.6" and 17".



### PANEL5000-AXX2



### PANEL5000-CXX2



### PANEL5000-DXX2

# PANEL5000-AXX2 SERIES



Model No.	PANEL5000-A082	PANEL5000-A102	PANEL5000-A122	
<b>General</b>	Control button	Set Contrast ratio and Luminance via OSD at the back panel		
	Dimension (W×H×D)	236mm×188mm×49.5mm (9.29"×7.40"×1.95")	300.5mm×234.5mm×50mm (11.83"×9.23"×1.97")	321mm×243mm×50mm (12.64"×9.57"×1.97")
	Drill Hole Size (W x H)	219mm×171mm (8.62"×6.73")	282mm×222mm (11.10"×8.74")	304mm×230mm (11.97"×9.06")
	Box structure	Front panel: aluminum-magnesium alloy, anodized coating ;Back cover: SGCC, Ground isolation protection		
	Mounting	Support Embedded,wall-mounted,Desktop and VESA mounting		
	Power Supply	Phoenix terminal: DC 12~24V input		
	Power Dissipation	5W	5W	8W
	Signal input	VGA & DVI-D		
	Net Weight	1.50kg (3.31lb)	2.50kg (5.51lb)	2.86kg (6.31lb)
<b>LCD</b>	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 <sup>2</sup>	350cd/m <sup>2</sup>	350cd/m <sup>2</sup>
	Contrast Ratio	500 : 1	800 : 1	800 : 1
	Viewing Angle	75 / 75 / 75 / 75	80 / 80 / 65 / 75	80 / 80 / 80 / 80
<b>Touchscreen</b>	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		
<b>Environmental</b>	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		

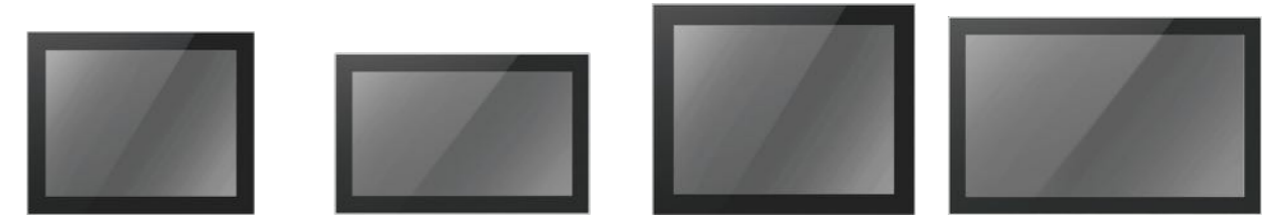


PANEL5000-A152	PANEL5000-A172	PANEL5000-A192	PANEL5000-A2152
Set Contrast ratio and Luminance via OSD at the back panel			
395mm×313mm×54mm (15.55"×12.32"×2.13")	434mm×342mm×54mm (17.09"×13.46"×2.13")	466mm×370mm×53mm (18.35"×14.57"×2.09")	550mm×342mm×60mm (21.65"×13.46"×2.36")
376mm×300mm (14.80"×11.81")	411mm×325mm (16.18"×12.80")	443mm×352mm (17.44"×13.86")	533mm×325mm (20.98"×12.80")
Front panel: aluminum-magnesium alloy, anodized coating ;Back cover: SGCC, Ground isolation protection			
Support Embedded,wall-mounted,Desktop and VESA mounting			
Phoenix terminal: DC 12~24V input			
10W	12W	14W	17W
VGA & DVI-D			
4.10kg (9.04lb)	5.00kg (11.02lb)	5.82kg (12.83lb)	7.02kg (15.48lb)
15" XGA TFT	17" SXGA TFT	19" SXGA TFT	21.5" Full HD TFT
1024×768	1280×1024	1280×1024	1920×1080
16.2MB	16.7MB	16.7MB	16.7MB
304mm×228mm (11.97"×8.98")	338mm×270mm (13.31"×10.63")	376.3mm×301mm (14.81"×11.85")	476mm×268mm (18.74"×10.55")
WLED	WLED	WLED	WLED
50000hrs	50000hrs	30000hrs	50000hrs
0.297×0.297	0.264×0.264	0.294×0.294	0.248×0.248
350cd/m <sup>2</sup>	350cd/m <sup>2</sup>	250cd/m <sup>2</sup>	250cd/m <sup>2</sup>
700 : 1	1000 : 1	1000 : 1	1000 : 1
80 / 80 / 80 / 80	85 / 85 / 80 / 80	85 / 85 / 80 / 80	89 / 89 / 89 / 89
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			

# PANEL5000-CXX2 SERIES



Model No.	PANEL5000-C1042	PANEL5000-C122	PANEL5000-C152	PANEL5000-C1562	
<b>General</b>	Control button	Set Contrast ratio and Luminance via OSD at the back panel			
	Dimension (W×H×D)	298.5mm×238.5mm×47mm (11.75"×9.38"×1.85")	321mm×247mm×47mm (12.64"×9.72"×1.85")	371mm×295mm×47mm (14.60"×11.61"×1.85")	405mm×258mm×47mm (15.94"×10.16"×1.85")
	Drill Hole Size (W x H)	280.5mm×220.5mm (11.04"×8.68")	304mm×230mm (11.97"×9.06")	354mm×278mm (13.94"×10.94")	387mm×240mm (15.24"×9.45")
	Box structure	Front panel: aluminum-magnesium alloy, anodized coating ;Back cover: SGCC, Ground isolation protection			
	Mounting	Support Embedded,wall-mounted,Desktop and VESA mounting			
	Power Supply	Phoenix terminal: DC 12~24V input			
	Power Dissipation	6W	8W	10W	12W
	Signal input	VGA & DVI-D			
	Net Weight	2.34kg (5.16lb)	2.34kg (5.16lb)	3.34kg (7.36lb)	3.8kg (8.38lb)
<b>LCD</b>	LCD Type	10.4" XGA TFT	12.1" XGA TFT	15" XGA TFT	15" TFT
	Resolution	1024×768	1024×768	1024×768	1366×768
	Colors	16.7MB	16.7MB	16.2MB	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")	344.232mm×193.536mm (13.55"×7.62")
	Backlight	LED	WLED	WLED	LED
	MTBF (hour)	30000hrs	30000hrs	50000hrs	50000hrs
	Pixel Pitch (H×V)	0.206×0.206	0.240×0.240	0.297×0.297	0.252×0.252
	Luminance	350cd/m <sup>2</sup>	350cd/m <sup>2</sup>	350cd/m <sup>2</sup>	400cd/m <sup>2</sup>
	Contrast Ratio	900 : 1	800 : 1	700 : 1	800 : 1
	Viewing Angle	75 / 75 / 75 / 75	80 / 80 / 80 / 80	80 / 80 / 80 / 80	85 / 85 / 50 / 80
<b>Touchscreen</b>	Touchscreen type	Multi-point capacitive touch screen			
	Transmittance	> 87%			
	Controller interface	USB			
	Driver Support	Windows7, Windws 8, Windows 10, Linux			
	Multi-touch	10 points (windows system)			
	Surface Hardness	Mohs 'Hardness 7H			
<b>Environmental</b>	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.	PANEL5000-C172	PANEL5000-C1852	PANEL5000-C192	PANEL5000-C2152	
<b>General</b>	Control button	Set Contrast ratio and Luminance via OSD at the back panel			
	Dimension (W×H×D)	428mm×342mm×47mm (16.85"×13.46"×1.85")	480mm×304mm×47mm (18.90"×11.97"×1.85")	460mm×369mm×47mm (18.11"×14.53"×1.85")	550mm×342mm×47mm (21.65"×13.46"×1.85")
	Drill Hole Size (W x H)	411mm×325mm (16.18"×12.80")	463mm×287mm (18.23"×11.30")	442mm×351mm (17.40"×13.82")	533mm×325mm (20.98"×12.80")
	Box structure	Front panel: aluminum-magnesium alloy, anodized coating ;Back cover: SGCC, Ground isolation protection			
	Mounting	Support Embedded,wall-mounted,Desktop and VESA mounting			
	Power Supply	Phoenix terminal: DC 12~24V input			
	Power Dissipation	12W	10W	14W	17W
	Signal input	VGA & DVI-D			
	Net Weight	4.34kg (9.57lb)	4.6kg (1.014lb)	5.18kg (11.42lb)	5.56kg (12.26lb)
<b>LCD</b>	LCD Type	17" SXGA TFT	18.5" WXGA TFT	19" SXGA TFT	21.5" Full HD TFT
	Resolution	1280×1024	1366×768	1280×1024	1920×1080
	Colors	16.7MB	16.7MB	16.7MB	16.7MB
	Active Area (W×H)	338mm×270mm (13.31"×10.63")	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	WLED
	MTBF (hour)	50000hrs	50000hrs	30000hrs	50000hrs
	Pixel Pitch (H×V)	0.264×0.264	0.300×0.300	0.294×0.294	0.248×0.248
	Luminance	350cd/m <sup>2</sup>	450cd/m <sup>2</sup>	250cd/m <sup>2</sup>	250cd/m <sup>2</sup>
	Contrast Ratio	1000 : 1	1000 : 1	1000 : 1	1000 : 1
	Viewing Angle	85 / 85 / 80 / 80	85 / 85 / 80 / 80	85 / 85 / 80 / 80	89 / 89 / 89 / 89
<b>Touchscreen</b>	Touchscreen type	Multi-point capacitive touch screen			
	Transmittance	> 87%			
	Controller interface	USB			
	Driver Support	Windows7, Windws 8, Windows 10, Linux			
	Multi-touch	10 points (windows system)			
	Surface Hardness	Mohs 'Hardness 7H			
<b>Environmental</b>	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			



## PANEL5000-DXX2 SERIES



Model No.	PANEL5000-D122	PANEL5000-D152	PANEL5000-D1562	PANEL5000-D172	
<b>General</b>	Control button	Set Contrast ratio and Luminance via OSD at the back panel			
	Dimension (W×H×D)	321mm×247mm×47mm (12.64"×9.72"×1.85")	371mm×295mm×47mm (14.60"×11.61"×1.85")	405mm×258mm×47mm (15.94"×10.16"×1.85")	428mm×342mm×47mm (16.85"×13.46"×1.85")
	Drill Hole Size (W x H)	304mm×230mm (11.97"×9.06")	354mm×278mm (13.94"×10.94")	387mm×240mm (15.24"×9.45")	411mm×325mm (16.18"×12.80")
	Box structure	Front panel: aluminum-magnesium alloy, anodized coating ;Back cover: SGCC, Ground isolation protection			
	Mounting	Support Embedded, wall-mounted, Desktop and VESA mounting			
	Power Supply	Phoenix terminal: DC 12~24V input			
	Power Dissipation	8W	10W	12W	12W
	Signal input	VGA & DVI-D			
	Net Weight	2.95kg	3.34kg	3.8kg	4.34kg
<b>LCD</b>	LCD Type	12.1" XGA TFT	15" XGA TFT	15" TFT	17" SXGA TFT
	Resolution	1024×768	1024×768	1366×768	1280×1024
	Colors	16.7MB	16.2MB	16.7MB	16.7MB
	Active Area (W×H)	246mm×184mm (9.69"×7.24")	304mm×228mm (11.97"×8.98")	344.232mm×193.536mm (13.55"×7.62")	338mm×270mm (13.31"×10.63")
	Backlight	WLED	WLED	LED	WLED
	MTBF (hour)	30000hrs	50000hrs	50000hrs	50000hrs
	Pixel Pitch (H×V)	0.240×0.240	0.297×0.297	0.252×0.252	0.264×0.264
	Luminance	350cd/m <sup>2</sup>	350cd/m <sup>2</sup>	400cd/m <sup>2</sup>	350cd/m <sup>2</sup>
	Contrast Ratio	800 : 1	700 : 1	800 : 1	1000 : 1
	Viewing Angle	80/ 80/ 80/ 80	80/ 80/ 80/ 80	85/ 85/ 50/ 80	85/ 85/ 80/ 80
<b>Touchscreen</b>	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			
<b>Environmental</b>	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			

## Touch Screen Monitor

Complete specifications and categories



**Customized YOUR Panel Color Style**

# WP SERIES

WP Series IP69K Industrial Touch Monitor



WP waterproof products is designed for harsh environments with a high-strength 304 stainless steel housing that meets IP69K protection. It has the characteristics of waterproof, corrosion resistance, chemical resistance, detergent resistance, disinfectant resistance etc, and can be cleaned or sterilized with a high-pressure water gun during operation. It is widely used in harsh applications, like food processing, clinical, chemical, chemical or pharmaceutical fields.

All-in-one design, fully sealed enclosure, industrial grade touch screen, optional 15, 19 and 21.5 size, All interfaces are designed with M12 aerial plugs, which can prevent the entry of water vapor in humid environments. DC 12~24V with overcurrent, overvoltage and reverse connection protection measures. Standard VESA mounting ensuring easy and flexible installation in a variety of environments.



## Rugged IP69K stainless steel case

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



## 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.



## Fanless design

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



## M12 waterproof plug

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



## DC12V/24V Power input

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



# WPXXXXP-R SERIES



Model No.		WP1501P-R	WP1901P-R	WP2151P-R
<b>General</b>	Control button	-		
	Dimension (W×H×D)	360mm×284mm×58mm (14.17"×11.18"×2.28")	440mm×365mm×58mm (17.32"×14.37"×2.28")	540mm×332mm×59mm (21.26"×13.07"×2.32")
	Box structure	Stainless steel machine, drawing process		
	Mounting	Support VESA mountin		
	Power Supply	12~24VDC input		
	Power Dissipation	13.6W	18.4W	21.3W
	Signal input	HDMI		
<b>LCD</b>	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 <sup>2</sup>	250cd/m <sup>2</sup>	250cd/m <sup>2</sup>
	Contrast Ratio	700 : 1	1000 : 1	1000 : 1
	Viewing Angle	80 / 80 / 80 / 80	85 / 85 / 80 / 80	89 / 89 / 89 / 89
<b>Touchscreen</b>	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			
<b>Environmental</b>	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		

# WPXXXXP-C SERIES



Model No.		WP1501P-C	WP1901P-C	WP2151P-C
<b>General</b>	Control button	-		
	Dimension (W×H×D)	360mm×284mm×58mm (14.17"×11.18"×2.28")	440mm×365mm×58mm (17.32"×14.37"×2.28")	540mm×332mm×59mm (21.26"×13.07"×2.32")
	Box structure	Stainless steel machine, drawing process		
	Mounting	Support VESA mountin		
	Power Supply	12~24VDC input		
	Power Dissipation	13.6W	18.4W	21.3W
	Signal input	HDMI		
<b>LCD</b>	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 <sup>2</sup>	250cd/m <sup>2</sup>	250cd/m <sup>2</sup>
	Contrast Ratio	700 : 1	1000 : 1	1000 : 1
	Viewing Angle	80 / 80 / 80 / 80	85 / 85 / 80 / 80	89 / 89 / 89 / 89
<b>Touchscreen</b>	Touchscreen type	Multi-point capacitive touch screen		
	Transmittance	> 87%		
	Controller interface	USB		
<b>Touchscreen</b>	Driver Support	Windows7, Windws 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)		
<b>Environmental</b>	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		

# IPC615 SERIES IPC

High-performance Rack-mount & Wall-mount IPC



IPC615 series industrial computer has flexibility, easy operation and unique design. It can run stably for a long time in harsh environments, and has the characteristics of dust-proof, moisture-proof, shock-proof, anti-electromagnetic interference and wide-voltage operation.

IPC615 series industrial computer based on the X86 architecture. It is a rack-mounted and wall-mounted industrial computer that supports ATX motherboards. It also provides multiple expansion slots which can expand various function cards and provide customized services. And widely used in industrial automation, self-service terminals, medical equipment, machine vision, communications, finance and other fields.

OS : Windows7, Windows10 and Linux.



## H81 Platform

Adapt to IPC615H/615G2/615G1



## H110 Platform

Adapt to IPC615H/615G2/615G1



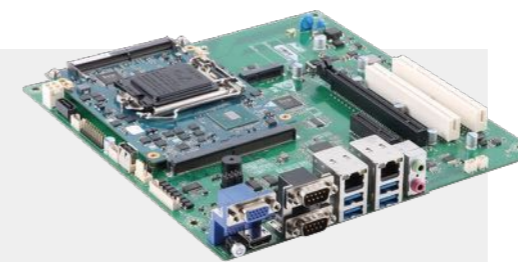
## Q370 Platform

Adapt to IPC615H/615G2/615G1



## W580 Platform

Adapt to IPC615H/615G2



## H110 Platform

Adapt to IPC615G

# IPC615H SERIES Rack-mount IPC

4U, 19" standard Rack-mount IPC



IPC615H based on Intel Core i3/i5/i7 and Pentium, Celeron desktop processors. The standard 19"4U rack-mounted industrial chassis is designed with high-strength galvanized sheet, and the internal cooling air duct is designed with positive air pressure. It supports up to 7 expansion slots for various function cards. Supports multiple standard pull-out hard drives or DVD optical drive, integrated VGA/DVI/HDMI display interface, 2 Gigabit Ethernet, multiple USB2.0/3.0, built-in 1 USB2.0 dongle, 1 miniPCle expandable WIFI or 4G etc.

- OS : Windows7, Windows10 and Linux.



## 19-inch standard rack-mounted

Box structure by galvanized steel, double ball bearing fan and micro positive air circulation design.



## Industrial fan-free switching power supply

To abandon the traditional industrial computer has been using commercial ATX power approach to enhance characteristics that wide temperature, dust and electrical protection.



## Fastening type DIMM memory slot

To solve the industrial computer failure caused by poor contact in the vibration environment and transport process.



## miniPCle

1 × miniPCle slot, can expand the functions of Wifi, 3G/4G, etc.



## Clear indicator light at the front panel

There are power,system,network and COM indicator lights, it is Convenient for debugging and judging fault.



## Flexible expansion slots

The internal design of 7 expansion slots. Multiple PCI and PCIE bus slot can be extended according to different mainboard.



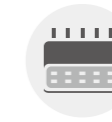
## Fastened MSATA electronic disk slot

To avoid IPC failure caused by the use of mechanical hard drive in the vibration, high temperature and illegal power.



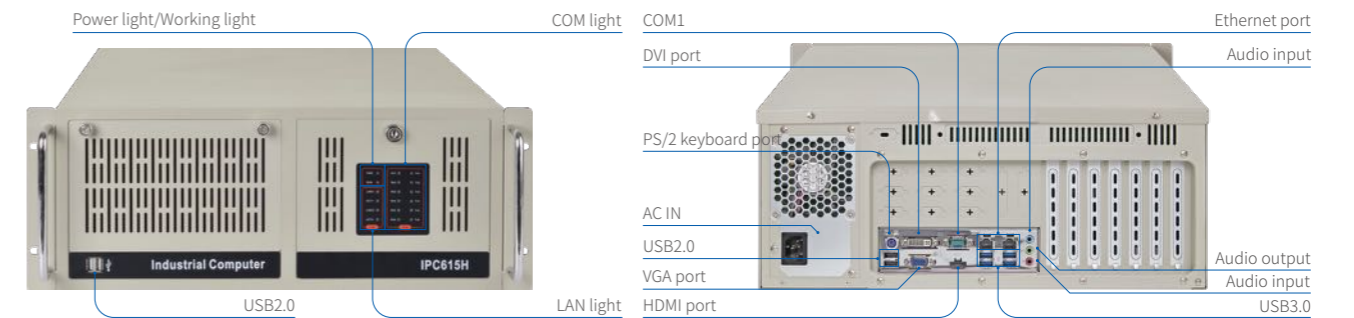
## Software dongle design

Vertical USB interface is provided inside the machine to prevention of loss.

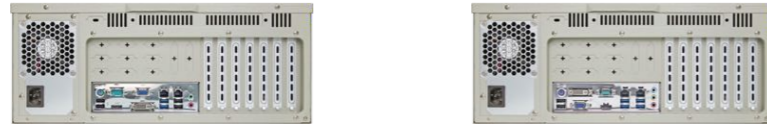


## Serial port expansion

Reserve multiple serial ports for expansion.



# IPC615H SERIES Rack-mount IPC



Model No.		IPC615H-H81	IPC615H-H110
<b>Processor</b>	CPU	Support 4th Generation, LGA1150	Support 6-9th Generation, LGA1151
	Chipset	Intel® H81	Intel® H110
	BIOS	AMI UEFI 64Mbit	AMI UEFI 64Mbit
<b>Memory</b>	Architecture	Support DDR3-1333/1600MHz	Support DDR4-2133/2400MHz
	Capacity	up to 16GB	up to 32GB
	DIMM	2×DIMM Slot	
<b>Display</b>	DVI	Supports DVI-D with max resolution up to 1920×1200@60Hz	
	VGA	Supports max resolution up to 1920×1200@60Hz	
	HDMI	Supports max resolution up to 4096×2160@30Hz	
	DP×2	-	
	Display	Yes, VGA + HDMI + DVI	
<b>LAN</b>	LAN1	Intel GbE LAN controller	
	LAN2	Intel GbE LAN controller	
<b>Audio</b>	Port	MIC-in, Line-out (Optional)	MIC-In, Speaker-Out, Line-In
<b>I/O</b>	COM	Default(1×RS232 / 422 / 485), Select(5×RS232)	Default(1×RS232), Select(3×RS232, 2×RS232 / 485)
	PS2	1×PS2 Port (Keyboard & Mouse)	
	USB	2×USB3.0, 6×USB2.0	4×USB3.0, 4×USB2.0
<b>Other</b>	GPIO	8×Programmable GPIO	
	WatchDog	0~255 seconds programmable	
<b>Expansion slot</b>	PCIe	1×PCIe×16 slot, 1×PCIe×4 slot(X1信号)	1×PCIe×16 slot, 1×PCIe×4 slot, 1×PCIe×1 slot
	PCI	5×32bits PCI slot	4×32bits PCI slot
	miniPCIe	1×mini PCIe (expansion WIFI/4G)	
<b>Storage Medium</b>	HDD	1×2.5" HDD Bay, 1×3.5" HDD Bay	
	SSD	1×full size mSATA SSD	
	DVD	1×5.25" DVD-RW	
<b>OS</b>	OS	Windows 7, Windows 10, Linux	
<b>Power</b>	Type	ATX	
	Power Adapter	AC 180~264V	
	Power Dissipation	Depending on the CPU (Default built-in 400W power)	
<b>Mechanism Parameters</b>	Box structure	Hot dip galvanized sheet steel shel	
	Mounting	19-inch standard rack-mounted	
	Dimensions	481mm×430mm×177mm (18.9"×16.9"×6.9")	
	Net weight	9.62kg (21.21lb)	
<b>Environmental</b>	Work Temperature	0 ~ 50°C (32~122°F)	
	Storage Temperature	-20 ~ 70°C (-4~158°F)	
	Relative humidity	5 ~ 95% (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	
	Safety Certification	CCC	



Model No.		IPC615H-Q370	IPC615H-W580
<b>Processor</b>	CPU	Support 8-9th Generation, LGA1151	Support 10-11th Generation, LGA1200
	Chipset	Intel® Q370	Intel® W580
	BIOS	AMI UEFI 128Mbit	AMI UEFI 256Mbit
<b>Memory</b>	Architecture	Support DDR4-2400/2666MHz	Support DDR4-2133/2400/2666/2933/3200MHz
	Capacity	up to 64GB	up to 128GB
	DIMM	4×U-DIMM Slot	4×288PIN DDR4 UDIMM
<b>Display</b>	DVI	Supports DVI-D with max resolution up to 1920×1200@60Hz	
	VGA	Supports max resolution up to 1920×1200@60Hz	
	HDMI	Supports max resolution up to 4096×2160@30Hz	
	DP×2	-	
	Display	Yes, VGA + HDMI + DVI	Yes, DP + DP + HDMI
<b>LAN</b>	LAN1	Intel GbE LAN controller	
	LAN2	Intel GbE LAN controller	
<b>Audio</b>	Port	MIC-In, Speaker-Out, Line-In	
<b>I/O</b>	COM	1×RS232, Select(3×RS232, 1×RS232/422/485, 1×RS232/485)	1×RS232/422/485, Select(1×RS232/422/485, 4×RS232)
	PS2	1×PS2 Port (Keyboard & Mouse)	
	USB	4×USB3.0, 4×USB2.0	10×USB3.0, 2×USB2.0
<b>Other</b>	GPIO	-	
	WatchDog	0~255 seconds programmable	
<b>Expansion slot</b>	PCIe	1*PCIe x16 slot, 4*PCIe x4 slot	4*PCIe x4 slot, 1*PCIe x16 slot, 1*PCIe x16 slot(X8信号)
	PCI	2×32bits PCI slot	1×32bits PCI slot
	miniPCIe	1×mini PCIe (可扩展WIFI/4G)	-
<b>Storage Medium</b>	HDD	1×2.5" HDD Bay, 1×3.5" HDD Bay	
	SSD	1×full size mSATA SSD	1×M.2 Key-M support for SATA bus (only for 11th Gen Processor)
	DVD	1×5.25" DVD-RW	
<b>OS</b>	OS	Windows 10, Linux	
<b>Power</b>	Type	ATX	
	Power Adapter	AC 180~264V	
	Power Dissipation	Depending on the CPU (Default built-in 400W power)	
<b>Mechanism Parameters</b>	Box structure	Hot dip galvanized sheet steel shel	
	Mounting	19-inch standard rack-mounted	
	Dimensions	481mm×430mm×177mm (18.9"×16.9"×6.9")	
	Net weight	9.62kg (21.21lb)	
<b>Environmental</b>	Work Temperature	0 ~ 50°C (32~122°F)	
	Storage Temperature	-20 ~ 70°C (-4~158°F)	
	Relative humidity	5 ~ 95% (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	
	Safety Certification	CCC	

# IPC615G2 SERIES Wall-mount IPC

Desktop & Wall-mount high-performance IPC



## Rugged galvanized steel chassis

Box structure by galvanized steel, double ball bearing fan and micro positive air circulation design.



## Flexible expansion slots

Option 7 expansion slots for PCI and PCIe card.



## Offer different power supplier optional

To abandon the traditional industrial computer has been using commercial ATX power approach to enhance characteristics that wide temperature, dust and electrical protection.



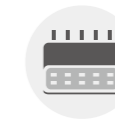
## Internal USB dongle port

Vertical USB interface is provided inside the machine to prevention of loss.



## Remote power ON/OFF

Reserved PS-ON terminal on the front/rear panel (only one available).



## Reserved series port space

Reserve multiple serial ports for expansion.

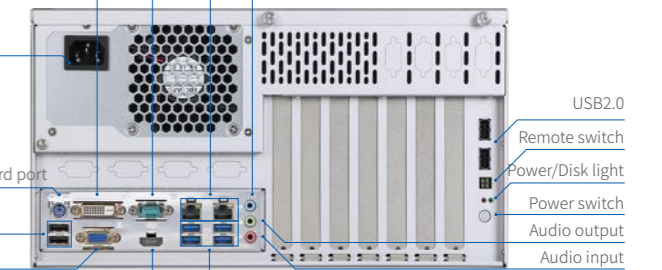
IPC615G2 based on Intel Core i3/i5/i7, Pentium and Celeron desktop processors. The chassis is designed with high-strength galvanized sheet, and the internal cooling air duct is designed with positive air pressure. It supports up to 7 expansion slots for various function cards, the front and rear panels can be installed with remote switch terminals (only one available), which is convenient for operation. It also Integrated VGA/DVI/HDMI, 2 Gigabit Ethernet, multiple USB2.0/3.0, built-in 1 USB2.0 dongle, 1 miniPCIe, expandable WIFI/4G etc.

- OS : Windows7, Windows10 and Linux.

Remote switch  
USB2.0  
Power/Disk light  
Power switch



COM1  
DVI port  
AC IN  
PS/2 keyboard port  
USB2.0  
VGA port  
HDMI port  
Ethernet port  
Audio input  
USB2.0  
Remote switch  
Power/Disk light  
Power switch  
Audio output  
Audio input  
USB3.0



# IPC615G2 SERIES Wall-mount IPC



Model No.		IPC615G2-H81	IPC615G2-H110
<b>Processor</b>	CPU	Support 4th Generation, LGA1150	Support 6-9th Generation, LGA1151
	Chipset	Intel® H81	Intel® H110
	BIOS	AMI UEFI 64Mbit	AMI UEFI 64Mbit
<b>Memory</b>	Architecture	Support DDR3-1333/1600MHz	Support DDR4-2133/2400MHz
	Capacity	up to 16GB	up to 32GB
	DIMM	2×DIMM Slot	
<b>Display</b>	DVI	Supports DVI-D with max resolution up to 1920×1200@60Hz	
	VGA	Supports max resolution up to 1920×1200@60Hz	
	HDMI	Supports max resolution up to 4096×2160@30Hz	
	DP×2	-	
	Display	Yes, VGA + HDMI + DVI	
<b>LAN</b>	LAN1	Intel GbE LAN controller	
	LAN2	Intel GbE LAN controller	
<b>Audio</b>	Port	MIC-in, Line-out (Optional)	MIC-In, Speaker-Out, Line-In
<b>I/O</b>	COM	Default (1×RS232 / 422 / 485), Select (5×RS232)	Default (1×RS232), Select (3×RS232, 2×RS232 / 485)
	PS2	1×PS2 Port (Keyboard & Mouse)	
	USB	2×USB3.0, 6×USB2.0	4×USB3.0, 4×USB2.0
<b>Other</b>	GPIO	8×Programmable GPIO	
	WatchDog	0~255 seconds programmable	
<b>Expansion slot</b>	PCIe	1×PCIe×16 slot, 1×PCIe×4 slot	1×PCIe×16 slot, 1×PCIe×4 slot, 1×PCIe×1 slot
	PCI	5×32bits PCI slot	4×32bits PCI slot
	miniPCIe	1×mini PCIe (expansion WIFI/4G)	
<b>Storage Medium</b>	HDD	1×2.5" HDD Bay, 1×3.5" HDD Bay	
	SSD	1×full size mSATA SSD	
	DVD	-	
<b>OS</b>	OS	Windows 7, Windows 10, Linux	
<b>Power</b>	Type	ATX	
	Power Adapter	AC 180~264V	
	Power Dissipation	Depending on the CPU (Default built-in 400W power)	
<b>Mechanism Parameters</b>	Box structure	Hot dip galvanized sheet steel shel	
	Mounting	19" s tandard rack-mount IPC	
	Dimensions	370mm×326mm×180mm (14.6"×12.8"×7.1")Without stand	
	Net weight	-	
<b>Environmental</b>	Work Temperature	0 ~ 50°C (32~122°F)	
	Storage Temperature	-20 ~ 70°C (-4~158°F)	
	Relative humidity	5 ~ 95% (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	
	Safety Certification	CCC	

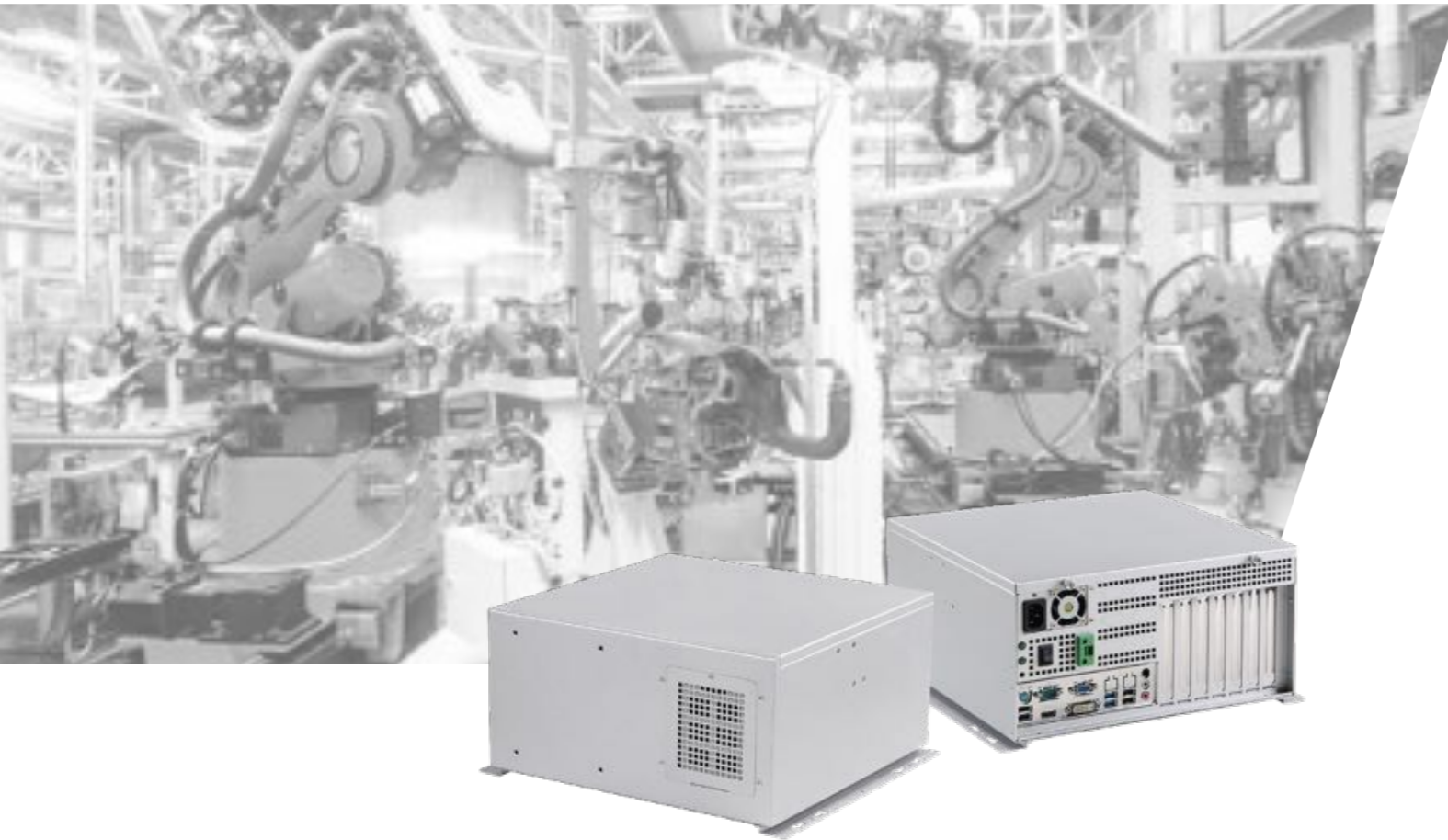


Model No.		IPC615G2-Q370	IPC615G2-W580
<b>Processor</b>	CPU	Support 8-9th Generation, LGA1151	Support 10-11th Generation, LGA1200
	Chipset	Intel® Q370	Intel® W580
	BIOS	AMI UEFI 128Mbit	AMI UEFI 256Mbit
<b>Memory</b>	Architecture	Support DDR4-2400/2666MHz	Support DDR4-2133/2400/2666/2933/3200MHz
	Capacity	up to 64GB	up to 128GB
	DIMM	4×U-DIMM Slot	4×288PIN DDR4 UDIMM
<b>Display</b>	DVI	Supports DVI-D with max resolution up to 1920×1200@60Hz	-
	VGA	Supports max resolution up to 1920×1200@60Hz	-
	HDMI	Supports max resolution up to 4096×2160@30Hz	Supports max resolution up to 4096×2160@30Hz
	DP×2	-	Supports max resolution up to 4096×2160@30Hz
	Display	Yes, VGA + HDMI + DVI(支持异步三显)	Yes, DP + DP + HDMI(支持异步三显)
<b>LAN</b>	LAN1	Intel GbE LAN controller	
	LAN2	Intel GbE LAN controller	
<b>Audio</b>	Port	MIC-In, Speaker-Out, Line-In	
<b>I/O</b>	COM	1×RS232, Select(3×RS232, 1×RS232/422/485, 1×RS232/485)	1×RS232/422/485, Select(1×RS232/422/485, 4×RS232)
	PS2	1×PS2 Port (Keyboard & Mouse)	
	USB	4×USB3.0, 4×USB2.0	10×USB3.0, 2×USB2.0
<b>Other</b>	GPIO	-	
	WatchDog	0~255 seconds programmable	
<b>Expansion slot</b>	PCIe	1*PCIe x16 slot, 4*PCIe x4 slot	4*PCIe x4 slot, 1*PCIe x16 slot, 1*PCIe x16 slot
	PCI	2×32bits PCI slot	1×32bits PCI slot
	miniPCIe	1×mini PCIe (可扩展WIFI/4G)	-
<b>Storage Medium</b>	HDD	1×2.5" HDD Bay, 1×3.5" HDD Bay	
	SSD	1×full size mSATA SSD	1×M.2 Key-M support for SATA bus (only for 11th Gen Processor)
	DVD	-	
<b>OS</b>	OS	Windows 10, Linux	
<b>Power</b>	Type	ATX	
	Power Adapter	AC 180~264V	
	Power Dissipation	Depending on the CPU (Default built-in 400W power)	
<b>Mechanism Parameters</b>	Box structure	Hot dip galvanized sheet steel shel	
	Mounting	19" s tandard rack-mount IPC	
	Dimensions	370mm×326mm×180mm (14.6"×12.8"×7.1")Without stand	
	Net weight	-	
<b>Environmental</b>	Work Temperature	0 ~ 50°C (32~122°F)	
	Storage Temperature	-20 ~ 70°C (-4~158°F)	
	Relative humidity	5 ~ 95% (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	
	Safety Certification	CCC	



# IPC615G1 SERIEIES Wall-mount IPC

Desktop & Wall-mount high-performance IPC



IPC615G1 based on Intel Core i3/i5/i7, Pentium and Celeron desktop processors. The chassis is designed with high-strength galvanized sheet, and the internal cooling air duct is designed with positive air pressure. It supports up to 7 expansion slots for various function cards., the front and rear panels can be installed with remote switch terminals (only one can be selected), which is convenient for clients to add operation buttons on the cabinet panel. Integrated VGA/DVI/HDMI, 2 Gigabit Gans, multiple USB2.0/3.0, built-in 1 USB2.0 dongle, 1 miniPCIe, expandable WIFI/4G etc.

- OS : Windows7, Windows10 and Linux.



## Rugged galvanized steel chassis

Box structure by galvanized steel, double ball bearing fan and micro positive air circulation design.



## Offer different power supplier optional

To abandon the traditional industrial computer has been using commercial ATX power approach to enhance characteristics that wide temperature, dust and electrical protection.



## Remote power ON/OFF

Reseved PS-ON terminal on the front/rear panel (only one available).



## Flexible expansion slots

Option 7 expansion slots for PCI and PCIe card.



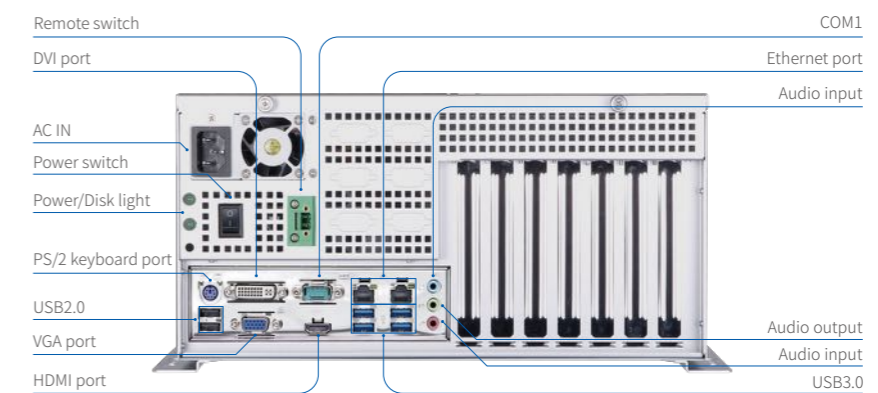
## Internal USB dongle port

Vertical USB interface is provided inside the machine to prevention of loss.



## Reserved series port space

Reserve multiple serial ports for expansion.



# IPC615G1 SERIES Wall-mount IPC



Model No.	IPC615G1-H81		IPC615G1-H110	
<b>Processor</b>	CPU	Support 4th Generation, LGA1150		Support 6-9th Generation, LGA1151
	Chipset	Intel® H81		Intel® H110
	BIOS	AMI UEFI 64Mbit		AMI UEFI 64Mbit
<b>Memory</b>	Architecture	Support DDR3-1333/1600MHz		Support DDR4-2133/2400MHz
	Capacity	up to 16GB		up to 32GB
	DIMM	2×DIMM Slot		
<b>Display</b>	DVI	Supports DVI-D with max resolution up to 1920×1200@60Hz		
	VGA	Supports max resolution up to 1920×1200@60Hz		
	HDMI	Supports max resolution up to 4096×2160@30Hz		
	Display	Yes, VGA + HDMI + DVI		
<b>LAN</b>	LAN1	Intel GbE LAN controller		
	LAN2	Intel GbE LAN controller		
<b>Audio</b>	Port	Optional		
<b>I/O</b>	COM	Default(1×RS232 / 422 / 485), Select(5×RS232)	Default(1×RS232), Select(3×RS232, 2×RS232 / 485)	
	PS2	1×PS2 Port (Keyboard & Mouse)		
	USB	2×USB3.0, 6×USB2.0	4×USB3.0, 4×USB2.0	
<b>Other</b>	GPIO	8×Programmable GPIO		
	WatchDog	0~255 seconds programmable		
<b>Expansion slot</b>	PCIe	1×PCIe×16 slot, 1×PCIe×4 slot	1×PCIe×16 slot, 1×PCIe×4 slot, 1×PCIe×1 slot	
	PCI	5×32bits PCI slot	4×32bits PCI slot	
	miniPCIe	1×mini PCIe (expansion WIFI/4G)		
<b>Storage Medium</b>	HDD	1×2.5" HDD Bay, 1×3.5" HDD Bay		
	SSD	1×full size mSATA SSD		
	DVD	-		
<b>OS</b>	OS	Windows 7, Windows 10, Linux		
<b>Power</b>	Type	1U FLEX		
	Power Adapter	AC 180~264V		
	Power Dissipation	Depending on the CPU (Default built-in 250W power)		
<b>Mechanism Parameters</b>	Box structure	Hot dip galvanized sheet steel shel		
	Mounting	Mounting 19" standard rack-mount IPC		
	Dimensions	350mm×317mm×160mm (13.8"×12.5"×6.3")Without stand		
	Net weight	-		
<b>Environmental</b>	Work Temperature	0 ~ 50°C (32~122°F)		
	Storage Temperature	-20 ~ 70°C (-4~158°F)		
	Relative humidity	5 ~ 95% (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		
	Safety Certification	CCC		

Model No.	IPC615G1-Q370	
<b>Processor</b>	CPU	Support 8-9th Generation, LGA1151
	Chipset	Intel® Q370
	BIOS	AMI UEFI 128Mbit
<b>Memory</b>	Architecture	Support DDR4-2400/2666MHz
	Capacity	up to 64GB
	DIMM	4×U-DIMM Slot
<b>Display</b>	DVI	Supports DVI-D with max resolution up to 1920×1200@60Hz
	VGA	Supports max resolution up to 1920×1200@60Hz
	HDMI	Supports max resolution up to 4096×2160@30Hz
	Display	Yes, VGA + HDMI + DVI
<b>LAN</b>	LAN1	Intel GbE LAN controller
	LAN2	Intel GbE LAN controller
<b>Audio</b>	Port	Optional
<b>I/O</b>	COM	Default(1×RS232), Select(3×RS232, 1×RS232 / 422 / 485, 1×RS232 / 485)
	PS2	1×PS2 Port (Keyboard & Mouse)
	USB	4×USB3.0, 6×USB2.0
<b>Other</b>	GPIO	8×Programmable GPIO
	WatchDog	0~255 seconds programmable
<b>Expansion slot</b>	PCIe	1*PCIe x16 slot, 4*PCIe x4 slot
	PCI	2×32bits PCI slot
	miniPCIe	1×mini PCIe (expansion WIFI/4G)
<b>Storage Medium</b>	HDD	1×2.5" HDD Bay, 1×3.5" HDD Bay
	SSD	1×full size mSATA SSD
	DVD	-
<b>OS</b>	OS	Windows 7, Windows 10, Linux
<b>Power</b>	Type	1U FLEX
	Power Adapter	AC 180~264V
	Power Dissipation	Depending on the CPU (Default built-in 250W power)
<b>Mechanism Parameters</b>	Box structure	Hot dip galvanized sheet steel shel
	Mounting	Mounting 19" standard rack-mount IPC
	Dimensions	350mm×317mm×160mm (13.8"×12.5"×6.3")
	Net weight	-
<b>Environmental</b>	Work Temperature	0 ~ 50°C (32~122°F)
	Storage Temperature	-20 ~ 70°C (-4~158°F)
	Relative humidity	5 ~ 95% (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
	Safety Certification	CCC

# IPC615G Wall-mount IPC

Desktop & Wall-mount high-performance IPC



IPC615G based on Intel Core 6/7/8/9 generation i7/i5/i3, Pentium and Celeron LGA1151 desktop processors, 2 SODIMM slots support up to 32GB memory, with 1 Mini SATA interface and 1 2.5" HDD storage socket slot; VGA/HDMI supports synchronous or asynchronous dual display. Equipped with rich I/O interfaces, 2 Gigabit Lan, 4 USB3.0/2.0/1.1, built-in 1 USB2.0, 2 RS232 or RS485 and also provides 2 PCI and 2 PCIe expansion slots which is convenient to expand a variety of function cards.

- OS: Windows7, Windows10 and Linux.



### Rugged galvanized steel chassis

Box structure by galvanized steel, double ball bearing fan and micro positive air circulation design.



### Flexible expansion slots

Option 4 expansion slots for PCI and PCIe card.



### Offer different power supplier optional

To abandon the traditional industrial computer has been using commercial ATX power approach to enhance characteristics that wide temperature, dust and electrical protection.



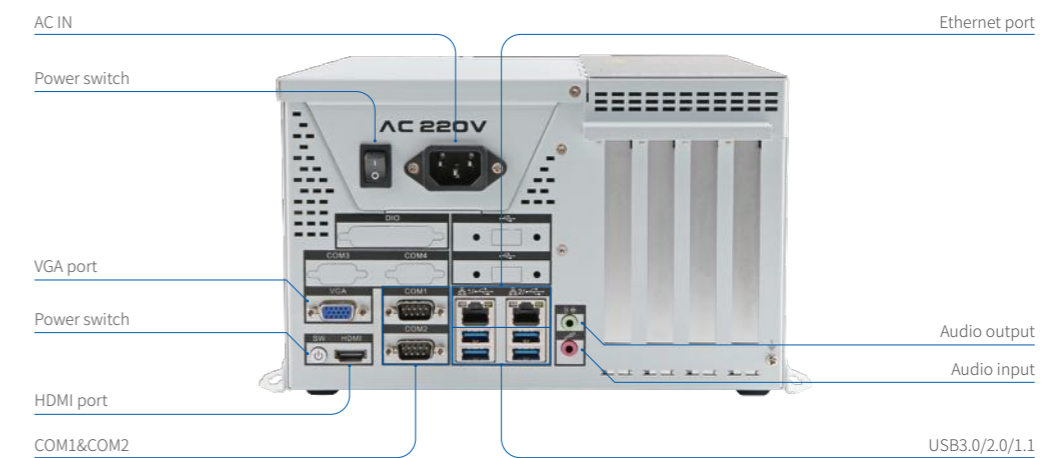
### Internal USB dongle port

Vertical USB interface is provided inside the machine to prevention of loss.



### 2 x RS232, 2 x RS232/485

8KV electrostatic protection, 600W TVS surge protection protection, RS485 support automatic data flow control.



# IPC615G Wall-mount IPC



Model No.	IPC615G	
<b>Processor</b>	CPU	Intel® Core™ 6/7/8/9th i7/i5/i3 , Pentium®/Celeron® LGA1151 type CPU. Max.65W TDP
	Chipset	Intel® H110
	BIOS	AMI UEFI 64M bit
<b>Memory</b>	Architecture	DDR4-2400 MHZ
	Capacity	up to 32GB
	DIMM	2×260-pin SODIMM
<b>Display</b>	Graphic Controller	-
	VGA	Up to 1920×1200
	HDMI	Support 1920×1200
	Display	Yes, VGA + HDMI
<b>LAN</b>	LAN1	Intel GbE LAN controller
	LAN2	Intel GbE LAN controller
<b>Audio</b>	Port	Optional
<b>I/O</b>	COM	2×RS232 (RS232 or RS485), 2×RS232 (select)
	LPT	N/A
	PS2	N/A
	USB	4×USB3.0/2.0/1.1, built-in 1×USB2.0, 2×USB2.0 (select)
<b>Other</b>	GPIO	Optional
	WatchDog	0~255 seconds programmable
<b>Expansion slot</b>	PCIe	1*PCIe x4 slot + 1*PCIe x16 slot
	PCI	2×32bits PCI slot
<b>Storage Medium</b>	HDD	1×2.5" HDD Bay
	SSD	1×full size mSATA SSD
	DVD	N/A
<b>OS</b>	OS	Windows 7, Windows 10, Linux
<b>Power</b>	Type	AT
	Power Adapter	AC 90~132V/180~264V/DC 240~370V
	Power Dissipation	Depending on the CPU (Default built-in 350W power, Select 500W)
<b>Mechanism Parameters</b>	Box structure	Hot dip galvanized sheet steel shel
	Mounting	Desktop mounting, Wall mounting
	Dimensions	298.5mm×270mm×151.5mm(11.8"×10.6"×6.0")
	Net weight	5.50kg
<b>Environmental</b>	Work Temperature	0 ~ 50°C (32~122°F)
	Storage Temperature	-20 ~ 70°C (-4~158°F)
	Relative humidity	5 ~ 95% (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
	Safety Certification	CCC

## Our Value

- We endeavor ourselves to Industrial product design, produce, maintain and service support, and not be involved with competition with our customers on the market.
- Offering X86 and ARM based platforms and adhering to provide customers with industrial and military grade products.
- Following up the market application and technical needs of innovation continuously, and supply the high-quality product and service, to grow with our partners together.
- More than 7 years of product life cycle to ensure long-term supply of customer products, and gradually increase the product life cycle up to 10 years.
- Providing free lifecycle maintenance for customers, including OS upgrades, bug fixes and product tracking, technical consulting and support services.
- Continuously cultivate R&D and field technical engineers team, accumulate field application experience, and continuously improve capability of troubleshoot and problem solving.



# Fanless Industrial Computer



Nodka fanless industrial computer pack extreme computing power into a mini form, which is especially important for industrial use. Different mounting options are available for different product type, VESA, Din Rail and rack mounting, and these units can be mounted virtually anywhere and handle just about any job. NODKA's fanless industrial computer adheres to the full-featured and cost-effective concepts, focus on solid shape and stylish design.



## eBOX-3000 Series

High-performance, fanless Mini PC based on Intel® Core™ 6/7/8/9th generation i7 / i5 / i3 / Pentium® / Celeron® desktop, processors, support PCI / PCIe expansion, optional 2 models.



## eBOX-32XX Series

Cost effective and fanless industrial computer based on Intel Celeron® J1900 quad-core Low-power processor, optional 4 models.



## eBOX-3240 Series

Low-power High-performance industrial computer based on Intel® Celeron® J6412 processor, optional 3 models.



## eBOX-3250

Low-power High-performance industrial computer based on Intel® Core™ / Pentium® / Celeron® LAG1151 (TDP 35W) processor.



## eBOX-3310

Low-power High-performance industrial computer based on Intel® Celeron® J6412 / 4205U / J1900 / Core™ i5 7200U processor.



## eBOX-3560

Low-power Atom fanless Mini PC, Intel® Celeron® J3355 dual-core processor.



## eBOX-3622-H

High-performance and extensible industrial computer based on Intel® Core™ 4th i7 / i5 / i3 / Pentium® / Celeron® desk processor, supports PCI and PCIe slots.



## eBOX-3625

High-performance and Fanless Industrial Mini Computer based on Intel® Core™ 6/7/8/9th generation i7 / i5 / i3 / Pentium® / Celeron® desk processor, with Integrated remote transmission sender module.

# eBOX-3000 SERIES

Intel® Core™ i3/i5/i7/ Pentium® / Celeron® High performance rugged fanless PC



eBOX-3000 is a rugged fanless PC which based on Intel® the 6/7/8/9th Gen. Core™i3 i5 i7, Pentium® and Celeron® LGA1151 socket type CPU, the box covers with large aluminum block for cooling system. Inside of the box, there is no cable design, onboard dual channel DDR4 SODIMM slots, up to 32G memory. There are 2 intel Ethernet RJ45 slots, can be extended to 6 LAN ports, option VGA, DVI and HDMI interfaces and supporting multi screen synchronous/asynchronous, totally 6 RS232 and 2 RS232/485 optional, 1~2 PCI and PCIe slots can be extended various cards.

- OS : Windows7, Windows10 and Linux.



**Rugged and fanless design**  
Sealed box with excellent cooling system.



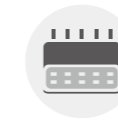
**Wide work temperature: -20°C~60°C**  
Product is with wide temperature components integrated, system operating temperature supports -20 up to +60°C, suitable for major



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



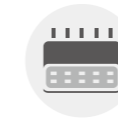
**Dual Ethernet port standard configuration**  
There are 2 intel Ethernet ports with high speed EtherCAT and jumbo frames support.



**4x RS232, 2x RS232/485**  
8KV electrostatic protection, 600W TVS surge protection, RS485 support automatic data flow control.



**2 Mini PCIe expansion slots**  
Rapid expansion CAN, ProfiBUS, FieldBus and other field bus, or 3G / 4G, WIFI, GPS communication module.



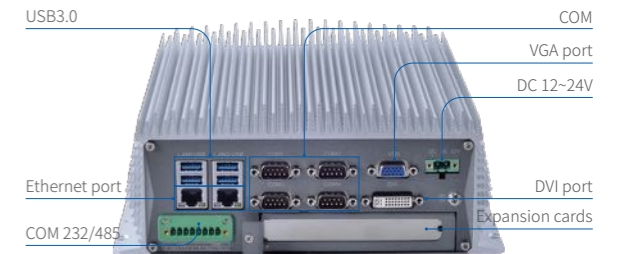
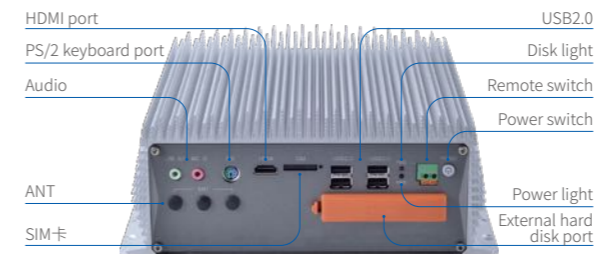
**Multi-network ports and serial port expansion**  
Up to 6 Gigabit Ethernet ports and 12 RS232 / 485 serial ports.



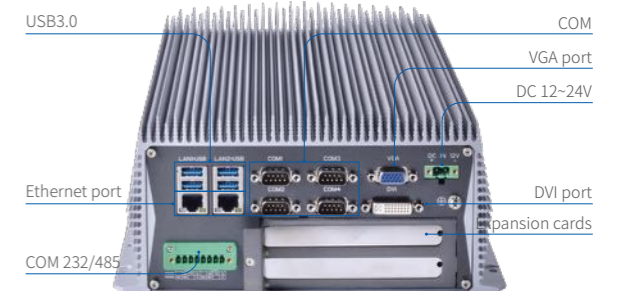
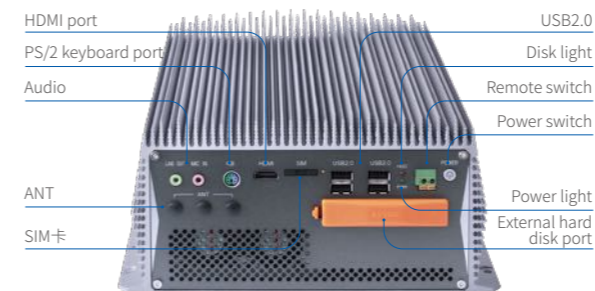
**Remote power ON/OFF**  
Reserved PS-ON terminal on the front/rear panel (only one available).



**Fast maintenance design of disk**  
Product is with modular design structure, easy for maintenance and upgrade.



eBOX-3000



eBOX-3000H

# eBOX-32XX SERIES

Fanless PC with Low power consumption Intel® Celeron® J1900 CPU



**Rugged and fanless design**  
Sealed box with excellent cooling system.



**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



**Without cable inside**  
Without cable connection to protect the reliability and lower failure rate.



**Dual Ethernet port standard configuration**  
2 built-in Realtek Gigabit Ethernet ports.



**Fastened power connector**  
DC12V power input, with over-current, overvoltage and reverse protection measures, the interface using.



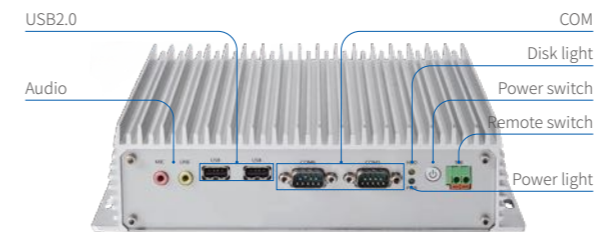
**Optional multi-serial configuration**  
Standard configuration of 6 serial ports, up to 11.



**Support synchronous or asynchronous Display**  
There VGA + HDMI display interfaces, support synchronous or asynchronous Display.



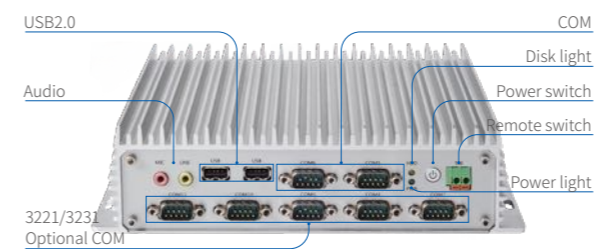
**Remote power ON/OFF**  
Reserved PS-ON terminal on the front/real panel (only one available).



eBOX-3230

eBOX-32XX series is a fanless industrial computer based on Intel® Celeron® J1900 processor, there are a lot of I/O ports, such as 2 GeLAN, 6 USB2.0/3.0, VGA, HDMI and 6/11 RS232 or RS485. Without cable design inside, compact and rugged box with large aluminum fins design, be able to ensure the reliability and heat dissipation.

- OS: Windows XP/XPE, Windows7/WES7, Windows10 and Linux.



eBOX-3231



# eBOX-3240 SERIES

Fanless mini PC with Intel® Celeron® J6412 Low-power processor



eBOX-3240 series is a fanless industrial computer based on the Intel Celeron J6412 processor. IO includes 2 Realtek Gigabit Ethernet ports, option up to 4 LAN ports, HDMI, DP, VGA display interfaces support synchronous or asynchronous triple display, 4 RS232 /RS48, 2 RS232 serial ports, 1 miniPCIe and 1 M.2 expansion slot can expand Wifi, 3G/4G/5G, and there is 2x DB9 additional ports option which expand to 2 RS232 or 2 CAN bus.

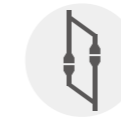
- OS: Windows 10 IoT, Linux.



**Rugged and fanless design**  
Sealed box with excellent cooling system.



**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.



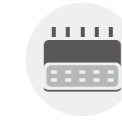
**Without cable inside**  
Without cable connection to protect the reliability and lower failure rate.



**Dual Ethernet port standard configuration**  
2 built-in Realtek Gigabit Ethernet ports.



**Fastened power connector**  
DC12V power input, with over-current, overvoltage and reverse protection measures, the interface using.



**4x RS232/RS48, 2x RS232**  
8KV electrostatic protection, 600W TV S surge protection, RS485 support automatic data flow control.



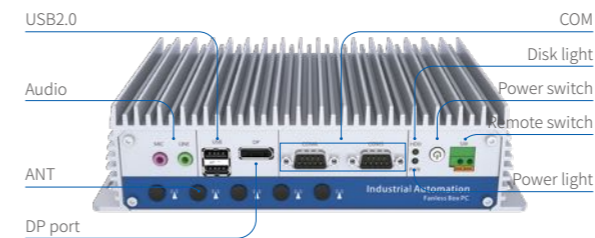
**Support synchronous or asynchronous Display**  
There VGA + HDMI + DP display interfaces, support synchronous or asynchronous Display.



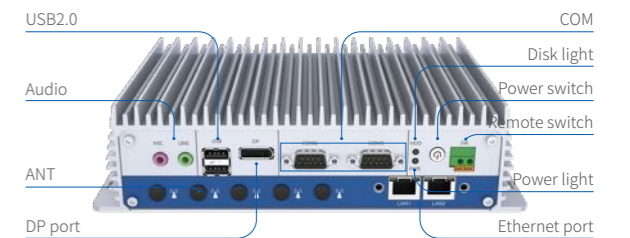
**Remote power ON/OFF**  
Reserved PS-ON terminal on the front/rear panel (only one available).



**Rich expansion slots**  
1 x Mini-PCIe slot scalable 3G/4G module. 1 x M.2 slot for 5G module with extensible USB protocol  
1 x SATA, 1 x M.2 bay support SATA storage.



eBOX-3240



eBOX-3240-L2



eBOX-3240-C2





# eBOX-3250

Fanless mini PC with Intel® Core™ / Pentium® / Celeron® LAG1151 (TDP 35W)  
High performance Low power processor



eBOX-3250 is a fanless industrial computer, support Intel Core™ / Pentium / Celeron /Core i3 i5 i7 LAG1151 (TDP 35W) socket type low power consumption processor, it is COMLAC design which means CPU module upgrade simply but without any change of the housing. Comparing with other basic PC, eBOX-3250 build in 3 Intel gigabit LAN ports, 8 isolated DI and 8 DO, widely used for AGV (Automated Guided Vehicle) application.

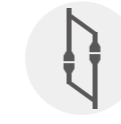
- OS: Windows 7, Windows 10 , Linux.



**Rugged and fanless design**  
Sealed box with excellent cooling system.



**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.



**Without cable inside**  
Without cable connection to protect the reliability and lower failure rate.



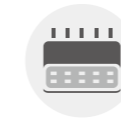
**3× Ethernet port standard configuration**  
3 built-in Intel Gigabit Ethernet ports.



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



**4× RS232/RS485 dip switch**  
Selectable to support RS232 or RS485 mode by the switch. RS232/485 Interface with surge protection, RS485 support automatic flow control.



**CAN/COM port expansion**  
Expansion 2× CAN or 2× RS232/RS485.



**Remote power ON/OFF**  
Reserved PS-ON terminal on the front/real panel (only one available).



**8 Digital Input and 8 Digital Output**  
8DI+8DO, Wet contact input(24V), OC gate output (24V 300mA)



**Rich expansion slots**  
1× mSATA bay support mSATA storage, 1× M.2 Key-M Slot(NVME SSD, 2280).



eBOX-3250



# eBOX-3310

Fanless mini PC with Intel® Celeron® J6412 / 4205U / J1900 / Core™ i5 7200U Low-power processor



eBOX-3310 is a Fanless industrial computer based on Intel® Celeron® J6412 / 4205U / J1900 / Core™ i5 7200U processor. CPU and memory designed with modular, All I / O are wide temperature chip, 2 Intel Gigabit Ethernet ports, 4 USB2.0 / 3.0 interfaces, VGA / DVI display interface, 2 RS232 / 485 serial ports, DC12 / 24 power input, and the design of Disk, BIOS battery and RS232/485 setup are humanized because it is easy to replace and maintenance. There are not cable inside that to ensure the reliability of products. eBOX-3310 is used aluminum alloy die-casting structure, compact design and both strong, especially for more complex and harsh industrial environment.

- OS : Windows7/WES7, Windows10, Linux, Vxworks and QNX.



### Rugged and fanless design

Sealed aluminum magnesium alloy die casting box with excellent cooling system.



### 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.



### 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.



### Fast maintenance design of disk

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



### Dual Ethernet port standard configuration

There are 2 intel 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.



### CPU and memory modular design

Core i3/i5/i7/Celeron Celeron core module configuration for product maintenance and upgrades.



### 2×RS232/485

8KV electrostatic protection, 600W TVS surge protection, RS485 support automatic data flow control.



### Expansion of CAN, Pro BUS, FieldBus and other bus modules

Host design Easybus expansion mechanism, so that customers through the Mini PCIe to achieve a variety of industrial field bus interface.



### Remote power ON/OFF

Reserved PS-ON terminal on the front/rear panel (only one available).



eBOX-3310



# eBOX-3560

DIN rail fanless mini PC Intel® Celeron® J3355 Low-power processor



eBOX-3560 is a fanless mini PC based on Intel® Celeron® J3355 lowpower processor, with DIN rail mounting, Large aluminum fin radiator and without cable inside design. Onboard CPU and SODIMM memory, there are 2 Intel Ethernet slots, optional 4LAN or 6LAN. There are 4 USB2.0/3.0 ,HDMI and 2RS232/485. It support DC9V~24V power input with over current, over voltage, surge and reverse connection protection.It is suitable for IOT industrial gateway, machine vision, EtherCAT motion control and other applications.

- OS : Windows10 and Linux.



### Rugged and fanless design

Sealed box with excellent cooling system, din-rail is a better way to mount in the control cabinet.



### 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.



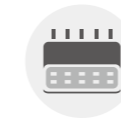
### DC 9V~24V Power input

DC 9V ~ 24V power input, with surge power, over voltage and reverse polarity protection, with phoenix terminal contact.



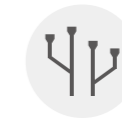
### Dual Ethernet port standard configuration

There are 2 intel Ethernet ports with high speed EtherCAT and jumbo frames support.



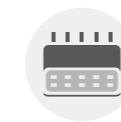
### 2 COM ports can be set to 2 RS232 or RS485

8KV electrostatic protection, 600W TVS surge protection, RS485 support automatic data flow control.



### 2 Mini PCIe expansion slots

Rapid expansion CAN, Profibus, Fieldbus and other field bus, or 3G / 4G, WIFI, GPS communication module.



### Multi-network ports available

Up to 6 Gigabit Ethernet ports and 8 RS232 / 485 serial ports.



eBOX-3560



# eBOX-3622-H

Fanless Mini PC with Intel® the 4th Gen. Core™i3 i5 i7,Pentium® and Celeron® CPU



eBOX-3622-H is based on high-performance Intel® Core™ 4th i7 / i5 / i3 / Pentium® / Celeron® desktop processor fanless industrial computer, two dual-channel SODIMM slot, maximum support 16GB memory, support SATA2.0 / 3.0 hard drive and MSATA SSD Electronics I / O includes 2 Intel Gigabit Ethernet ports, 6 USB2.0 / 3.0 ports, 4 RS232 and 2 RS232 / 485 serial ports, VGA / DVI display interface and support synchronous or asynchronous Display. 2PCI / PCIe bus slots, so customers can expand a variety of function boards, it is suitable for CNC systems, robots, machine vision and image video analysis and other industries.

- OS : Windows7, Windows10 and Linux.



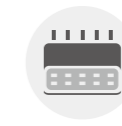
**Rugged and fanless design**  
Sealed box with excellent cooling system.



**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



**Flexible expansion of PCI, PCIe and Mini-PCIe expansion**  
There are 2 expansion slots, optional 2 PCI slots or 1PCI+1PCIe, user friendly design of external accessible HDD and expansion card modules, less cable connection and easy for assembly and maintenance.



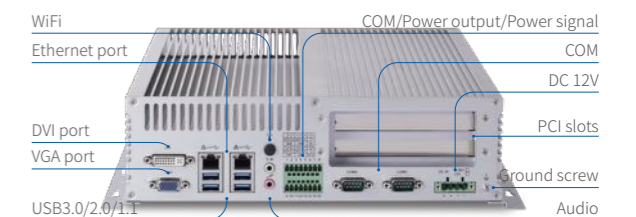
**4 × RS232, 2 × RS232/485**  
8KV electrostatic protection, 600W TVS surge protection, RS485 support automatic data flow control.



**Dual Ethernet port standard configuration**  
There are 2 intel Ethernet ports with high speed Ether-CAT and jumbo frames support.



**Remote power ON/OFF**  
Reserved PS-ON terminal on the front/rear panel (only one available).



eBOX-3622-H



# eBOX-3625

Fanless mini PC with Intel® Core™ i3/i5/i7/Pentium® /Celeron® High performance processor



eBOX-3625 is based on high-performance Intel® Core™ 6/7/8/9th generation i3/i5/i7, Pentium® and Celeron® desktop processor fanless industrial computer, two dual-channel SODIMM slot, maximum support 32GB memory, support MSATA SSD. Electronics I / O includes 3 Intel Gigabit Ethernet ports, 4 USB3.0 / 2.0/1.1 ports, 2 RS232 / 485 serial ports, DVI display interface, 1 e-LINK sender Port, support Integrated remote transmission sender module. There is 1 minPCIE can expand CAN, 4G, WIFI and Bluetooth communication module. 1 PCI and 1 PCIe bus slots, so customers can expand a variety of function boards, it is suitable for CNC systems, robots, machine vision and image video analysis and other industries.

- OS : Windows10 and Linux.



**Rugged and fanless design**  
Sealed box with excellent cooling system.



**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



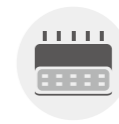
**Software dongle design**  
Vertical USB interface is provided inside the machine to prevention of loss.



**e-LINK sender Port**  
Integrated Remote transmission sender module achieving long distance transmission up to 100 meters which working with Nodka integrated.



**3 Ethernet ports standard configuration**  
There are 3 Intel Ethernet ports support high speed EtherCAT and jumbo frames support.



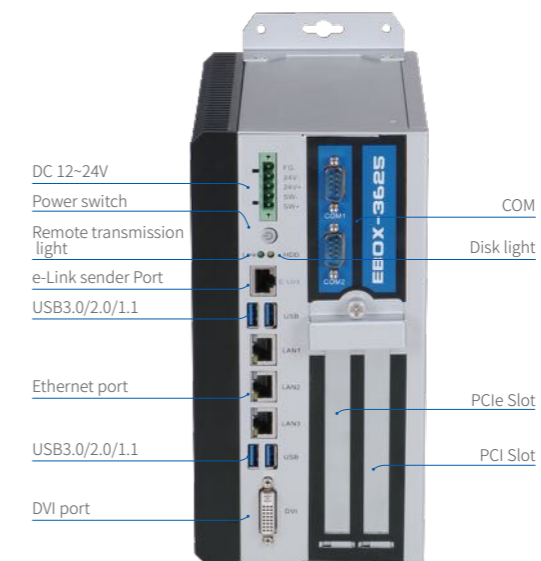
**2xRS232/485**  
8KV electrostatic protection, 600W TVS surge protection, RS485 support automatic data flow control.



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



**Fastening type SODIMM memory slot**  
To solve the industrial computer failure caused by poor contact in the vibration environment and transport process.



eBOX-3625



# eBOX-3000 SERIES



Model No.	eBOX-3000	eBOX-3000H
<b>Processor</b>	CPU	Intel® Core™ 6/7/8/9th generation i7 / i5 / i3 / Pentium® / Celeron®, LGA1151
	Chipset	Intel H110 Express Chipset
	BIOS	AMI UEFI 64M bit
<b>Memory</b>	Architecture	DDR4-2400MHz
	Capacity	Up to 32GB
	DIMM	2×260-pin SODIMM
<b>Display</b>	VGA	Up to 1920×1200
	DVI	Support 1920×1200
	HDMI	1920×1200
	Display	Yes, VGA + DVI + HDMI
<b>LAN</b>	LAN1	Intel GbE LAN controller
	LAN2	Intel GbE LAN controller
<b>Audio</b>	Port	Optional
	Amplifier	N/A
<b>I/O</b>	COM	6×RS232(COM5~COM6 Optional RS-485)
	LPT	N/A
	USB	4×USB3.0/2.0/1.1, 4×USB2.0/1.1
<b>Other</b>	Digital IO	N/A
	WatchDog	255 seconds programmable
<b>Expansion slot</b>	MiniPCIe	2×full size PCIe with SIM holder
	PCIe & PCI	1×PCIe x16 slot or 1×32bits PCI
<b>Storage Medium</b>	HDD	1×2.5" HDD Bay (Max rate SATA III 6.0 Gb/s)
	SSD	1×MSATA
<b>OS</b>	OS	Windows 7, Windows 10, Linux
<b>Power</b>	Type	AT
	Input voltage	DC 12~24V ±10%
	Minimum Input	12V/10A, 120W
	Power Adapter	Optional
<b>Power Dissipation</b>	No-load	27Watt
	Full-load	55Watt (According to the CPU set, total power not exceeding 100W)
<b>Mechanism Parameters</b>	Box structure	Aluminum alloy BOX
	Mounting	Support Desktop and Wall-mounted mounting
	Dimensions (L×W×H)	240mm×240mm×95mm (9.45"×9.45"×3.74")   242mm×240mm×117.73mm (9.53"×9.45"×4.64")
	Net weight	4.00kg (8.82lb)   4.6kg(10.14lb)
<b>Environmental</b>	Work Temperature	-20 ~ 60°C (-4°F~140°F) (Wide temperature SSD), 0 ~ 45°C (32°F~113°F) (General temperature HDD/SSD)
	Storage Temperature	-40 ~ 80°C (-40~176°F)
	Relative humidity	5 ~ 95% (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
	Safety Certification	CCC

# eBOX-32XX SERIES



Model No.	eBOX-3230	eBOX-3231
<b>Processor</b>	CPU	Intel® Celeron® J1900
	Frequency	Quad core 2.0GHz
	L2 Cache	2MB
	Chipset	Intel Bay trail SOC
	BIOS	AMI UEFI 64Mbit
<b>Memory</b>	Architecture	DDR3L-1333MHz
	Capacity	Up to 8GB
	DIMM	1×SODIMM
<b>Display</b>	Graphics controller	Intel® HD Graphic Core
	Graphics engine	DirectX 9 and OpenGL3.0 support; Hardware Encode/Decode: MPEG2; Hardware Encode/Decode: H.264/VC1/MVC
	VGA	Up to 1920×1200
	DVI	N/A
	HDMI	Supports HDMI v1.3 up to 1080P, Max. data rate 1.65 Gb/s
<b>LAN</b>	LAN1	Realtek GbE LAN controller
	LAN2	Realtek GbE LAN controller
<b>Audio</b>	Port	Optional
	Amplifier	N/A
<b>I/O</b>	COM	COM1 (RS232/485 optional), COM2~6 (RS232)   COM1, COM7~COM10 (RS232/485 optional)   COM2~COM6, COM11, COM12 (RS232, COM12 built-in)
	LPT	N/A
	USB	1×USB3.0/2.0/1.1, 5×USB2.0/1.1
<b>Other</b>	Digital IO	8×GPIO
	WatchDog	0~255 seconds programmable
<b>Expansion slot</b>	MiniPCIe	1×full size PCIe with SIM holder
	PCIe & PCI	N/A
<b>Storage Medium</b>	HDD	1×2.5" HDD Bay (Max rate 300MB/s)
	SSD	1×full size mSATA SSD
<b>OS</b>	OS	Windows 7, Windows 10, Linux
<b>Power</b>	Type	AT
	Input voltage	DC 12V ±10%
	Minimum Input	12V, 3A
	Power Adapter	AC to DC, DC 12V/5A, 60W (Optional)
<b>Power Dissipation</b>	No-load	15 Watt
	Full-load	31 Watt
<b>Mechanism Parameters</b>	Box structure	Hydronalium outer skin
	Mounting	D esktop m oun ting, W all m oun ting
	Dimensions (L×W×H)	234mm×150mm×60mm (9.21"×5.91"×2.36")
	Net weight	1.42kg (3.13lb)   1.50kg (3.31lb)
<b>Environmental</b>	Work Temperature	-20 ~ 60°C (-4°F~140°F) (Wide temperature SSD), 0 ~ 45°C (32°F~113°F) (General temperature HDD/SSD)
	Storage Temperature	-40 ~ 80°C (-40~176°F)
	Relative humidity	5 ~ 95% (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
	Safety Certification	CCC



Model No.	eBOX-3240	eBOX-3240-L2	eBOX-3240-C2
<b>Processor</b>	CPU	Intel® Celeron® J6412	
	Frequency	2.0GHz	
	L2 Cache	1.5MB	
<b>Memory</b>	Architecture	DDR4L-2666/2933/3200MHz	
	Capacity	Up to 32GB	
	DIMM	2×SODIMM	
<b>Display</b>	DP	Up to 4096×2160@30Hz	
	HDMI	Up to 4096×2160@30Hz	
	VGA	Up to 1920×1200@60Hz	
	Display	support dual screen synchronous or asynchronous	
<b>LAN</b>	LAN1-2	2×Realtek GbE LAN controller	
	LAN3-4	N/A	2×Intel GbE LAN controller
<b>Audio</b>	Port	MIC-in, Line-out	
	Amplifier	N/A	
<b>I/O</b>	COM	4×RS232/485 (COM1-4), 2×RS232 (COM5-6)	
	LPT	N/A	2×CAN or 2×COM(RS232/485)
	USB	4×USB3.0, 2×USB2.0	
	Digital IO	N/A	
<b>Other</b>	WatchDog	255 seconds programmable	
	MiniPCIe	2× full size MiniPCIe with SIM holder	
<b>Expansion slot</b>	PCIe & PCI	N/A	
	M.2	1×M.2 slot for 5G module with extensible USB protocol	
<b>Storage Medium</b>	HDD	1×SATA	
	SSD	1×M.2 Key-M Slot (SATA SSD, 2280)	
<b>OS</b>	OS	Windows 10 IoT, Linux	
<b>Power</b>	Type	AT	
	Input voltage	DC 12V ±10%	
	Minimum Input	12V, 3A	
	Power Adapter	AC to DC, DC 12V/5A, 60W (Optional)	
<b>Power Dissipation</b>	No-load	10W	
	Full-load	31W	
<b>Mechanism Parameters</b>	Box structure	Hydronalium outer skin	
	Mounting	Desktop mounting, Wall mounting	
	Dimensions (L×W×H)	234mm×150mm×60mm (9.21"×5.91"×2.36")	
	Net weight	1.8Kg	
<b>Environmental</b>	Work Temperature	-20 ~ 60°C (-4°F~140°F) (Wide temperature SSD), 0 ~ 45°C (32°F~113°F) (General temperature HDD/SSD)	
	Storage Temperature	-40 ~ 80°C (-40~176°F)	
	Relative humidity	5 ~ 95% (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	
	Safety Certification	CCC	

Model No.	eBOX-3250	
<b>Processor</b>	CPU	Intel® Core™ / Pentium® / Celeron® LAG1151 (MAX CPU TDP 35W)
	Frequency	AMI UEFI 64Mbit
	L2 Cache	H110
<b>Memory</b>	Architecture	DDR4-2400MHz
	Capacity	Up to 32GB
	DIMM	2×SO-DIMM Slot
<b>Display</b>	DP	N/A
	HDMI	Up to 4096×2160@30Hz
	VGA	N/A
	Display	N/A
<b>LAN</b>	LAN1	Intel GbE LAN controller
	LAN2	Intel GbE LAN controller
	LAN3	Intel GbE LAN controller
<b>Audio</b>	Port	N/A
	Amplifier	N/A
<b>I/O</b>	COM	4×RS232/485(COM1-4), up to 6×COM(RS232/485)
	CAN	2 CAN bus (optional)
	USB	4×USB3.0, 2×USB2.0
<b>Other</b>	Digital IO	8DI + 8DO Wet contact input ( 24V ), OC gate output ( 24V 300mA)
	WatchDog	255 level programmable
<b>Expansion slot</b>	MiniPCIe	1× Full-size PCIe Mini slot with SIM holde
	PCIe & PCI	N/A
<b>Storage Medium</b>	M.2	1×M.2 Key-M Slot ( NVME SSD, 2280)
	SSD	1×mSATA
<b>OS</b>	OS	Windows 7, Windows 10, Linux
<b>Power</b>	Type	AT
	Input voltage	DC12-24V ±10%, overcurrent, overvoltage and polarity inverse protection
	Minimum Input	12V, 5A
	Power Adapter	Optional 60W/120W
<b>Power Dissipation</b>	No-load	15 Watt
	Full-load	35 Watt
<b>Mechanism Parameters</b>	Box structure	Aluminum-magnesium alloy box
	Mounting	Desktop mounting, Wall mounting
	Dimensions (L×W×H)	256mm×173mm×55.3mm (10.08"×6.81"×2.18")
	Net weight	2Kg
<b>Environmental</b>	Work Temperature	-20 ~ 60°C (-4°F~140°F) (Wide temperature SSD), 0 ~ 45°C (32°F~113°F) (General temperature HDD/SSD)
	Storage Temperature	-40 ~ 80°C (-40~176°F)
	Relative humidity	5 ~ 95% (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
	Safety Certification	CCC



Model No.	eBOX-3310	
<b>Processor</b>	CPU	Intel® Celeron® J6412 / 4205U / J1900 / Core™ i5 7200U
	Frequency	Quad core 2.0GHz / Dual Core 1.8GHz / Quad core 2.0GHz / Dual Core 2.5GHz
	L2 Cache	1.5MB/2MB/2MB/3MB
	Chipset	Integrated PCH-LP
	BIOS	-
<b>Memory</b>	Architecture	DDR4-2400MHz / DDR4-2400MHz / DDR3L-1333MHz / DDR3L-1600MHz
	Capacity	Up to 16GB / Up to 16GB / Up to 8GB / Up to 8GB
	DIMM	1×SODIMM
<b>Display</b>	Graphics controller	-
	Graphics engine	-
	VGA	1920×1200 @ 60Hz or 2048×1152 @ 60Hz with reduced blanking
	DVI	1920×1200 @ 60Hz or 2048×1152 @ 60Hz with reduced blanking
	HDMI	N/A
	Display	Yes, VGA + DVI/Yes, VGA + HDMI
<b>LAN</b>	LAN1	Intel GbE LAN controller
	LAN2	Intel GbE LAN controller
<b>Audio</b>	Port	Optional
<b>I/O</b>	LPT	2×RS232/485 (Max to 6 from EasyBUS)
	USB	4×USB3.0/2.0/1.1
<b>Other</b>	Digital IO	16×GPIO(Optional)
	WatchDog	255 seconds programmable
<b>Expansion slot</b>	MiniPCIe	1×full size PCIe with SIM holder
	PCIe & PCI	N/A
<b>Storage Medium</b>	HDD	1×2.5" HDD Bay (Max. rate 300MB/s)
	SSD	1×full size mSATA SSD
<b>OS</b>	OS	Windows 7, Windows 10, Linux
<b>Power</b>	Type	AT
	Input voltage	DC 12-24V ±10%
	Minimum Input	12V, 3A
	Power Adapter	AC to DC, DC 12V/5A, 60W (Optional)
	Power consumption	5-30W
<b>Mechanism Parameters</b>	Box structure	Aluminum-magnesium alloy BOX
	Mounting	Support Desktop,Wall-mounted and VESA mounting
	Dimensions (L×W×H)	297mm×184mm×50mm (11.69"×7.24"×1.97")
	Net weight	2.56KG
<b>Environmental</b>	Work Temperature	-20 ~ 60°C (-4°F~140°F) (Wide temperature SSD), 0 ~ 45°C (32°F~113°F) (General temperature HDD/SSD)
	Storage Temperature	-40 ~ 80°C (-40~176°F)
	Relative humidity	5 ~ 95% (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 A
	Safety Certification	CCC



Model No.	eBOX-3560	
<b>Processor</b>	CPU	Intel® Celeron® J3355
	Frequency	Dual core 2.0GHz
	L2 Cache	2MB
	Chipset	-
	BIOS	AMI UEFI 128Mbit
<b>Memory</b>	Architecture	DDR3L-1666MHz
	Capacity	Up to 8GB
	DIMM	1×SODIMM
<b>Display</b>	Display controller	Integrated graphics media accelerator
	HDMI	4096×2160@30Hz
<b>LAN</b>	LAN1	Intel GbE LAN controller
	LAN2	Intel GbE LAN controller
<b>I/O</b>	Port	2×RS232(RS232/485 Optional)
	LPT	N/A
	USB	4×USB3.0/2.0/1.1
<b>Other</b>	Digital IO	N/A
	WatchDog	255 seconds programmable
<b>Expansion slot</b>	MiniPCIe	2× full size MiniPCIe with SIM holder
	PCIe & PCI	N/A
<b>Storage Medium</b>	SSD	1×full size mSATA SSD
<b>OS</b>	OS	Windows 10 64bit, Linux
<b>Power</b>	Type	AT
	Input voltage	DC 9~24V
	Minimum Input	12V, 3A
	Power Adapter	Optional
<b>Power Consumption</b>	No-load	15 Watt
	Full-load	31 Watt
<b>Mechanism Parameters</b>	Box structure	Aluminum alloy BOX
	Mounting	Din-rail
	Dimensions (L×W×H)	145mm x 145mm x 75mm (5.71" x 5.71" x 2.95")
	Net weight	1.6KG
<b>Environmental</b>	Work Temperature	-20 ~ 60°C (-4°F~140°F) (Wide temperature SSD), 0 ~ 45°C (32°F~113°F) (General temperature HDD/SSD)
	Storage Temperature	-40 ~ 80°C (-40~176°F)
	Relative humidity	5 ~ 95% (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 A
<b>Safety Certification</b>		CCC





Model No.		eBOX-3622-H
<b>Processor</b>	CPU	Intel® Core™ 4th i7 / i5 / i3 / Pentium® / Celeron®, LGA1150
	Frequency	1.4GHz~3.3GHz
	L2 Cache	Up to 8MB
	Chipset	Intel H81
	BIOS	AMI UEFI 64Mbit
<b>Memory</b>	Architecture	DDR3-1066 / 1333 / 1600MHz ( Only Ivy bridge can fit for 1600MHz)
	Capacity	Up to 16GB
	DIMM	2×SODIMM
<b>Display</b>	Graphics controller	-
	Graphics engine	-
	VGA	Up to 1920×1200
	DVI	Support 1920×1200
	HDMI	N/A
Display	Yes, VGA + DVI	
<b>LAN</b>	LAN1	Intel GbE LAN controller
	LAN2	Intel GbE LAN controller
<b>Audio</b>	Port	Optional
	Amplifier	N/A
<b>I/O</b>	COM	6×RS232 COM (COM3~COM4 optional RS485, PIN9 optional +5V/+12V/RI)
	LPT	N/A
	USB	4×USB3.0/2.0/1.1, 2×USB2.0/1.1
<b>Other</b>	Digital IO	16×GPIO
	WatchDog	Level 0~255 is programmable
<b>Expansion slot</b>	MiniPCIe	1×full size PCIe with SIM holder
	PCIe & PCI	1×32bits PCI slot + 1×PCIe×4 slot(option×16) / 2×32bits PCI slot / 1×PCIe×1 slot + 1×PCIe×16 slot
<b>Storage Medium</b>	HDD	1×2.5" HDD Bay (Max. rate 3Gb/s)
	SSD	1×mSATA
<b>OS</b>	OS	Windows 7, Windows 10, Linux
<b>Power</b>	Type	AT
	Input voltage	DC 12V ±10%
	Minimum Input	12V, 6A
	Power Adapter	AC to DC, DC12V/10A, 120W
<b>Power Consumption</b>	No-load	27Watt
	Full-load	55Watt (depending on the CPU)
<b>Mechanism Parameters</b>	Box structure	Hot dip galvanized sheet steel shel
	Mounting	Desktop mounting, Wall mounting
	Dimensions (L×W×H)	285mm×240mm×82mm (11.22"×9.45"×3.23")
	Net weight	4.7kg (10.36lb)
<b>Environmental</b>	Work Temperature	-20 ~ 60°C (-4°F~140°F) (Wide temperature SSD), 0 ~ 45°C (32°F~113°F) (General temperature HDD/SSD)
	Storage Temperature	-40 ~ 80°C (-40~176°F)
	Relative humidity	5 ~ 95% (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
	Safety Certification	CCC



Model No.		eBOX-3625
<b>Processor</b>	CPU	Intel® Core™ 6/7/8/9th generation i7 / i5 / i3 / Pentium® / Celeron®, LGA1151, MAX TDP 65W
	Frequency	Intel H110 Express Chipset
	BIOS	AMI UEFI 64Mbit
<b>Memory</b>	Architecture	DDR4-2400MHz
	Capacity	Up to 32GB
	DIMM	2×260-pin SODIMM
<b>eLINK port</b>	e-LINK sender Port	Integrated display signal, USB signal, touch screen signal
<b>Display</b>	Graphics controller	-
	Graphics engine	-
	VGA	N/A
	DVI	Support 1920×1080
	HDMI	N/A
Display	N/A	
<b>LAN</b>	LAN1	Intel GbE LAN controller
	LAN2	Intel GbE LAN controller
	LAN3	Intel GbE LAN controller
<b>Audio</b>	Port	N/A
	Amplifier	N/A
<b>I/O</b>	COM	2×RS232/485 selectable
	LPT	N/A
	USB	4×USB3.0/2.0
<b>Other</b>	Digital IO	N/A
	WatchDog	255 seconds programmable
<b>Expansion slot</b>	MiniPCIe	1×full size PCIe with SIM holder
	PCIe & PCI	1×PCIe×16 slot + 1×PCI
<b>Storage Medium</b>	HDD	N/A
	SSD	1×mSATA
<b>OS</b>	OS	Windows 10, Linux
<b>Power</b>	Type	AT
	Input voltage	DC 12~24V ±10%
	Minimum Input	12V/10A, 120W
	Power Adapter	Optional
<b>Power Consumption</b>	No-load	27Watt
	Full-load	55Watt (depending on the CPU)
<b>Mechanism Parameters</b>	Box structure	Aluminum alloy BOX
	Mounting	Support Desktop and Wall-mounted mounting
	Dimensions (L×W×H)	238mm×191.5mm×120mm
	Net weight	3.5KG
<b>Environmental</b>	Work Temperature	-20 ~ 60°C (-4°F~140°F) (Wide temperature SSD), 0 ~ 45°C (32°F~113°F) (General temperature HDD/SSD)
	Storage Temperature	-40 ~ 80°C (-40~176°F)
	Relative humidity	5 ~ 95% (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
	Safety Certification	CCC

# NP Series Control Cabinet Industrial PC

High performance, Extremely space-saving and Flexible



The NP series of ultra-compact scalable Industrial PC combines maximum computing power in which is the most compact format with a wide range of options for installation in the control cabinet. It is ideally suited for Machine Vision, Motion Control, Robots and Smart Gateway application, some scalable IO boards have been developed for these automation control industry.

The NP series based on the latest Intel processor, in different performance from Intel Celeron quad-core to Core i7 with 8 cores, it used NODKA COMLAC Inside design, which offer maximum scalability and upgrade to the latest processor but without any chassis change, it is a popular product with an optimal price-performance ratio.

The NP series can work well with INtime, VxWorks, RTX, EC-Win and Linux system, optimized all of the BIOS settings.

**NP-6111 Series**



**NP-6122 Series**



**NP-6123 Series**



**NP-6125 Series**



# NP-6111 SERIES

Ultra-compact Control Cabinet Fanless Industrial PC with Low-power consumption processor



Based on Intel® Celeron® / Intel Atom® processor, include various interfaces for industry application, such as 2 Intel Gigabit Ethernet which support Ether-CAT and Jumbo frames, 1 USB 3.0 and 3 USB 2.0, as well as 1 USB inside for dongle, 2 optical electrical isolation RS232/485, and option other PCI express, USB and COM ports for expansion, in order to meet most of requirements for special applications.

- NP-6111 series widely used in Motion Control, Smart Gateway, Instrument Data terminal, Machine Vision and other automation control application.



### Compact design with rugged aluminum alloy housing

Book style with ultra-compact, sealed housing with fanless design.



### CPU and memory modular design

Celeron core module configuration for product maintenance and upgrades.



### No cable design

Using high quality connector between the boards, reliability and stability for no cable connection design.



### Wide voltage power supply: DC12V~24V

DC12V power input, optional DC24V, with surge power, over voltage and reverse polarity protection, with phoenix terminal contact.



### Fanless Design

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



### 2×RS232/485

8KV electrostatic protection, 600W TVS surge protection, RS485 support automatic data flow control.



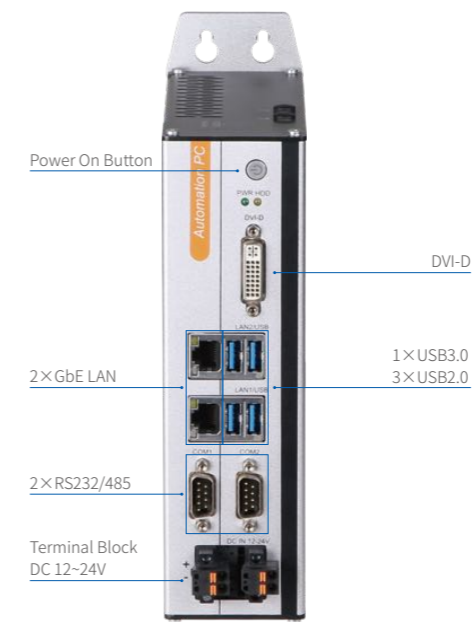
### Extremely space-saving and Flexible

Flexible for CAN Bus, PoE LAN, Digital IO, Light source control and additional LAN port expansion.



### Flexible mounting

Book style with wall mounting, option Din-rail mounting so that the user can easily move the PC into the optimal position.



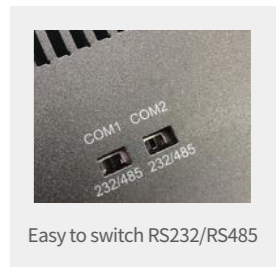
NP-6111



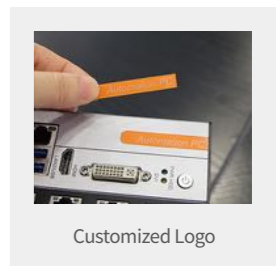
miniPCIe Expansion Slot



Internal USB2.0 for USB Dongle



Easy to switch RS232/RS485



Customized Logo



# NP-6111 SERIES



Model No.	NP-6111	NP-6111-JH2	
<b>System</b>	CPU	Intel® Celeron® J1900 / J3455 / J6412	
	CPU specification	2.0GHz, 4 cores, 4threads, 2MB L2 cache / 1.5~2.3GHz, 4 cores, 4threads, 2MB L2 cache / 2.0~2.6GHz, 4 cores, 4 threads, 1.5MB L2 cache	
	TDP	10W	
	BIOS	AMI UEFI 64Mbit	
	Memory	J1900/J3455: 1×SO-DIMM DDR3L-1333MHz, (Max. 8GB) / J6412: 1×SO-DIMM DDR4-2400MHz(Max. 16GB)	
	Storage	1× mSATA bay	
<b>I/O</b>	USB	4×USB, 1×USB2.0 Type A on the board for USB dongle	
	COM	2×RS232/RS485, RS485 support auto flow control, ESD protection for RS232	
	Ethernet	2×Intel GbE LAN controller	
	PoE	-	2×Intel GbE PoE LAN controller, max. 15W per channel
	DI	-	8×DI NPN/PNP, isolated 2500 Vrms
	DO	-	8×DO, Transistor output, I <sub>max</sub> :0.5A per channel, isolated 2500 Vrms
	CAN	-	-
	Light Control	-	4×PWM Light power control with external trigger input, I <sub>max</sub> : 1A per channel
<b>Display</b>	DVI-D	Support up to 1920×1080	
<b>Audio</b>	Line-out	-	
<b>Expansions</b>	Expansions	1×Full-size PCIe Mini slot with SIM card holder(with USB signal)	
<b>Other</b>	Watch Dog	1~255 levels programmable	
<b>OS</b>	Windows	Windows 7, Windows 7 Embedded, Windows 10 IoT	
	Linux	Ubuntu, CentOS, Debian	
<b>Power</b>	Voltage Input	DC12~24V ±10%, overcurrent, overvoltage and polarity inverse protection, (Must be DC24V when using Light Control)	
	Power Consumption	Max. 45W	Max. 120W
<b>Chassis</b>	Structure	Aluminum-magnesium alloy box, Fanless, Wall-mounted or DIN-Rail	
	Dimensions(L×W×H)	200mm×154.5mm×57.6mm	200mm×154.5mm×74.6mm
	Net Weight	1.6Kg	2.1Kg
<b>Reliability</b>	Work Temperature	-20°C ~ 60°C (-4°F~140°F) with air flow (SSD)	
	Storage Temperature	-20°C ~ 60°C (-4°F~140°F) with air flow (SSD)	
	Relative Humidity	5~95%(Non-condensing)	
	Vibration	Operating Random Vibration Test 5~500Hz, 1.5Grms@with SSD, follow IEC 60068-2-64	
	Operating Shock	Operating 20G peak acceleration (11ms duration), follow IEC 60068-2-27	
	EMC	CE/FCC Class A	



NP-6111-JH2B	NP-6111-JH3	NP-6111-JH4
Intel® Celeron® J1900 / J3455 / J6412		
Intel® Celeron® J1900 / J3455		
2.0GHz, 4 cores, 4threads, 2MB L2 cache / 1.5~2.3GHz, 4 cores, 4threads, 2MB L2 cache / 2.0~2.6GHz, 4 cores, 4 threads, 1.5MB L2 cache		
10W		
AMI UEFI 64Mbit		
J1900/J3455: 1×SO-DIMM DDR3L-1333MHz, (Max. 8GB) / J6412: 1×SO-DIMM DDR4-2400MHz(Max. 16GB)		
1× mSATA bay		
4×USB, 1×USB2.0 Type A on the board for USB dongle	8×USB, 1×USB2.0 Type A on the board for USB dongle	4×USB, 1×USB2.0 Type A on the board for USB dongle
2×RS232/RS485, RS485 support auto flow control, ESD protection for RS232	2×RS232/RS485, RS485 support auto flow control, ESD protection for RS232	2×RS232/RS485, 8×RS485(Phoenix Contators), RS485 support auto flow control, ESD protection for RS232
2×Intel GbE Ethernet		
2x Intel GbE PoE LAN controller, max. 15W per channel	-	-
16×DI NPN/PNP, isolated 2500 Vrms	8×DI NPN/PNP, isolated 2500 Vrms	8×DI NPN/PNP, isolated 2500 Vrms
16×DO, Transistor output, I <sub>max</sub> :0.5A per channel, isolated 2500 Vrms	8×DO, Transistor output, I <sub>max</sub> :0.5A per channel, isolated 2500 Vrms	4 x Relay DO, Normally Open, 30VDC(I <sub>max</sub> : 1.0A)/ 60VDC(I <sub>max</sub> : 0.3A)/125VAC(I <sub>max</sub> : 0.5A)
-	2 x isolated CAN Bus 2.0 A/B	-
Support up to 1920×1080		
-		
1×Full-size PCIe Mini slot with SIM card holder(with USB signal)		
1~255 levels programmable		
Windows 7, Windows 7 Embedded, Windows 10 IoT		
Ubuntu, CentOS, Debian		
DC12~24V ±10%, overcurrent, overvoltage and polarity inverse protection, (Must be DC24V when using Light Control)		
Max. 80W	Max. 60W	Max. 45W
Aluminum-magnesium alloy box, Fanless, Wall-mounted or DIN-Rail		
200mm×154.5mm×74.6mm		
2.1Kg		
-20°C ~ 60°C (-4°F~140°F) with air flow (SSD)		
-20°C ~ 60°C (-4°F~140°F) with air flow (SSD)		
5~95%(Non-condensing)		
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 A		

# NP-6122 SERIES

Ultra-compact Control Cabinet Industrial PC with High performance processor



NP-6122 series is a high performance book style Industrial PC which use for Automation and Machine Vision industry. It is a COMLAC design which include courier board, CPU board and option different IO boards, equipped with the latest Intel® Core™ i3, i5, i7 and Pentium processor, COMLAC design means offer maximum scalability and upgrade to the latest processor but without any chassis change. There are 2 Intel gigabit LAN ports, 2 RS232/485 ports, option DVI-D and HDMI display port, 4 USB 3.0 ports at the courier board, and an internal USB2.0 port for USB dongle, DC12~24V power input. Accept customized service for IO board in order to meet the various hardware requests, all of the IO ports are located in one side, it is convenient for wiring and maintenance. Rugged aluminum alloy and sealed housing, build in separately fan space, both make the product more reliable.

NP-6122 is widely used for 3C, pharmaceutical machinery, packaging machinery, automatic checkout test equipment, robots, motion control, intelligent transportation and other fields.



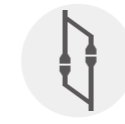
### Compact design with rugged aluminum alloy housing

Book style with ultra-compact, sealed housing with fanless design.



### CPU modular design

Latest processor with modular design, very easy for maintenance and upgrade.



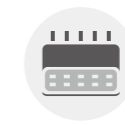
### No cable design

Using high quality connector between the boards, reliability and stability for no cable connection design.



### Wide voltage power supply: DC12V~24V

DC12V power input, optional DC24V, with surge power, over voltage and reverse polarity protection, with phoenix terminal contact.



### 2×RS232/485

8KV electrostatic protection, 600W TVS surge protection, RS485 support automatic data flow control.



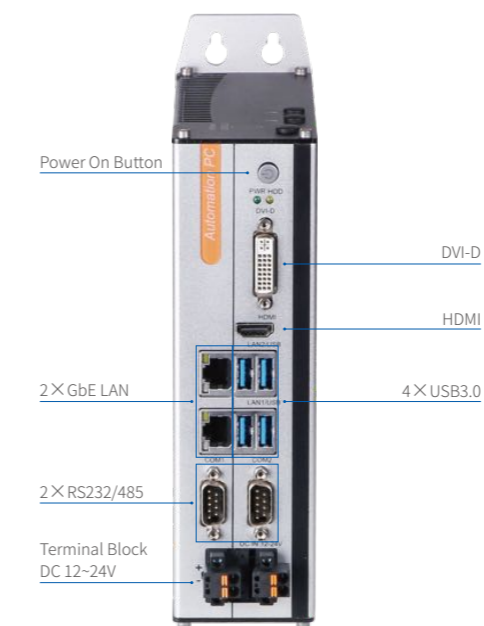
### Extremely space-saving and Flexible

Flexible for CAN Bus, PoE LAN, Digital IO, Light source control and additional LAN port expansion.

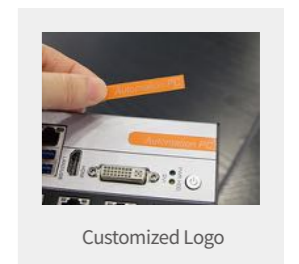
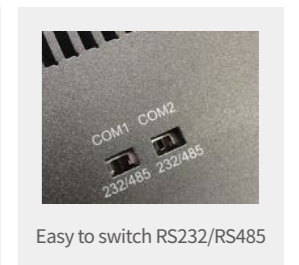


### Flexible mounting

Book style with wall mounting, option Din-rail mounting so that the user can easily move the PC into the optimal position.



NP-6122



# NP-6122 SERIES



Model No.		NP-6122	NP-6122-H1	NP-6122-H1B
<b>System</b>	CPU	Intel® Core™ 6th/7th/8th gen i7/i5/i3/Pentium/Celeron LGA1151 type CPU		
	TDP	Max. 65W		
	BIOS	AMI UEFI 64Mbit		
	Memory	2×SO-DIMM DDR4-2400MHz, max up to 32GB		
	Storage	1×mSATA bay, 1×M.2(B Key, Type 2280) bay support SATA		
<b>I/O</b>	USB	4×USB3.0, 1×USB2.0 Type A on the board for USB dongle		
	COM	2×RS232/RS485, RS485 support auto flow control, ESD protection for RS232		
	Ethernet	2×Intel GbE LAN controller		
	PoE	-	4×Intel GbE PoE LAN controller, max. 15W per channel	
	DI	-	8×DI NPN/PNP, isolated 2500 Vrms	16×DI NPN/PNP, isolated 2500 Vrms
	DO	-	8×DO, Transistor output, I <sub>max</sub> :0.5A per channel, isolated 2500 Vrms	16×DO, Transistor output, I <sub>max</sub> :0.5A per channel, isolated 2500 Vrms
	CAN	-	-	
	Light Control	-	4×PWM Light power control with external trigger input, I <sub>max</sub> : 1A per channel	-
<b>Display</b>	DVI-D	Support up to 1920×1080		
	HDMI	Support up to 3840×2160		
<b>Audio</b>	Line-out	-		
<b>Expansions</b>	Expansions	1×Full-size PCIe Mini slot with SIM card holder(with USB signal)		
<b>Other</b>	Watch Dog	1~255 levels programmable		
<b>OS</b>	Windows	Windows 10 IoT		
	Linux	Ubuntu, CentOS, Debian		
<b>Power</b>	Voltage Input	DC12~24V ±10%, overcurrent, overvoltage and polarity inverse protection, (Must be DC24V when using Light Control)		
	Power Consumption	Max. 120W	Max. 250W	Max. 200W
<b>Chassis</b>	Structure	Aluminum-magnesium alloy BOX with fan embedded to assist cooling, Wall-mounted or DIN-Rail		
	Dimensions(L×W×H)	200mm×154.5mm×57.6mm	200mm×154.5mm×74.6mm	200mm×154.5mm×74.6mm
	Net Weight	1.9Kg	2.4Kg	2.4Kg
<b>Reliability</b>	Work Temperature	-20°C ~ 60°C (-4°F~140°F) with air flow (SSD)		
	Storage Temperature	-20°C ~ 60°C (-4°F~140°F) with air flow (SSD)		
	Relative Humidity	5~95%(Non-condensing)		
	Vibration	Operating Random Vibration Test 5~500Hz, 1.5Grms@with SSD, follow IEC 60068-2-64		
	Operating Shock	Operating 20G peak acceleration (11ms duration), follow IEC 60068-2-27		
	EMC	CE/FCC Class A		



Model No.		NP-6122-JH2	NP-6122-JH3	NP-6122-JH4	NP-6122-8POE
		Intel® Core™ 6th/7th/8th gen i7/i5/i3/Pentium/Celeron LGA1151 type CPU			
		Max. 65W			
		AMI UEFI 64Mbit			
		2×SO-DIMM DDR4-2400MHz, max up to 32GB			
		1×mSATA bay, 1×M.2(B Key, Type 2280) bay support SATA			
		4×USB, 1×USB2.0 Type A on the board for USB dongle	4×USB, 4×USB2.0 extended by PCIe x1, 1×USB2.0 Type A on the board for USB dongle	4×USB3.0, 1×USB2.0 Type A on the board for USB dongle	
		2×RS232/RS485, RS485 support auto flow control, ESD protection for RS232	4×RS232/RS485, RS485 support auto flow control, ESD protection for RS232	2×RS232/RS485, 8×RS485(Phoenix Contators),RS485 support auto flow control, ESD protection for RS232	2×RS232/RS485, RS485 support auto flow control, ESD protection for RS232
		2×Intel GbE LAN controller			
		2×Intel GbE PoE LAN controller, max. 15W per channel	-	-	8×Intel GbE PoE LAN controller, max. 15W per channel
		8×DI NPN/PNP, isolated 2500 Vrms	8×DI NPN/PNP, isolated 2500 Vrms	8×DI NPN/PNP, isolated 2500 Vrms	-
		8×DO, Transistor output, I <sub>max</sub> :0.5A per channel, isolated 2500 Vrms	8×DO, Transistor output, I <sub>max</sub> :0.5A per channel, isolated 2500 Vrms	4×Relay DO, Normally Open, 30VDC(I <sub>max</sub> :1.0A)/60VDC(I <sub>max</sub> :0.3A)/125VAC(I <sub>max</sub> :0.5A)	-
		-	2×CAN Bus 2.0A/B, 1×DB9(Female)	-	-
		4×PWM Light power control with external trigger input, I <sub>max</sub> : 1A per channel	-	-	-
		Support up to 1920×1080			
		Support up to 3840×2160			
		-	Optional	-	-
		1×Full-size PCIe Mini slot with SIM card holder(with USB signal)			
		1~255 levels programmable			
		Windows 10 IoT			
		Ubuntu, CentOS, Debian			
		DC12~24V ±10%, overcurrent, overvoltage and polarity inverse protection, (Must be DC24V when using Light Control)			
		Max. 120W	Max. 120W	Max. 120W	Max. 250W
		Aluminum-magnesium alloy BOX with fan embedded to assist cooling, Wall-mounted or DIN-Rail			
		200mm×154.5mm×74.6mm	200mm×154.5mm×74.6mm	200mm×154.5mm×74.6mm	200mm×154.5mm×74.6mm
		2.4Kg	2.4Kg	2.3Kg	2.6Kg
		-20°C ~ 60°C (-4°F~140°F) with air flow (SSD)			
		-20°C ~ 60°C (-4°F~140°F) with air flow (SSD)			
		5~95%(Non-condensing)			
		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 A			

# NP-6123 SERIES

Ultra-compact Control Cabinet Industrial PC for Robots Control application



NP-6123 series is a high performance book style Industrial PC which use for Automation and Machine Vision industry. It is a COMLAC design which include courier board, CPU board and option different IO boards, equipped with the latest Intel® Core™ i3, i5, i7 and Pentium processor, COMLAC design means offer maximum scalability and upgrade to the latest processor but without any chassis change. There are 4 Intel gigabit LAN ports, a RS232/485 port, option DVI-D and HDMI display port, 4 USB 3.0 ports at the courier board, and an internal USB2.0 port for USB dongle, DC12~24V power input. Accept customized service for IO board in order to meet the various hardware requests, all of the IO ports are located in one side, it is convenient for wiring and maintenance. Rugged aluminum alloy and sealed housing, build in separately fan space, both make the product more reliable.

NP-6123 is widely used for 3C, pharmaceutical machinery, packaging machinery, automatic checkout test equipment, robots, motion control, intelligent transportation and other fields.



### Compact design with rugged aluminum alloy housing

Book style with ultra-compact, sealed housing with fanless design.



### CPU modular design

Latest processor with modular design, very easy for maintenance and upgrade.



### No cable design

Using high quality connector between the boards, reliability and stability for no cable connection design.



### Wide voltage power supply: DC12V~24V

DC12V power input, optional DC24V, with surge power, over voltage and reverse polarity protection, with phoenix terminal contact.



### 2×RS232/485

8KV electrostatic protection, 600W TVS surge protection, RS485 support automatic data flow control.



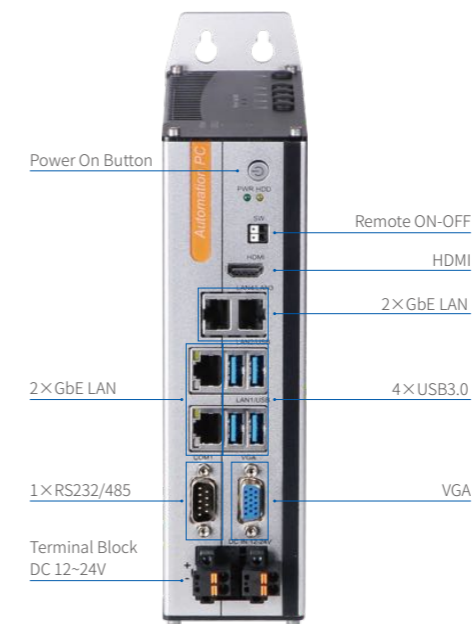
### Extremely space-saving and Flexible

Flexible for CAN Bus, PoE LAN, Digital IO, Light source control and additional LAN port expansion.



### Flexible mounting

Book style with wall mounting, option Din-rail mounting so that the user can easily move the PC into the optimal position.



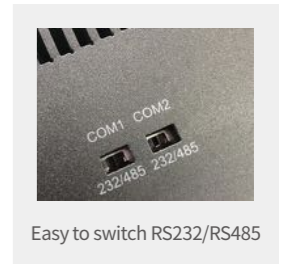
NP-6123



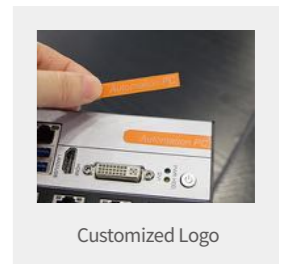
miniPCle Expansion Slot



Internal USB2.0 for USB Dongle



Easy to switch RS232/RS485



Customized Logo



# NP-6123 SERIES



Model No.	NP-6123	NP-6123-HDD	
<b>System</b>	CPU	Intel® Core™ 6th/7th/8th gen i7/i5/i3/Pentium/Celeron LGA1151 type CPU	
	TDP	Max. 65W	
	BIOS	AMI UEFI 64Mbit	
	Memory	2×SO-DIMM DDR4-2400MHz, max up to 32GB	
	Storage	1×mSATA bay	1×mSATA bay, 1×2.5" SATA SSD
<b>I/O</b>	USB	4×USB3.0, 1×USB2.0 Type A on the board for USB dongle	
	COM	1×RS232/RS485, RS485 support auto flow control, ESD protection for RS232	
	Ethernet	4×Intel GbE LAN controller	
	PoE	-	
	DI	-	
	DO	-	
	CAN	-	
<b>Display</b>	Light Control	Support up to 1920×1200	
	DVI-D	Support up to 3840×2160	
<b>Audio</b>	HDMI	-	
<b>Expansions</b>	Line-out	-	
<b>Other</b>	Expansions	2×Full-size PCIe Mini slot with SIM card holder(with USB signal)	
	Watch Dog	1~255 levels programmable	
<b>OS</b>	Windows	Windows 10 IoT	
	Linux	Ubuntu, CentOS, Debian	
<b>Power</b>	Voltage Input	DC12~24V ±10%, overcurrent, overvoltage and polarity inverse protection, (Must be DC24V when using Light Control)	
	Power Consumption	Max.120W	Max.200W
<b>Chassis</b>	Structure	Aluminum-magnesium alloy BOX with fan embedded to assist cooling, Wall-mounted or DIN-Rail	
	Dimensions(L×W×H)	200mm×154.5mm×57.6mm	200mm×154.5mm×74.6mm
	Net Weight	1.9Kg	2.4Kg
<b>Reliability</b>	Work Temperature	-20°C ~ 60°C (-4°F~140°F) with air flow (SSD)	
	Storage Temperature	-20°C ~ 60°C (-4°F~140°F) with air flow (SSD)	
	Relative Humidity	5~95%(Non-condensing)	
	Vibration	Operating Random Vibration Test 5~500Hz, 1.5Grms@with SSD, follow IEC 60068-2-64	
	Operating Shock	Operating 20G peak acceleration (11ms duration), follow IEC 60068-2-27	
	EMC	CE/FCC Class A	



Model No.	NP-6123-MVS	NP-6123-MVS-L1	NP-6123-L4
<b>System</b>	Intel® Core™ 6th/7th/8th gen i7/i5/i3/Pentium/Celeron LGA1151 type CPU		
	Max. 65W		
	AMI UEFI 64Mbit		
	2×SO-DIMM DDR4-2400MHz, max up to 32GB		
	1×mSATA bay, 1×2.5" SATA SSD		
<b>I/O</b>	4×USB3.0, 1×USB2.0 Type A on the board for USB dongle		
	2 x COM(DB-9), 1 x selectable to support RS232 or RS485 mode by the switch, RS485 support auto flow control, 1 x RS485		
	4×Intel GbE LAN controller	5×Intel GbE LAN controller	8×Intel GbE LAN controller
	8×DI NPN/PNP, isolated 2500 Vrms		
	8×DO, Transistor output, I <sub>max</sub> :0.5A per channel, isolated 2500 Vrms		
	4×PWM Light power control with external trigger input, I <sub>max</sub> : 1A per channel		-
	Support up to 1920×1200		
Support up to 3840×2160			
<b>Audio</b>	-		
<b>Expansions</b>	-		
<b>Other</b>	2×Full-size PCIe Mini slot with SIM card holder	1×Full-size PCIe Mini slot with SIM card holder	-
	1~255 levels programmable		
<b>OS</b>	Windows 7, Windows 7 Embedded, Windows 10 IoT		
	Ubuntu, CentOS, Debian		
<b>Power</b>	DC12~24V ±10%, overcurrent, overvoltage and polarity inverse protection, (Must be DC24V when using Light Control)		
	Max. 200W	Max. 200W	Max. 200W
<b>Chassis</b>	Aluminum-magnesium alloy box, Fanless, Wall-mounted or DIN-Rail		
	200mm×154.5mm×74.6mm	200mm×154.5mm×74.6mm	200mm×154.5mm×74.6mm
	2.4Kg	2.4Kg	2.4Kg
<b>Reliability</b>	-20°C ~ 60°C (-4°F~140°F) with air flow (SSD)		
	-20°C ~ 60°C (-4°F~140°F) with air flow (SSD)		
	5~95%(Non-condensing)		
	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 A		



# NP-6125 SERIES

Ultra-compact Control Cabinet Industrial PC with High performance processor



NP-6125 series is a high performance book style Industrial PC which use for Automation and Machine Vision industry. It is a COMLAC design which include courier board, CPU board and option different IO boards, equipped with the latest Intel® Core™ i3, i5, i7 and Pentium processor, COMLAC design means offer maximum scalability and upgrade to the latest processor but without any chassis change. There are 2 Intel gigabit LAN ports, 2 RS232/485 ports, option VGA and HDMI display port, 4 USB 3.0 ports at the courier board, and an internal USB2.0 port for USB dongle, DC12~24V power input. Accept customized service for IO board in order to meet the various hardware requests, all of the IO ports are located in one side, it is convenient for wiring and maintenance. Rugged aluminum alloy and sealed housing, build in separately fan space, both make the product more reliable.

NP-6125 is widely used for 3C, pharmaceutical machinery, packaging machinery, automatic checkout test equipment, robots, motion control, intelligent transportation and other fields.



### Compact design with rugged aluminum alloy housing

Book style with ultra-compact, sealed housing with fanless design.



### CPU modular design

Latest processor with modular design, very easy for maintenance and upgrade.



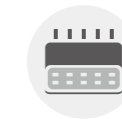
### No cable design

Using high quality connector between the boards, reliability and stability for no cable connection design.



### Wide voltage power supply: DC12V~24V

DC12V power input, optional DC24V, with surge power, over voltage and reverse polarity protection, with phoenix terminal contact.



### 2×RS232/485

8KV electrostatic protection, 600W TVS surge protection, RS485 support automatic data flow control.



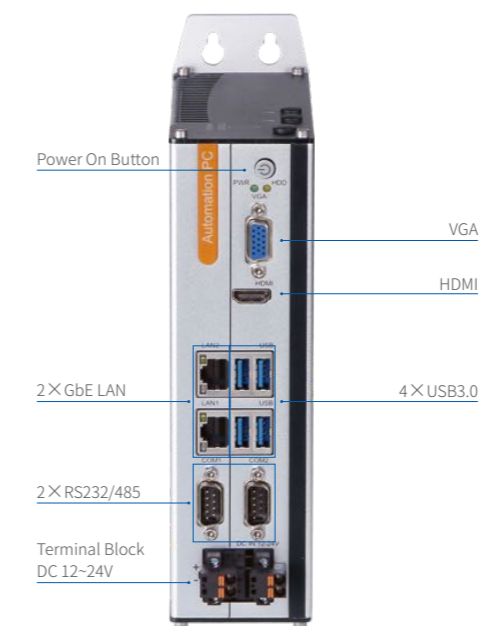
### Extremely space-saving and Flexible

Flexible for CAN Bus, PoE LAN, Digital IO, Light source control and additional LAN port expansion.



### Flexible mounting

Book style with wall mounting, option Din-rail mounting so that the user can easily move the PC into the optimal position.



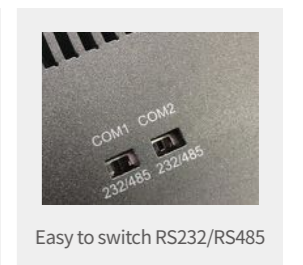
NP-6125



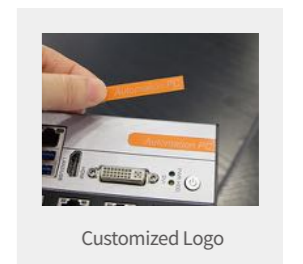
miniPCle Expansion Slot



Internal USB2.0 for USB Dongle



Easy to switch RS232/RS485



Customized Logo



# NP-6125 SERIES



Model No.		NP-6125	NP-6125-H1	NP-6125-JH2
<b>System</b>	CPU	Intel® Core™ 6th/7th/8th gen i7/i5/i3/Pentium/Celeron LGA1151 type CPU		
	TDP	Max. 65W		
	BIOS	AMI UEFI 64Mbit		
	Memory	2×SO-DIMM DDR4-2400MHz, max up to 32GB		
	Storage	1×mSATA bay, 1×M.2(B Key, Type 2280) bay support SATA		
<b>I/O</b>	USB	4×USB3.0, 1×USB2.0 Type A on the board for USB dongle		
	COM	2×RS232/RS485, RS485 support auto flow control, ESD protection for RS232		
	Ethernet	2×Intel GbE LAN controller		
	PoE	-	4×Intel GbE PoE LAN controller, max. 15W per channel	2×Intel GbE PoE LAN controller, max. 15W per channel
	DI	-	8×DI NPN/PNP, isolated 2500 Vrms	
	DO	-	8×DO, Transistor output, I <sub>max</sub> :0.5A per channel, isolated 2500 Vrms	
	CAN	-	-	
	Light Control	-	4×PWM Light power control with external trigger input, I <sub>max</sub> : 1A per channel	
	<b>Display</b>	VGA	Support up to 1920×1080	
HDMI		Support up to 3840×2160		
<b>Audio</b>	Line-out	-		
<b>Expansions</b>	Expansions	1×Full-size PCIe Mini slot with SIM card holder(with USB signal)		
<b>Other</b>	Watch Dog	1~255 levels programmable		
<b>OS</b>	Windows	Windows 10 IoT		
	Linux	Ubuntu, CentOS, Debian		
<b>Power</b>	Voltage Input	DC12~24V ±10%, overcurrent, overvoltage and polarity inverse protection, (Must be DC24V when using Light Control)		
	Power Consumption	Max. 120W	Max. 250W	Max. 200W
<b>Chassis</b>	Structure	Aluminum-magnesium alloy BOX with fan embedded to assist cooling, Wall-mounted or DIN-Rail		
	Dimensions(L×W×H)	200mm×154.5mm×57.6mm	200mm×154.5mm×74.6mm	200mm×154.5mm×74.6mm
	Net Weight	1.9Kg	2.4Kg	2.4Kg
<b>Reliability</b>	Work Temperature	-20°C ~ 60°C (-4°F~140°F) with air flow (SSD)		
	Storage Temperature	-20°C ~ 60°C (-4°F~140°F) with air flow (SSD)		
	Relative Humidity	5~95%(Non-condensing)		
	Vibration	Operating Random Vibration Test 5~500Hz, 1.5Grms@with SSD, follow IEC 60068-2-64		
	Operating Shock	Operating 20G peak acceleration (11ms duration), follow IEC 60068-2-27		
	EMC	CE/FCC Class A		



Model No.		NP-6125-JH2B	NP-6125-JH3	NP-6125-JH4	NP-6125-8POE
<b>System</b>	CPU	Intel® Core™ 6th/7th/8th gen i7/i5/i3/Pentium/Celeron LGA1151 type CPU			
	TDP	Max. 65W			
	BIOS	AMI UEFI 64Mbit			
	Memory	2×SO-DIMM DDR4-2400MHz, max up to 32GB			
	Storage	1×mSATA bay, 1×M.2(B Key, Type 2280) bay support SATA			
<b>I/O</b>	USB	4×USB, 1×USB2.0 Type A on the board for USB dongle	4×USB, 4×USB2.0 extended by PCIe x1, 1×USB2.0 Type A on the board for USB dongle	4×USB3.0, 1×USB2.0 Type A on the board for USB dongle	
	COM	2×RS232/RS485, RS485 support auto flow control, ESD protection for RS232	4×RS232/RS485, RS485 support auto flow control, ESD protection for RS232	2×RS232/RS485, 8×RS485(Phoenix Contactors),RS485 support auto flow control, ESD protection for RS232	2×RS232/RS485, RS485 support auto flow control, ESD protection for RS232
	Ethernet	2×Intel GbE LAN controller			
	PoE	2×Intel GbE PoE LAN controller, max. 15W per channel	-	-	8×Intel GbE PoE LAN controller, max. 15W per channel
	DI	16×DI NPN/PNP, isolated 2500 Vrms	8×DI NPN/PNP, isolated 2500 Vrms	8×DI NPN/PNP, isolated 2500 Vrms	-
	DO	8×DO, Transistor output, I <sub>max</sub> :0.5A per channel, isolated 2500 Vrms	8×DO, Transistor output, I <sub>max</sub> :0.5A per channel, isolated 2500 Vrms	4×Relay DO, Normally Open, 30VDC(I <sub>max</sub> :1.0A)/60VDC(I <sub>max</sub> :0.3A)/125VAC(I <sub>max</sub> :0.5A)	-
	CAN	-	2×CAN Bus 2.0 A/B	-	-
	Light Control	-	-		
	<b>Display</b>	VGA	Support up to 1920×1080		
HDMI		Support up to 3840×2160			
<b>Audio</b>	Line-out	-	Optional	-	-
<b>Expansions</b>	Expansions	1×Full-size PCIe Mini slot with SIM card holder(with USB signal)			
<b>Other</b>	Watch Dog	1~255 levels programmable			
<b>OS</b>	Windows	Windows 10 IoT			
	Linux	Ubuntu, CentOS, Debian			
<b>Power</b>	Voltage Input	DC12~24V ±10%, overcurrent, overvoltage and polarity inverse protection, (Must be DC24V when using Light Control)			
	Power Consumption	Max. 160W	Max. 120W	Max. 120W	Max. 250W
<b>Chassis</b>	Structure	Aluminum-magnesium alloy BOX with fan embedded to assist cooling, Wall-mounted or DIN-Rail			
	Dimensions(L×W×H)	200mm×154.5mm×74.6mm	200mm×154.5mm×74.6mm	200mm×154.5mm×74.6mm	200mm×154.5mm×74.6mm
	Net Weight	2.4Kg	2.4Kg	2.3Kg	2.6Kg
<b>Reliability</b>	Work Temperature	-20°C ~ 60°C (-4°F~140°F) with air flow (SSD)			
	Storage Temperature	-20°C ~ 60°C (-4°F~140°F) with air flow (SSD)			
	Relative Humidity	5~95%(Non-condensing)			
	Vibration	Operating Random Vibration Test 5~500Hz, 1.5Grms@with SSD, follow IEC 60068-2-64			
	Operating Shock	Operating 20G peak acceleration (11ms duration), follow IEC 60068-2-27			
	EMC	CE/FCC Class A			

# NP-6118 SERIES

Ultra-compact Control Cabinet Fanless Industrial PC with Low-power consumption processor



NP-6118 series is based on Intel Celeron J6412 low-power CPU, there are 3 gigabit LAN ports, 4 USB ports and 1 inside USB port for dongle; Offering HDMI and DP display ports, onboard IO interface which include 2 RS485, 1 RS232 and 2 CAN bus, and supports external UPS interface; 16 DO transistor output and 16 DI isolated digital input; There is reserved miniPCIe and M.2 slots on the board, which can expand CAN, Wifi, 4G, etc. . There is a super capacitor built in, which ensures an ultra-compact size and can trigger an IO signal to save data when power off. The system supports DC24V power supply.

NP-6118 series can be widely used in Inspection Devices, Robots, Motion Control and other Automation fields.

- Compact design with rugged aluminum alloy housing**  
Book style with ultra-compact, sealed housing with fanless design.
- Fanless Design**  
Fanless design but working temperature is -20 to 60°C.
- Modular design**  
You can install the modules easily when unscrewing the cooling cover: COMLAC CPU module, Memory, mSATA SSD, USB dongle, CMOS battery.
- No cable design**  
Using high quality connector between the boards, reliability and stability for no cable connection design.
- Fastened power connector**  
DC 24V power input, with over-current, overvoltage and reverse protection measures, the interface using.

- Display**  
HDMI, DP.
- UPS**  
Build in super capacitor UPS, can backup for 5 seconds.
- USB**  
2×USB3.0, 2×USB2.0, 1×USB2.0 Type A on the board for USB dongle.
- Super capacitor**  
IO signal can be triggered to save data when power. As a filter when power fluctuations. Space-saving.
- Easy for customization**  
Customized logo, Customized Independent IO.

Model No.	NP-6118-16I160C	
<b>System</b>	CPU	Intel® Celeron J6412, 2.0~2.6GHz, 4 cores/4 threads, 1.5MB L2 cache
	TDP	10W
	BIOS	AMI UEFI 64Mbit
	Memory	1×SO-DIMM DDR4-2400MHz (max. 16GB)
	Storage	1× mSATA SSD bay
<b>I/O</b>	USB	2×USB3.0, 2×USB2.0, 1×USB2.0 Type A on the board for USB dongle
	COM	1×RS232, 2×RS485
	Ethernet	1×Intel GbE LAN controller, 2×Realtek GbE LAN controller
	PoE	-
	DI	16 x DI NPN/PNP, isolated 2500 Vrms
	DO	16 x DO, Transistor output, I <sub>max</sub> :0.5A per channel, isolated 2500 Vrms
	CAN	2×CAN Bus 2.0A/B
<b>Display</b>	HDMI	Support up to 3840×2160
	DP	Support up to 3840×2160
	VGA	-
<b>Expansions</b>	Expansions	1 x Full-size PCIe Mini slot with SIM card holder(with USB signal), 1 x M.2 KEY-A, Support Wifi modules
<b>Other</b>	Watch Dog	1~255 levels programmable
<b>OS</b>	Windows	Windows 10 IoT
	Linux	Ubuntu
<b>Power</b>	Voltage Input	DC24V ±10%, overcurrent, overvoltage and polarity inverse protection, Super capacitors integrated.
	Power Consumption	Max. 45W
<b>Chassis</b>	Structure	Fanless, Wall-mounted or DIN-Rail
	Dimensions(L×W×H)	165mm×124.7mm×60mm
	Net Weight	2.1Kg
<b>Reliability</b>	Work Temperature	--20°C ~ 60°C (-4°F~140°F) with air flow (SSD)
	Storage Temperature	-20°C ~ 60°C (-4°F~140°F) with air flow (SSD)
	Relative Humidity	5~95%(Non-condensing)
	Vibration	Operating Random Vibration Test 5~500Hz, 1.5Grms@with SSD, follow IEC 60068-2-64
	Operating Shock	Operating 20G peak acceleration (11ms duration), follow IEC 60068-2-27
	EMC	CE/FCC Class A

# NP-6310 UPS



NP-6310 is a UPS module that can protect your PC and data in case of power loss, it adapts. The UPS module is used for the uninterruptible power supply of your PC. In the event of a failure of the external supply, the module ensures that the application software can save important data. The module adopts super capacitor technology and intelligent power management technology, and can independently manage the startup and shutdown of the device. It can operate in a wide temperature ranging from -20 degrees Celsius to 60 degrees Celsius.

# eLink-200



eLINK-200 is designed for long-distance data transmission, it includes sender and receiver which both use high performance chipset and components.

The sender transmits HD video signal, USB signal of touch, RS232 signal to the receiver through only a network CAT5/CAT6 cable, and the transmission distance from PC to display up to 100 meters. By decoding at the receiving end, a high-quality picture is presented to the user.

With the most compact and very small mounting space, eLINK-200 is widely used in large equipment, CNC/Laser equipment and other application of long-distance transmission requirements.

- High performance decoding chip
- Industrial grade design with surge protection
- Maxium 100 meters communication
- Transmitting video signal, USB signal and serial port signal at the same time
- Book mounting kit

