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Intelligent HMI & Monitors

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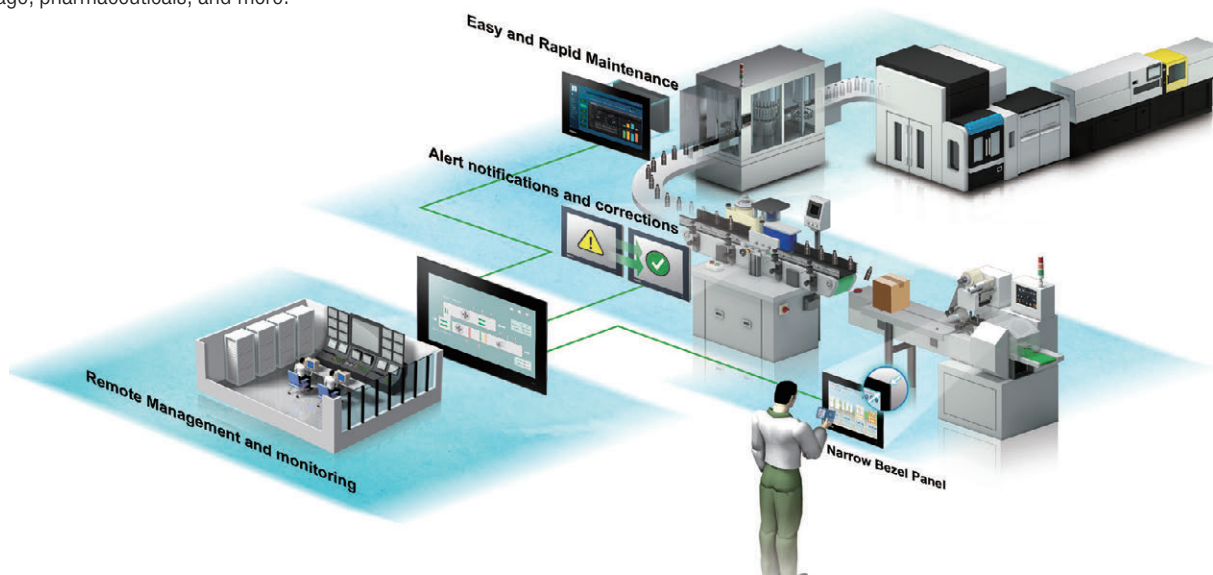
Intelligent HMI and Monitors

Powerful HMI solutions for realizing the factory IT ecosystem and driving IIoT



Advantech's HMI line offers a diverse range of solutions, including the All-in-One Series, Modular Series, and industrial monitors tailored for remote control, data visualization, and equipment management. The All-in-One Series provides flexibility with Arm-based and PC-based options catering to various computing needs across industries like machine building and automotive. Arm-based HMIs function as efficient web-browser terminals, while PC-based options include general panel PCs and thin-client terminals. In response to Industry 4.0 demands, Advantech has introduced a new generation of modular solutions designed for specific usage requirements, ensuring quick maintenance and exceptional expandability. Optimized frame designs with narrower bezels enhance product aesthetics and the user experience.

All Advantech HMI products come equipped with essential software, including HMI Navi, WebAccess/SCADA, and innovative iDoor technology. This comprehensive software suite enhances versatility, making Advantech HMI solutions suitable for diverse applications in manufacturing, food and beverage, pharmaceuticals, and more.



Intelligent HMI and Monitors

All-in-One HMIs

General Panel PCs

☞ PPC-300/400 Series

Fanless and reliable operation, coupled with EMC & safety certifications ensuring enhanced durability and rich I/O flexibility.

Web Browser Terminals

☞ TPC-100W/ PPC-100 Series

Contain the RISC-based series and Arm-based series for machine control and data visualization.

Operator Panels

☞ WOP Series

IoT HMI solutions, incorporate the WOP-200 series and powerful HMInavi software. The WOP-200 series, with connectivity to over 500 PLC protocols, is built to withstand the demanding conditions of industrial environments.

Modular Series

☞ Computing Box Modules and Panel Modules



Scalable Panel PCs

☞ PPC-600 Series

Configurable panel PCs are high-performance fan-based panel PCs that come with selectable PPC-MB mini-ITX motherboards, offering flexibility and high computing power.

Thin-Client Terminals

☞ TPC-300 EHL Series

Industrial thin client HMI are fanless and low-power with Intel Atom® processors and mainly used as a process visualization tool and MES system.

The computing box module can be interchangeably combined with different sized display modules for specific applications and flexibility. This year we offered new computing boxes and more modular panels with high-brightness features, expanding the range of sizes to 12"-24."

☞ Industrial Monitors



Industrial monitors integrate the latest LCD and touchscreen technology to facilitate data visualization used for industrial applications. With screen ratios available in both 4:3 and 16:9, users can choose the ideal display format for their specific requirements, whether it's for monitoring critical processes or displaying interactive information.

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Modular Panel PCs

Panel Modules



Model		FPM-D12T-CE	FPM-D15T-CE	FPM-D17T-CE	FPM-D19T-CE
Display	Size	12" (4:3)	15" (4:3)	17" (5:4)	19" (5:4)
	Max. Resolution	1024 x 768		1280 x 1024	
	Luminance (cd/m ²)	600	300	350	350
Touch		PCAP			
Operating Temperature		-20 ~ 60°C (-4 ~ 140°F)			
Storage Temperature		-30 ~ 70°C (-22 ~ 158°F)			
Ingress Protection		Front IP66			
Special Treatment		Anti-glare, UV protection			



Model		 <u>FPM-D15W-FCE</u>	 <u>FPM-D18W-FCE</u>	 <u>FPM-D21W-CE</u>	 <u>FPM-D23W-CE</u>
Display	Size	15.6" (16:9)	18.5" (16:9)	21.5" (16:9)	23.8" (16:9)
	Max. Resolution	1920 x 1080			
	Luminance (cd/m²)	450	350	250	350
Touch		PCAP			
Operating Temperature		-20 ~ 60°C (-4 ~ 140°F)		0 ~ 55°C (32 ~ 131°F)	
Storage Temperature		-30 ~ 70°C (-22 ~ 158°F)		-20 ~ 60°C (-4 ~ 140°F)	
Ingress Protection		Front IP66			
Special Treatment		Anti-glare, UV protection			



Model		FPM-D12T-HE	FPM-D15T-HE	FPM-D15W-FHE	FPM-D21W-HE
Display	Size	15.6" (16:9)	18.5" (16:9)	21.5" (16:9)	21.5" (16:9)
	Max. Resolution	1024 x 768		1920 x 1080	
	Luminance (cd/m ²)	1000	1,800	1,200	1,400
Touch		PCAP			
Sunlight Readable		✓			
Operating Temperature		-20 ~ 60°C (-4 ~ 140°F)			
Storage Temperature		-30 ~ 70°C (-22 ~ 158°F)			
Ingress Protection		Front IP66			
Special Treatment		Anti-glare, UV protection			

✓: supported, –: not supported, △: optional

Modular Panel PCs

Computing Box Modules



Model	 TPC-B300-J20A	 TPC-B300-E20A	 TPC-B520-D30AE	 TPC-B520-D50AE	 TPC-B520-D70AE
CPU	Intel® Celeron® processor J6412	Intel Atom® x6425E processor	Intel® Core™ processors (13th Gen)	Intel® Core™ processors (13th Gen), i5-1335UE	Intel® Core™ processors (13th Gen), i7-1365UE
Memory	1 x DDR4 SO-DIMM Slot		1 x DDR5 SO-DIMM Slot		
Storage	1 x PCIe/SATA M.2 SSD slot (2280 M-Key), 1 x 2.5" SSD/HDD Bay		1 x NVMe/SATA M.2 SSD slot (2280 M-Key) (Optional) 1 x 2.5" SSD/HDD Bay		
I/O	2 x RS-232/422/485 3 x USB 3.2 1 x USB 2.0 2 x 2.5 GbE LAN 1 x DP 1 x Line-Out		2 x RS-232/422/485 2 x USB 3.2 1 x Type-C (USB 3.2, DP, 5V with 3A max) 2 x USB 2.0 2 x 2.5 GbE LAN 1 x DP (Optional) 2 x 4Ω Speaker for Audio out		
Expansions	1 x Full-size mPCIe slot, 1 x M.2 AE-Key 2230		1 x M.2 B Key 3042, 3052, 3080, 1 x M.2 B Key 3052 (5G LTE), 1 x M.2 E-Key 2230, 1 x SIM Card Slot		
Power Supply Input Voltage	24 V _{DC} ±20%		19 - 24 V _{DC} ± 15%		
OS Support	Microsoft® Windows 10 LTSC, Linux, Android		Microsoft® Windows 11 GAC, Microsoft® Windows 10 LTSC, Linux, Android		
Mounting	Panel, Wall, Stand, VESA				



Model	 TPC-B610H-A00A	 TPC-B610W-A00A	 TPC-B510-833AE	 TPC-B510-853AE	 TPC-B510-873AE
CPU	Intel® Core™ processors (10th Gen)		Intel® Core™ processors (8th Gen), i3-8145UE	Intel® Core™ processors (8th Gen), i5-8365UE	Intel® Core™ processors (8th Gen), i7-8665UE
Memory	2 x SO-DIMM DDR4 Slots	2 x SO-DIMM DDR4 Slots, ECC supported	2 x SO-DIMM DDR4 Slot, 1 x 8G DDR4 SO-DIMM (Built-in)		
Storage	2 x 2.5" SSD/HDD Bay, 1 x M.2 M-Key 2280 (SATA), 1 x M.2 B-Key 2242 (SATA)	2 x 2.5" SSD/HDD Bay, 1 x M.2 M-Key 2280 (NVMe), 1 x M.2 B-Key 2242 (SATA)	1 x NVMe/SATA M.2 SSD slot (2280 M-Key)		
I/O	1 x RS-232/422/485 1 x RS-232 5 x USB 3.2 1 x USB 2.0 1 x DP 1 x Audio Line out/Mic in		2 x RS-232/422/485 1 x USB 2.0 4 x USB 3.1 1 x iDoor Slot 1 x DP 1 x Audio Line out/Mic in		
Expansions	1 x PCIe x16, 1 x PCI 1 x Full-size mini PCIe 1 x M.2 B key 3025 1 x SIM card slot	1 x PCIe x16, 1 x PCIe x4 1 x Full-size mini PCIe 1 x M.2 B key 3025 1 x SIM card slot	1 x Full-size mPCIe Slot, 1 x M.2 B-Key 2242, 3042, 3052		
Power Supply Input Voltage	24 V _{DC} ±20%				
OS Support	Microsoft® Windows 10 LTSC, Linux		Microsoft® Windows 10 LTSC, Linux		
Mounting	Panel, Wall, Stand, VESA				

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High-Performance Control Panel PCs



Model		☞ TPC-317	☞ TPC-315	☞ TPC-312
CPU		Intel® Core™ processors (8th Gen) i3-8145UE, i5-8365UE, i7-8665UE		
Memory		1 x SO-DIMM with 8 GB DDR4 2400 MHz, 2 x DDR4 SO-DIMM Slot		
Storage		1 x M.2 M-key 2280 (SATA or NVMe PCIe4) 1 x M.2 B-Key 2242 (SATA) 1 x 2.5" SSD/ HDD (SATA, Max. 7mm)		
Display	Type	SXGA TFT LED LCD	XGA TFT LED LCD	XGA TFT LED LCD
	Size	17" (4:3)	15" (4:3)	12.1" (4:3)
	Max. Resolution	1280 x 1024	1024 x 768	1024 x 768
	Max. Colors	16.7M	16.2M	16.2M
	Luminance (cd/m²)	300		
	Viewing Angle (H/V°)	160/140	176/176	178/178
	Backlight Life (hrs)	50,000		
Touchscreen		5-wire resistive		
LAN		1 x 10/100/1000 Mbps, 1 x 10/100/1000/2500 Mbps		
I/O		2 x RS-232/422/485 1 x USB 2.0 4 x USB 3.2 1 x iDoor Slot 1 x DP Audio Line out/Mic in		
Expansions		1 x Full-size mPCIe Slot, 1 x M.2 B-Key 2242, 3042, 3052		
Power Supply		24 V _{DC} ± 20%		
Dimension W x H x D (mm)		410.4 x 343.4 x 68	383.2 x 307.3 x 66.5	311.8 x 238 x 67
Weight (Net)		6.1 kg (13.45 lb)	5.8 kg (12.79 lb)	4.1 kg (9.04 lb)
Enclosure		Die-cast aluminum alloy		
Mounting		Stand, Wall, VESA, Panel		
Operating Temperature		-10 ~ 55°C (14 ~ 131°F)		
Ingress Protection (Front Panel)		IP66		
Certification		CB, UL, CE, FCC Class A, CCC, BSMI		
Operating System		Microsoft® Windows 10 LTSC, Linux, Android		

✓ : supported, – : not supported, △ : optional

Industrial Thin-Client Terminals



NEW

NEW

Model		TPC-317 EHL	TPC-315 EHL	TPC-312 EHL	TPC-307W	TPC-310W
CPU		Intel® Atom® processor x6425E Intel® Celeron® processor J6412			Intel Atom® processor x6211E	Intel® Atom® processor x6425E Intel® Celeron® processor J6412
Memory		1 x SO-DIMM with 4 GB DDR4 2666 MHz			1 x DDR4 SO-DIMM Slot	
Storage		1 x SATA M.2 SSD slot (2242/2280 B-Key) 1 x M.2 B-Key 3042/3052 1 x 2.5" SSD/HDD Bay			1 x SATA M.2 SSD slot (2242/2280 M-Key)	
Display	Type	SXGA TFT LED LCD	XGA TFT LED LCD	XGA TFT LED LCD	XGA TFT LED LCD	WXGA TFT LED LCD
	Size	17" (4:3)	15" (4:3)	12.1" (4:3)	7" (16:9)	10.1" (16:9)
	Max. Resolution	1280 x 1024	1024 x 768	1024 x 768	1024 x 600	
	Max. Colors	16.7 M	16.2 M	16.2 M	16.7 M	
	Luminance (cd/m²)	300	300	600	500	
	Viewing Angle (H/V°)	160/140	176/176	178/178	160/140	178/178
	Backlight Life (hrs)	50,000	70,000	50,000	50,000	
Touchscreen		5-wire resistive			PCAP	
LAN		2 x 10/100/1000 Mbps			2 x 10/100/1000 Mbps	
I/O		1 x RS-232 1 x RS-232/422/485 3 x USB 3.2 1 x USB 2.0 1 x iDoor Slot 1 x DP 1 x Line-Out, Microphone 1 x Power Switch			1 x RS-232 1 x RS-232/422/485 2 x USB 3.0 2 x USB 2.0 1 x Line-Out, Microphone 1 x Power Switch	
Expansions		1 x Full-size mPCIe 1 x M.2 AE-Key 2230			1 x M.2 B-Key 2280 1 x M.2 E-Key 2230	
Power Supply Input Voltage		24 V _{DC} ± 20%			24 V _{DC} ± 20%	
Dimension W x H x D (mm)		410.4 x 343.4 x 68 mm	383.2 x 307.3 x 67 mm	311.8 x 238 x 67 mm	205 x 146 x 56 mm	205 x 146 x 56 mm
Weight (Net)		6.1 kg (13.45 lb)	5.15 kg (11.35 lb)	4.2 kg (9.26 lb)	1.5 kg (3.3 lb)	2.6 kg (5.7 lb)
Enclosure		Die-cast aluminum alloy			Die-cast aluminum alloy	
Operating Temperature		-10 ~ 50°C (14 ~ 122°F)			-20 ~ 60°C (-4 ~ 140°F)	
Ingress Protection		Front Panel IP66			Front Panel IP66	
Certification		CB, UL, CE, FCC Class A, CCC, BSMI			CB, UL, CE, FCC Class A, CCC, BSMI	
OS Support		Microsoft® Windows 10 LTSC, Linux, Android			Microsoft® Windows 10 LTSC, Linux, Android	

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Industrial Web Browser Terminals



Model		 TPC-107W	 TPC-110W	 TPC-115W	 TPC-121W	 TPC-107WX	 TPC-110WX
CPU		NXP® Arm® Cortex™ A53 i.MX8M 1.6 GHz Quad-Core					
Memory		1 x LPDDR4 with 4 GB					
Storage		16 GB eMMC, 1 x micro SD Slot				32 GB eMMC, 1 x micro SD Slot	
OS Support		Yocto 4.0 / Android 13					
Display	Type	WSGA TFT LCD	WXGA TFT LCD	FHD TFT LCD	WSGA TFT LCD	WXGA TFT LCD	FHD TFT LCD
	Size	7"	10.1"	15.6"	21.5"	7"	10.1"
	Max. Resolution	1024 x 600	1280 x 800	1920 x 1080	1920 x 1080	800 x 480	1280 x 800
	Luminance (cd/m²)	425	500	450	250	1000	1200
	Backlight Life (hrs)	50,000					
Touchscreen		PCAP					
LAN		2 x 10/100/1000 Base-T Ethernet (Optional module to support PoE)	2 x 10/100/1000 Base-T Ethernet (Optional module to support PoE)	2 x 10/100/1000 Base-T Ethernet	2 x 10/100/1000 Base-T Ethernet	2 x 10/100/1000 Base-T Ethernet	2 x 10/100/1000 Base-T Ethernet
I/O		1 x RS-232/422/485 1 x RS-232 or 1 x CAN Bus (selectable mode) 1 x Internal USB 2.0 2 x USB 2.0 (Host)					
Expansions		1 x M.2 E-Key 2230					
Power Supply Voltage		24V _{DC} ± 20%					
Dimension W x H x D (mm)		205 x 146.92 x 52 mm	283.1 x 202.3 x 52 mm	419.7 x 269 x 52 mm	558.4 x 349.8 x 52 mm	283.1 x 202.3 x 52 mm	205 x 146.92 x 52 mm
Cut-out Dimension W x H (mm)		192.4 x 139.0 mm	274.1 x 193.3 mm	411.9 x 261.2 mm	549.8 x 341.3 mm	192.4 x 139.0 mm	274.1 x 193.3 mm
Mounting		VESA, Panel					
Operating Temperature		-20 ~ 60°C (-4 ~ 140°F)				-30 ~ 70°C (-22 ~ 158°F)	
Storage Temperature		-30 ~ 70°C (-22 ~ 158°F)					
Humidity		10 ~ 90% RH, non-condensing					
Ingress Protection		Front Panel IP66					
Certification		CB, UL, CE, FCC Class A, CCC, BSMI					

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Industrial Web Browser Terminals



Model		TPC-31T	TPC-61T	PPC-112W	PPC-115W
CPU		TI® Arm® Cortex™ A8 AM3517		Rockchip Arm® RK3399 (Dual-core Cortex-A72 and Quad-Core Cortex-A53)	
Memory		1 x SO-DIMM with 256 MB DDR2		1 x LPDDR4 with 4 GB	
Storage		1 x DDR2 (256MB), 1 x SD Card Slot		1 x eMMC (32 GB), 1 x Micro SD Slot	
Operating System		Microsoft® Windows CE 6.0		Android, Debian	
Display	Type	QVGA TFT LED LCD		TFT LCD	
	Size	3.5"	5.7"	11.6"	15.6"
	Max. Resolution	320 x 240		1366 x 768	1920 x 1080
	Luminance (cd/m²)	450	800	250	250
	Backlight Life (hrs)	30,000	50,000	15,000	15,000
Touchscreen		4-wire resistive		PCAP	
LAN		1 x 10/100 Mbps		1 x 10/100/1000 Mbps	
I/O		1 x RS-232/485, 1 x USB 2.0 1 x CAN Bus	2 x RS-232 1 x RS-422/485 2 x USB 2.0	1 x USB 2.0, 1 x USB 3.0, 1 x Micro USB OTG, 1 x RS-232, 5 x GPIO	
Expansion		–	–	1 x M.2 E-Key 2230, 1 x Camera (Optional)	1 x M.2 E-Key 2230
Power Supply Input Voltage		18 ~ 32 V _{DC}		12 V _{DC} , 36W adapter	
Dimension W x H x D (mm)		120.79 x 85.5 x 26.5 mm	195 x 148 x 44.4 mm	291.7 x 186.6 x 49.2 mm	402.0 x 260.0 x 53.2 mm
Cut-out Dimension W x H (mm)		115 x 79.5 mm	189 x 142 mm	298 x 193 mm	392 x 250 mm
Mounting		Panel		VESA, Panel (Optional)	
Operating Temperature		-20 ~ 60°C (-4 ~ 140°F)		0 ~ 50°C (32 ~ 122°F)	
Storage Temperature		-30 ~ 70°C (-22 ~ 158°F)		-20 ~ 60°C (-4 ~ 140°F)	
Humidity		10 ~ 95% RH (non-condensing)		10 ~ 95% RH (non-condensing)	
Ingress Protection		Front Panel IP65		Front Panel IP65	
Certification		CB/UL, CE, FCC Class A, CCC, BSM		CE, FCC Class B, BSMI, CB, UL, CCC, UKCA	

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Domain-Focused Panel PCs



Model		TPC-318WH	SPC-515	SPC-815-MLA (Monitor)	SPC-821-MLA (Monitor)
CPU		Intel® Core™ processor (8th Gen), i5-8365UE	Intel® Core™ processor (6th Gen), i3-6100U	–	–
Memory		1 x SO-DIMM with 8GB DDR4 3200 MHz	2 x SO-DIMM with 8GB DDR3L	–	–
Display	Type	Full-HD LCD	TFT LED LCD	TFT LED LCD	
	Size	18.5"	15"	15.6"	21.5"
	Max. Resolution	1366 x 768	1024 x 768	1366 x 768	1920 x 1080
	Max. Colors	16.7M	16.7M	16.7M	16.7M
	Luminance (cd/m²)	300	300	400	250
	Viewing Angle (H/V°)	160/140	176/176	170/130	178/178
	Backlight Life (hrs)	50,000	70,000	50,000	
Touchscreen		10-point multi-touch projected capacitive	PCAP	PCAP	
LAN		2 x 10/100/1000 Mbps	2 x 10/100/1000 Mbps	–	–
I/O		2 x RS-232/422/485 1 x USB 2.0 4 x USB 3.2 1 x iDoor Slot 1 x DP 1 x Line-Out, Mic-In	1 x RS-232 2 x USB 2.0 1 x M-12 A-coded 5-pin male	1 x USB 2.0, 2 x USB 3.0, 1 x HDMI, 1 x DP	
Storage		1 x SATA M.2 SSD slot (2280 M-Key), 1 x 2.5" SSD/HDD Bay, 1 x mSATA, 1 x M.2 B-Key	2.5" SATA HDD / Default 64G SSD	–	–
Expansions		1 x Full-size mini PCIe, 1 x SIM Card Slot	1 x Full-size mPCIe Slot	–	–
Ingress Protection		Front Panel IP66	All-around IP69k	Front Panel IP65	
Power Supply Input Voltage		24 V _{DC} ± 20%	24 V _{DC} ± 20%	24 V _{DC} ± 20%	
Enclosure		Front bezel: Die-cast aluminum alloy Back housing: SECC	Front bezel: 304L Stainless Steel Back housing: 304L Stainless Steel	Front bezel: Die-cast aluminum alloy Rear housing: Die-cast aluminum alloy Front push button bracket: Metal sheet	
Mounting		Panel, Wall, Stand, VESA	VESA	Pole, VESA (Optional)	
Weight (Net)		6.3 kg (13.89 lb)	10 kg (22.04 lb)	7.2 kg (15.9 lb)	8 kg (17.64 lb)
Operating Temperature		-20 ~ 60°C (-4 ~ 140°F)	0 ~ 50°C (32 ~ 122°F)	0 ~ 50°C (32 ~ 122°F)	
Dimension W x H x D (mm)		488 x 309 x 56 mm	389 x 313 x 56 mm	402.19 x 333.19 x 67 mm (without flange for arm mount) 402.19 x 333.19 x 160 mm (with flange for arm mount)	402.19 x 333.19 x 67 mm (without flange for arm mount) 402.19 x 333.19 x 160 mm (with flange for arm mount)
Certification		BSMI, CCC, CE, FCC Class A, UL, UL CID2	CB, UL, CE, FCC Class A, CCC, BSMI	CB, UL, CE, FCC Class A, CCC	
OS Support		Microsoft® WES7, Windows 7, Microsoft® Windows 10 LTSC	Microsoft® Windows 10 LTSC, Linux	Microsoft® Windows 7/ 8/ 10/ XPe/ CE, Linux	

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Industrial Operator Panels



HMINavi

HMINavi is powerful open HMI software that encompasses an HMI runtime engine for HMI operations. Its HMI engineering tool is designed with a user-friendly interface and offers solution-oriented screen objects for HMI project development. The WOP-200 series operator panels are added to HMINavi software for HMI applications to reduce labor and improve manufacturing efficiency through visualization.

Supports 500+ PLC Industrial Communication Protocols

HMINavi can connect to 90% of global PLC devices. The data exchanger function can easily exchange various types of PLC data. Its powerful connectivity makes HMINavi a perfect fit for existing or future IoT solutions.

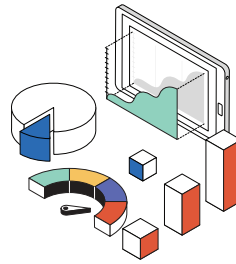
Attain Effortless Cloud Access via the MQTT Protocol

HMINavi simplifies OT & IT integration using the latest MQTT uplink communication protocol. Users can effortlessly transform legacy machinery into intelligent systems, with all critical data and backups handled by cloud services.



Object-Oriented

- Switch Button Object Unit
- Unlimited Internal Tags
- Schedule Table Control
- Macros Script Control
- Data Exchange
- Uplink Communication



Data Visualization

- Lamps & Animated Display
- Historic Curve & Path Trend Graphic
- Bar Chart & Graphic Display
- Meter & Circular Display
- Pipeline & Path Display
- Rotation Indicator & Radar Chart



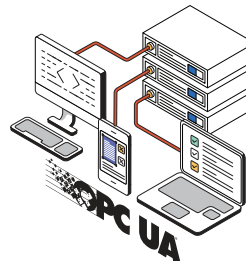
Data Management

- Alarm Management
- Historical Data Logger
- Operation Data Logger
- Recipe Management
- Documentation CSV Format
- Documentation PDF Format



Security Protection

- Project File Protection
- Screen Protection
- Due Date Protection
- Runtime Load Protection
- User Level Protection
- User Group Protection



Data Exchange

- Breakpoint Resume
- OPC UA Server/Client
- VB Script User Coding
- JScript User Coding
- Browser/Media Container
- Database Connection

Simplified 3-Step PLC Controller Integration

- ① **Create A Project & Link**
 - Initiate a new project and create a new link
 - Select the connection type (Serial/Ethernet)
- ② **Select Your PLC Model**
 - Choose the PLC brand
 - Select the PLC type/model
- ③ **Parameter Setup**
 - Configure baud rate transmission
 - Set up the IP address/port/sub-link



Test Your Project on a Simulation

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Industrial Operator Panels



Model		WOP-204K-NAE	WOP-207K-NAE	WOP-208K-NAE	WOP-210K-NAE
CPU		RISC ARM9 300 MHz 32-bit			
Backup Memory		128 KB			
Backup Battery: Type/Voltage/Capacity		Manganese dioxide-Li/Organic Electrolyte, 3 V, 650 mAh			
Working Memory		64 MB SDRAM			
Storage		128 MB NAND Flash			
Application Software	Operating System	HMI RTOS, HMINavi Designer V4.0			
	Runtime Max Size	64 MB (in NAND Flash)			
	Data Logger Max Size	64 MB (in NAND Flash)			
	Max Programming Screen	7999 Pages			
	Max Macro Commands	Unlimited			
Display	Type	WQVGA TFT LCD	WVGA TFT LCD	SVGA TFT LCD	WSVGA TFT LCD
	Size	4.3"	7"	8"	10.1"
	Max. Resolution	480 x 272	800 x 480	800 x 600	1024 x 600
	Max. Colors	65,536 colors (16-bit)			
	Luminance (cd/m ²)	400	400	250	350
	Backlight Life (hrs)	LED, 20,000			
Touchscreen		4-wire analog resistive			
Communication Interface	COM1	RS-232 (5-Pin Terminal)	RS-232 (DB9 Female)	RS-232 (DB9 Female)	RS-232 (DB9 Female)
	COM2	RS-422/485 (5-Pin Terminal)	RS-422/485 (DB9 Female)	RS-422/485 (DB9 Female)	RS-422/485 (DB9 Female)
	COM3	RS-485 (5-Pin Terminal)	RS-485 (DB9 Female)	RS-485 (DB9 Female)	RS-485 (DB9 Female)
	Ethernet (RJ-45)	10/100-Base-T Ethernet	10/100-Base-T Ethernet	10/100-Base-T Ethernet	10/100-Base-T Ethernet
I/O	USB Client	✓	✓	✓	✓
	USB Host	✓	✓	✓	✓
	Power Isolation	✓	✓	✓	✓
Power Supply Input Voltage		24 V _{DC} ± 10%			
Power Consumption		10 W	20 W	20 W	20 W
Dimension (W x H x D)		129 x 103 x 31.3 mm	189.6 x 144.9 x 36 mm	233 x 176 x 43.3 mm	270.1 x 212.1 x 43.4 mm
Cut-Out Dimension (W x H)		118.5 x 92.5 mm	175 x 132.5 mm	221 x 164 mm	259.5 x 201.5 mm
Front Panel Thickness		5 mm	6 mm	6 mm	6 mm
Enclosure		PC			
Weight (Net)		0.23 kg (0.51 lb)	0.55 kg (1.21 lb)	1 kg (2.2 lb)	1.1 kg (2.43 lb)
Reliability Certification	Operating Temperature	-15 ~ 65°C (5 ~ 149°F)			
	Storage Temperature	-20 ~ 70°C (-4 ~ 158°F)			
	Humidity	95% RH @ 40°C			
	Vibration Protection	5 ~ 500 Hz (X, Y, Z directions, 1 Grms, 1 hour per axis)			
	Ingress Protection	Front Panel IP66			
	CE	EN 61000-6-2, EN 61000-6-4			
	EMI	FCC Part 15 Class A			
UL		UL-61010-1, UL-61010-2-201			

✓: supported, -: not supported, △: optional

Industrial Operator Panels



NEW

NEW

Model		WOP-212K-NAE	WOP-215K-NAE	WOP-207T-NAE	WOP-210T-NAE
CPU		RISC ARM9 300 MHz 32-bit		RISC ARM9 300 MHz 32-bit	
Backup Memory		128 KB		1 MB	
Backup Battery: Type/Voltage/Capacity		Manganese Dioxide-Li/Organic Electrolyte, 3 V, 650 mAh		Manganese Dioxide-Li/Organic Electrolyte, 3 V, 650 mAh	
Working Memory		64 MB SDRAM		128 MB SDRAM	
Storage		128 MB NAND Flash		128 MB NAND Flash	
Application Software	Operating System	HMI RTOS, HMInavi Designer V4.0		HMI RTOS, HMInavi Designer V4.0	
	Runtime Max Size	64 MB (in NAND Flash)		64 MB (in NAND Flash)	
	Data Logger Max Size	64 MB (in NAND Flash)		64 MB (in NAND Flash)	
	Max Programming Screen	7999 Pages		7999 Pages	
	Max Macro Commands	Unlimited		Unlimited	
Display	Type	XGA TFT LCD	XGA TFT LCD	WVGA TFT LCD	WSVGA TFT LCD
	Size	12"	15"	7"	10.1"
	Max. Resolution	1024 x 768	1024 x 768	800 x 480	1024 x 600
	Max. Colors	65,536 colors (16-bit)		65,536 colors (16-bit)	
	Luminance (cd/m²)	500	350	1000	1000
	Backlight Life (hrs)	LED, 20,000		LED 30,000	
Touchscreen		4-wire analog resistive		4-wire analog resistive	
Communication Interface	COM1	RS-232 (DB9 Female)	RS-232 (DB9 Female)	RS-232 (5-Pin Terminal)	RS-232 (5-Pin Terminal)
	COM2	RS-422/485 (DB9 Female)	RS-422/485 (DB9 Female)	RS-485 (5-Pin Terminal)	RS-485 (5-Pin Terminal)
	COM3	RS-485 (DB9 Female)	RS-485 (DB9 Female)	Optional	Optional
	Ethernet (RJ-45)	10/100-Base-T Ethernet	10/100-Base-T Ethernet	2 x 10/100-Base-T Ethernet	2 x 10/100-Base-T Ethernet
I/O	USB Client	✓	✓	✓	✓
	USB Host	✓	✓	✓	✓
	Power Isolation	✓	✓	✓	✓
Power Supply Input Voltage		24 V _{DC} ± 10%		24 V _{DC} ± 10%	
Power Consumption		20 W	20 W	20 W	20 W
Dimension (W x H x D)		335.4 x 245.8 x 60.3 mm	399.1 x 297.6 x 57.3 mm	202.9 x 147.9 x 39.2 mm	270.9 x 212.9 x 46.8 mm
Cut-Out Dimension (W x H)		302 x 228.5 mm	384.5 x 283 mm	192 x 138.5 mm	259.5 x 201.5 mm
Front Panel Thickness		6 mm	6 mm	6 mm	7.2 mm
Enclosure		Die-cast aluminum alloy front bezel		Die-cast aluminum alloy front bezel + PC	
Weight (Net)		2 kg (4.41 lb)	3 kg (6.61 lb)	0.9 kg (1.98 lb)	1.7 kg (3.75 lb)
Reliability Certification	Operating Temperature	-15 ~ 65°C (5 ~ 149°F)		-25 ~ 75°C (-13 ~ 167°F)	
	Storage Temperature	-20 ~ 70°C (-4 ~ 158°F)		-30 ~ 80°C (-22 ~ 176°F)	
	Humidity	95% RH @ 40°C		95% RH @ 40°C	
	Vibration Protection	5 ~ 500 Hz (X, Y, Z directions, 1 Grms, 1 hour per axis)		5 ~ 500 Hz (X, Y, Z directions, 1 Grms, 1 hour per axis)	
	Ingress Protection	Front Panel IP66		Front Panel IP66	
	CE	EN 61000-6-2, EN 61000-6-4		EN 61000-6-2, EN 61000-6-4	
	EMI	FCC Part 15 Class A		FCC Part 15 Class A	
	UL	UL-61010-1, UL-61010-2-201		UL-61010-1, UL-61010-2-201, CID2	

✓: supported, -: not supported, △: optional

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Industrial Monitors

Comprehensive-Featured



Model		FPM-719	FPM-717	FPM-715	FPM-724W	FPM-721W	FPM-715W
Display	Type	SXGA TFT LCD	SXGA TFT LCD	XGA TFT LCD	Full HD	Full HD	Full HD
	Size	19"	17"	15"	23.8"	21.5"	15.6"
	Max. Resolution	1280 x 1024	1280 x 1024	1024 x 768	1920 x 1080	1920 x 1080	1920 x 1080
	Max.Colors	16.7M	16.7M	16.2M	16.7M	16.7M	16.7M
	Luminance (cd/m ²)	350	350	300	350	350	450
	Viewing Angle (H/V°)	170/160	170/160	176/176	178/178	178/178	160/160
	Backlight Life (hrs)	70,000	50,000	70,000	30,000	30,000	50,000
I/O		HDMI, DP, VGA					
Touchscreen		PCAP	PCAP	PCAP	5-wire resistive	5-wire resistive	5-wire resistive
Touchscreen Interface		USB/RS232	USB/RS232	USB/RS232	USB	USB	USB
OSD (On-Screen Display)		Rear panel control buttons					
Power Supply Input Voltage		24 V _{DC}					
Ingress Protection		Front Panel IP66					
Enclosure		Die-casting aluminium					
Operating Temperature		-20 ~ 60°C (-4 ~ 140°F)					
Storage Temperature		-30 ~ 70°C (-22 ~ 158°F)					
Dimension W x H x D (mm)		454 x 379.8 x 48.5 mm	410.4 x 343.4 x 51 mm	383.2 x 307.3 x 50 mm	595.9 x 374.1 x 53 mm	558.4 x 349.8 x 53.2 mm	419.7 x 269 x 52 mm
Cut-out Dimension W x H (mm)		443.5 x 369.3 mm	401.3 x 334.8 mm	374.5 x 298.5 mm	587 x 365.3 mm	549.8 x 341.3 mm	412.4 x 261.7 mm
Mounting		Stand, Wall, VESA, Panel					
Weight (Net)		6.2 kg (13.6 lb)	5.4 kg (11.9 lb)	4.6 kg (10.1 lb)	5.4 kg (11.9 lb)	7 kg (15.4 lb)	4 kg (8.8 lb)
Certification		CB, UL, CE, FCC Class A, CCC, BSMI					
OS Support		Microsoft® Windows XP/Vista/7/8/10/XPE, Linux					

✓: supported, –: not supported, △: optional

Industrial Monitors

Entry Level



Model		 FPM-221W	 FPM-215W	 FPM-219	 FPM-217	 FPM-215	 FPM-212
Display	Type	Full HD	Full HD	SXGA TFT LCD	SXGA TFT LCD	XGA TFT LCD	XGA TFT LCD
	Size	21.5"	15.6"	19"	17"	15"	12"
	Max. Resolution	1920 x 1080	1280 x 1024	1280 x 1024	1280 x 1024	1024 x 768	1024 x 768
	Max. Colors	16.7M	16.7M	16.7M	16.7M	16.2M	16.2M
	Luminance (cd/m²)	250	350	350	250	300	600
	Viewing Angle (H/V°)	178/178	89/89	170/160	170/160	176/176	178/178
	Backlight Life (hrs)	50,000	50,000	70,000	50,000	70,000	50,000
Video Port		HDMI, VGA			HDMI, DP, VGA		
Touchscreen		PCAP		5-wire resistive			
Touchscreen Interface		USB: 12 V _{DC}			USB: 12/24 V _{DC} RS-232: 24 V _{DC}		
OSD (On-Screen Display)		Windows OSD utility					
Power Supply Input Voltage		12 V _{DC}	12 V _{DC}	24 V _{DC}	12/24 V _{DC}	12/24 V _{DC}	12/24 V _{DC}
Ingress Protection		Front Panel IP66					
Enclosure		Die-casting aluminium					
Operating Temperature		0 ~ 50°C (32 ~ 122°F)					
Storage Temperature		-20 ~ 60°C (-4 ~ 140°F)					
Dimension W x H x D (mm)		558.4 x 349.8 x 56.2 mm	419.7 x 269 x 56.2 mm	454 x 379.8 x 51.5 mm	410.4 x 343.4 x 54 mm	383.2 x 307.3 x 53.20 mm	311.8 x 238.0 x 53 mm
Cut-out Dimension W x H (mm)		550.30 x 341.8 mm	412.40 x 261.70 mm	443.5 x 369.3 mm	401.3 x 334.8 mm	374.5 x 298.5 mm	303 x 229 mm
Weight (Net)		6 kg	4 kg	6.2 kg	5.4 kg	4.6 kg	3.2 kg
Mounting		Stand, Wall, VESA, Panel					
OS Support		Microsoft® Windows XP/Vista/7/8/10/XPE, Linux					
Certification		BSMI, CCC, CE, FCC Class A, UL					

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Industrial Monitors

Rugged & Domain Focused



Model		 FPM-8151H	 FPM-817S	 FPM-815S	 FPM-3191G	 FPM-3171G	 FPM-3151G	 FPM-3121G
Display	Display Type	XGA	SXGA	XGA	SXGA	SXGA	XGA	XGA
	Display Size	15"	17"	15"	19"	17"	15"	12.1"
	Max. Resolution	1024 x 768	1280 x 1024	1024 x 768	1280 x 1024	1280 x 1024	1024 x 768	1024 x 768
	Max.Colors	16.2M	16.7M	16.7M	16.7M	16.7M	16.2M	16.2M
	Luminance (cd/m²)	350	350	500	350	350	350	600
	Viewing Angle (H/V°)	160/140	160/140	176/176	170/160	160/140	160/140	160/140
	Backlight Life (hrs)	50,000	50,000	70,000	50,000			
Video Port		VGA, DVI		VGA, DP		VGA, DVI-D		
Touchscreen		5-wire resistive						
OSD (On-Screen Display)		Rear panel control buttons				Front panel control buttons		
Power Consumption		24V (Optional adapter)			18 W + 20%	23 W +20%	12 W +20%	13 W +20%
Power Supply Input Voltage		24 V _{DC}			10~30 V _{DC}			
Operating Temperature		-20 ~ 60°C (-4 ~ 140°F)	-20 ~ 60°C (-4 ~ 140°F)	-20 ~ 60°C (-4 ~ 140°F)	-20 ~ 60°C (-4 ~ 140°F)			
Storage Temperature		-30 ~ 80°C (-22 ~ 176°F)	-30 ~ 70°C (-22 ~ 158°F)	-30 ~ 70°C (-22 ~ 158°F)	-30 ~ 80°C (-22 ~ 176°F)			
Dimension W x H x D (mm)		422 x 338 x 68 mm	432.5 x 365.5 x 59.3 mm	405.3 x 329.4 x 59.3 mm	482 x 399.2 x 67 mm	482 x 354.8 x 63.5 mm	312 x 224 x 60 mm	312 x 224 x 60 mm
Cut-out Dimension W x H (mm)		396 x 296 mm	382 x 320 mm	350 x 277 mm	441 x 376.4 mm	447.2 x 329.2 mm	303.5 x 229.5 mm	303.5 x 229.5 mm
Weight (Net)		8.5 kg (18.74 lb)	6.2 kg (13.67 lb)	5.4 kg (11.90 lb)	10.65 kg (23.46 lb)	9.25 kg (20.39 lb)	7.73 kg (17.04 lb)	4.07 kg (8.975 lb)
Certification		CB, UL, CE, FCC Class A, CCC, BSMI, Cid2	CB, UL, CE, FCC Class A, CCC, BSMI		CB, UL, CE, FCC Class A, CCC, BSMI, Energy Star			
OS Support		Windows 2000, XP, Vista, 7, XPe, CE and Linux	Microsoft® Windows XP/ Vista/7/8/10/XPE, Linux		Microsoft® Windows XP/Vista/7/8/10/XPE, Linux			

General Panel PCs

Ruggedized All-in-One



Model		 PPC-306/310/312/315/321W EHL					 PPC-3150SW/3180SW/324W APL			 PPC-315W/318W/321W/324W TGL				 PPC-310/312 ASL		 PPC-312/315/317 RPL			 PPC-315W/318W/321W ADL					
CPU		Intel® Celeron® processor N6210					Intel® Celeron® processor J6412			Intel® Pentium® processor N4200			Intel® Core™ processors (11th Gen)/ Intel® Celeron® processor				Intel Atom® x7433RE processor		Intel® Core™ processors (13th Gen)/ Intel® Celeron® processor			Intel® processor N97		
Memory		1 x SO-DIMM with 32 GB DDR4					1 x SO-DIMM with 8 GB DDR3L			2 x SO-DIMM with 32 GB DDR4				1 x SO-DIMM with 16 GB DDR5		1 x SO-DIMM with 48 GB DDR5			1 x SO-DIMM with 16 GB DDR5					
Display	Size	6.5"	10.4"	12"	15"	21.5"	15.6"	18.5"	23.8"	15.6"	18.5"	21.5"	23.8"	10.4"	12.1"	12"	15"	17"	15.6"	18.5"	21.5"			
	Screen Ratio	4:3	4:3	4:3	4:3	16:9	16:9	16:9	16:9	16:9	16:9	16:9	16:9	4:3	4:3	4:3	4:3	4:3	16:9	16:9	16:09			
	Max. Resolution	640 x 480	1024 x 768	1024 x 768	1024 x 768	1920 x 1080	1366 x 768	1366 x 768	1920 x 1080	1920 x 1080	1366 x 768	1920 x 1080	1920 x 1080	800 x 600	1024 x 768	1024 x 768	1024 x 768	1280 x 1024	1920 x 1080	1366 x 768	1920 x 1080			
	Luminance (cd/m ²)	800	350	500	300	250	400	450	350	450	450	250	350	400	600	500	300	250	350	450	250			
	Viewing Angle (H/V°)	178/ 178	160/ 176	160/ 176	160/ 176	178/ 178	170/ 160	170/ 160	178/ 178	160/ 170	170/ 160	178/ 178	178/ 178	160/ 140	178/ 178	178/ 178	176/ 176	178/ 178	160/ 140	178/ 178	178/ 178			
	Backlight Life (hrs)	70,000	30,000	30,000	70,000	50,000	50,000	50,000	30,000	50,000	50,000	50,000	30,000	30,000	50,000	30,000	70,000	50,000	50,000	50,000	50,000	50,000		
Touchscreen		5-wire resistive		5-wire resistive/ PCAP		PCAP	PCAP			PCAP				5-wire resistive			PCAP							
LAN		2 x 10/100/1000/2500 Mbps										1 x 10/100/1000 Mbps, 1 x 10/100/1000/2500 Mbps				2 x 10/100/1000/2500 Mbps								
I/O		1 x RS-232, 1x RS-232/422/485, 1 x USB 2.0, 2 x USB 3.0		1 x RS-232, 1x RS-232/422/485, 2 x USB 2.0, 2 x USB 3.1, 1 x Type-C, 1 x HDMI, 1 x TPM 2.0			1 x RS-232, 1 x RS-232/422/485, 2 x USB 3.0, 2 x USB 2.0, 1 x Line-Out, 1 x HDMI			1 x RS-232, 1 x RS-232/422/485, 3 x USB 3.2, 1 x USB 2.0, 1 x Type-C, 1 x HDMI, 1 x TPM 2.0, 1 x Line-Out				2 x RS-232/422/485, 3 x USB 3.2, 1 x USB 2.0, 1 x DP, 1 x Line-Out		2 x RS-232/422/485, 3 x USB 3.2, 1 x USB 2.0, 1 x DP, 1 x Line-Out, 1 x iDoor			2 x RS-232/422/485 , 3 x USB 3.2, 1 x USB 2.0, 1 x DP, 1 x Line-Out, 1 x iDoor					
Storage		1 x SATA M.2 SSD slot (2242 M-Key)		1 x SATA M.2 SSD slot (2242/2280 M-Key)			1 x 2.5" SSD/HDD Bay, 1 x SATA Bay			1 x 2.5" SSD/HDD Bay, 1 x NVMe/SATA M.2 SSD slot (2242/2280 M-Key)				1 x 2.5" SSD/HDD Bay, 1 x NVMe/SATA M.2 SSD slot (2242/2280 M-Key)		1 x 2.5" SSD/HDD Bay, 1 x NVMe/SATA M.2 SSD slot (2242/2280 M-Key)			1 x 2.5" SSD/HDD Bay, 1 x NVMe/SATA M.2 SSD slot (2242/2280 M-Key)					
Expansion		1 x M.2 E-Key 2230					1 x M.2 E-Key 2230			1 x M.2 E-Key 2230				1 x M.2 B-Key 2242/2280 or 3042/3052 1 x M.2 E-Key 2230		1 x M.2 E-Key 2230 1 x M.2 B key 2242 or 3052 1 x PCI or PCIe x1			1 x M.2 E-Key 2230 1 x M.2 B key 2242 or 3052 1 x PCI or PCIe x1					
Power Supply Input Voltage		12 – 24 Vdc			12 – 30 Vdc		12 – 24 Vdc			12 – 30 Vdc				24 Vdc ± 20%		24 Vdc ± 20%			24 Vdc ± 20%					
OS Support		Windows 10 LTSC, Windows 11, Linux					Windows 10 LTSC, Linux			Windows 10 LTSC, Windows 11, Linux				Windows 10 LTSC, Windows 11, Linux, Android		Windows 10 LTSC, Windows 11, Linux			Windows 10 LTSC, Windows 11, Linux					
Enclosure		Die-cast aluminum alloy					Die-cast aluminum alloy			Die-cast aluminum alloy				Die-cast aluminum alloy		Die-cast aluminum alloy			Die-cast aluminum alloy					
Dimension W x H x D (mm)		197.6 x 150.6 x 41 mm	271.8 x 216.8 x 49.7 mm	317 x 246 x 52.7 mm	392 x 314 x 55 mm	558 x 350 x 61 mm	419.7 x 269 x 58.6 mm	488 x 309 x 58.5 mm	595.9 x 374.1 x 58.4 mm	419.7 x 269.0 x 62.1 mm	488 x 309 x 61.7 mm	558.4 x 349.8 x 62.2 mm	595.9 x 347.1 x 61.5 mm	256.0 x 204.0 x 50.4 mm	395.3 x 233.8 x 50.4 mm	395.3 x 233.8 x 50.4 mm	359.6 x 283.6 x 50.4 mm	393.4 x 325.8 x 53.4 mm	395.6 x 245.1 x 50.4mm	464.5 x 285.5 x 53.4mm	529.6 x 321.3 x 53.4mm			
Weight (Net)		1.5 kg	3.1 kg	3.16 kg	5 kg	7.2 kg	4.7 kg	5.4 kg	8.4 kg	4.8 kg	5.7 kg	6.6 kg	8.6 kg	3.1 kg	3.16 kg	3.16 kg	4 kg	6.3 kg	4.2 kg	5.1 kg	6 kg			
Ingress Protection		Front Panel IP65	Front Panel IP66			Front Panel IP66			Front Panel IP66				Front Panel IP66		Front Panel IP66			Front Panel IP66						
Mounting		Panel, VESA (75)					Panel, VESA (75)			Panel, VESA (100)				Panel, VESA (75)		Panel, VESA (75)			Panel, VESA (75)					
Operating Temperature		-10 ~ 50°C (14 ~ 122°F)					0 ~ 50°C (32 ~ 122°F)			-10 ~ 50°C (14 ~ 122°F)				-20 ~ 60°C (-4 ~ 140°F)		-10 ~ 50°C (14 ~ 122°F)			-10 ~ 50°C (14 ~ 122°F)					
Certification		CE, FCC Class B, EN60601-1-2, BSMI, UKCA, CB, UL, CCC					CE, FCC Class B, EN60601-1-2, BSMI, UKCA, CB, UL, CCC			CE, FCC Class B, EN60601-1-2, BSMI, UKCA, CB, UL, CCC				CE, FCC Class B, EN60601-1-2, BSMI, UKCA, CB, UL, CCC		CE, FCC Class B, EN60601-1-2, BSMI, UKCA, CB, UL, CCC			CE, FCC Class B, EN60601-1-2, BSMI, UKCA, CB, UL, CCC					

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Enhanced All-in-One



Model		PPC-3100/3120			PPC-415/417/419 EHL			PPC-412	PPC-415 TGL	PPC-415W/421W RPL	
CPU		Intel Atom® E3940 processor			Intel Atom® x6425E processor			Intel® Core™ processors (7th Gen)	Intel® Core™ processors (11th Gen)	Intel® Core™ processors (13th Gen)	
Memory		1 x SO-DIMM with 8 GB DDR3L			1 x SO-DIMM with 32 GB DDR4			1 x SO-DIMM with 16 GB DDR4	2 x SO-DIMM with 32 GB DDR4	2 x SO-DIMM with 32 GB DDR5	
Display	Size	10.4"	12.1"		15"	17"	19"	12.1"	15"	15.6"	21.5"
	Screen Ratio	4:3			4:3			4:3	4:3	16:9	
	Max. Resolution	800 x 600	1024 x 768		1024 x 768	1280 x 1024	1280 x 1024	1024 x 768	1024 x 768	1920 x 1080	1920 x 1080
	Luminance (cd/m²)	400	600		500	350	350	600	500	450	350
	Viewing Angle (H/V°)	160/140	178/178		176/176	160/140	170/160	178/178	176/176	170/170	178/178
	Backlight Life (hrs)	30,000	50,000		70,000	50,000	50,000	50,000	70,000	50,000	30,000
Touchscreen		5-wire resistive			5-wire resistive			5-wire resistive	PCAP	PCAP	
LAN		2 x 10/100/1000/2500 Mbps			2 x 10/100/1000/2500 Mbps			2 x 10/100/1000 Mbps	2 x 10/100/1000/2500 Mbps	2 x 10/100/1000/2500 Mbps	
I/O		4 x RS-232, 1 x isolated RS-422/485 4 x USB 3.0 1 x Line-out 1 x Mic-in 1 x VGA 1 x HDMI 1 x GPIO			2 x RS-232 1 x RS-422/485 2 x RS-232 2 x USB 3.2 2 x USB 2.0 1 x Line-out 1 x Mic-In 1 x HDMI 1 x DP 1 x GPIO 1 x TPM2.0			3 x RS-232 1 x RS-422/485 4 x USB 3.0 1 x Line-out 1 x Mic-in 1 x VGA 1 x DP 1 x TPM 2.0	3 x RS-232 1 x RS-422/485 4 x USB 3.0 1 x Line-out 1 x Mic-in 1 x VGA 1 x DP 1 x TPM 2.0	2 x RS-232 1 x RS-422/485 2 x RS-232 3 x USB 3.2 1 x USB 2.0 1 x Line-out 1 x Mic-In 1 x HDMI 1 x DP 1 x GPIO	
Storage		1 x 2.5" SSD/HDD Bay, 1 x mSATA			1 x 2.5" SSD/HDD Bay, 1 x M.2 B-Key 2242/2280 (SATA/ USB3.0)/ 3042/3052 (5G), 1 x 2.5" SSD/HDD Bay			1 x SATA M.2 SSD slot (2242 B-Key), 1 x 2.5" SSD/HDD Bay	1 x 2.5" SSD/HDD Bay, 1 x NVMe PCIe x 4/SATA M.2 slot (2242/2280 M-Key)	1 x SATA M.2 SSD slot (2242 B-Key), 1 x 2.5" SSD/HDD Bay	
Expansion		1 x Full-size mPCIe slot			1 x M.2 E-Key 2230, 1 x PCIe x1 or 1 x PCI, 1 x CFAST card			1 x Full-size mPCIe slot	1 x M.2 E-Key 2230, 1 x M.2 B-Key 3052/3042, 1 x PCIe x4 or 1 x PCI	1 x M.2 E-Key 2230, 1 x PCIe x4 or 1 x PCI	
Power Supply Input Voltage		9 ~ 32 V _{DC}			9 ~ 32 V _{DC}			9 ~ 32 V _{DC}	9 ~ 32 V _{DC}	9 ~ 32 V _{DC}	
OS Support		Microsoft® Windows 10 LTSC, Linux, Android			Microsoft® Windows 10 LTSC, Windows 11, Linux, Android			Microsoft® Windows 10 LTSC, Linux, Android	Microsoft® Windows 10 LTSC, Windows 11, Linux, Android	Microsoft® Windows 10 LTSC, Windows 11, Linux, Android	
Enclosure		Front bezel: Die cast aluminum alloy Rear: PC+ABS			Front bezel: Die cast aluminum alloy Rear: ABS			Front bezel: Die cast aluminum alloy Rear: PC+ABS	Front bezel: Die cast aluminum alloy Rear: ABS	Front bezel: Die cast aluminum alloy Rear: PC+ABS	
Dimension W x H x D (mm)		271.8 x 216.8 x 57.5 mm	317 x 246 x 60.5 mm		392.2 x 313.5 x 55.1 mm	437 x 357 x 56.5 mm	454.0 x 379.8 x 62.1 mm	317 x 246 x 60.5 mm	392.3 x 313.6 x 55.2 mm	419.7 x 269 x 59 mm	558.4 x 349.8 x 63.8 mm
Weight (Net)		2.8 kg	3.4 kg		5.3 kg	6.3 kg	7.0 kg	3.4 kg	5.4 kg	5.4 kg	7.7 kg
Ingress Protection		Front Panel IP66			Front Panel IP66			Front Panel IP66	Front Panel IP66	Front Panel IP66	
Mounting		Panel, VESA (75)			Panel, VESA (75)			Panel, VESA (75)	Panel, VESA (75)	Panel, VESA (75/100)	
Operating Temperature		-20 ~ 60°C (-4 ~ 140°F)			-20 ~ 60°C (-4 ~ 140°F)			0 ~ 50°C (32 ~ 122°F)	-10 ~ 50°C (14 ~ 122°F)	-20 ~ 60°C (-4 ~ 140°F)	
Certification		CE, FCC Class B, EN 61000-6-2, BSMI, UKCA, CB, UL, CCC,			CE, FCC Class B, EN 61000-6-2, BSMI, UKCA, CB, UL, CCC,			CE, FCC Class B, EN 61000-6-2, BSMI, UKCA, CB, UL, CCC,	CE, FCC Class B, EN 61000-6-2, BSMI, UKCA, CB, UL, CCC,	CE, FCC Class B, EN 61000-6-2, BSMI, UKCA, CB, UL, CCC,	

General Panel PCs

Scalable High Performance Computing

Chassis



Model		PPC-615W/618W/621W			PPC-612/6151C/6171C/6191C			
CPU		Intel® Core™ processors (13th/12th/9th/8th/7th/6th Gen)/ Intel® Celeron® processors			Intel® Core™ processors (13th/12th/9th/8th/7th/6th Gen)/ Intel® Celeron® processors			
Display	Size	15.6"	18.5"	21.5"	12"	15"	17"	19"
	Screen Ratio	16:9			4:3			
	Max. Resolution	1920 x 1080	1366 x 768	1920 x 1080	1024 x 768	1024 x 768	1280 x 1024	1280 x 1024
	Luminance (cd/m²)	450	450	250	600	500	350	350
	Viewing Angle (H/V°)	170/170	170/160	178/178	178/178	176/176	160/140	170/160
	Backlight Life (hrs)	50,000			50,000			
Touchscreen		PCAP			5-wire resistive/ PCAP			
I/O		4 x Reserved ports (DB9) 2 x WLAN antenna holes 1 x DC-In 1 x Power switch Reserved opening: According to the PPC-MB series motherboard specifications			4 x Reserved ports (DB9) 2 x WLAN antenna holes 1 x DC-In 1 x Power switch Reserved opening: According to the PPC-MB series motherboard specifications			
Storage		1 x 2.5" SATA HDD Bay, 2 x 2.5" SATA HDD Bay (optional)	2 x 2.5" SATA HDD Bay		1 x 2.5" SATA HDD Bay	1 x 2.5" SATA HDD Bay, 2 x 2.5" SATA HDD Bay (optional)		
Expansion		1 x PCIe x4 (standard); or 2 x PCI (in the accessory box) 2 x PCIe x1 (optional) 1 x PCIe x1 + 1 x PCI (optional) 2 x PCIe x8 (optional, only for PPC-MB-6X0) 1 x PCIe x16 (optional, only for PPC-MB-6X0)			1 x PCI (optional) 1 x PCIe x4 (optional) 1 x PCIe x16 (optional, only for PPC-MB-6x0)	1 x PCIe x4 (standard); 2 x PCI (in the accessory box) 2 x PCIe x1; 1 x PCIe x1 + 1 x PCI (optional) 2 x PCIe x8 (optional, for PPC-MB-610/620) 1 x PCIe x16 (optional, for PPC-MB-610/620) 1 x Full-size mPCIe Slot		
Power Input (Voltage)		24V _{DC} ±20%			24V _{DC} ±20%		100 ~ 240 V _{AC}	
Enclosure		Front: Aluminum alloy Back: Plastic			Front: Aluminum alloy Back: Plastic			
Ingress Protection		Front Panel IP66			Front Panel IP66			
Mounting		Panel, VESA 75/100			Panel, VESA 75/100			
Operating Temperature		0 ~ 50°C (32 ~ 122°F) (With 35 W CPU) 0 ~ 45°C (32 ~ 113°F) (With 65 W CPU)			0 ~ 50 °C (32 ~ 122 °F) (With 35W CPU)		0 ~ 45°C (32 ~ 113°F) (With 65W CPU)	
Storage Temperature		-30 ~ 60°C (-22 ~ 140°F)			-40 ~ 60°C (-40 ~ 140°F)		-30 ~ 60°C (-22 ~ 140°F)	
Dimension W x H x D (mm)		419 x 269 x 108.2 mm	488 x 309 x 108.2 mm	558 x 349.8 x 108.2 mm	317 x 246 x 83.2 mm	391.4 x 312.5 x 103.6 mm	437 x 357 x 107.6 mm	454 x 379.8 x 107.5 mm
Weight (Net)		6.1 kg (13.45 lb)	7.6 kg (16.75 lb)	8.4 kg (18.5 lb)	3.98 kg (8.76 lb)	5.03 kg (11.08 lb)	5.4 kg (11.9 lb)	5.8 kg (12.8 lb)
Certification		CCC, CB, UL, UKCA, CE, FCC Class A, UKCA, VCCI						
OS Support		According to the PPC-MB series specifications						

Motherboard



Model	PPC-MB-8260	PPC-MB-610	PPC-MB-620
CPU	Intel® Core™ processors (6th/7th Gen), up to 65 W	Intel® Core™ processors (8th/9th Gen), up to 65 W	12/13th Gen Intel Core I LGA 1700 processor up to 65 W
Chipset	H110	Q370	Q670E H610E
Memory	1 x SO-DIMM with 16 GB DDR4	2 x SO-DIMM with 32 GB DDR4	2 x SO-DIMM with 64 GB DDR5
LAN	2 x 10/100/1000 Mbps	1 x 10/100/1000 Mbps, 2 x 10/100/1000/2500 Mbps	1 x 10/100/1000 Mbps, 2 x 10/100/1000/2500 Mbps
I/O	1 x RS232/422/485, 1 x RS232, 1 x DP, 1 x VGA, 6 x USB 3.1, 1 x Line-Out, 1 x Mic-In	1 x RS232/422/485, 1 x RS232, 1 x DP, 1 x VGA, 6 x USB 3.1, 1 x Line-Out, 1 x Mic-In	1 x RS-232, 1 x RS-232/422/485, 6 x USB 3.2, 1 x HDMI, 1 x DP, 1 x Line-Out, 1 x Mic-In 1 x RS-232, 1 x RS-232/422/485, 4 x USB 3.2, 2 x USB 2.0, 1 x HDMI, 1 x DP, 1 x Line-Out, 1 x Mic-In
Expansion	1 x Full-size mSATA or mini PCIe, 1 x PCIe x4 slot	1 x NVMe/SATA M.2 SSD slot (2280 M-key), 1 x M.2 E-Key 2230, 1 x PCIe x16	1 x NVMe/SATA M.2 SSD slot (2280 M-Key), 1 x M.2 E-Key 2230, 1 x M.2 B-Key 3042/3052
Dimension W x H (mm)	170 x 170 mm	170 x 170 mm	170 x 170 mm
OS Support	Microsoft® Windows 7, Microsoft® Windows 8.1, Microsoft® Windows 10 LTSC (**KBL CPU only supports windows 10)	Microsoft® Windows 10 LTSC, Microsoft® Windows 11, Linux	Microsoft® Windows 10 LTSC, Microsoft® Windows 11, Linux

1

Edge Software & Industry Solutions

2

Intelligent HMI & Monitors

3

Automation Computers

4

Intelligent Systems

5

Mission Critical CompactPCI Platforms

6

Intelligent Transportation & Substation Certified Systems

7

Industrial Server & Cloud Solutions

8

AI & Advanced Computer Vision

9

Video Infrastructure Solutions

10

Network & Security Solutions

11

Industrial Communication

12

Industrial Gateways

13

EtherCAT Solutions & Automation Controllers

14

Intelligent Motion Control Solutions

15

Data Acquisition (DAQ) Solutions

16

Remote I/O, Wireless I/O & Sensors

17

Serial/USB Communications

Installation Accessories

PPC-STAND-A1E

Stand Kit For All PPC Models



PPC-WLAN-D1/D2

Wi-Fi Module, M.2, Wi-Fi 6 +BT5.2, 2T2R, with Antenna



PPC-ARM-A03

CHASSIS, PPC ARM VESA Standard (A-CLEVER)



PPC-RFID 98R3P300010

RFID, Reads only 13.56MHz & 125k



PPC-174T-WL-MTE

Wall Mount Kit For All PPC Models



PPC-IPS

Uninterruptible Power Supply Module

