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Intelligent HMI and Monitors

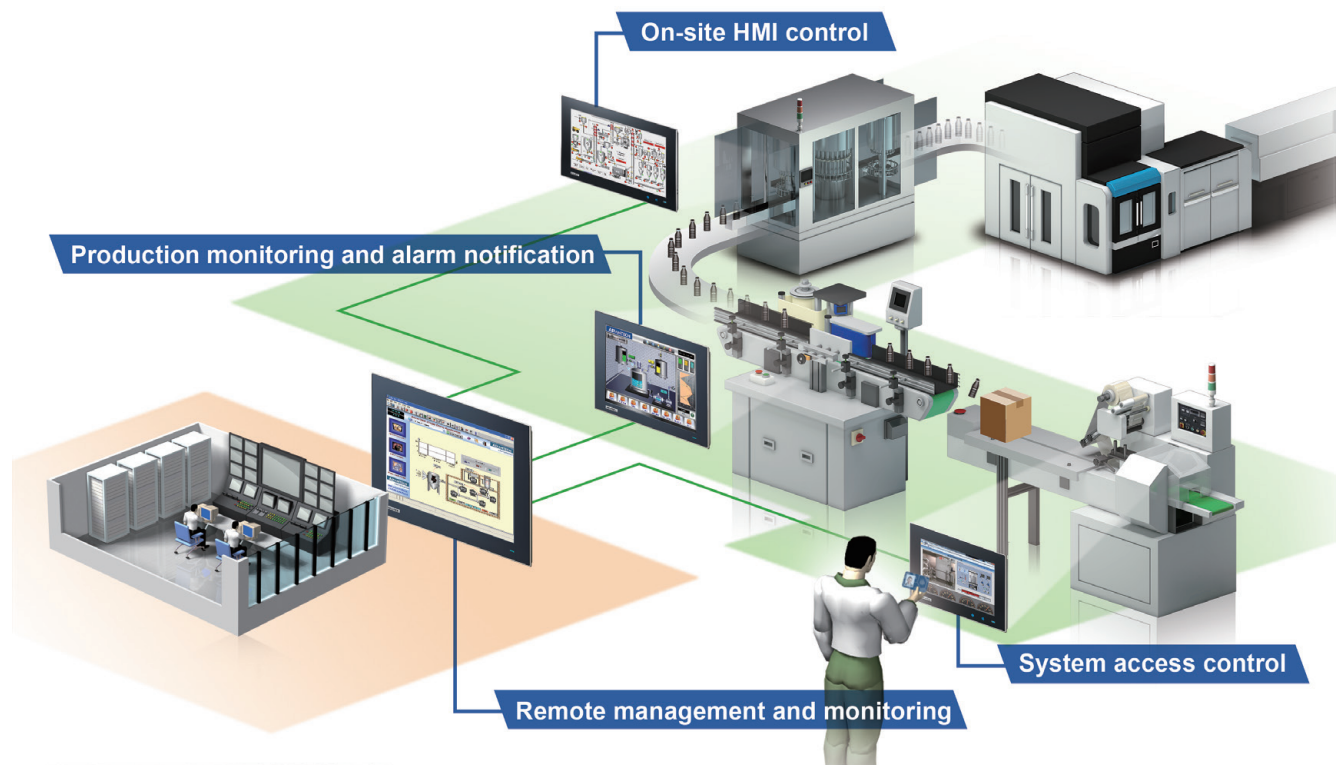
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Intelligent HMI and Monitors

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

Advantech offers a diverse range of general as well as domain focused HMI products of varying size (from 3.5" to 23.8") and screen ratio (4:3 and 16:9). Our HMI product category includes high performance control panels, low-power industrial thin clients, web browser terminals, domain focused HMI, and industrial monitors. In response to Industry 4.0, Advantech has developed a new generation of modular solutions for a diverse range of configurations to meet specific usage requirements, offering customers a quick time to market and high level of expandability. All Advantech HMI products are equipped with relevant software (HMINavigation, WebAccess/SCADA or WISE-PaaS/DeviceOn) as well as Advantech's iDOOR technology, making them suitable for various applications.



Product Categories

Modular Series

In response to ongoing advances in Industry 4.0, Advantech has created its new series of modular panel PC solutions based on three performance-segmented modules — a control panel, industrial thin-client, and industrial monitor. The modular design of our solutions allows the computing box modules to be interchangeably combined with our display modules to provide comprehensive platform solutions for specific field applications. This modularization offers many advantages, including flexible configuration, rapid integration and deployment, reduced system downtime and maintenance costs, and support for future expansion.



Control Panels

Advantech's control panel series of PC-based open control platforms feature a high-performance, fanless design and can be integrated with a wide variety of machines in diverse environments to support complex machine control tasks and data visualization applications. The optimized design includes three Gigabit LANs that support multiple fieldbus communication protocols, an IP66-rated front panel that protects against dust and water ingress, and support for flexible iDOOR and PCIe expansion, making these platforms particularly ideal for industrial automation control operations.



Thin-Client Terminals

Advantech's thin client modules feature a compact, fanless, and low-power design that supports multiple aspect ratios (4:3 and 16:9) and allows the modules to be equipped with a range of display sizes (5.7" to 23.8"). These thin client modules are primarily deployed as manufacturing execution systems (MESs) or for work flow monitoring and production process visualization. Under the Industry 4.0 trend, thin clients are widely utilized in distributed control architectures because of their easy deployment and suitability for the centralized management of devices and information. This architecture allows the OS to be quickly dispatched from server to client following a hardware replacement while still ensuring data security.



Operator Panels

Advantech's WebOP series of operator panels feature a range of display sizes (7" to 12") and supports multiple communication interfaces (e.g., RS-232/422/485, Ethernet, and USB). Bundled with WebAccess/HMI software, Advantech's WebOP series supports over 450 PLC communication protocols, ensuring convenient integration with equipment made by a comprehensive range of manufacturers.

Domain Focused HMI

In addition to standard products, Advantech provides domain-focused systems with customizable features designed to satisfy specific requirements across various vertical markets. Verified with ATEX/ UL Class 1 Division 2, IEC 61131-2/61010, and EN1672/ FDA certification, Advantech's domain-focused rugged HMIs are sufficiently robust for operation in extreme environments typical of the locomotive, food and beverage, oil and gas, and machine tool manufacturing industries. Ensuring system flexibility and compatibility are also major focus points for Advantech when designing domain-focused HMI products.



Industrial Monitors

Independent controllers and industrial PCs embedded in machines require an interface for data processing and visualization, for which Advantech produces industrial monitors in a range of sizes (6", 12.1", 15", 17", 18.5", to 23.8"). Featuring an industrial-grade LED LCD with a backlight lifetime of 50,000 hours, high IP-rated bezel, and wide temperature support, our industrial monitors are equipped to withstand operation in harsh environments. Versatile mounting options (panel, wall, desktop, rack, and VESA arm) are also supported to ensure easy installation for various usage scenarios.

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IoT Software Solutions

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Intelligent Systems

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SKY Servers

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AI & Advanced Computer Vision

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Intelligent HMI and Monitors

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Automation Computers

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Intelligent Transportation Platforms

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Utility and Energy Solutions

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EtherCAT Solutions and Automation Controllers

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Intelligent Motion Control Solutions

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High Speed DAQ Solutions

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Industrial Communication

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Intelligent Edge DAQ Devices

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Remote I/O, Wireless I/O & Sensors

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Serial Communication

Modular Panel PCs

Panel Modules



| Model | FPM-D12T-BE | FPM-D15T-BE | FPM-D15W-FBE | FPM-D17T-BE |
|-----------------------|------------------------|----------------------------|----------------------------|----------------------------|
| Panel Size | 12" | 15" | 15.6" | 17" |
| Resolution | 1024 x 768 | 1024 x 768 | 1920 x 1080 | 1280 x 1024 |
| Luminance | 600 cd/m ² | 300 cd/m ² | 450 cd/m ² | 350 cd/m ² |
| Touch | 5-wire resistive touch | Projected capacitive touch | Projected capacitive touch | Projected capacitive touch |
| Wi-Fi Antenna | - | △ | △ | △ |
| NFC Reader | - | △ | △ | △ |
| IP Rating | IP66-rated front panel | IP66-rated front panel | IP66-rated front panel | IP66-rated front panel |
| Operating Temperature | -25~60°C (-14~140°F) | -25~60°C (-14~140°F) | -25~60°C (-14~140°F) | -25~60°C (-14~140°F) |
| Storage 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) |
| Weight (Net) | 2.5 kg | 4 kg | 4 kg | 4.8 kg |

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| Model | FPM-D18W-BE | FPM-D19T-BE | FPM-D21W-BE | FPM-D24W-BE |
|-----------------------|----------------------------|------------------------|----------------------------|----------------------------|
| Panel Size | 18.5" | 19" | 21.5" | 23.8" |
| Resolution | 1366 x 768 | 1280 x 1024 | 1920 x 1080 | 1920 x 1080 |
| Luminance | 250 cd/m ² | 350 cd/m ² | 250 cd/m ² | 350 cd/m ² |
| Touch | Projected capacitive touch | 5-wire resistive touch | Projected capacitive touch | Projected capacitive touch |
| Wi-Fi Antenna | △ | △ | △ | △ |
| NFC Reader | △ | △ | △ | △ |
| IP Rating | IP66-rated front panel | IP66-rated front panel | IP66-rated front panel | IP66-rated front panel |
| Operating Temperature | 0~55°C (32~131°F) | 0~50°C (32~122°F) | 0~55°C (32~131°F) | 0~55°C (32~131°F) |
| Storage Temperature | -20~60°C (-4~140°F) | -30~70°C (-22~158°F) | -20~60°C (-4~140°F) | -20~60°C (-4~140°F) |
| Weight (Net) | 5.2 kg | 6.6 kg | 6.8 kg | 7.8 kg |

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

Monitor Box Module



| Model | FPM-B700-AE |
|---------------------------|------------------------------|
| Video Interface Available | HDMI, DP, DVI, VGA, iLink |
| Power Input | 24 V _{DC} ± 20% |
| Mount Options | Panel, stand, and VESA mount |
| iLINK Technology | Supported |

Configurable I/O Module for Monitor Box



| Model | FPM-M700-HDAE | FPM-M700-DPAE | FPM-M700-TRAE | FPM-M700-RXAE |
|-------------|-------------------------|----------------------------|----------------------|-----------------|
| Description | HDMI + USB Touch Module | Display + USB Touch Module | iLINK Tx + Rx Module | iLINK Rx Module |

*FPM-M700 I/O module is essential for Monitor Box Module to have Video Interfaces and iLink technology.

Computing Box Modules



| Model | TPC-B200-E12AE | TPC-B200-J12AE | TPC-B500-6C2AE | TPC-B500-633AE | TPC-B500-653AE | TPC-B500-673AE | |
|------------------|-----------------------------------------------------------------------------|-----------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| CPU | Intel® Atom® E3940 Processor | Intel® Celeron® J3455 Processor | Intel® Celeron® 3955U | Intel® Core™ i3-6100U | Intel® Core™ i5-6300U | Intel® Core™ i7-6600U | |
| Memory | 4 GB DDR3L 1600 MHz SO-DIMM | 4 GB DDR3L 1600 MHz SO-DIMM | 4 GB DDR4 2133 MHz SO-DIMM | 8 GB DDR4 2133 MHz SO-DIMM | 8 GB DDR4 2133 MHz SO-DIMM | 8 GB DDR4 2133 MHz SO-DIMM | |
| I/O | 2 x RS-232/422/485, 2 x USB 3.0, 2 x USB 2.0, 2 x GbE, 1 x Line Out, 1 x DP | 2 x RS-232/422/485, 2 x USB 3.0, 2 x USB 2.0, 2 x GbE, 1 x Line Out, 1 x DP | 1 x RS-232, 1 x RS-232/422/485, 2 x USB 3.0, 2 x USB 2.0, 3 x GbE, 1 x Line Out, 1 x DP | 1 x RS-232, 1 x RS-232/422/485, 2 x USB 3.0, 2 x USB 2.0, 3 x GbE, 1 x Line Out, 1 x DP | 1 x RS-232, 1 x RS-232/422/485, 2 x USB 3.0, 2 x USB 2.0, 3 x GbE, 1 x Line Out, 1 x DP | 1 x RS-232, 1 x RS-232/422/485, 2 x USB 3.0, 2 x USB 2.0, 3 x GbE, 1 x Line Out, 1 x DP | 1 x RS-232, 1 x RS-232/422/485, 2 x USB 3.0, 2 x USB 2.0, 3 x GbE, 1 x Line Out, 1 x DP |
| Expansion | 1 x Full-size mini PCIe | 1 x Full-size mini PCIe | 1 x Half-size PCIe, 2 x Full-size mini PCIe | 1 x Half-size PCIe, 2 x Full-size mini PCIe | 1 x Half-size PCIe, 2 x Full-size mini PCIe | 1 x Half-size PCIe, 2 x Full-size mini PCIe | |
| Power Input | 24 V _{DC} ± 20% | 24 V _{DC} ± 20% | 24 V _{DC} ± 20% | 24 V _{DC} ± 20% | 24 V _{DC} ± 20% | 24 V _{DC} ± 20% | |
| Operating System | Microsoft® Windows 10 IoT Enterprise LTSB | Microsoft® Windows 10 IoT Enterprise LTSB | Microsoft® Windows WES7 (32/64-bit), Windows 7 (32/64-bit), Ubuntu 16.04, Windows 10 IoT Enterprise LTSB | Microsoft® Windows WES7 (32/64-bit), Windows 7 (32/64-bit), Ubuntu 16.04, Windows 10 IoT Enterprise LTSB | Microsoft® Windows WES7 (32/64-bit), Windows 7 (32/64-bit), Ubuntu 16.04, Windows 10 IoT Enterprise LTSB | Microsoft® Windows WES7 (32/64-bit), Windows 7 (32/64-bit), Ubuntu 16.04, Windows 10 IoT Enterprise LTSB | |
| Mount Options | Panel, stand, and VESA mount (with optional mounting kit) | Panel, stand, and VESA mount (with optional mounting kit) | Panel, stand, and VESA mount (with optional mounting kit) | Panel, stand, and VESA mount (with optional mounting kit) | Panel, stand, and VESA mount (with optional mounting kit) | Panel, stand, and VESA mount (with optional mounting kit) | |



| Model | TPC-B510-833AE | TPC-B510-853AE | TPC-B510-873AE | TPC-B610H-A00A | TPC-B610W-A00A |
|------------------|------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------|
| CPU | Intel® Core™ i3-8145UE | Intel® Core™ i5-8365UE | Intel® Core™ i7-8665UE | Intel® 10th Gen. Core™ i Socket CPU (LGA1200) | Intel® 10th Gen. Core™ i Socket CPU (LGA1200) |
| Memory | 8 GB DDR4 2400 MHz SO-DIMM | 8 GB DDR4 2400 MHz SO-DIMM | 8 GB DDR4 2400 MHz SO-DIMM | Dual channel DDR4 SO-DIMM (each channel supports up to 32G, 2933 MHz) | Dual channel DDR4 SO-DIMM, ECC supported. (each channel supports up to 32G, 2933 MHz) |
| I/O | 2 x RS-232/422/485, 1 x USB 2.0, 4 x USB3.1, 1 x iDoor Slot, 1 x DP, 1 x Line out | 2 x RS-232/422/485, 1 x USB 2.0, 4 x USB3.1, 1 x iDoor Slot, 1 x DP, 1 x Line out | 2 x RS-232/422/485, 1 x USB 2.0, 4 x USB3.1, 1 x iDoor Slot, 1 x DP, 1 x Line out | 1 x RS-232/422/485 (COM 1), 1 x RS-232 (COM 2), 5 x USB 3.2 (Gen 1), 1 x USB 2.0, 1 x Displayport 1.2, 1 x Audio line out/Mic in | 1 x RS-232/422/485 (COM 1), 1 x RS-232 (COM 2), 5 x USB 3.2 (Gen 1), 1 x USB 2.0, 1 x Displayport 1.2, 1 x Audio line out/Mic in |
| Expansion | 1 x Full-size mPCIe slot 1 x M.2 M key 2280 (SATA or NVMe PCIe x4) 1 x M.2 B key 3052 (supports 5G module) | 1 x Full-size mPCIe slot 1 x M.2 M key 2280 (SATA or NVMe PCIe x4) 1 x M.2 B key 3052 (supports 5G module) | 1 x Full-size mPCIe slot 1 x M.2 M key 2280 (SATA or NVMe PCIe x4) 1 x M.2 B key 3052 (supports 5G module) | 1 x PCIe x16 1 x PCI 1 x Full-size mini PCIe 1 x M.2 3052 (5G) 1 x SIM card slot | 1 x PCIe x16 1 x PCIe x4 1 x Full-size mini PCIe 1 x M.2 3052 (5G) 1 x SIM card slot |
| Power Input | 24 V _{DC} ±20% | 24 V _{DC} ±20% | 24 V _{DC} ±20% | 24 V _{DC} ±20% | 24 V _{DC} ±20% |
| Operating System | Microsoft® Windows 10 LTSC, Linux, Android | Microsoft® Windows 10 LTSC, Linux, Android | Microsoft® Windows 10 LTSC, Linux, Android | Microsoft® Windows 10 LTSC, Linux | Microsoft® Windows 10 LTSC, Linux |
| Mount Options | Panel, Wall, Stand, VESA | Panel, Wall, Stand, VESA | Panel, Wall, Stand, VESA | Panel, Wall, VESA, Desktop | Panel, Wall, VESA, Desktop |

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

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- 7 Intelligent Transportation Platforms
- 8 Mission Critical CompactPCI Platforms
- 9 Utility and Energy Solutions
- 10 EtherCAT Solutions and Automation Controllers
- 11 Intelligent Motion Control Solutions
- 12 High Speed DAQ Solutions
- 13 Industrial Communication
- 14 Intelligent Edge DAQ Devices
- 15 Remote I/O, Wireless I/O & Sensors
- 16 Serial Communication

High-Performance Control Panels

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| Model | | TPC-324W | TPC-317 | TPC-315 | TPC-312 |
|----------------------------------|--------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------|
| CPU | | 8th Gen. Intel® Core™ i3/i5/i7 Processor | 8th Gen. Intel® Core™ i3/i5/i7 Processor | 8th Gen. Intel® Core™ i3/i5/i7 Processor | 8th Gen. Intel® Core™ i3/i5/i7 Processor |
| Memory | | Dual channel DDR4 SO-DIMM (each channel supports up to 32G) | Dual channel DDR4 SO-DIMM (each channel supports up to 32G) | Dual channel DDR4 SO-DIMM (each channel supports up to 32G) | Dual channel DDR4 SO-DIMM (each channel supports up to 32G) |
| Display | Display Type | FHD TFT LED LCD | SXGA TFT LED LCD | XGA TFT LED LCD | XGA TFT LED LCD |
| | Display Size | 23.8" (16:9) | 17" (4:3) | 15" (4:3) | 12.1" (4:3) |
| | Max. Resolution | 1920 x 1080 | 1280 x 1024 | 1024 x 768 | 1024 x 768 |
| | Max. Colors | 16.7M | 16.7M | 16.2M | 16.2M |
| | Luminance (cd/m ²) | 350 | 300 | 300 | 300 |
| | VieWIng Angle (H/V°) | 178/178 | 160/140 | 176/176° | 178/178 |
| | Backlight Life | 30,000 hrs | 50,000 hrs | 50,000 hrs | 50,000 hrs |
| Touchscreen | | PCAP | 5-wire analog resistive | 5-wire analog resistive | 5-wire analog resistive |
| Network (LAN) | | 2 x 10/100/1000BASE-T | 2 x 10/100/1000BASE-T | 2 x 10/100/1000BASE-T | 2 x 10/100/1000BASE-T |
| I/O Ports | | 2 x RS-232/422/485 1 x USB 2.0 4 x USB 3.2 (Gen 2) 1 x iDoor slot 1 x Displayport (Video output) 1 x Audio line out/ mic in | 2 x RS-232/422/485 1 x USB 2.0 4 x USB 3.2 (Gen 2) 1 x iDoor slot 1 x Displayport (Video output) 1 x Audio line out/ mic in | 2 x RS-232/422/485 1 x USB 2.0 4 x USB 3.2 (Gen 2) 1 x iDoor slot 1 x Displayport (Video output) 1 x Audio line out/ mic in | 2 x RS-232/422/485 1 x USB 2.0 4 x USB 3.2 (Gen 2) 1 x iDoor slot 1 x Displayport (Video output) 1 x Audio line out/ mic in |
| Expansion Slots | | 1 x Full-size mini PCIe 1 x SIM (M.2 B Key 4G/5G module) | 1 x Full-size mini PCIe 1 x SIM (M.2 B Key 4G/5G module) | 1 x Full-size mini PCIe 1 x SIM (M.2 B Key 4G/5G module) | 1 x Full-size mini PCIe 1 x SIM (M.2 B Key 4G/5G module) |
| DC Power Input (Voltage) | | 24 V _{DC} ± 20% | 24 V _{DC} ± 20% | 24 V _{DC} ± 20% | 24 V _{DC} ± 20% |
| Dimensions | | 595.9 x 374.1 x 70 mm (23.46 x 14.73 x 2.76 in) | 410.4 x 343.4 x 68 mm (16.16 x 13.52 x 2.68 in) | 383.2 x 307.3 x 66.5 mm (15.09 x 12.10 x 2.62 in) | 311.8 x 238 x 67 mm (12.28 x 9.37 x 2.64 in) |
| Weight | | 9.3 kg (20.5 lbs) | 6.1 kg (13.45 lbs) | 5.8 kg (12.79 lbs) | 4.1 kg (9.04 lbs) |
| Enclosure | | Die cast aluminum alloy | Die cast aluminum alloy | Die cast aluminum alloy | Die cast aluminum alloy |
| Mounting | | VESA Mount, Desktop, Wall or Panel Mount | VESA Mount, Desktop, Wall or Panel Mount | VESA Mount, Desktop, Wall or Panel Mount | VESA Mount, Desktop, Wall or Panel Mount |
| Operating Temperature | | -10 ~ 50°C (14 ~ 122°F) | -10 ~ 55°C (14 ~ 131°F) | -10 ~ 55°C (14 ~ 131°F) | -10 ~ 55°C (14 ~ 131°F) |
| Ingress Protection (Front Panel) | | IP66 | IP66 | IP66 | IP66 |
| Certification | | BSMI, CCC, CE, FCC Class A, CB/UL | BSMI, CCC, CE, FCC Class A, CB/UL | BSMI, CCC, CE, FCC Class A, CB/UL | BSMI, CCC, CE, FCC Class A, CB/UL |
| Operating System | | Windows 10, Android, Linux | Windows 10, Android, Linux | Windows 10, Android, Linux | Windows 10, Android, Linux |

✓: supported, -: not supported, Δ: optional

Industrial Thin-Client Terminals

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| Model | TPC-324W EHL | TPC-317 EHL | TPC-315 EHL | TPC-312 EHL | TPC-1551WP | TPC-1051WP | TPC-651T | |
|-----------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------|-----------------------------------------------------------------|-----------------------------------------------------------------|
| CPU | Intel® Atom™ 6425E 2.00 GHz/ Celeron® J6412 2.00 GHz processor | Intel® Atom™ 6425E 2.00 GHz/ Celeron® J6412 2.00 GHz processor | Intel® Atom™ 6425E 2.00 GHz/ Celeron® J6412 2.00 GHz processor | Intel® Atom™ 6425E 2.00 GHz/ Celeron® J6412 2.00 GHz processor | Intel® Atom™ E3827 1.75 GHz Processor | Intel® Atom™ E3827 1.75 GHz Processor | Intel® Atom™ E3827 1.75 GHz Processor | |
| Memory | 1 x SODIMM with 4 GB DDR4 SDRAM (up to 32 GB) | 1 x SODIMM with 4 GB DDR4 SDRAM (up to 32 GB) | 1 x SODIMM with 4 GB DDR4 SDRAM (up to 32 GB) | 1 x SODIMM with 4 GB DDR4 SDRAM (up to 32 GB) | 4 GB (Optional 8 GB) DDR3L 1600 MHz SO-DIMM SDRAM | 4 GB (Optional 8 GB) DDR3L 1600 MHz SO-DIMM SDRAM | 4 GB (Optional 8 GB) DDR3L 1600 MHz SO-DIMM SDRAM | |
| Display | Display Type | FHD TFT LED LCD | SXGA TFT LED LCD | XGA TFT LED LCD | XGA TFT LED LCD | WXGA TFT LED LCD | WXGA TFT LED LCD | |
| | Display Size | 23.8" (16:9) | 17" (4:3) | 15" (4:3) | 12.1" (4:3) | 15" (16:9) | 10.1" (16:10) | |
| | Max. Resolution | 1920 x 1080 | 1280 x 1024 | 1024 x 768 | 1024 x 768 | 1366 x 768 | 1280 x 800 | |
| | Max. Colors | 16.7M | 16.7M | 16.2M | 16.2M | 16.7M | 262K | |
| | Luminance (cd/m²) | 350 | 300 | 300 | 600 | 400 | 300 | |
| | VieWing Angle (H/V°) | 178/178 | 160/140 | 176/176 | 178/178 | 170/160 | 170/170 | |
| Backlight Life | 30,000 hrs | 50,000 hrs | 70,000 hrs | 50,000 hr | 50,000 hr | 25,000 hr | | |
| Touchscreen | PCAP | 5-wire analog resistive | 5-wire analog resistive | 5-wire analog resistive | PCAP | PCAP | 5-wire analog resistive | |
| Network (LAN) | 2 x Intel® I211; 10/100/1000 BASE-T | 2 x Intel® I211; 10/100/1000 BASE-T | 2 x Intel® I211; 10/100/1000 BASE-T | 2 x Intel® I211; 10/100/1000 BASE-T | 10/100/1000BASE-T x 2 | 10/100/1000BASE-T x 2 | 10/100/1000BASE-T x 2 | |
| I/O Ports | 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 Displayport (Video output) 1 x Audio line out/ mic in 1 x Remote Power Button | 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 Displayport (Video output) 1 x Audio line out/ mic in 1 x Remote Power Button | 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 Displayport (Video output) 1 x Audio line out/ mic in 1 x Remote Power Button | 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 Displayport (Video output) 1 x Audio line out/ mic in 1 x Remote Power Button | 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 Displayport (Video output) 1 x USB 3.0 1 x USB 2.0 | 1 x RS-232 1 x RS-232/422/485 1 x USB 3.0 1 x USB 2.0 | RS-232 x 1, RS-232/422/485 x 1 USB 3.0 x 1 USB 2.0 x 1 | RS-232 x 1, RS-232/422/485 x 1 USB 3.0 x 1 USB 2.0 x 1 |
| Expansion Slots | 1 x Full-size mini PCIe | 1 x Full-size mini PCIe | 1 x Full-size mini PCIe | 1 x Full-size mini PCIe | 1 x Full-size mini PCIe | 1 x Full-size mini PCIe | 1 x Full-size mini PCIe | |
| DC Power Input (Voltage) | 24 V _{DC} ± 20% | 24 V _{DC} ± 20% | 24 V _{DC} ± 20% | 24 V _{DC} ± 20% | 24 V _{DC} ± 20% | 24 V _{DC} ± 20% | 24 V _{DC} ± 20% | |
| Dimensions | 595.9 x 374.1 x 70 mm (23.46 x 14.73 x 2.76 in) | 410.4 x 343.4 x 68 mm (16.16 x 13.52 x 2.68 in) | 383.2 x 307.3 x 67 mm (15.09 x 12.10 x 2.64 in) | 311.8 x 238 x 67 mm (12.28 x 9.37 x 2.64 in) | 419.7 x 269 x 61.9 mm (16.52 x 10.59 x 2.44 in) | 283.1 x 202.3 x 61.4 mm (11.15" x 7.96" x 2.42) | 199 x 152 x 58.9 mm (7.83" x 5.98" x 2.32") | |
| Weight | 9.2 kg (20.28 lbs) | 6.1 kg (13.45 lbs) | 5.15 kg (11.35 lbs) | 4.2 kg (9.26 lbs) | 5 Kg (11.02 lbs) | 2.6 kg | 1.5 kg | |
| Enclosure | Die cast aluminum alloy | Die cast aluminum alloy | Die cast aluminum alloy | Die cast aluminum alloy | Front bezel: Die cast aluminum alloy | Front bezel: Die cast aluminum alloy | Front bezel: Die cast aluminum alloy | |
| Operating Temperature | -10 ~ 50°C (14 ~ 122°F) | -10 ~ 50°C (14 ~ 122°F) | -20 ~ 60°C (-4 ~ 140°F) | -20 ~ 60°C (-4 ~ 140°F) | 0 ~ 55°C (32 ~ 131°F) | -20 ~ 55°C (-4 ~ 131°F) | -20 ~ 60°C (-4 ~ 140°F) | |
| Ingress Protection (Front Panel) | IP66-rated front panel | IP66-rated front panel | IP66-rated front panel | IP66-rated front panel | IP66-rated front panel | IP66-rated front panel | IP66-rated front panel | |
| Certification | BSMI, CCC, CE, FCC Class A, UL | BSMI, CCC, CE, FCC Class A, UL | BSMI, CCC, CE, FCC Class A, UL | BSMI, CCC, CE, FCC Class A, UL | BSMI, CCC, CE, FCC Class A, UL | BSMI, CCC, CE, FCC Class A, UL | BSMI, CCC, CE, FCC Class A, UL | |
| Operating System | Windows 10 Enterprise LTSC, Advantech Linux, Android | Windows 10 Enterprise LTSC, Advantech Linux, Android | Windows 10 Enterprise LTSC, Advantech Linux, Android | Windows 10 Enterprise LTSC, Advantech Linux, Android | Microsoft® WES7 (32/64-bit), Windows 7 (32/64-bit), Windows 10 Enterprise LTSC | Windows 7, WES7, WEC7, Linux, Windows 10 Enterprise LTSC | Windows 7, WES7, WEC7, Linux, Windows 10 Enterprise LTSC | |

✓: supported, - : not supported, Δ : optional

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- 9 Utility and Energy Solutions
- 10 EtherCAT Solutions and Automation Controllers
- 11 Intelligent Motion Control Solutions
- 12 High Speed DAQ Solutions
- 13 Industrial Communication
- 14 Intelligent Edge DAQ Devices
- 15 Remote I/O, Wireless I/O & Sensors
- 16 Serial Communication

Domain-Focused HMI



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| Model | SPC-221 | IPPC-5211WS | SPC-515 | SPC-821 | SPC-815 | |
|--------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------|----------------------------|
| CPU | Intel® 6th. Core™ i7/ i5 / i3 Processor | Intel Celeron J1900 | Intel® 6th. Core™ i3 Processor | Intel® 6th. Core™ i7/ i5 / i3 Processor | Intel® 6th. Core™ i7/ i5 / i3 Processor | |
| Memory | 8 GB DDR3L SDRAM | 4 GB DDR3L SDRAM | 8 GB DDR3L SDRAM | 8 GB DDR3L SDRAM | 8 GB DDR3L SDRAM | |
| Display | Display Type | TFT LED LCD | TFT LED LCD | TFT LED LCD | TFT LED LCD | |
| | Display Size | 21.5" | 21.5" | 15" | 21.5" | |
| | Max. Resolution | 1920 x 1080 | 1920 x 1080 | 1024 x 768 | 1920 x 1080 | 1366 x 768 |
| | Max. Colors | 16.7M | 16.7M | 16.7M | 16.7M | 16.7M |
| | Luminance (cd/m ²) | 300 | 300 | 300 | 250 | 400 |
| | VieWING Angle (H/V°) | 178/178 | 178/178 | 176 / 176 | 178/178 | 170/130 |
| | Backlight MTBF | 50,000 hr | 50,000 hr | 70,000 hr | 50,000 hr | 50,000 hr |
| | Touchscreen | Projected capacitive touch | Projected capacitive touch | Projected capacitive touch | Projected capacitive touch | Projected capacitive touch |
| Network (LAN) | 10/100/1000BASE-T x 2 | 10/100/1000BASE-T x 2 | 10/100/1000BASE-T x 2 | 10/100/1000BASE-T x 2 | 10/100/1000BASE-T x 2 | |
| I/O Ports | RS-232 x1 (connection:M12 A-coded, 8-pin male) USB 2.0 x1 (connection:M12 A-coded, 8-pin female) 24 V _{DC} power input (connection:M12 A-coded, 5-pin male) | RS-232/422/485 x 1 RS-232 x 1 USB 3.0 x 1 USB 2.0 x 1 | RS-232 x1 (connection:M12 A-coded, 8-pin male) USB 2.0 x2 (connection:M12 A-coded, 8-pin female) 24 V _{DC} power input (connection:M12 A-coded, 5-pin male) | USB 3.0 x 2 USB 2.0 x1 (Front) | USB 3.0 x 2 USB 2.0 x1 (Front) | |
| HDD (Optional) | 2.5" SATA HDD | 2.5" SATA HDD | 2.5" SATA HDD / Default 64G SSD | 2.5" SATA HDD | 2.5" SATA HDD | |
| Expansion Slots | Full-size mini PCIe x1 | Full-size mini PCIe x1 | Full-size mini PCIe x1 | Full-size mini PCIe x1 | Full-size mini PCIe x1 | |
| Ingress Protection | All-around IP66 | All-around IP69k | All-around IP69k | All-around IP65 | All-around IP65 | |
| DC Power Input (Voltage) | 24 V _{DC} ± 20% | 24 V _{DC} ± 20% | 24 V _{DC} ± 20% | 24 V _{DC} ± 20% | 24 V _{DC} ± 20% | |
| Enclosure | Front bezel: Die cast aluminum alloy Back housing: Die cast aluminum alloy | Front bezel: Stainless steel Back housing: Aluminum/stainless steel | Front bezel: 304L Stainless Steel Back housing: 304L Stainless Steel | Front bezel: Die cast aluminum alloy Back housing: Die cast aluminum alloy | Front bezel: Die cast aluminum alloy Back housing: Die cast aluminum alloy | |
| Mounting | VESA | VESA and flange adapter for arm and foot mount | VESA | Pole Mount/VESA (optional) | Pole Mount/VESA (optional) | |
| Weight | 9 kg | 16 kg | 8.5 kg | 10.6 kg | 8.2 kg | |
| Operating Temperature | 0 ~ 55°C (32 ~ 131°F) | 0 ~ 50°C (32 ~ 122°F) | 0 ~ 50°C (32 ~ 122°F) | 0 ~ 55°C (32 ~ 131°F) | 0 ~ 55°C (32 ~ 131°F) | |
| Dimensions | 558.4 x 349.8 x 65 mm | 555 x 346.5 x 81 mm | 389 x 313 x 56 mm | 546.69 x 420.34 x 67 mm (w/o flange for arm mount) 546.69 x 420.34 x 160 mm (w/ flange for arm mount) | 402.19 x 333.19 x 67 mm (w/o flange for arm mount) 402.19 x 333.19 x 160 mm (w/ flange for arm mount) | |
| Certification | BSMI, CCC, CE, FCC Class A, UL | BSMI, CCC, CE, FCC Class A, UL | BSMI, CCC, CE, FCC Class A, UL | BSMI, CCC, CE, FCC Class A, UL | BSMI, CCC, CE, FCC Class A, UL | |
| Operating System | Windows 10 Enterprise LTSB | Windows 7/8, WES7, WEC7, Linux, Windows 10 Enterprise LTSB | Windows 10 Enterprise LTSB, Linux | Windows 10 Enterprise LTSB | Windows 10 Enterprise LTSB | |

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



- 1 IoT Software Solutions
- 2 Intelligent Systems
- 3 SKY Servers
- 4 AI & Advanced Computer Vision
- 5 Intelligent HMI and Monitors
- 6 Automation Computers
- 7 Intelligent Transportation Platforms
- 8 Mission Critical CompactPCI Platforms
- 9 Utility and Energy Solutions
- 10 EtherCAT Solutions and Automation Controllers
- 11 Intelligent Motion Control Solutions
- 12 High Speed DAQ Solutions
- 13 Industrial Communication
- 14 Intelligent Edge DAQ Devices
- 15 Remote I/O, Wireless I/O & Sensors
- 16 Serial Communication

| Model | TPC-125H | TPC-155H | TPC-318WH | FPM-8151H | FPM-817S | FPM-815S | |
|--------------------------|----------------------------------------------------------------------------------|----------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------|------------------------------------------------------------|------------------------------------------------------------|-----------------------------------------|
| CPU | Intel® Atom™ E3845 1.91GHz Quad-core | Intel® Atom™ E3845 1.91GHz Quad-core | Intel® Core™ i5-8365UE Processor | - | - | - | |
| Memory | 1 x SODIMM with 4 GB DDR3L SDRAM (up to 8 GB) | 1 x SODIMM with 4 GB DDR3L SDRAM (up to 8 GB) | 8 GB DDR4 SO-DIMM (up to 64GB) | - | - | - | |
| Display | Display Type | XGA TFT LED LCD | XGA TFT LED LCD | Full-HD LCD | TFT LED LCD | SXGA TFT LCD | XGA TFT LCD |
| | Display Size | 12" | 15" | 18.5" | 15" | 17" | 15" |
| | Max. Resolution | 1024 x 768 | 1024 x 768 | 1366 x 768 | 1024 x 768 | 1280 x 1024 | 1024 x 768 |
| | Max. Colors | 16.2M | 16.2M | 16.7M | 16.2M | 16.7M | 16.7M |
| | Luminance (cd/m ²) | 600 | 300 | 300 | 350 | 350 | 500 |
| | VieWing Angle (H/V°) | 178/178 | 176/176 | 160/140 | 160/140 | 160/140 | 176/176 |
| | Backlight Life | 50,000 hr | 50,000 hr | 50,000 hr | 50,000 hr | 50,000 hr | 70,000 hr |
| | Touchscreen | 5-wire analog resistive | 5-wire analog resistive | 5-wire analog resistive | 5-wire resistive with enhanced ITO film | 5-wire resistive with enhanced ITO film | 5-wire resistive with enhanced ITO film |
| Network (LAN) | 2 x Intel® I210; 10/100/1000 BASE-T | 2 x Intel® I210; 10/100/1000 BASE-T | 2 x Intel® I210; 10/100/1000 BASE-T | - | - | - | |
| I/O Ports | 1 x RS-232 1 x RS-232/422/485 1 x USB 3.0 3 x USB 2.0 1 x iDoor slot | 1 x RS-232 1 x RS-232/422/485 1 x USB 3.0 3 x USB 2.0 1 x iDoor slot | 2 x RS-232/422/485 1 x USB 2.0 4 x USB 3.2(Gen 2) 1 x iDoor slot 1 x DP(Video out put) 1 x Audio line out/ mic in | 1 x VGA, 1 x DVI, 1 x RS-232, 1 x USB | 1 x VGA, 1 x DP, 1 x USB | 1 x VGA, 1 x DP, 1 x USB | |
| Expansion Slots | 1 x Full-size mPCIe, 1 x iDoor slot | 1 x Full-size mPCIe, 1 x iDoor slot | 1 x Full-size mPCIe 1 x SIM (M.2 B Key 4G/5G module) | - | - | - | |
| Ingress Protection | IP66-rated front panel | IP66-rated front panel | IP66-rated front panel | IP66-rated front panel | IP66-rated front panel | IP66-rated front panel | |
| DC Power Input (Voltage) | 24 V _{DC} ± 20% | 24 V _{DC} ± 20% | 24 V _{DC} ± 20% | 24 V _{DC} ± 20% 12 V _{DC} / 4.75A | 24 V _{DC} | 24 V _{DC} | |
| Enclosure | Front bezel: Die-cast aluminum alloy Back housing: SECC | Front bezel: Die-cast aluminum alloy Back housing: SECC | Front bezel: Die-cast aluminum alloy Back housing: SECC | Front panel: 316L Stainless steel Rear cover: Stainless steel with ground isolation protection | 304 stainless steel bezel, SPCC with anti-rust coating | 304 stainless steel bezel, SPCC with anti-rust coating | |
| Mounting | Panel | Desktop/Wall/Panel | VESA mount, Panel mount | Panel, VESA | Stand, Wall, VESA, Panel | Stand, Wall, VESA, Panel | |
| Weight | 3.12 kg (6.88 lbs) | 4.4 kg (9.7 lbs) | | 8.5 kg (18.74 lbs) | 6.2 kg (13.67 lb) | 5.4 kg (11.9 lb) | |
| 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) | -20 ~ 60°C (-4 ~ 140°F) | -20 ~ 60°C (-4 ~ 140°F) | |
| Dimensions | 311.8 x 238 x 55.4 mm (12.28 x 9.37 x 2.18 in) | 383.2 x 307.3 x 55.9 mm | 488 x 309 x 56 mm | 422 x 338 x 68 mm (16.61 x 13.31 x 2.68 in) | 432.5 x 365.5 x 59.3 (17.03 x 14.39 x 2.33 in) | 405.3 x 329.4 x 59.3 (15.96 x 12.97 x 2.33 in) | |
| Certification | BSMI, CCC, CE, FCC Class A, UL, UL C1D2 | BSMI, CCC, CE, FCC Class A, UL, UL C1D2 | BSMI, CCC, CE, FCC Class A, UL, UL C1D2 | CE, FCC Class A, UL C1D2, CB, BSMI, CCC | CE, FCC Class A, BSMI, CCC, UL | CE, FCC Class A, BSMI, CCC, UL | |
| Operating System | Microsoft® WES7 (32/64-bit), Windows 7 (32/64-bit), Windows 10 Enterprise LTSB | Microsoft® WES7 (32/64-bit), Windows 7 (32/64-bit), Windows 10 Enterprise LTSB | Microsoft® WES7 (32/64-bit), Windows 7 (32/64-bit), Windows 10 Enterprise LTSB | Windows 7/8, WES7, WEC7, Linux, Windows 10 Enterprise LTSB | Windows 7/8, WES7, WEC7, Linux, Windows 10 Enterprise LTSB | Windows 7/8, WES7, WEC7, Linux, Windows 10 Enterprise LTSB | |

✓: supported, -: not supported, Δ: optional

Industrial Web Panels



| Model | | TPC-71W | | | | TPC-61T | TPC-31T |
|-------------------------------|---------------------|----------------------------------------------------------------------|----------------------------------------------------------------------|----------------------------------------------------------------------|----------------------------------------------------------------------|--------------------------------------------------|----------------------------------------------------|
| Ordering Information | | TPC-71W-N10PA | TPC-71W-N21PA | TPC-71W-N21WA | TPC-71W-N21AA | TPC-61T-E3AE | TPC-31T-E3AE |
| CPU | | NXP® ARM® Cortex™-A9 i.MX6 dual-core processor | NXP® ARM® Cortex™-A9 i.MX6 dual-core processor | NXP® ARM® Cortex™-A9 i.MX6 dual-core processor | NXP® ARM® Cortex™-A9 i.MX6 dual-core processor | TI Cortex-A8 600MHz | TI Cortex-A8 600MHz |
| Backup Memory | | 1Mbit | 1Mbit | 1Mbit | 1Mbit | 1Mbit | 1Mbit |
| Working Memory | | DDR3L 1 GB on board | DDR3L 2 GB on board | DDR3L 2 GB on board | DDR3L 2 GB on board | DDR2 256MB on board | DDR2 256MB on board |
| Storage | | 8 GB eMMC on board | 8 GB eMMC on board | 8 GB eMMC on board | 8 GB eMMC on board | 512MB on board micro SD card 1 x SD Card slot | 512MB on board micro SD card 1 x SD Card slot |
| Operating System | | Linux Ubuntu 16.04 | Linux Ubuntu 16.04 | Windows Embedded Compact 7 | Android 6.0 | Microsoft® Windows CE 6.0 | Microsoft® Windows CE 6.0 |
| Display | Type | WSVGA (16:9) TFT LCD | WSVGA (16:9) TFT LCD | WSVGA (16:9) TFT LCD | WSVGA (16:9) TFT LCD | QVGA TFT LED LCD | QVGA TFT LED LCD |
| | Size | 7" | 7" | 7" | 7" | 5.7" | 3.5" |
| | Max. Resolution | 1024 x 600 | 1024 x 600 | 1024 x 600 | 1024 x 600 | 320 x 240 | 320 x 240 |
| | Luminance (cd/m²) | 400 | 400 | 400 | 400 | 800 | 450 |
| | Backlight Life (hr) | 50,000 | 50,000 | 50,000 | 50,000 | 50,000 | 30,000 |
| Touchscreen | | PCAP | PCAP | PCAP | PCAP | 4-wire resistive | 4-wire resistive |
| Communication Interface | COM | COM1: RS-232/422/485/ CAN 2.0 B (DB9) | COM1: RS-232/422/485/ CAN 2.0 B (DB9) | COM1: RS-232/422/485/ CAN 2.0 B (DB9) | COM1: RS-232/422/485/ CAN 2.0 B (DB9) | COM1: RS-232 COM2: RS-232 COM3: RS-422/485 | COM1: RS-232/485, CAN |
| | LAN | 1 x RJ45 with 10/100/1000 Mbps Optional module to support PoE PD | 1 x RJ45 with 10/100/1000 Mbps Optional module to support PoE PD | 1 x RJ45 with 10/100/1000 Mbps Optional module to support PoE PD | 1 x RJ45 with 10/100/1000 Mbps Optional module to support PoE PD | 10/100Base-T x 1 | 10/100Base-T x 1 |
| I/Os | | 1 x USB 2.0 Type-B Client 2 x USB 2.0 Type-A Host 1 x Micro SD | 1 x USB 2.0 Type-B Client 2 x USB 2.0 Type-A Host 1 x Micro SD | 1 x USB 2.0 Type-B Client 2 x USB 2.0 Type-A Host 1 x Micro SD | 1 x USB 2.0 Type-B Client 2 x USB 2.0 Type-A Host 1 x Micro SD | 1 x USB2.0 (Host), 1 x USB2.0 (Client) | 1 x USB 2.0 (Host) |
| Power Supply Voltage | | 24 V _{DC} ± 10% | 24 V _{DC} ± 10% | 24 V _{DC} ± 10% | 24 V _{DC} ± 10% | 18 ~ 32 V _{DC} | 18 ~ 32 V _{DC} |
| Power Consumption | | 9W Typical | 9W Typical | 9W Typical | 9W Typical | 8 W Typical | 8 W Typical |
| Dimensions W x H x D (mm) | | 205 x 146.92 x 46 mm (8.07 x 5.78 x 1.81 in) | 205 x 146.92 x 46 mm (8.07 x 5.78 x 1.81 in) | 205 x 146.92 x 46 mm (8.07 x 5.78 x 1.81 in) | 205 x 146.92 x 46 mm (8.07 x 5.78 x 1.81 in) | 195 x 148 x 44.4 mm (7.68 x 5.83 x 1.75 in) | 120.79 x 85.5 x 26.5 mm (4.76 x 3.37 x 1.04 in) |
| Cut-out Dimensions W x H (mm) | | 192 x 138.5 mm (7.56 x 5.45 in) | 192 x 138.5 mm (7.56 x 5.45 in) | 192 x 138.5 mm (7.56 x 5.45 in) | 192 x 138.5 mm (7.56 x 5.45 in) | 189 x 142 mm (7.56 x 5.68 in) | 115 x 79.5 mm (4.6 x 3.18 in) |
| Enclosure | | Die-cast aluminum alloy front bezel PC + ABS rear housing | Die-cast aluminum alloy front bezel PC + ABS rear housing | Die-cast aluminum alloy front bezel PC + ABS rear housing | Die-cast aluminum alloy front bezel PC + ABS rear housing | PC + ABS Resin | PC + ABS Resin |
| Net Weight | | 1.2 kg (2.65 lbs) | 1.2 kg (2.65 lbs) | 1.2 kg (2.65 lbs) | 1.2 kg (2.65 lbs) | 0.8 kg (1.76 lb) | 0.25 kg (0.55 lb) |
| Mounting | | VESA, Panel | VESA, Panel | VESA, Panel | VESA, Panel | Panel | Panel |
| 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) | 0 ~ 50°C (32 ~ 122°F) | 0 ~ 50°C (32 ~ 122°F) |
| Storage Temperature | | -30 ~ 70°C (-22 ~ 158°F) | -30 ~ 70°C (-22 ~ 158°F) | -30 ~ 70°C (-22 ~ 158°F) | -30 ~ 70°C (-22 ~ 158°F) | -20 ~ 60°C (-4 ~ 140°F) | -20 ~ 60°C (-4 ~ 140°F) |
| Humidity | | 10% ~ 90% RH @40°C, non-condensing | 10% ~ 90% RH @40°C, non-condensing | 10% ~ 90% RH @40°C, non-condensing | 10% ~ 90% RH @40°C, non-condensing | 10 ~ 95% RH @ 40°C, non-condensing | 10 ~ 95% RH @ 40°C, non-condensing |
| Ingress Protection | | IP66-rated front panel | IP66-rated front panel | IP66-rated front panel | IP66-rated front panel | IP65-rated front panel | IP65-rated front panel |
| Certification | | CE, FCC, CB, UL, BSMI, CCC | CE, FCC, CB, UL, BSMI, CCC | CE, FCC, CB, UL, BSMI, CCC | CE, FCC, CB, UL, BSMI, CCC | CE, BSMI, CCC, UL, FCC Class A | CE, BSMI, CCC, UL, FCC Class A |

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

NEW



NEW



NEW



NEW



NEW



| Model | TPC-107W | TPC-110W | TPC-115W | PPC-112W | PPC-115W | |
|-------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|
| CPU | i.MX8M Mini Quad NXP i.MX 8M Mini up to 4 Arm Cortex A53 cores, up to 1.6GHz | i.MX8M Mini Quad NXP i.MX 8M Mini up to 4 Arm Cortex A53 cores, up to 1.6GHz | i.MX8M Mini Quad NXP i.MX 8M Mini up to 4 Arm Cortex A53 cores, up to 1.6GHz | Rockchip ARM® RK3399 Dual-core Cortex-A72 and Quad-core Cortex-A53 | Rockchip ARM® RK3399 Dual-core Cortex-A72 and Quad-core Cortex-A53 | |
| Memory | 2GB LPDDR4-1866 MHz | 2GB LPDDR4-1866 MHz | 2GB LPDDR4-1866 MHz | On-board 2GB LPDDR4-1333 | On-board 2GB LPDDR4-1333 | |
| Storage | 16GB eMMC on board | 16GB eMMC on board | 16GB eMMC on board | 16GB eMMC NAND Flash; 1x Micro SD slot (Max.128G) | 16GB eMMC NAND Flash; 1x Micro SD slot | |
| Operating System | Yocto | Yocto | Yocto | Android 10 (default), Linux | Android 10 (default), Linux | |
| Display | Type | WSGA TFT LCD | WXGA TFT LCD | FHD TFT LCD | TFT LCD | TFT LCD |
| | Size | 7" | 10.1" | 15.6" | 11.6" | 15.6" |
| | Max. Resolution | 1024 x 600 | 1280 x 800 | 1920 x 1080 | 1366 x 768 | 1366 x 768 |
| | Luminance (cd/m ²) | 425 | 500 | 450 | 250 | 220 |
| | Backlight Life (hr) | 50,000 | 50,000 | 50,000 | 15,000 | 15,000 |
| Touchscreen | 10 Points | 10 Points | 10 Points | Projected Capacitive Multi-touch | Projected Capacitive Multi-touch | |
| LAN | 2 x RJ45 with 10/100/1000 Mbps Optional module to support PoE PD (LAN A) | 2 x RJ45 with 10/100/1000 Mbps Optional module to support PoE PD (LAN A) | 2 x RJ45 with 10/100/1000 Mbps | 1 x 10/100/1000 Mbps | 1 x 10/100/1000 Mbps | |
| I/O Ports | 1 x RS-232/422/485 (COM 1) 1 x selectable mode for RS-285 and CAN 2.0 B 1 x USB 2.0 Type-B Client (Internal) 2 x USB 2.0 Type-A Host 1 x Micro SD (Internal) | 1 x RS-232/422/485 (COM 1) 1 x selectable mode for RS-285 and CAN 2.0 B 1 x USB 2.0 Type-B Client (Internal) 2 x USB 2.0 Type-A Host 1 x Micro SD (Internal) | 1 x RS-232/422/485 (COM 1) 1 x selectable mode for RS-285 and CAN 2.0 B 1 x USB 2.0 Type-B Client (Internal) 2 x USB 2.0 Type-A Host 1 x Micro SD (Internal) | 1 x USB 2.0; 1 x USB 3.0; 2 x USB 2.0 (internal by request) 1x micro USB OTG 1 x RS 232; 1 x RS232 (internal by request) 1 x DC in 5 x GPIO (by request) (3.3V TTL level) | 1 x USB 2.0; 1 x USB 3.0; 2 x USB 2.0 (internal by request) 1x micro USB OTG 1 x RS 232; 1 x RS232 (internal by request) 1 x DC in 5 x GPIO (by request) (3.3V TTL level) | |
| Expansion | M.2 Key-E 2230 (Wi-fi/BT) | M.2 Key-E 2230 (Wi-fi/BT) | M.2 Key-E 2230 (Wi-fi/BT) | 1 x M.2 2230 Key E slot for wireless card 1 x Camera (optional) | 1 x M.2 2230 Key E slot for wireless card | |
| Power Supply Voltage | 24V _{DC} ± 20% | 24V _{DC} ± 20% | 24V _{DC} ± 20% | 12V _{DC} , 36W adapter | 12V _{DC} , 36W adapter | |
| Dimensions 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 | 291.7 x 186.6 x 49.2 mm (11.48 x 7.35 x 1.94 in) | 402.0 x 260.0 x 53.2 mm (15.83 x 10.24 x 2.09 in) | |
| Cut-out Dimensions W x H (mm) | 192.4 x 139.0 mm | 274.1 x 193.3 mm | 411.9 x 261.2 mm | 298.00 x 193.00 mm (11.73 x 7.60 in) | 392.00 x 250.00 mm(15.43 x 9.84 in) | |
| Mounting | VESA and Panel Mounting | VESA and Panel Mounting | VESA and Panel Mounting | VESA 100,Panel mounting (optional) | VESA 100,Panel mounting (optional) | |
| Operating Temperature | -20 ~ 60°C (-4 ~ 140°F) | -20 ~ 60°C (-4 ~ 140°F) | -20 ~ 60°C (-4 ~ 140°F) | 0 ~ 50°C (32 ~ 122°F) | 0 ~ 50°C (32 ~ 122°F) | |
| Storage Temperature | -30 ~ 70°C (-22 ~ 158°F) | -30 ~ 70°C (-22 ~ 158°F) | -30 ~ 70°C (-22 ~ 158°F) | -20 ~ 60°C (-4 ~ 140°F) | -20 ~ 60°C (-4 ~ 140°F) | |
| Humidity | 10 ~ 90% RH @ 40 °C, non-condensing | 10 ~ 90% RH @ 40 °C, non-condensing | 10 ~ 90% RH @ 40 °C, non-condensing | 10 ~ 95% RH (non-condensing) | 10 ~ 95% RH (non-condensing) | |
| Ingress Protection | IP66-rated front panel | IP66-rated front panel | IP66-rated front panel | IP65-rated front panel | IP65-rated front panel | |
| Certification | EMC: CE, FCC Class A, BSMI Safety: CB, UL, CCC | EMC: CE, FCC Class A, BSMI Safety: CB, UL, CCC | EMC: CE, FCC Class A, BSMI Safety: CB, UL, CCC | CE, FCC Class B, BSMI, CB, UL, CCC, UKCA | CE, FCC Class B, BSMI, CB, UL, CCC, UKCA | |

✓ : supported, - : not supported, Δ : optional

- 1 IoT Software Solutions
- 2 Intelligent Systems
- 3 SKY Servers
- 4 AI & Advanced Computer Vision
- 5 Intelligent HMI and Monitors
- 6 Automation Computers
- 7 Intelligent Transportation Platforms
- 8 Mission Critical CompactPCI Platforms
- 9 Utility and Energy Solutions
- 10 EtherCAT Solutions and Automation Controllers
- 11 Intelligent Motion Control Solutions
- 12 High Speed DAQ Solutions
- 13 Industrial Communication
- 14 Intelligent Edge DAQ Devices
- 15 Remote I/O, Wireless I/O & Sensors
- 16 Serial Communication

General Panel PCs

NEW



NEW



NEW



| Model | PPC-306/310/312/315 EHL | | | | PPC-315W/318W/321W/324W EHL | | | | PPC-315W/318W/321W/324W TGL | | | | PPC-3100/3120 | | |
|-----------------------|---------------------------------------------------------------------------------------------------------|--|------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------|---------------------------------------------------------------------|---------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------|------------------------------------------------------------|------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------|---------------------------------------------------------------------|
| CPU | Intel® Celeron® N6210 1.2 GHz Processor (Dual Core) | | Intel® Celeron® J6412 2.0 GHz Processor (Quad Core) | | Intel® Celeron® J6412 2.0 GHz Processor (Quad Core) | | | | Intel® 11th Gen Core i/Celeron processor | | | | Intel® Atom™ E3940 1.6GHz Processor (Quad Core) | | |
| Memory | 1 x SO-DIMM DDR4 3200 MHz (max. 32GB) | | 1 x SO-DIMM DDR4 3200 MHz (max. 32GB) | | 1 x SO-DIMM DDR4 3200 MHz (max. 32GB) | | | | 2x SO-DIMM DDR4 3200 MHz(max 32GB x 2) | | | | 1 x SO-DIMM DDR3L 1600/1866 MHz(max. 8 GB) | | |
| Display Size | 6.5" / 7" | | 10.4" | 12" | 15" | 15.6" | 18.5" | 21.5" | 23.8" | 15.6" | 18.5" | 21.5" | 23.8" | 10.4" | 12.1" |
| Screen Ratio | 4:3 | | 4:3 | 4:3 | 16:9 | 16:9 | 16:9 | 16:9 | 16:9 | 16:9 | 16:9 | 16:9 | 16:9 | 4:3 | 4:3 |
| Max. Resolution | 640 x 480 / 1024 x 600 | | 800 x 600 / 1024 x 768 | 1024 x 768 | 1024 x 768 | 1366 x 768 | 1366 x 768 | 1920 x 1080 | 1920 x 1080 | 1920 x 1080 | 1366 x 768 | 1920 x 1080 | 1920 x 1080 | 800 x 600 | 1024 x 768 |
| Luminance (cd/m²) | 800 / 425 | | 400/350 | 500 | 300 | 400 | 300 | 300 | 350 | 450 | 450 | 250 | 350 | 400 | 600 |
| Viewing Angle (H/V°) | 160,140 / 170, 170 | | 160,140 / 176,176 | 160,140 | 176,176 | 170,160 | 170,160 | 178,178 | 178,178 | 170,170 | 170,160 | 178,178 | 178,178 | 160, 140 | 178, 178 |
| Backlight MTBF | 50,000 hr | | 30,000 hr | 30,000 hr | 70,000 hr | 50,000 hr | 50,000 hr | 50,000 hr | 50,000 hr | 50,000 hr | 50,000 hr | 50,000 hr | 50,000 hr | 30,000 hr | 50,000 hr |
| Touchscreen | Projected capacitive multi-touch/5-wire resistive | | | | Projected capacitive multi-touch/5-wire resistive | | | | Projected capacitive multi-touch | | | | 5-wire resistive | | |
| Network (LAN) | 2 x GbE (Intel I225LM, Intel I219LM) | | 2 x GbE (Intel I225LM, Intel I219LM) | | 2 x GbE (Intel I225LM, Intel I219LM) | | | | 2 x GbE (Intel I225LM, Intel I219LM) | | | | 2 x GbE (Intel I210-IT) | | |
| IO Ports | 2 x Serial ports (1 x RS-232 and 1 x RS-232/422/485); 2 x USB 2.0, 1 x USB 3.0, 1 x USB 3.0; 1 x TPM2.0 | | 2 x Serial ports (1 x RS-232 and 1 x RS-232/422/485); 2 x USB 2.0, 2 x USB 3.0, 2 x USB 2.0 internal; 1 x HDMI; 1 x Type C (USB3.1 only); 1 x TPM2.0 | | 2 x Serial ports (1 x RS-232 and 1 x RS-232/422/485); 2 x USB 2.0, 2 x USB 3.0, 2 x USB 2.0 internal; 1 x HDMI; 1 x Type C (USB3.1 only); 1 x TPM2.0 | | | | 1 x RS-232, 1 x RS-232/422/485 (Adjustable through BIOS); 3 x USB 3.2, 1 x USB 2.0, 2 x USB 2.0 (internal); 1 x Type C USB3 only; 1 x HDMI1.4; 1 x TPM2.0; 1 x Line out | | | | 5 x serial ports: 4 x RS-232, 1 x isolated RS-422/485 (adjustable via BIOS); 4 x USB 3.0; 1 x DB15 VGA, 1 x HDMI; 1 x GPIO (8 channels, TTL level, internal); 1 x line out, 1 x mic in | | |
| Storage | 1 x 2.5" SATA Bay; 1 x M.2 2280 bay (for storage only) | | 1 x 2.5" SATA Bay; 1 x M.2 2280 bay (for storage only) | | 1 x 2.5" SATA Bay; 1 x M.2 2280 bay (for storage only) | | | | 1 x 2.5" SATA Bay; 1 x M.2 2280 bay (for storage only) | | | | 1 x 2.5" SATA bay; 1 x mSATA bay | | |
| Expansion | 1 x M.2 2230 E-key for wireless card | | 1 x M.2 2230 E-key for wireless card | | 1 x M.2 2230 E-key for wireless card | | | | 1 x M.2 2230 E-key for wireless card | | | | 1 x Full-size mini PCIe; Optional: 1 x PCIe x1 or 1 x PCI | | |
| Power Input (Voltage) | 12 ~ 30 Vdc | | 12 ~ 30 Vdc | 12 ~ 30 Vdc | 12 ~ 30 Vdc | 12 ~ 30 Vdc | 12 ~ 30 Vdc | 12 ~ 30 Vdc | 12 ~ 30 Vdc | 12 ~ 30 Vdc | 12 ~ 30 Vdc | 12 ~ 30 Vdc | 12 ~ 30 Vdc | 9 ~ 32 Vdc | 9 ~ 32 Vdc |
| Enclosure | Aluminum alloy | | Aluminum alloy | Aluminum alloy | Aluminum alloy | Aluminum alloy | Aluminum alloy | Aluminum alloy | Aluminum alloy | Aluminum alloy | Aluminum alloy | Aluminum alloy | Aluminum alloy | Front: Aluminum alloy; Back: Plastic | Front: Aluminum alloy; Back: Plastic |
| Ingress Protection | Front panel: IP65 | | Front panel: IP65 | Front panel: IP65 | Front panel: IP65 | Front panel: IP65 | Front panel: IP65 | Front panel: IP65 | Front panel: IP65 | Front panel: IP65 | Front panel: IP65 | Front panel: IP65 | Front panel: IP65 | Front panel: IP65 | Front panel: IP65 |
| Mounting | Panel, VESA 75, wall, stand, ARM | | Panel, VESA 75, wall, stand, ARM | Panel, VESA 75, wall, stand, ARM | Panel, VESA 75, wall, stand, ARM | Panel, VESA 75, wall, stand, ARM | Panel, VESA 75, wall, stand, ARM | Panel, VESA 75, wall, stand, ARM | Panel, VESA 75, wall, stand, ARM | Panel, VESA 100, wall, stand, ARM | Panel, VESA 100, wall, stand, ARM | Panel, VESA 100, wall, stand, ARM | Panel, VESA 100, wall, stand, ARM | Panel, VESA 100, wall, stand, ARM | Panel, VESA 100, wall, stand, ARM |
| Operating Temperature | 0 ~ 50°C (32 ~ 122°F) | | 0 ~ 50°C (32 ~ 122°F) | 0 ~ 50°C (32 ~ 122°F) | 0 ~ 50°C (32 ~ 122°F) | 0 ~ 50°C (32 ~ 122°F) | 0 ~ 50°C (32 ~ 122°F) | 0 ~ 50°C (32 ~ 122°F) | 0 ~ 50°C (32 ~ 122°F) | 0 ~ 50°C (32 ~ 122°F) | 0 ~ 50°C (32 ~ 122°F) | 0 ~ 50°C (32 ~ 122°F) | 0 ~ 50°C (32 ~ 122°F) | 0 ~ 50°C (32 ~ 122°F) | 0 ~ 50°C (32 ~ 122°F) |
| Storage 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) | -20 ~ 60°C (-4 ~ 140°F) | -20 ~ 60°C (-4 ~ 140°F) | -20 ~ 60°C (-4 ~ 140°F) | -20 ~ 60°C (-4 ~ 140°F) | -20 ~ 60°C (-4 ~ 140°F) | -20 ~ 60°C (-4 ~ 140°F) | -20 ~ 60°C (-4 ~ 140°F) | -20 ~ 60°C (-4 ~ 140°F) | -40 ~ 60°C (-40 ~ 140°F) | -40 ~ 60°C (-40 ~ 140°F) |
| Dimensions | 197.6 x 150.6 x 41 mm (7.8" x 5.9" x 1.6") | | 272 x 217 x 50 mm (10.7" x 8.5" x 1.97") | 317 x 246 x 52.7 mm (12.5" x 9.7" x 2.07") | 392 x 314 x 55mm (15.4" x 12.3" x 2.17") | 419.7 x 269 x 55 mm (16.52" x 10.59" x 2.17") | 488 x 309 x 55 mm (19.21" x 12.17" x 2.17") | 558.4 x 349.8 x 56.2 mm (22" x 13.8" x 2.2") | 595.9 x 374.1 x 58.4 mm (23.5" x 14.7" x 2.3") | 419.7 x 269.0 x 62.1 mm (16.5" x 10.6" x 2.4") | 488 x 309 x 61 mm (19.21" x 12.17" x 2.4") | 558.4 x 349.8 x 62.3 mm (22" x 13.8" x 2.45") | 595.9 x 374.1 x 61.5 mm (23.5" x 14.7" x 2.4") | 271.8 x 216.8 x 57.5 mm (10.7" x 8.53" x 2.26") | 317 x 217 x 60.5 mm (12.5" x 9.7" x 2.4") |
| Weight | 1.5 kg | | 3.3kg | 3.69 kg | 4kg | 5.4kg | 7kg | 7.5kg | 8kg | 4.8 kg | 7.6 kg | 8.1kg | 8.7kg | 2.8 kg | 3.4 kg |
| Certification | BSMI, CCC, CB, UL, UKCA, CE, FCC Class B | | BSMI, CCC, CB, UL, UKCA, CE, FCC Class B | BSMI, CCC, CB, UL, UKCA, CE, FCC Class B | BSMI, CCC, CB, UL, UKCA, CE, FCC Class B | BSMI, CCC, CB, UL, UKCA, CE, FCC Class B | BSMI, CCC, CB, UL, UKCA, CE, FCC Class B | BSMI, CCC, CB, UL, UKCA, CE, FCC Class B | BSMI, CCC, CB, UL, UKCA, CE, FCC Class B | BSMI, CCC, CB, UL, UKCA, CE, FCC Class B | BSMI, CCC, CB, UL, UKCA, CE, FCC Class B | BSMI, CCC, CB, UL, UKCA, CE, FCC Class B | BSMI, CCC, CB, UL, UKCA, CE, FCC Class B | BSMI, CCC, CB, UL, UKCA, CE, FCC Class B | BSMI, CCC, CB, UL, UKCA, CE, FCC Class B |
| Operating System | Microsoft® Windows 10 (64 bit), Windows 10 IOT LTSC, Linux, Android | | Microsoft® Windows 10 (64 bit), Windows 10 IOT LTSC, Linux, Android | Microsoft® Windows 10 (64 bit), Windows 10 IOT LTSC, Linux, Android | Microsoft® Windows 10 (64 bit), Windows 10 IOT LTSC, Linux, Android | Microsoft® Windows 10 (64 bit), Windows 10 IOT LTSC, Linux, Android | Microsoft® Windows 10 (64 bit), Windows 10 IOT LTSC, Linux, Android | Microsoft® Windows 10 (64 bit), Windows 10 IOT LTSC, Linux, Android | Microsoft® Windows 10 (64 bit), Windows 10 IOT LTSC, Linux, Android | Microsoft® Windows 10 (64-bit), Windows 10 IOT LTSC, Linux | Microsoft® Windows 10 (64-bit), Windows 10 IOT LTSC, Linux | Microsoft® Windows 10 (64-bit), Windows 10 IOT LTSC, Linux | Microsoft® Windows 10 (64-bit), Windows 10 IOT LTSC, Linux | Microsoft® Windows 10 (64 bit), Windows 10 IOT LTSC, Linux, Android | Microsoft® Windows 10 (64 bit), Windows 10 IOT LTSC, Linux, Android |

√: supported, -: not supported, Δ: optional

NEW



NEW



NEW



| Model | PPC-415/417/419-EHL | | | PPC-412 | PPC-415 TGL | PPC-415W/421W ADL | | |
|--------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------|-----------------------|
| CPU | Intel® Atom™ x6414RE 1.5GHz Processor (Quad Core) | | | 7th Gen Intel® Core™ i processor (Dual Core) | 11th Gen Intel® Core™ i processor (Quad Core) | 12th Gen. Intel® Core™ i Processor (Quad Core) | | |
| Memory | 1 x SO-DIMM DDR4 3200 MHz (max. 32GB) | | | 1 x SO-DIMM DDR4 1866/2133 MHz (max. 16 GB) | 2 x SO-DIMM DDR4 1866/2133 MHz (max. 64 GB) | 2 x SO-DIMM DDR5 4800 MHz (max. 64 GB) | | |
| Display Size | 15" | 17" | 19" | 12" | 15" | 15.6" | 21.5" | |
| Screen Ratio | 4:3 | 4:3 | 4:3 | 4:3 | 4:3 | 16:9 | 16:9 | |
| Max. Resolution | 1024 x 768 | 1280 x 1024 | 1280 x 1024 | 1024 x 768 | 1024 x 768 | 1920 x 1080 | 1920 x 1080 | |
| Luminance (cd/m ²) | 500 | 350 | 350 | 600 | 500 | 450 | 300 | |
| Viewing Angle (H/V°) | 176, 176 | 160, 140 | 170, 160 | 178, 178 | 176, 176 | 170, 170 | 178, 178 | |
| Backlight MTBF | 70,000 hr | 50,000 hr | 50,000 hr | 50,000 hr | 70,000 hr | 50,000 hr | 50,000 hr | |
| Touchscreen | 5-wire resistive | | | 5-wire resistive | Projected capacitive multi-touch | Projected capacitive multi-touch | | |
| Network (LAN) | 2 x GbE (Intel® I225LM) | | | 2 x GbE (Intel® I210-AT, I219LM) | 2 x GbE (Intel® I225LM) | 2 x GbE (Intel® I225LM) | 2 x GbE (Intel® I225LM) | |
| IO Ports | 5 x serial ports: 4 x RS-232 (2 x external and 2 x via internal pin header, requires optional module); 1 x isolated RS-422/485 (adjustable via BIOS); 4 x USB 3.2; 1 x HDMI, 1 x DP 1.2; 1 x GPIO (8 channels, TTL level) via internal pin header (requires optional module); 1 x line out, 1 x mic in | | | 4x serial ports: 3 x RS-232, 1 x isolated RS-422/485 (adjustable via BIOS); 4 x USB 3.0; 1 x VGA, 1 x DP 1.2; 1 x GPIO (8 channels, TTL level) via internal pin header; 1 x line out, 1 x mic in | 5 x serial ports: 4 x RS-232 (2 x via internal pin header, requires additional optional module); 1 x isolated RS-422/485 (adjustable via BIOS); 4 x USB 3.2; 1 x HDMI, 1 x DP 1.2; 1 x GPIO (8 channels, TTL level) via internal pin header; 1 x line out, 1 x mic in | 5 x serial ports: 4 x RS-232 (2 x via internal pin header, requires additional optional module); 1 x isolated RS-422/485 (adjustable via BIOS); 4 x USB 3.2; 1 x HDMI, 1 x DP 1.2; 1 x GPIO (8 channels, TTL level) via internal pin header; 1 x line out, 1 x mic in | | |
| Storage | 1 x 2.5" SATA Bay; 1 x M.2 2280 bay (for storage only) | | | 1 x 2.5" SATA bay; 1 x M.2 bay (22 x 42 mm) | 1 x 2.5" SATA bay; 1 x M.2 bay (22 x 42 mm or 22 x 80 mm) | 1 x 2.5" SATA bay; 1 x M.2 bay (22 x 42 mm or 22 x 80 mm) | | |
| Expansion | 1 x M.2 2230 E-key for wireless card; 1 x PCI; 1 x PCIe x1 (in the accessory box) | | | 1 x Full-size mini PCIe; 1 x PCI; 1 x PCIe x4 (in the accessory box) | 1 x M.2 2230 E Key slot for wireless card; 1 x M.2 3052(3042) B Key slot for 4G/5G; 1 x PCI; 1 x PCIe x4 (in the accessory box) | 1 x M.2 2230 E Key slot for wireless card; 1 x M.2 3052(3042) B Key slot for 4G/5G; 1 x PCI; 1 x PCIe x4 (in the accessory box) | | |
| Power Input (Voltage) | 9 ~ 32 V _{DC} | 9 ~ 32 V _{DC} | 9 ~ 32 V _{DC} | 9 ~ 32 V _{DC} | 9 ~ 32 V _{DC} | 9 ~ 32 V _{DC} | 9 ~ 32 V _{DC} | |
| Enclosure | Front: Aluminum alloy; Back: Plastic | Front: Aluminum alloy; Back: Plastic | Front: Aluminum alloy; Back: Plastic | Front: Aluminum alloy; Back: Plastic | Front: Aluminum alloy; Back: Plastic | Front: Aluminum alloy; Back: Plastic | Front: Aluminum alloy; Back: Plastic | |
| Ingress Protection | Front panel: IP65 | Front panel: IP65 | Front panel: IP65 | Front panel: IP65 | Front panel: IP65 | Front panel: IP65 | Front panel: IP65 | |
| Mounting | Panel, VESA 100, wall, stand, ARM | Panel, VESA 100, wall, stand, ARM | Panel, VESA 100, wall, stand, ARM | Panel, VESA 100, wall, stand, ARM | Panel, VESA 100, wall, stand, ARM | Panel, VESA 100, wall, stand, ARM | Panel, VESA 100, wall, stand, ARM | |
| Operating Temperature | 0 ~ 50°C (32 ~ 122°F) with SSD; -20 ~ 60°C (-4 ~ 140°F) with -40 ~ 85°C mSATA or SSD | 0 ~ 50°C (32 ~ 122°F) with SSD; -20 ~ 60°C (-4 ~ 140°F) with -40 ~ 85°C mSATA or SSD | 0 ~ 50°C (32 ~ 122°F) with SSD; -20 ~ 60°C (-4 ~ 140°F) with -40 ~ 85°C mSATA or SSD | 0 ~ 50°C (32 ~ 122°F) | 0 ~ 50°C (32 ~ 122°F) | 0 ~ 50°C (32 ~ 122°F) | 0 ~ 50°C (32 ~ 122°F) | 0 ~ 50°C (32 ~ 122°F) |
| Storage Temperature | -40 ~ 60°C (-40 ~ 140°F) | -30 ~ 60°C (-40 ~ 140°F) | -30 ~ 60°C (-40 ~ 140°F) | -40 ~ 60°C (-40 ~ 140°F) | -40 ~ 60°C (-40 ~ 140°F) | -20 ~ 60°C (-4 ~ 140°F) | -20 ~ 60°C (-4 ~ 140°F) | |
| Dimensions | 392.2 x 313.5 x 55.1mm (15.4" x 12.3" x 2.1") | 437.0 x 357.0 x 56.5mm (17.2" x 14.0" x 2.22") | 454.0 x 379.8 x 62.1mm (17.8" x 14.9" x 2.4") | 317 x 246 x 60.5mm (12.5" x 9.7" x 2.4") | 392.2 x 313.5 x 55.1mm (15.4" x 12.3" x 2.1") | 419.7 x 269 x 59mm (16.5" x 10.6" x 2.3") | 558.4 x 349.8 x 63.6mm (22" x 13.8" x 2.5") | |
| Weight | 5.3 kg | 6.3 kg | 7.0 kg | 3.4 kg | 5.4 kg | 5.4 kg | 7.8 kg | |
| Certification | BSMI, CCC, CB, UL, UKCA, CE, FCC Class B | BSMI, CCC, CB, UL, UKCA, CE, FCC Class B | BSMI, CCC, CB, UL, UKCA, CE, FCC Class B | BSMI, CCC, CB, UL, UKCA, CE, FCC Class B | BSMI, CCC, CB, UL, UKCA, CE, FCC Class B | BSMI, CCC, CB, UL, UKCA, CE, FCC Class B | BSMI, CCC, CB, UL, UKCA, CE, FCC Class B | |
| Operating System | Microsoft® Windows 10 (64 bit), Windows 10 IOT LTSC, Linux, Android | Microsoft® Windows 10 (64 bit), Windows 10 IOT LTSC, Linux, Android | Microsoft® Windows 10 (64 bit), Windows 10 IOT LTSC, Linux, Android | Microsoft® Windows 10 (64 bit), Windows 10 IOT LTSC, Linux | Microsoft® Windows 10 (64 bit), Windows 10 IOT LTSC, Linux | Microsoft® Windows 10 (64 bit), Windows 10 IOT LTSC, Linux | Microsoft® Windows 10 (64 bit), Windows 10 IOT LTSC, Linux | |

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

- 1 IoT Software Solutions
- 2 Intelligent Systems
- 3 SKY Servers
- 4 AI & Advanced Computer Vision
- 5 Intelligent HMI and Monitors
- 6 Automation Computers
- 7 Intelligent Transportation Platforms
- 8 Mission Critical CompactPCI Platforms
- 9 Utility and Energy Solutions
- 10 EtherCAT Solutions and Automation Controllers
- 11 Intelligent Motion Control Solutions
- 12 High Speed DAQ Solutions
- 13 Industrial Communication
- 14 Intelligent Edge DAQ Devices
- 15 Remote I/O, Wireless I/O & Sensors
- 16 Serial Communication

General Panel PCs

NEW



| Model | ☞ PPC-6121 | PPC-6151C/6171C/6191C-RTAE ☞ PPC-MB-8260AE PPC-MB-610 PPC-MB-620 | | | PPC-615W/618W/621W ☞ PPC-MB-8260AE PPC-MB-610 PPC-MB-620 | | | PPC-6151C/6171C/6191C-RMAE ☞ support certified mini-ITX MBs | | |
|--------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------|---------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------|-----------------------------------------------|------------------------------------------------------------------------|----------------------------------------------|---------------------------------------------|
| CPU | 8th/9th generation Intel® Core™ i/Celeron® processors | 6th/7th/8th/9th/12th Gen. Intel® Core™ i/ Celeron® Processor | | | 6th/7th/8th/9th/12th Gen. Intel® Core™ i/ Celeron® Processor | | | Processor supports up to 45W TDP depending on the Mini-ITX motherboard | | |
| Memory | 2 x SO-DIMM DDR4 2666 MHz (max. 32 GB) | 1 x SO-DIMM DDR4 2133 MHz (max. 16 GB)(for PPC-MB-8260AE) 2 x SO-DIMM DDR4 2666 MHz (max. 32 GB) (for PPC-MB-610) 2 x SO-DIMM DDR5 4800 MHz (max. 64 GB) (for PPC-MB-620) | | | 1 x SO-DIMM DDR4 2133 MHz (max. 16 GB)(for PPC-MB-8260AE) 2 x SO-DIMM DDR4 2666 MHz (max. 32 GB) (for PPC-MB-610) 2 x SO-DIMM DDR5 4800 MHz (max. 64 GB)(for PPC-MB-620) | | | Subject to mini-ITX motherboard specifications | | |
| Display Size | 12.1" | 15" | 17" | 19" | 15.6" | 18.5" | 21.5" | 15" | 17" | 19" |
| Screen Ratio | 4:3 | 4:3 | | | 16:9 | | | 4:3 | | |
| Max. Resolution | 1024 x 768 | 1024 x 768 | 1280 x 1024 | 1280 x 1024 | 1920 x 1080 | 1366 x 768 | 1920 x 1080 | 1024 x 768 | 1280 x 1024 | 1280 x 1024 |
| Luminance (cd/m ²) | 600 | 500 | 350 | 350 | 450 | 450 | 250 | 500 | 350 | 350 |
| Viewing Angle (H/V°) | 178,178 | 176,176 | 160,140 | 170,160 | 170,170 | 170,160 | 178,178 | 176,176 | 160,140 | 170,160 |
| Backlight MTBF | 50,000 hr | 50,000 hr | | | 50,000 hr | | | 50,000 hr | | |
| Touchscreen | Projected capacitive multi-touch/5-wire resistive | Projected capacitive multi-touch/5-wire resistive | | | Projected capacitive multi-touch | | | Projected capacitive multi-touch/5-wire resistive | | |
| Network (LAN) | 2 x GbE (Intel I210, Intel I219LM) | 2 x GbE (Intel I210) (for PPC-MB-8260AE) 2 x GbE (Intel I225,Intel I219LM); (for PPC-MB-610/620) | | | 2 x GbE (Intel I210) (for PPC-MB-8260AE) 2 x GbE (Intel I225,Intel I219LM); (for PPC-MB-610/620) | | | Subject to mini-ITX motherboard specifications | | |
| IO Ports | 4 x RS-232, 1 x RS-422/485 with 1K VDC isolation, 4 x USB3.1 1 x DB15 VGA, 1 x HDMI 1.4 1 x Mic in, 1 x Line out 1 x GPIO(TTL, 8 pin programmable) 1 x TPM2.0 (optional) | RS-232 (by cabling), 1 x RS-232/422/485, 1 x RS-232, 4 x USB3.0 (for PPC-MB-8260AE)/ 6 x USB3.0 (for PPC-MB-610/620) 1 x DP 1.2, 2 x USB2.0 (int. pin head) 1 x VGA(for PPC-MB-8260AE/610)/ 1 x HDMI(for PPC-MB-620) 1 x line out, 1 x mic in 1 x GPIO (8-bit) (by cabling) | | | RS-232 (by cabling), 1 x RS-232/422/485, 1 x RS-232, 4 x USB3.0 (for PPC-MB-8260AE)/ 6 x USB3.0 (for PPC-MB-610/620) 1 x DP 1.2, 2 x USB2.0 (int. pin head) 1 x VGA(for PPC-MB-8260AE/610)/ 1 x HDMI(for PPC-MB-620) 1 x line out, 1 x mic in 1 x GPIO (8-bit) (by cabling) | | | 4 x Reserved ports Subject to mini-ITX motherboard specifications | | |
| Storage | 1 x 2.5" SATA bay 1 x mSATA bay | 1 x 2.5" SATA bay 1 x mSATA bay or 1 x M.2(2280,M key) | | | 1 x 2.5" SATA bay 1 x mSATA bay or 1 x M.2(2280,M key) | | | 2 x 2.5" SATA bay | | |
| Expansion | 1 x M.2 2230(E key) 1 x PCIe x4 or 1 x PCI (optional) | 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 mini PCIe or 1 x mSATA Bay | | | 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 mini PCIe or 1 x mSATA Bay | | | Subject to mini-ITX motherboard specifications | | |
| Power Input (Voltage) | 12 ~ 30 VDC | 100 ~ 240 VAC | | | 24VDC / 100 ~ 240 VAC | | | 100 ~ 240 VAC | | |
| Enclosure | Front: Aluminum alloy Back: Plastic | Front: Aluminum alloy Back: Plastic | | | Front: Aluminum alloy Back: Plastic | | | Front: Aluminum alloy Back: Plastic | | |
| Ingress Protection | Front panel: IP65 | Front panel: IP65 | | | Front panel: IP65 | | | Front panel: IP65 | | |
| Mounting | Panel, VESA 75, wall, stand, ARM | Panel, VESA 75/100, wall, stand, ARM | | | Panel, VESA 75/100, wall, stand, ARM | | | Panel, VESA 75/100, wall, stand, ARM | | |
| Operating Temperature | 0 ~ 50°C (32 ~ 122°F) | 0 ~ 50°C (32 ~ 122°F) | | | 0 ~ 50°C (32 ~ 122°F) | | | 0 ~ 50°C (32 ~ 122°F) | | |
| Storage Temperature | -40 ~ 60°C (-40 ~ 140°F) | -30 ~ 60°C (-22 ~ 140°F) | | | -30 ~ 60°C (-22 ~ 140°F) | | | -30 ~ 60°C (-22 ~ 140°F) | | |
| Dimensions | 317 x 246 x 73 mm (12.48" x 9.69" x 2.87") | 391.4 x 312.5 x 103.6 mm (15.4" x 12.3" x 4.08") | 437 x 357 x 107.6 mm (17.2" x 14.06" x 4.2") | 454 x 379.8 x 107.5 mm (17.9" x 15" x 4.2") | 419 x 269 x 108.2mm (16.5" x 10.6" x 4.2") | 488 x 309 x 108.2mm (19.2" x 12.1" x 4.2") | 558 x 349.8 x 108.2mm (21.9" x 13.7" x 4.26") | 391.4 x 312.5 x 103.6 mm (15.4" x 12.3" x 4.08") | 437 x 357 x 107.6 mm (17.2" x 14.06" x 4.2") | 454 x 379.8 x 107.5 mm (17.9" x 15" x 4.2") |
| Weight | 3.8 kg | 5.03 kg | 5.4 kg | 5.8 kg | 6.1 kg | 7.6 kg | 8.4 kg | 5.03 kg | 5.4 kg | 5.8 kg |
| Certification | BSMI, CCC, CB, UL, UKCA, CE, FCC Class A | CCC, CB, UL, UKCA, CE, FCC Class A | | | CCC, CB, UL, UKCA, CE, FCC Class A | | | CB, UL, UKCA, CE, FCC classA | | |
| Operating System | Microsoft® Windows 10 (64 bit), Windows 10 IOT LTSC, Linux | Microsoft® Windows 7/8.1/10, Windows 10 IOT LTSC, Linux | | | Microsoft® Windows 7/8.1/10, Windows 10 IOT LTSC, Linux | | | Subject to mini-ITX motherboard specifications | | |

☑: supported, ☐: not supported, △: optional

