



Part type designation	Part number
PPC1210WM/BE1/AM74/8G/P/LX	On request
PPC1212WM/BE1/AM74/8G/P/LX	On request
PPC1215WM/BE1/AM74/8G/P/LX	On request
PPC1218WM/BE1/AM74/8G/P/LX	On request
PPC1221WM/BE1/AM74/8G/P/LX	On request
PPC1224WM/BE1/AM74/8G/P/LX	On request

Features

- Industrial quad-core processor at up to 3.4 GHz
- 8 GB LPDDR5 RAM
- 16 GB eMMC storage medium
- microSD card slot for removable media
- 2x Ethernet 100/1000 Mbit/s with IEEE 1588
- 2x USB-A 2.0
- 2x USB-A 3.2 Gen 2
- 1x HDMI
- Brilliant high-resolution widescreen displays in 10.1" / 12.1" / 15.6" / 18.5" / 21.5" / 23.8"
- Diagnostics and status LEDs
- Expansion possibilities for interfaces and memory
- Standard operating temperature from 0 °C to +60 °C fanless
- Extended temperature range on request

PPC1200 – Premium

Panel PC

Panel PCs of the PPC1200 Premium series, equipped with high-performance quad-core processors and a wide range of integrated interfaces, are ideally suited for medium to demanding web visualizations. The brilliant displays impress with high brightness, vibrant colors, and exceptionally wide viewing angles. The modern widescreen displays, available in sizes 10.1", 12.1", 15.6", 18.5", 21.5", and 23.8", feature high resolutions and a lifespan exceeding 50 000 operating hours.

User input via projected capacitive multi-touch (PCAP) enables gesture control such as pinch-to-zoom, swipe and two-hand operation. The visually appealing, hardened glass surface is easy to clean. The exclusive use of industrial components guarantees a long service lifespan and availability. Permanently soldered RAM and eMMC storage, combined with the absence of moving parts, ensure maximum resistance to shock and vibration. High temperature ranges from 0°C up to +60 °C allow operation under harsh environmental conditions. An extended temperature range from -20 °C to +70 °C is available for selected display sizes upon request.

The pre-installed browser is designed for industrial applications. The integrated on-screen keyboard enables intuitive data entry while reducing application development effort. Unwanted, automatic updates are prohibited by the browser. This ensures that only released software is used in the field, reducing downtime to a minimum.

Built on Debian Linux, the system provides an user-friendly, web-based configuration interface. Configuration settings can be changed directly on the device or remote via browser. The system software includes further useful services such as SSH, NTP, VNC as well as a Web-API for secure hardware access. This allows for example reading data from RFID readers or direct control of LEDs and display brightness from within web applications.

The system software can be adapted individually to customer requirements and can be factory shipped already preconfigured to ensure efficient commissioning.

Common properties						
Basic function		PPC1200 - Premium Quad-core processor 2x RJ45 interfaces 100/1000 Mbit/s 2x USB-A 2.0 interface 2x USB-A 3.2 interface 1x microSD card slot 16 GB onboard eMMC mass storage 8 GB LPDDR5 RAM 10.1" / 12.1" / 15.6" / 18.5" / 21.5" / 23.8" widescreen display Operating system Linux Optional expansion board				
Processor and memory						
Processor		Intel® Atom x7433RE				
Cores		4				
Base clock frequency		1.5 GHz				
Max. turbo frequency		3.4 GHz				
RAM		8 GB LPDDR5				
Mass storage						
Internal Storage		16 GB eMMC				
Removable Storage		microSD				
Display	PPC1210	PPC1212	PPC1215	PPC1218	PPC1221	PPC1224
Diagonal	10.1"	12.1"	15.6"	18.5"	21.5"	23.8"
Resolution	1280 × 800	1280 × 800	1920 × 1080	1920 × 1080	1920 × 1080	1920 × 1080
Display brightness	500 cd/m²	800 cd/m²	350 cd/m²	350 cd/m²	250 cd/m²	450 cd/m²
Contrast	800:1	1200:1	1000:1	1000:1	1000:1	1000:1
Half brightness min.	50 000 h	30 000 h	50 000 h	50 000 h	50 000 h	50 000 h
Viewing angle (L, R, U, D)	80°/80°/80°/ 80°	85°/85°/85°/ 85°	89°/89°/89°/ 89°	89°/89°/89°/ 89°	89°/89°/89°/ 89°	89°/89°/89°/ 89°
Touch	Projected capacitive multi-touch					
Interfaces						
Ethernet		2x 100/1000 Mbit				
USB		2x USB-A 3.2 Gen 2 2x USB-A 2.0				
Video		1x HDMI				
RFID		Optional				
Optional interfaces (expansion board)						
Ethernet		2x 100/1000 MBit or 1x 100/1000/2500 MBit				
Serial interface		RS-232, RS-422 and RS-485				
Removable Storage		microSD				
Removable Storage		M.2 SSD memory (128 GB to 512 GB)				
Synchronization/clocks						
Real time clock		Yes				
Synchronization		SNTP / PTP / NTP				

Diagnostics	
Electronic type plate	Yes (application interface and in the engineering tool)
Machine readable type plate	Yes (QR code with type and part information and internet link)
Environmental conditions sensor	Integrated temperature sensor
Operational indications	LED "MOD" (red/green) module status LED "COM" (green/red) communication status LED "APP" (green/red) application-controlled indication
Energy supply	
Supply voltage, nominal	24 V DC
Supply voltage, range	18 V to 32 V
Power consumption, continuous, max.	PPC1224: 33 W
Input current, continuous, max.	1.8 A @ 18 V DC, T _a = 25 °C
Maximum residual ripple	2.4 V _{ss} at 50 Hz, 60 Hz, 100 Hz and 120 Hz
Permitted voltage interruptions	PS1 according to IEC 61131-2
Reverse polarity protection	Yes, continuously (up to -32 V)
Power dissipation, typ./max.	PPC1224: 25.7 W / 30.2 W
Product safety	
Galvanic isolation	850 V AC
Degree of protection acc. IEC 60529	IP65 front / IP20 rear
Environmental conditions	
Temperature, operating	-20 °C to +60 °C ^{1) 2)}
Temperature, transport and storage	-30 °C to +80 °C
Installation altitude, max.	4500 m
Relative humidity, operation	0 % to 100 % noncondensing
Vibration	1 g (8.4 Hz to 150 Hz) 3.5 mm amplitude (5 Hz to 8.4 Hz) Test duration: 7.5 h
Shock	15 g max. (test scope 18 shocks)
¹⁾ Available upon request for up to +70 °C.	
²⁾ For display sizes from 21.5" and above, the operating temperature range starts at 0 °C.	
Approvals/certificates	
Product safety	CE, UKCA in preparation cULus (NRAQ, NRAQ7) in preparation
Hazard area operation	ATEX in preparation
Hazardous substances and waste treatment	RoHS, RoHS China, REACH, WEEE
Quality management	ISO 9001 for development and production
Software	
Operating system	Linux Embedded (Debian)
Software components	Bachmann industrial browser Web configurator Device interface (REST API)
Mounting/installation	
Mounting type	Assembly of the control cabinet Support arm mounting via VESA 75 in preparation
Ground connection for protection class I	Yes

Dimensions	PPC1210	PPC1212	PPC1215	PPC1218	PPC1221	PPC1224
Outer contour W × H [mm]	273 × 194	322 × 224	409 × 261	475 × 299	542 × 337	594 × 369
Cutout W × H [mm]	259 × 180	308 × 210	395 × 247	461 × 285	528 × 323	580 × 355
Depth [mm]	74	74	74	74	74	74

Order data

Part type designation	Part number	Description
PPC1210WM/BE1/ AM74/8G/P/LX	On request	Panel PC 10.1" (1280 × 800) Projected capacitive (PCAP) multi-touch; Intel® Atom x7433RE; 8 GB LPDDR5 RAM; 2x Eth 100/1000; 2x USB 2.0; 2x USB 3.0; 1x HDMI; 16 GB eMMC onboard; microSD slot; OS: Linux embedded; operating temp. -20 °C to +60 °C
PPC1212WM/BE1/ AM74/8G/P/LX	On request	Panel PC 12.1" (1280 × 800) Projected capacitive (PCAP) multi-touch; Intel® Atom x7433RE; 8 GB LPDDR5 RAM; 2x Eth 100/1000; 2x USB 2.0; 2x USB 3.0; 1x HDMI; 16 GB eMMC onboard; microSD slot; OS: Linux embedded; operating temp. -20 °C to +60 °C
PPC1215WM/BE1/ AM74/8G/P/LX	On request	Panel PC 15.6" (1920 × 1080) Projected capacitive (PCAP) multi-touch; Intel® Atom x7433RE; 8 GB LPDDR5 RAM; 2x Eth 100/1000; 2x USB 2.0; 2x USB 3.0; 1x HDMI; 16 GB eMMC onboard; microSD slot; OS: Linux embedded; operating temp. -20 °C to +60 °C
PPC1218WM/BE1/ AM74/8G/P/LX	On request	Panel PC 18.5" (1920 × 1080) Projected capacitive (PCAP) multi-touch; Intel® Atom x7433RE; 8 GB LPDDR5 RAM; 2x Eth 100/1000; 2x USB 2.0; 2x USB 3.0; 1x HDMI; 16 GB eMMC onboard; microSD slot; OS: Linux embedded; operating temp. -20 °C to +60 °C
PPC1221WM/BE1/ AM74/8G/P/LX	On request	Panel PC 21.5" (1920 × 1080) Projected capacitive (PCAP) multi-touch; Intel® Atom x7433RE ; 8 GB LPDDR5 RAM; 2x Eth 100/1000; 2x USB 2.0; 2x USB 3.0, 1x HDMI, 16 GB eMMC onboard; microSD slot; OS: Linux embedded; operating temp. 0 °C to +60 °C
PPC1224WM/BE1/ AM74/8G/P/LX	On request	Panel PC 23.8" (1920 × 1080) Projected capacitive (PCAP) multi-touch; Intel® Atom x7433RE ; 8 GB LPDDR5 RAM; 2x Eth 100/1000; 2x USB 2.0; 2x USB 3.0, 1x HDMI, 16 GB eMMC onboard; microSD slot; OS: Linux embedded; operating temp. 0 °C to +60 °C