

CPC1200 – Premium

Panel PC

The CPC1200 Premium series of control panel PCs establishes a new benchmark, combining PLC control, operator interaction, visualization and functional safety in one device. With powerful quad-core processors and a comprehensive range of integrated interfaces, they provide the ideal platform for moderately complex to highly complex web visualizations and demanding control applications.

The controller is based on the M100 family's real time Linux platform. Programming, configuration, and engineering are seamlessly integrated. The Linux system, based on Debian, provides an intuitive, web-based configuration interface. All settings can be configured directly on the device via touch or remotely through a browser. The system software includes useful services such as SSH, NTP, and VNC, as well as a web API for secure access to hardware functions. This enables web applications to directly read data from RFID readers, control LEDs and adjust display brightness.

The brilliant displays deliver exceptional brightness, vivid color reproduction, and extremely wide viewing angles. The widescreen displays are available in 10.1", 12.1", 15.6", 18.5", 21.5", and 23.8" sizes and offer high resolutions. With more than 50,000 operating hours, they provide an impressive lifetime.

The projected capacitive (PCAP) multi-touch interface supports modern gestures such as pinch-to-zoom and swiping, as well as two-handed operation. The high-quality tempered-glass front offers a sleek appearance and is particularly easy to clean. The consistent use of industrial-grade components ensures a long lifetime and maximum availability. Soldered RAM and eMMC storage, combined with the absence of moving parts, ensure maximum robustness against shock and vibration. The temperature range of –20 °C to +60 °C enables use even under demanding environmental conditions; selected models rated for up to +70 °C are available on request.

The integrated mounting spring allows even large displays to be installed easily by a single person. For sizes of 12.1" and larger, integrated strain relief also ensures secure, long-lasting cable retention directly in the device. The pre-installed browser is optimized for industrial applications. Its integrated on-screen keyboard simplifies data entry while reducing application development effort. Automatic updates are deliberately disabled to ensure that only approved, stable software runs in the field, preventing unplanned downtime.

The system software can be tailored to specific customer requirements and is delivered preconfigured from the factory for efficient commissioning.

Part type designation	Part number
CPC1210WM/BE1/ AM7433/8G/P/LX	On request
CPC1212WM/BE1/ AM7433/8G/P/LX	On request
CPC1215WM/BE1/ AM7433/8G/P/LX	On request
CPC1218WM/BE1/ AM7433/8G/P/LX	On request
CPC1221WM/BE1/ AM7433/8G/P/LX	On request
CPC1224WM/BE1/ AM7433/8G/P/LX	On request

Features

- Industrial quad-core processor Intel® Atom x7433RE
- Ultra-fast system memory and mass storage
- Real-time capable
- Integrated safety
- Integrated interfaces
  - 2x Gbit/s Ethernet, 2x USB-A 2.0
  - 2x USB-A 3.2 Gen 2, 1x HDMI
- Expansion possibilities for interfaces and memory
- Integrated strain relief (from 12.1") and mounting spring for single-person installation
- Pre-installed system software and software components
  - Linux Embedded (Debian 13)
  - Bachmann Industrial Browser, Web configurator
- Standard operating temperature from –20 °C to +60 °C fanless

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Common properties	
Basic function	Industrial control PC with an integrated touch screen (panel PC) for control, visualization, and operator interaction for machines and plants
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	64 GB eMMC (MLC) configured as 29.1 GB pSLC Optional: M.2 SSD memory (128 GB to 512 GB)
Removable storage	microSD [1)]
Retentive data storage	256 kB NVRAM
Persistent data storage	1024 kB (eMMC)

[1)] *Storage medium not included if not mentioned explicitely in order text.*

Display	CPC1210	CPC1212	CPC1215	CPC1218	CPC1221	CPC1224
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	1x 100/1000 Mbit/s & 1x 100/1000/2500 Mbit/s
USB	2x USB-A 3.2 Gen 2 2x USB-A 2.0
Video	1x HDMI
RFID	Optional
Optional interfaces (expansion board)	
Ethernet	100/1000/2500 Mbit/s
Serial interface	RS-232, RS-422 und RS-485 (D-sub)
Fieldbus interface	CAN/CANopen (D-sub)
Removable storage	microSD
Synchronization/clocks	
Real time clock	Yes
Synchronization	SNTP / PTP / NTP

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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" (red/green) communication status LED "APP" (red/green) application-controlled indication LED "SAF" (red/green) safety status 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	
Degree of protection acc. IEC 60529	IP65 front / IP20 rear
Environmental conditions	
Temperature range, operating	-20 °C to +60 °C [1) 2)]
Temperature range, transport and storage	-30 °C to +80 °C [3) 4)]
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 on request from -20 °C to +70 °C.*
[2)] *For display sizes 21.5" and 23.8", the temperature range is 0 °C to 60 °C.*
[3)] *For the display size 15.6", a temperature range of -20 °C to +70 °C applies.*
[4)] *For the display size 18.5", a temperature range of -20 °C to +60 °C applies.*

Approvals/certificates	
Product safety	CE, UKCA: in preparation cULus (NRAQ, NRAQ7): in preparation
Hazard area operation	ATEX: Ex II 3G Ex ec IIC Gc: 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	Built-in installation Support arm mounting via VESA 75
Ground connection for protection class I	Yes

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Dimensions	CPC1210	CPC1212	CPC1215	CPC1218	CPC1221	CPC1224
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
Mass unpacked [kg]	1.71	2.03	3.38	5.61	6.51	7.51

Order data

Part type designation	Part number	Description
CPC1210WM/BE1/ AM7433/8G/P/LX	On request	Control Panel PC 10.1" (1280 × 800) Projected capacitive (PCAP) multi-touch; Intel® Atom x7433RE; 8 GB LPDDR5 RAM; 2x Eth 100/1000/2500; 2x USB 2.0; 2x USB 3.2, 1x HDMI, 64 GB eMMC onboard; microSD slot; OS: Linux embedded; operating temp. -20 °C to +60 °C
CPC1212WM/BE1/ AM7433/8G/P/LX	On request	Control Panel PC 12.1" (1280 × 800) Projected capacitive (PCAP) multi-touch; Intel® Atom x7433RE; 8 GB LPDDR5 RAM; 2x Eth 100/1000/2500; 2x USB 2.0; 2x USB 3.2, 1x HDMI, 64 GB eMMC onboard; microSD slot; OS: Linux embedded; operating temp. -20 °C to +60 °C
CPC1215WM/BE1/ AM7433/8G/P/LX	On request	Control Panel PC 15.6" (1920 × 1080) Projected capacitive (PCAP) multi-touch; Intel® Atom x7433RE; 8 GB LPDDR5 RAM; 2x Eth 100/1000/2500; 2x USB 2.0; 2x USB 3.2, 1x HDMI, 64 GB eMMC onboard; microSD slot; OS: Linux embedded; operating temp. -20 °C to +60 °C
CPC1218WM/BE1/ AM7433/8G/P/LX	On request	Control Panel PC 18.5" (1920 × 1080) Projected capacitive (PCAP) multi-touch; Intel® Atom x7433RE; 8 GB LPDDR5 RAM; 2x Eth 100/1000/2500; 2x USB 2.0; 2x USB 3.2, 1x HDMI, 64 GB eMMC onboard; microSD slot; OS: Linux embedded; operating temp. -20 °C to +60 °C
CPC1221WM/BE1/ AM7433/8G/P/LX	On request	Control Panel PC 21.5" (1920 × 1080) Projected capacitive (PCAP) multi-touch; Intel® Atom x7433RE; 8 GB LPDDR5 RAM; 2x Eth 100/1000/2500; 2x USB 2.0; 2x USB 3.2, 1x HDMI, 64 GB eMMC onboard; microSD slot; OS: Linux embedded; operating temp. 0 °C to +60 °C
CPC1224WM/BE1/ AM7433/8G/P/LX	On request	Control Panel PC 23.8" (1920 × 1080) Projected capacitive (PCAP) multi-touch; Intel® Atom x7433RE; 8 GB LPDDR5 RAM; 2x Eth 100/1000/2500; 2x USB 2.0; 2x USB 3.2, 1x HDMI, 16 GB eMMC onboard; microSD slot; OS: Linux embedded; operating temp. 0 °C to +60 °C

Accessories

Part type designation	Part number	Description
microSD Card 16GB pSLC	00046481-00	Removable storage microSD card 16GB pSLC

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