

emPC®

emPC-CX+

BoxPC System with Variable CPU Power and Optional PCI/PCIe Slots



PRODUCT DESCRIPTION

emPC-CX+ is a very flexible embedded box PC system. It combines a stable metal housing with a variable set of CPU performance and a wide range of interfaces.

The system is based on a carrier board that handles power supply and provides a socket for a CPU module. Furthermore a PCIe mini card slot and PCIe-X16 slot is available onboard. With help of different RiserCards several PCI and PCIe slot combinations

can be realized on base of the PCIe-X16 interface up to 4 additional slots. At front site the board offers CAN, USB and serial interfaces, a DVI-I connector, 16 I/O pins and an external accessible CFast card slot for an easy storage medium exchange.

With the optional available CODESYS runtime environment the system becomes a powerful and flexible industrial control system.

FEATURES

Processor

- Intel Xeon E3-1505L V6 (4 x 2.2 / 3.0 GHz)
- Intel Core i5-7442EQ (4 x 2.1 / 2.9 GHz)
- Intel Core i3-7100U (2 x 2.4 GHz)
- Intel Atom x5-E3940 (4 x 1.6 / 1.8 GHz)

Memory and Storage

- Up to 32 GB DDR3 or DDR4 memory ¹⁾
- ECC Memory support ¹⁾
- Intel® Optane™ support ¹⁾
- 128 kB nonvolatile MRAM (no battery needed)
- Up to 2 internal S-ATA disk ports ¹⁾
- internal 2.5" hard disk or SSD storage medium socket (optionally)
- external CFast socket; removable storage medium

Power Supply

- Input 9/14...34 VDC ¹⁾
- Power consumption: see related hardware manual

Interfaces

- 2 x 10/100/1000 MBit/s Ethernet, RJ45
- 4 x USB 3.0 interface
- Graphics connector for DVI-I
- Up to 2 x CAN/CANopen
- Up to 2 x RS232/422/485

Physical and environmental conditions

- Ambient operating temperature range: 0°C...50°C ¹⁾
- Non-operating temperature range: -20°C...75°C
- Humidity: 0 ~ 80 %, non-condensing

Supported Operating Systems

- Windows 10
- Linux

For special operating system images do not hesitate to contact our sales team.

¹ Feature depends on system type, please see table SYSTEM DEPENDENT FEATURES for further information

Housing

- Compact industrial computing system
- Cooling concept with or without fan available (depending on CPU type and environmental temperatures)
- Fan and temperature monitoring
- Power button at front panel
- Real time clock with battery backup

- Dimensions excl. wall mounting pads (w x h x d):
 - 0 slot version, 96 x 171 x 230 mm
 - 2 slot version, 147 x 171 x 230 mm
 - 4 slot version, 179 x 171 x 230 mm

Options

- CODESYS v2.x/v3.x IEC61131-3 runtime environment
- Customized hardware and software developments and extensions

SYSTEM DEPENDENT FEATURES

System Type	Power Supply	USB	Ambient Operating Temp.	Supported Memory	Max. display resolution	SATA ports
emPC-CX+/E3-1505L	14...34 V _{DC}	4 x USB 3.0	With fan: tbd Without fan: tbd	32 Gbyte DDR4 (ECC) 2400 MHz	4k 4096 x 2304	2 x 3 GB/s
emPC-CX+/ i5-7442EQ				32 Gbyte DDR4 2400 MHz		
emPC-CX+/ i3-7100U				8 GB DDR3L 1867 MHz		
emPC-CX+/A-E3940	9...34 V _{DC}				4k 3840 x 2160	1 x 3 GB/s

CONTACT INFORMATION

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