

emPC-CX+

Box-PC System with variable CPU Power and optional PCI/PCIe Slots



emPC-CX+ , 2 slot and 0 slot version

PRODUCT DESCRIPTION

The 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 are available onboard. On the front side the board offers CAN, USB and serial interfaces, a DVI connector, 16 I/O pins and an external CFast card slot for an easy storage medium exchange.

FEATURES

Processor

- Intel Xeon E5-1505L V6 (4 x 2.2/3.0 GHz)
- AMD Ryzen V1404I (4 x 2.0/3.6 GHz)
- Intel Core i3-7100U (2 x 2.4 GHz)
- Intel Atom x7-E3950 (4x 1.6/2.0 GHz)

Memory

- 128 kB non-volatile MRAM
- Up to 48 GB DDR3 or DDR4 memory ¹⁾
- ECC Memory support ¹⁾

Storage

- External CFast socket
- Internal 2.5" hard disk or SSD storage medium socket (optional)

Internal Interfaces

- Up to 2 internal SATA disk ports ¹⁾
- Up to 2 x PCIe (x4) or 4 x PCIe (x1) expansion slots ¹⁾

External Interfaces

- 2 x 10/100/1000 MBit/s Ethernet, RJ45
- 4 x USB 3.0 ²⁾
- Graphics connector for DVI-D
- 1 x RS232/485

Expansion

- Personality Board for additional I/O expansion
 - 2 x CAN/CANopen (optionally with digital IO) ³⁾
 - 1 x CAN/CANopen, 1 x RS232 (optionally with digital IO) ³⁾
- More interfaces on request

¹ Feature depends on system type.
Please see table SYSTEM DEPENDENT FEATURES for further information.

² 3 x USB 3.0 + 1 x USB 2.0 in combination with AMD Ryzen V1404I

³ Digital I/O connector variants with 4 inputs/outputs or 8 inputs only are available.

Environment

- Ambient operating temperature 0 °C ... 50 °C
- Non-operating temperature range -20 °C ... 75 °C
- Humidity: 5 % ... 80 %, non-condensing
- Dimensions:
 - 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

Power Supply

- Input 9/14 ... 34 V_{DC}¹⁾

Software

- CODESYS IEC 61131-3 runtime environment
 - Linux Debian
 - Windows 10 IoT
- For special operating system images do not hesitate to contact our sales team.

SYSTEM DEPENDENT FEATURES

Processor	Power Supply	Expansion Slots	Supported Memory	SATA ports
Intel E3-1505L V6	14 ... 34 V _{DC}	2 x PCIe (x4) or 4 x PCIe (x1)	32 GB DDR4 2400 MHz (ECC available)	3
AMD Ryzen V1404I	14 ... 34V _{DC}	2 x PCIe (x1)	32 GB DDR4 2400 MHz (ECC available)	1
Intel i3-7100U	14 ... 34V _{DC}	2 x PCIe (x4) or 4 x PCIe (x1)	32 GB DDR4 2400 MHz	2
Intel Atom E3950	9 ... 34V _{DC}	/	8 GB DDR3L 1867 MHz	1