

Embedded PC

Modular DIN rail IPCs

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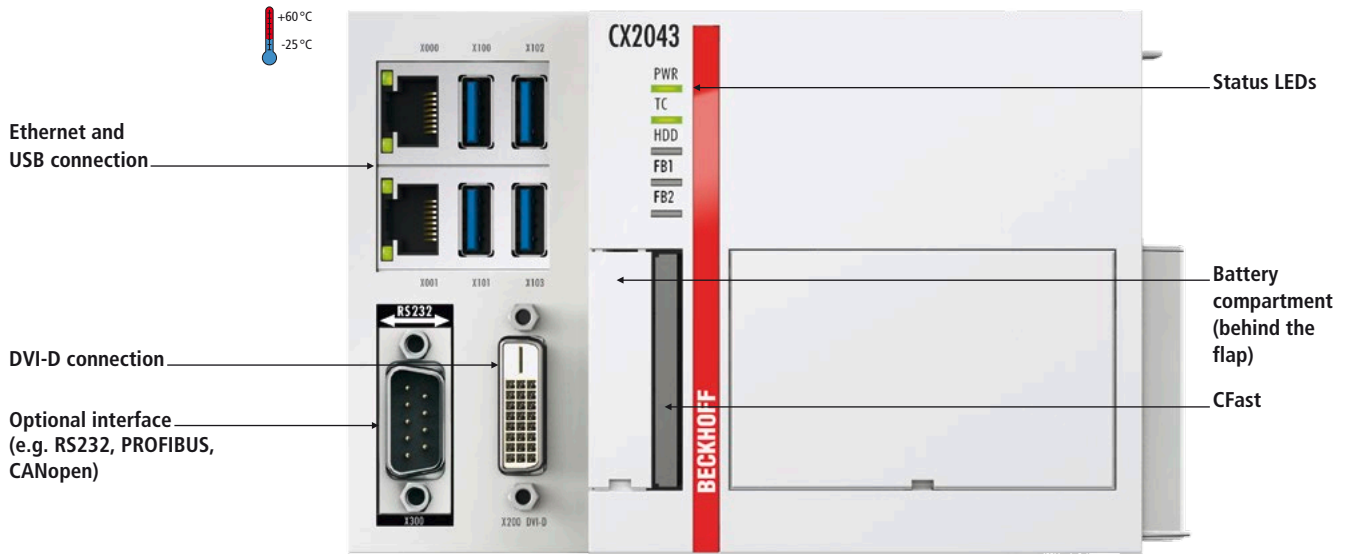


CX20x2-Nx67 | 2 x 10G Ethernet interface for CX2042, CX2062 and CX2072 Embedded PCs

A 2 x 10G Ethernet interface is now available for the CX2042, CX2062 and CX2072 Embedded PCs. It can be ordered as an option in the upper device front. Subsequent adaptation is not possible.

The CX20x2-N067 2 x 10G Ethernet interface has 2 x RJ45 (wired); the -N167 variant has 2 x SFP + cage (optical).

Ordering information	Optional interfaces
CX2042-N067	2 x 10G Ethernet interface (wired, 2 x RJ45) for CX2042, version in the upper front of the device
CX2042-N167	2 x 10G Ethernet interface (optical, 2 x SFP + cage) for CX2042, version in the upper front of the device
CX2062-N067	2 x 10G Ethernet interface (wired, 2 x RJ45) for CX2062, version in the upper front of the device
CX2062-N167	2 x 10G Ethernet interface (optical, 2 x SFP + cage) for CX2062, version in the upper front of the device
CX2072-N067	2 x 10G Ethernet interface (wired, 2 x RJ45) for CX2072, version in the upper front of the device
CX2072-N167	2 x 10G Ethernet interface (optical, 2 x SFP + cage) for CX2072, version in the upper front of the device



i CX2033, CX2043 | Basic CPU module

The CX2033 has an AMD Ryzen™ V1202B CPU with 2.3 GHz and two cores, while the CX2043 has an AMD Ryzen™ V1807B CPU with 3.35 GHz and four cores. In the case of the CX2033 the controller is fanless and has no rotating components. Due to its high power, the CX2043 has a fan with ball bearings and speed monitoring.

In addition to the CPU and chipset, the basic modules also contain the RAM, which in the case of the CX2033 has a

capacity of 8 GB. The CX2043 has 16 GB of RAM. The controller boots from the CFast card. The CPU has an internal 128 kB NOVRAM, which functions as a persistent data memory if no UPS is used. Up to four modules can be connected to the basic CPU module. The connection order is irrelevant. Internally the modules are connected via PCI Express and can be plugged to the CPU in the field. The power supply for the CPU module comes from a CX2100 power supply

module, which is connected on the right-hand side of the CPU. Two further CFast memory card modules (CX2550-0010) can be connected between the power supply unit and the CPU, so that a total of up to three CFast cards can be used. RAID can be used in situations where more than one CFast card is used.

The order identifier is derived as follows:

CX20x3-01ST

- 0 = no TwinCAT
- 1 = with TwinCAT 2 PLC runtime
- 2 = with TwinCAT 2 NC PTP runtime
- 3 = with TwinCAT 2 NC I runtime
- 5 = with TwinCAT 3 runtime (XAR)
- 0 = no operating system
- 6 = Microsoft Windows 10 IoT Enterprise 2019 LTSC, 32 bit
- 7 = Microsoft Windows 10 IoT Enterprise 2019 LTSC, 64 bit
- 3 = AMD Ryzen™ V1202B processor 2.3 GHz, 2 cores
- 4 = AMD Ryzen™ V1807B processor 3.35 GHz, 4 cores

Optional interfaces:

- CX20x3-N010 = second DVI connection, DVI-D port
- CX20x3-N011 = DisplayPort interface
- CX20x3-N030 = RS232, D-sub plug
- CX20x3-N031 = RS422/RS485, D-sub socket
- CX20x3-B110 = EtherCAT slave, EtherCAT IN and OUT (2 x RJ45)
- CX20x3-M310 = PROFIBUS master, D-sub socket, 9-pin
- CX20x3-B310 = PROFIBUS slave, D-sub socket, 9-pin
- CX20x3-M510 = CANopen master, D-sub plug, 9-pin
- CX20x3-B510 = CANopen slave, D-sub plug, 9-pin
- CX20x3-M930 = PROFINET RT, controller
- CX20x3-B930 = PROFINET RT, device, Ethernet (2 x RJ45 switch)
- CX20x3-B950 = EtherNet/IP slave, Ethernet (2 x RJ45 switch)

Since not all combinations make sense, the table ordering information contains a breakdown of the permissible combinations.

Technical data	CX2033	CX2043
Processor	AMD Ryzen™ V1202B 2.3 GHz	AMD Ryzen™ V1807B 3.35 GHz
Number of cores	2	4
Flash memory	slot for CFast card	
Main memory	8 GB DDR4 RAM (internal, not expandable)	16 GB DDR4 RAM (internal, not expandable)
Persistent memory	128 KB NOVRAM integrated	
Interfaces	2 x RJ45, 10/100/1000 Mbit/s, 1 x DVI-D, 4 x USB 3.1 Gen. 2, 1 x optional interface	
Cooling	passive cooling, optionally with active cooling ex factory	integrated fan with ball bearings and speed monitoring
Diagnostics LED	1 x power, 1 x TC status, 1 x flash access, 2 x bus status	
Clock	internal battery-backed clock for time and date (battery exchangeable)	
Operating system	Microsoft Windows 10 IoT Enterprise 2019 LTSC	
Control software	TwinCAT 2 runtime TwinCAT 3 runtime (XAR)	
I/O connection	via power supply module (E-bus or K-bus, automatic recognition)	
Power supply	24 V DC (-15 %/+20 %)	
Max. power consumption	27 W	32 W
Dimensions (W x H x D)	144 mm x 99 mm x 91 mm	
Weight	approx. 1165 g	approx. 1230 g
Operating/storage temperature	-25...+60 °C/-40...+85 °C	
Relative humidity	95 %, no condensation	
Vibration/shock resistance	conforms to EN 60068-2-6/EN 60068-2-27	
EMC immunity/emission	conforms to EN 61000-6-2/EN 61000-6-4	
Protection class	IP 20	
Approvals/markings	CE, UL	
TC3 performance class	Performance Plus (50)	Mid Performance (60)
Further information	www.beckhoff.com/CX2033	www.beckhoff.com/CX2043

Ordering information	no operating system	Windows	Windows	no TwinCAT	TwinCAT 2	TwinCAT 2	TwinCAT 2	TwinCAT 3
		10 IoT Enterprise 2019 LTSC, 32 bit	10 IoT Enterprise 2019 LTSC, 64 bit		PLC runtime	NC PTP runtime	NC I runtime	runtime (XAR)
CX20x3-0100	x	–	–	x	–	–	–	–
CX20x3-0160	–	x	–	x	–	–	–	–
CX20x3-0161	–	x	–	–	x	–	–	–
CX20x3-0162	–	x	–	–	–	x	–	–
CX20x3-0163	–	x	–	–	–	–	x	–
CX20x3-0170	–	–	x	x	–	–	–	–
CX20x3-0175	–	–	x	–	–	–	–	x


Product announcement

 for availability status see www.beckhoff.com/CX20x3