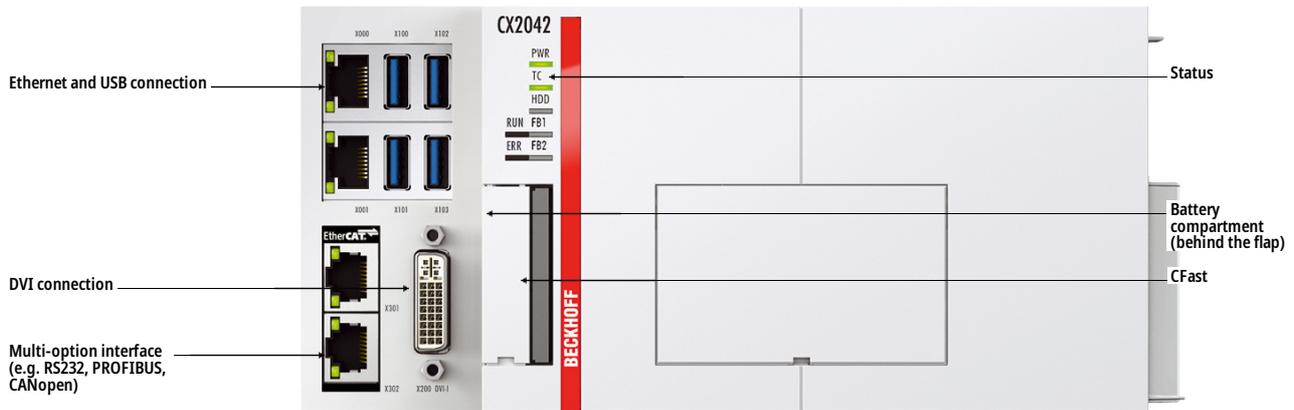




# CX2042 | Embedded PC with Intel® Xeon® D-1527



**i Product status:** regular delivery

The CX2042 has an Intel® Xeon® CPU with a clock rate of 2.2 GHz (four cores). A fan with ball bearings and speed monitoring is integrated into the basic CPU module. In addition to the CPU, the basic module also contains the main memory with a size of 8 GB RAM, optionally available with up to 64 GB. The controller boots from a CFast flash memory card where both the operating system as well as user programs and data are stored.

The CPU has an internal 128 kB NOVRAM, which acts as a persistent data memory if no UPS is used.

The use of TwinCAT 3 allows automation tasks to be distributed across the various cores of the Intel® Xeon® CPU.

All system modules from the CX2000 series for left- or right-sided functional extensions can be connected. 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 CX2100-0014 power supply module. Up to two mass storage modules (either CX2550-0010 CFast modules or CX2550-0020 2½-inch SSD modules) can be plugged in between the power supply unit and the CPU, allowing the use of up to three mass storage devices in total.

## Product information

### Technical data

Technical data	CX2042
Processor	Intel® Xeon® D-1527 2.2 GHz
Number of cores	4

Graphic	AMD E8860, 2 GB GDDR5
Flash memory	slot for CFast card, card not included
Main memory	8 GB DDR4 RAM (expandable ex factory to 64 GB)
Interfaces	2 x RJ45 10/100/1000 Mbit/s, 1 x DVI-I, 4 x USB 3.0, 1 x optional interface
Cooling	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	Windows 10 IoT Enterprise 2016 LTSB, Windows 10 IoT Enterprise 2019 LTSC, Windows 10 IoT Enterprise 2021 LTSC, TwinCAT/BSD
Control software	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%)
NOVRAM	128 kB
Max. power consumption	95 W
Weight	approx. 1650 g
Dimensions (W x H x D)	204 mm x 99 mm x 91 mm
Relative humidity	95%, no condensation
Operating temperature	-25...+50°C
Storage temperature	-40...+85°C
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 rating	IP20
Approvals/markings	CE, UL
TwinCAT 3 platform level	High Performance (70); please see <a href="#">here</a> for an overview of all the TwinCAT 3 platform level

## Ordering information

<b>S = operating system options</b> 0 = no operating system 5 = Windows 10 IoT Enterprise 2016 LTSB 64 bit 7 = Windows 10 IoT Enterprise 2019 LTSC 64 bit 8 = TwinCAT/BSD 9 = Windows 10 IoT Enterprise 2021 LTSC 64 bit	<b>T = TwinCAT software licenses</b> 0 = no TwinCAT 5 = equipped with TwinCAT 3 runtime (XAR), no licenses included
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**CX20x2-01ST**

Ordering information	
CX2042-0100	CPU module, no operating system, no TwinCAT
CX2042-0150	CPU module, Microsoft Windows 10 IoT Enterprise 2016 LTSB, 64 bit, no TwinCAT

CX2042-0155	CPU module, Microsoft Windows 10 IoT Enterprise 2016 LTSC, 64 bit, TwinCAT 3 runtime (XAR), no licenses included
CX2042-0170	CPU module, Microsoft Windows 10 IoT Enterprise 2019 LTSC, 64 bit, no TwinCAT
CX2042-0175	CPU module, Microsoft Windows 10 IoT Enterprise 2019 LTSC, 64 bit, TwinCAT 3 runtime (XAR), no licenses included
CX2042-0185	CPU module, TwinCAT/BSD, TwinCAT 3 runtime (XAR), no licenses included
CX2042-0190	CPU module, Microsoft Windows 10 IoT Enterprise 2021 LTSC, 64 bit, no TwinCAT
CX2042-0195	CPU module, Microsoft Windows 10 IoT Enterprise 2021 LTSC, 64 bit, TwinCAT 3 runtime (XAR), no licenses included

TwinCAT/BSD requires a CFast flash card with a minimum capacity of 20 GB

Windows 10 IoT Enterprise requires a CFast flash card with a minimum capacity of 40 GB.

TwinCAT 3 runtime (XAR) is preinstalled, without licenses. Please order TwinCAT 3 licenses separately from the TwinCAT 3 Price List.

## Options

Options	
<a href="#">CX2900-0010</a>	Operating system preequipped on 2½-inch HDD/SSD for CX20x2 and CX20x3. Requires the extension module CX2550-0020 and one 2½-inch HDD/SSD.
<a href="#">CX2900-0205</a>	memory extension to 16 GB DDR4 RAM, instead of 8 GB DDR4 RAM for CX2042, CX2062 and CX2072
<a href="#">CX2900-0206</a>	memory extension to 32 GB DDR4 RAM, instead of 8 GB DDR4 RAM for CX2042, CX2062 and CX2072
<a href="#">CX2900-0207</a>	memory extension to 64 GB DDR4 RAM, instead of 8 GB DDR4 RAM for CX2042, CX2062 and CX2072

Optional interfaces	
<a href="#">CX2042-N010</a>	DVI-D interface, additional DVI-D port for clone or extended display mode. Is not supported by TwinCAT/BSD.
<a href="#">CX2042-N011</a>	DisplayPort interface, additional DisplayPort for clone or extended display mode. Is not supported by TwinCAT/BSD.
<a href="#">CX2042-N030</a>	RS232 interface, D-sub plug, 9-pin
<a href="#">CX2042-N031</a>	RS485 interface, D-sub socket, 9-pin, configuration as an end point, without echo, termination on
<a href="#">CX2042-N031-0001</a>	RS485 interface, D-sub socket, 9-pin, configuration as an end point, with echo, termination on
<a href="#">CX2042-N031-0002</a>	RS485 interface, D-sub socket, 9-pin, configuration as drop point, without echo, termination off
<a href="#">CX2042-N031-0003</a>	RS485 interface, D-sub socket, 9-pin, configuration as drop point, with echo, termination off
<a href="#">CX2042-N031-0004</a>	RS422 interface, D-sub socket, 9-pin, configuration as full duplex end point, termination on

<a href="#">CX2042-N067</a>	2 x Ethernet interface (2 x RJ45, 1/10 Gbit/s), version of the interfaces in the upper front of the device
<a href="#">CX2042-N167</a>	2 x Ethernet interface (2 x SFP + (cage), 1/10 Gbit/s), version of the interfaces in the upper front of the device
<a href="#">CX2042-M112</a>	2 x EtherCAT master interface
<a href="#">CX2042-B110</a>	EtherCAT slave interface, EtherCAT IN and OUT (2 x RJ45)
<a href="#">CX2042-M310</a>	PROFIBUS master interface, D-sub socket, 9-pin
<a href="#">CX2042-B310</a>	PROFIBUS slave interface, D-sub socket, 9-pin
<a href="#">CX2042-M510</a>	CANopen master interface, D-sub plug, 9-pin
<a href="#">CX2042-B510</a>	CANopen slave interface, D-sub plug, 9-pin
<a href="#">CX2042-M930</a>	PROFINET RT, controller interface, Ethernet (2 x RJ45 switch)
<a href="#">CX2042-B930</a>	PROFINET RT, device interface, Ethernet (2 x RJ45 switched)

## Accessories

Accessories	
<a href="#">CX1900-0101</a>	DVI-to-VGA passive adaptor for connecting a standard desktop VGA monitor to the CX system (singles out the VGA signals of the DVI-I interface).
<a href="#">CX2900-0026</a>	20 GB CFast card, 3D flash, extended temperature range (only for Windows CE or TwinCAT/BSD operating systems)
<a href="#">CX2900-0038</a>	40 GB CFast card, 3D flash, extended temperature range
<a href="#">CX2900-0040</a>	80 GB CFast card, 3D flash, extended temperature range
<a href="#">CX2900-0042</a>	160 GB CFast card, 3D flash, extended temperature range
<a href="#">CX2900-0044</a>	320 GB CFast card, 3D flash, extended temperature range
<a href="#">CX2900-0101</a>	Housing locking clips (black) for the CX52x0, CX53x0, CX56x0 and CX20xx series 10 locking pin sets (each set consisting of two pieces)
<a href="#">CX2900-0102</a>	Cover for left-side module bus connector, 5 pieces
<a href="#">CX2900-0103</a>	Spare fan cartridge for CX20xx with fan option – cartridge consisting of chassis and 60 mm fan – simple exchange in the field due to wireless installation – dimensions (W x H x D) 67 x 62 x 16 mm
<a href="#">C9900-K530,-K552,-K553,-K554</a>	USB cable, shielded, PVC, 1 x 2 x 28AWG + 2C 20AWG, fixed installation, black, USB A, plug, straight, male, 4-pin – USB B, plug, straight, male, 4-pin
<a href="#">C9900-K569,-K570,K577</a>	USB cable, shielded, PVC, 2 x 2 x AWG28 + 1 x 2 AWG28 + 1 x 2 x AWG24, fixed installation, black, USB A, plug, straight, male, 9-pin – USB B, plug, straight, male, 9-pin
<a href="#">ZK1090-9191-0xxx</a>	RJ45, plug, straight, male, 8-pin – RJ45, plug, straight, male, 8-pin
<a href="#">ZK1093-9191-0xxx</a>	RJ45, plug, straight, male, 8-pin – RJ45, plug, straight, male, 8-pin
<a href="#">C9900-K527,-K549,-K550,-K568</a>	Display cable, shielded, PVC, fixed installation, black, DVI-D, plug, straight, male, 18 + 1-pin – DVI-D, plug, straight, male, 18 + 1-pin
<a href="#">C9900-K528,-K529,-K534...K537,-K688</a>	Display cable, shielded, PVC, 14 x AWG24, fixed installation, black, DVI-D, plug, straight, male, 18 + 1-pin – DVI-D, plug, straight, male, 18 + 1-pin

C9900-K780...K783,-K820

Display cable, shielded, PVC, fixed installation, black, DVI-D, plug, straight, male, 24 + 1-pin – DisplayPort, plug, straight, male, 20-pin

C9900-K543,-K544,-K507,-K555,-K651

Display cable, shielded, PVC, fixed installation, black, DVI-D, plug, straight, male, 24 + 1-pin – M16, plug, straight, female, 19-pin

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