



# CX5630 | Embedded PC with AMD Ryzen™ R1505G



Image similar, may contain optional accessories

**i** **Product status:** regular delivery

The CX5630 is an Embedded PC based on the AMD Ryzen™ R1505G processor with a clock speed of 2.0 GHz (dual-core) and 8 GB DDR4-RAM. The basic equipment includes two independent, 1.0 Gbit-capable Ethernet interfaces as well as four USB 3.0 and one DVI-D interface. A replaceable, industry-standard M.2 SSD (SATA) is used as the boot and storage medium, enabling even faster read and write access and large-volume data handling. The M.2 SSD is easily accessible behind a flap to enable rapid hardware replacement in case of service, even on site.

A wide range of additional connection options or gateway functions are available thanks to the optional interface and I/O level, which can consist of either E-bus or K-bus terminals and can be fitted ex factory. In addition, a system module or fieldbus module from the CX2000 series can be plugged in via the high-pole connection on the left-hand side of the device. Although the total number of plug-in modules of the type CX2500-xxxx is limited to one with the CX5600 series, it is possible in this way, for example, to implement two further Gbit Ethernet interfaces or four further USB interfaces or a further fieldbus interface. Furthermore, the CX5630 is characterized by an internally electrically isolated power supply unit, built-in 1-second UPS, low power consumption and fanless cooling.

The TwinCAT automation software turns the CX5630 system into a high-performance PLC and motion control system that can be used with or without visualization. Both TwinCAT 2 in 32-bit mode and the latest TwinCAT 3 version in 64-bit mode are supported. Continuing support for TwinCAT 2 guarantees investment protection for projects and systems that were or will be created with this 32-bit generation. The extended operating temperature range from -25°C to +60°C allows use in climatically demanding applications.

## Product information

### Technical data

Technical data	CX5630
Processor	AMD Ryzen™ R1505G, 2.0 GHz
Number of cores	2
Flash memory	slot for M.2 SSD (SATA) and microSD card (storage media not included)
Main memory	8 GB DDR4 RAM
1-second UPS	integrated (1 MB on M.2 SSD)
Interfaces	2 x RJ45 10/100/1000 Mbit/s, 1 x DVI-D, 4 x USB 3.0, 1 x optional interface
Cooling	passive
Diagnostics LED	1 x power, 1 x TC status, 1 x flash access, 2 x bus status, 2 x user LED
Clock	internal battery-backed clock for time and date (battery exchangeable)
Operating system	Windows 10 IoT Enterprise 2019 LTSC, Windows 10 IoT Enterprise 2021 LTSC, Windows 11 IoT Enterprise 2024 LTSC, TwinCAT/BSD
Control software	TwinCAT 2 runtime TwinCAT 3 runtime (XAR)
I/O connection	E-bus or K-bus, automatic recognition
Power supply	24 V DC (-15%/+20%), electrically isolated
Max. power consumption	20 W
Max. power consumption (with loading UPS)	27 W
Max. power consumption E-bus/K-bus	10 W (5 V/max. 2 A)
Weight	approx. 960 g
Dimensions (W x H x D)	142 mm x 100 mm x 92 mm
Relative humidity	95%, no condensation
Operating temperature	-25...+60°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	Performance Plus (50); please see <a href="#">here</a> for an overview of all the TwinCAT 3 platform level

## Ordering information

S = operating system options

- 0 = no operating system
- 2 = Windows 11 IoT Enterprise 2024 LTSC 64 Bit
- 6 = Windows 10 IoT Enterprise 2019 LTSC 32 bit
- 7 = Windows 10 IoT Enterprise 2019 LTSC 64 bit
- 8 = TwinCAT/BSD
- 9 = Windows 10 IoT Enterprise 2021 LTSC 64 bit

T = TwinCAT software licenses

- 0 = no TwinCAT
- 1 = equipped with TwinCAT 2 PLC runtime
- 2 = equipped with TwinCAT 2 NC PTP runtime
- 3 = equipped with TwinCAT 2 NC I runtime
- 5 = equipped with TwinCAT 3 runtime (XAR), no licenses included

**CX56x0-0xST**

Ordering information	
CX5630-0100	CPU module, no operating system, no TwinCAT
CX5630-0160	CPU module, Microsoft Windows 10 IoT Enterprise 2019 LTSC, 32 bit, no TwinCAT
CX5630-0161	CPU module, Microsoft Windows 10 IoT Enterprise 2019 LTSC, 32 bit, TwinCAT 2 PLC runtime
CX5630-0162	CPU module, Microsoft Windows 10 IoT Enterprise 2019 LTSC, 32 bit, TwinCAT 2 NC PTP runtime
CX5630-0163	CPU module, Microsoft Windows 10 IoT Enterprise 2019 LTSC, 32 bit, TwinCAT 2 NC I runtime
CX5630-0170	CPU module, Microsoft Windows 10 IoT Enterprise 2019 LTSC, 64 bit, no TwinCAT
CX5630-0175	CPU module, Microsoft Windows 10 IoT Enterprise 2019 LTSC, 64 bit, TwinCAT 3 runtime (XAR), no licenses included
CX5630-0185	CPU module, TwinCAT/BSD, TwinCAT 3 runtime (XAR), no licenses included
CX5630-0190	CPU module, Microsoft Windows 10 IoT Enterprise 2021 LTSC, 64 bit, no TwinCAT
CX5630-0195	CPU module, Microsoft Windows 10 IoT Enterprise 2021 LTSC, 64 bit, TwinCAT 3 runtime (XAR), no licenses included
CX5630-0220	CPU module, Microsoft Windows 11 IoT Enterprise 2024 LTSC, 64 bit, no TwinCAT
CX5630-0225	CPU module, Microsoft Windows 11 IoT Enterprise 2024 LTSC, 64 bit, TwinCAT 3 runtime (XAR), no licenses included

TwinCAT/BSD and Windows 10 IoT Enterprise require a M.2 SSD (SATA).

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

## Options

Optional interfaces	
<a href="#"><u>CX5630-N010</u></a>	DVI-D interface, additional DVI-D port for clone or extended display mode. Is not supported by TwinCAT/BSD.
<a href="#"><u>CX5630-N011</u></a>	DisplayPort interface, additional DisplayPort for clone or extended display mode. Is not supported by TwinCAT/BSD.
<a href="#"><u>CX5630-N020</u></a>	audio interface, 3 x 3.5 mm jack sockets, Line In, Mic In, Line Out or 5.1 Surround
<a href="#"><u>CX5630-N030</u></a>	RS232 interface, D-sub plug, 9-pin (RXD, TXD, RTS, CTS)

<a href="#"><u>CX5630-N031</u></a>	RS485 interface, D-sub socket, 9-pin, configuration as an end point, without echo, termination on
<a href="#"><u>CX5630-N031-0001</u></a>	RS485 interface, D-sub socket, 9-pin, configuration as an end point, with echo, termination on
<a href="#"><u>CX5630-N031-0002</u></a>	RS485 interface, D-sub socket, 9-pin, configuration as drop point, without echo, termination off
<a href="#"><u>CX5630-N031-0003</u></a>	RS485 interface, D-sub socket, 9-pin, configuration as drop point, with echo, termination off
<a href="#"><u>CX5630-N031-0004</u></a>	RS422 interface, D-sub socket, 9-pin, configuration as full duplex end point, termination on
<a href="#"><u>CX5630-M112</u></a>	2 x EtherCAT master interface
<a href="#"><u>CX5630-B110</u></a>	EtherCAT slave interface, EtherCAT IN and OUT (2 x RJ45)
<a href="#"><u>CX5630-M310</u></a>	PROFIBUS master interface, D-sub socket, 9-pin
<a href="#"><u>CX5630-B310</u></a>	PROFIBUS slave interface, D-sub socket, 9-pin
<a href="#"><u>CX5630-M510</u></a>	CANopen master interface, D-sub plug, 9-pin
<a href="#"><u>CX5630-B510</u></a>	CANopen slave interface, D-sub plug, 9-pin
<a href="#"><u>CX5630-M930</u></a>	PROFINET RT, controller interface, Ethernet (2 x RJ45 switch)
<a href="#"><u>CX5630-B930</u></a>	PROFINET RT, device interface, Ethernet (2 x RJ45 switched)

## Accessories

Accessories	
<a href="#"><u>CX1900-0132</u></a>	16 GB microSD card
<a href="#"><u>CX2900-0101</u></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="#"><u>CX2900-0102</u></a>	Cover for left-side module bus connector, 5 pieces
<a href="#"><u>CX2900-0108</u></a>	Logo strips for CX5xxx, transparent for individual labeling, package contents 20 units
<a href="#"><u>CX2900-0506</u></a>	40 GB M.2 2242 SSD, 3D flash, extended temperature specification
<a href="#"><u>CX2900-0507</u></a>	80 GB M.2 2242 SSD, 3D flash, extended temperature specification
<a href="#"><u>CX2900-0508</u></a>	160 GB M.2 2242 SSD, 3D flash, extended temperature specification
<a href="#"><u>CX2900-0509</u></a>	320 GB M.2 2242 SSD, 3D flash, extended temperature specification
<a href="#"><u>C9900-K530,-K552,-K553,-K554</u></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="#"><u>C9900-K569,-K570,K577</u></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="#"><u>ZK1090-9191-0xxx</u></a>	RJ45, plug, straight, male, 8-pin – RJ45, plug, straight, male, 8-pin
<a href="#"><u>ZK1093-9191-0xxx</u></a>	RJ45, plug, straight, male, 8-pin – RJ45, plug, straight, male, 8-pin
<a href="#"><u>C9900-K527,-K549,-K550,-K568</u></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="#"><u>C9900-K528,-K529,-K534...K537,-K688</u></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
<a href="#"><u>C9900-K780...K783,-K820</u></a>	Display cable, shielded, PVC, fixed installation, black, DVI-D, plug, straight, male, 24 + 1-pin – DisplayPort, plug, straight, male, 20-pin
<a href="#"><u>C9900-K543,-K544,-K507,-K555,-K651</u></a>	Display cable, shielded, PVC, fixed installation, black, DVI-D, plug, straight, male, 24 + 1-pin – M16, plug, straight, female, 19-pin
<a href="#"><u>BZ1xxx</u></a>	100 contact labels, various colors, pre-printed
<a href="#"><u>BZ2xxx</u></a>	100 contact labels, various colors, blank