



CX5130 | Embedded PC with Intel Atom® processor

The CX5130 has an Intel Atom® multi-core processor with a clock rate of 1.75 GHz. This makes genuine multi-core technology possible in the Embedded PC segment. The hardware interfaces in this series are oriented and implemented identically to those of the existing CX5000 series. Two independent, Gigabit-capable Ethernet interfaces as well as four USB 2.0 and a DVI-I interface are available. A multitude of further connection options and gateway functions is created by an option interface, which can be pre-equipped ex factory, as well as the I/O level, which can optionally consist of either E-bus or K-bus terminals.

The CX5130 is characterised by low power consumption and fanless design.

Depending on the installed TwinCAT runtime environment, the CX5130 can be used for implementing PLC or PLC/motion control projects with or without visualisation. The execution of motion control applications with interpolating axis movements is also possible.

Like the CX5000, the CX5100 series has a compact design; a modular device with extension modules like in the CX2000 series is not available.

Order identifier

The order identifier is derived as follows:

<p>CX5130-01ST</p> <ul style="list-style-type: none"> 0 = no TwinCAT 1 = with TwinCAT 2 PLC runtime 2 = with TwinCAT 2 NC PTP runtime 3 = with TwinCAT 2 NC I runtime 5 = TwinCAT 3 runtime (XAR) <ul style="list-style-type: none"> 0 = no operating system 1 = operating system Windows Embedded Compact 7 2 = operating system Windows Embedded Standard 7 P 32 bit 3 = operating system Windows Embedded Standard 7 P 64 bit 4 = Windows 10 IoT Enterprise 2016 LTSB 32 bit 5 = Windows 10 IoT Enterprise 2016 LTSB 64 bit 6 = Windows 10 IoT Enterprise 2019 LTSC 32 bit 7 = Windows 10 IoT Enterprise 2019 LTSC 64 bit <p>Further ordering options see price list.</p> <p>Since not all combinations make sense, the table "Ordering information" contains a breakdown of the permissible combinations.</p>	<p>Optional interfaces:</p> <ul style="list-style-type: none"> CX5130-N011 = DisplayPort interface CX5130-N020 = audio interface CX5130-N030 = RS232, D-sub plug CX5130-N031 = RS422/RS485, D-sub socket CX5130-M310 = PROFIBUS master, D-sub socket, 9-pin CX5130-B310 = PROFIBUS slave, D-sub socket, 9-pin CX5130-M510 = CANopen master, D-sub plug, 9-pin CX5130-B510 = CANopen slave, D-sub plug, 9-pin CX5130-M930 = PROFINET RT, controller CX5130-B930 = PROFINET RT, device, Ethernet (2 x RJ45 switch) CX5130-B931 = PROFINET IRT, device, Ethernet (2 x RJ45 switch) CX5130-B950 = EtherNet/IP slave, Ethernet (2 x RJ45 switch) CX5130-B110 = EtherCAT slave, EtherCAT IN and OUT (2 x RJ45)
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Technical data	CX5130
Processor	Intel Atom® E3827, 1.75 GHz
Number of cores	2
Flash memory	slot for CFast card and microSD card, cards not included
Main memory	4 GB DDR3 RAM (not expandable)
Persistent memory	integrated 1-second UPS (1 MB on CFast card)
Interfaces	2 x RJ45 10/100/1000 Mbit/s, 1 x DVI-I, 4 x USB 2.0, 1 x optional interface
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 Embedded Compact 7 (supports only one CPU core), Microsoft Windows Embedded Standard 7 P, Microsoft Windows 10 IoT Enterprise 2016 LTSB, Microsoft Windows 10 IoT Enterprise 2019 LTSC
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 %)
Current supply E-bus/K-bus	2 A
Max. power consumption	14 W
Max. power consumption (with loading UPS)	20 W
Dimensions (W x H x D)	142 mm x 100 mm x 92 mm
Weight	approx. 960 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, ATEX, IECEX
Ex marking	II 3 G Ex nA IIC T4 Gc II 3 D Ex tc IIIC T135 °C Dc Ex nA IIC T4 Gc Ex tc IIIC T135 °C Dc
TC3 performance class	Performance (40); please see here for an overview of all the TwinCAT 3 performance classes

Ordering information	no operating system	Windows Embedded Compact 7	Windows Embedded Standard 7 P 32 bit	Windows Embedded Standard 7 P 64 bit	Windows 10 IoT Enterprise 2016 LTSB 32 bit	Windows 10 IoT Enterprise 2016 LTSB 64 bit	Windows 10 IoT Enterprise 2019 LTSC 32 bit	Windows 10 IoT Enterprise 2019 LTSC 64 bit	no TwinCAT	TwinCAT 2 PLC runtime
CX5130-0100	x	-	-	-	-	-	-	-	x	-
CX5130-0110	-	x	-	-	-	-	-	-	x	-
CX5130-0111	-	x	-	-	-	-	-	-	-	x
CX5130-0112	-	x	-	-	-	-	-	-	-	-
CX5130-0113	-	x	-	-	-	-	-	-	-	-
CX5130-0115	-	x	-	-	-	-	-	-	-	-
CX5130-0120	-	-	x	-	-	-	-	-	x	-
CX5130-0121	-	-	x	-	-	-	-	-	-	x
CX5130-0122	-	-	x	-	-	-	-	-	-	-
CX5130-0123	-	-	x	-	-	-	-	-	-	-
CX5130-0125	-	-	x	-	-	-	-	-	-	-
CX5130-0130	-	-	-	x	-	-	-	-	x	-
CX5130-0135	-	-	-	x	-	-	-	-	-	-
CX5130-0140	-	-	-	-	x	-	-	-	x	-
CX5130-0141	-	-	-	-	x	-	-	-	-	x
CX5130-0142	-	-	-	-	x	-	-	-	-	-
CX5130-0143	-	-	-	-	x	-	-	-	-	-
CX5130-0150	-	-	-	-	-	x	-	-	x	-
CX5130-0155	-	-	-	-	-	x	-	-	-	-
CX5130-0160	-	-	-	-	-	-	x	-	x	-
CX5130-0161	-	-	-	-	-	-	x	-	-	x
CX5130-0162	-	-	-	-	-	-	x	-	-	-
CX5130-0163	-	-	-	-	-	-	x	-	-	-
CX5130-0170	-	-	-	-	-	-	-	x	x	-
CX5130-0175	-	-	-	-	-	-	-	x	-	-

Accessories	
CX1900-0101	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).
CX2900-0026	20 GB CFast card, 3D flash, extended temperature range (only for Windows CE or TwinCAT/BSD operating systems)
CX2900-0038	40 GB CFast card, 3D flash, extended temperature range
CX2900-0040	80 GB CFast card, 3D flash, extended temperature range
CX2900-0042	160 GB CFast card, 3D flash, extended temperature range
CX2900-0107	<p>Device modification for CX5120, CX5130, CX5140 and CX9020 Embedded PCs according to the requirements for ATEX and IECEx certification. The modification is mandatory for the usage of CX5120, CX5130, CX5140 and CX9020 in hazardous areas, Zone 2/22.</p> <p>It includes the modification and repositioning of the device label as well as a mounting bracket installed ex works for mechanical locking of the connectors.</p> <p>Product labeling: ATEX: II 3 G Ex nA IIC T4 Gc and II 3 D Ex tc IIIC T135 °C Dc IECEx: Ex nA IIC T4 Gc and Ex tc IIIC T135 °C Dc Read the device documentation for use in hazardous areas carefully.</p>

Optional interfaces	
CX5130-N010	DVI-D interface, additional DVI-D port for clone or extended desktop operation
CX5130-N011	DisplayPort interface, additional DisplayPort for clone or extended desktop operation
CX5130-N020	audio interface, 3 x 3.5 mm jack sockets, Line In, Mic In, Line Out or 5.1 Surround
CX5130-N030	RS232 interface, D-sub plug, 9-pin
CX5130-N031	RS485 interface, D-sub socket, 9-pin, configuration as an end point, without echo, termination on
CX5130-N031-0001	RS485 interface, D-sub socket, 9-pin, configuration as an end point, with echo, termination on
CX5130-N031-0002	RS485 interface, D-sub socket, 9-pin, configuration as drop point, without echo, termination off
CX5130-N031-0003	RS485 interface, D-sub socket, 9-pin, configuration as drop point, with echo, termination off
CX5130-N031-0004	RS422 interface, D-sub socket, 9-pin, configuration as full duplex end point, termination on
CX5130-B110	EtherCAT slave interface, EtherCAT IN and OUT (2 x RJ45)
CX5130-M310	PROFIBUS master interface, D-sub socket, 9-pin
CX5130-B310	PROFIBUS slave interface, D-sub socket, 9-pin
CX5130-M510	CANopen master interface, D-sub plug, 9-pin
CX5130-B510	CANopen slave interface, D-sub plug, 9-pin
CX5130-M930	PROFINET RT, controller interface, Ethernet (2 x RJ45)
CX5130-B930	PROFINET RT, device interface, Ethernet (2 x RJ45 switched)
CX5130-B950	EtherNet/IP slave interface, Ethernet (2 x RJ45 switched), availability on request