

ECX-EC

EtherCAT® Slave Bridge



'Bridging two EtherCAT Slave Segments'

- Includes two EtherCAT slave devices
- Process data exchange between two EtherCAT networks
- Time synchronization (DC) between the EtherCAT Masters
- Supports DC with redundancy

EtherCAT Implementation

- Ethernet physics acc. to IEEE 802.3
- Configuration via CoE
- Firmware upgradable via FoE
- EoE support (Switch port)

EtherCAT Process Image widely configurable

- Configuration by typical network configuration tools (e.g. esd Workbench, TwinCAT®)
- Up to 1024 bytes in each direction
- Layout defined by variables, e.g. 'UDINT'



EtherCAT Slave Bridge

The ECX-EC connects two EtherCAT segments. Therefore the EtherCAT slave bridge implements two separate EtherCAT slave interfaces for integration into two EtherCAT networks. The bridge allows EtherCAT process data exchange between the networks.

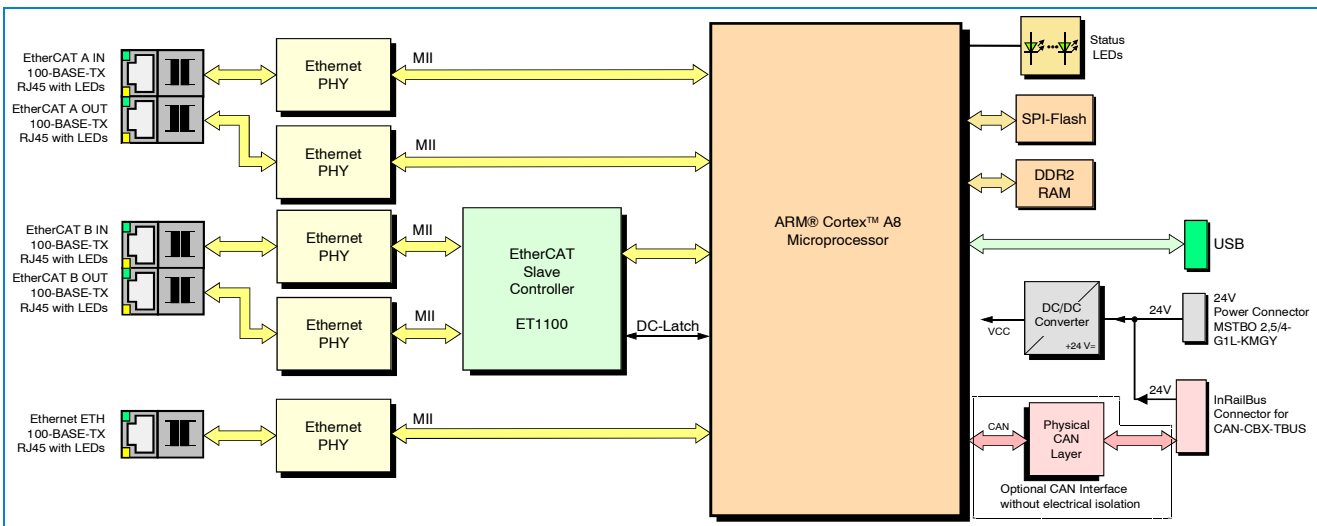
For synchronization of Distributed Clocks (DC) the ECX-EC offers the exact difference between the two slave time stamps as CoE object to allow one master adjusting its time to the other.

For DC synchronization in the redundancy case the ECX-EC bridge is used as first and last slave simultaneously, which allows the master to keep all slaves synchronized in both segments.

Additionally the ECX-EC comes with an Ethernet interface, that can be used as Ethernet over EtherCAT (EoE) Switch Port.

The ECX-EC is a compact hat-rail module designed for carrier rail mounting (TS 35). The 24 V-power supply can be applied via a connector with spring-cage connection or optionally via the InRailBus connector (TBUS-connector) integrated in the mounting-rail.

The ECX-EC can be configured by typical network configuration tools as for example esd Workbench, TwinCAT, etc.



Technical Specifications:

Microcontroller:	
CPU	TI, AM3357 (Cortex™ A8)
Memory	DDR2-RAM: 64 MB Flash: 8 MB
EtherCAT Slave (primary):	
Controller	CPU internal PRU
Interface	2x RJ45, 100BASE-TX, IEEE 802.3
EtherCAT Slave (secondary):	
Controller	ET1100
Interface	2x RJ45, 100BASE-TX, IEEE 802.3
Ethernet:	
Controller	CPU internal EMAC
Interface	1x RJ45, 100BASE-TX, IEEE 802.3

General:	
Power supply voltage	Nominal: 24 VDC Min./ max.: 18 VDC / 32 VDC
Nominal current	100 mA @ 24 V
Ambient temperature	0 °C ... +55 °C
Relative humidity	Max. 90 % (non-condensing)
Protection class	IP20
Dimensions	22.5 mm x 99 mm x 114.5 mm
Housing	Plastic housing (ME MAX) for carrier rail mounting NS 35/7,5 DIN EN 60715
Weight	approx. 130 g

Order Information:		
ECX-EC	ECX-EC EtherCAT Bridge for top-hat-rail mounting incl. CD with documentation and EtherCAT Workbench Trial Version	E.3022.02