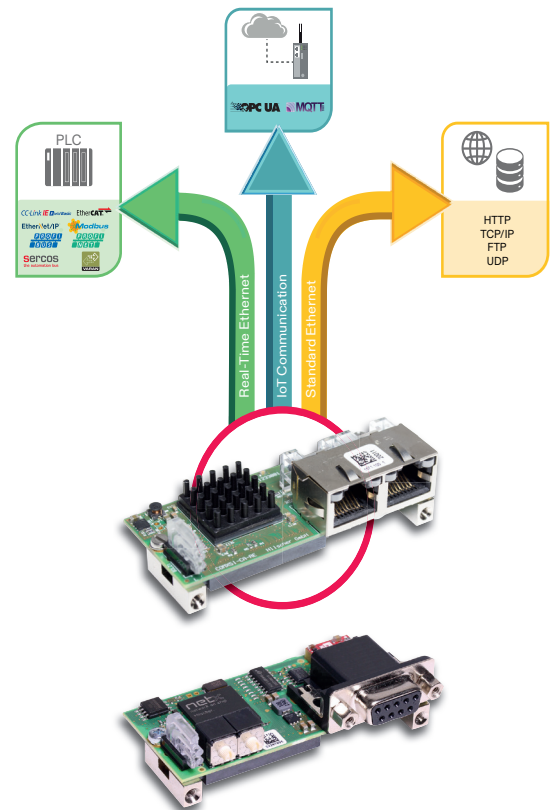


comX

Flexible Communication Module for Automation

- All major industrial protocols
- Master and Slave
- One hardware for all Real-Time Ethernet protocols
- Ready to use, due to preloaded firmware
- Integrated OPC UA Server & MQTT Client
- Firmware update via integrated Webserver



The module for all communication tasks

The comX communication module is designed for integration in automation devices e.g. robot controllers, PLCs or drives to add a network interface. All communication tasks are executed autonomously in the module - independent of the processor of the target device.

Process data exchange is done via a Dual-Port-Memory, either as 8-/16-bit bus interface or as 50 MHz SPI interface. comX supports all major Real-Time Ethernet protocols as Master or Slave and covers all network specific demands in a single module.

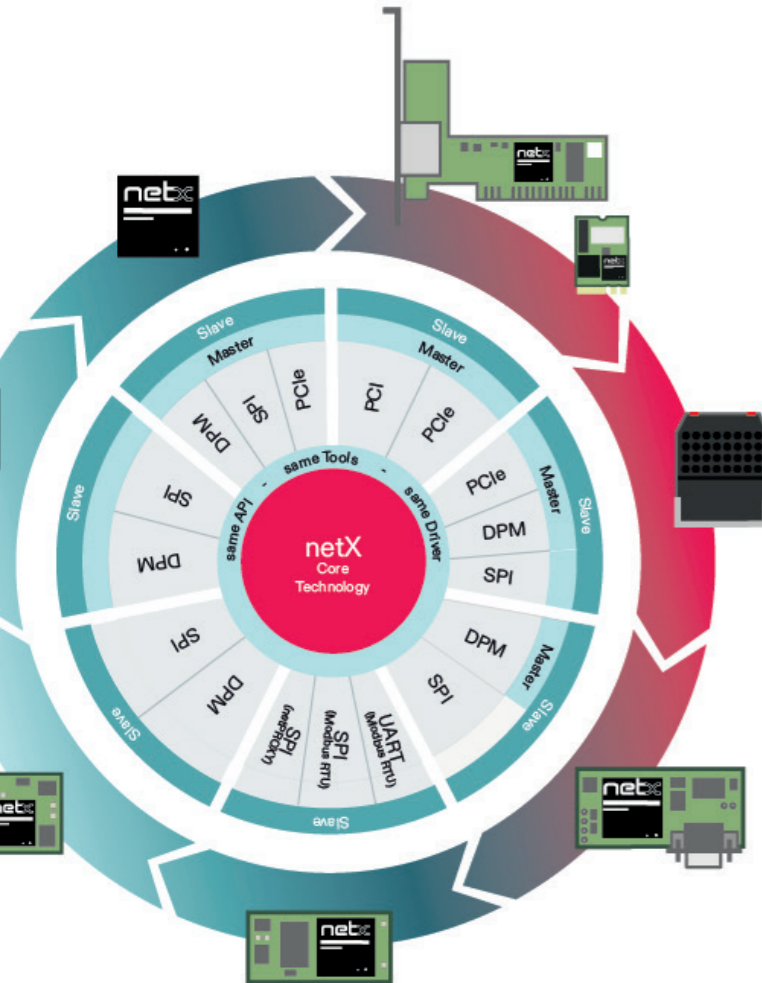
For support of a line topology the module is equipped with two Ethernet ports. A change of the communication protocol is done by simply loading a different firmware and adding a software license upgrades to a master.

Besides Real-Time Ethernet communication there is an integrated Webserver as well as an additional transparent Ethernet channel available, to realize own IT solutions in the host processor of the automation device. Moreover, an upgrade with integrated OPC UA server and a MQTT client is available.



→ QR Code Link: comX
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www.hilscher.com

Communication Module for Real-Time Ethernet and Fieldbus – comX



Same Function - Same API - Same Tools

The Hilscher Platform Strategy provides the whole range of communication solutions to the user – from standardized PC card up to the integration of the multi-protocol chip netX. All solutions – whether Master or Slave – have the same interface to the application and use the same tools.

After single integration of the application interface the change to a different hardware format or a different physical host interface is a purely hardware optimization process without fundamental changes of the software structure.

Real-Time Ethernet & Fieldbus protocols

As specialist for industrial communication Hilscher offers the largest selection of protocols used in the factory automation. Besides traditional Fieldbus all major Real-Time Ethernet protocols are available - and that's as Master or Slave.

For selected Real-Time Ethernet protocols the firmware update can be done via an integrated Webserver. Furthermore the data exchange via Ethernet or TCP/IP is supported.



Easiest integration

For a quick and easy integration Hilscher offers a wide range of device drivers. Besides a C-Toolkit free of charge, drivers for all relevant operating systems are available – in most cases as source code.



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Multi Network Design

All comX modules have the same dimensions and are pin-compatible to each other. Thus you can cover the whole range of network protocols with exactly one baseboard design. Thanks to common interfaces you can react quickly and most flexible to new market requirements - with a maximum of time- and cost-savings.

You can choose between the following types:

- with integrated network connector
- with network interface to the baseboard
- with integrated switch for slave address

The host connection is done either via a parallel 8-/16-bit bus or a fast SPI interface with up to 50 MHz.

Universal Module or Slave only

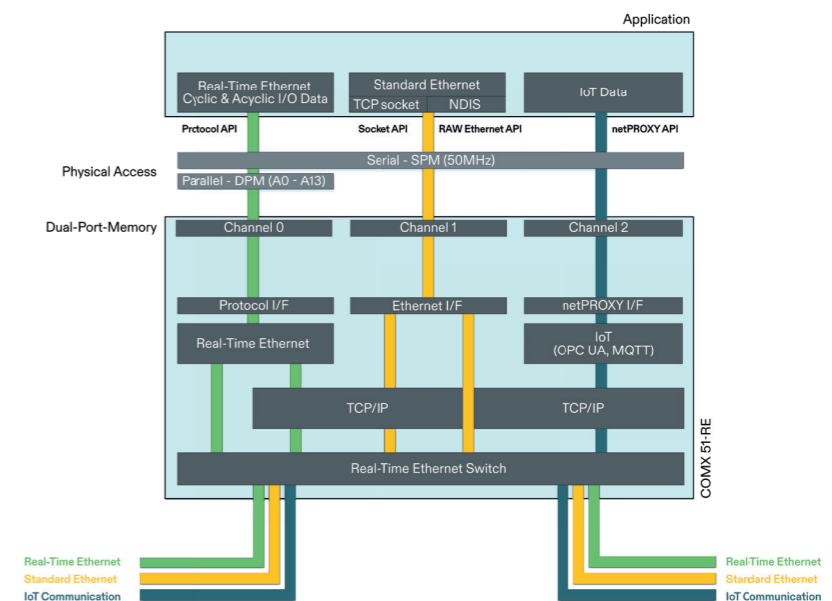
The Hilscher comX modules are available as universal modules or as slave only modules. The universal module can be used both as Master and as Slave. The Slave modules are specifically designed for demanding field devices. They provide integrated rotary switches for the slave address and a fast SPI interface to the host. For EtherCAT slave a special hardware version for the Semiconductor Manufacturing Equipment market is available. According to ETG.5003-1 (Common Device Profile) the explicit device ID can be set by rotary switches.

IT functions & IoT communication

Software structure comX 51

comX 51 offers three separate channels to the host, which can be accessed via 50MHz SPI.

- Channel 0: Cyclic and acyclic Real-Time Ethernet data
- Channel 1: Ethernet channel with TCP socket or Raw Ethernet interface
- Channel 2: IoT data via OPC UA / MQTT



Product Information

Technical Data

Technical Data

Operating Temperature
-20 ... +65 °C

Operating Voltage
+3.3 V / 440 - 700 mA

Dimensions (L x W x H)
70 × 30 × 21,5 mm

Processor
netX 50 / netX 51 / netX 52 / netX 100

System Interface
8-/16 bit DPM or 50 MHz SPI

Weight
max. 40g

Certification
CE Sign, UKCA

Mounting
metal mounting blocks

Technical Data

Emission
EN 61000-6-4

Noise Immunity
EN 61000-6-2 (1999)

Connector
Samtec SFM-125-02-S-D-A

LED Indicators
SYS, COM 0, COM 1, Link, Rx/Tx

Dual-Port-Memory
8-/16 bit

SPI
50 MHz (COMX 10, COMX 51)

Variant CA
angled network connector

Variant CN
Connector to the baseboard

Note: All technical data may be changed without further notice.

Article Overview

COMXEB

1530.000 | COMX Evaluationboard - For evaluation of all comX types; incl. Software package

Product	Slave only	Universal Module	CANopen	CC-Link ¹⁾	DeviceNet	PROFINET	CC-Link IE Basic	EtherCAT	EtherNet/IP	EtherNet/IP	MQTT OPC UA ¹⁾	ETHERNET POWERLINK ¹⁾	Modbus	PROFINET	PROFINET	MQTT OPC UA ¹⁾	sercos the automation bus	VARAN ¹⁾	SPI	DPM
comX 52 ²⁾ COMX 52CA	✓	✗	✓	✓	✓	✓	✗	✗	✗	✗	✓	✗	✗	✗	✗	✗	✗	✗	✓	✓
comX 52 ²⁾ COMX 52CN	✓	✗	✓	✓	✓	✓	✗	✗	✗	✗	✓	✗	✗	✗	✗	✗	✗	✗	✓	✓
comX 51 ³⁾ COMX 51CA	✓	✗	✗	✗	✗	✗	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✗	✓	✓
comX 51 COMX 51CN	✓	✗	✗	✗	✗	✗	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✗	✓	✓
comX 100 COMX 100CA	✗	✓	✓	✗	✓	✓	✓	✓	✓	✗	✓	✓	✓	✗	✓	✓	✓	✓	✗	✓
comX 100 COMX 100CN	✗	✓	✓	✗	✓	✓	✓	✓	✓	✗	✓	✓	✓	✗	✓	✓	✓	✓	✗	✓

1) Slave only 2) Funktionskompatibler Ersatz für comX 10
3) Special EtherCAT Slave with Rotary Switches acc. to ETG.5003-1



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