cifX
reduced to the maximum

PC-Card & netX

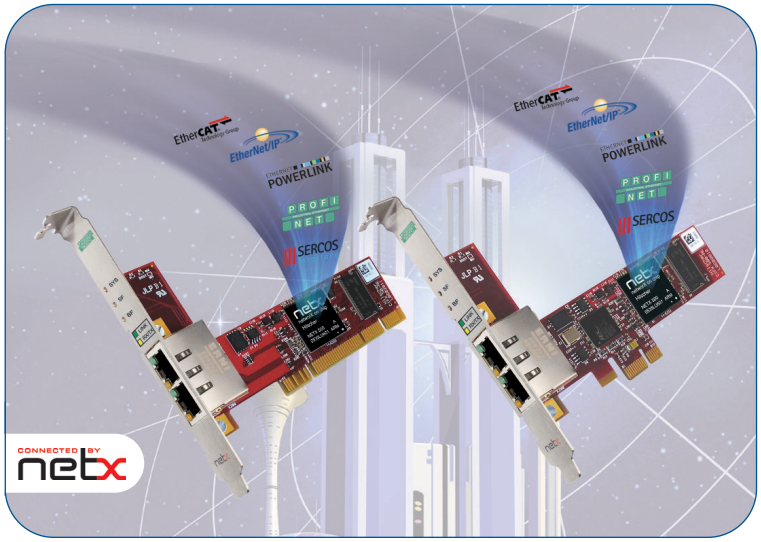
Description

Ethernet in industrial automation technology promised transfer of huge amounts of data through all levels of the communication pyramid and, at the same time, to benefit from low cost office components. The reality is that various industrial automation systems demand determinism, minimal jitter and a line topology. This implies the use of additional hardware, so standard Ethernet components cannot be used throughout these applications. Often a ten-year commitment of availability for these products is requested by the industry and therefore specific PC hardware is used in automation applications.

The cifX PC card series offers a solution that supports a broad variety of real-time Ethernet systems. It utilizes the netX controller chip and a SDRAM and provides maximum performance, functionality and flexibility for a fair price.

Highlights

- **One PC Card for all Real-time Ethernet Systems**
- **One PC Card that runs Master and Slave Protocols**
- **Data Exchange via Dual-Port Memory (DPM) or Direct Memory Access (DMA)**
- **Unified User Interface for Various Protocols**
- **PCI or PCI Express**
- **Ten-year Commitment of Availability**
- **SYCON.net Configuration Tool based on FDT/DTM Technology**



The protocols for cifX are delivered as loadable firmware on the provided CD. If the cifX driver finds a loadable firmware during system start-up, it loads this firmware into the board. This approach provides a simple way to reconfigure the system for different Ethernet protocols. A license code is required for master applications or used together with an OPC server. The license can be purchased with the cifX or later on and is stored on the board.

This means reduction to one type of PC card and therefore less diversity in terms of purchase management. Additionally, this approach reduces cost for warehouse, logistic, engineering, setup and maintenance.

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Technical Information

Protocol

EtherCAT	Slave
Cyclic Data	max. 400 Bytes
Acyclic Data	SDO Master/Slave
	SDO Slave/Slave
Functions	COE (CANopen over EtherCAT)
	Emergency
	Complex Slave
	3 FMMUs and 4 SYNC-Manager

EtherCAT	Master
Cyclic Data	max. 11520 Bytes
Acyclic Data	CoE(CANopen over EtherCAT)Up-/Download
Functions	Get OD List
	Emergency
	Topologie: Linie

EtherNet/IP	Adapter/Slave
Cyclic Data	max. 1008 Bytes
Unscheduled Data	max. 1400 Bytes per Telegram
Functions	max. 8 Connections
	one E/A Connection
	Cyclic Connection
	UCMM supported
	DHCP, BOOTP
Server Services	Get_Attribute_All/Single
	Set_Attribute_All/Single

EtherNet/IP	Scanner/Master
Cyclic Data	max. 11520 Bytes
Unscheduled Data	max. 504 Bytes per Telegram
Functions	max. 64 Connections
	Cyclic Connection
	UCMM supported
	DHCP, BOOTP
Client Services	Get_Attribute_Single/All
	Set_Attribute_Single/All

PROFINET	IO Device
Cyclic Data	max. 2048 Bytes (IOCR)
Acyclic Data	Read/Write Record, max 1024 Bytes/Telegramm
Functions	Process- and Diagnostic Alarm
	DCP
	VLAN- and Priority-Tagging
	Context Management over CLRPC
	Diagnostic, max 200 Bytes/Telegramm
	target-actual comparison configuration
	max. 244 modules
	1 Submodul

PROFINET IO	Controller
Cyclic Data	max. 6144 Bytes
Acyclic Data	Read/Write Record, max. 4096 Bytes/Request
Functions	max. 32 Devices
	minimum cycle time 1 ms
	Alarmtreatment
	DCP
	Context Management over CLRPC
	Pro Device one Puffer available for Diagnostic Data

Modbus TCP/IP	Server
Functions Codes	1, 2, 3, 4, 5, 6, 15, 16
Register (16-Bit)	max. 120 or 125 Register per Telegram
Coil (1-Bit)	max. 1968 or. 2000 Coils per Telegram
Message Mode	Server
	In/Out-Data Image not used
E/A-Modus Server	max. 11520 Byte E/A Daten

PowerLink Controlled Node/Slave	
Cyclic Data	max. 2980 Bytes
Acyclic Data	SDO Up-/Download
Functions	SDO over ASND and UDP
Poll Request/Response	Response Time 1µs
Version	V2

SERCOS III	Slave
Realtime Data	max. 2800 Bytes
Acyclic Data	Service Channel Read/Write/Standard Kommands
Functions	Phase Run Up
	Synchronization
	Ring and Line Topology
	Max. 8 Subdevices
Version	V1.1

Note: The protocols are deliverd as loadable Firmware on the provided CD.

Technical Data

Article	System Interface	Operating Voltage	Operating Temperature	Dimensions(L x W x H)
CIFX 50-RE	PCI, 33MHz DPM	3,3 V / max. 650 mA	0 ... 55°C	120 x 72 x 18 mm
CIFX 50E-RE	PCI, Single-Lane Port	3,3 V / max. 800 mA	0 ... 55°C	120 x 77 x 18 mm
CIFX 80-RE	PCI, 33MHz DPM	3,3 V / max. 650 mA	0 ... 55°C	160 x 100 x 20 mm
CIFX 90-RE\F	PCI, 33MHz DPM	3,3 V / max. 650 mA	0 ... 55°C	60 x 45 x 4,5 mm
CIFX 104C-RE	PCI, 33MHz DPM	3,3 V / max. 650 mA	0 ... 55°C	97 x 93 x 26 mm
CIFX 104C-RE\F	PCI, 33MHz DPM	3,3 V / max. 650 mA	0 ... 55°C	97 x 93 x 26 mm
CIFX 104C-RE-R	PCI, 33MHz DPM	3,3 V / max. 650 mA	0 ... 55°C	97 x 93 x 26 mm
CIFX 104C-RE-R\F	PCI, 33MHz DPM	3,3 V / max. 650 mA	0 ... 55°C	97 x 93 x 26 mm

Product Overview

Article description	Article number	Article
CIFX 50-RE	1250.100	PCI Communication Interface netX for Real-Time-Ethernet - 2x RJ 45
CIFX 50E-RE	1251.100	PCI Express Communication Interface netX for Real-Time-Ethernet - 2x RJ 45
CIFX 80-RE	1280.100	CompactPCI Communication Interface netX for Real-Time-Ethernet - 2x RJ 45
CIFX 90-RE\F	1290.100	Mini PCI Communication Interface netX for Real-Time-Ethernet - Cable and AIFX-RE with 2x RJ 45
CIFX 104C-RE	1270.100	PCI-104 Communication Interface netX for Real-Time-Ethernet - 2x RJ 45
CIFX 104C-RE\F	1270.101	PCI-104 Communication Interface netX for Real-Time-Ethernet - Cable and AIFX-RE with 2x RJ 45
CIFX 104C-RE-R	1271.100	PCI-104 Communication Interface netX for Real-Time-Ethernet - 2x RJ 45, Connection right
CIFX 104C-RE-R\F	1271.101	PCI-104 Communication Interface netX for Real-Time-Ethernet - Cable and AIFX-RE with 2x RJ 45, right
NXLIC-MASTER	8211.000	Master License

Note: All technical data are preliminary and can be altered without notice.

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