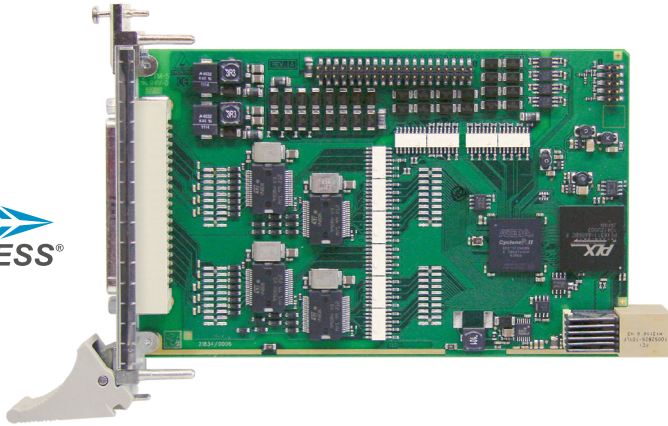


4-port serial interface, RS232, RS422, RS485, 20 mA CL, modular mounting through modules

NEW*

PCI
EXPRESS®



CPCIs-7500 – 4-port serial interface

RS232, RS422, RS485, 20 mA Current Loop

Free mode configuration for each port through SI modules

With optical isolation 1000 V

128-byte FIFO buffer for each port

16C950-compatible UART



Windows 11
64/32-bit drivers



The CPCIs-7500 communication boards are configured by inserting SI modules which the board identifies automatically. The serial interfaces can be configured through modules in the following modes: RS232, RS422, RS485 and current loop (with optical isolation).

The SI modules with optical isolation allow a protection of up to 1000 V for the use in noisy environments where earth loops can occur.

The I/O lines are protected against short-circuits, fast transients, electrostatic discharge and high-frequency EMI. The interface is supported through a 128-byte FIFO buffer for sending and receiving data and guarantees reliable operation at high transfer rates.

Features

- Asynchronous communication adapter
- Modular mounting through SI modules
4 sockets for 4-port serial interface
- Can be configured as RS232, RS422, RS485, 20 mA Current Loop (active, passive), with optical isolation through separate SI modules
- Automatic addressing through BIOS
- Automatic module identification
- UART 16C950, downwards compatible until 16C450
- 128-byte FIFO buffer for sending and receiving data
- Programmable transfer rate
- 5, 6, 7 or 8-bit character
- 1, 1½ or 2 stop bits
- Parity: even, odd or none
- Automatic transmitter control for RS485 and transmitter control through FIFO level
- Common interrupt

Safety features

- SI modules with optical isolation 1000 V
- Creeping distance IEC 61010-1 (VDE411-1)
- Protection against fast transients (Burst)
- Short-circuit protection for RS422 and RS485
- Internal diagnostic possibility, break, parity, overrun and framing error

Applications

- Industrial serial communication
- Data acquisition
- Multi-user systems
- PLC interface
- Multidrop applications
- Modem and printer control, etc.

Software drivers

Standard drivers for:

- Linux
- 64 bits Windows 7 / 8 / 10 / 11
- On Request : RTX, Xenomai, VxWorks, QNX

Supported Drivers Languages

- C/C++
- Python
- .NET
- • Other on Request

On request:





Documentation and developer resources.

The software functions can be adapted to your applications on request. The board can also be implemented for other software applications.

* Preliminary product information



SI modules

Operating mode	RS232	RS422	RS485	20 mA CL
				
	SI232-G	SI422-G	SI485-G	SITTY
Optical isolation 1000 V	O	O	O	O
Creeping distance 3.2 mm	O	O	O	O
Short-circuit protection		O	O	
ESD protection	O	O	O	O
Burst protection	O	O	O	O
Duplex	Full	Full	Half	Full
Max. Baud rate	1 MBaud	1 MBaud	1 MBaud	19.2 kBaud
Modem control signals	O	Optional RTS/CTS (SI-422-PEP)		
Autom. transmitter control			O	
Current consumption	16 mA	15 mA	15 mA	82 mA

Specifications

CPCIs-7500

Serial interface 4-port

Mode:	RS232, RS422, RS485, 20 mA Current Loop (active, passive) with optical isolation through separate SI modules
Transmission mode:	Asynchronous, full or half duplex (SI modules)
Addressing:	Automatic through BIOS
Memory:	128-byte FIFO buffer for transmitter and receiver
Transfer rate:	Programmable up to 1 MBaud; transfer rate up to 2.5 MBaud on request
Protocol:	5-, 6-, 7- or 8-bit character; 1, 1½ or 2 stop bits
Parity:	Even, odd, none, mark, space
Interrupt lines:	Automatic configuration through BIOS

EMC – Electromagnetic compatibility

The product complies with the European EMC directive. The tests were carried out by a certified EMC laboratory in accordance with the standard DIN EN IEC 61326-1. The limit values as set out by the European EMC directive for an industrial environment are complied with. The respective EMC test report is available on request.

Safety features

Optical isolation: 1000 V (SI modules)

Physical and environmental conditions

Dimensions:	168 x 99 mm
System bus:	1-/4-/8-/16-lane PCI Express acc. to PCI Express base specification, Revision 1.0a (PCI Express 1.0a)
Space required:	1 PCI Express slot
Operating voltage:	+ 3,3 V from the PC
Front connector:	37-pin D-Sub male connector
Temperature range:	-40 to 85 °C

Ordering information

CPCIs-7500

CPCIs-7500: 4-port serial interface (1 x 37-pin D-Sub)

Each incl. technical description and software drivers.

SI modules:

SI232-G:	RS232 mode, isolated
SI422-G:	RS422 mode, isolated
SI422-PEP:	RS422 mode, isolated, with RTS/CTS
SI485-G:	RS485 mode, isolated
SITTY:	20 mA Current Loop mode (active, passive), isolated

Accessories

ST075:	Shielded round cable, 37 to 4 x 9-pin
ST074:	Shielded round cable, 37 to 4 x 25-pin

* Preliminary product information