The board CPCI-7500 is a 4-port serial interface for industrial applications. It is configured by inserting MX modules which the board identifies automatically. Each serial port can be configured individually through modules in the following modes: RS232, RS422, RS485 (with or without optical isolation) and Current Loop (optically isolated). The optically isolated modules allow a protection up to 1000 V for the use in noisy environments where earth loops can occur. Interrupts, addressing and transfer rate are controlled through the BIOS. The I/O lines are protected against short-circuits, fast transients, electrostatic discharge and high-frequency EMI. Each port is supported through a 128-byte FIFO buffer for sending and receiving data which guarantees reliable operation with high data volumes.

**Features**

- Asynchronous 4-port serial interface
- 4 socket for MX modules
- Modular mounting through MX modules
- Can be configured as RS232, RS422, RS485 with or without optical isolation, 20 mA Current Loop (active, passive), with optical isolation
- Addressing through software
- No jumpers: software configuration
- Automatic module recognition
- 128-byte FIFO memory for each interface
- Common interrupts
- Programmable transfer rate
- 5-, 6- or 8-bit character
- 1, 1½ or 2 stop bits
- Parity: even, odd or none
- Automatic transmitter control for RS485

**Safety features**

- MX modules with optical isolation available
- Protection against fast transients (burst)
- Short-circuits protection for RS422 and RS485
- Internal diagnostic, break, parity, overrun and framing error
- Creeping distance IEC 61010-1 (MX modules)

**Applications**

- Data acquisition
- Industrial process control
- Industrial communication
- Multi-user systems
- Modem and printer monitoring
- Multidrop applications

**Software**

A CD-ROM with the following software and programming samples is supplied with the board.

**Standard drivers for:**

- Linux
- 32-bit drivers for Windows 8 / 7 / Vista / XP / 2000
- Signed 64-bit drivers for Windows 8 / 7 / XP
- Real-time use with Linux and Windows on request

**Drivers and samples for the following compilers and software packages:**

- Microsoft VC++
- Visual Basic • Delphi

**On request:**

Further operating systems, compilers and samples.

Driver download: www.addi-data.com/downloads
CpCI-7500

4-port serial interface, RS232, RS422, RS485, 20 mA CL. Incl. technical description and software drivers.

**MX modules:**
- **Operating mode:** RS232, RS422, RS485, 20 mA Current Loop (active, passive) with or without optically isolated via separate MX modules
- **Transmission mode:** Asynchronous, full/half duplex (MX modules)
- **Addressing:** Automatic through BIOS
- **Memory:** 128-byte FIFO buffer for each interface
- **Transfer rate:** Programmable up to 1 MBaud (optional)
- **Protocol:** 5-, 6-, or 8-bit Character, 1, 1½ or 2 Stop bits
- **Parity:** Even, odd, none, mark, space
- **Interrupt:** Interrupt configuration through BIOS

**Safety**
- Optical isolation: 1000 V (MX modules)

**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 norm from the EN 61326 series (IEC 61326). 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.

**Physical and environmental conditions**
- **Dimensions:** 3U/4TE
- **System bus:** CompactPCI 32-bit (5 V signal voltage)
- **Space required:** CompactPCI-slot, 3U
- **Operating voltage:** +5 V, ± 5 % from the PC
- **Current consumption:** 192 mA typ.
- **Front connector:** 37-pin D-Sub male connector
- **Temperature range:** 0 to 60 °C (with forced cooling)
- **MTBF:** 98 551 Hours at 45 °C

<table>
<thead>
<tr>
<th>4-port serial interface</th>
<th>CompactPCI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Modes:</td>
<td><strong>RS232</strong>, <strong>RS422</strong>, <strong>RS485</strong>, 20 mA Current Loop (active, passive) with or without optically isolated via separate MX modules</td>
</tr>
<tr>
<td>Transmission mode:</td>
<td>Asynchronous, full/half duplex (MX modules)</td>
</tr>
<tr>
<td>Addressing:</td>
<td>Automatic through BIOS</td>
</tr>
<tr>
<td>Memory:</td>
<td>128-byte FIFO buffer for each interface</td>
</tr>
<tr>
<td>Transfer rate:</td>
<td>Programmable up to 1 MBaud (optional)</td>
</tr>
<tr>
<td>Protocol:</td>
<td>5-, 6-, or 8-bit Character, 1, 1½ or 2 Stop bits</td>
</tr>
<tr>
<td>Parity:</td>
<td>Even, odd, none, mark, space</td>
</tr>
<tr>
<td>Interrupt:</td>
<td>Interrupt configuration through BIOS</td>
</tr>
</tbody>
</table>

**Connection cables**
- **37-pin D-Sub female connector**
- **4 x 9-pin D-Sub male connector (ST075)**
- **4 x 25-pin D-Sub male connector (ST074)**

**Ordering information**
- **MX232-G:** RS232 mode optically isolated
- **MX322:** RS232 mode
- **MX422-G:** RS422 mode optically isolated
- **MUX422:** RS422 mode
- **MX485-G:** RS485 mode optically isolated
- **MX485:** RS485 mode
- **MXTTY:** 20 mA Current Loop (active, passive), optically isolated
- **Option:**
- **URS-7500-6U:** 6U bracket for mounting in 6U housing
- **Quarze:** Up to 1 MBaud transfer rate
- **Connection cables:**
- **ST075:** Shielded round cable, 37-pin to 4 x 9-pin
- **ST074:** Shielded round cable, 37-pin to 4 x 25-pin