

HDLC-cPCIs

HDLC Communications Controller for CompactPCI-Serial



**Advanced Micro
Peripherals**

THE EMBEDDED VIDEO EXPERTS

The HDLC-cPCIs is a four channel HDLC communications controller on a single CompactPCI-Serial 3U card. The HDLC-cPCIs uses a high performance, industry standard serial communication controller to provide 4 independent channels that can be configured for either HDLC-Synchronous or Asynchronous communication.



The HDLC-cPCIs has been designed for demanding transportation and industrial applications. All 4 ports feature galvanic isolation up to 2000V_{RMS} and the card is available with an extended temperature operation range of -40 to +85C.

The electrical interface of the 4 channels can be individually configured for RS-232, RS-422 or RS-485 operation. Each channel has independent receive and transmit FIFOs that facilitate high speed serial data rates.

The HDLC-cPCIs is a standard 3U CompactPCI-Serial module and supported for Linux and Windows.

Rev A.00

Subject to change without notification

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2000Vrms

Galvanic

Isolation

for demanding

Transportation and

Industrial

Applications



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Applications

- Serial protocol conversion
- Mass-Transit / Transportation
- Vending Machines
- POS and ATM systems
- Remote instrumentation
- LAN Gateway or Bridge
- Embedded WAN
- Locomotive Communications

4 Independent
HDLC-Synchronous
or Asynchronous
channels

Extended
Temperature
operation

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HDLC-cPCIs

Designed for
Demanding
Transportation and
Industrial
Applications

Features

- 4 channel concurrent operation
- Individually configurable for HDLC / Asynchronous operation
- 2000Vrms galvanic isolation for each port
- Selectable RS-232/422/485 electrical interface
- Rugged, Locking I/O connectors
- Extended temperature operation (-40C to +85C)

Communications Controller

32Bytes FIFO per channel
 HDLC synchronous, Asynchronous operation

HDLC

HDLC protocol support
 Wide range of serial encoding methods:
 NRZ, NRZB, Biphasic Mark (FM1), Biphasic Space (FM0),
 Biphasic Level (Manchester),
 Biphasic Differential (Manchester Differential)
 Up to 1MBit/sec multiple Ports (depends on host CPU)
 Supporting differential TX-Data and RX-Data
 Full-duplex operation
 Abort Sequence generation and checking
 Automatic zero bit insertion/deletion
 Automatic flag insert

Asynchronous

Programmable baud rates up to 115200bps
 Full-duplex operation
 5,6,7, or 8 data bits per character
 1, 1.5, or 2 stop bits
 Odd or Even parity

Physical Interface

Independent RS-232/RS-422/RS-485 ports
 2000Vrms galvanic isolation
 Supporting TX-Data, RX-Data, CTS, RTS

Mechanical

Standard 3U CompactPCI-Serial form factor
 Operating temp 0°C to +60°C
 Operating temp -40°C to +85°C (extended temp)

Software Support

Drivers for Windows, Linux

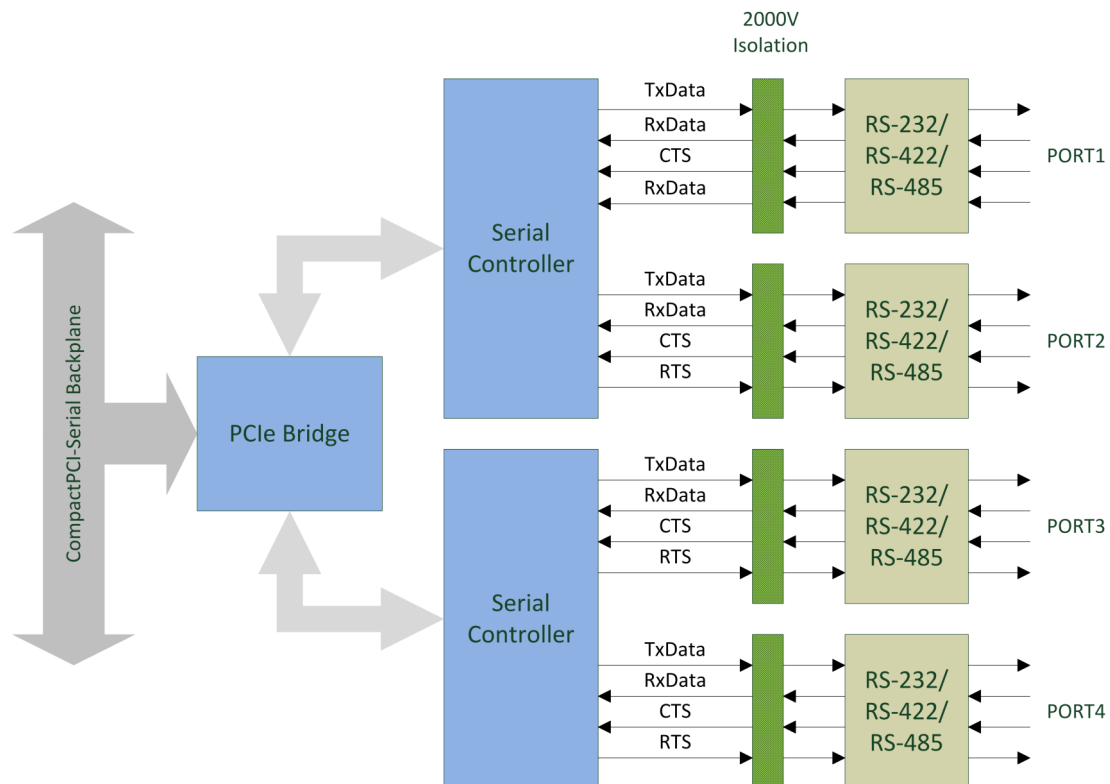
Ordering Information

HDLC-cPCIs

4-port HDLC Controller (0 to 60°C)

HDLC-cPCIs-EXT

4-port HDLC Controller (-40 to 85°C)



HDLC-cPCIs Functional Diagram

