HDLC-cPCI

HDLC Communications Controller for CompactPCI

Advanced Micro Peripherals
THE EMBEDDED VIDEO EXPERTS

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

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

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

The HDLC-cPCI is available with software drivers for Linux and Windows.

2000Vrms Galvanic Isolation for demanding Transportation and Industrial Applications

Rev A.00
Subject to change without notification

Advanced Micro Peripherals Ltd
Cambridge, CB6 2HY, England
Tel (+44) 1353 659500
Fax (+44) 1353 659600
sales@ampltd.com
http://www.ampltd.com

Advanced Micro Peripherals Inc
New York, NY10016, USA
Tel (+1) 212 951 7205
Fax (+1) 212 951 7206
sales@amp-usa.com
http://www.amp-usa.com

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EMBEDDED-PC PC/104 MODULES

HDLC-cPCI

HDLC Communications Controller for CompactPCI

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4 Independent HDLC-Synchronous or Asynchronous channels

Extended Temperature operation

Applications

Serial protocol conversion

Mass-Transit / Transportation

Vending Machines

POS and ATM systems

Remote instrumentation

LAN Gateway or Bridge

Embedded WAN

Locomotive Communications

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HDLC-cPCI

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)

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Technical Specification

Communications Controller

32Bytes FIFO per channel
HDLC synchronous, Asynchronous operation

HDLC

HDLC protocol support
Wide range of serial encoding methods:
NRZ, NRZB, Biphase Mark (FM1), Biphase Space (FM0),
Biphase Level (Manchester),
Biphase 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

Bus Interface

CompactPCI® Core Specification PICMG-2.0 Rev 3.0
32-bit bus width, 33.33 MHz bus speed
Peripheral Slot

System Requirements

X86 PC-compatible CompactPCI host computer
3.3V and 5V from CompactPCI backplane

Mechanical

Standard 3U compactPCI form factor

Operational characteristics

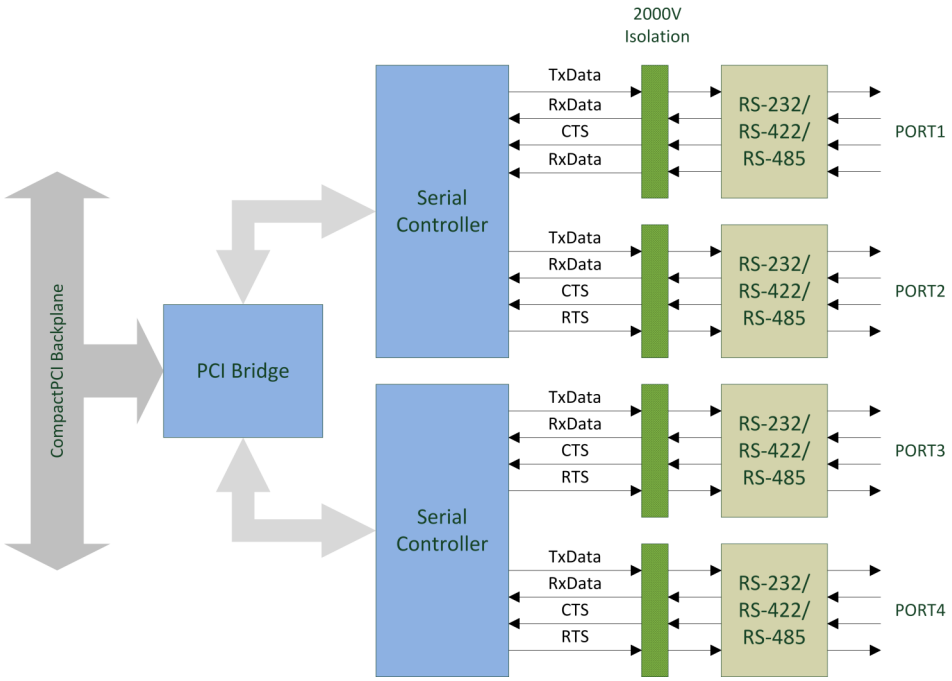
Operating temp -40˚C to +85˚C
Extended temp -40˚C to +85˚C (option)

Software Support

Linux
Windows

Ordering Information

HDLC-cPCI
4-port HDLC Controller (-0 to 60˚C)
HDLC-cPCI-EXT
4-port HDLC Controller (-40 to 85˚C)



HDLC-cPCI Functional Diagram

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