

HDLC2000

HDLC Communications Controller



**Advanced Micro
Peripherals**

THE EMBEDDED VIDEO EXPERTS

The HDLC2000 is a four channel HDLC communications controller on a single PCI-104 card. The HDLC2000 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 HDLC2000 has been designed for demanding transportation and industrial applications. The HDLC2000 supports an extended temperature operation range of -40 to $+85^{\circ}\text{C}$. All 4 ports feature galvanic isolation up to 2000Vrms.

Each of the 4 channels can be individually configured for 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 HDLC2000 is available with software drivers for Linux, Windows-XP/7/8.

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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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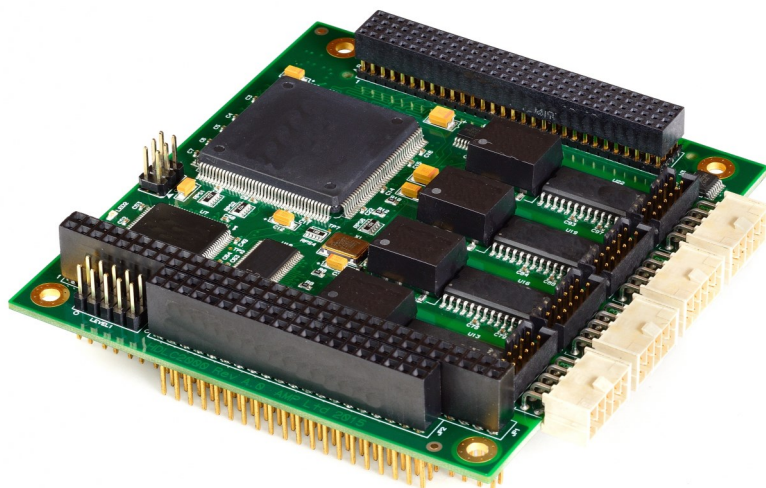
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HDLC2000

Designed for

Demanding

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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)
- Standard PCI-104 form factor

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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),
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

Bus Interface

32-bit PCI-104 Interface (stack through)

Physical Interface

Independent RS-232/RS-422/RS-485 ports
2000Vrms galvanic isolation
Supporting TX-Data, RX-Data, CTS, RTS
4 off 10-pin 0.1inch pitch headers

Miscellaneous

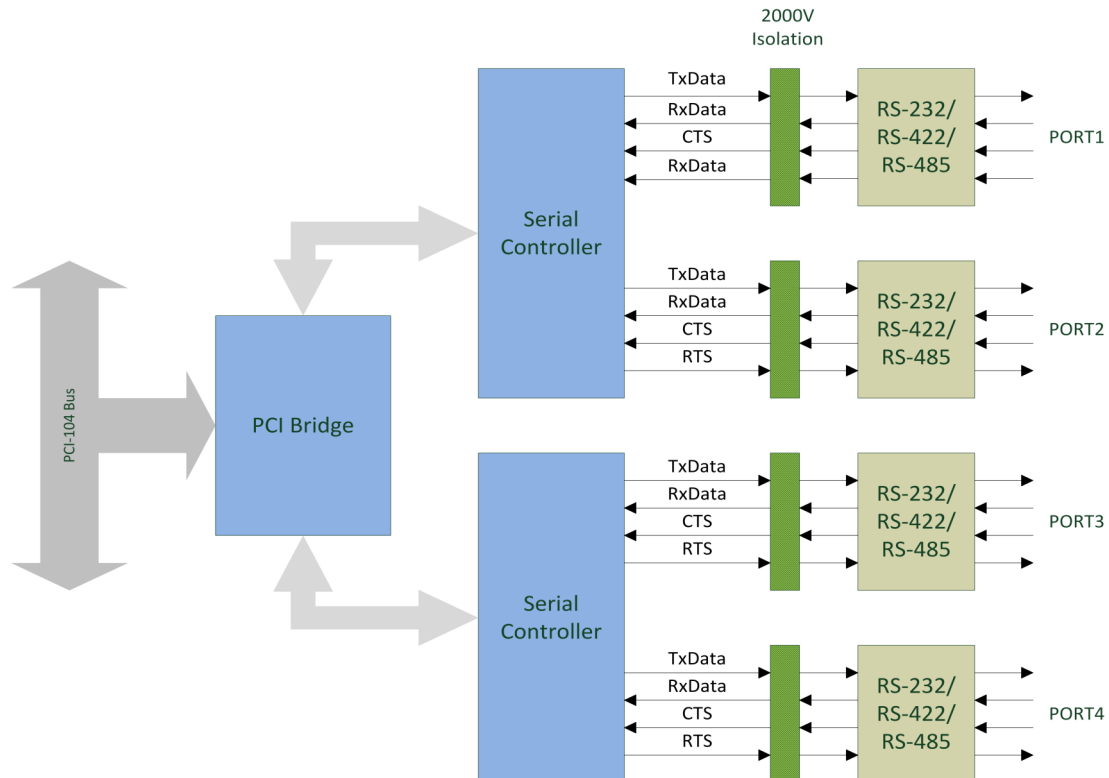
Single +5V
Operating temp -40°C to +85°C (extended temp)
Standard 3.6 x 3.8in PCI-104 form factor

Software Support

Linux
Windows

Ordering Information

HDLC2000-Ext 4-port PCI-104 HDLC Controller (-40 to 85°C)



HDLC2000 Functional Diagram

