

General Standards Corporation

High Performance Bus Interface Solutions

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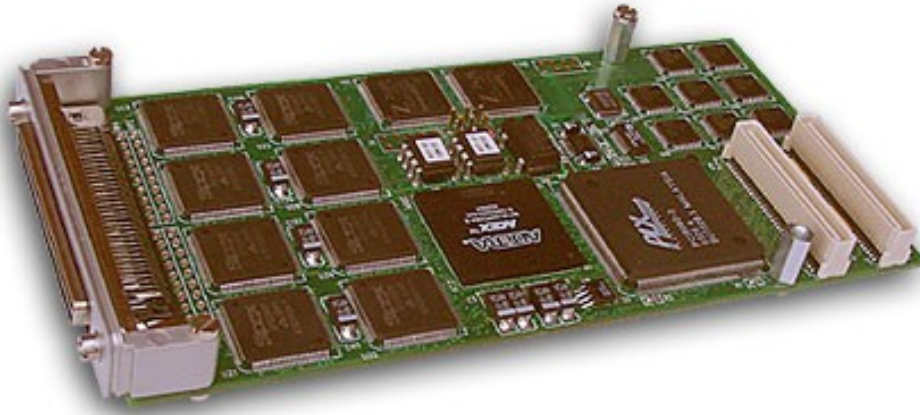
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PMC-SIO4BX

Quad Channel High Performance Serial I/O PCI CARD

With up to 256Kbytes of FIFO buffering and Multiple Serial Protocols



Features Include:

- Four Independent Multi-Protocol Serial Channels
- Synchronous Serial Data Rates up to 10 Mbits/sec
- Asynchronous Serial Data Rates up to 1 Mbit/sec
- Independent Transmit and Receive FIFOs for each channel - Up to 32 Kbytes each
- Serial Mode Protocols include Asynchronous, Bisync, SDLC, HDLC, IEEE 802.3, and Nine-Bit
- Multiprotocol Transceivers support RS422 (V.11)/RS485, RS423 (V.10), RS232 (V.28), V.35, RS530, as well as other Mixed Protocol modes.
- Parity and CRC detection capability
- Four Programmable Oscillators provide increased flexibility for Baud Rate Clock generation
- SCSI II type 68 pin front edge I/O Connector with optional cable adapter to four DB25 connectors
- Eight signals per channel, configurable as either DTE or DCE configuration: 3 Serial Clocks, 2 Serial Data signals, Clear-To-Send (CTS), Ready-To-Send(RTS), and Data Carrier Detect (DCD)
- Unused signals may be reconfigured as general purpose IO
- Fast RS422/RS485 Differential Cable Transceivers Provide Data Rate up to 10Mbps
- RS423 and RS232 Cable Transceivers Provide Data Rate up to 230kbps
- Industry Standard Zilog Z16C30 Multi-Protocol Universal Serial Controllers (USC®)
- Dual PCI DMA Engine to speed transfers and minimize host I/O overhead
- A variety of device drivers are available, including VxWorks, WinNT, Win2k, Linux, and Labview

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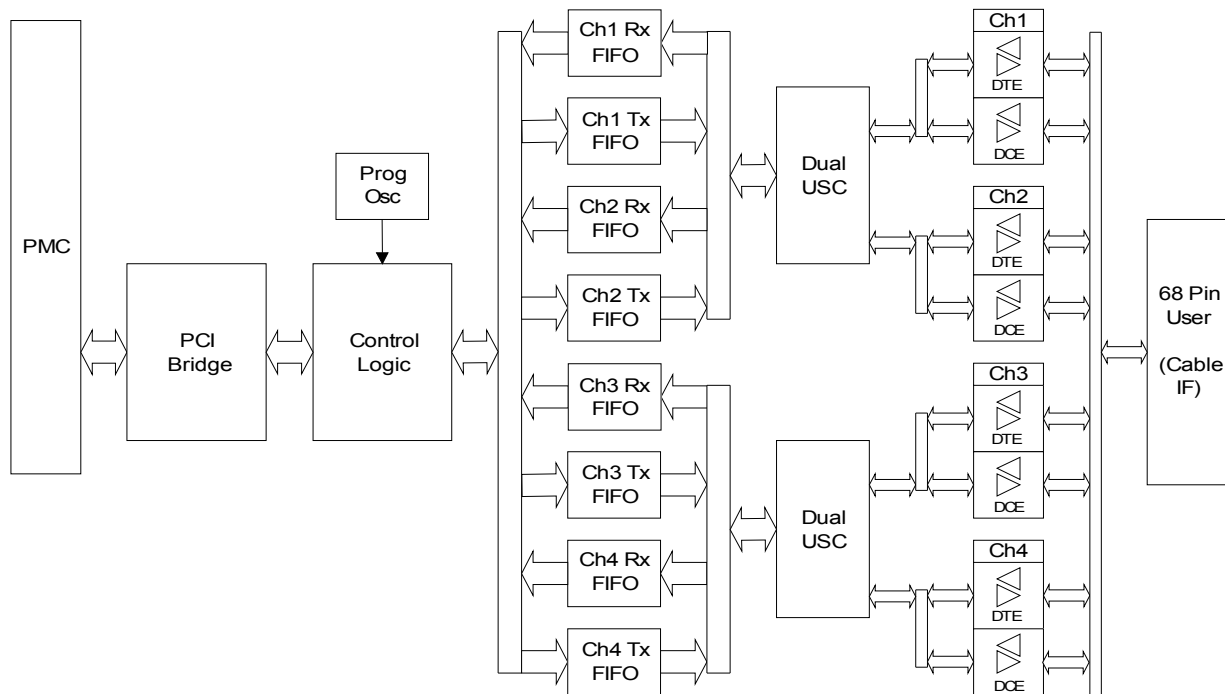
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Applications Include:

- ✓ LAN/WAN Networking
- ✓ Telecommunications
- ✓ Serial Interface

Functional Description:

The PMC-SIO4BX board is a four channel serial interface card which provides high speed, full-duplex, multi-protocol serial capability for PMC applications. The SIO4BX combines two multi-protocol Dual Universal Serial Controllers (USC®), 8 external FIFOs, and multi-protocol transceivers to provide four fully independent asynchronous or synchronous serial channels. These features, along with a high performance PCI interface engine, give the PMC-SIO4BX unsurpassed performance in a serial interface card.



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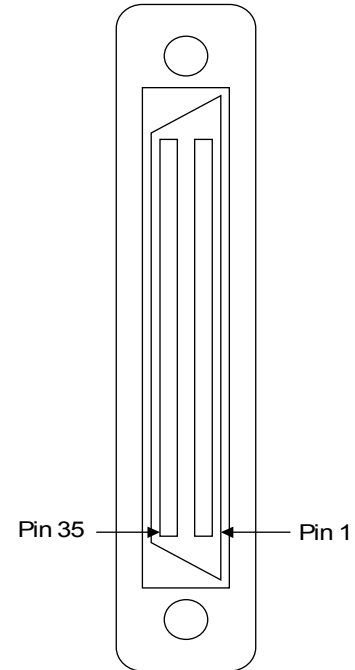
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USER I/O CONNECTIONS:

| Pin # | DTE Signal | DCE Signal | Pin # | DTE Signal | DCE Signal |
|-------|-------------|-------------|-------|-------------|-------------|
| 1 | Ch1 RxClk + | Ch1 TxClk + | 35 | Ch3 RxClk + | Ch3 TxClk + |
| 2 | Ch1 RxClk - | Ch1 TxClk - | 36 | Ch3 RxClk - | Ch3 TxClk - |
| 3 | Ch1 DCDI + | Ch1 DCDO + | 37 | Ch3 DCDI + | Ch3 DCDO + |
| 4 | Ch1 DCDI - | Ch1 DCDO - | 38 | Ch3 DCDI - | Ch3 DCDO - |
| 5 | Ch1 CTS + | Ch1 RTS + | 39 | Ch3 CTS + | Ch3 RTS + |
| 6 | Ch1 CTS - | Ch1 RTS - | 40 | Ch3 CTS - | Ch3 RTS - |
| 7 | Ch1 RxD + | Ch1 TxD + | 41 | Ch3 RxD + | Ch3 TxD + |
| 8 | Ch1 RxD - | Ch1 TxD - | 42 | Ch3 RxD - | Ch3 TxD - |
| 9 | Ch1 RxC + | Ch1 TxC + | 43 | Ch3 RxC + | Ch3 TxC + |
| 10 | Ch1 RxC - | Ch1 TxC - | 44 | Ch3 RxC - | Ch3 TxC - |
| 11 | Ch1 RTS + | Ch1 CTS + | 45 | Ch3 RTS + | Ch3 CTS + |
| 12 | Ch1 RTS - | Ch1 CTS - | 46 | Ch3 RTS - | Ch3 CTS - |
| 13 | Ch1 TxD + | Ch1 RxD + | 47 | Ch3 TxD + | Ch3 RxD + |
| 14 | Ch1 TxD - | Ch1 RxD - | 48 | Ch3 TxD - | Ch3 RxD - |
| 15 | Ch1 TxC + | Ch1 RxC + | 49 | Ch3 TxC + | Ch3 RxC + |
| 16 | Ch1 TxC - | Ch1 RxC - | 50 | Ch3 TxC - | Ch3 RxC - |
| 17 | GND | GND | 51 | GND | GND |
| 18 | GND | GND | 52 | GND | GND |
| 19 | Ch2 CTS + | Ch2 CTS + | 53 | Ch4 CTS + | Ch4 CTS + |
| 20 | Ch2 CTS - | Ch2 CTS - | 54 | Ch4 CTS - | Ch4 CTS - |
| 21 | Ch2 RxD + | Ch2 TxD + | 55 | Ch4 RxD + | Ch4 TxD + |
| 22 | Ch2 RxD - | Ch2 TxD - | 56 | Ch4 RxD - | Ch4 TxD - |
| 23 | Ch2 RxC + | Ch2 TxC + | 57 | Ch4 RxC + | Ch4 TxC + |
| 24 | Ch2 RxC - | Ch2 TxC - | 58 | Ch4 RxC - | Ch4 TxC - |
| 25 | Ch2 RTS + | Ch2 CTS + | 59 | Ch4 RTS + | Ch4 CTS + |
| 26 | Ch2 RTS - | Ch2 CTS - | 60 | Ch4 RTS - | Ch4 CTS - |
| 27 | Ch2 TxD + | Ch2 RxD + | 61 | Ch4 TxD + | Ch4 RxD + |
| 28 | Ch2 TxD - | Ch2 RxD - | 62 | Ch4 TxD - | Ch4 RxD - |
| 29 | Ch2 TxC + | Ch2 RxC + | 63 | Ch4 TxC + | Ch4 RxC + |
| 30 | Ch2 TxC - | Ch2 RxC - | 64 | Ch4 TxC - | Ch4 RxC - |
| 31 | Ch2 DCDI + | Ch2 DCDO + | 65 | Ch4 DCDI + | Ch4 DCDO + |
| 32 | Ch2 DCDI - | Ch2 DCDO - | 66 | Ch4 DCDI - | Ch4 DCDO - |
| 33 | Ch2 RxClk + | Ch2 TxClk + | 67 | Ch4 RxClk + | Ch4 TxClk + |
| 34 | Ch2 RxClk - | Ch2 TxClk - | 68 | Ch4 RxClk - | Ch4 TxClk - |



**PMC-SIO4BX
User Connector**

The user interface connections on the SIO4BX is a SCSI III type 68-pin connector (female) mounted to the front edge of the board (P2). The part number for the 68 pin front edge connector is AMP 787170-7. The mating connector is AMP 749111-6 or equivalent. The tables below show the pinout for the RS485/RS422. Single Ended signals (RS-423 and RS-232) use the negative side (-) of the differential pair.

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