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Find the *General Standards PCI-SIO4B-256K* at our website: *Click HERE*

General Standards Corporation

High Performance Bus Interface Solutions

PCI-SIO4B

Quad Channel High Performance Serial I/O PCI CARD

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



The PCI-SI04B board is a four channel serial interface card which provides high speed, full-duplex, multi-protocol serial capability for PCI applications. The PCI-SIO4B combines two multi-protocol Dual Universal Serial Controllers (USC®) and 8 external FIFOs to provide four fully independent asynchronous or synchronous RS422/RS485 serial channels. These features, along with a high performance PCI interface engine, give the PCI-SIO4B unsurpassed performance in a serial interface card.

The PCI-SIO4B incorporates the following features:

- Four Independent Multi-Protocol Serial Channels
- Synchronous Serial Data Rates up to 10M bits/sec differential and 250k bits/sec with optional RS232 transceivers
- Asynchronous Serial Data Rates up to 1M bit/sec differential and 250k bits/sec with optional RS232 transceivers
- SCSI II type 68 pin front edge I/O Connector with optional cable adapter to four DB25 connectors.
- Independent Transmit and Receive FIFO Buffers for each Serial Channel – Up to 32k Deep Each
- Serial Mode Protocols include Asynchronous, Bi-sync, Mono-sync, SDLC, HDLC, Ethernet, and Nine-Bit
- Parity and CRC detection capability
- Four Programmable Oscillators provide increased flexibility for Baud Rate Clock generation
- Two Serial Clocks, Two Serial Data signals, Data Carrier Detect signal, and Clear-To-Send signal per Channel
- Unused signals may be reconfigured as general purpose IO (for RTS capability)
- Fast RS485/RS422 Differential Cable Transceivers to Provide Increased Noise Immunity
- RS232 Cable Transceiver Option (Max guaranteed Data Rate 250kbps)
- 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 available

General Standards Corporation
8302A Whitesburg Drive · Huntsville, AL 35802
Phone: (256)880-8787 or (800)653-9970
FAX: (256)880-8788
Email: sales@generalstandards.com

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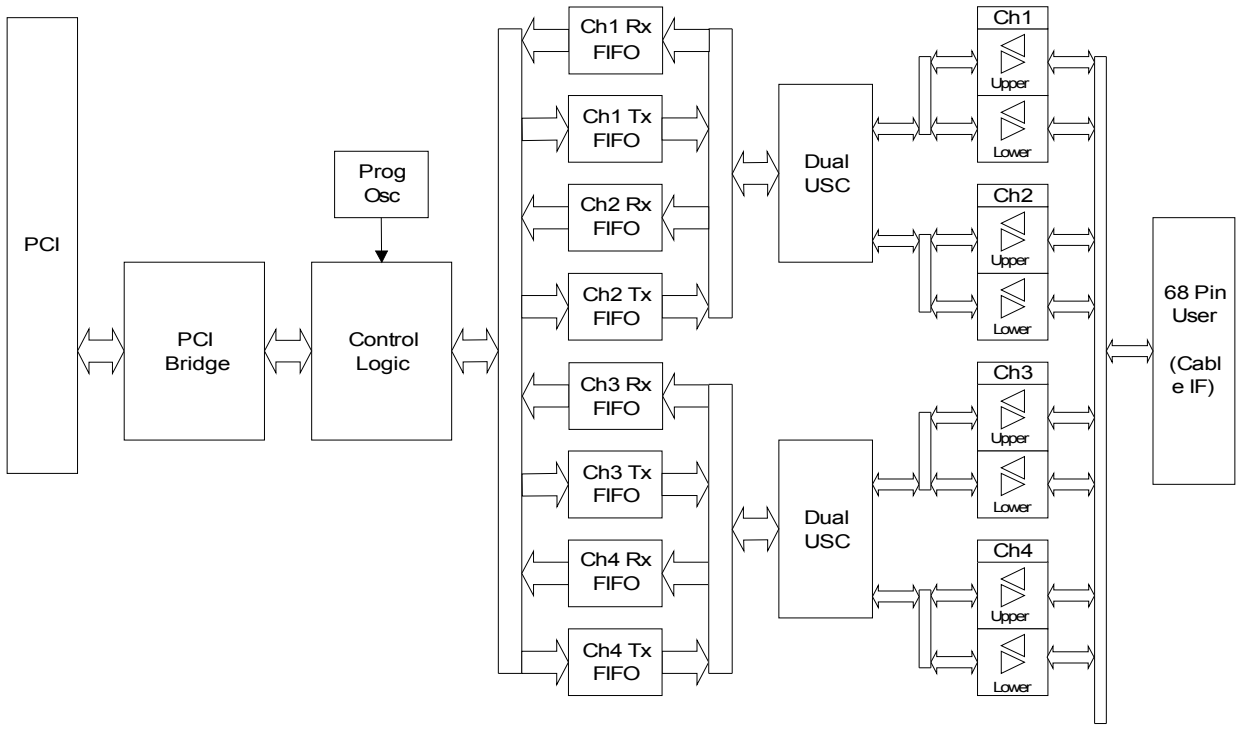
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Applications Include:

- LAN/WAN Networking
- Telecommunications
- Serial Interface

Functional Diagram:



Mechanical and Environmental Specifications:

PCI Interface:

- Conforms to PCI Specification 2.1, with D32 read/write transactions.
- Supports "plug-n-play" initialization.
- Provides a single multifunction interrupt.
- Supports FIFO DMA transfers as bus master.

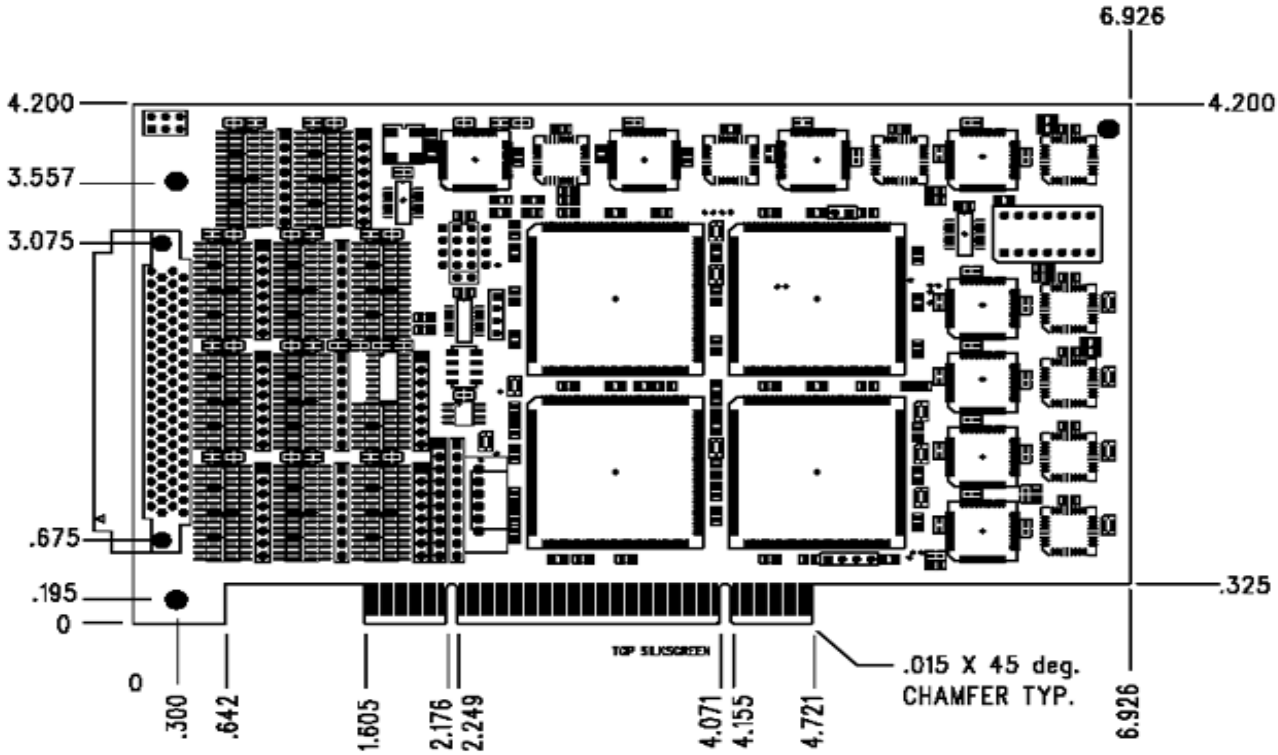
Electrical Characteristics:

- +5VDC ± 0.2 VDC at 1.5 Amps
- Power Dissipation: 6.0 Watts typical
- At +25 ^{O}C, with specified operating voltages

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Physical Characteristics:



Environmental Specifications:

Ambient Temperature Range:	Operating: 0 to +55 degrees Celsius Storage: -40 to +85 degrees Celsius
Relative Humidity:	Operating: 0 to 80%, non-condensing Storage: 0 to 95%, non-condensing
Altitude:	Operation to 10,000 ft.

Cooling Requirements:

Conventional air-cooling; 200 LPFM

Ordering Information:

Specify the basic product model number PCI-SIO4B, followed by an option suffix "-X", as indicated below. For example, model number PCI-SIO4B-256K describes a board with a total of 256Kbytes of FIFO buffering.

Optional Parameter	Value	Specify Option As:
FIFO Size:	256Kbyte	X =256K
	64Kbyte	X = 64K
	4Kbyte	X = 4KLC

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System I/O Connections (RS485/RS422 – see user manual for RS232 version):

P2, Row A	Pin #	P2, Row B	Pin #
No connect	1	No connect	35
No connect	2	No connect	36
No connect	3	No connect	37
No connect	4	No connect	38
Ch1 CTS +	5	Ch3 CTS +	39
Ch1 CTS -	6	Ch3 CTS -	40
Ch1 Lower Cable TxD/RxD +	7	Ch3 Lower Cable TxD/RxD +	41
Ch1 Lower Cable TxD/RxD -	8	Ch3 Lower Cable TxD/RxD -	42
Ch1 Lower Cable TxClk/RxClk +	9	Ch3 Lower Cable TxClk/RxClk +	43
Ch1 Lower Cable TxClk/RxClk -	10	Ch3 Lower Cable TxClk/RxClk -	44
Ch1 DCD +	11	Ch3 DCD +	45
Ch1 DCD -	12	Ch3 DCD -	46
Ch1 Upper Cable TxD/RxD +	13	Ch3 Upper Cable TxD/RxD +	47
Ch1 Upper Cable TxD/RxD -	14	Ch3 Upper Cable TxD/RxD -	48
Ch1 Upper Cable TxClk/RxClk +	15	Ch3 Upper Cable TxClk/RxClk +	49
Ch1 Upper Cable TxClk/RxClk -	16	Ch3 Upper Cable TxClk/RxClk -	50
GND	17	GND	51
GND	18	GND	52
Ch2 CTS +	19	Ch4 CTS +	53
Ch2 CTS -	20	Ch4 CTS -	54
Ch2 Lower Cable TxD/RxD +	21	Ch4 Lower Cable TxD/RxD +	55
Ch2 Lower Cable TxD/RxD -	22	Ch4 Lower Cable TxD/RxD -	56
Ch2 Lower Cable TxClk/RxClk +	23	Ch4 Lower Cable TxClk/RxClk +	57
Ch2 Lower Cable TxClk/RxClk -	24	Ch4 Lower Cable TxClk/RxClk -	58
Ch2 DCD +	25	Ch4 DCD +	59
Ch2 DCD -	26	Ch4 DCD -	60
Ch2 Upper Cable TxD/RxD +	27	Ch4 Upper Cable TxD/RxD +	61
Ch2 Upper Cable TxD/RxD -	28	Ch4 Upper Cable TxD/RxD -	62
Ch2 Upper Cable TxClk/RxClk +	29	Ch4 Upper Cable TxClk/RxClk +	63
Ch2 Upper Cable TxClk/RxClk -	30	Ch4 Upper Cable TxClk/RxClk -	64
No connect	31	No connect	65
No connect	32	No connect	66
No connect	33	No connect	67
No connect	34	No connect	68

The user interface connections on the PCI-SIO4B 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.

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