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Find the *General Standards PCI-SIO4-8K* at our website: ***Click HERE***

General Standards Corporation

High Performance Bus Interface Solutions

PCI-SIO4

Quad Channel High Performance Serial I/O PCI CARD

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



Features Include:

- 4 Full-Duplex Serial Channels
- Either RS-422/485 or RS232 interface available
- VxWorks™ and WinNT™ drivers are available
- Up to 10 Mbits/s synchronous operation on each channel
- Up to 1 Mbits/s asynchronous operation on each channel
- Up to 32 Kbyte FIFOs for transmit and receive of each channel (8 FIFOs Total)
- Serial channel cabling - via front panel of host
- Internal loop-back capability to verify proper operation of the card
- Supports Asynchronous, Bisync, SDLC, HDLC, and Nine-bit protocols
- Parity and CRC error detection
- DMA to/from Zilog Z16C30 (USC) to on-board FIFOs
- DMA to/from on-board FIFOs to PCI host
- Sync word selection allows an interrupt upon the reception of a user specified character.
- Extensive interrupt signaling capability
- VxWorks™ and WinNT™ drivers are available

Applications Include:

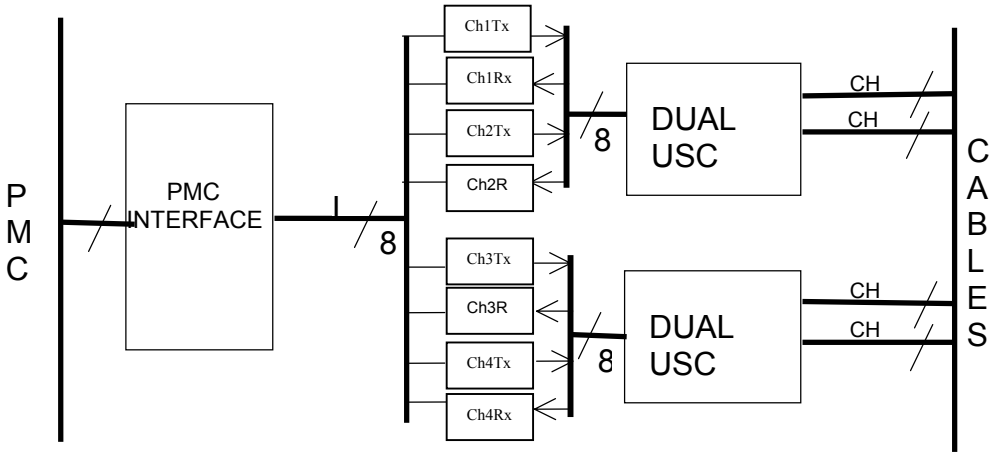
- ✓ LAN/WAN Networking
- ✓ Telecommunications
- ✓ Serial Interface

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

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Functional Description:

The PCI-SIO4 is an easy-to-use four channel full-duplex RS-422/485 serial board. Each channel can operate up to 10 Mbits/s. Optional 32 Kbyte FIFO buffer for both transmit and receive data on each channel (256 Kbytes total) provides for a smooth and efficient interface between the serial interfaces and the PCI host computer. The board is based on the Zilog Z16C30 high speed Integrated Universal Serial Controller (USC) which supports Asynchronous, Isochronous, Bisync, Monosync, HDLC, SDLC, External Sync and Nine-Bit protocols. The USC chip provides full duplex operation with baud rate generators, digital phase-locked loop for clock recovery and a full duplex DMA interface. The board only requires simple read/write statements to operate.



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ELECTRICAL SPECIFICATIONS

At +25 ^{O}C, with specified operating voltages.

PCI INTERFACE

❑ **Compatibility:** 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.

MECHANICAL AND ENVIRONMENTAL SPECIFICATIONS

❑ Power Requirements

+5VDC ±0.2 VDC at 1.5 Amps

Power Dissipation: 6.0 Watts, Side 1
1.5 Watts, Side 2

❑ Physical Characteristics

Height: 98 mm
Length: 175 mm
Width: 6.1 mm

❑ 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 (typical mezzanine environment).

ORDERING INFORMATION

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Specify the basic product model number (PCI-SIO4), followed by an option suffix "-X", as indicated below. For example, model number PCI-SIO4-256K describes a board with a total of 256Kbytes of FIFO buffering.

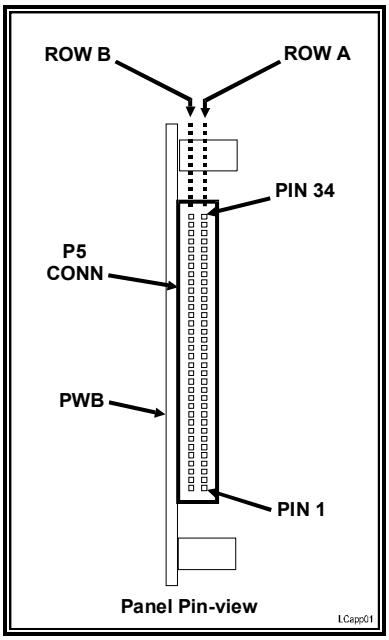
Optional Parameter	Value	Specify Option As:
FIFO Size:	256Kbyte	X =256K
	128Kbyte	X = 128K
	64Kbyte	X = 64K
	32Kbyte	X = 32K
	8Kbyte	X = 8K
	4Kbyte	X = 4K
	1Kbyte	X = 1K

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SYSTEM I/O CONNECTIONS

Pin #	*PA2, Row A, Signal Names:*	*Pin #*	*PB2, Row B, Signal Names:*
1	Channel 1 Lwr Cable TXD/RXD +	35	Channel 3 Lwr Cable TXD/RXD +
2	Channel 1 Lwr Cable TXD/RXD -	36	Channel 3 Lwr Cable TXD/RXD -
3	Channel 1 Lwr Cable CTS/DCD +	37	Channel 3 Lwr Cable CTS/DCD +
4	Channel 1 Lwr Cable CTS/DCD -	38	Channel 3 Lwr Cable CTS/DCD -
5	Channel 1 Lwr Cable TX/RX Clk +	39	Channel 3 Lwr Cable TX/RX Clk +
6	Channel 1 Lwr Cable TX/RX Clk -	40	Channel 3 Lwr Cable TX/RX Clk -
7	Channel 1 Upr Cable TXD/RXD +	41	Channel 3 Upr Cable TXD/RXD +
8	Channel 1 Upr Cable TXD/RXD -	42	Channel 3 Upr Cable TXD/RXD -
9	Channel 1 Upr Cable CTS/DCD +	43	Channel 3 Upr Cable CTS/DCD +
10	Channel 1 Upr Cable CTS/DCD -	44	Channel 3 Upr Cable CTS/DCD -
11	Channel 1 Upr Cable TX/RX Clk +	45	Channel 3 Upr Cable TX/RX Clk +
12	Channel 1 Upr Cable TX/RX Clk -	46	Channel 3 Upr Cable TX/RX Clk -
13	Channel 2 Lwr Cable TXD/RXD +	47	Channel 4 Lwr Cable TXD/RXD +
14	Channel 2 Lwr Cable TXD/RXD -	48	Channel 4 Lwr Cable TXD/RXD -
15	Channel 2 Lwr Cable CTS/DCD +	49	Channel 4 Lwr Cable CTS/DCD +
16	Channel 2 Lwr Cable CTS/DCD -	50	Channel 4 Lwr Cable CTS/DCD -
17	Channel 2 Lwr Cable TX/RX Clk +	51	Channel 4 Lwr Cable TX/RX Clk +
18	Channel 2 Lwr Cable TX/RX Clk -	52	Channel 4 Lwr Cable TX/RX Clk -
19	Channel 2 Upr Cable TXD/RXD +	53	Channel 4 Upr Cable TXD/RXD +
20	Channel 2 Upr Cable TXD/RXD -	54	Channel 4 Upr Cable TXD/RXD -
21	Channel 2 Upr Cable CTS/DCD +	55	Channel 4 Upr Cable CTS/DCD +
22	Channel 2 Upr Cable CTS/DCD -	56	Channel 4 Upr Cable CTS/DCD -
23	Channel 2 Upr Cable TX/RX Clk +	57	Channel 4 Upr Cable TX/RX Clk +
24	Channel 2 Upr Cable TX/RX Clk -	58	Channel 4 Upr Cable TX/RX Clk -
25	No connect	59	No connect
26	No connect	60	No connect
27	No connect	61	No connect
28	No connect	62	No connect
29	No connect	63	No connect
30	No connect	64	No connect
31	Cable Spare 0 +	65	Cable Spare 2 +
32	Cable Spare 0 -	66	Cable Spare 2 -
33	Cable Spare 1 +	67	Cable Spare 3 +
34	Cable Spare 1 -	68	Cable Spare 3 -



The 68-pin DSUB (user I/O interface) connector (PLUG) is mounted at the front edge of the board (Ref. Des. PA2, for row A & PB2, for row B). The part number is P50E-068PI-SRI-TG, manufacturer, Robinson Nugent. The mating part number is P50E68-S-TG. This cable is used for all 4 channels. The Robinson Nugent phone no. is 812-945-0211. Contact GSC for factory built cables of any desired length. See Table above for pin-out.

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