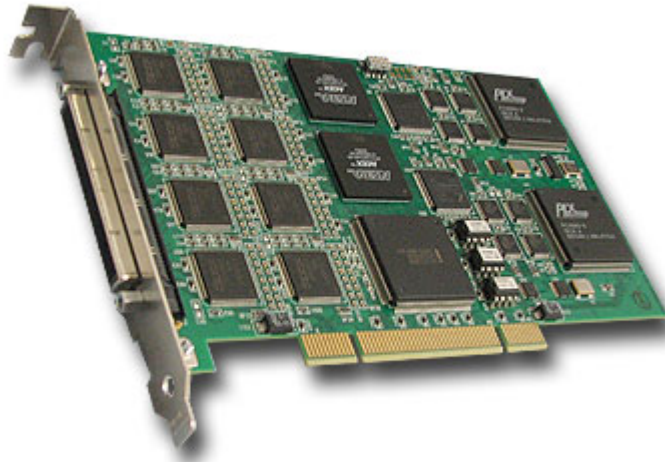


General Standards Corporation

High Performance Bus Interface Solutions

PCI-SIO8BXS

Eight Channel High Performance Serial I/O PCI CARD
Featuring Multi-Protocol Serial I/O with Software Configurable Cable Transceivers and Deep FIFO Buffers (up to a total of 512 KB)



The PCI-SIO8BX is an eight channel serial interface card which provides high speed, full-duplex, multi-protocol serial capability for PCI applications. The SIO8BX combines four multi-protocol Dual Universal Serial Controllers (USC®), 16 external FIFOs, and multi-protocol transceivers to provide eight fully independent synchronous/asynchronous serial channels. These features, along with a high performance PCI interface engine, give the PCI-SIO8BX unsurpassed performance in a serial interface card.

Features:

- Eight 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 Serial Channel – Up to 32k Deep Each
- Serial Mode Protocols include Asynchronous, MonoSync, BiSync and SDLC/HDLC.
- Multi-protocol Transceivers support RS422 (V.11)/RS485, RS423 (V.10), RS232 (V.28), V.35, RS530A, as well as other Mixed Protocol modes.
- Parity and CRC detection capability
- Two On-Board Programmable Oscillators provide increased flexibility for exact Baud Rate Clock generation
- Low Force Helix (LFH) type 160 pin front edge I/O Connector with optional cable adapter to eight DB25 connectors.
- Nine signals per channel, configurable as either DTE or DCE configuration: 3 Serial Clocks, 2 Serial Data signals, Clear-To-Send (CTS), and Ready-To-Send (RTS), DCD, and DTR.
- Unused signals may be reconfigured as general purpose IO.
- Fast RS422/RS485/V.35 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

General Standards Corporation

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Phone: (256)880-8787 or (800)653-9970

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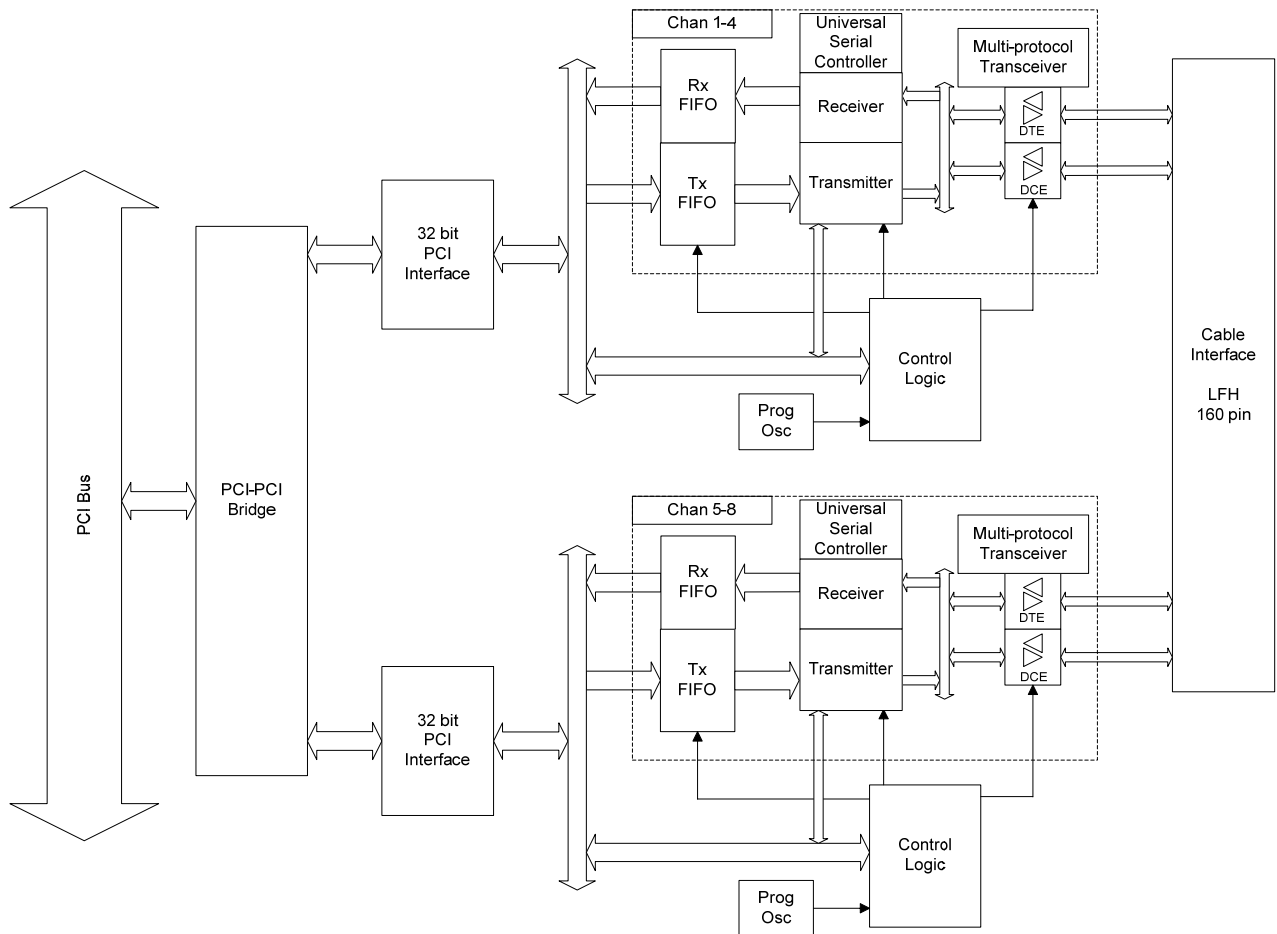
- A variety of device drivers are available, including VxWorks, WinNT, Win2k, WinXP, Linux, and Labview

Applications Include:

- LAN/WAN Networking
- Telecommunications
- Serial Interface

Functional Diagram:

The PCI-SIO8BXS is based on the four channel SIO4BX product line from General Standards Corporation. In order to maintain software compatibility, the PCI-SIO8BXS is implemented as two independent four channel SIO4BX cards. The following diagram shows the PCI-SIO8BXS setup.



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System I/O Connections:

GSC PCI-SIO8BX 160 LFH Connector Pin-out, Rev A:			
1 TXC1+	80 TXD1+	81 TXD3+	160 TXC3+
2 TXC1-	79 TXD1-	82 TXD3-	159 TXC3-
3 RXC1+	78 RXD1+	83 RXD3+	158 RXC3+
4 RXC1-	77 RXD1-	84 RXD3-	157 RXC3-
5 AUXC1	76 DCD1+	85 DCD3+	156 AUXC3+
6 AUXC1-	75 DCD1-	86 DCD3-	155 AUXC3-
7 (DTR1+)	74 CTS1+	87 CTS3+	154 (DTR3+)
8 (DTR1-)	73 CTS1-	88 CTS3-	153 (DTR3-)
9 RTS1+	72 SGND1	89 SGND3	152 RTS3+
10 RTS1-	71 Unused	90 Unused	151 RTS3-
11 TXC2+	70 Unused	91 Unused	150 TXC4+
12 TXC2-	69 SGND2	92 SGND4	149 TXC4-
13 RXC2+	68 TXD2+	93 TXD4+	148 RXC4+
14 RXC2-	67 TXD2-	94 TXD4-	147 RXC4-
15 AUXC2+	66 RXD2+	95 RXD4+	146 AUXC4+
16 AUXC2-	65 RXD2-	96 RXD4-	145 AUXC4-
17 (DTR2+)	64 DCD2+	97 DCD4+	144 (DTR4+)
18 (DTR2-)	63 DCD2-	98 DCD4-	143 (DTR4-)
19 RTS2+	62 CTS2+	99 CTS4+	142 RTS4+
20 RTS2-	61 CTS2-	100 CTS4-	141 RTS4-
21 TXC5+	60 TXD5+	101 TXD7+	140 TXC7+
22 TXC5-	59 TXD5-	102 TXD7-	139 TXC7-
23 RXC5+	58 RXD5+	103 RXD7+	138 RXC7+
24 RXC5-	57 RXD5-	104 RXD7-	137 RXC7-
25 AUXC5+	56 DCD5+	105 DCD7+	136 AUXC7+
26 AUXC5-	55 DCD5-	106 DCD7-	135 AUXC7-
27 (DTR5+)	54 CTS5+	107 CTS7+	134 (DTR7+)
28 (DTR5-)	53 CTS5-	108 CTS7-	133 (DTR7-)
29 RTS5+	52 SGND5	109 SGND7	132 RTS7+
30 RTS5-	51 Unused	110 Unused	131 RTS7-
31 TXC6+	50 Unused	111 Unused	130 TXC8+
32 TXC6-	49 SGND6	112 SGND8	129 TXC8-
33 RXC6+	48 TXD6+	113 TXD8+	128 RXC8+
34 RXC6-	47 TXD6-	114 TXD8-	127 RXC8-
35 AUXC6+	46 RXD6+	115 RXD8+	126 AUXC8+
36 AUXC6-	45 RXD6-	116 RXD8-	125 AUXC8-
37 (DTR6+)	44 DCD6+	117 DCD8+	124 (DTR8+)
38 (DTR6-)	43 DCD6-	118 DCD8-	123 (DTR8-)
39 RTS6+	42 CTS6+	119 CTS8+	122 RTS8+
40 RTS6-	41 CTS6-	120 CTS8-	121 RTS8-

The user interface connector on the SIO8BX is a 160-pin LFH connector (female) mounted to the front edge of the board (P2). The part number for this 160-pin LFH connector is Molex 51-24-1040. The mating cable connector consists of Molex 70984-4009 (4 qty - contacts) and 71624-3000 (housing). Please see the PCI-SIO8BXS User's Manual, available on our website, for more detailed pin-out descriptions for the PCI-SIO8BXS, including pin-out charts for different modes of operation.

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