

GX6264

128-CHANNEL SCANNER/MULTIPLEXER PXI CARD

- High density multiplexer configurable as 128 Single ended or 64 Differential channels
- Eight scan groups configurable as 16 Single ended or eight Differential channels each
- 100 VDC or 150 VAC switching voltage per channel (GX6264C)
- 250 VDC or 220 VAC switching voltage per channel (GX6264I)
- Fast switching time with 0.5 A rating per channel
- Fully software programmable
- 6U PXI Instrument



DESCRIPTION

The GX6264 is a 6U PXI scanner / multiplexer that plugs directly into an PXI or CompactPCI backplane. The GX6264 provides either differential or single-ended scanning capability, configurable via software commands or DIP switches.

FEATURES

The GX6264 is available in two versions: commercial and high reliability (Hi-REL). The commercial version includes plastic molded DIP reed relays and is suitable for most commercial applications. The Hi-REL version uses quasi-military relays and is suitable for industrial and military applications.

The architecture of both versions consists of eight scan groups, A through H, which provide scanning / multiplexing of eight differential or 16 single-ended channels. Mixed configurations of single-ended and differential channels can be used simultaneously. Typical configurations include:

- 1 x 128 Single-ended
- 1 x 64 Differential
- 2 x 1 x 64 Single-ended
- 2 x 1 x 32 Differential

The GX6264 can operate in three modes: direct switching, universal bus switching, or combination switching mode. In the direct mode, the GX6264 can route each scan group directly to a dedicated bus without routing through additional relays. This mode is differential only.

The GX6264 includes four universal buses, X0, Y0, X1 and Y1, which are accessible by each of the eight scanning groups in universal switching bus mode. Each scan group can be utilized in either differential or single-ended mode, extending its scanning and multiplexing capability to sixteen channels per group. Since the eight scanning groups are independent, they can be used for either scanning to a direct bus or the universal bus.

In combination switching mode, each scan group may be individually configured for use with direct or universal busses, thus allowing multiple configurations.

PROGRAMMING AND SOFTWARE

The board is supplied with the GXSW library, a software package that includes a virtual instrument panel, and a Windows 32/64-bit DLL driver library and documentation. The virtual panel can be used to interactively program and control the instrument from a window that displays the instrument's current settings and status. In addition, interface files are provided to support access to programming tools and languages such as ATEasy, LabView, LabView/Real-Time, C/C++, Microsoft Visual Basic®, Delphi, and Pascal. An On-Line help file and PDF User's Guide provides documentation that includes instructions for installing, using and programming the board.

A separate software package - [GtLinux](#) - provides support for Linux 32/64 operating systems.

APPLICATIONS

- Automatic Test Equipment (ATE)
- Data acquisition systems
- Process control systems
- Hi-density switching systems

GX6264

SPECIFICATIONS

Models	GT6264-C Commercial	GT6264-I Hi-Rel
Relay Contact Resistance	<0.2 ohm	<0.15 ohm
Contact Life Rating at Low Level at 28 VDC @ 0.5 A	5 x 10 ⁶ (typ)	5 x 10 ⁶ (typ)
Switchable Voltage Maximum (300 VAC if Conformally Coated)	100 VDC / 150 VAC	250 VDC / 220 VAC
Switchable Current	0.2 A (max)	0.5 A (max)
Contact Carry Current	0.5 A (max)	1.0 A (max)
Operate Time	700 μ s (max)	6 ms (max)
Frequency Response	20 MHz	30 MHz
POWER REQUIREMENTS		
Operating Voltage	+5.0 VDC	+5.0 VDC
Power Consumption	950 mA (typ) / 1.05 A (max)	950 mA (typ) / 1.25 A (max)
ENVIRONMENTAL		
Operating Temperature	0 °C to +50 °C	0 °C to +55 °C
Storage Temperature	-20 °C to +80 °C	-20 °C to +70 °C
Vibration	5 G at 500 MHz	10 G at 500 MHz
Shock ½ Sine	5 G for 6 ms	20 G for 6 ms
PHYSICAL		
Size	6U PXI	6U PXI
Weight	17 oz	22 oz
Connector	78-pin D-Type male connectors. Includes two mating connectors with crimp pins.	78-pin D-Type male connectors. Includes two mating connectors with crimp pins.

Note: Specifications are subject to change without notice

ORDERING INFORMATION

GX6264-C	128 Channel Scanner/Multiplexer, Commercial Grade
GX6264-I	128 Channel Scanner/Multiplexer, Industrial Grade
ACCESSORY	
GT96002	Connector, D-type 78-Pin Male with Crimp Pins
GT96078	78-Pin Connector to Screw Terminal Interface
GX96106	6' harness, 78 pin male connector on Both ends
GT96107	3' harness, 78 pin male connector on Both ends
GT96202	Replacement Reed Relay for GT6064-C/GX6264-C
GT96203	Replacement Industrial Relay for GT6064-I/GX6264-I and GT1034
GT97102	3' harness, 78 pin male connector on one end, loose wires (numbered) other end
GT97103	1' harness, 78 pin male connector on one end, loose wires (numbered) other end
GT97104	1' harness, 78 pin male connectors on both ends