

GX6264 SERIES

PXI SCANNER/MULTIPLEXER

- 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 V_{DC} or 150 V_{AC} switching voltage per channel (GX6264C)
- 250 V_{DC} or 220 V_{AC} switching voltage per channel (GX6264I)
- Fast switching time with 0.5 A rating per channel
- Fully software programmable
- 6U PXI board



GX6264-C and GX6264-I

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:

- 1x128 Single-ended
- 1x64 Differential
- 2x1x64 Single-ended
- 2x1x32 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.

SOFTWARE

The GX6264 is supplied with a virtual instrument panel, which includes the 32-bit DLL driver libraries and documentation. The virtual panel can be used to interactively adjust and control the instrument from a window that displays the current instrument settings and measurements.

In addition, various interface files provide access to the library for programming tools and languages such as ATEasy, LabVIEW, Microsoft® and Borland® C/C++, Microsoft Visual Basic®, Borland Delphi, and more.

APPLICATIONS

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

GX6264 SERIES

SPECIFICATIONS

MODELS	GX6264-C (COMMERCIAL)	GX6264-I (HI-REL)
RELAY CONTACT RESISTANCE	<0.2 Ω	<0.15 Ω
CONTACT LIFE RATING AT LOW LEVEL	5x10 ⁶ (Typ.)	5x10 ⁶ (Typ.)
AT 28 V _{DC} @ 0.5 A	5x10 ⁶ (Typ.)	5x10 ⁵ (Typ.)
SWITCHABLE VOLTAGE MAXIMUM	100 V _{DC} / 150 V _{AC}	250 V _{DC} / 220 V _{AC}
SWITCHABLE CURRENT	0.2 A (Max.)	0.5 A (Max.)
CONTACT CARRY CURRENT	0.5 A (Max.)	1.0A (Max.)
OPERATE TIME	1mS (Max.)	6 ms (Max.)
FREQUENCY RESPONSE	20 MHz	30 MHz
RELEASE TIME	500 μS (Max.)	3 ms (Max.)
POWER REQUIREMENTS		
OPERATING VOLTAGE	+5 V _{DC}	+5 V _{DC}
POWER CONSUMPTION	950 mA (Typ.)/ 1.05 A (Max.)	950 mA (Typ.)/ 1.25 A (Max.)
ENVIRONMENTAL		
TEMPERATURE		
OPERATING	0 to +50° C	0 to +55° C
STORAGE	-20° C to +70° C	-20° C to +80° C
VIBRATION	5 G at 500 Hz	10 G at 500 Hz
SHOCK ½ SINE	5 G for 6ms	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.	

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
GT96002	Connector, D-type 78-pin mate with solder pins
GT97103	1' harness, 78-pin male connector on one end, loose wired (numbered) on other end
GT97102	3' harness, 78-pin male connector on one end, loose wired (numbered) on other end
GT97104	1' harness, 78-pin male connectors on both ends
GT96107	3' harness, 78-pin male connectors on both ends
GT96078	78-pin connector to Screw Terminal Interface
GT96202	Replacement reed relay for GX6264-C
GT96203	Replacement industrial relay for GX6264-I

SECTION 1 CONNECTOR GROUP A-D			
Ch. 1 Hi	1	40	Ch. 17 Hi
Ch. 1 Lo	2	41	Ch. 17 Lo
Ch. 2 Hi	3	42	Ch. 18 Hi
Ch. 2 Lo	4	43	Ch. 18 Lo
Ch. 3 Hi	5	44	Ch. 19 Hi
Ch. 3 Lo	6	45	Ch. 19 Lo
Ch. 4 Hi	7	46	Ch. 20 Hi
Ch. 4 Lo	8	47	Ch. 20 Lo
Ch. 5 Hi	9	48	Ch. 21 Hi
Ch. 5 Lo	10	49	Ch. 21 Lo
Ch. 6 Hi	11	50	Ch. 22 Hi
Ch. 6 Lo	12	51	Ch. 22 Lo
Ch. 7 Hi	13	52	Ch. 23 Hi
Ch. 7 Lo	14	53	Ch. 23 Lo
Ch. 8 Hi	15	54	Ch. 24 Hi
Ch. 8 Lo	16	55	Ch. 24 Lo
Bus A Hi	17	56	Bus C Hi
Bus A Lo	18	57	Bus C Lo
Bus X0 Hi	19	58	Bus Y0 Hi
Bus X0 Lo	20	59	Bus Y0 Lo
Ch. 9 Hi	21	60	Ch. 25 Hi
Ch. 9 Lo	22	61	Ch. 25 Lo
Ch. 10 Hi	23	62	Ch. 26 Hi
Ch. 10 Lo	24	63	Ch. 26 Lo
Ch. 11 Hi	25	64	Ch. 27 Hi
Ch. 11 Lo	26	65	Ch. 27 Lo
Ch. 12 Hi	27	66	Ch. 28 Hi
Ch. 12 Lo	28	67	Ch. 28 Lo
Ch. 13 Hi	29	68	Ch. 29 Hi
Ch. 13 Lo	30	69	Ch. 29 Lo
Ch. 14 Hi	31	70	Ch. 30 Hi
Ch. 14 Lo	32	71	Ch. 30 Lo
Ch. 15 Hi	33	72	Ch. 31 Hi
Ch. 15 Lo	34	73	Ch. 31 Lo
Ch. 16 Hi	35	74	Ch. 32 Hi
Ch. 16 Lo	36	75	Ch. 32 Lo
Bus B Hi	37	76	Bus D Hi
Bus B Lo	38	77	Bus D Lo
CHASSIS	39	78	AGND

SECTION2 CONNECTOR GROUP E-H			
Ch. 33 Hi	1	40	Ch. 49 Hi
Ch. 33 Lo	2	41	Ch. 49 Lo
Ch. 34 Hi	3	42	Ch. 50 Hi
Ch. 34 Lo	4	43	Ch. 50 Lo
Ch. 35 Hi	5	44	Ch. 51 Hi
Ch. 35 Lo	6	45	Ch. 51 Lo
Ch. 36 Hi	7	46	Ch. 52 Hi
Ch. 36 Lo	8	47	Ch. 52 Lo
Ch. 37 Hi	9	48	Ch. 53 Hi
Ch. 37 Lo	10	49	Ch. 53 Lo
Ch. 38 Hi	11	50	Ch. 54 Hi
Ch. 38 Lo	12	51	Ch. 54 Lo
Ch. 39 Hi	13	52	Ch. 55 Hi
Ch. 39 Lo	14	53	Ch. 55 Lo
Ch. 40 Hi	15	54	Ch. 56 Hi
Ch. 40 Lo	16	55	Ch. 56 Lo
Bus E Hi	17	56	Bus G Hi
Bus E Lo	18	57	Bus G Lo
Bus X1 Hi	19	58	Bus Y1 Hi
Bus X1 Lo	20	59	Bus Y1 Lo
Ch. 41 Hi	21	60	Ch. 57 Hi
Ch. 41 Lo	22	61	Ch. 57 Lo
Ch. 42 Hi	23	62	Ch. 58 Hi
Ch. 42 Lo	24	63	Ch. 58 Lo
Ch. 43 Hi	25	64	Ch. 59 Hi
Ch. 43 Lo	26	65	Ch. 59 Lo
Ch. 44 Hi	27	66	Ch. 60 Hi
Ch. 44 Lo	28	67	Ch. 60 Lo
Ch. 45 Hi	29	68	Ch. 61 Hi
Ch. 45 Lo	30	69	Ch. 61 Lo
Ch. 46 Hi	31	70	Ch. 62 Hi
Ch. 46 Lo	32	71	Ch. 62 Lo
Ch. 47 Hi	33	72	Ch. 63 Hi
Ch. 47 Lo	34	73	Ch. 63 Lo
Ch. 48 Hi	35	74	Ch. 64 Hi
Ch. 48 Lo	36	75	Ch. 64 Lo
Bus F Hi	37	76	Bus H Hi
Bus F Lo	38	77	Bus H Lo
CHASSIS	39	78	AGND