

GX6188-B

PRELIMINARY
DATASHEET

GENASYS HIGH DENSITY MATRIX SWITCH CARD, 104 X 8 X 8

- High density 6U matrix switch card incorporates GENASYS switching architecture
- 104x8x8 architecture accommodates multiple resources and multi-card configurations
- Integral bleed resistors and BIT functionality
- D-sub front panel connections



OVERVIEW

The GX6188-B is a 6U PXI, high density matrix, GENASYS architecture switching card. The card provides the user with the ability to connect and interface resources to multiple UUT connections. The board consists of two matrices - a 104x8 and a 8x8 matrix. The GX6188-B can connect to 104 UUT switching points, eight external resources and an eight channel global bus via front panel connectors. Multiple GX6188 cards can be connected using the global bus. Like other [GENASYS switch cards](#), the GX6188-B features an integral, 3-dimensional switching architecture which provides the flexibility to connect test system resources to multiple UUT connections as well as supporting an expansion bus connection without sacrificing I/O matrix connections when building multiple switch card configurations.

DESCRIPTION

The GX6188-B matrix card consists of a 104x8 matrix and a 8x8 matrix. Any of the 104 UUT connections can be routed to the eight resource connections via the internal 8-wire global bus and the 8x8 matrix. In addition, each of the eight global bus lines can be connected to a grounded bleed resistor or the built-in-test (BIT) voltage source. Multiple cards can be connected to create larger switch matrices by interconnecting to the 8-wire global bus which is available on the front panel of the switch card. There are also 14 general purpose digital I/O signals which are accessed via the card's I/O connectors and can be used for cable ID, external reset of matrix relays, or for creation of a PXI bus interrupt.

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 online 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

- GENASYS switching subsystem
- Automated test system applications
- High I/O count, mixed-signal test applications
- Industrial control
- Data Acquisition Systems
- Process Control Systems

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SPECIFICATIONS

GX6188-B SWITCHING SPECIFICATIONS	
Configuration	(4) 26 x 8 matrices and (1) 8 x 8 matrix
Inputs	8 via external resource or global bus connections
Internal Global Bus Configuration	8-wire, accessible via 104x8 & 8x8 matrices and external connector
Global Bus Resources	2.2 K grounded bleed resistor BIT voltage source (100K pullup to 3.3V)
UUT Inputs / Outputs	104
Relay Specifications	Max AC pk or DC voltage 170 V Max DC or AC pk carry current: 1A Max DC or AC pk switching current: 0.5A Max contact rating: 10 W
Signal Bandwidth	>10 MHz, Input to Output (resource input to switch card output)
GENERAL PURPOSE I/O	
Inputs / Outputs	14, static read / write digital I/O signals
Logic Levels	LVTTL compatible
Functions	Cable ID, open relays via external input, generate PXI bus interrupt via external input
I/O CONNECTIONS	
Output / UUT	(2) 62 pin D-sub F connectors
Input / Resource	15 pin D-sub F connector
Global Bus	9 pin D-sub F connector
ENVIRONMENTAL, PHYSICAL AND COMPLIANCE	
Operating	0 °C to +50 °C 0°C to +85°C (-M version)
Storage	-20 °C to +85 °C
Relative Humidity (operating)	5% to 85%, temperature range 0°C to 60°C 5% to 60% for operating temperatures above 60°C
Altitude (operating)	4600 meters (max)
Form Factor	6U, single slot
Weight	2.2 lbs
CE Compliance	EN61010-1 (pending) EN61326 (pending)

Note: Specifications are subject to change without notice

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ORDERING INFORMATION

GX6188-B	GENASYS 104 x 8 x 8 High Density Matrix Switch Card
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Preliminary