

GX7992 SERIES

PXI BUS EXPANDER

- Direct PC control of multi-chassis configurations of PXI/Compact PCI systems
- Up to two PCI segments from a single GX7992
- Up to 64-bit, 66 MHz PCI bus extension
- StarFabric link performance:
 - 528 Mbytes/s peak (64-bit, 66 MHz PCI)
 - 132 Mbytes/s peak (32-bit, 33 MHz PCI)
- PCI local bus specifications Rev. 2.2 compliant
- PCI to PCI bridge architecture specifications Rev. 1.1 compliant
- PXI specifications Rev 2.0 compliant
- Completely hardware and software transparent
- Independent of operating systems
- Seamless PCI interrupt extension



DESCRIPTION

The GX7992 PXI Bus Expander incorporates the fastest, most flexible extension technology for controlling PXI/CompactPCI systems from a stand-alone PC. The GX7992 expands the capabilities of PCI by providing a reliable high level of scalability using StarGen's StarFabric technology to provide a low latency, high throughput path to PCI slots in an expansion chassis. In addition, the GX7992 can be extended to two PCI segments, resulting in controlling two PXI/CompactPCI chassis with a single controller at a lower cost.

FEATURES

The GX7992 functions in a two-card configuration. The GX7992 is inserted in the controlling PC or PXI chassis. Through the copper cables, the PCI bus signals are extended to the receiving card, the other instrument in the extension chassis. The devices function as a transparent PCI-to-PCI bridge, and give direct control of PXI from another PC or multichassis PXI systems.

The GX7992 employs the StarFabric architecture, a well-known physical layer technology, with a serial interconnect at 622 Mbps low voltage differential signaling (LVDS). Four transmit and receive differential pairs are used to provide 2.5 Gbps full duplex link bandwidth. Using shielded twisted pair copper cable allows the transmission distance to be extended to 10 m. The PCI interface supports 64-bit or 32-bit PCI buses operating at 66 MHz or 33 MHz. A bundled link can support the full bandwidth of 64-bit/66 MHz PCI bus.

All interrupts asserted by add-in cards in the extension system are passed through the extension set to the host system. The

GX7992 is built in a transparent architecture, and functions independently of the operating system. A PCI-to-PCI bridge function in the system extension set provides 100% capability with PCI drivers, application software, BIOS, O/Ss, configuration codes, etc. Geotest's GX7992 Series features great scalability for high-density I/O applications, and can separate the control system from the harsh environment with the extension chassis.

SPECIFICATIONS

POWER REQUIREMENTS		
+5 V	GX7992 190 mA	GX7992-1 ---
+3.3 V	250 mA	540 mA
MAXIMUM DATA THROUGHPUT	132 Mbytes/s (32-bit, 33 MHz PCI) 529 Mbytes/s (64-bit, 66 MHz PCI)	
GENERAL		
MAX. CABLE LENGTH	10 m	
TEMPERATURE		
OPERATING	0° to 55° C	
STORAGE	-20° to 80° C	
RELATIVE HUMIDITY	10 to 90%, noncondensing	
DIMENSIONS	175 mm x 107 mm (GX7992) 160 mm x 100 mm (GX7992-1)	
I/O CONNECTOR	(4) RJ-45 connectors	
CERTIFICATES	EMC/EMI: CE, FCC Class A	

Note: Specifications are subject to change without notice.

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ORDERING INFORMATION

GX7992*	PXI Bus Expander, PCI to PXI. (Requires one GX974xx cable)
GX7992-1*	PXI Bus Expander, PXI to PXI. (Requires one GX974xx cable)
GX97406	6 ft (2 m) cable for GX7992 and GX7992-1
GX97415	15 ft (5 m) cable for GX7992 and GX7992-1
GX97430	30 ft (10 m) cable for GX7992 and GX7992-1

*Two cards are required for a complete set (i.e., either two of one model or one of each model).