MXI-4 SERIES

MARVIN TEST SOLUTIONS

PXI BUS EXPANDERS

- PCI to PXI or PXI to PXI configurations
- Multi-chassis configurations for PXI and CompactPCI
- 78 MB/s sustained bus transfer performance
- Fiber-optic or copper cabling
- Support for 5 V and 3.3 V PCI
- 3U PXI Instrument



DESCRIPTION

The MXI-4 PXI Bus Expanders allow direct control of PXI systems from any PCI slot in a desktop computer or server. MXI-4 interface cards can also be used to link multiple PXI chassis. MXI-4 technology utilizes a high-bandwidth link that is transparent to software applications and drivers, therefore providing the ability to use high performance desktop computers or servers to control PXI systems.

FEATURES

Because PXI is based on the industry-standard PCI bus, MXI-4 Bus Expanders provide a transparent link where all PXI modules appear to the user as if they were PCI boards within the computer itself. With PXI technology, users benefit from an increased number of slots, power and cooling per slot, module selection, and synchronization features. Additionally, with fiber optic MXI-4, you can electrically isolate your PXI measurement hardware from the PC with extended length cabling up to 200 m.

The MXI-4 Series builds on the standard PCI-to-PCI bridge architecture by splitting the bridge into two halves connected by a 1.5 Gb/s serial link. The PCI specification allows up to 255 buses to be connected in a system via PCI-PCI bridges such as the MXI-4 Series. MXI-4 supports both 3.3 V and 5 V PCI signaling environments, error checking, and re-transmission on the serial link for greater reliability in electrically noisy or harsh environments, and offers industrially rugged connectors.

The MXI-4 link consists of either an MXI-4-PCI-C (copper) or MXI-4-PCI-F (fiber optic) board in the PC, connected via the appropriate cable to an MXI-4-PXI-C (copper) or MXI-4-PXI-F (fiber optic) module in slot 1 of a PXI chassis. For your convenience, a complete MXI-4 kit with all necessary components is available. Components can also be purchased separately.

MULTI-CHASSIS SYSTEMS

MXI-4 bus expanders can be used to connect multiple PXI chassis in a star or daisy-chain configuration to create a single system. To connect two PXI chassis together, install an MXI-4-PXI card into any peripheral slot of the master chassis and connect with the appropriate cable to a second MXI-4-PXI module which is installed in slot 1 of the slave chassis.

APPLICATIONS

- GX7000 Series Chassis
- GX7100 Series Chassis
- GX7300 Series Chassis
- GX7600 Series Chassis

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SPECIFICATIONS

POWER REQUIREMENTS	
+5 V	MXI-4-C: 1.5 ADC (typ); 1.7 ADC (max) MXI-4-F: 1.5 ADC (typ); 1.7 ADC (max)
+3.3 V	MXI-4-C: 0.25 ADC (typ); 0.3 ADC (max) MXI-4-F: 0.35 ADC (typ); 0.4 ADC (max)
GENERAL	
Maximum Cable Length	10 m (copper) 200 m (fiber)
DIMENSIONS	
MXI-4-PCI-C/F	4.2" x 6.9" (10.7 cm x 17.5 cm)
MXI-4-PXI-C/F	3U PXI slot
ENVIRONMENTAL	
Operating Temperature	0 °C to +55 °C
Storage Temperature	-20 °C to +70 °C
RELATIVE HUMIDITY	
Operating (Non-Condensing)	10 to 90%
Storage (Non-Condensing)	5 to 95%
Shock and Vibration	Operational shock 30 g peak, half-sine, 11 ms pulse (Tested in accordance with IEC-60068-2-27. Test profile developed in accordance with MIL-PRF-28800F.)
RANDOM VIBRATION	
Operating	5 to 500 Hz, 0.3 g
Non-Operating	5 to 500 Hz, 2.4 g (Tested in accordance with IEC-60068-2-64. Non-operating profile exceeds the requirements of MIL-PRF-28800F, Class 3.)
Compatibility	Fully compatible with PXI Hardware Specification 2.1 and the PCI

Note: For full EMC compliance, this device must be operated with shielded cabling. In addition, all covers and filler panels must be installed.
Note: Specifications are subject to change without notice

ORDERING INFORMATION

MXI-4 Series	PXI Bus Expanders
ACCESSORY	
MXI-CBL-PCIe-X1-1M-AD	MXI-E x1 Copper Cable 1M
MXI-CBL-PCIe-X1-3M-AD	MXI-E x1 Copper Cable 3M
MXI-CBL-PCIe-X1-7M-AD	MXI-E x1 Copper Cable 7M

Note: The MXI-4 Series is supplied by a 3rd party and resold by Marvin Test Solutions.

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