

GX7100 SERIES



3U / 6U PXI CHASSIS

- Slots for one 6U (embedded) or 3U (remote) PXI controller, six 6U or 3U instruments, and seven 3U instruments
- Built-in peripherals (solid state disk drive) for embedded controller configurations
- Integral Smart functions provide internal temperature monitoring, power supply monitoring, fan control and PXI trigger mapping
- Innovative forced-air cooling controlled by embedded chassis temperature monitor
- Optional cable tray, recessed card cage, and hinged front panel configurations for mass interconnect devices



DESCRIPTION

The GX7100 Series is a 14-slot combination PXI chassis that accommodates 3U and 6U PXI controllers and instruments in 4U of rack space. The GX7100's unique format includes seven 3U-only slots and seven 3U/6U slots arranged horizontally to reduce the overall size of the chassis, providing the versatility and high-density necessary to address many PXI applications and requirements.

GX7100B Inquiries - please contact sales for additional details and assistance.

FEATURES

The GX7100 Series offers a full range of features and options including an innovative forced-air cooling system comprised of eight (8) 20 CFM fans controlled by built-in temperature sensors. This cooling configuration provides optimum cooling for the chassis regardless of the type or number of instruments used. Additional cooling is provided for the system power supply.

The GX7100 Series Smart Chassis supports the monitoring of internal chassis temperatures and system power supply voltages as well providing the ability to program or map each PXI trigger line from one PCI segment to another. In addition, the user can program the temperature monitoring function for specific warning and shutdown limits. All user specific setups can be stored in non-volatile memory as a user configuration and can be used as the default setup for normal chassis operation.

For applications requiring mass interconnect and cable routing to/ from the rear of the chassis, the GX7102 and GX7112 offer the ideal system solution. These chassis include an integrated 2U cable tray, a hinged front-panel that accommodates all popular mass interconnect devices, optional openings at the top and bottom of chassis for cable routing, and recessed PXI instruments (recessed by 2.5" or 5").

The combination of front panel and the recessed instruments provides up to 8" of space for interface wiring.

The GX7100 Series provides 850 W of system power and complies with the PXI Hardware Specification 2.1.

CONFIGURATION

Slot 1 (6U) is dedicated to the system controller (embedded or remote, using a PXI bus expander). Slot 2 can be used by a PXI Star Trigger Controller or by any PXI or cPCI instrument. Slots 3 - 14 support the PXI Star Trigger. The PXI local bus interconnects cards within PXI segment A or segment B. The PXI trigger lines are buffered / enabled at the PXI segment A / segment B boundary.

PROGRAMMING AND SOFTWARE

The chassis is supplied with the GxChassis software which provides software libraries and a driver, programming examples, virtual panel application and documentation. The virtual panel provides a way to control, configure and display the smart chassis' features, including temperature monitoring, trigger line mapping, and power supply voltage monitoring. A 32/64-bit Windows DLL driver is provided with various interface files for accessing the DLL functions from programming tools and languages such as ATEasy, LabVIEW, C/C++, Microsoft Visual Basic®, Delphi, and more. A User's Guide provides documentation that includes instructions for installing, using and programming the chassis. Support for Linux for the chassis is provided using a separate software package - GtLinux.

APPLICATIONS

- Automatic Test Equipment (ATE)
- Data Acquisition
- Process Control
- Production Test
- Scientific Applications
- Industrial Systems
- Portable Systems

SPECIFICATIONS



GX7100 SERIES



CHASSIS SPECIFICATIONS	
Input AC Power	90 - 264 V _{AC} , 47 - 63 Hz, 10 A max with PFC
Total Available DC Power	850 W
+5 V +3.3 V +12 V -12 V Note: Total power cannot exceed 560 W	60 A (max) 40 A (max) 25 A (max) 5 A (max)
Weight GX7100 GX7110 GX7111 GX7102 GX7112	26 lbs 23 lbs 23 lbs 28 lbs 25 lbs
Dimensions GX7100 GX7110 GX7111 GX7102 GX7112	4U (7") H x 17.6" W x 16" D 4U (7") H x 17.6" W x 16" D 4U (7") H x 17.6" W x 16" D 6U (10.5") H x 17.6" W x 23" D 6U (10.5") H x 17.6" W x 23" D
Cooling	<ul style="list-style-type: none"> • Eight 20 CFM fans for instruments • Additional fan for power supplies
PXI Clock	Integrated 10 MHz PXI clock with auto-detect function. Presence of an external 10 MHz PXI clock will disable the internal clock. PXI clock is distributed to all peripheral slots. Optional external clock can be supplied via slot 2 or via the rear panel 10 MHz input.
Temperature Monitoring	7 temperature sensors, centrally located across segment A, 1 reading/sec/sensor 4 second moving average value User selectable alarm criteria: <ul style="list-style-type: none"> • Maximum slot temperature • Average slot temperature Accuracy: ±1 °C Default warning and shutdown limits: +50 °C and +70 °C Warning and shutdown limits programmable via software driver Status: Query via software driver and audible alarm for a warning limit condition
Power Supply Monitoring	Monitored voltages: 3.3, 5, +12, -12, VIO value Accuracy: ±1% of reading

PXI Triggers	Slots: 2 - 14 Number: 8 per segment Software controlled segment mapping supports: <ul style="list-style-type: none"> • Isolate a trigger line within a segment • Map a trigger line from segment A to B • Map a trigger line from segment B to A
Slots	14 PXI or cPCI Slots: <ul style="list-style-type: none"> • Seven dedicated 3U instrument slots • Seven 3U/6U instrument slots
ENVIRONMENTAL SPECIFICATIONS	
Acoustic Noise (at operator level, 12 inches from front of unit)	Auto or High fan setting (@ 23°C ambient): < 40 dBA
Operating Temperature Range	0 °C to +50 °C
Storage Temperature Range	-20 °C to +60 °C

Note: Specifications are subject to change without notice

ORDERING INFORMATION

GX7100C	6U/3U, 14 Slot Smart PXI Master Desktop Combo Chassis w/Solid state Disk Drive
GX7100CR	6U/3U, 14 Slot Smart PXI Master Rackmount Combo Chassis w/Solid state Disk Drive
GX7110C	6U/3U, 14 Slot Smart PXI Slave Desktop Combo Chassis for Use with PXI Remote Controllers
GX7110CR	6U/3U, 14 Slot Smart PXI Slave Desktop Combo Chassis for Use with PXI Remote Controllers w/rack mount
GX7112C	GX7110C with an Integrated Cable Tray & a Hinged Front Panel for Mass Interconnect (Rackmount Configuration)
GX7112C-5FT	GX7112C with the card cage recessed 5", Top Cable Routing Opening, Flat Front Panel
GX7112CR-5FT	GX7112C with the card cage recessed 5", Top Cable Routing Opening, Flat Front Panel w/Rack Mount
CONTROLLER (FOR MASTER CHASSIS, SELECT ONE)	
GX7928-SSD	PXI Controller, 6U-E2176M Processor, 16 GB DRAM w/Solid State Drive (SSD)
BUS EXPANDER (FOR SLAVE CHASSIS)	
MXI-PCIe-PXI-KIT-AD	MXI-Express Interface Kit including PCIe Interface Card, PXI Interface Card and 3 Meter Cable

GX7100 SERIES



MXI-PCIe-X1-AD	PCI Express-to-PCI expansion card for host PC, X1 PCI Express interface - Compatible with MXI-PXI-X1-A
MXI-PXI-X1-AD	PXI interface, X1 - Compatible with MXI-PCIe-X1-A
MXI-CBL-PCIe-X1-1M-AD	PCIe -to-PXI 1 M cable
MXI-CBL-PCIe-X1-3M-AD	PCIe -to-PXI 3 M cable
MXI-CBL-PCIe-X1-7M-AD	PCIe -to-PXI 7 M cable
MXI-4E-C	MXI-Express Kit, Copper, PXI to PCI, with 3m Cable
MXI-EXPRESS-1A	PCIe -to-PXI Chassis Expansion Kit. Includes (1) PCIe interface card, (1) PXI interface card and 3 M cable
MXI-EXPRESS	MXI-Express Interface Kit Including PCIe Interface Card, PXI Interface Card, and a 3 Meter Cable, includes 2-port PCIe card
MXI-4E-PXI-C-P	MXI-Express Interface Card, PXI, Copper, for Daisy Chain Configurations (Requires One MXI-E-PXI-C & Cable)
MXI-EXPRESS-1	MXI-EXPRESS interface kit, includes single port PCIe interface card, PXI interface card, 3M cable
MXIe1-PXI-L	Laptop (ExpressCard) to PXI Interface Card Kit, Includes a 3 Meter Cable
MXI-EXPRESS-2	Dual MXI-Express I/F Kit Including Dual-Port PCIe I/F Card, 2 PXI I/F Cards, and 2 3 Meter Cables
MXI-4E-PCI-C	MXI-Express Interface Card, PCI, Copper, (Requires One MXI-E-PXI-C & Cable)
MXI-4E-PXI-C	MXI-Express Interface Card, PXI, Copper, (Requires One MXI-E-PCI-C & Cable)
OPTION	
GX7xxx-400Hz	115VAC/400Hz Input Power Option for any Marvin Test Solutions PXI Chassis
GX7xxx-HD	Upgrade Chassis Hard Disk size to 560GB
ACCESSORY	
GX97005	3U to 6U Panel Adapter (Allows a 3U Instrument to Fit into a 6U Chassis)
GX97011	6U Blank Panel, 1-Slot wide
GX97012	6U Blank Panel, 2-Slots wide
GX97014	6U Blank Panel, 4-Slots wide
GX97111	3U Blank Panel, 1-Slot wide
GX97112	3U Blank Panel, 2-Slots wide
GX97114	3U Blank Panel, 4-Slots wide
GX97117	3U Blank Panel with Air Baffle
GX97025	Replacement Power Supply for GX7100 Chassis

GX97100	Rack Mount Kit for GX7100, GX7200 & GX7300 Chassis
GX97103	Rack Mount with Handles GX7100 Chassis
GX7909-250	3U cCPI Card with 250 GB Hard Drive
GX7909-80	3U cCPI Card with 80 GB Hard Drive
GX7909-SSD	3U cCPI with Solid State Drive, 1TB
GX7909-500	3U cCPI Card with 500 GB Hard Drive
GX97914	14-Slot PXI Chassis Installation/Integration Service & 2nd Year Warranty
GX97028	Replacement PXI Chassis Power Supply
GX7581	GX71x2 Door Panel with a Cutout for 3 ITT-Cannon (DL-156) Connectors (6-Module Wide)
SERVICES	
GX97914	14-Slot PXI Chassis Installation/Integration Service & 2nd Year Warranty

GX7100 SERIES



THIS PAGE INTENTIONALLY LEFT BLANK

