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 (hard disk drive and a DVD-RW 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 GX7100B Series are 14-slot combination PXI chassis that accommodate 3U and 6U PXI controllers and instruments in 4U of rack space. The GX7100B'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.

FEATURES

The GX7100B 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. The fans provide airflow according to PXI revision 2.1 specifications. 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 GX7100B 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 GX7102B and GX7112B 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 GX7100B Series provides 560 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

CHASSIS AND CONTROLLERS

MARVIN TEST
SOLUTIONS

GX7100 SERIES

SPECIFICATIONS

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 **GX7100B** **GX7110B** **GX7111B** **GX7102B** **GX7112B**	26 lbs 23 lbs 23 lbs 28 lbs 25 lbs
Dimensions **GX7100B** **GX7110B** **GX7111B** **GX7102B** **GX7112B**	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	• 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: • 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: • 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: • Seven dedicated 3U instrument slots • Seven 3U/6U instrument slots
GX7100B / GX7102B Peripherals	• DVD-RW • 160 GB (min) Hard Drive, 7200 rpm
ENVIRONMENTAL TEMPERATURE RANGE	
Operating	0 °C to +50 °C
Storage	-20 °C to +60 °C

Note: Specifications are subject to change without notice

GX7100 SERIES

ORDERING INFORMATION

GX7100B	6U/3U, 14 Slot Smart PXI Master Desktop Combo Chassis w/DVD-RW & Hard Disk Drive
GX7100B-ESATA	GX7100B Master Combo Chassis with Rear-Panel ESATA Interface
GX7100BR	6U/3U, 14 Slot Smart PXI Master Rackmount Combo Chassis w/DVD-RW & Hard Disk Drive
GX7100BR-HP1	GX7100BR Smart Master Combo Chassis with Additional Cooling for High-Performance Digital
GX7102B	GX7100B with an Integrated Cable Tray & a Hinged Front Panel for Mass Interconnect (Rackmount Configuration)
GX7110B	6U/3U, 14 Slot Smart PXI Slave Desktop Combo Chassis for Use with PXI Remote Controllers
GX7110BR	GX7110B with Rackmount
GX7112B	GX7110B with an Integrated Cable Tray & a Hinged Front Panel for Mass Interconnect (Rackmount Configuration)
GX7112B-5NBT	GX7112B with the Card Cage Recessed 5", Top/Bottom Cable Routing Opening, No Door
GX7112B-5NBTS	GX7112B with the Card Cage Recessed 5", Top/Bottom Cable Routing Opening, No Door, Countersink Screw
GX7110BR-HP1	GX7110BR with additional cooling for high-performance digital instrumentation
GX7110B-2	GX7110B with a 2" recessed instrument card cage (formerly GX7111B)
GX7110BR-2	GX7110B with a 2" recessed instrument card cage w/rack-mount (formerly GX7111BR)
GX7112B-5TB	GX7112B with the card cage recessed 5", & top/bottom cable routing openings (Formerly GX7112B-5)
GX7112B-5NB	GX7112B with the card cage recessed 5", Bottom Cable Routing Opening, no door (Replaces GX7112B-5N)
GX7102B-5TB	GX7102B with the card cage recessed 5", & top/bottom cable routing openings (formerly GX7102B-5)
GX7112B-5FT	GX7112B with the card cage recessed 5", Top Cable Routing Opening, Flat Front Panel
GX7927-2534096	6U Single-Slot 2.53 GHz i7 Controller with 4 GB of Memory, Includes PMC/XMC 2 Site, 2GE, VGA, USB & COM port (FP).
GX7927-2534096E	6U Single-Slot 2.53 GHz i7 Controller with 4 GB of Memory, Includes PMC/XMC 2 Site, 2GE, VGA, USB & COM Port (FP) Extended Temp

BUS EXPANDER (FOR SLAVE CHASSIS)

MXI-4E-C	MXI-Express Kit, Copper, PXI to PCI, with 3m Cable
MXIe1-PXI-L	Laptop (ExpressCard) to PXI Interface Card Kit, Includes a 3 Meter 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-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)
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

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, Single Slot, Blank Panel w/Air Baffle
GX97100	Rack mount kit for GX7100 & GX7300 chassis
GX97103	Rack mount with Handles for GX7100 & GX7300 chassis
GX7909-250	3U PXI Card with 250 GB Hard Drive
GX97914	14-Slot PXI Chassis Installation/Integration Service (includes 2nd year warranty & blank panels)
GX97028	Replacement Power Supply for GX70x0, GX71x0, GX73xxC, GX76x0 & GX7800 Chassis

SERVICES

GX97914	14-Slot PXI Chassis Installation/Integration Service (includes 2nd year warranty & blank panels)

OPTION

GX7xxx-400Hz	115VAC/400Hz Input Power Option for any Marvin Test Solutions PXI Chassis

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Revision D • Updated Nov 9, 2015

GX7100 SERIES

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