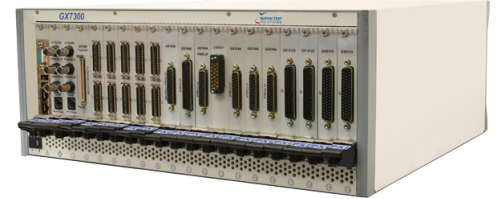# GX7300 SERIES

20 SLOT, 3U PXI CHASSIS

- 20 slots – supporting a 3U (embedded or remote) PXI controller and 19 3U PXI or cCPI instruments
- Built-in peripherals (hard disk drive, and a DVD-RW drive) for embedded controller configurations
- Integral Smart functions provide per slot temperature monitoring, system power supply monitoring, and PXI trigger mapping
- 900 W and 1600 W system power supply configurations
- Cable tray, recessed instrumentation, cable routing, and hinged front interface assembly configurations are available for mass interconnect interfaces

DESCRIPTION

The GX7300 Series mainframes are 20-slot PXI chassis that can accommodate up to 19 instruments as well as a PXI controller (an embedded CPU or a PXI bus expander interface such as a MX interface). The 3U form-factor provides a compact test system foot print and provides users with the flexibility to employ both PXI and Compact PCI 3U modules.

FEATURES

System power for the GX7300, GX7310, GX7302 and GX7312 models are provided by a dual power supply configuration which provides a total of 900 watts. The GX7305 and GX7315 feature a high capacity, 1600 watt system power configuration and is capable of supplying 60 watts of power to each PXI peripheral slot - making it the ideal PXI chassis for high peformance and high channel count digital I/O applications.

Forced-air cooling for the GX7300, GX7310, GX7302 and GX7312 chassis is provided by a 235 CFM fan located at the rear of the chassis with dedicated fans supplying cooling for the dual system power supplies. This cooling configuration, in conjunction with air plenum within the chassis, provides airflow for all module slots per the PXI specification. The GX7305 and GX7315 employ four 100 CFM fans located at the bottom of the card cage assembly with dedicated fans for the system power supplies.

The GX7300 Smart Chassis supports the monitoring of slot 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 as well as monitor and control the chassis' fan speed. 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.

The GX7302 and GX7312 offer the ideal solution for supporting mass interconnect interfaces from several manufacturers including Virginia Panel, Mac-Panel, ITT Cannon, and others. These chassis include an integrated 2U cable tray, a hinged interface assembly that accommodates all popular mass interconnect devices, optional openings at the top & bottom of chassis for cable routing, and recessed PXI instruments (recessed by 2.5" or 4.5") providing up to 7" of space for interface wiring. In addition, the GX7302 and GX7312 can be ordered with the Mac-Panel Scout receiver, providing a wireless mass termination interface.

CONFIGURATION

Slot 1 is dedicated to the system controller (embedded or remote, using a PXI bus expander). A PXI Star Trigger Controller or any PXI or cPCI instrument can be used in slot 2. Slots 3 - 15 support the PXI Star Trigger and any PXI or cPCI instrument. Slots 16 - 20 accommodate PXI or cPCI instruments without the Star Trigger.

CHASSIS AND CONTROLLERS

GX7300 SERIES

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. A separate software package - GtLinux - provides support for Linux 32/64 operating systems.

APPLICATIONS

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

CHASSIS AND CONTROLLERS

MARVIN TEST SOLUTIONS

GX7300 SERIES

SPECIFICATIONS

Chassis	GX7300 GX7310 GX7302 GX7312
Input AC Power	100 to 179 VAC @ 15 A max (PFC) 180 to 240 VAC @ 10 A max (PFC) 47 to 63 Hz
Total Available DC Power	900 watts
DC Power +5 V +3.3 V +12 V -12 V Note: Total power for the +5 V and +3.3 V cannot exceed 300 W for slots 1 - 7 or slots 8 - 20.	Available for slots 1 - 7 or slots 8 - 20 60 A (max) 40 A (max) 32 A (max) 3 A (max)
Chassis	GX7305 GX7315
Input AC Power	120 VAC, ±15%; 20 A max (PFC) 240 VAC, ±10%; 10 A max (PFC) 47 Hz to 440 Hz
Total Available DC Power	1600 watts
Available DC Current +5 V +3.3 V +12 V -12 V	 100 A (max) 180 A (max) 10 A (max) 5 A (max)
Weight GX7300 GX7310 GX7302 GX7312 GX7305 GX7315	 33 lbs 30 lbs 35 lbs 32 lbs 40 lbs 37 lbs
Dimensions GX7300, GX7310 GX7302, GX7312, GX7305, GX7315	4U (7") H x 17.6" W x 16" D 6U (10.5") H x 17.6" W x 23" D
Cooling (GX7300, GX7310, GX7302, GX7312)	One 235 CFM fan for system cooling. Two 50 CFM fans for system power supplies. Integrated temperature monitoring via an onboard microcontroller with audible and software notification when preset temperature limits are exceeded. Fan control and monitoring via the GxChassis software

Cooling (GX7305, GX7315)	Four 100 CFM fans. Separate fans for system power supplies. Integrated temperature monitoring via an onboard microcontroller with audible and software notification when preset temperature limits are exceeded. Fan control and monitoring via the GxChassis software
Temperature Monitoring	Per slot monitoring, 1 reading/sec/slot 4 second moving average value User selectable alarm criteria: • Maximum slot temperature • Average slot temperature Accuracy: ±2 °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: ±2% of reading
PXI Triggers	Slots: 2 - 20 Number: 8 per segment Software controlled segment mapping supports: • Isolate a trigger line within a segment • Map a trigger line left to right • Map a trigger line right to left
Clock	Integrated 10 MHz PXI clock with an auto-detect function. Presence of an external 10 MHz PXI clock will disable the internal clock.
Slots	20 PXI or cPCI Slots (19 instruments max)
Receiver Interface (GX7302-I)	Virginia Panel iCON 960 (Includes connector interface PCB assembly)
GX7300, GX7302, GX7305 Peripherals	DVD-RW and 160 GB (min) hard drive, 7200 rpm
ENVIRONMENTAL	
Operating Temperature	0 °C to +50 °C
Storage Temperature	-20 °C to +60 °C
CE Compliance	EN61010-1 EN61326

Note: Specifications are subject to change without notice

CHASSIS AND CONTROLLERS

MARVIN TEST SOLUTIONS

GX7300 SERIES

ORDERING INFORMATION

GX7300	20 Slot 3U PXI Master Desktop Chassis w/DVD-ROM & Hard Disk Drive
GX7300R	20 Slot 3U PXI Master Rackmount Chassis w/DVD-ROM & Hard Disk Drive
GX7302	GX7300R with an Integrated Cable Tray and a Hinged Front Panel for Mass Interconnect (Rackmount Configuration)
GX7302-4	GX7300R with the Card Cage Recessed 4", & Top/Bottom Cable Routing Openings
GX7302-4FT	GX7300R with a Hinged Flat Front Panel, Card Cage Recessed 4", and Top/Bottom Cable Routing Openings (Rackmount Configuration)
GX7302-MP	GX7302 with a MacPanel SCOUT Mass Interconnect Receiver
GX7305	20 Slot 3U High Power/High Cooling PXI Master Chassis to Support High-Performance Digital Cards (GX5295 Family)
GX7310	20 Slot 3U PXI Slave Desktop Chassis for Use with PXI Remote Controllers
GX7310R	20 Slot 3U PXI Slave Rackmount Chassis for Use with PXI Remote Controllers
GX7312	GX7310R with an Integrated Cable Tray and a Hinged Front Panel for Mass Interconnect (Rackmount Configuration)
GX7312-MP	GX7312 with a MacPanel SCOUT Mass Interconnect Receiver
GX7312-4	GX7310R with the Card Cage Recessed 4", & Top/Bottom Cable Routing Openings
GX7312-4FT	GX7310R with a Hinged Flat Front Panel, Card Cage Recessed 4", and Top/Bottom Cable Routing Openings (Rackmount Configuration)
GX7315	20 Slot 3U High Power PXI Slave Chassis
GX7302-I	GX7300R with an Integrated Cable Tray and iCON 960 Receiver Interface / PCB Assy
GX7300C	20 Slot 3U PXI Master Desktop Chassis w/DVD-RW & Hard Disk drive
GX7300CR	20 Slot 3U PXI Master Rackmount Chassis w/DVD-RW & Hard Disk drive
GX7302C	GX7300CR with an integrated Cable Tray & a Hinged front panel for Mass Interconnect (rackmount configuration)
GX7302C-4TB	GX7300R with the card cage recessed 4", & top/bottom cable routing openings (formerly GX7302-4)

GX7302C-4FTB	GX7300R with a hinged flat front panel, card cage recessed 4", and top/bottom cable routing openings (rackmount configuration) (formerly GX7302-4FT)
GX7302C-MP	GX7302 with a MacPanel SCOUT Mass Interconnect Receiver
GX7312C-MP	GX7312 with a MacPanel SCOUT Mass Interconnect Receiver
GX7310C	20 Slot 3U PXI Slave Desktop Chassis for use with PXI Remote Controllers
GX7310CR	20 Slot 3U PXI Slave Rackmount Chassis for use with PXI Remote Controllers
GX7312C	GX7310CR with an integrated Cable Tray & a Hinged front panel for Mass Interconnect (rackmount configuration)
GX7312C-4TP	GX7310CR with the card cage recessed 4", & top/bottom cable routing openings (formerly GX7312-4)
GX7312C-4FTB	GX7310CR with a hinged flat front panel, card cage recessed 4", and top/bottom cable routing openings (rackmount configuration)

CONTROLLER (FOR MASTER CHASSIS, SELECT ONE)

GX7935-2264096	3U Single Slot Embedded Controller for GX73xx chassis. 2.26 GHz Core 2 Duo, 4 GB of RAM
GX7936-214096	3U Single Slot Embedded Controller for GX73xx Chassis. 2.1 GHz i7 Core, 4 GB of RAM

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
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)

ACCESSORY

GX97111	3U Blank Panel, 1-Slot wide
GX97112	3U Blank Panel, 2-Slots wide
GX97114	3U Blank Panel, 4-Slots wide

CHASSIS AND CONTROLLERS

MARVIN TEST SOLUTIONS

GX7300 SERIES

GX97115	3U Blank Panel Kit includes (3) 1-slot, (4)2-slot and (2) 4-slot wide panels
GX97117	3U, Single Slot, Blank Panel w/Air Baffle
GX7909-250	3U PXI Card with 250 GB Hard Drive
GX7909-80	3U PXI Card with 80 GB Hard Drive
SERVICES	
GX97920	20 & 21-Slot PXI Chassis Installation/Integration Service (Includes 2nd Year Warranty & Blank Panels)
GX97921	20-Slot High-Power PXI Chassis Integration Service & 2nd Year Warranty
GX7xxx-400Hz	115VAC/400Hz Input Power Option for any Marvin Test Solutions PXI Chassis

CHASSIS AND CONTROLLERS

MARVIN TEST SOLUTIONS

GX7300 SERIES

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