

# GX7300 SERIES

## 3U PXI SMART CHASSIS - KEY FEATURES

- 20 slots – supporting a 3U (embedded or remote) PXI controller and 19 3U PXI or cPCI instruments
- Built-in peripherals (hard disk drive, and a DVD-RW drive) for embedded controller configurations
- Innovative forced-air cooling configuration provides excellent thermal management in a compact, 4U package
- Integral *Smart* functions provide per slot temperature monitoring, system power supply monitoring, and PXI trigger mapping
- 800 W power supply (1100 W optional)
- Cable tray, recessed instrumentation, cable routing, and hinged front interface assembly configurations are available for mass interconnect interfaces
- UUT interfacing options



## 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 the GX7990 or MXI-4). The 3U form-factor provides a compact test system footprint and provides users with the flexibility to employ both PXI and CompactPCI 3U modules.

## FEATURES

System power for the GX7300 Series is provided by a dual power supply configuration which provides a total of 800 watts of system power or optionally, 1100 watts.

Forced-air cooling for the 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 plenums within the chassis, provides airflow for all module slots per the PXI specification and requires no additional rack space for inlet or outlet air.

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. 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 GX7300 supports mass interconnect interfaces from several manufacturers including Virginia Panel, MacPanel, ITT Cannon,

and others. For applications requiring a mass interconnect and the means to route cables to/from the rear of the chassis, the GX7302 and GX7312 offer the ideal system solution. 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.

## 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.

## SOFTWARE

The GX7300 is supplied with a virtual instrument panel, which includes 32-bit DLL driver libraries and documentation. The virtual panel can be used to interactively set /display shutdown and alarm conditions based on defined temperature levels. In addition, defined warning and alarm limits can be saved or recalled or optionally, the use of factory settings can be invoked. Monitoring of all system power voltages and configuration of the PXI trigger lines is also supported.

In addition, an API is supplied that supports a variety of programming tools and languages such as ATEasy, LabVIEW, Microsoft® Visual C++, Borland® C/C++, Microsoft Visual Basic®, Borland Delphi, LabWindows, and .Net.

# GX7300 SERIES

## APPLICATIONS

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

## SPECIFICATIONS

CHASSIS	GX7300 GX7310 GX7302 GX7312	GX7300-1100 GX7310-1100 GX7302-1100 GX7312-1100
<b>INPUT AC POWER</b>	115 VAC @ 16 A, 50/60 Hz 230 VAC @ 8 A, 50/60 Hz	115 VAC @ 20 A, 47/60 Hz 230 VAC @ 10 A, 47/60 Hz
<b>TOTAL AVAILABLE DC POWER</b>	800 W	1120 W
+5V +3.3V +12V -12V	84 A (Max) 40 A (Max) 28 A (Max) 2 A (Max)	120 A (Max) 80 A (Max) 64 A (Max) 6 A (Max)
<b>WEIGHT</b>		
GX7300 GX7310 GX7302 GX7312	30 lbs 27 lbs 32 lbs 29 lbs	33 lbs 30 lbs 35 lbs 32 lbs
<b>DIMENSIONS</b>	GX7300, GX7310, GX7302, GX7312 4U (7") H x 17.6" W x 16" D 6U (10.5")H x 17.6"W x 23"D	
<b>COOLING</b>	One 235 CFM fan for system cooling. Two 50CFM fans for power supplies. Integrated temperature monitoring via an on-board microcontroller with audible and software notification when preset temperature limits are exceeded.	
<b>TEMPERATURE MONITORING</b>	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 & +70° C Warning and shutdown limits programmable via software driver Status: Query via software driver and audible alarm for a warning limit condition	
<b>POWER SUPPLY MONITORING</b>	Monitored voltages: 3.3, 5, +12, -12, VIO value Accuracy: +/- 2% of reading	
<b>PXI TRIGGERS</b>	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	
<b>CLOCK</b>	Integrated 10 MHz PXI clock with an auto-detect function. Presence of an external 10 MHz PXI clock will disable the internal clock.	
<b>SLOTS</b>	20 PXI or cPCI Slots (19 instruments max)	

ENVIRONMENTAL TEMPERATURE RANGE	
<b>OPERATING:</b>	0° C to 50° C
<b>STORAGE:</b>	-20° C to 60° C
<b>CE COMPLIANCE</b>	EN61010-1 (pending) EN61326

Note: Specifications are subject to change without notice.

## ORDERING INFORMATION

CHASSIS	
<b>GX7300</b>	3U, 20 Slot PXI Chassis with built-in CD-ROM, Hard Disk, and Floppy Disk drives
<b>GX7300R</b>	3U, 20 Slot PXI Chassis with CD-ROM, Hard Disk, and Floppy Disk drives, w/rack mount
<b>GX7310</b>	3U, 20 Slot PXI Chassis for use with GX7990 PXI Bus Expander
<b>GX7310R</b>	3U, 20 Slot PXI Chassis for use with GX7990 PXI Bus Expander, w/rack mount
<b>GX7300-1100</b>	GX7300 with 1100 W of available power
<b>GX7300R-1100</b>	GX7300R with 1100 W of available power
<b>GX7310-1100</b>	GX7310 with 1100 W of available power
<b>GX7310R-1100</b>	GX7310R with 1100 W of available power
<b>GX7302</b>	GX7300R with an integrated Cable Tray and a Hinged front panel for Mass Interconnect (rack mount configuration)
<b>GX7312</b>	GX7310R with an integrated Cable Tray and a Hinged front panel for Mass Interconnect (rack mount configuration)
<b>GX7302-1100</b>	GX7300R-1100 with an integrated Cable Tray and a Hinged front panel for Mass Interconnect (rack mount configuration)
<b>GX7312-1100</b>	GX7010R-1100 with an integrated Cable Tray and a Hinged front panel for Mass Interconnect (rack mount configuration)

CONTROLLER OPTIONS	
<b>GX7930-14512</b>	CPU Plug-in Controller for GX7300 Series chassis. 1.4 GHz/512 MB RAM Pentium M CPU
<b>GX7930-181024</b>	CPU Plug-in Controller for GX7300 Series chassis. 1.8 GHz / 1 GB RAM, Pentium M CPU
<b>GX7930-14512E</b>	CPU Plug-in Controller for GX7300 Series chassis. 1.4 GHz / 512 MB RAM, Pentium M CPU, Extended temperature range, -40 to +85 C
<b>GX7990</b>	PCI - PXI bus expansion kit. Two card set with 4 foot cable.
<b>MXI-4</b>	PCI to PXI and PXI to PXI bus expansion kits. Contact factory regarding specific configuration requirements.
ACCESSORIES	
<b>GX97111</b>	3U Blank Panel, 1-Slot wide
<b>GX97112</b>	3U Blank Panel, 2-Slots wide
<b>GX97114</b>	3U Blank Panel, 4-Slots wide
<b>PXI-INT1</b>	Integration service for PXI instruments