

# GX7002A-MP / GX7012A-MP

## 6U PXI *SMART* CHASSIS – KEY FEATURES

- GX7002A 6U PXI chassis with fully integrated, 21 slot MAC Panel SCOUT receiver.
- Cable tray, recessed card cage and top / bottom access to facilitate cable management and routing
- Wide selection of direct access kits (DAK) and connectors for high density and high current signal interface applications
- 20 slot PXI chassis supporting a 6U (embedded or remote) PXI controller and 19 6U / 3U PXI or cPCI 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
- 800 W power supply (1100 W optional)



## DESCRIPTION

The GX7002A-MP and GX7012A-MP chassis incorporate the MAC Panel SCOUT receiver. The SCOUT receiver offers system integrators a reliable and high performance method to connect test system resources to a mass interconnect receiver, minimizing the need for cable assemblies. The SCOUT receiver is a "pull-through" design which allows the use of pcb assemblies to provide a "wireless" connection between PXI system resources and the receiver interface – eliminating the need for cable harnesses and the associated reliability issues that come with cabled solutions. The result is a system interconnect design that is cost effective, reliable, and maintainable. The modular design of the SCOUT allows for the use of a broad range of receiver connectors including high density, high current, and coaxial types. The 6U SCOUT receiver can accommodate up to 21 connectors and over 8000 connections when fully populated.

## FEATURES

The GX70x2A-MP incorporates a 20-slot 6U PXI chassis that can accommodate up to 19 instruments as well as a PXI controller or a PXI bus expander interface such as the GX7990 or MXI-4. A selection of direct connect adapters is available to interface Geotest switch and instrument PXI modules to the SCOUT receiver interface. System power for the GX70x2A-MP is provided by a dual power supply configuration which provides a total of 800 watts or optionally, 1100 watts. Forced-air cooling for the chassis is provided by a four (4) 52 CFM fans mounted under the card cage—providing positive airflow per the PXI specification. This configuration provides the optimum cooling for the chassis regardless of the type or number of instruments used. Additional

cooling is provided for the power supplies, 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.

Like all other Geotest PXI chassis, the GX70x2A-MP 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.

## 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. The GX7002A-MP is configured for use with an embedded PXI controller. The GX7012A-MP is configured as a slave chassis and is designed for use with a PXI bus expander interface such as the GX7990 or a MXI-4.

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## SOFTWARE

The GX70x2A-MP 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 setting 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® .NET, Visual C++, Borland® C/C++, Microsoft Visual Basic®, Borland Delphi, and LabWindows.

## APPLICATIONS

- Automatic Test Equipment (ATE)
- Data Acquisition
- Production Test

## SPECIFICATIONS

CHASSIS	GX7002A-MP GX7012A-MP	GX7002A-MP -1100 GX7012A-MP-1100
INPUT AC POWER	115 VAC @ 16 A, 50/60 Hz 230 VAC @ 8 A, 50/60 Hz	230 VAC @ 10 A, 47/60 Hz 115 VAC @ 20 A, 47/60 Hz
TOTAL AVAILABLE DC POWER	800 W	1120 W
AVAILABLE DC CURRENT		
+5V	100 A (Max)	120 A (Max)
+3.3V	60 A (Max)	80 A (Max)
+12V	54 A (Max)	64 A (Max)
-12V	6 A (Max)	6 A (Max)
WEIGHT		
GX7002A-MP	70 lbs	70 lbs
GX7012A-MP	67 lbs	67 lbs
DIMENSIONS	10U (17.5")H x 17.6"W x 24.3"D	
COOLING	Four 52 CFM fans for instruments. Two 50 CFM fans for power supplies	

TEMPERATURE MONITORING	Per slot monitoring, 1 reading/sec/slot 4 second moving average value User selectable alarm criteria: <ul style="list-style-type: none"><li>• Maximum slot temperature</li><li>• Average slot temperature</li></ul> 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, e-mail notification.
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: <ul style="list-style-type: none"><li>• Isolate a trigger line within a segment</li><li>• Map a trigger line left to right</li><li>• Map a trigger line right to left</li></ul>
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. 10MHz PXI clock accuracy: ±100ppm.
SLOTS	20 PXI or cPCI Slots (19 instruments max)
RECEIVER	MAC PANEL 6U SCOUT
RECEIVER / ITA CONNECTOR OPTIONS	<ul style="list-style-type: none"><li>• HDI 200 position, 1 amp; single and dual configurations</li><li>• Discrete signal, 96 positions, 10 amp; single and dual configurations</li><li>• HDI/DIN 96 position, 1 amp; single and dual configurations</li><li>• Coax</li><li>• Power</li></ul>
DIRECT ACCESS KIT (DAK) OPTIONS FOR GEOTEST PXI PRODUCTS	<ul style="list-style-type: none"><li>• Dual 78 pin sub-D / HDI 200 position adapter<ul style="list-style-type: none"><li>– supports GX6616, GX6264</li></ul></li><li>• 3 x 50 pin sub-D / dual 96 position adapter<ul style="list-style-type: none"><li>– supports GX6315</li></ul></li><li>• Other adapters: contact factory</li></ul>
ENVIRONMENTAL TEMPERATURE RANGE	
OPERATING:	0° C to 50° C
STORAGE:	-20° C to 60° C
CE COMPLIANCE	EN61010-1 (pending) EN61326

Note: Specifications are subject to change without notice.

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## ORDERING INFORMATION

CHASSIS	
<b>GX7002A-MP</b>	6U, 20 Slot PXI Chassis with built-in CD-RW, Hard Disk, Floppy Disk drive, rack mount, cable tray and 6U MAC Panel SCOUT receiver
<b>GX7002A-MP-1100</b>	GX7002A-MP with 1100 watts of available power
<b>GX7012A-MP</b>	6U, 20 Slot PXI Chassis for use with GX7990 PXI Bus Expander, w/rack mount, cable tray and 6U MAC Panel SCOUT receiver
<b>GX7012A-MP-1100</b>	GX7012A-MP with 1100 watts of available power
ACCESSORIES / OPTIONS	
<b>GX97005</b>	3U to 6U Panel Adapter (allows a 3U instrument to fit into a 6U chassis)
<b>GX97011</b>	6U Blank Panel, 1-Slot wide
<b>GX97012</b>	6U Blank Panel, 2-Slots wide
<b>GX97014</b>	6U Blank Panel, 4-Slots wide
<b>GX7000-CDRW</b>	Upgrade any GX7xxx CD-ROM drive to CD-RW drive
<b>GX97920</b>	Installation and integration of PXI modules. Includes 2nd year warranty Contact factory for DAK module development / integration / installation.

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