GX7000A SERIES

6U PXI *SMART* CHASSIS – KEY FEATURES

- 20 slots supporting one 6U or 3U (embedded or remote) PXI controller and 19 PXI or cPCI instruments (3U or 6U)
- Built-in peripherals (hard disk drive and CD-RW drive) for embedded controller configurations
- Integral *Smart* functions provide per slot temperature monitoring, system power supply monitoring, and PXI trigger mapping
- 800 W system power supply (1100 W optional)
- Optional cable tray, recessed instrumentation, cable routing openings on top & bottom, and hinged front panel for mass interconnect devices
- UUT interfacing options

DESCRIPTION

The GX70xxA Series are high-performance 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 6U form-factor provides the necessary real estate to accommodate high performance and high-density test instrumentation, while offering the flexibility of being able to use 3U PXI and cPCI instruments as well.

FEATURES

The GX70xxA Series offers a full range of features and options including 800W or 1100W system power supply configurations, as well as configurations that support embedded or external system controllers.

The GX70xxA provides forced-air cooling which is generated by four (4) 52 CFM fans mounted under the card cage—providing positive airflow per the PXI specifications. 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.

The GX7000A *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 GX70xxA supports mass interconnect interfaces from several manufacturers including Virginia Panel, MacPanel, ITT Cannon, and others via the GX7500 Universal Receiver Interface. For applications requiring mass interconnect and cable routing to/from the rear of the chassis, the GX7002A and GX7012A 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 & bottom of chassis for cable routing, and recessed PXI instruments (recessed by 2.5" or 5"). In combination, the front panel and recessed instruments provide up to 8" 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.

GX7012A

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SOFTWARE

The GX70xxA is supplied with a virtual instrument panel, a Windows Dynamic Link Library (DLL), and examples in C and VB. 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 the 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
- Process Control
- Production Test
- Scientific Applications
- Industrial Systems

SPECIFICATIONS

CHASSIS	GX7000A GX7010A GX7002A GX7012A GX7012A-5TF	GX7000A-1100 GX7010A-1100 GX7002A-1100 GX7012A-1100 GX7012A-5TF-1100
INPUT AC POWER	115 V_{AC} @ 16 A, 50/60 Hz 230 V_{AC} @ 10 A, 50/60 Hz	115 V_{AC} @ 18 A, 47/60 Hz 230 V_{AC} @ 12 A, 47/60 Hz
TOTAL AVAILABLE DC POWER	800 W	1120 W
AVAILABLE DC CURRENT +5V +3.3V +12V -12V	 100 A (Max) 60 A (Max) 54 A (Max) 6 A (Max)	 120 A (Max) 80 A (Max) 64 A (Max) 6 A (Max)
WEIGHT GX7000A-XXX GX7010A-XXX GX7002A-XXX GX7012A-XXX	 38 lbs 35 lbs 44 lbs 41 lbs	 39 lbs 36 lbs 45 lbs 42 lbs

DIMENSIONS GX7000A-XXX GX7010A-XXX GX7002A-XXX GX7012A-XXX	8U (14")H x 17.6"W x 14"D (same as above) 10U (17.5")H x 17.6"W x 19.68"D (same as above)
COOLING	Four 52CFM fans for instruments. Two 50CFM fans for power supplies
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 & +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 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)
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.

ORDERING INFORMATION

CHASSIS	
GX7000A	6U, 20 Slot PXI Chassis with built-in CD-RW and hard disk drives
GX7000AR	6U, 20 Slot PXI Chassis with CD-RW and hard disk drives w/rack mount
GX7010A	6U, 20 Slot PXI Chassis for use with GX7990 PXI Bus Expander
GX7010AR	6U, 20 Slot PXI Chassis for use with GX7990 PXI Bus Expander, w/rack mount

GX7000A SERIES

GX7000A-1100	GX7000A with 1100 W of available power
GX7000AR-1100	GX7000AR with 1100 W of available power
GX7010A-1100	GX7010A with 1100 W of available power
GX7010AR-1100	GX7010AR with 1100 W of available power
GX7002A	GX7000AR with an integrated Cable Tray and a Hinged front panel for Mass Interconnect (rackmount configuration)
GX7012A	GX7010R with an integrated Cable Tray and a Hinged front panel for Mass Interconnect (rackmount configuration)
GX7012A-5TF	GX7012 with a flat hinged front panel, 5" recessed card cage, and top & bottom openings for cable routing
GX7002A-1100	GX7000R-1100 with an integrated Cable Tray and a Hinged front panel for Mass Interconnect (rackmount configuration)
GX7012A-1100	GX7010R-1100 with an integrated Cable Tray and a Hinged front panel for Mass Interconnect (rackmount configuration)
GX7012A-5TF-1100	GX7012-1100 with a flat hinged front panel, 5" recessed card cage, and top & bottom openings for cable routing
CONTROLLER OPTIONS	
GX7910-22512	CPU controller, 2.2 GHz, 512 MB
GX7910-24512	CPU controller, 2.4 GHz, 512 MB
GX7910-17512E	CPU controller, 1.7 GHz, 512 MB, extended operating temperature range
GX9090	PXI bus expander, PCI to PXI interface, with 4-foot cable
MXI-4	A wide range of PCI to PXI and PXI to PXI products

ACCESSORIES	
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
GX7000-CDRW	Upgrade any GX7xxx CD-ROM drive to CD-RW drive
GX7000-HD80	Upgrade any GX7xxx hard drive up to 80 GB
PXI-INT1	Integration service for PXI instruments
GX97920	20-Slot PXI Chassis Installation/Integration Service (includes 2nd year warranty)
INTERFACING	
GX7500	Universal PXI Receiver Interface for GX70x0, 5" deep (accommodates 1 to 8 receiver modules)
GX7510	ITT Cannon Receiver Module (1 module wide)
GX7520	Virginia Panel Click Receiver Module (2 module wide, contacts excluded)
GX7530	MacPanel MPX Receiver Module (2 module wide)
GX7540	MacPanel L2000 5-slot Receiver Module (4 module wide)
GX7501	Blank panel for GX7500, 1 module wide (2 inches)
GX7502	Blank panel for GX7500, 2 module wide (4 inches)
GX7504	Blank panel for GX7500, 4 module wide (8 inches)
GX7508	Cable Tray Cover for GX7500

PXI CHASSIS & CONTROLLERS

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