GX7000 SERIES

20 SLOT, 6U PXI CHASSIS

- 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
- 850 W system power supply
- High power configuration for GX5960 and GX5055 digital subsystems
- Optional cable tray, recessed instrumentation, cable routing openings on top & bottom, and hinged front panel for mass interconnect devices
- UUT interfacing options

DESCRIPTION

The GX7000C 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 MXI series). 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 GX7000C Series offers a full range of features and options including a high power (4.5 KW) system power supply configuration, as well as configurations that support embedded or external system controllers.

The GX70x0C and GX70x2C models provide 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 GX7005C chassis offers a high power (4.5 KW) system power configuration for high performance digital test applications. The chassis includes eight (8) 100 CFM fans, providing positive airflow per the PXI specification. The chassis includes additional VCC and VEE power supplies to support the GX5960 and GX5055 digital subsystems.

The GX7000C 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 / control 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 GX7000C 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 GX7002C and GX7012C 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.

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SOFTWARE

The chassis is supplied with the GxChassis software which provides software libraries and a driver, programming examples, a 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, fan monitoring / control, 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

SPECIFICATIONS

Chassis	GX7000C GX7010C GX7002C GX7012C
Input AC Power	90 to 264 V_{AC} @ 15 A, 47 - 63 Hz
Total DC Power	850 W
Available PXI DC Current	
+5 V +3.3 V +12 V -12 V	60 A (max) 40 A (max) 25 A (max) 5 A (max)
Weight GX7000C-xx GX7010C-xx GX7002C-xx GX7012C-xx	 39 lbs 36 lbs 45 lbs 42 lbs
Dimensions GX7000C-xx GX7010C-xx GX7002C-xx GX7012C-xx	 8U (14") H x 17.6" W x 14" D 8U (14") H x 17.6" W x 14" D 10U (17.5") H x 17.6" W x 19.68" D 10U (17.5") H x 17.6" W x 19.68" D
Cooling	Four 52 CFM fans for instruments. Dedicated fan for system power supply
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
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. • 10 MHz PXI clock accuracy: ±100 ppm • External input: Rear panel (TTL compatible) or via timing slot • Output: Rear panel, (TTL compatible)
Slots	20 PXI or cPCI Slots (19 instruments max)
GX7000, GX7002 Peripherals	DVD-RW and 160 GB (min) hard drive, 7200 rpm
ENVIRONMENTAL TEMPERATURE RANGE AND COMPLIANCE	
Operating	0 °C to +50 °C
Storage	-20 °C to +60 °C
CE Compliance	EN61010-1 EN61326

Note: Specifications are subject to change without notice

GX7000 SERIES

ORDERING INFORMATION

GX7000C	6U, 20 Slot Smart PXI Chassis with built-in DVD-RW, Hard Disk drive
GX7000CR	6U, 20 Slot Smart PXI Chassis with DVD-RW, Hard Disk drive, w/Rack-Mount
GX7010C	6U, 20 Slot Smart PXI Chassis for use with PXI Remote Controllers
GX7010CR	6U, 20 Slot Smart PXI Chassis for use with PXI Remote Controllers, w/rack-mount
GX7002C	GX7000CR with an integrated Cable Tray & a Hinged front panel for Mass
GX7012C	GX7010CR with an integrated Cable Tray & a Hinged front panel for Mass Interconnect (rackmount configuration)
GX7002C-5FTB	20 slot PXI Master 6U Chassis with 900 watts power & a flat front panel, card cage recessed 5", & top/bottom cable routing openings (formerly GX7002B-5FT)
GX7012C-5FTB	20 slot PXI Slave 6U Chassis with 900 watts power & a flat front panel, card cage recessed 5", & top/bottom cable routing openings (formerly GX7012B-5FT)
GX7002C-5TB	GX7002C with the card cage recessed 5", & top/bottom cable routing openings (formerly GX7002B-5)
GX7012C-5TB	GX7012C with the card cage recessed 5", & top/bottom cable routing openings (formerly GX7012B-5)
GX7002C-MP	GX7002C with a MacPanel SCOUT Mass Interconnect Receiver
GX7012C-MP	GX7012C with a MacPanel SCOUT Mass Interconnect Receiver
GX7005C	GX7002C with additional power rails & special cooling to support High-Performance Digital Cards (GX5055 & GX5960 families)
GX7015C	GX7012C with additional power rails & special cooling to support High-Performance Digital Cards (GX5055 & GX5960 families)
GX7005C-MP	GX7005C with MacPanel SCOUT Mass Interconnect Receiver
GX7015C-MP	GX7015C with MacPanel SCOUT Mass Interconnect Receiver
GX7012C-5F	20 slot PXI Slave 6U Chassis with 900 watts power & a flat front panel, card cage recessed 5"
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
ACCESSORY	
GX97003	Rack mount kit with handles for GX7000
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
GX79020	GX70x0 Rear Panel Assy with Power Supplies (Assembly Required)
GX97920	20 & 21-Slot PXI Chassis Installation/Integration Service (Includes 2nd Year Warranty & Blank Panels)
GX97921	20-Slot High-Power PXI Chassis Installation/Integration Service (includes 2nd year warranty & blank panels)
GX97028	Replacement Power Supply for GX70x0C, GX71x0B, GX73xxC, GX72x0, GX76x0 & GX7800 Chassis
OPTION	
GX7xxx-400Hz	115VAC/400Hz Input Power Option for any Marvin Test Solutions PXI Chassis
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