

GX7945 SERIES



3U I7 QUAD CORE, 2.4 GHZ PROCESSOR cPCI EXPRESS CONTROLLER

- 3U embedded cPCI Express controller for use with PXI Express chassis
- Intel i7 quad core, fourth generation, 2.4 GHz
- 16 GB of RAM
- On-board Gigabit Ethernet
- USB 3.0 ports
- Gen 2, 4x4 lane configuration



FEATURES

The GX7945 is a single-slot embedded cPCI Express 3U controller for use with Marvin Test Solutions' PXI Express chassis. When combined with the embedded storage peripherals which are integrated into PXIe chassis, the controller / chassis offers a compact, high performance, and integrated test platform solution.

CONFIGURATION

The GX7945 controller supports multiple peripherals and I/O interfaces through either the controller's front panel or the chassis' rear I/O panel. Connection to the DVD-RW drive and hard drive is via the controller's internal I/O interface. The controller's front panel I/O is provided with a factory default configuration and is fully functional in any PXI Express or cPCI Express chassis.

The GX7945 embedded system controller adheres to the PXI Express and cPCI Express specifications and is PICMG EXP.0 R1.0 compliant.

OPERATING SYSTEM

The standard configuration for the GX7945 Series controller includes Windows 10 Pro x64 operating system.

APPLICATIONS

- Automatic Test Equipment (ATE)
- Data Acquisition
- Process Control
- Production Test
- Scientific Applications
- Research and Development
- Industrial Systems
- Portable Systems
- GX7200 / GX7600 Chassis

GX7945 SERIES



SPECIFICATIONS

PROCESSOR AND MEMORY	
CPU	Intel Core® i7, 4th generation, quad core 64-bit processor 2.4 GHz processor core frequency
Main Memory	16 GB SDRAM (factory configurable only)
Boot Flash	16 MB serial EEROM, 2 KB for factory settings
EXTERNAL INTERFACES	
CompactPCI Express Bus Interface	Compliant with CompactPCI specification PICMG EXP.0 R1.0 4x4 cPCI Express Lanes connected via XJ2 and XJ3 backplane connectors Two groups: 985 MB/s, Two groups: 500 MB/s
PERIPHERAL I/O PORTS	
USB Interface	Five USB ports: <ul style="list-style-type: none">• Two USB 3.0 ports on the front panel• Three USB 2.0 ports for connection of the rear I/O card
Ethernet Interface	Three Ethernet ports: <ul style="list-style-type: none">• (2) 10/100/1000 MB/s Gigabit Ethernet ports (front panel)• (1) 10/100/1000 MB/s Gigabit Ethernet port (rear panel)
Graphics	Integrated with CPU, resolution: 4096 x 2304 @ 24 Hz (2) DisplayPort® connectors on front panel
INTERNAL INTERFACES	
Mezzanine Connector	PCIe x1 configuration; supports mSATA slot, uSD slot, battery
Serial ATA	Once channel, via rear I/O, supports transfer rates up to 3 Gb/s
MONITOR AND CONTROL	
Watchdog	Software configurable Watchdog timer
System Monitor	Thermal monitoring of processor and board temperature
OPERATING SYSTEM	
Operating System	Windows 10 Pro x64 (standard) Windows XP Pro (optional)
ENVIRONMENTAL	
Mechanical	3U, 4HP, CompactPCI/PXI compliant form factor
Operating Temperature	0°C to +60°C
Storage Temperature	-40°C to +85°C
Relative Humidity (operating)	5% to 80% RH, non-condensing Dew point -5°C - 20°C

Relative Humidity (non-operating)	5% to 95% RH, non-condensing 30°C max
Altitude (operating)	-300 m to + 2000 m
CE Compliance	EN61010-1 EN61326
PHYSICAL	
Mechanical	3U cPCI Express
Dimensions	100 mm x 160 mm
Weight	398 g

GX7945 PERIPHERAL INTERFACES

Interface	F*	R*	Comments
USB	2	3	Front: USB 3.0; Rear: USB 2.0
Gigabit Ethernet (1000 Base T)	2	1	
Display Port	2		20 pin Display Port receptacle. Supports DVI/HDMI via an external adapter
SATA 2.0		1	1

* F = Front, R = Rear, Rear connections are located on the chassis' rear panel

Note: Specifications are subject to change without notice

ORDERING INFORMATION

GX7945-2416384	3U i7 Quad Core, 2.4 GHz Processor cPCI Express Controller, 16GB of RAM
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Note: The GX7945 Series is supplied by a 3rd party and resold by Marvin Test Solutions.

