

GX7940 SERIES

EMBEDDED PXI EXPRESS CONTROLLERS

- 3U embedded PXI Express controllers for use with GX7600 Series PXI Express chassis
- Intel Pentium® M Processor, 1.4 and 2.0 GHz versions
- 1 GB RAM standard, 2 GB RAM Max.
- Intel 915GM graphics and memory controller
- On-board Gigabit Ethernet
- USB ports
- 4 x1 PCI Express bus configuration



FEATURES

The GX7940 is a single-slot embedded PXI Express 3U controller for use with Geotest's GX7600 PXI Express chassis. The GX7940 is available with various CPU and memory configurations and supports a broad range of peripherals. When combined with the embedded storage peripherals of the GX7600 Series chassis, it is the ideal solution for a compact, high performance, and integrated PXI Express chassis / controller configuration.

CONFIGURATION

The GX7940 controllers support multiple peripherals and I/O interfaces through either the controller's front panel or the rear I/O panel of the GX7600 Series. 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 GX7940 embedded system controller adheres to the PXI Express and cPCI Express specifications and is PICMG EXP.0 R1.0 compliant.

APPLICATIONS

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

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SPECIFICATIONS

PROCESSOR AND MEMORY	
CPU	Intel Pentium® M Processor <ul style="list-style-type: none"> • 1.4 and 1.8 GHz versions • 2MB L2 cache • 400 / 533 MHz FSB
MEMORY	
MAIN MEMORY	<ul style="list-style-type: none"> • 1 GB RAM (DDR2) • Up to 2GB RAM soldered (optional)
EXTERNAL INTERFACES	
CompactPCI EXPRESS BUS INTERFACE	<ul style="list-style-type: none"> • Compliant with CompactPCI specification PICMG EXP.0 R1.0 • 4 x1 cPCI Express Lanes connected via XJ2 and XJ3 backplane connectors
PERIPHERAL I/O PORTS	
USB INTERFACE	Four USB 2.0 ports supporting UHCI and EHCI: <ul style="list-style-type: none"> • Three USB type connectors on the front panel • Two rear I/O interface
ETHERNET INTERFACE	<ul style="list-style-type: none"> • 10/100/1000 MB/s Gigabit Ethernet interface based on the Intel 82573 Ethernet PCIe bus controller (front panel) • One 10/100 BASE-T Ethernet interface based on the Intel 82562 controller (rear I/O connection)
INTERNAL INTERFACES	
VGA INTERFACE	Intel 915GM VGA graphics and memory controller: <ul style="list-style-type: none"> • Supports resolutions of up to 2048x1536 • 15-pin D-sub VGA CRT-display connector with analog video signals on front panel
COMPACT FLASH	<ul style="list-style-type: none"> • CompactFlash type 1 /II socket (true IDE mode), requires optional extension board
MONITOR AND CONTROL	
WATCHDOG	Software configurable Watchdog timer
SYSTEM MONITOR	<ul style="list-style-type: none"> • Voltage / current control and regulation, CPU health with data logging, fan control
ENVIRONMENTAL	
MECHANICAL	3U, 4HP, CompactPCI / PXI compliant form factor
OPERATING TEMPERATURE	0° C to +55° C
STORAGE TEMPERATURE	-40° C to +85° C
HUMIDITY	5% to 95%, non-condensing
PHYSICAL	
MECHANICAL	3U cPCI Express
DIMENSIONS	100mm x 160 mm
WEIGHT	200 g

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INTERFACE	FRONT	REAR*	COMMENTS
USB	3	2	—
Ethernet (10/100 Base T)		1	
Gigabit Ethernet (1000 Base T)	1	—	—
VGA	1	—	—
IDE	—	—	1 (Used internally by the chassis)

*Rear panel connections located on the GX7600 chassis

Note: Specifications are subject to change without notice.

ORDERING INFORMATION

PXI EMBEDDED CONTROLLERS*	
GX7940-141024	PXI Express controller for GX7600 Series 1.4 GHz, Pentium M, 1 GB RAM
GX7940-201024	PXI Express controller for GX7600 Series 2GHz, Pentium M, 1 GB RAM

*Call Geotest for additional configurations for applications requiring different speed