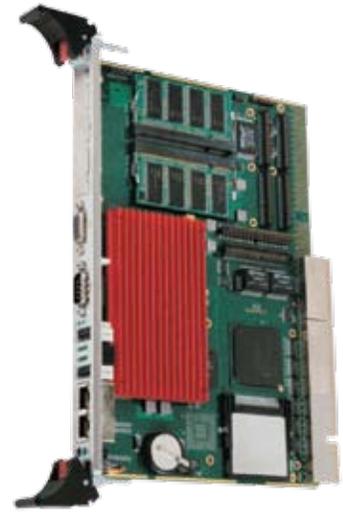# GX7920 SERIES

6U CELERON CPU BOARD

- 6U cPCI/PXI controller for use with the GX7000A and GX7100A series PXI chassis
- Cost effective, Low Power Celeron® (no cache) 600 MHz processor
- Scalable memory size up to 2GB PC333 SDRAM
- 2xGbE and 2x USB interfaces on FP, 2 USB ports on rear I/O
- PMC slot with front panel access

DESCRIPTION

The GX7920-06512 provides a cost effective solution as a PXI controller for the GX70xx and GX71xx series of PXI chassis. The single slot controller provides a fully integrated controller solution – supporting all integrated chassis peripherals (hard drive, DVD, floppy,etc) as well as providing a variety of I/O interfaces including USB, Gigabit Ethernet, and RS2323. Additional flexibility is provided by the front panel accessible PMC slot, which can accommodate a variety of interfaces and functions for specific applications or needs.

FEATURES

The single slot GX7920 comes with all the necessary interfaces such as serial port, graphics connection, Ethernet access, USB ports, and HDD support. The Intel 6300ESB I/O Controller Hub provides advanced I/O technology including USB 2.0 (40X faster than USB 1.1) and T Serial ATA150. The GX7920-06512 features a PCI-X PMC site and a CompactFlash socket. Two Gigabit Ethernet interfaces are accessible via the front panel. The GX7920-06512 features full rear I/O connectivity as well as front panel status LEDs that provide debug and diagnostic information.

APPLICATIONS

- GX70xx PXI chassis
- GX71xx PXI chassis

CONTROLLERS

GX7920 SERIES

SPECIFICATIONS

PROCESSOR AND MEMORY

PROCESSOR	Low power Intel Celeron 600 MHz processor (no cache) - Pentium M technology 2x 32KB L1 cache and 400MHz processor system bus
MEMORY	•400MHz processor side bus, Intel 82855GME •512 MB (up to 2 GB PC333 DDR SDRAM memory optional) via two 200-pin DDR SODIMM sockets •Socket for CompactFlash Type II module •Connector for onboard 2.5" HDD support •1 MB Firmware Hub (FWH) for BIOS •8 kB for storing CMOS data when operating without battery

I/O

	•Two 16C550 compatible UARTs (COM1/2) •Keyboard on rear and onboard connector and mouse interface on rear •Floppy disk controller on rear •Four USB 2.0 interfaces with up to 480 Mbit/sec, two front, two rear •Two 10/100/1000 MB/s Gigabit Ethernet ports (front panel) •VGA Video Controller integrated in Intelfi 82855GME GMCH providing 2048x1536x8bit/60Hz resolution, max. shared memory 64MB

FRONT PANEL FUNCTIONS

COM1	9-pin D-Sub (RS232, RS422, RS485)
VGA	15-pin D-Sub SVGA connector
ETHERNET	2x RJ-45
USB	2x 4-pin connectors
PMC INTERFACE	Front panel accessible
LEDS	2x LAN activity (yellow) and speed (green) 1x blue control LED for hot swap 1x watchdog, 1x thermal control 8-LED-field for BIOS POST code or general purpose
RESET	Reset button, guarded
MICRO SWITCH	For hot swap (not supported in GX7100 and GX7000 chassis)

ONBOARD INTERFACES

	•Two IDE connectors supporting Ultra DMA: one 40pin/2.54mm, one 44 pin/2mm for onboard 2.5 IDE HDD or Flash •One SATA connection (optional), can be used alternatively to connect an onboard 2.5" SATA HDD instead of an onboard 2.5" IDE HDD •CompactFlash type II socket •22-pin connector with all LPC signals •PS/2 keyboard connector •2x200-pin SODIMM connectors •4x 64-pin PMC interface

I/O SUMMARY

	FRONT I/O	REAR I/O	ONBOARD CONECTOR
VIDEO	1	1	-
USB	2	2	-
SERIAL	1	2	-
PS/2 MOUSE	-	1	-
PS/2 KEYBOARD	-	1	1
ETHERNET	2	-	-
ATA100	-	1	2
SATA150	-	2	1
COMPACTFLASH	-	-	1
PMC	1	via J4	Pn1-Pn4
FLOPPY	-	1	-

COMPACTPCI BUS INTERFACE

	PICMG 2.0 Rev. 3.0 compatible, 32 bit/33 MHz. 5V default signaling (3.3V on request available), REQ/GNT for 7 slots Operating in system slot as system master and in peripheral slot in PCI passive mode (no communication to Compact-PCI bus).

PMC SLOT

	One 64-bit / 66MHz PMC slot Pn1-Pn4, rear I/O Pn3 to J4. 3.3 V PCI voltage.

SUPERVISORY FUNCTIONS, CLOCK/CALENDAR

	Watchdog, software configurable, 125 msec to 256 sec generates IRQ, NMI or hardware reset. Hardware monitor LM87 for thermal control, fan speed and all onboard volt-ages. RTC (integrated in HanceRapids) and CMOS RAM with backup, battery replaceable.

CONTROLLERS

GX7920 SERIES

REAR I/O VIA J3/(J4)/J5	
J3	VGA, COM0/1, keyboard, mouse, USB3/4
J4	PMC rear I/O
J5	SATA 1/2, IDE (secondary), Floppy

COMPLIANCE	
CompactPCI Core Specification PICMG 2.0 Rev. 3.0	
CompactPCI Hot Swap Specification PICMG 2.1 R2.0	
CompactPCI System Management PICMG 2.9 R1.0	
CompactPCI Packet Switching Backplane PICMG 2.16 R1.0	
Designed to meet or exceed:	
- Safety: UL 1950, UL 94, CSA 22.2 No 950, EN 60950, IEC 950	
- EMI/EMC: EN 55022 / EN 55024, EN 50081-1 / EN 6100-6-2	

GENERAL	
DIMENSIONS	233 x 160 x 20.5 mm, 6U, 4HP
WEIGHT	350g
MTBF	139.589 h @ 30 C / 86 F (Bellcore Issue 6)

SOFTWARE SUPPORT	
	AMI BIOS with POST codes, setup console redirection to serial port (VT100 mode) with CMOS setup access, BIOS parameters saved in EEPROM, diskless, keyboardless, videoless operation
	LAN boot support.
	Board identification number accessible via EEPROM
	Support for Windows 2000, XP, XP Embedded, Windows Server 2003,

POWER CONSUMPTION	
3.3V	Typ. 7-9 W / max. 10 W
5V	Typ. 3-4 W / max. 6 W
+12V	Required
-12V	Not required

ENVIRONMENTAL	
OPERATING TEMP.	0 $^{\circ}$C to +60 $^{\circ}$C
STORAGE TEMP.	-55 $^{\circ}$C to +95 $^{\circ}$C
CLIMATIC HUMIDITY	non condensing 93% at 40 C (acc. to IEC 60068-2-78)
ALTITUDE	50,000 ft. (15,240 m)

Note: Specifications are subject to change without notice.

*PS2 splitter can be used for the front PS2 connector to use keyboard and mouse.

ORDERING INFORMATION

CPU BOARDS*	
GX7920-06512	Celeron 600 MHz, 2xGigEthernet on front panel, 512 MB of memory

*Call Geotest for additional configurations for applications requiring different speed processors.

CONTROLLERS

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CONTROLLERS