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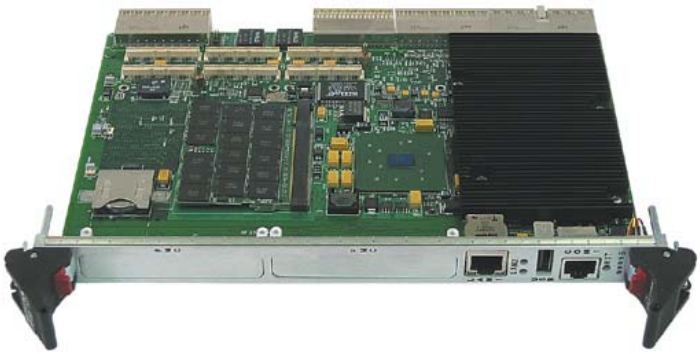
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Find the *Abaco Systems / VMIC VMICPCI-7808-530000* at our website: ***Click HERE***

GE Fanuc Automation

VMICPCI-7808 Specifications



Pentium®/Celeron® M Universal CompactPCI® Single Board Computer

Features:

- Intel® Pentium®/Celeron® M processors up to 1.8GHz (see ordering options)
- Up to 2GB DDR SDRAM using one SODIMM
- Dual Ethernet controller supporting 10/100/1000BaseTX interface
- Serial ATA (SATA) support
- Two high performance 16550-compatible serial ports
- Fully supports PICMG® 2.16
- Two PMC expansion sites (one 64-bit/66MHz, the other 32-bit/33MHz
- 64-bit/66MHz CompactPCI® bus Interface
- IPMI support PICMG 2.9
- USB 2.0 support (one standard USB connector on the front panel and two routed to the backplane rear I/O)
- Operating system support for Windows® 2000/Windows XP, Linux®, QNX® and VxWorks®

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Embedded Systems

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Ordering Options							
July 13, 2007 800-657808-000 E		A	B	C	D	E	F
VMICPCI-7808	–			0	0	0	

A = Processor
0 = Reserved
1 = 1.3GHz Celeron M Processor
2 = Reserved
3 = 1.4GHz Pentium M Processor
4 = 1.6GHz Pentium M Processor
5 = 1.8GHz Pentium M Processor
B = DDR SDRAM Memory
0 = 256MB
1 = 512MB
2 = 1GB
3 = 2GB
C through E = 0 (Options reserved for future use.)
F = Conformal Coating
0 = No conformal coating
1 = Conformal coating

VMIACC-0591 CompactPCI Rear Transition Board

The VMIACC-0591 installs in the rear transition area of the CompactPCI backplane and provides access to CompactFlash on primary IDE, IDE hard disk drive, floppy, COM 2, two USB ports, video and keyboard/mouse functions. The VMIACC-0591 is sold separately.

For Ordering Information, Call:
1-800-322-3616 or 1-256-880-0444 • FAX (256) 882-0859
Email: info.embeddedsystems@gefanuc.com
Web Address: www.gefanucembedded.com
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Functional Characteristics

Microprocessor: The VMICPCI-7808 is based on the Pentium M processor family. The enhanced 1.6GHz Pentium M processor has 1MB of L2 cache, while the 1.4GHz and the 1.8GHz Pentium M processors have 2MB of L2 cache. The Celeron M processor has 512KB of L2 cache. The Pentium/ Celeron M processor family offers thermal characteristics that are well suited for embedded systems operating over a wide range of temperatures.

DRAM Memory: The VMICPCI-7808 accept one 200-pin DDR SODIMM memory module for configurations of up to 2GB (see ordering options for available memory sizes).

BIOS: The VMICPCI-7808 System BIOS and video BIOS are provided in reprogrammable memory.

Video Graphic Controller: High-resolution graphics and multimedia-quality video are supported on the VMICPCI-7808 by an internal graphics controller. A fully functional, integrated 2D/3D graphics accelerator provides pixel processing and rendering, with display resolutions of up to 1600 x 1200 supported. The video output is provided through the CompactPCI connector. Support is provided for both analog and LVDS digital video using the VMIACC-0591 rear transition board.

Note: Standard video BIOS support for LVDS is for an 800 x 600 panel only. If the VMIACC-0591 rear transition board is not used, then the video should be disabled via CMOS setup.

IDE Interface: The VMICPCI-7808 provides an IDE interface for hard disk drive and CompactFlash support, using the optional VMIACC-0591 Rear Transition boards. The IDE interface allows support of several types of data transfers: Programmed I/O (PIO), 8237 style DMA, Ultra ATA/33, Ultra ATA/66 and Ultra ATA/100. When the CompactFlash is installed only one other IDE device can be installed.

Note**:** Ultra DMA IDE modes require a high performance 80-conductor cable.

Ethernet Controller: The VMICPCI-7808 provides dual channels for 10/100/1000 Mbit Ethernet using the dual Intel 82546EB Ethernet controller. A front panel RJ45 connector is provided with two network status indicators. The front panel Ethernet interface can be switched from front to rear per PICMG 2.16 using the CMOS LAN selections. The other channel is a PICMG 2.16 Rev 1.0 compatible connection only.

Serial ATA: The VMICPCI-7808 provides two SATA interfaces via the CompactPCI backplane connector using the VMIACC-0591 rear transition board.

Remote Ethernet Booting: The VMICPCI-7808 utilizes an Expansion ROM BIOS, which enables processor booting from a network server. The facility supports PXE and a variety of network boot protocols including BOOTP and DHCP (TCP/IP).

USB Ports: The VMICPCI-7808 provides three high speed universal serial bus (USB 2.0) ports. Connection for one USB port is provided on the front panel. The two other ports are available on the CompactPCI backplane rear I/O for use with the optional VMIACC-0591 Rear Transition board.

Serial Ports: The VMICPCI-7808 provides two 16550-compatible serial ports. Each serial port has an independent 16-byte FIFO supporting baud rates up to 115 Kbaud. Connection for one serial port (COM1) is provided by an RJ45 connector located on the front panel, the other serial port (COM2) is available via the CompactPCI backplane rear I/O, using the optional VMIACC-0591 Rear Transition board with a standard DB9 connector.

PMC Expansion Sites: The VMICPCI-7808 provides two IEEE 1386.1 PCI mezzanine card (PMC) expansion sites. This expansion capability allows the addition of peripherals offered for PMC applications. One PMC site is 3.3V 64-bit, 66MHz, while the second site is 5.0V 32-bit, 33MHz.

Keyboard and Mouse Ports: The VMICPCI-7808 supports a PS/2 type keyboard and mouse connection with signals routed to the CompactPCI rear I/O using the optional VMIACC-0591 backplane adapters.

Hardware Reset: A hardware reset switch is accessible from the front panel.

Watchdog Timer: The VMICPCI-7808 provides a software-programmable watchdog timer. The watchdog timer is enabled under software control. Once the timer is enabled, software must access the timer within the specified time period, or the output of the watchdog timer will either interrupt or reset the unit. The reset or interrupt operation is programmable.

Annunciators: Indicators for the primary IDE interface activity, board status, power good and a blue LED for hot swap are

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provided on the front panel. In addition, two indicators for the Ethernet adapter link and activity are located on the RJ45 network connector. Two other indicators are provided on the front panel for the second Ethernet port link and activity.

Thermal Management: The VMICPCI-7808 utilizes a passive heat sink that relies on forced air cooling within the equipment rack at the specified flow rate. Please refer to the environmental specifications for more information.

CompactPCI Bus Bridge: The VMICPCI-7808 is a universal CompactPCI single board computer (SBC) supporting applications as a system slot controller or a peripheral slot controller. The PCI-to-PCI bridge interface to the CompactPCI bus is automatically configured to operate as either a transparent bridge or non-transparent bridge. This implementation is fully compliant with PICMG 2.0 Rev 3.0, PICMG 2.1 Rev 2.0 and PCI-to-PCI Bridge Architecture Rev 1.1.

Blade Mode: This mode disables the bridge to the backplane. Blade mode allows the board to be inserted in any slot on the backplane, with or without a system controller. All PCI signals from the chassis will be ignored. PICMG 2.16 will still be available on the backplane.

IPMI: The VMICPCI-7808 provides PICMG 2.9 Rev 1.5 IPMI support via the Zircon PM Peripheral Management Controller.

Full Hot Swap: The VMICPCI-7808 complies with the PICMG 2.1 Rev 2.0 standard for CompactPCI hot swap 3.3V and universal devices. The VMICPCI-7808 also complies with the full hot swap provisions defined by PICMG 2.1. The board can be removed and replaced while the system is operational.

CMOS Battery: The VMICPCI-7808 uses a holder that permits field replacement of the CMOS battery. A header and jumper allows the battery to be disconnected from the circuitry for long-term storage.

Back Panel Configuration: The VMICPCI-7808 provides support for several peripherals using the CompactPCI backplane rear I/O connectors. These signals are routed to the CompactPCI J3 and J5 connectors. This permits connection of the external IDE hard disk drive, CompactFlash, PMC I/O, floppy drive, two USB, two SATA, video and keyboard/mouse via the VMIACC-0591 Rear Transition board. Connection to these signals is provided to facilitate application development.

Note: If the VMICPCI-7808 is not used with the VMIACC-0591 Rear Transition board, the user is responsible for either terminating video, SATA and USB or for disabling these features in the CMOS setup.

Operating System and Software Support

The VMICPCI-7808 supports a variety of operating systems including Microsoft® Windows 2000, Windows XP, Linux, QNX and VxWorks.

Physical/Environmental Specifications

Dimensions: 6U single Eurocard format, one slot

Height	9.2 in. (233.4mm)
Depth	6.3 in. (160mm)
Thickness	0.8 in. (20.3mm)

Power Requirements: (Does not include PMC power.)

Pentium M Processor (1.4GHz):
+5VDC (+5, -3 percent), 3.2A (typical), 6.4A maximum
+3.3VDC (+5, -3 percent), 2.1A (typical), 4.2A maximum
+12VDC (+5, -3 percent), 50mA maximum
-12VDC (+5, -3 percent), 50mA maximum

Celeron M 1.3GHz and the Pentium M Processors 1.6GHz and 1.8GHz:
+5VDC (+5, -3 percent), 4A (typical), 8.8A maximum
+3.3VDC (+5, -3 percent), 2.1A (typical), 5.2A maximum
+12VDC (+5, -3 percent), 50mA maximum
-12VDC (+5, -3 percent), 50mA maximum

Airflow: Forced air cooling required, 400 LFM minimum, measured at the top (outlet) of the unit.

Altitude:
Operating, 0 – 10,000 ft (3,000m)
Storage, 0 – 40,000 ft (12,000m)

Operating Temperature:
1.3 GHz Celeron M Processor = 0° to 50°C max
1.4 GHz Pentium M Processor = 0° to 65°C max
1.6 GHz Pentium M Processor = 0° to 50°C max
1.8 GHz Pentium M Processor = 0° to 55°C max

Storage: -40° to +85°C

Note: The Pentium M processor will throttle when its junction temperature is between 90°C and 100°C. If application cannot take throttling of the CPU, then the thermal profile of the system must be verified to keep the CPU junction temperature less than 90°C.

Humidity:
Operating, Relative Humidity 5% to 95%, noncondensing
Storage, Relative Humidity 5% to 95%, noncondensing

Vibration: 6Gs RMS (20 - 2000 Hz) random, .0185 Gs per Hz spectrum

Shock: 10Gs, 16ms half sine, 6 axis, 10 pulses each

MTBF: Contact Factory

Regulatory: The VMICPCI-7808 have been tested to and found to meet the requirements of the following standards.

European Union (CE Mark)
EN55024
EN55022 Radiated Emissions Class A
EN61000-4-2 (ESD)
EN61000-4-3 (Radiated Immunity)
EN61000-4-4 (EFT)
EN61000-4-5 (Surge)
EN61000-4-6 (Conducted RF)

United States
FCC Part 15, Class A

Canada
ICES-003, Class A

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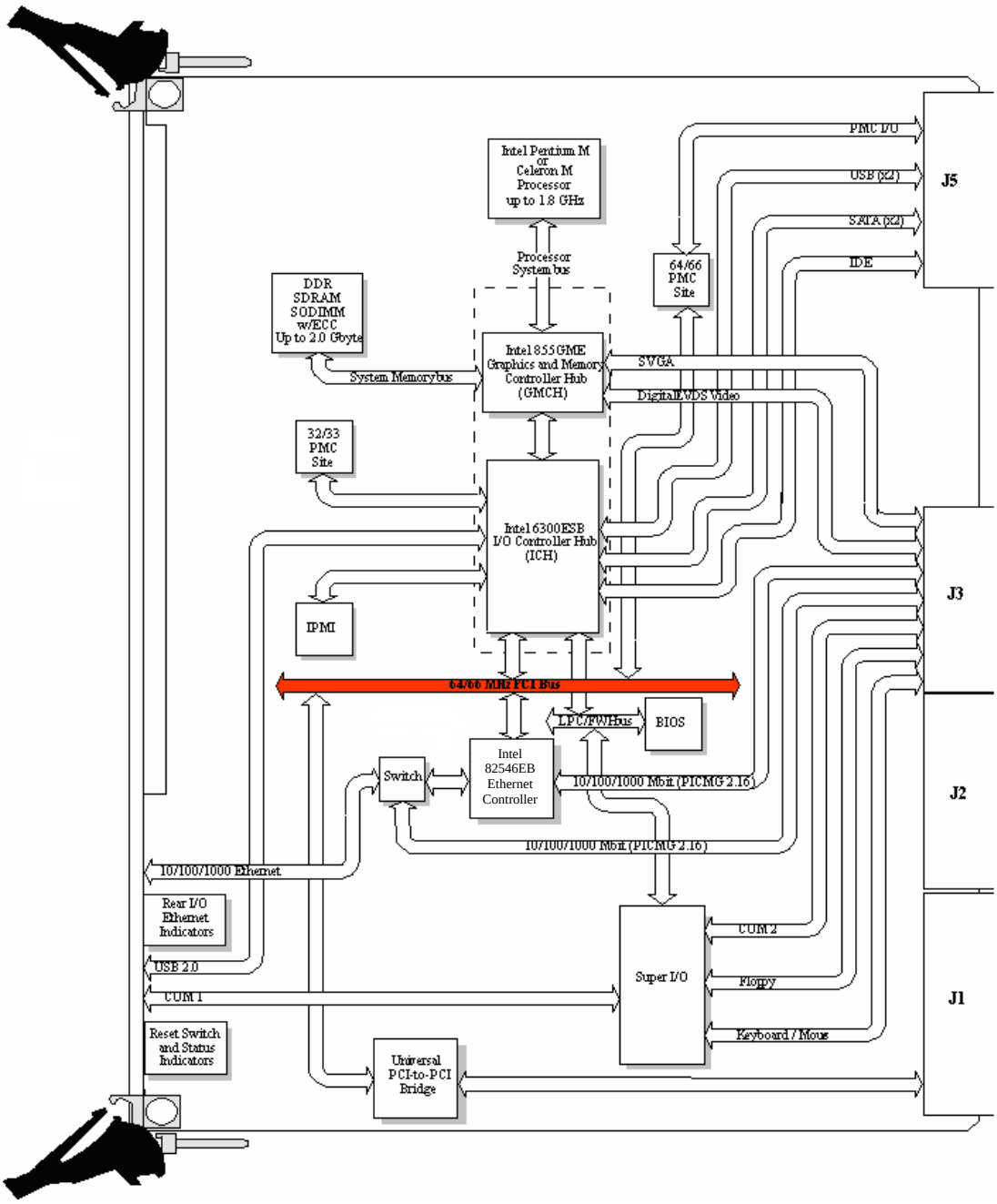


Figure 1. VMICPCI-7808 Block Diagram

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Richardson, TX	1 (972) 671-1972

Europe, Middle East and Africa:

Edinburgh, UK	44 (131) 561-3520
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Additional Resources

For more information, please visit the GE Fanuc Embedded Systems web site at:

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