

CPCI-7055RC

PowerPC® CompactPCI® Single Board Computer

Features

- Processor speeds up to 1.0 GHz
- Operating temperature from 0° to +55° C
- Up to 1 GB DDR 400 SDRAM
- Up to 2 GB CompactFlash
- Three independent 10/100/1000BaseTX Ethernet ports
- Ultra DMA IDE Controller
- 64-bit/66 MHz CompactPCI bus interface
- User programmable watchdog timer
- Passive heat sink
- Operating system support for VxWorks® and Linux®
- RoHS compliant

The CPCI-7055RC is a single slot CompactPCI single board computer (SBC) offering exceptional processing performance via the 750GX PowerPC processor, that delivers a solution with the robustness, reliability, flexibility and system features required for your most demanding embedded computing applications. It features the next generation Marvell® Discovery™ III chipset and offers up to 1 GB Double Data Rate (DDR) 400 SDRAM. The CPCI-7055RC also features dual PMC sites (64-bit/100 MHz PCI-X, backward compatible to 5V, 33 MHz PCI), up to 2 GB CompactFlash option, three high performance serial ports, and three 10/100/1000 Ethernet ports.

A few key benefits of the CPCI-7055RC, that help make this SBC the market leader, are highlighted below:

- High performance control and data/vector processing available on the IBM 750 processor permit integration of computing functions and data processing in a single slot.
- Extensive peripheral interfaces simplify system configuration and reduce the number of hardware pieces required to implement your solution.
- High-density non-volatile storage options provide the flexibility for stand-alone operations or extensive data logging.
- User configurable PICMG 2.16, providing Ethernet across the backplane as well as supporting PICMG 2.1 Rev. 1.0 CompactPCI Hot Swap and IPMI PICMG 2.9 giving system-level flexibility for multiple CompactPCI system functions.
- Onboard monitoring of temperature and voltages with software access enables application-dependent environmental solutions.

Specifications

CPU

- IBM 750GX PowerPC 1.0 GHz
- Advanced L2 cache
 - 1 MB (IBM 750GX)
- Utilizes the Next Generation Marvell PowerPC chipset with 2 MB integrated SRAM

SDRAM

- Up to 1 GB DDR 400 SDRAM with ECC

CompactFlash

- Up to 2 GB of CompactFlash

Ethernet

- Three dedicated 10/100/1000BaseTX Ethernet ports
 - One via a RJ45 front panel port
 - Two available through a PICMG 2.16 or CompactPCI J3 backplane connection

PMC Expansion

- Two 64-bit/100 MHz PCI-X on PMC expansion sites
 - Backward compatible to 5V, 33 MHz
 - Supports double-wide PMC
- IEEE 1386.1 compliant

Serial Interfaces

- Three high performance serial ports: two support asynch RS232/422/RS485 on rear I/O J3, and one RS232 serial port on front panel using RJ45 connector



CPCI-7055RC PowerPC® CompactPCI® SBC

Specifications

Other Interfaces

- One serial port on front panel
 - Two additional ports available through the CPCI J3 connector
- IDE and hard disk support
- Hardware reset on front panel
- User programmable watchdog timer
- Status LEDs on front panel

PICMG Compliance

- Supports Intelligent Platform Management Interface (IPMI) architecture (PICMG 2.9 Rev. 1.0)
- High availability hot swap (PICMG 2.1 Rev. 2.0)
- Universal signaling support (PICMG 2.0 Rev. 3.0)

Front Panel Status LEDs

- Primary IDE interface activity
- Board status
- Power
- Hot swap
- LAN activity (located on each RJ45)

Operating System Support

- Linux
- VxWorks

Power Requirements

- +3.3 VDC (±5%) 1.7A (typical), 3.04A maximum
- +5 VDC (±5%) 3.2A (typical), 6.0A maximum
- ±12 VDC (±5%), 50 mA maximum

Environmental Specifications

- Operating: 0° to +55° C
- Storage: -25° to +80° C
- Relative humidity: 10% to 90%, non-condensing

Shock

- 10 Gs, 16 ms half sine, 6 axis, 10 pulses each

Vibration

- 6 Gs RMS (20 – 2000 Hz) random, 0.0185 G2 per Hz spectrum

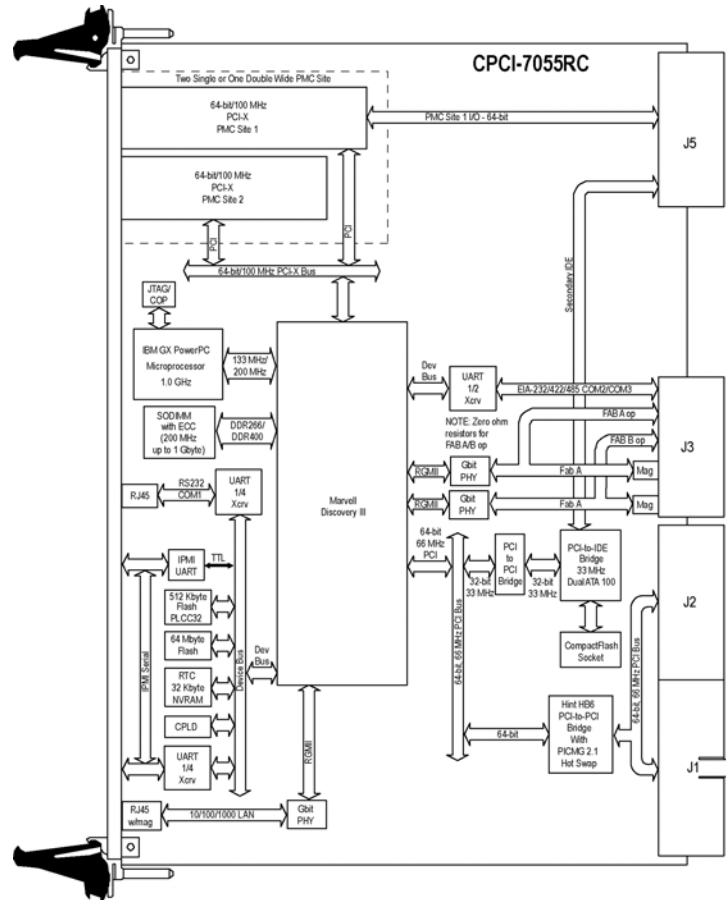
MTBF

- 361,616 hours

Dimensions

- 6U single slot Eurocard form factor
- Height 9.2 in. (233.4 mm)
- Depth 6.3 in. (160 mm)
- Thickness 0.8 in. (20.3 mm)

Block Diagram



Ordering Information

VMICPCI-7055RC-32x100

6U cPCI SBC - 1 GHz 750GX, 1 GB DDR SODIMM, no CompactFlash, Ethernet via J3, 2x PMC, 64 MB bootflash, 32 KB NVRAM, 3x serial ports, RoHS compliant

VMICPCI-7055RC-31x100

6U cPCI SBC - 1GHz 750GH, 512 MB SODIMM, no CompactFlash, Ethernet via J3, 2x PMC, 64 MB bootflash, 32kb NVRAM, 3x serial ports, RoHS Compliant

VMIACC-7055RC-000

Rear Transition Module for the CPCI-7055, RoHS compliant.

About GE Fanuc

GE Fanuc Embedded Systems is a leading global provider of embedded computing solutions for a wide range of industries and applications. Our comprehensive product offering includes many types of I/O, single board computers, high performance signal processors, fully integrated, rugged systems including flat panel displays, plus high speed networking and communications products. The company is headquartered in the U.S. and has design, manufacturing and support offices throughout the world. Whether you're looking for one of our standard products or a fully custom solution, GE Fanuc Embedded Systems has the breadth, experience and 24/7 support to deliver what you need. For more information, visit www.gefanucembedded.com or call 1-800-GE Fanuc.

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Additional Resources

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

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