

# V7807RC

## Intel® Pentium® M VITA 31.1 VMEbus Single Board Computer

### Features

- Intel® Pentium® M @ 1.1 GHz, 1.4 GHz, or 1.8 GHz
- Up to 2 Mbyte L2 cache
- Up to 1.5 Gbyte DDR SDRAM
- Up to 2 Gbyte bootable CompactFlash
- One PCI-X PMC expansion site
- 400 MHz system bus
- 10/100 BaseTX Ethernet port on the front - 10/100/1000 Base Tx Ethernet port on the front (non-VITA 31.1 option)
- 2x Gigabit Ethernet with VITA 31.1 optional
- 4x serial ports
- 4x USB2.0 ports
- SATA support
- Mouse, keyboard, and SVGA routed to front panel
- Operating System Support for Windows® XP, Windows 2000, VxWorks®, QNX and Linux®
- RoHS compliant

### High performance with VITA 31.1 compliance.

The VME-7807RC is a highly flexible single board computer (SBC) that integrates Intel's Pentium M processor with up to 1.5 Gbyte DDR SDRAM and Dual Gigabit Ethernet with a PCI-X, 66 MHz PMC expansion slot. Operating at up to 1.8 GHz, this SBC provides high bandwidth and processing power and is ideal for I/O intensive applications.

Utilizing Intel's new highly integrated 6300ESB I/O controller hub, the VME-7807RC offers four serial ports, four USB 2.0 ports, serial ATA, IDE, and up to 2 Gbyte of optional CompactFlash. This SBC utilizes the Intel 855GME to provide SVGA and DVI-I graphics support.

### Specifications

#### Processor

- Intel Pentium M @ 1.1 GHz, 1.4 GHz, or 1.8 GHz
- Favorable thermal characteristics
- 2 Mbyte L2 cache (1.4 GHz and 1.8 GHz options), and 1 Mbyte (1.1 GHz option)
- 400 MHz system and memory bus

#### SDRAM

- Maximum memory configuration of 1.5 Gbyte of DDR SDRAM with optional ECC support

#### Compact Flash

- CompactFlash up to 2 Gbyte accessible through secondary IDE port
- CompactFlash may be configured as the boot device through the BIOS boot device set-up

#### BIOS

- The V7807RC System BIOS and Video BIOS are provided in reprogrammable flash memory.

#### Ethernet

- Dual Gigabit Ethernet interface using the Intel 82546EB with one port routed to front panel and the second routed to P2
- Both Gigabit Ethernets can be routed to optional P0 connector supporting VITA 31.1
- One 10/100 Mbit Ethernet port on front panel using the Intel 82551ER

#### USB Ports

- Four USB ports, two routed to front panel and two to P2
- Supported USB features include
  - isochronous data transfers
  - Asynchronous messaging
  - Self-identification and configuration of peripherals
  - Dynamic (hot) attachment



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## VMEbus Backplane Interface

- Tundra Universe II supporting VME64 modes: A32/A24/D32/D08(EO)/MBLT64/BLT32

## Serial Ports

- Four 16550 compatible serial ports
  - One RJ45 on the front panel
  - Three to P2
- Ports feature independent 16-byte FIFO supporting baud rates up to 115 Kbaud
- All ports are configurable for both RS232/422

## PMC Extension Slot

- One 5V PMC expansion site (IEEE 1386.1)

## Programmable Timers

- Two 16-bit timers and two 32-bit timers
- Mapped in PCI memory space
- Completely software programmable and can generate PCI bus interrupts

## Watchdog Timer

- Programmable Intervals
- Interrupt and board reset triggers

## Dimensions

- 6U (4HP) 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)

## Power Requirements

- +5 VDC (+5/-2.5 percent), 4.0 A (typical), 5.4 A (maximum)
  - +12 VDC (+/-5 percent), less than 1 mA
  - -12 VDC (+/-5 percent), less than 1 mA
- Note: VME Interface only allows lower voltage of -4.875  
 Note: Does not include PMC site for power requirements

## Airflow

- Forced air cooling required
- 350 LFM minimum, measured at the outlet of the heatsink

## Temperature

- Operating: 0° to +60° C
- Storage: -40° to +80° C

## Altitude

- Operating: 0 to 10,000 ft (3,000 m)
- Storage: 0 to 40,000 ft (12,000 m)

## Humidity

- Operating: relative humidity 5% to 95%, non-condensing
- Storage: relative humidity 5% to 95%, non-condensing

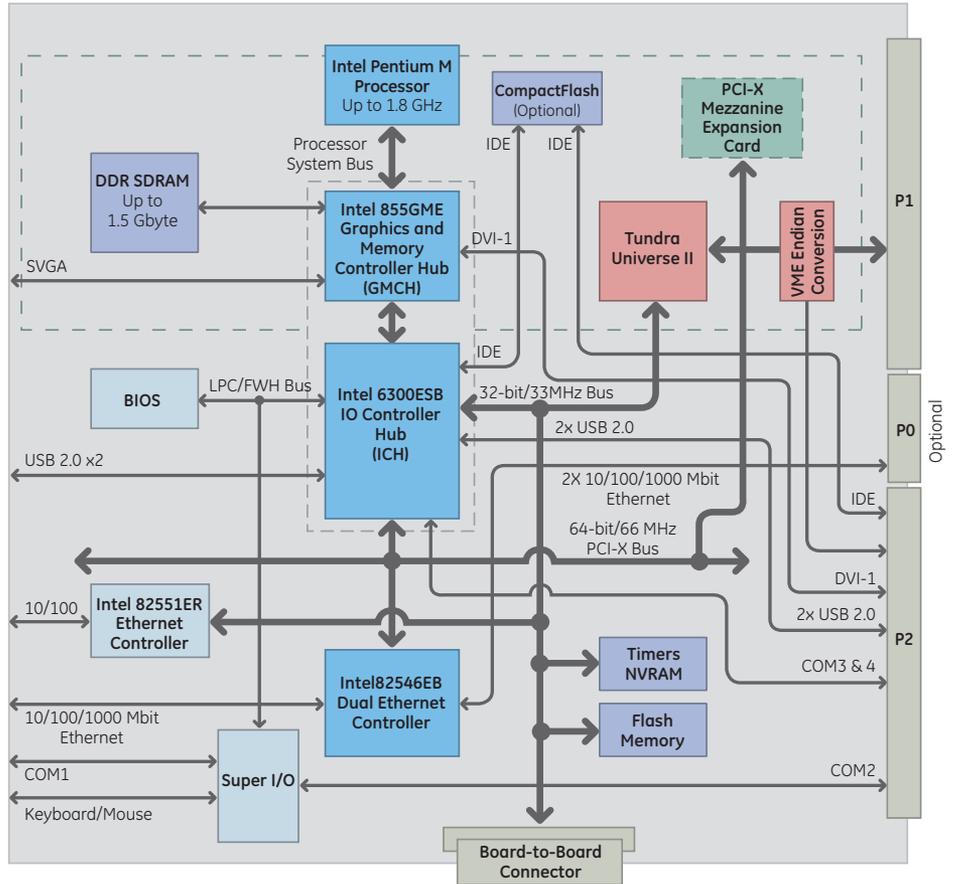
## MTBF

- Contact factory

## Regulatory

- The V7807RC has been tested and found to meet the requirements of the following standards:
  - European Union (CE Mark)
  - United States (FCC Part 15, Class A)
  - Canada (ICES-003, Class A)

## Block Diagram



## About GE Fanuc Intelligent Platforms Embedded Systems

GE Fanuc Intelligent Platforms 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 Intelligent Platforms has the breadth, experience and 24/7 support to deliver what you need. For more information, visit [www.gefanuc.com](http://www.gefanuc.com).

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## Additional Resources

For more information, please visit the GE Fanuc Intelligent Platforms web site at:

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