

VME-7700RC

Intel® Ultra Low Voltage Celeron® VMEbus Single Board Computer

Features

- Intel Ultra Low Voltage Celeron Processor at 400 MHz or 650 MHz
- Up to 512 Mb SDRAM
- Up to 1 GB CompactFlash
- One PMC expansion site
- 100 MHz system bus
- Dual Ethernet controllers supporting 10BaseT and 100BaseTX
- Remote Ethernet Booting
- Two high performance 16550-compatible serial ports
- Two USB ports
- Mouse, Keyboard, and SVGA routed to front panel

The VME-7700RC is a 6U, single slot VME single board computer (SBC) that delivers high performance with low power consumption and offers a wide operational temperature range from 0 to +70° C. Based on Intel's Ultra Low Voltage Celeron processor and 815 chipset, the VME-7700RC is available at 400 MHz or 650 MHz and includes up to 512 Mbyte PC-100 SDRAM, a PMC expansion site for additional I/O, and up to 1 GB Compact Flash.

The Embedded Intel Architecture ultra low voltage processor combines a 100 MHz processor side bus with 256 Kbyte of on-die L2 cache to offer faster transfer of data, increasing performance significantly. The processor's small form factor μ FCBGA package makes the VME-7700RC an ideal embedded solution for low power and thermally sensitive applications, including military and defense.

Specifications

Processor

- Intel Ultra Low Voltage Celeron at 400 MHz or 650 MHz
- Favorable thermal characteristics
- Up to 256 Kb of on-die L2 cache
- 100 MHz system and memory bus

SDRAM

- Maximum memory configuration of 512 MB PC-100

Compact Flash

- CompactFlash up to 1 GB with the socket on the assembly
- CompactFlash may be configured as the boot device through the BIOS boot device set-up

BIOS

- The VME-7700RC System BIOS and Video BIOS are provided in reprogrammable memory.

Ethernet

- Two 10BaseT or 100BaseTX Ethernet are routed to front panel RJ45 connectors
- Two Intel 82551ER Ethernet controllers on-board

USB Ports

- Two USB ports both routed to front panel
- Supported USB features include: isochronous data transfers, asynchronous messaging, self-identification and configuration of peripherals, and dynamic (hot) attachment

VMEbus Backplane Interface

- Tundra Universe II supporting VME64 modes: A32/A24/D32/D08(E0)/MBLT64/BLT32



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Serial Ports

- Two 16550 compatible serial ports via two Micro DB9 connectors on the front panel
- Ports feature independent 16-byte FIFO supporting baud rates up to 115 Kbaud
- Both ports are configurable for both RS232/422

PMC Extension Slot

- One 5 V 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 percent), 4.0A (typical), 5.4A (maximum)
- +12 VDC (±5 percent), Less than 1mA
- -12 VDC (±5 percent), Less than 1mA

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 +70° C
- Storage: -40 to +80° C

Altitude

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

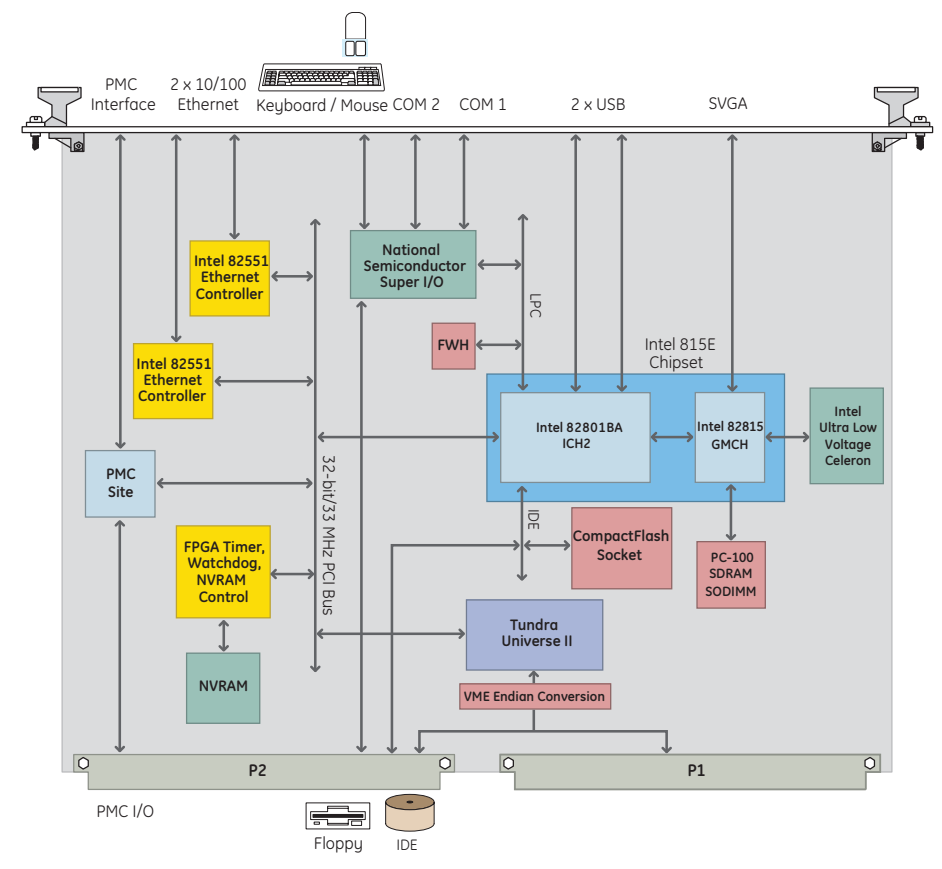
Humidity

- Operating: relative humidity 5% to 95%, noncondensing
- Storage: relative humidity 5% to 95%, noncondensing

MTBF

- Hours: 431,524.76

Block Diagram



Ordering Information

- VMIVME-7700RC-12x000:** 6U VME ULV Celeron 650 MHz, 512 MB SDRAM, RoHS compliant
VMIVME-7700RC-01x000: 6U VME ULV Celeron 400 MHz, 128 MB SDRAM, RoHS compliant

About GE Fanuc Embedded Systems

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.

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Additional Resources

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

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