GE
Intelligent Platforms

V7769

Intel Core 2 Duo Dual Slot VME Single Board Computer

Features

- Intel® Core™ 2 Duo processor up to 2.16 GHz
- Up to 4 MBytes L2 cache
- Up to 2 Gbytes DDR2 SDRAM via single SODIMM
- 667 MHz system and memory bus
- Up to 8 Gbytes bootable CompactFlash
- Three PCI-X PMC expansion sites
- Optional on-board 2.5-inch SATA hard drive
- 2x Gigabit Ethernet on the front panel
- 2x Serial ports
- 4x USB 2.0 ports
- 2x SATA
- PS/2 keyboard/mouse on the front panel
- Operating System Support for Windows®, VxWorks®, and Linux®

The V7769 is a VMEbus single board computer from GE Intelligent Platforms, offering up to 2.16 GHz of processing speed via the Intel Core 2 Duo processor with up to 2 Gbyte DR2 SDRAM. This board Integrates the Intel 45GME Express Chipset and offers a very rich I/O set making this a very flexible addition to our expansive line of Intel Architecture VME SBCs. I/O options include dual Gigabit Ethernet, two SATA interfaces, four USB 2.0 ports, keyboard/mouse/SVGA on the front panel, as well as a PCI-X capable PMC site.

The V7769 provides further customer defined I/O capabilities with its dual slot design. By utilizing our patent pending EasyRail™ PMC mounting system, we are reducing configuration time by allowing PMC option boards to be mounted when access is only available from the exposed "top" side. You no longer have to detach your multi-slot carrier assembly to gain access to the PMC mounting screws. EasyRail™ allows the module to be installed completely from the top and securely retains the module to the board, making installation and maintenance much easier. There are two additional PCI-X PMC expansion sites, a SATA interface for an additional on-board 2.5" SATA hard drive and dual SAS to the front panel.

Specifications

Processor
- Intel Core 2 Duo Processor at 2.16 GHz
- 4 Mbytes cache
- 667 MHz system and memory bus

SDRAM
- Maximum memory configuration of up to 2 GBytes DDR2 SDRAM via single SODIMM

Compact Flash
- CompactFlash up to 8 Gbytes accessible through secondary IDE port
- CompactFlash may be configured as the boot device through the BIOS boot device set-up

BIOS
- The V7769 System BIOS and Video BIOS are provided in reprogrammable flash memory.

Ethernet
- Dual Gigabit Ethernet interface via the Intel 82571
- Both ports are routed to front panel RJ45 connectors
- Network boot via PXE

USB Ports
- Four USB 2.0 ports: two to rear I/O via P2, and two to front panel
- Supported USB features include
  - isochronous data transfers
  - asynchronous messaging
  - self-identification and configuration of peripherals
  - dynamic (hot) attachment

VMEbus Backplane Interface
- Tundra Universe II supporting VME64 modes: A32/A24/D32/D08(EO)/MBLT64/BLT32
- Hardware byte swapping
- Enhanced bus error handling

Specifications (continued)

Serial Ports
- Two 16550 compatible serial ports via DB-9 connectors: COM1 routed to front panel, COM2 routed to P2
- Ports feature independent 16-byte FIFO supporting baud rates up to 115 Kbaud

PMC Extension Slot
- One 133 MHz PCI-X PMC site
- Two 100 MHz PCI-X sites
- 46-pin P2 user I/O per VITA35, P4V2-46dz
- Add 3x 32-bit/33 MHz PMC sites with the PMC237CM1/V

SAS
- Two serial attached SCSI ports to the front panel via SFF8470 connector

Front Panel Options
- VME Standard
- 1101.10 front panel

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

Nonvolatile SRAM
- 32 Kbyte of nonvolatile SRAM

Dimensions
- 6U (4HP) single slot Eurocard form factor
- Height: 9.2 in. (233.4mm)
- Depth: 6.3 in. (160mm)
- Thickness: 0.8 in. (20.3mm)

Power Requirements
- +5 VDC (±5/-2.5 percent), 6A (typical), 7.6A (maximum)
- +12 VDC (±5 percent), less than 1mA
- -12 VDC (±5 percent, less than 1mA

Note: VME Interface only allows lower voltage of -4.875
Note: Does not include PMC site for power requirements

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

Temperature
- Operating: 0 to +55°C
- Storage: -40 to +80°C

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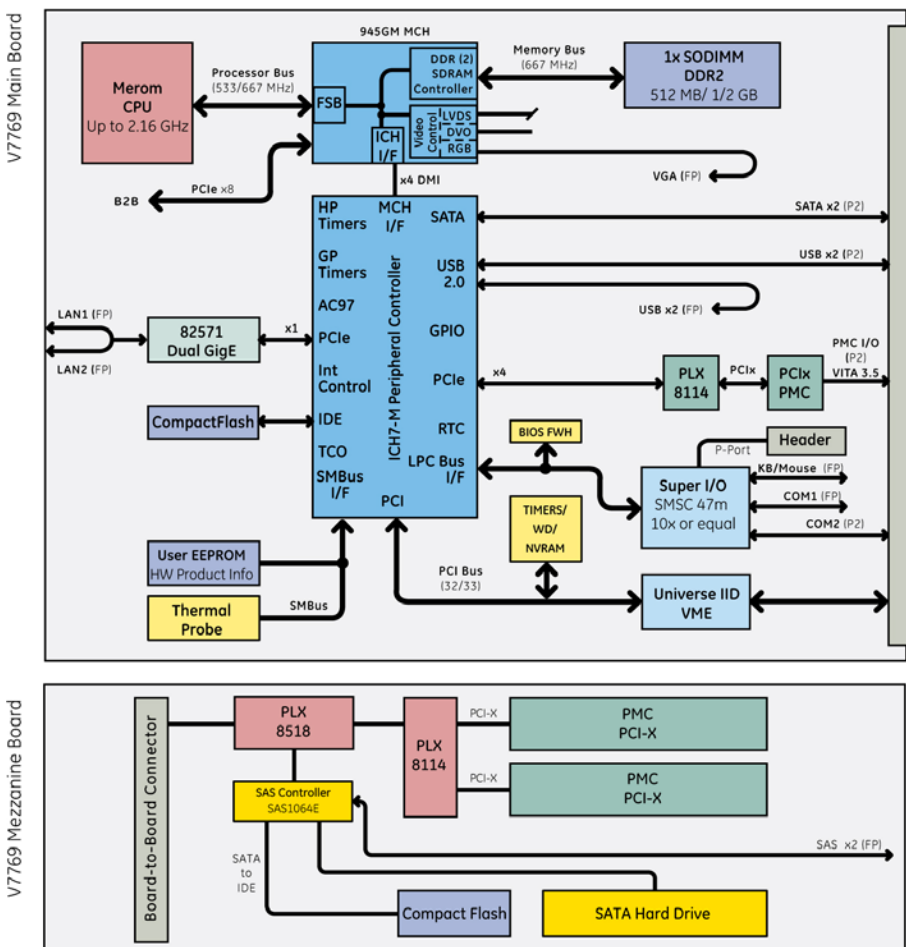- Operating: 0 - 10,000 ft (3,000m)
- Storage: 0 - 40,000 ft (12,000m)

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

MTBF
- Contact factory

Block Diagram

Compatible with the ACC-0602RC-100 and ACC-0603RC-100 Rear Transition Modules to provide rear I/O points.

About GE Intelligent Platforms

GE Intelligent Platforms, a General Electric Company (NYSE: GE), is an experienced high-performance technology company and a global provider of hardware, software, services, and expertise in automation and embedded computing. We offer a unique foundation of agile, advanced and ultra-reliable technology that provides customers a sustainable advantage in the industries they serve, including energy, water, consumer packaged goods, government and defense, and telecommunications. GE Intelligent Platforms is a worldwide company headquartered in Charlottesville, VA and is part of GE Home and Business Solutions. For more information, visit defense.ge-ip.com.

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