

# V7768

## Intel® Core™ 2 Duo/Celeron® M VME Single Board Computer

The V7768 is a VMEbus single board computer from Abaco Systems, offering up to 2.16 GHz of processing speed via the Intel Core 2 Duo processor with up to 2 Gbyte DDR2 SDRAM. This board integrates the Intel 945GME 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 V7768 also offers a Celeron® M processor option that allows for 20 more degrees on the upper operating temperature limit.

The V7768 provides further customer defined I/O capabilities with the board-to-board connector for the PMC237CM1/V PMC expansion board from Abaco Systems, which gives customers three additional PMC expansion sites in addition to the PCI-X PMC site on the V7768.

### FEATURES:

- Intel Core 2 Duo processor up to 2.16 GHz
- Up to 4 Mbyte L2 cache
- Up to 2 Gbyte DDR2 SDRAM via single SODIMM
- 667 MHz system and memory bus
- Up to 8 Gbyte bootable CompactFlash
- One PCI-X PMC expansion site
- Board-to-board connection for PMC237CM1/V PMC expansion board
- 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® XP, VxWorks®, and Linux®

# V7768 Intel® Core™ 2 Duo/Celeron® M VME Single Board Computer

## Specifications

### Processor

- Intel Core 2 Duo Processor at 2.16 GHz
- Intel Celeron M Processor at 1.07 GHz
- 4 Mbyte cache (Core 2 Duo options), and 1 Mbyte (Celeron M option)
- 667 MHz system and memory bus on the Core 2 Duo options, 533 MHz system and memory bus on the Celeron M option

### SDRAM

- Maximum memory configuration of 2 Gbyte DDR2 SDRAM via single SODIMM

### Compact Flash

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

### BIOS

- The V7768 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

### Front Panel Options

- VME Standard
- 1101.10 front panel

### VMEbus Backplane Interface

- Tundra Universe II supporting VME64 modes: A32/A24/D32/D08(E0)/MBLT64/BLT32
- Hardware byte swapping
- Enhanced bus error handling

### 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
- 46-pin P2 user I/O per VITA35, P4V2-46d
- Add 3x 32-bit/33 MHz PMC sites with the PMC237CM1/V

### 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 percent), A (typical), A (maximum)
- +12 VDC (±5 percent), less than 1mA
- -12 VDC (±5 percent, less than 1mA)

**Note: VME Interface only allows lower voltage of -4.875V. 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 +70°C (Intel Celeron M) 0 to +55°C (Intel Core 2 Duo)
- Storage: -40 to +80°C

### Altitude

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

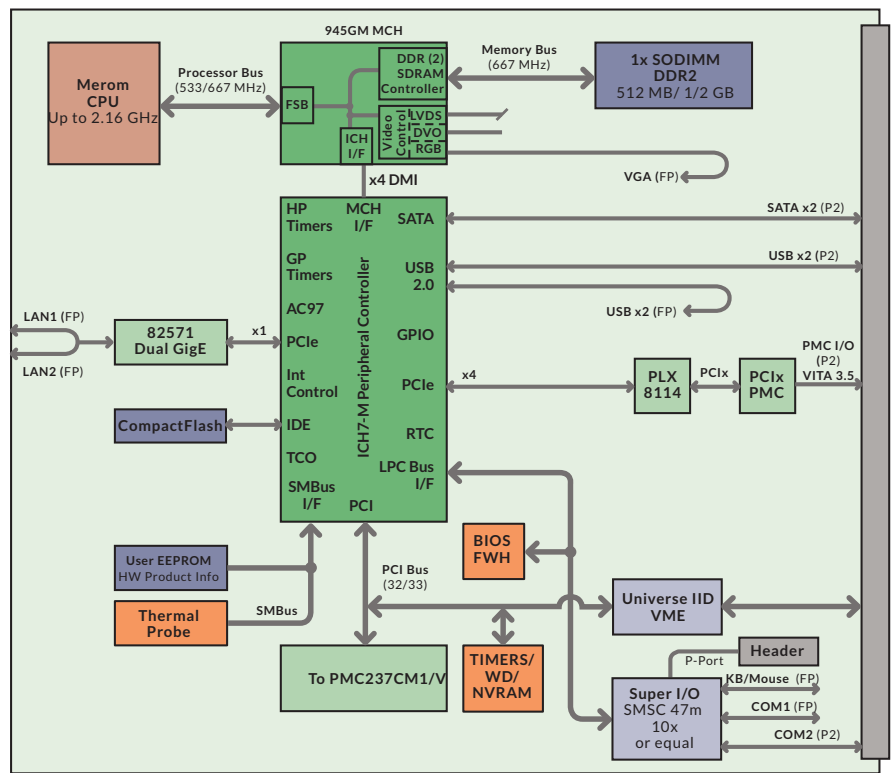
### Humidity

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

### MTBF

- Contact factory

## Block diagram



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

## WE INNOVATE. WE DELIVER. YOU SUCCEED.

Americas: 866-OK-ABACO or +1-866-652-2226 Asia & Oceania: +81-3-5544-3973

Europe, Africa, & Middle East: +44 (0) 1327-359444

Locate an Abaco Systems Sales Representative visit: [abaco.com/products/sales](http://abaco.com/products/sales)

[abaco.com](http://abaco.com) @AbacoSys

©2016 Abaco Systems. All Rights Reserved. All other brands, names or trademarks are property of their respective owners. Specifications are subject to change without notice.