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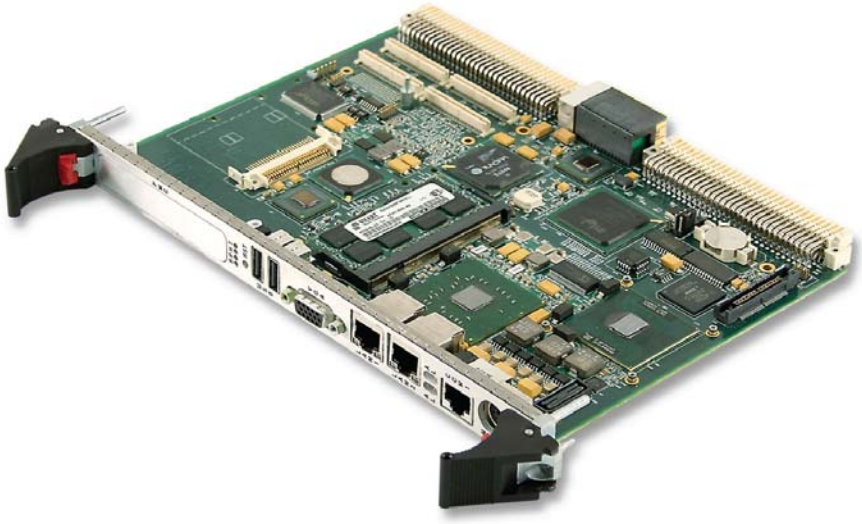
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Find the *Abaco Systems V7865-230003* at our website: *Click HERE*

GE
Intelligent Platforms



V7865

Intel Core 2 Duo Processor VME Single Board Computer

Features

- Intel® Core™ Duo and Core 2 Duo processors up to 2.16 GHz
- Up to 3 Gbytes DDR2 SDRAM
- RoHS Compliant
- Up to 4 Gbytes bootable CompactFlash
- 667 MHz system and memory bus
- ANSI/VITA 1.5-2003 (2ESST, up to 320 Mbyte/s)
- Optional VITA 41.3 (1000 Mbit/s IEEE 802.3)
- Two RS-232/422 serial ports
- Single PCI-X PMC site
- Four USB 2.0 ports
- Available for two environments:
  - Commercial
  - Rugged extended temperature (1.66 GHz CPU only)
- Multiple operating systems supported

The V7865 Is GE Intelligent Platforms' flagship Intel Core 2 Duo VMEbus single board computer, offering processor and I/O flexibility to meet many different application needs. The V7865 is available in commercial up to rugged extended temperature models, making it ideal for applications including advanced defense, aerospace, and homeland security.

Based on the Intel Core Duo/Core 2 Duo processors, this board offers processor speeds at 1.66 GHz, 2.0 GHz, or 2.16 GHz and features up to 4 Mbytes of L2 cache with Advanced Transfer Cache Architecture, while delivering optimized, power-efficient computing with low power consumption. Memory options include up to 3 Gbytes DDR2 SDRAM (1 Gbyte on-board), and up to 4 Gbytes CompactFlash.

The V7865 meets the ANSI/VITA 1.5-2003 standard, based on the Tundra Tsi148. The VMEbus can run at a bandwidth of up to 320 MB/s along the full length of a 21-slot backplane. Performance is increased in the following ways:

- 8x faster than the 40 Mbyte/s transfer rate of VME64
- Tsi148 VME-to-PCI/X bridge provides a 4x increase in useable bus bandwidth over existing solutions
- Broadcast Mode support for sending data to multiple cards at one time

The V7865 features multiple I/O options, including two Gigabit Ethernet ports, two RS232/422 ports, four USB 2.0 ports, and one serial ATA interface.

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V7865 Intel Core 2 Duo Processor VME Single Board Computer

Specifications

Processors
- Intel Core/Core 2 Duo processor with core processor speeds up to 2.16 GHz
- High performance with low power consumption (1.66 GHz)
- 4 MB of advanced L2 cache (2.16 GHz CPU)
- 667 MHz system bus

SDRAM
- Maximum memory configuration of 3 Gbytes of DDR2 SDRAM
- 1 Gbyte of on-board memory
- 2 Gbytes of SODIMM (one 200-pin SODIMM DDR2 module)
- The rugged extended temperature option is only available with either 512 Mbytes or 1 Gbyte on-board memory

Compact Flash
- CompactFlash up to 4 Gbytes
- CompactFlash may be configured as the boot device through the BIOS boot device set-up

BIOS
- The V7865 System BIOS and Video BIOS are provided in reprogrammable memory.

Gigabit Ethernet
- VITA 41.3 (dual 1000 Mb/s)
- Dual Gigabit Ethernet routed to front panel
- RJ45 connectors
- Ethernet controller is Intel 82571

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, and dynamic (hot) attachment

Serial ATA
- Two serial ATA interfaces via the VMEbus backplane connector P2
- 1.5 Gbit/s (150 Mbit/s)

VMEbus Backplane Interface
- The Tundra Tsi148 enables ANSI/VITA 1.5-2003 (2eSST) protocol providing 320 MB/s along the full length of a 21-slot backplane. Performance is increased in the following ways:
  - 8x faster than the 40 MB/s transfer rate of VME64
  - Tsi148 VME-to-PCI/X bridge provides a 4x increase in useable bus bandwidth over existing solutions
  - Broadcast Mode support for sending data to multiple cards at one time
- Optional VITA 41.3

Serial Ports
- Two 16550 compatible serial ports via DB-9 connectors: one to rear via P2, and one to front panel
- 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 Vita 35, P4V2-46dz
- Add 3x 32-bit/33 MHz PMC sites with the PMC237CM1/V

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

Input/Out Chart

I/O	V7865 Front Panel	ACC0603-TM
Serial ports	1	1
USB 2.0	2	2
Gigabit Ethernet	2	
SVGA	1	
DVI-I		1
Mouse/keyboard	1	

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), 6 A (typical), 9.6 A (maximum)
- +12 VDC (±5 percent), 0 mA
- -12 VDC (±5 percent, 0 mA

Airflow
- Forced air cooling required
- 400 LFM minimum, measured at the top (outlet) of the unit

Temperature
- Commercial: 0° to 55° C
- Rugged extended temperature: -40° to 70° C (Vita 47 Class EAC6)*

* 1.66 GHz CPU only

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

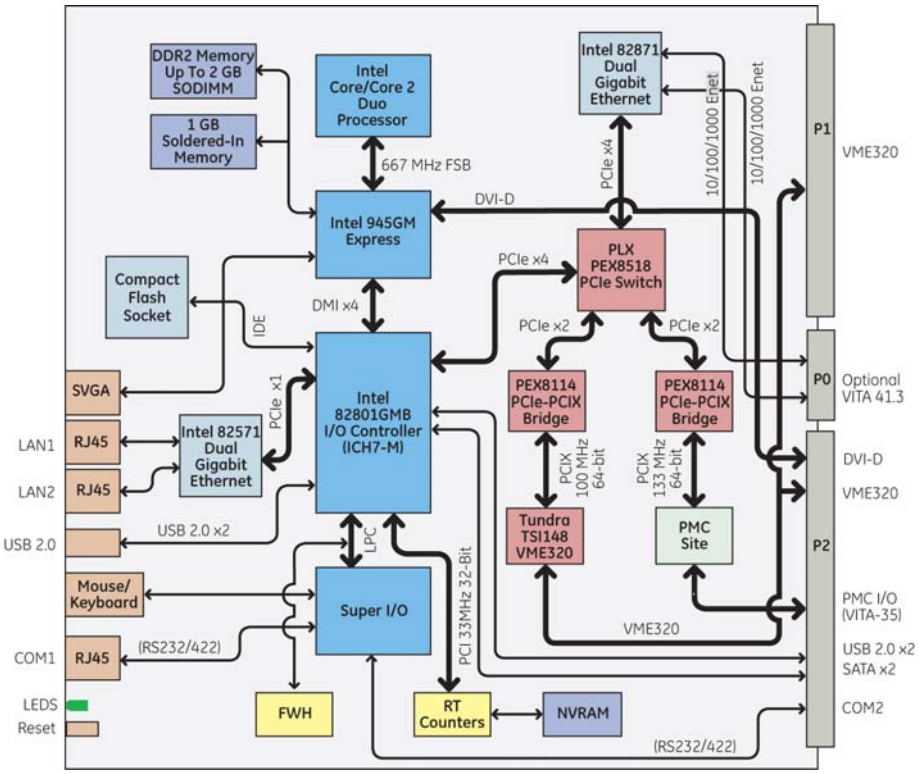
Shock
- 12 g shock (commercial)
- 20 g shock (rugged extended temperature)

Vibration (Rugged Extended Temperature)
- 5 Hz to 100 Hz PSD increasing at 3 dB/octave
- 100 Hz to 1000 Hz PSD = 0.04 g2/Hz
- 1000 Hz to 2000 Hz PSD decreasing at 6 dB/ octave

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V7865 Intel Core 2 Duo Processor VME Single Board Computer

Block Diagram



Ordering Information

V7865-210003: 2 GHz processor, 1 GB DDR2 SDRAM, commercial temp.

Hardware Accessories
ACC-0602: 3U rear transition board
ACC-0603: 6U rear transition board
PMC237CM1/V: Adds 3 x 32-bit/33 MHz PMC sites

Operating Systems
GE Intelligent Platforms supports various operating systems. Please contact us for current offerings. For detailed information and further options, contact GE Intelligent Platforms.

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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Standard Configuration

V7865	-	2	1	0	0	0	3

Optional Configurations

V7865	-	x	x	x	x	x	x	Description	Conditions
A		2 3						2.0 GHz Core Duo 2.16 GHz Core 2 Duo	
B			1 2 3					1 GB soldered 2 GB memory (1 GB soldered + 1 GB SODIMM) 3 GB memory (1 GB soldered + 2 GB SODIMM)	
C				0 4				No Compact Flash 4 GB Compact Flash	
D					0			No PO (no VITA 41.3)	
E						0		Reserved	
F							3	1101.10 Front Panel	

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