



XVME-6200 Intel® Core™2 Duo VMEbus Processor Module

Overview

The XVME-6200 is a powerful VMEbus PC compatible processor module from Xembedded, the pioneer and leader in VMEbus PC technology.

The XVME-6200 VMEbus processor integrates an Intel® Core™ 2 Duo processor running in a range of 1.50GHz to 2.16 GHz with a PCI-to-VMEbus interface. This VME processor module allows users to take advantage of the powerful multiprocessing capability of the VMEbus while using standard off-the-shelf PC software, operating systems and VMEbus I/O modules.



Features

- Single Slot 6U single board computer
- Intel® 1.5GHz Core™2 Duo and 2.16GHz Core™2 Duo processor with up to 4MB of level 2 cache, 667 MHz FSB
- Enhanced Intel® SpeedStep®
- E7520 and 6300ESB chipset
- VGA Graphics out front panel or rear video support (Pixel resolution up to 1600 X 1200 at 85Hz)
- 1GB, 2GB, 4GB and 8GB of ECC DDR2, 400MHz SDRAM Dual Channel
- EIDE Ultra-100 DMA controller supports up to three EIDE devices (compatible with XVME-977 and XVME-979 Mass Storage Modules)
- Optional EIDE On-board 1.8" hard drive or optional Compact Flash carrier
- Two SATA external devices
- Floppy disk interface (compatible with XVME-977)
- Dual 10/100/1000BaseT out front or Vita 31.1 on optional P0 rear connector for in-rack Ethernet switch and fail over technology
- One PMC/XMC 32/64-bit 33/66MHz site (IEEE P1386/P1386.1) with front panel I/O bezel and user I/O on optional P0 rear connector. XMC is PCIe x4
- PMC expansion for two to four additional PCIX sites using the XVME-9076 carrier module
- Headless operation using serial console mode including BIOS setup
- Rear cabling using USB keyboard/mouse and rear video options
- VME-64 support with Tundra Universe IID A32/A24/A16/D64/D32/D16/D8, MBLT64 and fast hardware byte-swapping
- Parallel Printer Port (ECP, EPP and IEEE1284)
- USB 2.0 Ports, two on front two out rear connector
- Three serial ports (BIOS selectable)
 - COM1 RS-232/422/485 on front
 - COM3 RS-232 out rear connector
 - COM2 RS-232 out rear connector
- Long duration watchdog timer
- Front panel reset switch and status LEDs
- Audio - line level stereo input and output
- Software support Libraries for **Windows® 2000, Windows® XP, Windows Vista®, Windows® XP Embedded, RTX®, Linux®, QNX®, VxWorks® and MS-DOS® (others available on request)**
- Optional IEEE1101.10 (VME64x Compact PCI type) handles available at order time.



XVME-6200 Intel® Core™2 Duo Processor Module

CPU
1.50GHz Intel® Core™2 Duo processor L7400
2.16GHz Intel® Core™2 Duo processor T7400

Memory (dual Channel memory)
- 1Gb, 2Gb, 4Gb and 8Gb memory sizes available using two 200-pin, 400MHz ECC DDR2 Memory

Mass Storage
EIDE Ultra-DMA 100 interface-
- Two channels via P2 use with our XVME-977/979 or XVME-990(RTM) Modules
- One channel on-board for optional 1.8" EIDE or our Compact Flash carrier
- Two Serial ATA150 channels via P2
- Floppy Drive interface via P2 use with our XVME-977/979 or XVME-990(RTM) Modules

Graphics Interface
- Silicon Motion SM722 2D/3D graphics Controller
- Resolutions up to 1280X1024 at up to 16M colors
- Analog video via front panel or P2 and XVME-990 (RTM) Module

Ethernet
- Using Intel® 82571EB, dual 10/100/1000Mbps ports via the RJ-45 front panel or Vita 31.1 support out the P0

Stereo Audio
- AD1981B AC97 audio CODEC
- Line level stereo input and output via P2

Serial Ports
- One RS-232/422/485 (COM1) ports via front panel
- Two RS-232 (COM2 and Com3) port via P2 (XVME-990)

PMC/XMC Site
- One PMC site with I/O via front panel or optional P0 connector. 32/64-bit, 33/66/133MHz PCIX operation
- Alternatively one XMC slot, XMC PCIe X4
- On board PMC/XMC site is 3.3V interface levels
- Use our XVME-9076 to expand to two sites, add another XVME-9076 for four PCIX sites.
Two XVME-9076's can be stacked.

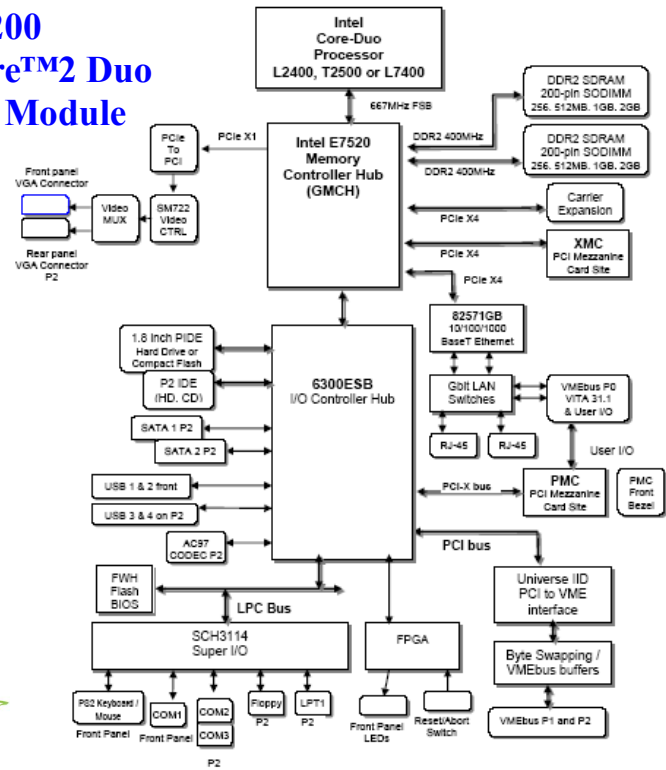
USB 2.0 (Universal Serial Bus)
- Two USB 2.0 port via front panel
- Two USB 2.0 ports via P2 connector

Keyboard and Mouse port
- Via front panel shared PS/2

PC-Compatible Real Time Clock

Parallel Port interface (ECP, EPP and IEEE1284) via P2

Long Duration Watchdog timer



VMEbus Interface

Using Tundra Universe II D

- Complies with VMEbus Specification, VME-64X (ANSI/VITA 1.1-1997)
- A32/A24/A16:D64/D32/D16/D08 (EO) DTB Master
- A32/A24/A16:D64/D32/D16/D08 (EO) DTB Slave
- R(0-3) Bus Requester
- Interrupter I (1)-I(7) DYN
- IH(1)-IH(7) Interrupt Handler
- SYSCLK and SYSRESET Driver
- PRI, SGL, RRS Arbiter
- RWD, ROR bus release
- Form factor: Double 233.7 mm X 160.0 mm (9.2" X 6.3")

Electrical Specification

- +5V@6.8A typical (using 1.50GHz Intel® Core™2 Duo w/ 1Gb DRAM)
- +/- 12V routed to PMC site only, not required for normal operation.

Environmental

RoHS Compliant module

Thermal Operating 0 to 55° **

Thermal Non-Operating -40 to 85°

Thermal Operating Extended -25 to 70° **

Thermal Non-Operating Extended -40 to 85°

Humidity Operating/Non-Operating

10-95% RH, non-condensing

Shock Operating

30g Peak acceleration, 11mSec duration

Shock Non-operating

50g Peak acceleration, 11mSec duration

Vibration 5-2KHz

Operating 0.015" (0.38 mm) Peak to Peak

displacement, 2.5g max. acceleration

Non-Operating 0.030" (0.76 mm) Peak to Peak

displacement, 5.0g max. acceleration

Altitude

Operating Sea level to 10K feet (3Km)

Non-Operating Sea level to 40K feet (12Km)

EMI/EMC

Emmissions EN 55022 **Immunity** EN 50082-2

Accessory Products

XVME-990/01	Rear Transition Module used to connect external devices to the P2 and P0 connectors of the XVME-6200. Mounts on back side of the VMEbus chassis.
XVME-990/02	Same as XVME-990/01 but without the P0 connector and 68-pin PMC I/O.
XVME-977	Single slot mass storage module with 2.5" hard drive and 3.5" 1.44Mb floppy drive. <i>Connects to the P2 of the XVME-6200 via a 96 pin ribbon cable.</i>
XVME-979	Single slot mass storage module with 2.5" hard drive and CD-ROM R/W drive. (optional DVD/CD-ROM R/W available). <i>Connects to the P2 of the XVME-6200 via a 96 pin ribbon cable provided with the XVME-979.</i>
XVME-9076	Single Slot dual PMC carrier module for use with the XVME-6200, provides two 32/64-bit/33/66/133MHz 3.3V PCIX sites with front panel I/O cutout. Two carriers can be stacked to provide a total of 5 PMC sites.
XVME-912	Compact Flash mounting kit for XVME-6200. (Flash module not included)
XVME-913	On-Board 1.8" hard drive kit for XVME-6200.

Order Information

Industrial Temperature (0 to 55°)* 300 LFM Air Flow
XVME-6200/9YX • 2.16GHz Intel® Core™2 Duo CPU T7400
XVME-6200/8YX • 1.50GHz Intel® Core™2 Duo CPU L7400

Extended Temperature (-25 to 70°) Available
add 'E' to end of model number

Note: If the user backplane is only a 96-Pin J1/J2 VMEbus the I/O functions on the outer rows of the P1/P2 160-pin VMEbus connector from the XVME-6200. All functions on the XVME-6200 P2 and P0 connectors are supported via connectors on the optional XVME-990 rear transition module. contact our Application Engineering group at 734.975.0577 or Email: support@xembedded.com with any questions. *Note: The optional P0 connector is used to implement Vita 31.1 and PMC rear I/O functions*

Y = 1 VME-64 IEEE 1101.0 handles (Standard VME type handles)	Memory amounts shown are total on-board memory
Y = 2 VME-64x IEEE 1101.10 handles (cPCI type handles)	X = 2 for 1GB ECC DRR2 SDRAM
Y = 3 VME-64 IEEE 1101.0 handles and optional P0 (Vita 31.1 and PMC rear I/O)	X = 3 for 2GB ECC DRR2 SDRAM
Y = 4 VME-64x IEEE 1101.10 handles and optional P0 (Vita 31.1 and PMC rear I/O)	X = 4 for 4GB ECC DRR2 SDRAM
	X = 5 for 8GB ECC DRR2 SDRAM