RadiSys

DATA SHEET

EPC®-1316

VMEBUS EMBEDDED COMPUTER WITH MOBILE PENTIUM® III 400MHZ PROCESSOR

FEATURE SUMMARY

- Intel® Pentium Mobile III 400 MHz Pentium® III with 440BX chipset
- 256KB on-dye L2 cache using synchronous pipeline burst SRAM
- Support of 512 EDO DRAM via two 144-pin SODIMM modules
- VGA/SVGA/XGA graphics controller with integrated two MB video memory via front panel 15 pin standard connector
- Ethernet 10/100BaseT via front panel RJ-45 connector
- Front panel connectors for PS/2 keyboard, PS/2 mouse, USB, serial (COM1)
- Operates as VMEbus master or slave
- A16/A24/A32 addressing with D08/D16/D32 data accesses
- Secondary EIDE channel, floppy and parallel port via VME P2 connector
- PCI Mezzanine Card (PMC) expansion site
- Primary EIDE channel, floppy, parallel and second serial port (COM2) accessible via high density on-board connectors
- Optional expansion board with 2.5" EIDE disk drive and either 5 additional serial ports, 10/100 ethernet, and compact flash support.
- Optional module supports Compact Flash solid state disk operating as a true IDE drive (no special BIOS extensions or flash file system drivers required). Available only for applications not using the PMC expansion site.
- Microsoft* DOS, Windows* 95 and Windows NT* 4.0 compatible. Available with RadiSys' EPConnect® software, providing the developer with an easy to use software interface to the VMEbus and EPC-15 hardware.
- VxWorks 5.3 compatible including board support package - BSP
- Single slot, 6U form-factor (two slots with optional mass storage and I/O expansion board)

The RadiSys EPC®-1316 is a highly integrated, single slot VME computer powered by Intel's Mobile 400MHz Pentium® III. Designed for high performance and high reliability, the EPC-1316 offers a full complement of PC features in a rugged 6U VME form factor.

At the heart of the EPC-1316 is Intel's most advanced Mobile Pentium III processor to date. The EPC-1316's Pentium III processor offers 400MHz performance while dissipating less than half the power of a standard Pentium III processor. This allows the EPC-1316 to operate with a passively cooled processor heatsink, which further enhances the system reliability. The product can also be upgraded to operate with a 700MHz processor. The EPC-1316 supports both Master and Slave and 8, 16 and 32 bit address and data.

The EPC-1316 can be fitted with an optional second slot Feature Board.This Feature Board (MSF) is configured for further Mass storage and I/O Expansion. This configuration provides an on-board 2.5" EIDE hard disk, 5 additional Serial ports, support for compact flash and 10/100 Ethernet via RJ45. For applications requiring mass storage without using a second slot, a low-profile, solid state (ATA Compliant) flash disk module is available for the EPC-1316. Because of the optional Feature Board the EPC-1316 can be feature enriched very easily and at a much lower cost than almost all other boards in the market place.

ORDERING INFORMATION

Call for pricing and availability.
Refer to the order codes below.

DESCRIPTION

EPC1316BASE128 - Base unit with 400MHz processor and 128MB of Memory

EPC1316MSF128 - Base unit with MSF board (optional mass storage, ethernet and 5 serial ports), 400MHz processor and 128MB of Memory

OPTIONS

CFSM - optional Compact-Flash socket module
Compact-Flash card not included

SPECIFICATIONS

FEATURE	FUNCTION	DESCRIPTION
Board Style		VMEbus 6U
CPU		Intel 400MHz Pentium III (Upgradable to 700 MHz)
Cache		256KB on-dye L2 cache using synchronous pipeline burst SRAM
PCI Chipset		Intel 440BX AGPset: 82443BX
System Memory	Capacity	Up to 256MB EDO DRAM via two 144-pin SODIMM modules
	Specification	60ns, 32/64/128MB, 3.3V SODIMMs
System BIOS	BIOS Type	Phoenix BIOS with 1MB flash and battery backed CMOS RAM
	Special Features	APM 1.2; IDE drive auto-configure; multilingual support
On-board I/O	Integrated PCI EIDE	Two independent channels, four IDE devices. Primary channel via high density board-board connector, secondary channel via P2 VMEbus connector
	Universal Serial Bus (USB)	Single host USB port
	Serial	Two serial ports. COMA is RS-232 via front panel DB9 connector, COMB via board-board option connector accessible by MSIO expansion
	Parallel	One IEEE-1284-1994 compatible bi-directional parallel port via P2 connector or board-board optional connector (only one may be used at a time)
	Floppy controller	Standard PC-compatible floppy controller via P2 connector or board-board option connector.
	Keyboard	PS/2 compatible
	Mouse	PS/2 compatible
	Graphics	SVGA/XGA with 4MB video memory supporting resolutions up to 1280x1024 (C&T69030)
	Fast Ethernet	10/100Mbit via front panel RJ45 connector (Intel 82559-ER)
	VMEbus interface	Universe II PCI-VMEbus bridge Supports master or slave operation in A16/A24/A32 address spaces for D08/D16 and D32 data widths. Generates and responds to all 7 VMEbus interrupts.
Other features	Real Time Clock	Accurate to ±13 minutes/yr., 10 year expected life
	Battery	Field replaceable 3.0V, 200mAH CR2032 (or equivalent) lithium battery
	Watchdog timer	Programmable reset interval ranging from 128 milliseconds to 8.2 seconds
Connectors	Front panel	PS/2 keyboard, PS/2 mouse, DB9 serial, Ethernet 10/100 RJ45, DB15 VGA
	Rear panel VME P1	96 pin standard VME
	Rear panel VME P2	96 pin VME with user defined secondary IDE, floppy, parallel port and reset control signal
Optional MSf second slot expansion board	Mass storage and I/O carrier	Connects with the host EPC-1316 board via two 80 pin-stacking connectors. Provides 2.5" EIDE disk drive, 5 serial ports, and sec-10/100 ethernet port
	Ethernet	10/100 Ethernet with RJ45 connector
	Serial	COM2 (routed from EPC-1316) jumper selectable RS-232 or RS-485, COM 3-6 provided by on-board UART's (RS-232). All via front panel DB9
Environment	Operating Temp.	0 - 55°C derated 2°C per 1000 ft (300 m) over 6600 ft (2000m)
Power Requirement	Typical w/ SVGA 64MB memory	11.5W for CPU, 59W total System worst case +5V=10.082 Amps, +12V=.519 Amps, -12V=.519 Amps

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