

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.

SPECIFICATIONS

FEATURE FUNCTION DESCRIPTION

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

| 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 |
| | D 11 . 1 | by MSIO expansion |
| | Parallel | One IEEE-1284-1994 compatible bi-directional parallel port via |
| | | P2 connector or board-board optional connector (only one may |
| | F1 | 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, |
| | n 1 | DB15 VGA |
| | Rear panel VME P1 | 96 pin standard VME |
| | Rear panel VME P2 | 96 pin VME with user defined secondary IDE, floppy, parallel |
| Optional MSf | Mass storage and | Connects with the best EPC 1316 board via two 80 pin stacking |
| • | 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- |
| second slot expansion board | I/O Callici | 10/100 ethernet port |
| expansion board | Ethernet | 10/100 Ethernet with RJ45 connector |
| | Serial | COM2 (routed from EPC-1316) jumper selectable RS-232 or |
| | ociiai | 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 | 11.5W for CPU, 59W total System worst case |
| rower kequirement | 64MB memory | +5V=10.082 Amps, +12V=.519 Amps, -12V=.519 Amps |
| | o min memory | 10 + -10.002 minps, +12 +517 minps, -12 +517 minps |



5445 NE Dawson Creek Drive Hillsboro, OR 97124 USA Phone: 503-615-1100 Fax: 503-615-1121 Toll-Free: 800-950-0044 Customer Service: 800-256-5917 Product Support: 800-438-4769 www.radisys.com

World Headquarters

International Headquarters 10 Centech Park Fringe Meadow Road, Redditch Worcestershire, B98 9NR United Kingdom Phone: +44 (0) 1527 588800 Fax: +44 (0) 1527 588801