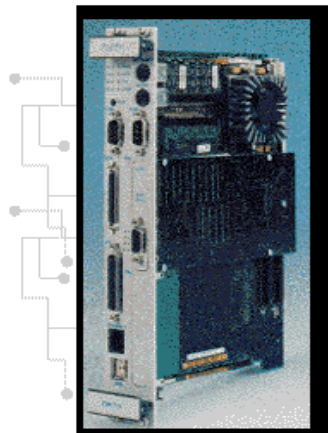


RadiSys EPC-9

High-Integration Pentium Processor-based VMEbus Embedded Computer



Feature Summary

- High performance 100MHz, 133MHz, 166MHz and 200MHz Pentium Processor
- Field Upgradable
- Dual 10/100BaseT ethernet controller with front panel RJ45 connector
- Enhanced IDE on-board hard-drive option
- PCIbus expansion via two PCI mezzanine card (PMC)sites
- Four 72-pin SODIMM sockets for up to 256MB DRAM
- EPConnect/VME software tools for Windows NT
- ISAbus expansion via EXM interface
- Fast SCSI II controller with front-panel connector
- Two USB ports via front panel
- Optional RadiSys SVGA PMC module
- CE Mark adherence
- Access to all VMEbus memory in real or protected modes
- 256K secondary cache

- Floppy support via header
 - IEEE 1284 ECP/EPP parallel port; two serial RS-232 ports with front panel connectors
 - Front panel PS/2-style keyboard and mouse connector
 - Full 32-bit VMEbus interface with P1 and P2 connectors
 - Real-time clock with on-board battery
 - On-board speaker
 - Watchdog timer
-

System Overview

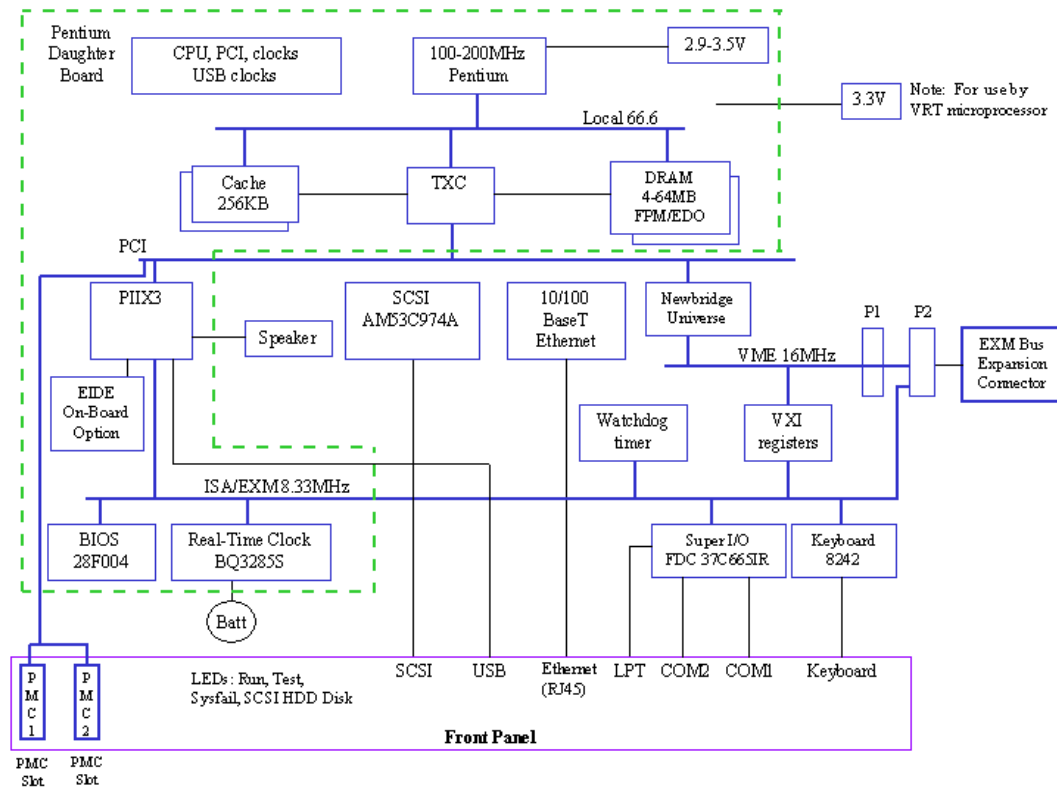
The EPC-9 brings a new level of performance to the RadiSys family of VMEbus CPU boards and sets a new standard for rugged, embedded computers. Compatible with Windows NT* and based on the Intel Pentium processor, the EPC-9 is the first VME product that can be field-upgraded.

The EPC-9 exemplifies high integration, reliability and performance. Its flexible design allows for customization to fit specific applications. It uses the Peripheral Component Interconnect (PCI) local bus for maximum performance and integration. Through advanced silicon technology, RadiSys incorporates the PCI local bus as a low latency interface between the microprocessor/memory subsystem and peripheral components. For applications requiring video, RadiSys also provides an optional PCI-based SVGA PMC module based on the Cirrus Logic CL GD5446.

The EPC-9 uses the 16-bit PC/AT-like EXM expansion bus in addition to the 32-bit PCIbus and 32-bit VMEbus. The EXM expansion bus design facilitates local embedded PC expansion without interfering with the host VMEbus, maximizing system performance. I/O, mass storage, 8-bit PC add-in short cards, and other expansion modules can be added easily. Since EXM modules are electrically similar to the PC/AT bus, they can be customized to accommodate the EPC-9 mechanical configuration.

Technical Overview

EPC-9 Block Diagram



Specifications

Board Style	VME, Eurocard Size "B"
CPU	Pentium processor at 100MHz, 133MHz, 166MHz, 200MHz
Cache	256KB L2 cache using synchronous pipeline burst SRAM
System Memory	
Capacity	Four 72-pin sockets for gold DRAM SODIMM; 64-bit memory bus, which must be populated with identical pairs of 32 bit SODIMMs
Size	8MB min (two 4MB SODIMMs); 256MB Max (four 64MB SODIMMs)
SIMM Types	60 ns or 70 ns Fast Page Mode or EDO DRAM SODIMMs; system will auto-detect and optimize for EDO if present
Memory Parity	DRAM parity checking or ECC not supported at this time
Memory Voltage	3.3V
Integrated PCI IDE	
Number of Devices	Two independent channels; four IDE devices
On-Board IDE Drive	On-Board 2.5-in IDE hard-drive option uses primary channel
Connectors	One 40-pin header uses secondary channel for support up to two 3.5-in external drives
Device Types	Mode 0, PIO Mode 3, Mode 4 IDE hard drives and CD-ROM supported

Integrated Super I/O

Controller	SMC FDC37C655IR
Serial Ports	Async, RS-232C, 9-pin 16C550 compatible with send/receive 16-byte FIFOs; meets electrical specifications of EIA/TIA-232-E and EIA/TIA-574-E
Parallel	Bi-directional IEEE-1284-1994 compatible; Centronics-compatible, 25-pin, ECP, EPP
Floppy Controller	34-pin header on-board 2.88MB, 765A-compatible

Keyboard and Mouse

Keyboard Controller	8042-compatible (part #82C42PE)
Mouse	PS2-style mouse

RTC

Real Time Clock	Accurate to ± 13 minutes/yr, 10-year life expectancy
Battery	Field-replaceable 3.0V, 250mAh Panasonic BR2330 battery

System BIOS

BIOS Type	Pheonix BIOS with 4MB flash and battery-backed CMOS SRAM
Special Features	PC'95- and PCI 2.1-compliant; Windows 95-ready; Plug and Play; APM 1.2; IDE drive autoconfigure; multilingual support; DMA support

PCI Chip Set

Intel82430HX PCI Chip Set	Bus at 33MHz; first level USB hub allows connection of two USB peripherals
---------------------------	--

Ethernet

10/100MBit	Digital 21143 for 10/100Mbit Ethernet in conjunction with QSI 6611 Physical Interface; symbol interface provided by the Digital 21143;
------------	--

PMC

Two Slots	Adheres to p1386.1; PMC1 shares Ethernet (REQ/GNT[0] and Interrupt B); PMC2 uses REQ/GNT[3] and Int.0
-----------	---

SCSI II

Fast SCSI	8-bit fast SCSI interface provided by AMD 53C974A. 10MB/second synchronous and 7MB/second asynchronous; 50-pin standard connector on front panel
-----------	--

Connectors

Front Panel	Two PMC Slots, 10/100Mbit ethernet, two USB ports, SCSI II, two serial ports, one parallel port, keyboard, mouse
Headers	Floppy, IDE

SVGA Graphics Module (Optional)

Form Factor	PMC Module
Resolution	640 x 480/1280 x 1024
Chip Set	Cirrus Logic
