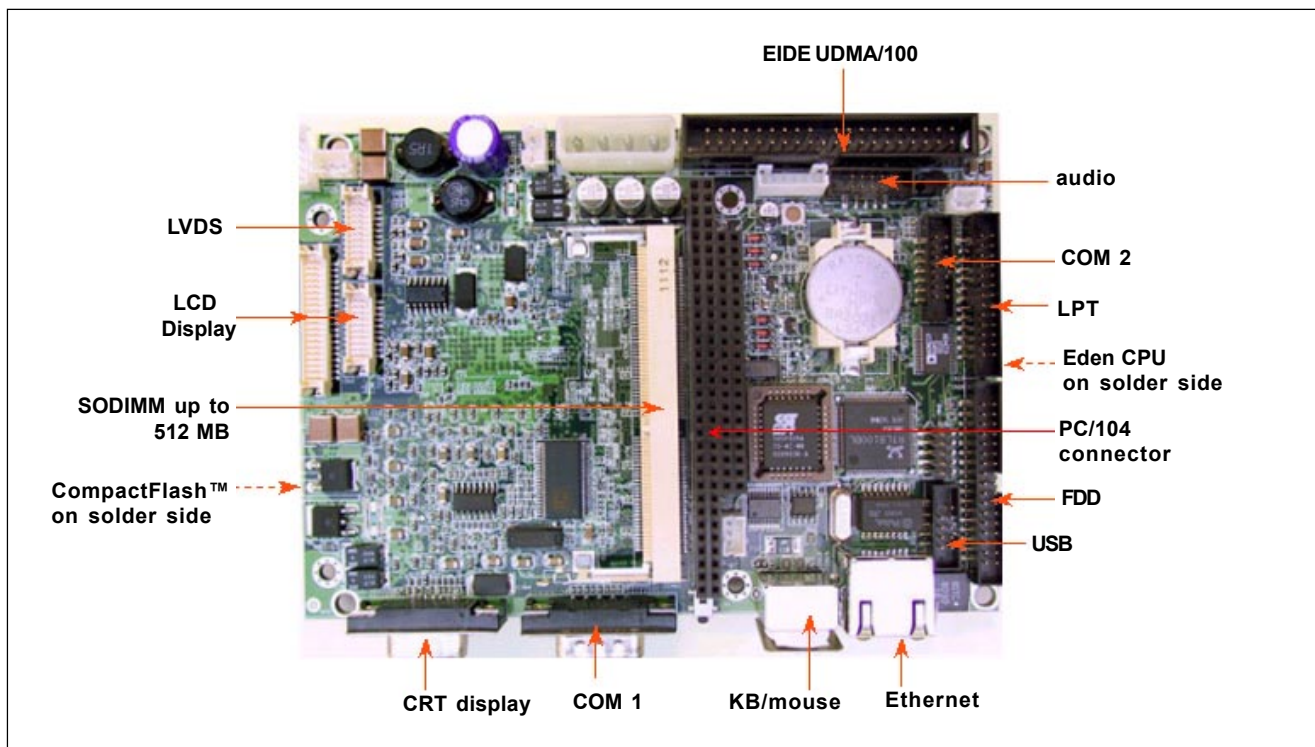


PCM-9372

VIA Eden SBC with CPU, Audio, VGA/LCD, LVDS and Ethernet



Introduction

The real estate is well-packed on this tightly designed 3.5" single board computer (SBC) with an onboard new VIA Embedded low power Eden processor. The VIA Eden processor uses advanced 0.15 μ /0.13 μ CMOS technology with 128KB L1 cache memory and 64KB L2 cache memory on die. This board can operate without a fan at temperatures up to 60° C (140° F) and typically consumes under 12 Watts while supporting numerous peripherals. This SBC includes a 4X AGP controller, an AC'97 audio interface, a PCI Ethernet interface, and 2 channel LVDS interface. Its design is based on the 3.5" SBC form factor that supports the PC/104 interface for ISA module upgrades. Other on-board features include an LPT, 2 USBs, and 2 serial ports: 1 RS-232, and 1 RS-232/422/485. The SSD solution supports CompactFlash™ cards Type I and Type II.

The PCM-9372 uses a VIA Twister chip with Integrated Savage4 2D/3D/Video Accelerator and supports 4X AGP VGA/LCD interface and up to 32 MB frame buffer using system memory. The board is effective for use as an embedded controller, through its ability to add more custom control cards through its fast PC/104 socket. The PCM-9372's powerful, fanless processor choices and solid system chipset make it a perfect core technology for medical equipment and other long life applications.

Banish the Heat

There are several choices for dealing with thermal issues. There are choices for heatsinks: finned, or flat, or, since the CPU and chipset are mounted on the solder side, you can design a chassis that also serves heatsink duty.

Low power DVD player SBC

The PCM-9372 supports 3D audio and complies with the AC97 standard and 3D engine 4X AGP VGA/LCD controller which supports DVD play. The PCM-9372 combines audio, and network functions on a single board computer the same size as the 3.5" SBC form factor standard. PCM-9372 power consumption is only 11.3 W with the Eden 400 processor.

Features

- Embedded low power VIA Eden 400/667/800 MHz processor
- Fanless operation at 60°C. (PCM-9372F-J0A1 & PCM-9372F-M0A1)
- 133MHz FSB and 4X AGP graphics for high performance applications
- ATA100 on primary EIDE

Specifications

- **CPU:** Embedded VIA low power Eden processor, 128KB L1 cache memory on die
Eden-400 (PCM-9372F-J0A1)
Eden-667 (PCM-9372F-M0A1)
Eden-800 (PCM-9372F-Q0A1)
- **System chipset :** VIA PN133T (Twister T) , VIA VT82C686B
- **BIOS:** Award 256 KB Flash memory
- **System memory:**
One 144pin SODIMM socket accepts 64 to 512 MB SDRAM
PC133 144pin SODIMM for all models
Option PC100 SODIMM for PCM-9372F-J0A1
- **2nd cache memory:** 64KB on the Eden processor
- **Enhanced IDE interface:** One channel supports up to two EIDE devices. BIOS auto-detect, PIO Mode 3 or Mode 4, UDMA33 transfer. Primary IDE supports up to UDMA66/100 mode.
- **FDD interface:** Supports up to two FDDs
- **Serial ports:** Two serial RS-232 ports, COM1: RS-232, COM2: RS-232/422/485
- **Parallel port:** One parallel port supports SPP/EPP/ECP mode
- **Keyboard/mouse connector:** Supports standard PC/AT keyboard and a PS/2 mouse
- **Power management:** Supports power saving modes including Normal/Standby/Suspend modes. APM 1.2 compliant
- **Watchdog timer:** 62 level timer intervals
- **USB:** Two universal serial bus ports, USB 1.1 compliant
- **Expansion:** PC/104 connector for ISA control board

Solid State Disk

- Supports one 50-pin socket for CFC type I/II

VGA/LCD Interface

- **Chipset:** VIA Twister chip with integrated Savage4 2D/3D/Video Accelerator
- **Frame buffer:** Supports 4/8/16/32MB frame buffer with system memory
- **Interface:** 4X AGP VGA/LCD interface, Support for 9, 12, 15, 18, 24, 36 bit TFT and optional 16- or 24-bit DSTN panel

- **Display mode:** CRT Modes: 1280 x 1024@16bpp (60Hz), 1024 x 768@16bpp (85Hz); LCD/Simultaneous Modes: 1280 x 1024@16bpp (60Hz), 1024 x 768@16bpp (60Hz)
- **LVDS:** Supports 2 Channel (2 x 18bit) LVDS interface

Ethernet interface

- **Chipset:** RTL 8100
- **Ethernet interface:** IEEE 802.3u 100BASE-T Fast Ethernet compatible
- **I/O address switchless setting**
- **Built-in boot ROM**

Audio Function

- **Chipset:** VIA 82C686
- **Audio controller:** AC97 ver. 2.0 compliant interface
- **Audio interface:** Microphone in, Line in, CD audio in, line out,

Mechanical and Environmental

- **Dimensions (L x W):** 145 mm x 102 mm (5.7" x 4")
- **Power supply voltage:** +5 V, +12V $\pm 5\%$
- **Power requirements:**

Max:

4.5A @+5V, 1.3A @ +12V (Within 5ms after power on)

Typical:

2.08A @ +5V, 0.08A @ +12V (with 128 MB DRAM, Eden 400 MHz CPU)

2.33A @ +5V, 0.08A @ +12V (with 128 MB DRAM, Eden 667 MHz CPU)

- **Operating temperature:** 0 ~ 60° C
- **Weight:** 0.85 kg (weight of total package)

Ordering Information

□PCM-9372F-J0A1:

VIA Eden 3.5" SBC w/ VIA Eden-400MHz CPU, VGA/LCD, LVDS, Ethernet, Audio

□PCM-9372F-M0A1:

Same as PCM-9372F-J0A1, but with Eden 667 MHz CPU

□PCM-9372F-Q0A1 (available Q4, 2002):

Same as PCM-9372F-J0A1, but with Eden 800 MHz CPU

□1703100260:

26cm USB cable

□1703200201:

ATX power cable for Biscuit SBC

□1961937210:

Flat heat sink for PCM-9372

□1759200850:

+5V Fan for PCM9372 heat sink

□1701440500:

40-40-44 for 2.5" & 3.5" HDD IDE cable