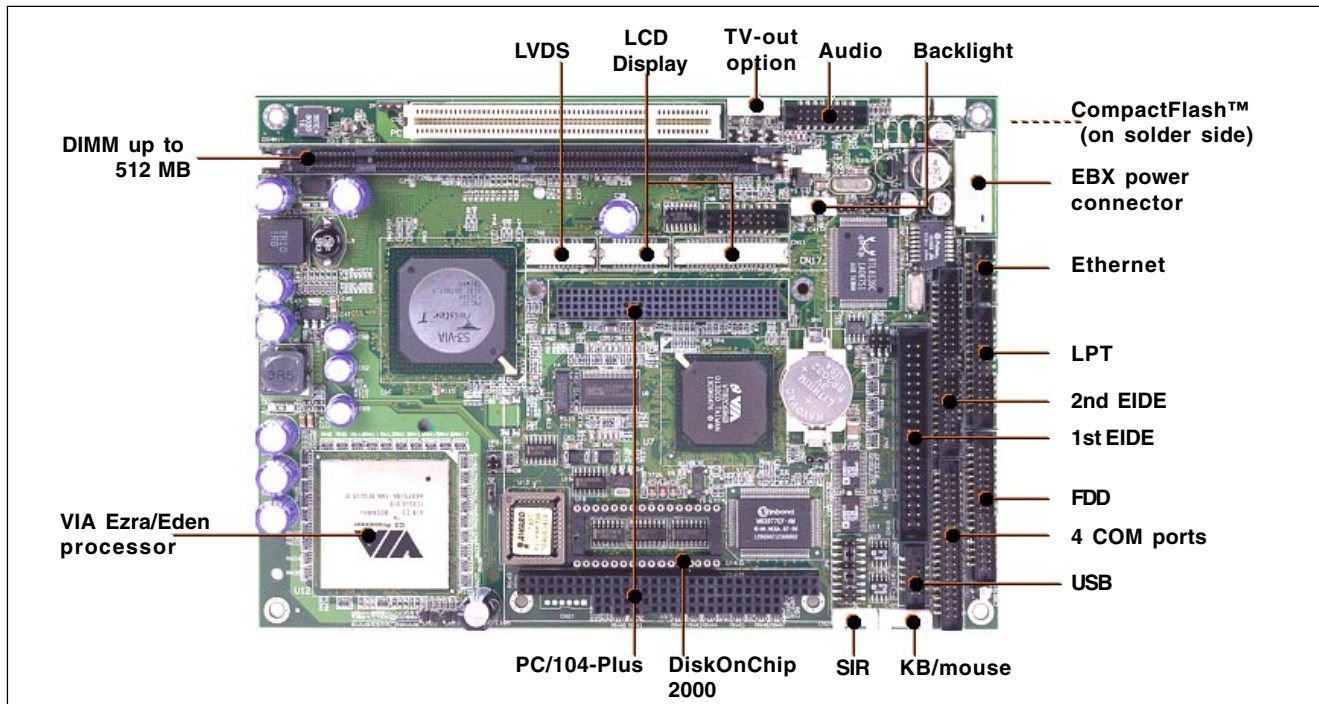


PCM-9575

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



Introduction

Advantech's new PCM-9575 is a new EBX form factor 5.25" single board computer (SBC) with an onboard new VIA Embedded low power Ezra 800 600MHz or Eden 400MHz processor. The VIA Eden processor uses advanced 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 14 Watts while supporting numerous peripherals. This SBC includes a 4X AGP controller, a PCI audio interface, a PCI Ethernet interface, and 2 channel LVDS interface. Its design is based on the EBX form factor that supports the PC/104-Plus interface for ISA/PCI module upgrades. Other on-board features include a PCI slot, an LPT, 2 USBs, IrDA and 4 serial ports: 3 RS-232s, and 1 RS-232/422/485. The SSD solution supports both DiskOnChip®2000 and CompactFlash™ cards. This product 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 a mini-server or gateway device, through its ability to add more ethernet ports through its fast PC/104-plus socket. This board combines well with the dual-ethernet PCM-3663 PC/104-plus module, giving integrators network flexibility. The PCM-9575's powerful, fanless processor choices and solid system chipset make it a perfect core technology for medical equipment and other long life applications. And the high quality TV-out capability makes numerous other applications available too.

SBC with EBX Form Factor, PC/104-Plus, and VIA Ezra or Eden Processor

With this board and its EBX form factor and PC/104-Plus interface, system engineers can develop their own products or buy them off the shelf for this board. Up to two ATA/66/100 EIDE devices can be supported as well as two FDDs.

True multimedia SBC

The PCM-9575 supports 3D audio and complies with the AC97 standard and 3D engine 4X AGP VGA/LCD controller which supports DVD play. The PCM-9575 combines audio, TV-out (optional), and network functions on a single board computer the same size as the EBX form factor standard. Optional TV-out supports NTSC and PAL formats through composite video connectors and S-Video connectors via the optional cable kit.

Features

- Embedded low power VIA Ezra 800MHz or Eden 400MHz processor
- Applied EBX form factor standard and supports PC/104+ bus
- Fanless operation at 60°C. (PCM-9575F-J0A1)
- 133MHz FSB and 4X AGP graphics for high performance applications

Specifications

- **CPU:** Embedded VIA low power Ezra/Eden processor, 128KB L1 cache memory on die Ezra-800 (PCM-9575-Q0A1)
Eden-400 (PCM-9575-J0A1)
- **BIOS:** Award 256 KB Flash memory
- **System memory:** One DIMM socket accepts 64 MB up to 512 MB SDRAM
PC133 DIMM for PCM-9575-Q0A1 & PCM-9575F-J0A1
Option PC100 DIMM for PCM-9575F-J0A1
- **2nd cache memory:** 64KB on the Ezra/Eden processor
- **Enhanced IDE interface:** Two channels supports up to four 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:** Four serial RS-232 ports, COM1, 3, 4: RS-232, COM2: RS-232/422/485
- **Parallel port:** Parallel port supports SPP/EPP/ECP mode
- **Infrared port:** Shared with COM4. Transfer rates up to 115Kbps
- **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 (4 USB ports optional)
- **Expansion:** 1 PCI slot, PC/104 plus connector for ISA and PCI control board

Solid State Disk

- Supports one 50-pin socket for CFC type I/II
- Supports M-Systems DOC[®]2000

VGA/LCD Interface

- **Chipset:** VIA Twister chip with integrated Savage4 2D/3D/Video Accelerator
- **Frame buffer:** Supports 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

TV-out (optional)

- **Chipset:** VIA VT1621
- Supports NTSC, NTSC-EIA (Japan) and PAL TV formats
- Provides Composite video, S-video and SCART (optional) outputs via RCA (composite) connector and S-video connector
- Supports 640 x 480 and 800 x 600 input resolutions
- Supports Windows[®] 95/98 and Windows NT drivers

- Over-scan, under-scan and position adjustable
- Auto-detection of TV presence rnet Interface

Ethernet interface

- **Chipset:** RTL 8139 (Intel 82550ER optional)
- **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, Speaker L, Speaker R

Mechanical and Environmental

- **Dimensions (L x W):** EBX form factor, 203 x 146 mm (8" x 5.75")
- **Power supply voltage:** +5 V \pm 5%
- **Power requirements:**
 - Max: 4.5 A @ +5V
 - Typical: 3.3 A @ +5V (with 256 MB DRAM, Ezra 800 MHz CPU)
 - 2.78A @ +5V (with 256 MB DRAM, Eden 400 MHz CPU)
- **Operating temperature:** 0 ~ 60° C
- **Weight:** 0.85 kg (weight of total package)

Ordering Information

□ PCM-9575F-Q0A1:

EBX SBC W/ VIA Ezra 800MHz CPU, VGA/LCD, LVDS, Ethernet, Audio

□ PCM-9575F-J0A1:

Same as PCM-9575F-M0A1, but with Eden 400 MHz CPU

□ PCM-10586-5A00:

PCM-9575F wiring kit

□ 1703100260:

USB cable for PCM-9574/ PCM-9550F/PCM-9572F/PCM-9575

□ PCM-200-00A2:

PC/104-Plus to PCI slot module

□ 1703200201:

ATX power cable for 5.25" SBC