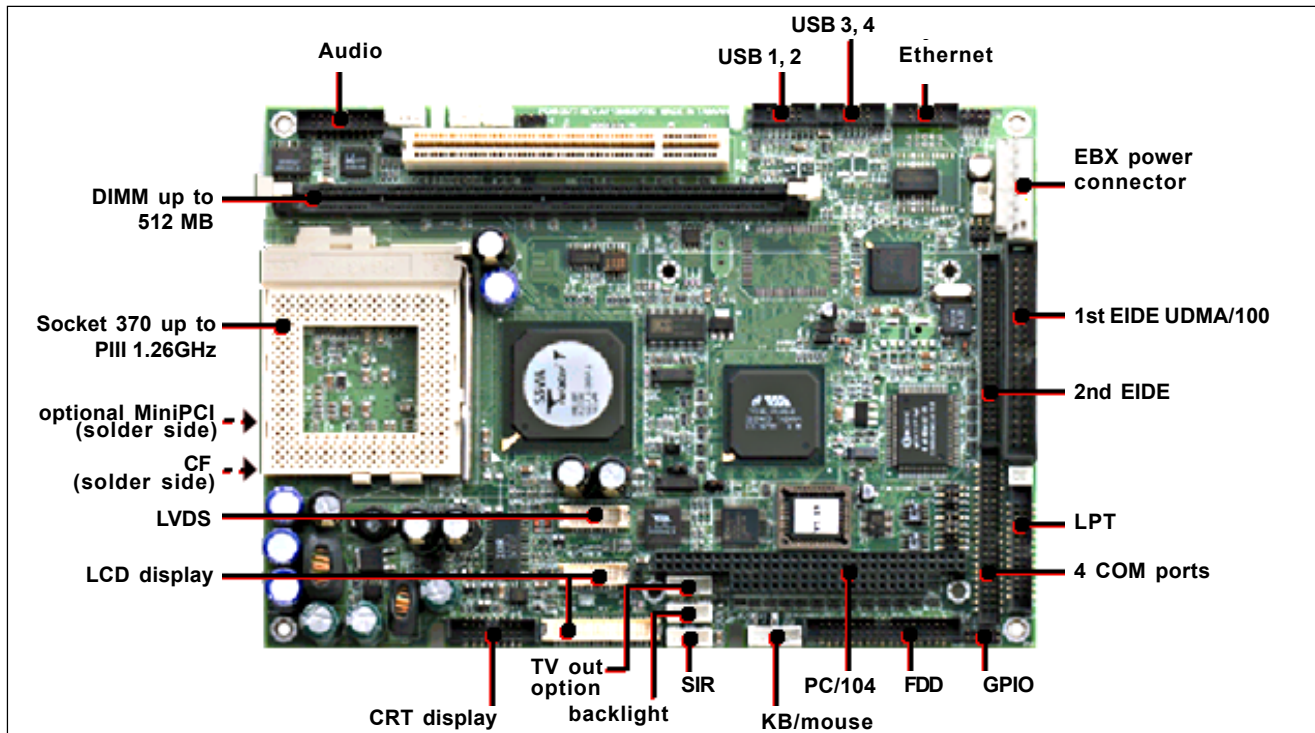


PCM-9577

Socket 370 Pentium III SBC with
Gbits Ethernet, USB 2.0, VGA/LCD, Audio



Introduction

Advantech's new PCM-9577 is a new socket 370 Pentium® III 5.25" form factor single board computer (SBC) with an onboard Gigabit Ethernet and four USB 2.0 ports. The socket 370 can support up to Pentium III/512K(Tualatin) 1.26GHz. This SBC includes a 4X AGP controller, an AC97 audio interface, a PCI Gigabit or 100BASE-T Ethernet interface, 4 USB 1.1 or USB 2.0 ports and 2 channel LVDS interface. Other on-board features include a PCI slot, PC/104, optional Mini PCI socket, an LPT, UDMA/100 IDE, IrDA and 4 serial ports: 3 RS-232s, and 1 RS-232/422/485. The SSD solution supports CompactFlash™ cards.

This product uses a VIA Twister chip with Northbridge and 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 PCI slot. PCM-9577 supports powerful Pentium III 1.26GHz, Gigabit Ethernet, USB 2.0 and solid system chipset make it a perfect core technology for server equipment and other long life applications. And the high quality TV-out capability makes numerous other applications available too.

True multimedia SBC

The PCM-9577 supports 3D audio and complies with the AC97 standard and 3D engine 4X AGP VGA/LCD controller which supports DVD play. The PCM-9577 combines audio, TV-out (optional), and network functions on a single board computer the same size as the 5.25" 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

- Socket 370 supports up to Pentium III/512K 1.26GHz
- Supports Gigabit Ethernet (PCM-9577FG)
- Supports Embedded USB, 4 USB 2.0 ports (PCM-9577FG)
- 133MHz FSB and 4X AGP graphics for high performance applications
- Supports 24/36 bit TFT/DSTN LCD and 2 channel LVDS interface
- Optional TV-out and Mini PCI for WLAN applications

Specifications

- **CPU:** Socket 370 for Intel Celeron/Pentium III/512K (Tualatin) up to 1.26GHz
- **BIOS:** Award 256 KB Flash memory
- **System memory:** One DIMM socket accepts 64 MB up to 512 MB SDRAM (PC133 DIMM)
- **2nd cache memory:** supports 128KB/256KB/512KB on the 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 PS/2 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:** 4 universal serial bus ports, USB 1.1 compliant (PCM-9577F) 4 USB 2.0 Ports support embedded USB Type I shared with USB port 3 and port4(PCM-9577FG)
- **Expansion:** 1 PCI slot, PC/104 connector for ISA and PCI control board, Mini PCI socket for Type III MiniPCI peripheral device

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 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 16- & 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 and PAL TV formats
- Provides Composite video and S-video outputs via optional TV-out cable (1703050306)
- 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:** Intel 82551ER [Intel 82551QM optional] (PCM-9577F) Intel 82540EM (PCM-9577FG)
- **Ethernet interface:** IEEE 802.3u 100BASE-T Fast Ethernet compatible (PCM-9577F) IEEE 802.3z/ab 1000 BASE-T Gigabit Ethernet compatible (PCM-9577FG)

- **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):** 203 x 146 mm (8" x 5.75")
- **Power supply voltage:** +5V $\pm 5\%$, +12V $\pm 5\%$
- **Power requirements:**
 - Max:
 - 10A @ +5V, 1.02A @ +12V (within 5ms after power on)
 - Typical:
 - 5.6A @ +5V, 0.17A @ +12V (with 256 MB DRAM, Intel Pentium III/1.26GHz)
- **Operating temperature:** 0 ~ 60° C
- **Operating Humidity:** 0% ~ 90% Relative Humidity, non-condensing
- **Weight:** 0.85 kg (weight of total package)

Ordering Information

- ❑ **PCM-9577F-00A1:** Socket 370 SBC W/ 100BASED LAN, VGA/LCD, LVDS, Audio, USB 1.1
- ❑ **PCM-9577FG-00A1:** Same as PCM-9577F-00A1, but with Gigabit Ethernet and USB 2.0
- ❑ **PCM-10586-5A00:** wiring kit for PCM-9575/PCM-9577F
- ❑ **PCM-10586-5G00:** wiring kit for PCM-9577FG (Gigabit LAN)
- ❑ **1703100260:** USB cable for PCM-9577/ PCM-9550F/PCM-9572F/ PCM-9575
- ❑ **1703100121:** 12cm USB cable used for MBPC-300
- ❑ **1703200201:** ATX power cable for 5.25" SBC
- ❑ **1703050306:** TV out cable (S-video and composite video connectors) for PCM-9572/PCM-9575/PCM-9577
- ❑ **1759200880:** +12V Fan used for Pentium III/1.26GHz CPU used