PCM-9572F

EBX Pentium® III SBC with CPU, Audio, VGA/LCD, TV-out and Ethernet

Labels (clockwise from top): TV-out · CRT display · Backlight · USB · Ethernet · Audio connector · EBX power connector · CompactFlash™ (on solder side) · KB/Mouse · 1st EIDE · 2nd EIDE · FDD interface · 4 COM ports · LPT1 · LPT2 · 8 Digital I/Os · DiskOnChip 2000 · PC/104-Plus · Intel Pentium® III or Celeron™ 400 processor · DIMM up to 256 MB · LCD Display
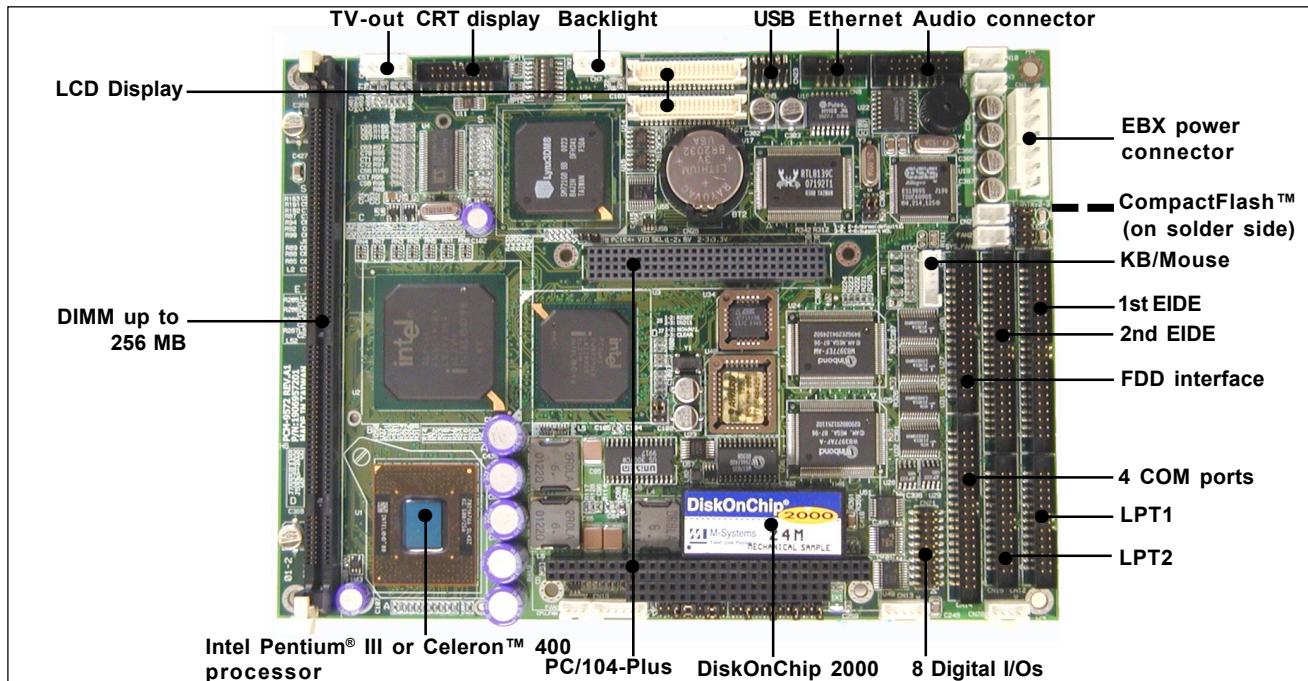
Introduction

Advantech's new PCM-9572F is an EBX form factor 5.25" single board computer (SBC) with an onboard Intel low power Pentium® III 500 MHz or Celeron 400 MHz processor. This board can operate without a fan at temperatures up to 60° C (140° F) and typically consumes under 16 Watts while supporting numerous peripherals. This SBC includes a VGA/LCD controller, a PCI audio interface, a PCI Ethernet interface, and 8 digital inputs and outputs. 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 2 LPT, 2 USB, Fast IrDA and 4 serial ports: 3 RS-232 and 1 RS-232/422/485. The SSD solution supports both DiskOnChip®2000 and CompactFlash™ card.

This board is great for POS applications by providing a COM port with +5 V/+12 V jumper select and a digital I/O for a cash drawer with isolated digital output. The board is also 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 flexibilty. The PCM-9572F's powerful, fanless processor choices and solid system chipset make it a perfect core technology for medical equipment and other long life applications. And with its high quality TV-out capability, numerous applications also become available .

SBC with EBX Form Factor, PC/104-Plus and Pentium® III 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 EIDE devices can be supported as well as two FDDs.

True multimedia SBC

The PCM-9572F supports 3D audio and complies with the AC97 standard and 3D engine VGA/LCD controller which support DVD play. The PCM-9572F combines audio, TV-out, and network functions on a single board computer the same size as the EBX form factor standard. It provides TV-out that supports composite video connectors and S-Video connectors via optional cable kit, and TV-out function which supports NSTC and PAL formats.

Features

• Embedded low power Pentium® III 500 MHz or Celeron 400 processor

• Applied EBX form factor standard and supports PC/104+ bus

• Fanless operation at 60ºC.

• Supports wake on LAN, Modem

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- Supports TV-out

- Supports dual 24 bit TFT LCD or one 48 bit TFT LCD

- 4 COM ports share with 1 IRQ

Specifications

- **CPU:** Onboard Intel®Pentium®III 500 MHz
  (PCM-9572F-L4A1) or
  Celeron 400 MHz processor (PCM-9572F-J4A1)

- **BIOS:** Award 256 KB Flash memory

- **System memory:** One DIMM socket accepts 32 MB up to 256 MB SDRAM

- **2nd cache memory:** 512 KB SRAM

- **Enhanced IDE interface:** Two channels supports up to four EIDE devices. BIOS auto-detect, PIO Mode 3 or Mode 4, UDMA/33 transfer

- **FDD interface:** Supports up to two FDDs

- **Serial ports:** Four serial RS-232 ports, COM1, 3, 4: RS-232, COM2: RS-232/422/485

- **COM port share IRQ:** 4 com ports can share one IRQ

- **Parallel port:** Two parallel ports, supports SPP/EPP/ECP mode

- **Digital I/O:** 8 TTL digital input and output with 8 TTL outputs, or 6 TTL outputs and 2 open collectors for isolated control.

- **Infrared port:** Shared with COM2. Transfer rates up to 4 Mbps

- **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

- **Expansion:** PC/104 plus connector for ISA and PCI control board

Solid State Disk

- Supports one 50-pin socket for CompactFlash™ card

- Supports M-Systems DOC®2000

VGA/LCD Interface

- **Chipset:** SMI Lynx 721 4 MB on chip, 8 MB on chip optional

- **Interface:** 2x AGP interface, 128-bit engine

- **Display mode:** Flat panel displays up to 800 x 600 @ 24 bpp, 1024 x 786 @ 24 bpp. CRT monitors up to 1024 x 768 @ 24 bpp, 1280 x 1024 @ 24 bpp

- **Dual display:** Supports dual 24 bit TFT LCD or CRT and LCD under Windows 98/ Windows/NT/Windows 2000

TV-out

- **Chipset:** SMI Lynx 721

- 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

- **Ethernet interface**: PCI 10/100 Mbps Ethernet. IEEE 802.3 U protocol compatible

- **I/O address switchless setting**

- **Built-in boot ROM**

Audio Function

- **Chipset:** ES 1989

- **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 ±5%

- **Power requirements:** Max 4.5 A @ +5 V, typical 3.8 A @ 5 V, (with 64 MB DRAM, Pentium®III 500 MHz CPU) 3.2 A @ 5 V (with 64 MB DRAM, Celeron 400 MHz CPU)

- **Operating temperature:** 0 ~ 60° C

- **Weight:** 0.85 kg (weight of total package)

Ordering Information

❑**PCM-9572F-L4A1**:

EBX Pentium°III 500 MHz CPU, 4 MB VGA/LCD, Audio, TV-out, Ethernet and DIO

❑**PCM-9572F-J4A1**:

Same as PCM-9572F-L4A1, but with Celeron 400 MHz CPU

❑**PCM-9572F-L8A1**:

Same as PCM-9572F-L4A1, but with 8 MB VGA memory

❑**PCM-10586-5V00**:

PCM-9572F wiring kit

❑**1703100260**:

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

❑**PCM-200-00A1**:

PC/104-Plus to PCI slot module

❑**1703200201**:

ATX power cable for 5.25" SBC