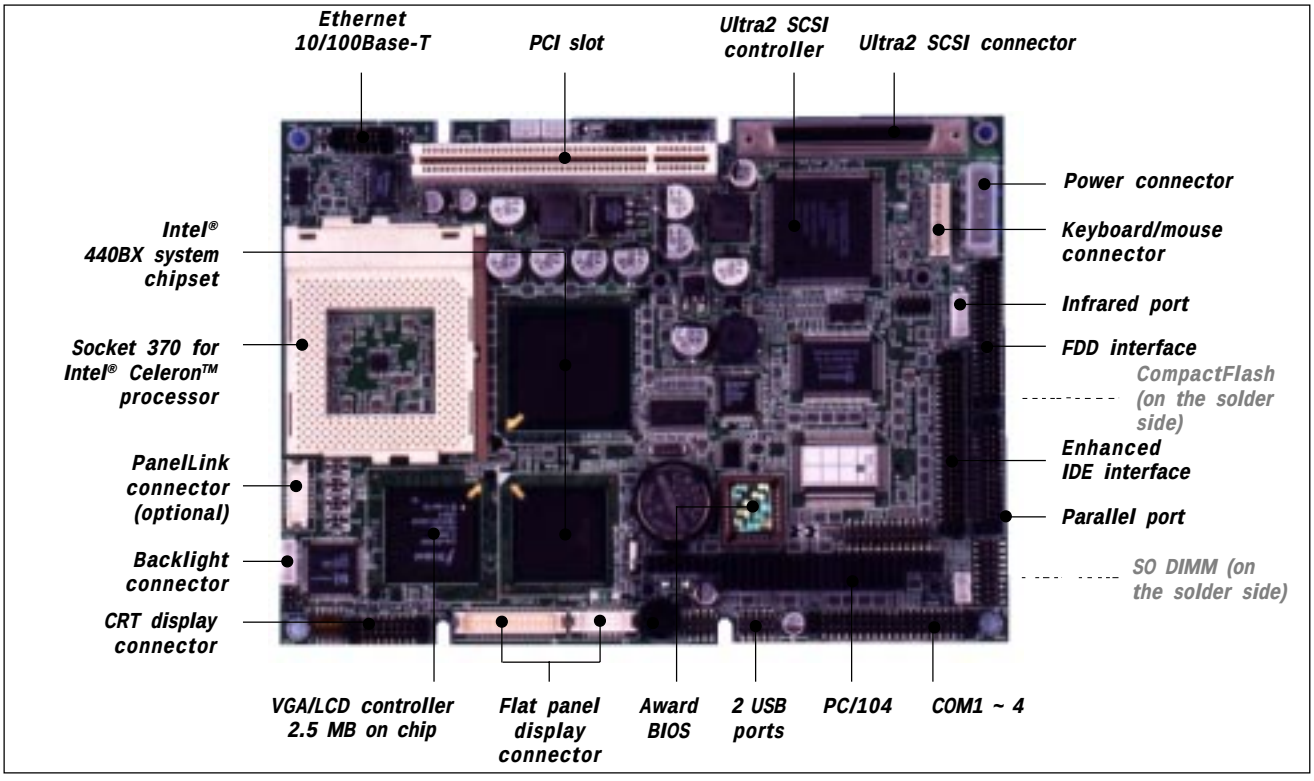
PCM-9570/S

Socket 370 Celeron™ SBC with AGP, VGA/LCD, Ethernet and SCSI



Introduction

The PCM-9570/S is an all-in-one Pentium®II level single board computer (SBC) with an Ultra2 SCSI controller (PCM-9570S), a 2x AGP LCD controller, a PCI Fast Ethernet interface and one PCI expansion slot. With the Intel Celeron™ processor, the PCM-9570/S achieves outstanding performance that surpasses any other SBC in its class. This compact (only 5.75" x 8") unit offers all the functions of a single board industrial computer, but still fits in the space of a 5.25" floppy drive.

On-board features include four serial ports (three RS-232, one RS-232/422/485), one multi-mode parallel (ECP/EPP/SPP) port, two USB (Universal Serial Bus) ports, one infrared port (FIR), one CompactFlash socket for CFC, a floppy drive controller and a keyboard/PS/2 mouse interface. The built-in high speed PCI IDE controller supports PIO, UDMA/33 and bus master modes. Up to two IDE devices can be connected, including large hard disks, CD-ROM drives and tape backup drives.

The PCM-9570/S features power management to minimize power consumption. It complies with the "Green Function" standard and supports doze mode, standby mode and suspend mode. In addition, the board's watchdog timer can automatically reset the system or generate an interrupt in case the system stops due to a program bug or EMI.

Highly Integrated Socket 370 SBC

The PCM-9570/S is a highly integrated SBC that combines Ultra2 SCSI, PanelLink, and network functions on a single computer board the size of a 5.25" floppy drive. Major on-board devices adopt PCI technology to achieve outstanding computing performance when used with Intel®Celeron™ processors, making the PCM-9570/S the world's smallest and most powerful all-in-one Socket 370 board.

Features

- **Ultra2 SCSI interface:** supports up to 80 MB/sec transfer rates (PCM-9570S only)
- **3D VGA/LCD interface:** supports a 2x AGP interface, 3D 64-bit engine, as well as a 2.5 MB embedded Trident 9525 DVD chip
- **Display resolution:** up to 1024 x 768 @ 64 K colors in both in LCD and CRT displays
- **PanelLink (optional):** scalable bandwidth of 25 ~ 112 MHz (VGA 640 x 480 ~ SXGA 1280 x 1024)
- **100 MHz FSB design:** to facilitate future upgrading to Pentium®III

Specifications

Standard SBC functions

- **CPU**: Socket 370 for Intel®Celeron™ processor up to 466 MHz
- **BIOS**: Award 256 KB Flash BIOS, supports Plug & Play, APM
- **Chipset**: Intel 440BX
- **Green function**: APM 1.1 compliant
- **2nd level cache**: 128 KB on the Celeron™ processor
- **RAM**: Two 144-pin SO DIMM sockets accept 8 ~ 128 MB SDRAM
- **Enhanced IDE interface**: One channel for 2 IDE devices. One channel for CompactFlash card
- **FDD interface**: Supports up to two FDDs (360 KB/1.2 MB/ 720 KB/1.44 MB/2.88 MB)
- **Parallel port**: One parallel port, supports SPP/EPP/ECP parallel mode
- **Serial ports**: Four serial ports with +5 V / +12 V power capability (COM1,3,4: RS-232 andCOM2: RS-232/422/485)
- **Watchdog timer**: Software enabled/disabled. 63-level interval from 1 to 63 seconds. Jumperless selection. Generates system reset or IRQ11
- **Keyboard/mouse connector**: 8-pin header connector for keyboard and PS/2 mouse
- **USB interface**: Two USB connectors with fuse protection. Complies with USB Spec. Rev. 1.0
- **Infared port**: Supports up to 115 Kbps transfer rate
- **PC/104 expansion**: 104-pin 16-bit PC/104 module connector
- **I/O bus expansion**: One 32-bit PCI bus expansion slot

PCI SVGA/Flat Panel Interface

- **Chipset**: Trident Cyber 9525 DVD, high performance 64-bit GUI, 3D engine
- **Display memory**: 2.5 MB of SDRAM frame buffer on cyber 9525DVD. 4 MB SDRAM frame buffer on CyberBLADE e4 TM9540 (optional)
- **Display type**: Simultaneously supports CRT and flat panel (EL, LCD and gas plasma) displays
- **Interface**: 2x AGP, Accelerator Graphics Ports 1.0 compliant
- **Display mode**:

  LCD panel supports up to 800 x 600 @ 24 bpp, 1024 x 768 @ 24 bpp.

  CRT displays support up to 800 x 600 @ 24 bpp, 1024 x 768 @ 24 bpp

PCI Bus Ethernet Interface

- **Chipset**: Realtek RTL8139A PCI-bus Ethernet controller
- **Ethernet interface**: PCI 100/10 Mbps, IEEE 802.3U compatible
- **Remote Boot-ROM**: For diskless system

Ultra2 SCSI (PCM-9570S Only)

- **Chipset**: SYM 53C895 chips
- **Performance**: Ultra2 SCSI interface, up to 80 MB/sec transfer rate

Solid State Disk

- **One 50-pin socket**: For one CompactFlash card, shared with one IDE channel

PanelLink (Optional)

- **Chipset**: Sil 154 Panel Link Digital Transmitter
- **Scalable band width**: Ranging from 25 ~ 112 MHz (VGA ~ SXGA)
- **24/48-bit one/two pixel per clock**

Mechanical and Environmental

- **Power requirements**: 5.2 A @ 5 V (4.75 to 5.25) (typical) 4.9 A @ 5 V with Celeron™ 466 and 128 MB SO DIMM
- **Operating temperature**: 0 ~ 60° C (32 ~ 140° F)
- **Size (L x W):** 203 x 146 mm (8" x 5.75")
- **Weight**: 0.32 kg (0.7 lbs)

Ordering Information

- ❑ **PCM-9570-00A1**:
  Socket 370 Celeron™/Pentium®II SBC with LCD/Ethernet
- ❑ **PCM-9570S-00A1**:
  Same as PCM-9570-00A1, but with Ultra2 SCSI function
- ❑ **1703100260**:

  USB cable for PCM-9570/PCM-5820/PCA-6154
- ❑ **PCM-10586-4000**:
  PCM-9570 wiring kit
- ❑ **9681000037**:
  36-bit LCD cable adapter for PCM-9570/S
- ❑ **1701680600**:
  Ultra Wide SCSI cable 0.6 m
- ❑ **1701060000**:
  Ultra2 Wide SCSI cable 1.25 m with terminator