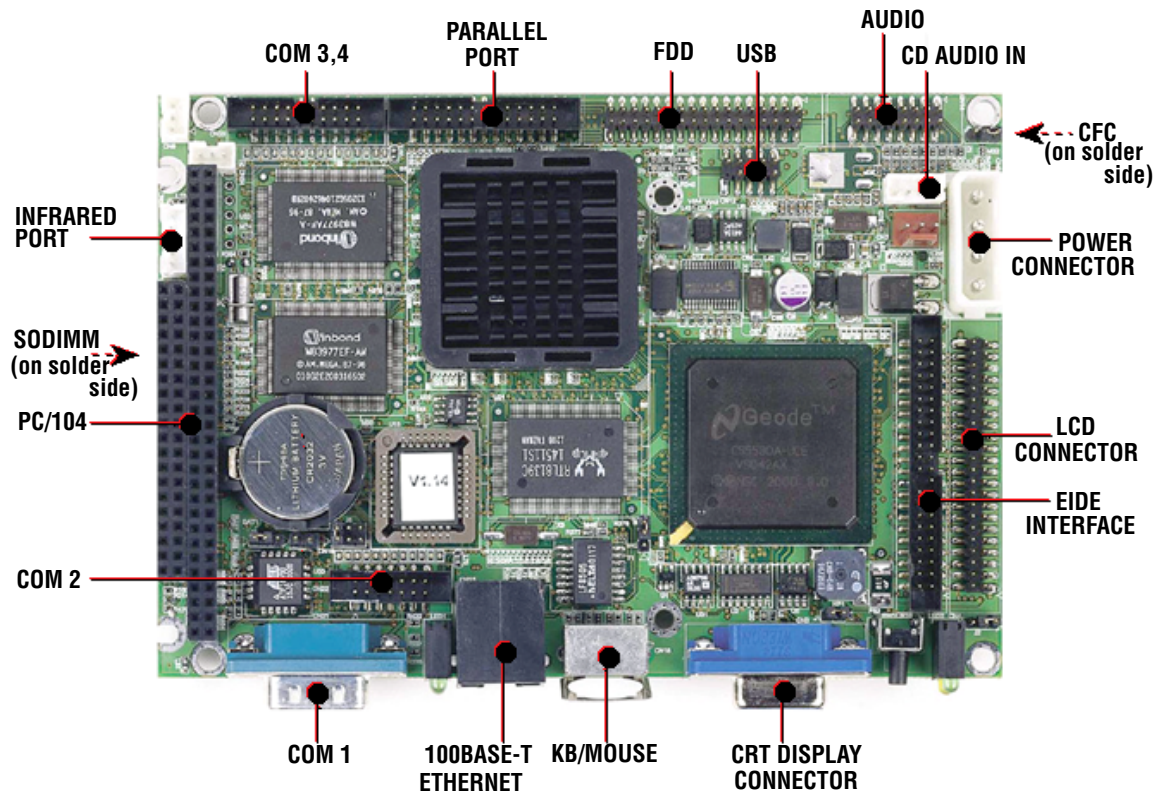


PCM-5825

SBC with NS Geode® CPU, 4COMs,
VGA/LCD, Ethernet & Audio Interface



Introduction

Advantech's new PCM-5825 is a 3.5" SBC with an on-board, embedded 586-class NS GX1-300 processor. Other on-board features include VGA/LCD, Audio, a Compact Flash Card socket, and 10/100 Mbps Ethernet. This board is the same as PCM-5820, but with two additional serial ports.

The worry-free, fanless Pentium® MMX SBC is Here

With this board, system engineers will now be able to upgrade their 486-based systems to 586-level without as many additional worries, partially because a 586-level NS GX1-300 processor is mounted directly on board. Mounting CPUs directly on board eases the configuration and installation process because there is no need to set any jumpers for speed or voltage differences between various CPUs. In addition to this ease of configuration, this CPU has been specially designed to work well in environments with temperatures of up to 60° C (140° F) without need of a fan. Eliminating the CPU fan from a system significantly reduces MTBF worries.

Features

- **Compact size:** 145 x 102 mm fits in the space of a 3½" HDD
- ISA-bus expansion with on-board PC/104 connector
- On-board NS Geode GX1 CPU
- On-board 10/100 Mbps Ethernet
- On-board 4 COM ports sharing one IRQ
- On-board VGA/LCD display controller
- CompactFlash™ Card support
- Single +5 V power supply

Your ePlatform Partner

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Specifications

Standard SBC functions

- **CPU:** On-board NS GX1-300 processor
- **BIOS:** AWARD 256 KB Flash memory
- **Chipset:** Cyrix CX5530(A)
- **System Memory:** One 144-pin SO-DIMM socket. Accepts up to 256 MB SDRAM
- **Enhanced IDE HDD interface:** Supports up to two Enhanced IDE devices. Features BIOS auto-detect and Mode 3, 4 transfer, Ultra DMA 33 mode up to 33 MB/sec
- **FDD interface:** Supports up to 2 FDDs
- **Parallel port:** One parallel port supports SPP/EPP/ECP parallel modes
- **Serial ports:** Four serial RS-232 ports: COM1, 3, 4: RS-232; COM2: RS-232/422/485
- **Com ports share IRQ:** 4 com ports can share one IRQ
- **Watchdog timer:** Software enable/disable intervals at 1.6 seconds
- **Keyboard/mouse connector:** Mini-DIN connector for keyboard and PS/2 mouse
- **USB interface:** Two USB ports, USB 1.0 compliant
- **Infrared port:** Supports up to 115 Kbps transmitting rate
- **Power management:** APM 1.1 compliant power management
- **PC/104 expansion:** 104-pin 16-bit PC/104 module connector

Local-bus flat panel/VGA interface

- **Chipset:** NS CX5530(A)
- **Display memory:** 1 ~ 4 MB shared with system memory
- **Display type:** Simultaneously supports for CRT and 18-bit TFT
- LCD display (supports 3.3 V LCD)
- Resolution:
 - Non-interlaced CRT monitor resolution up to 1024 x 768 @ 16 bpp or 1280 x 1024 @ 8 bpp
 - Panel resolutions up to 1024 x 768 @ 18 bpp TFT panel

Solid State Disk

- Supports one 50-pin socket for Compact Flash card

LVDS Module (optional)

- **Chipset:** TI SN75LVDS84
- **Transmitting distance:** Over 5 meters
- 20-pin header supports 18-pin LVDS interface
- **Performance:** 18 low-voltage TTL data channels plus clock-in and 3 low-voltage data channels plus clock-out

Ethernet Interface

- **Chipset:** Realtek RTL8139
- **Ethernet interface:** IEEE 802.3u 100BASE-T
- **Connection:** On-board RJ-45 connector

Audio Interface

- **Chipset:** NS 5530(A)
- **Audio controller:** Support for AC97 PCI surround audio interface
- **Audio interface:** Mic in, line in, CD audio in, line & speaker out

Mechanical and environmental

- **Power requirements:**
 - Maximum: 5 V @ 4 A
 - Typical: +5 V @ 1.5 A
- **Dimensions:** 145 mm x 102 mm
- **Weight:** 0.22 kg (0.48 lbs)
- **Power supply voltage:** +5 V (4.75 ~ 5.25 V)
- **Operating temperature:** 0 ~ 60° C (32 ~ 140° F)
- **Operating humidity:** 0% ~ 90% Relative humidity noncondensing

Ordering Information

- PCM-5825F-G0A2
NS Geode SBC with GX1-300 CPU, 4 COMs, Audio, VGA/LCD and Ethernet
- PCD-100-0008/0016/0032/0064/0128/0192/0256
Compact Flash Card with 8/16/32/64/128/192/256 MB memory capacity
- 9689000065
32 MB SDRAM SODIMM
- 9689000061
64 MB SDRAM SODIMM
- 9689000215
128 MB SDRAM SODIMM