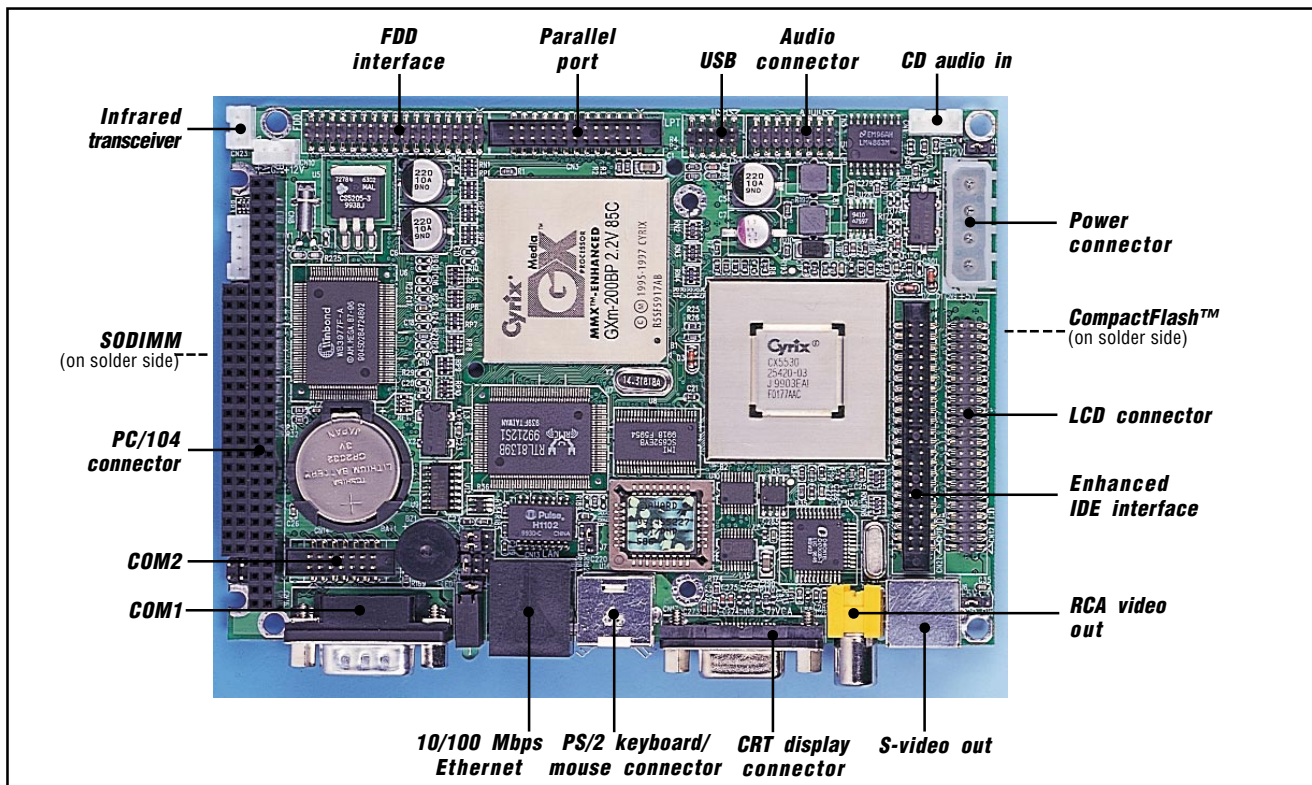


# PCM-5822

**NS Geode® SBC with CPU, TV-out,  
Audio, VGA/LCD and Ethernet**



## Introduction

Advantech's new PCM-5822 is a 3.5" SBC with an on-board, embedded 586 class NS GXLV-200 processor, GX1-233 or GX1-300 processor. Other on-board features include VGA/LCD, TV-out, Audio, a CompactFlash™ Card socket, and 10/100 Mbps Ethernet. This board is a feature-packed, 586-level, hassle-free solution for space critical applications that need TV out capability.

### **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 GXLV-200 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 GXLV-200, GX1-233 or GX1-300 CPU
- ◆ On-board 10/100 Mbps Ethernet
- ◆ On-board Audio interface
- ◆ On-board VGA/LCD display controller
- ◆ CompactFlash™ Card support
- ◆ Single +5 V power supply
- ◆ Provides TV out function, NTSC and PAL format.

## Specifications

### Standard SBC functions

- **CPU:** On-board NS GXLV-200 processor (PCM-5822-D0A1)  
On-board NS GX1-233 processor (PCM-5822-E0B1)  
On-board NS GX1-300 processor (PCM-5822-G0B1)
- **BIOS:** AWARD 256 KB Flash memory
- **Chipset:** Cyrix CX5530(A)
- **System Memory:** One 144-pin SO-DIMM socket. Accepts up to 128 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:** One RS-232, one RS-232/422/485
- **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 bppTFT panel

### Solid State Disk

- Supports one 50-pin socket for Compact Flash card

### TV-out

- **Chipset:** CHRONTEL CH7003C
- Supports NTSC, NTSC-EIA (Japan) and PAL TV formats
- Provides Composite, 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

### Ethernet Interface

- **Chipset:** Realtek RTL8139
- **Ethernet interface:** PCI 10/100 Mbps Ethernet, IEEE 802.3U protocol compatible
- **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 (for PCM-5822 with GXLV-200)  
+5 V @ 1.5 A (for PCM-5822 with GX1-300)  
+5 V @ 1.4 A (for PCM-5822 with GX1-233)
- **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-5822-D0A1**  
NS Geode SBC with GXLV-200 CPU, Audio, VGA/LCD, TV-out and Ethernet
- ☐ **PCM-5822-G0B1**  
Same as PCM-5822-D0A1 but with GX1-300 processor
- ☐ **PCM-5822-E0B1**  
Same as PCM-5822-D0A1 but with GX1-233 processor.
- ☐ **PCD-100-0008/0016/0032**  
Compact Flash Card with 8/16/32 MB memory capacity
- ☐ **9689000064**  
16 MB SDRAM SODIMM
- ☐ **9689000065**  
32 MB SDRAM SODIMM
- ☐ **9689000061**  
64 MB SDRAM SODIMM