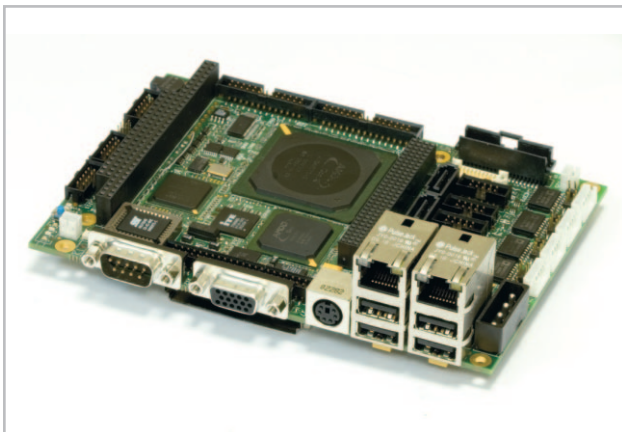


# CPB905

## 3.5" Highly Integrated SBC



### Features

- AMD Geode LX 800 (500 MHz)
- 256 MB DDR SDRAM
- 256 MB Flash disk
- CompactFlash Type I/II socket
- USB 2.0 support, up to four devices connection
- Two Ethernet controllers
- HDD connection: up to two devices
- FBUS devices connection port
- Seven COM ports
- Low power consumption
- Shock/vibration: 50G/5G
- Operating temperature range: -40°C to +85°C

### Overview

CPB905 is a 3.5" single board computer based on AMD LX800 (500 MHz) CPU with PC\104 support (32-bit PCI and 16-bit ISA).

All components, including CPU and memory are soldered onboard thus providing high vibration resistance. CPB905 has a rich set of interfaces: 2 Fast Ethernet ports, 7 COM ports (4 optoisolated), 4 USB 2.0 ports, supports video output on monitors with CRT, TFT, LVDS interfaces with resolution up to 1920×1440 pixels.

Power consumption of CPB905 module is just 6W, which makes it a perfect solution for systems with passive cooling.

CPB905 operates in industrial temperature (-40...+85°C) and supports Linux, Windows XP Embedded, QNX.

### System

- CPU: AMD Geode LX 800 (500 MHz): 32-bit x86 kernel, 64-bit coprocessor, 64-bit memory bus; 64 KB L1, 128 KB L2; MMX®, 3DNow!™ technologies support
- 256 MB DDR SDRAM
- MTBF: 120 000 hours

### BIOS

Flash BIOS

- General® Software
- 2×512 KB, reserved
- In-system modification

### Graphics

- Video controller: 2D accelerator, video memory up to 60 MB (shared with system)
- LCD (TFT or DSTN) panels support, resolution up to 1024×768 at 60 Hz, 24-bit color depth via TFT and LVDS interface
- RGB monitor support, resolution up to 1600×1200 at 85 Hz or 1920×1440 at 75 Hz, 32 bit

### Storage

- Flash disk: 256 MB, IDE interface
- CompactFlash Type I/II socket
- HDD connection: one primary channel (Parallel ATA), up to two devices connection, UltraDMA/100 support

### Software support

- MS® DOS®
- QNX® 6.3x, QNX® 4.25
- Windows® XPE, CE 5.0, CE 6.0
- RTOS32®
- Linux®

### Interfaces

- Two Ethernet controllers, 10/100 Mb/s
- USB 2.0 support, up to four devices connection
- Shared HDD controller and universal parallel port with EPP and ECP support share one connector
- Serial ports:

COM1, COM2: RS232, full control, up to 230 Kb/s  
COM3: RS232, TX/RX console, up to 230 Kb/s  
COM5-COM8: RS232, full control, up to 230 Kb/s, or isolated RS422/ RS485 up to 921 Kb/s

- Audio controller: AC-97 compatible, stereo line input/output, microphone input
- PS/2: keyboard and mouse port
- FBUS devices connection port
- LCD display and matrix keyboard socket
- External PME signal use: awakens a sleeping system in response to an external wake-up signal
- CMOS+SFRAM for storage of configuration parameters
- RTC with lithium battery
- Opto-isolated reset/interrupt
- Two watchdog timers: one programmable timer, one hardware based timer with fixed timeout period

### Mechanical

- Dimensions: 146×102 mm (5.7"×4.0")
- Weight: 0.220 kg

### Power requirements

- 5 V ± 5%, 1.2 A

### Environmental conditions

- Operating temperature range: -40°C to +85°C
- Storage temperature range: -55°C to +85°C
- Humidity: 0% to 95%, non-condensing
- Shock/vibration: 50G/5G

### Warranty

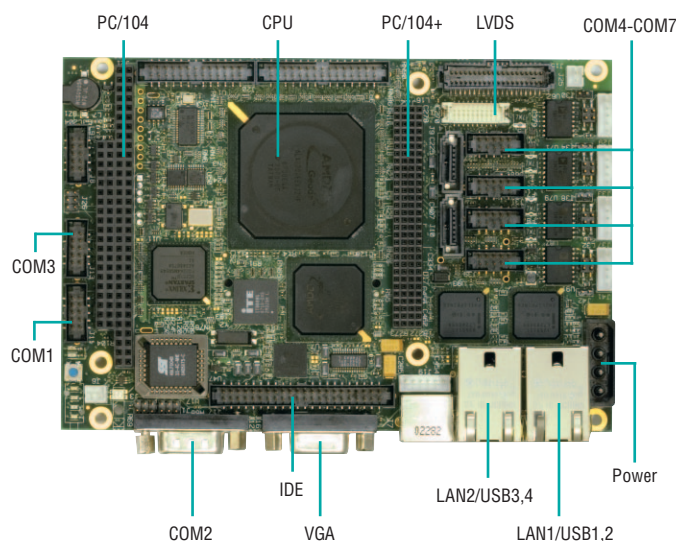
- 3 years for parts and labor

### List of deliverables

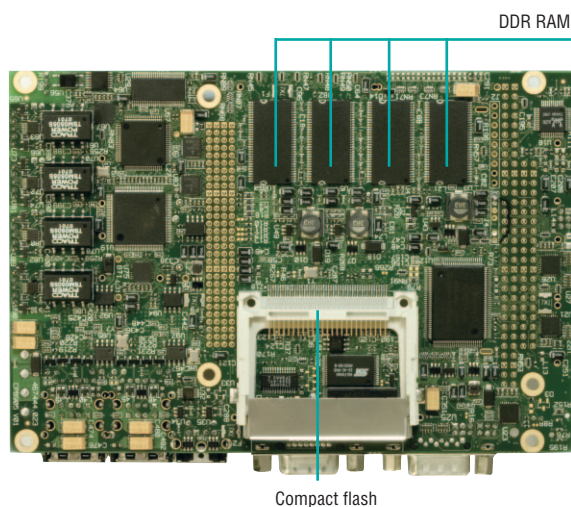
- CPB905 module
- Ribbon cable for 2.5" HDD connection, 44 threads
- Adapter for 3.5" HDD and CDROM drive connection
- IDC10-DB9 adapter cable for connection of a console to COM port
- CD with software and documentation
- Package

## Board Layout

Top view



Bottom view



## Ordering Information

### CPB905 Configuration

#### CPB905 - 01 \Options

##### Device Type

CPB905 3.5" AMD Geode LX800 500 MHz, 256 MB SDRAM, FFD 256 MB, Ethernet, 7xRS-232/422/485, -40...+85°C

##### Configurations

01 Two Ethernet, LVDS, COM1-COM3, COM5-COM8 (RS-232/422/485), 4 USB  
02 One Ethernet, COM1-COM3, 2 USB

##### Options

\xxx Choose available options from the table

### CPB905 Available Options

Compact Flash Module	
\CF1024	1024 MB Compact Flash, industrial
\CF2G	2 GB Compact Flash, industrial
\CF4G	4 GB Compact Flash, industrial
\CF8G	8 GB Compact Flash, industrial
\CF16G	16 GB Compact Flash, industrial
Coating	
\COATED	Protective coating
Operating System Presetting	
\DOS	MS DOS
\QNX	QNX 6.3, 4.25
\WCE	Windows CE 5.0, 6.0
\LNX	Linux 2.4.20

Other configurations and options are available upon request.

#### Example

##### CPB905-01\CF2G\COATED\WCE

3.5" AMD Geode LX800 500 MHz, 256 MB SDRAM, FFD 256 MB, Ethernet, 7xRS-232/422/485, -40...+85°C  
2 GB Compact Flash;  
Protective coating;  
Windows CE 5.0

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Product specifications are subject to change without notice