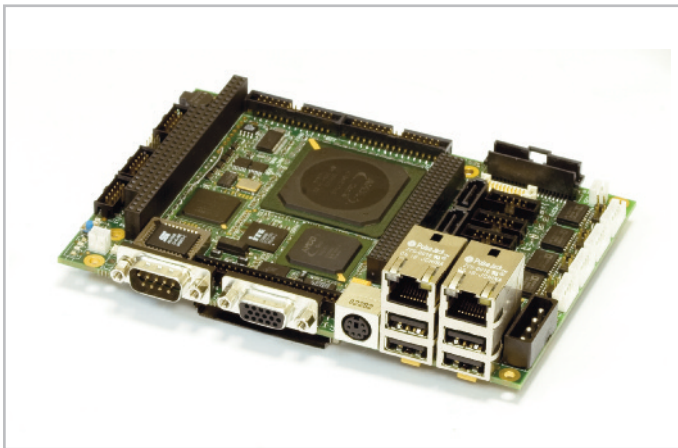


# CPB905

## 3.5" Highly Integrated SBC



### 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 1920x1440 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.

### 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

### Technical Specifications

#### 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
- 2x1024 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 1024x768 at 60 Hz, 24-bit color depth via TFT and LVDS interface
- RGB monitor support, resolution up to 1600x1200 at 85 Hz or 1920x1440 at 75 Hz, 32-bit

#### Storage

- Flash disk: 1GB, soldered, IDE interface
- CompactFlash Type I/II socket
- HDD connection: one primary channel (Parallel ATA), up to two devices connection, UltraDMA/100 support

#### Software support

- FreeDOS
- QNX 6.5.0, QNX 4.25
- Windows XPe
- Linux 2.6

#### 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: RS-232, full control, up to 230 Kb/s
  - COM3: RS-232, TX/RX console, up to 230 Kb/s
  - COM5-COM8: RS-232, full control, up to 230 Kb/s, or isolated RS-422/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: 108x149,7x40,1 mm
- Weight: 0.3 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

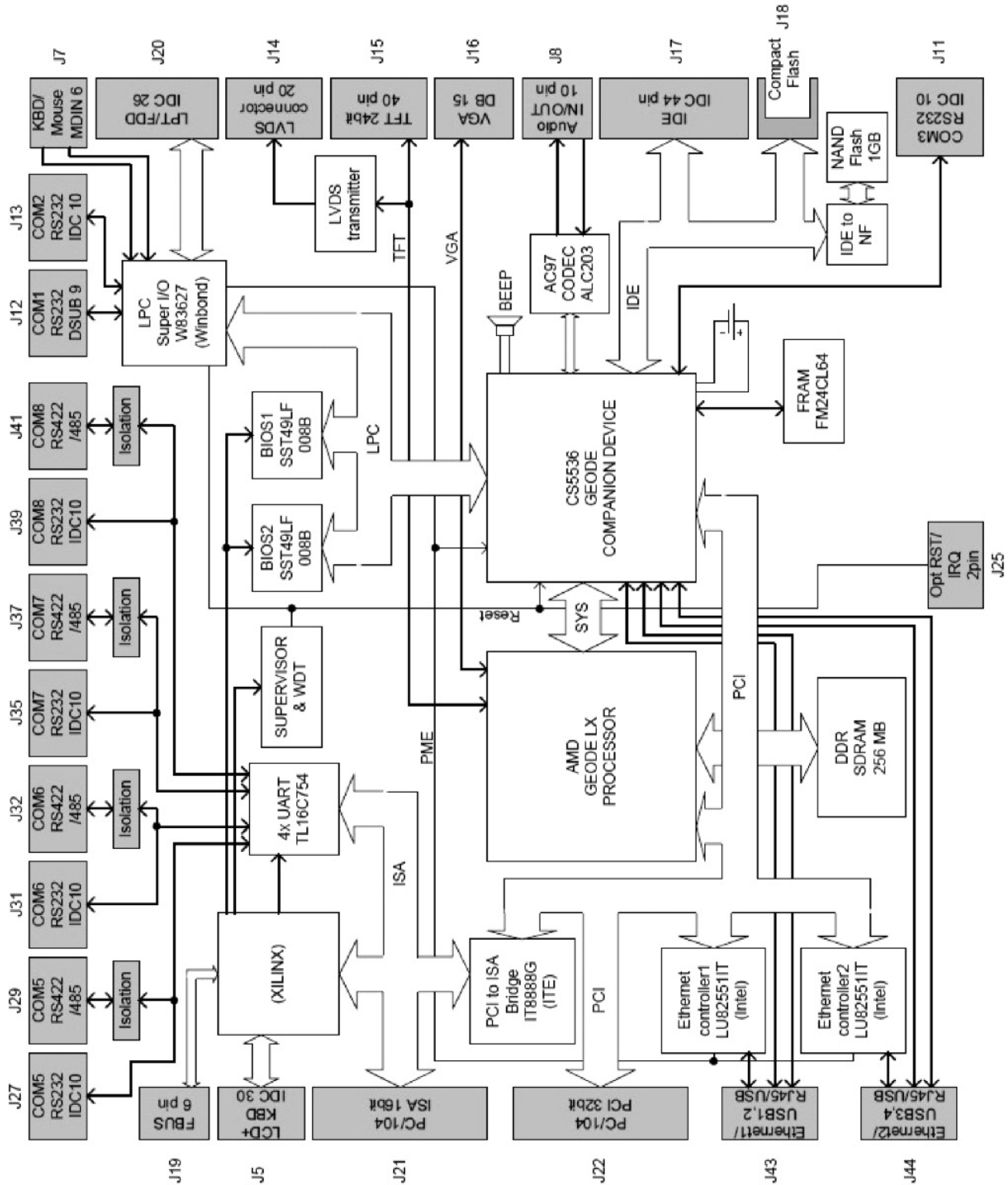
#### List of deliverables

- 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

# CPB905

## 3.5" Highly Integrated SBC

### Board Layout



# CPB905

## 3.5" Highly Integrated SBC

### Ordering Information

### CPB905 Configuration

#### CPB905 - 01 \Options

##### Configurations

01 256 MB DDR RAM/ 1GB NAND Flash/ Compact Flash/ IDE/  
2×Ethernet/ 4×USB 2.0/ 3×RS-232/ 4×RS-422/485/232/  
TFT/ LVDS/ VGA/ LCD/MTX KBD

##### Options

\LNX Module's option with the preinstalled OS Linux 2.6  
\WXPe Module's option with the preinstalled OS Windows XPe

#### Additional accessories and cables

1. ACS00023 – cable-adapter for connection to COM2, COM3 (DB9M – IDC10)
2. ACS00031-01 – Socket with contacts PHR-5 (RS-422/485)
3. ACS00031-02 – Socket with contacts PHR-6 (FBUS)
4. ACS00031-03 – Socket with contacts PHR-2 (Opoto Reset/IRQ, Reset)
4. ACS00037 – Socket with contacts DF13 (LVDS)
5. ACS00040-01 – Socket IDC-10 (Audio, COM2, COM3, COM5-COM8)
6. ACS00040-03 – Socket IDC-26 (LPT/FDD)
7. ACS00040-05 – Socket IDC-44 (IDE)
8. CDM02 – Module-adapter for connection of HDD 3.5" and CD-ROM
9. ACS00010 – Cable for the connection of HDD 2,5" to 44-pin contact

#### Delivery checklist

1. CPB905 Single Board Computer
2. Packaging

### Corporate Offices

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Ver. 1.12.2015

Product specifications are subject to change without notice



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