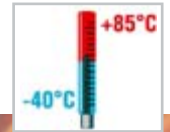


CPC303

PC/104 SBC with SVGA, Ethernet, CAN



**Best solutions
to fit your demands!**

- AMD Geode™ GX1/300 MHz
- Compact and powerful
- Rugged and cost-effective
- Ethernet and USB ports
- Fanless operation
- Operating temperature range:
-40°C to +85°C
- Dual CAN 2.0B interface



Features

- AMD Geode™ GX1 300 MHz processor
- Flash disk and SDRAM soldered onboard
- CRT and flat panel support
- 2 USB 1.0 ports
- Fast Ethernet, 2xCOM ports
- 2 channels of CAN 2.0B
- Operating temperature: -40°C to +85°C

Overview

CPC303 is a PC/104 CPU board designed for various embedded applications. It is based on AMD Geode™ GX1 300 MHz processor, which has low power consumption and high performance.

Both CPU and 32/128MB SDRAM are soldered onboard thus providing excellent shock/vibration resistance.

16 MB solid-state disk is also soldered onboard. An embedded OS like Windows CE can be installed on it making the board a turn key solution without any removable storage media.

Watchdog, "FastBoot" feature and reserved BIOS make CPC303 highly reliable board for mission critical and unattended applications.

Fast Ethernet port allows CPC303 to be easily incorporated in local area network.

CAN fieldbus support makes CPC303 suitable as a platform for real-time automotive, process control and data acquisition systems.

The board withstands high shock and vibration and operates in temperature ranges from -40°C to +85°C.

Technical Specifications

System

- Processor: Geode™ GX1/300 MHz with low-voltage core
- Chipset: CS5530A I/O companion
- 32/128 MB SDRAM soldered onboard
- Watchdog timer: fixed timeout 1.6 s
- Internal real time clock with Li battery
- MTBF: 240000 hours

BIOS

Fastwel™ Software BIOS in flash memory with backup copy

- Support for console operation via COMx ports
- In-system modification
- FastBoot™ feature – BIOS POST and DOS boot time is about 1.5 s
- SafeBoot™ feature – watchdog timer enabled during BIOS POST and DOS boot
- Backup copy of CMOS setup in serial EPROM

Graphics

- Integrated CRT/LCD SVGA controller
- Up to 4 MB shared display memory
- Built-in 2D-accelerator;
- Non-interlaced CRT monitors, resolutions up to 1024×768 @ 16 bpp and 1280×1024 @ 256 colors
- TFT panel support, resolution up to 1024×768 @ 18 bpp

Storage

- 16 MB Solid State Disk soldered on-board
- CompactFlash™ Type I/II socket on board, support for MicroDrive™, up to 4 GB
- EIDE: handles up to two IDE devices, PIO mode 4, UltraDMA/33
- Floppy disk interface

Software Support

- Fastwel DOS™ (MS™ DOS compatible)
- Windows 2000, CE 5.0
- QNX V4.20, 6.0®
- Linux®
- VxWorks®

Interfaces

- 10/100 BaseT Fast Ethernet controller
- Dual CAN 2.0B interface
- Two USB 1.0 ports
- Serial ports: COM1 – RS-232, COM2 – RS-232/RS-422/RS-485/IR; 15 kV ESD protection (IEC1000-4-2)
- Parallel port: SPP/ECP/EPP compatible
- PS/2 keyboard and mouse interface
- AC'97 compliant built-in audio controller
- Optoisolated remote reset
- PC speaker

Mechanical

- Dimensions: 90.2 × 95.9 mm (3.6" × 3.8")
- Weight: 0.130 kg

Power Requirements

- +5 V ±5% @ 0.8 A (133 MHz)
- +5 V ±5% @ 1.2 A (300 MHz)

Environmental Conditions

- Operating temperature: -40°C to +85°C
- Storage temperature: -55°C to +95°C
- Humidity: RH up to 95% @ 25°C, noncondensing
- Shock/Vibration: 20G/5G
- Altitude: up to 15000 m

Warranty

- 3 years for parts and labor

List of deliverables

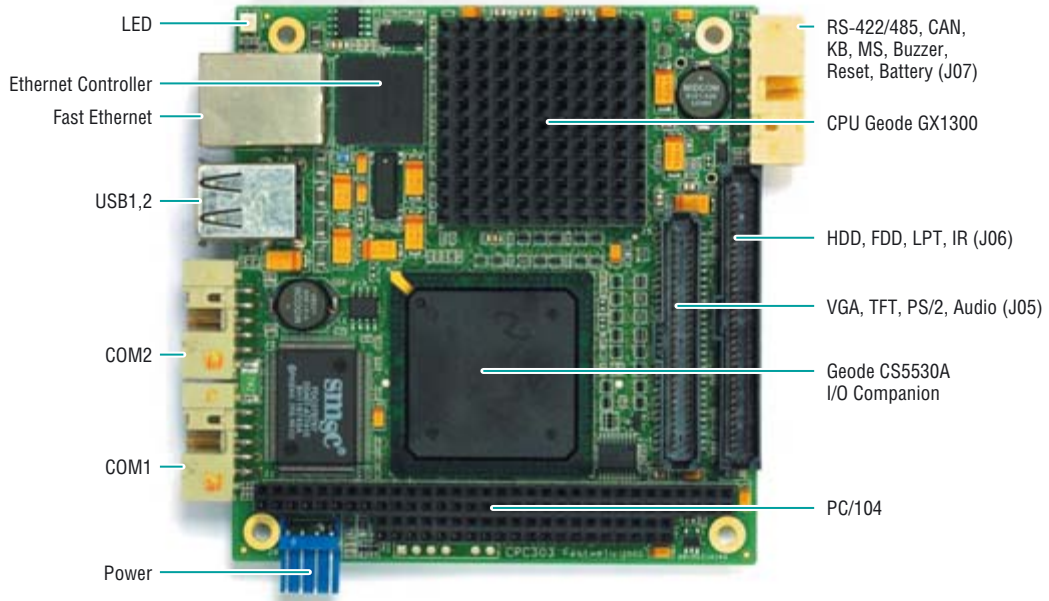
- CPC303 module
- CD-ROM with documentation and service SW

CPC303

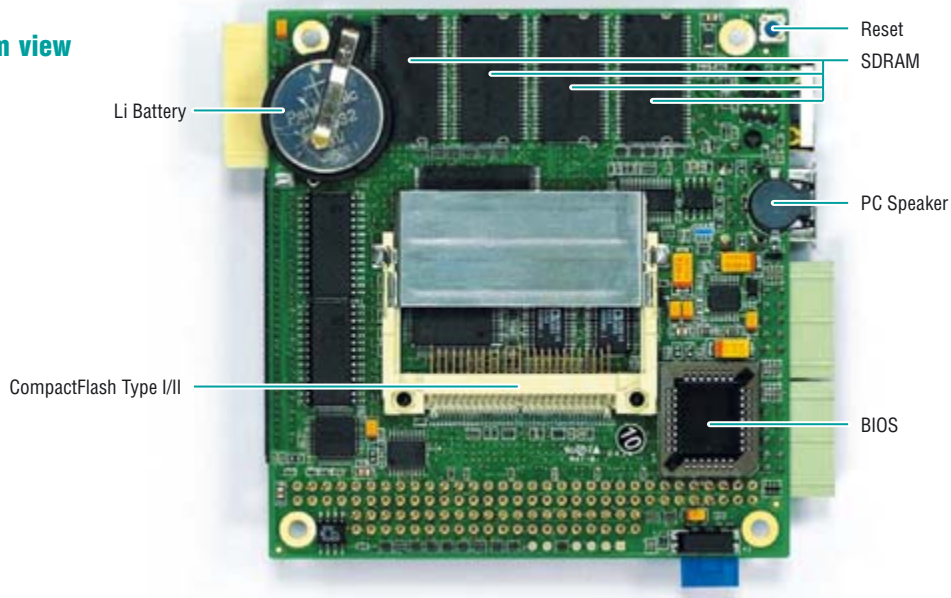
PC/104 SBC with SVGA, Ethernet, CAN

Board Layout

Top view



Bottom view

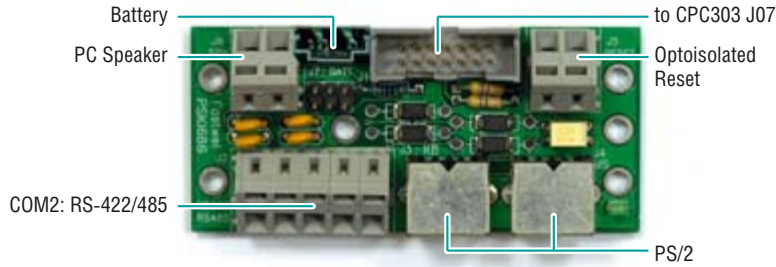


System Expansion Capabilities



KIB980, KIB981, KIB982, KIB985 are interface expansion modules designed for use with the processor module CPC303. Each of them can be supplied separately to increase the CPC303 input-output capability. All interface modules come with DIN-rail adapters.

KIB980 Interface Module



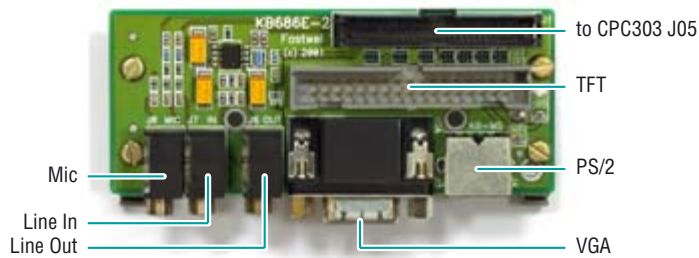
Interfaces

- COM2 interface: RS-422/RS-485
- PS/2 keyboard/mouse connector
- Optoisolated remote Reset connector
- PC speaker connector
- External battery connector

Mechanical

- Dimensions: 77.5 × 35.6 mm
- Weight: 0.030 kg

KIB981 Interface Module



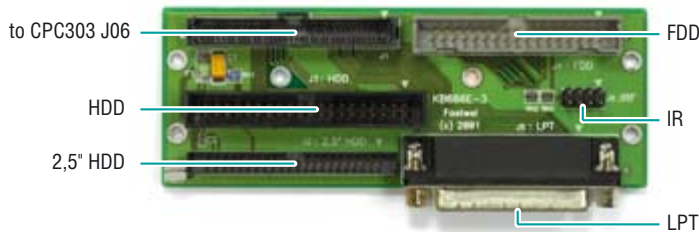
Interfaces

- TFT panel connector
- VGA connector
- PS/2 keyboard/mouse connector
- Audio connectors: Line Out, Line In, Microphone

Mechanical

- Dimensions: 95.2 × 39.4 mm
- Weight: 0.045 kg

KIB982 Interface Module



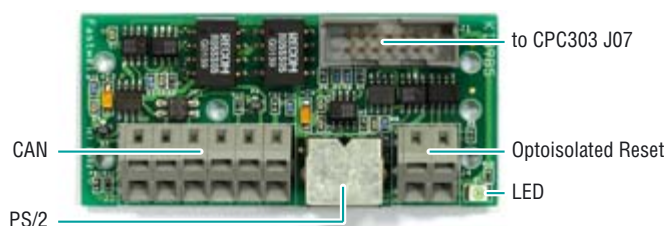
Interfaces

- 1.8"/2.5" HDD header
- IDC HDD header
- Floppy drive connector
- LPT connector
- Infrared connector

Mechanical

- Dimensions: 119.5 × 44.5 mm
- Weight: 0.045 kg

KIB985 Interface Module



Interfaces

- CAN 2.0B interface (two channels)
- PS/2 keyboard/mouse connector
- Optoisolated remote Reset connector

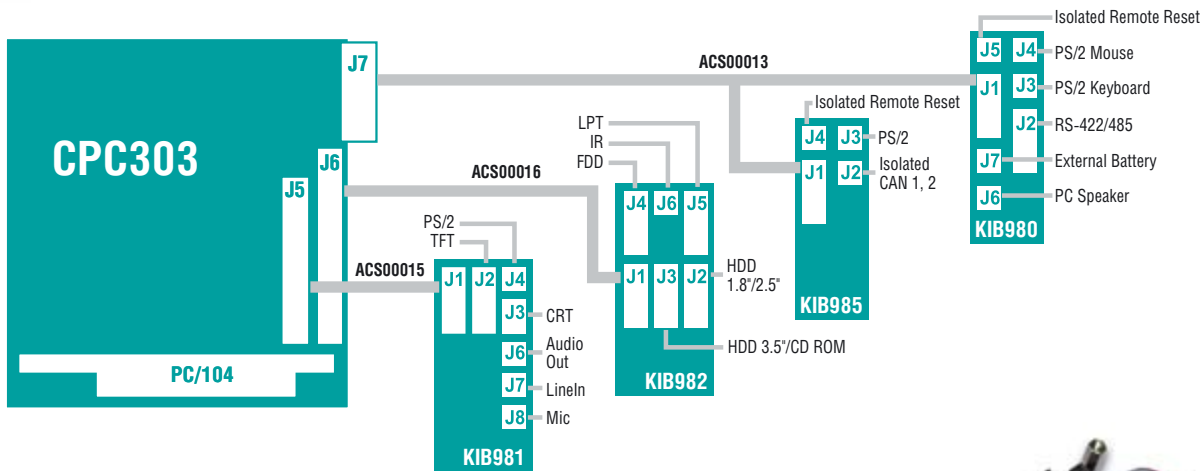
Mechanical

- Dimensions: 77.5 × 35.6 mm
- Weight: 0.025 kg

CPC303

PC/104 SBC with SVGA, Ethernet, CAN

Expansion options



The picture shows KIB 981 mounted above CPC303 in the same PC/104 card stack



Ordering Information

CPC303 Configuration

CPC303 - 01 - \Options

Device Type

CPC303 PC/104 CPU Card GX1-300, SDRAM, FFD 16MB, VGA, TFT, LAN, USB, COM, RS-422/485, CAN, LPT, Audio, KB, MS, PC/104 connector; -40...+85°C

Configurations

01 32 MB Soldered Memory
02 128 MB Soldered Memory

Options

\xxx Choose available options from the table

CPC303 Available Options

Compact Flash Module	
\CF256	256 MB Compact Flash, industrial (CF256C – commercial)
\CF512	512 MB Compact Flash, industrial (CF512C – commercial)
\CF1024	1024 MB Compact Flash, industrial (CF1024C – commercial)
\CF2G	2 G Compact Flash, industrial (CF2GC – commercial)
\CF4G	4 G Compact Flash, industrial (CF4GC – commercial)
\CF8G	8 G Compact Flash, industrial (CF8GC – commercial)
\CF16G	16 G Compact Flash, industrial (CF16GC – commercial)
Coating	
\COATED	Protective Coating
Operating System Presetting	
\VDOS	Fastwel DOS
\QNX	QNX 6
\WCE	Windows CE 5.0
\LNX	Linux 2.4.20

Other configurations and options are available upon request.

Example

CPC303-02\CF128\COATED\WCE

PC/104 CPU Card GX1-300, 128 MB SDRAM, FFD16MB, CF128MB, VGA, TFT, LAN, USB, COM, RS-422/485, CAN, LPT, Audio, KB, MS, PC/104 connector;
Temperature range -40...+85°C
512 MB Compact Flash
Protective Coating
Windows CE

CPC303

PC/104 SBC with SVGA, Ethernet, CAN

Applications



Avionics



Mobile



Space



Embedded



Industrial Automation



Transportation

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