

# CPB902

3.5" Highly Integrated Low Power SBC



## Features

- STPC Vega 200 MHz CPU onboard
- Up to 128 MB SDRAM soldered onboard
- Two Fast Ethernet ports
- Six COM ports
- Two USB ports
- PC/104 expansion bus
- SVGA
- Flash disk
- Low power consumption
- Operating temperature range: -40°C to +85°C

## Overview

CPB902 is a sub-compact single board computer with full PC functionality. The board is based on STPC Vega 200 MHz CPU with 32/128 MB of SDRAM.

All components including CPU, SDRAM and 16 MB solid-state disk are soldered onboard thus providing superior shock/vibration resistance.

Two Fast Ethernet, six COM and two USB ports enable CPB902 to communicate with various peripheral devices.

CPB902 has soldered solid state disk and CF socket as onboard storage options, and one ATA interface for external HDD connection.

The board has very compact size (107×147 mm) and has only 6 watt of power consumption, which makes it highly suitable for embedded and mobile designs.

The board can withstand shock up to 50g and vibration up to 5g in 3 dimensions while operating under temperatures from -40°C to +85°C.

## System

- STPC Vega 200 MHz CPU, 32-bit x86 PII core, 64-bit coprocessor, 64-bit memory bus
- 32/128 MB soldered DDR SDRAM system memory
- Two watchdog timers with LED indication
- Real time clock with Li battery
- System configuration settings stored in CMOS+SFRAM
- Saving essential user data in SFRAM in case of power failure
- MTBF: 200000 hours

## BIOS

- Flash-based BIOS
- Reserved BIOS
- System parameters saving in emergency cases
- In-system modification

## Graphics

- Video memory 8 MB
- Analog display support
- LCD (TFT or DSTN) panels support, resolution up to 1024×768
- DualApp and DualView modes support
- LVDS interface

## Storage

- 16 MB solid-state disk (up to 1 GB upon OEM request) soldered onboard
- CompactFlash™ Type I/II socket
- One ATA/66 interface
- Floppy disk interface

## Software support

- Fastwel DOS™ (MS™ DOS compatible)
- Windows 2000
- QNX® V4.20, 6.0®
- RTOS32
- Linux®
- Windows CE

## Technical Specifications

### Interfaces

- Two Fast Ethernet ports 10/100 Mb/s
- Two USB 1.1 channels
- PC/104 header
- Six serial ports: COM1 – RS-232, 3 wires; COM2 – RS-232, complete; COM3-COM6 – RS-232/422/485; high speed NS16C550 compatible, 921 Kb/s; FIFO buffer for each channel 64 bytes
- Parallel port: SPP/ECP/EPP compatible; connector shared with FDD
- PS/2 keyboard and mouse interface
- LCD display and matrix keyboard ports
- Opto-isolated remote Reset/IRQ
- FBUS port; Fastwel-I/O modules support
- Two user LEDs

### Mechanical

- Dimensions: 107 × 147 mm (4.1" × 5.7")
- Weight: 0.220 kg

### Power requirements

- 5 V @ 1.2 A (Max power consumption)

### Environmental conditions

- Operating temperature: -40°C to +85°C
- Storage temperature: -55°C to +85°C
- Humidity: 0% to 95%, noncondensing
- Shock/Vibration: 50G/5G

### Warranty

- 3 years for parts and labor

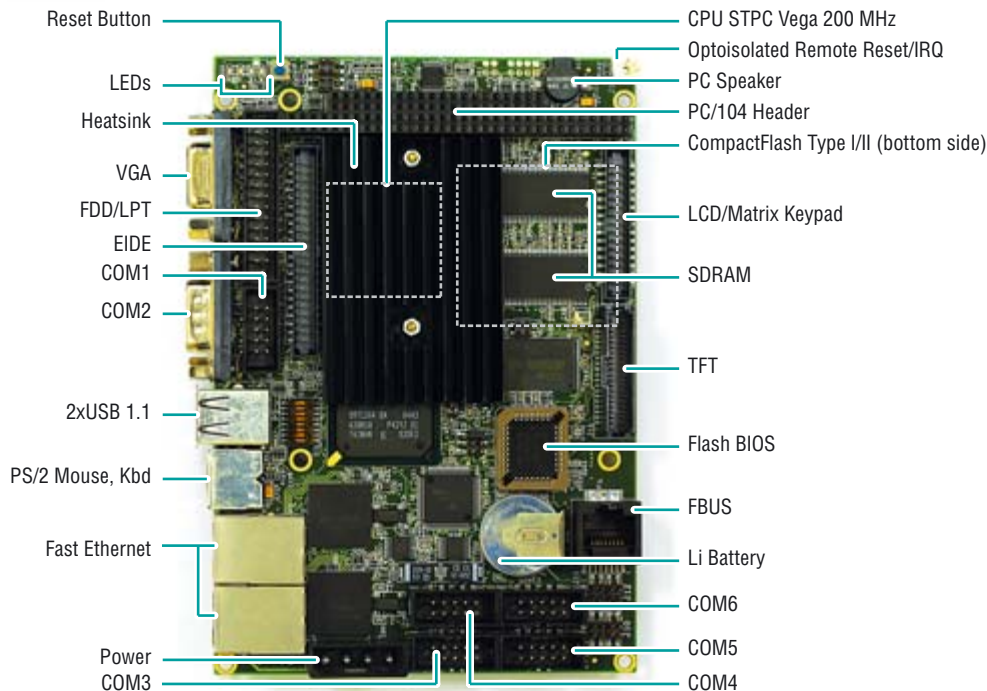
### List of deliverables

- CPB902 module
- Mounting accessories set
- CD-ROM with documentation and service SW

# CPB902

3.5" Highly Integrated Low Power SBC

## Board Layout



## Ordering Information

### CPB902 Configuration

#### CPB902 - 01 - \Options

##### Device Type

CPB902 STPC Vega 200 MHz; SDRAM; FFD 16 MB; 2xFast Ethernet; 6xRS-232/422/485, -40...+85°C

##### Configurations

04 128 MB RAM, SVGA  
05 32 MB RAM, no SVGA

##### Options

\xxx Choose available options from the table

#### Example

##### CPB902-04\CF512\COATED\WCE\CC902

STPC Vega 200 MHz; 128 MB SDRAM; FFD 16 MB; 2xFast Ethernet; SVGA; 6xRS-232/422/485; -40...+85°C  
512 MB Compact Flash;  
Protective coating;  
Windows CE;  
Mounting cage

### CPB902 Available Options

Compact Flash Module	
VCF256	256 MB Compact Flash, industrial
VCF512	512 MB Compact Flash, industrial
VCF1024	1024 MB Compact Flash, industrial
VCF2G	2 G Compact Flash, industrial
VCF4G	4 G Compact Flash, industrial
VCF8G	8 G Compact Flash, industrial
VCF16G	16 G Compact Flash, industrial
Coating	
\COATED	Protective coating
Operating System Presetting	
\VDOS	Fastwel DOS
\QNX	QNX 6
\WCE	Windows CE
\LNX	Linux 2.4.20
Accessories	
CC902	Mounting cage. Can be installed into a cabinet or on a DIN-rail. Allows installation of one PC/104 expansion module and PS 902
PS902	DC-DC converter, 18-36 V to +5 V
ACS00011	FCD25F LPT connection cable, IDC26 DB25
ACS0002	FC26-60 FDD connection cable, IDC26 IDC26
CDM01	FDD connection adapter
CVM01	VGA monitor or TFT/STN panel adapter module
CVM02	Sharp LQ104V1DG51 LCD panel connection module

Other configurations and options are available upon request.

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Product specifications are subject to change without notice

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