

Features

- Intel® Pentium® M processor up to 2.0 GHz and 1 GB PC4200 DDR2 DRAM soldered on board
- Built-in solid-state disk up to 32 MB soldered on board
- Six USB 2.0 ports
- Two Serial ATA channels
- Two Gigabit Ethernet ports
- Two independent CRT/LVDS displays
- PC/104 modules support
- Shock and vibration resistant
- Conduction or convection cooling
- Operating temperature:
 - 0°C to +70°C — commercial
 - 40°C to +85°C — industrial

Overview

CPC1600 is a PC/104-Plus single board computer designed for mission critical embedded systems.

The board is based on Intel® Pentium® M processor up to 2.0 GHz, 915GM & ICH6M chipset.

All components including memory are soldered onboard thus providing superior shock/vibration standing construction.

The board also has a 32 MB solid-state disk for embedded OS.

Video system supports CRT-monitors and flat panels with LVDS interface with resolution up to 2048×1536.

Peripheral devices can be connected to CPC1600 through 6 high-speed USB 2.0 channels.

Two Gigabit Ethernet channels make this board perfect for developing communication intensive applications.

The board supports drives with IDE UltraATA/100, SerialATA interfaces and CompactFlash Cards.

The board is available in conduction or convection cooling versions.

Additional reliability of CPC1600 is provided by the hardware monitoring subsystem, watchdog timer and reserved CMOS memory.

The board is available in two versions – for industrial temperature range (-40°C to +85°C) and for commercial temperature range (0°C to +70°C).

Technical Specifications

System

- Intel® Pentium® M processor up to 2.0 GHz
- Up to 2 MB L2 cache memory at CPU speed
- 400/533 MHz processor system bus
- Chipset: 915GM GMCH & ICH6M
- Up to 1 GB PC4200 DDR2 DRAM soldered onboard
- MTBF: 130 000 hours

BIOS

- Phoenix® BIOS with backup copy
- LAN Boot
- USB Boot
- Multi Boot
- Quick Boot
- ACPI 3.0
- Reserved CMOS memory

Graphics

- Video controller integrated in 915GM
- Video memory up to 64MB shared with system
- Analog display interface supports resolution up to 2048×1536 @ 75 Hz
- VGA-CRT and LVDS headers

Storage

- IDE Ultra ATA/100 interface
- Compact Flash card Type I/II socket
- Solid-state disk up to 32 MB
- Two Serial ATA channels, sockets for standard SATA interface cable

Heatsink options

Software support

- Windows XP®, XPE
- QNX V4.20, 6.0®
- Linux® 2.4.20, 2.6.11
- Windows CE

Interfaces

- Two PCI-E Gigabit Ethernet ports 10/100/1000 Mb/s
- Six USB 2.0 ports
- 32-bit 33MHz (3.3/5 V) PCI interface
- 16-bit ISA interface
- Eight programmable I/O lines

Mechanical

- Dimensions: 115.5×96 mm (4.4"×3.7")
- Weight: 0.120 kg

Power requirements

- 5 V ±5%

Environmental conditions

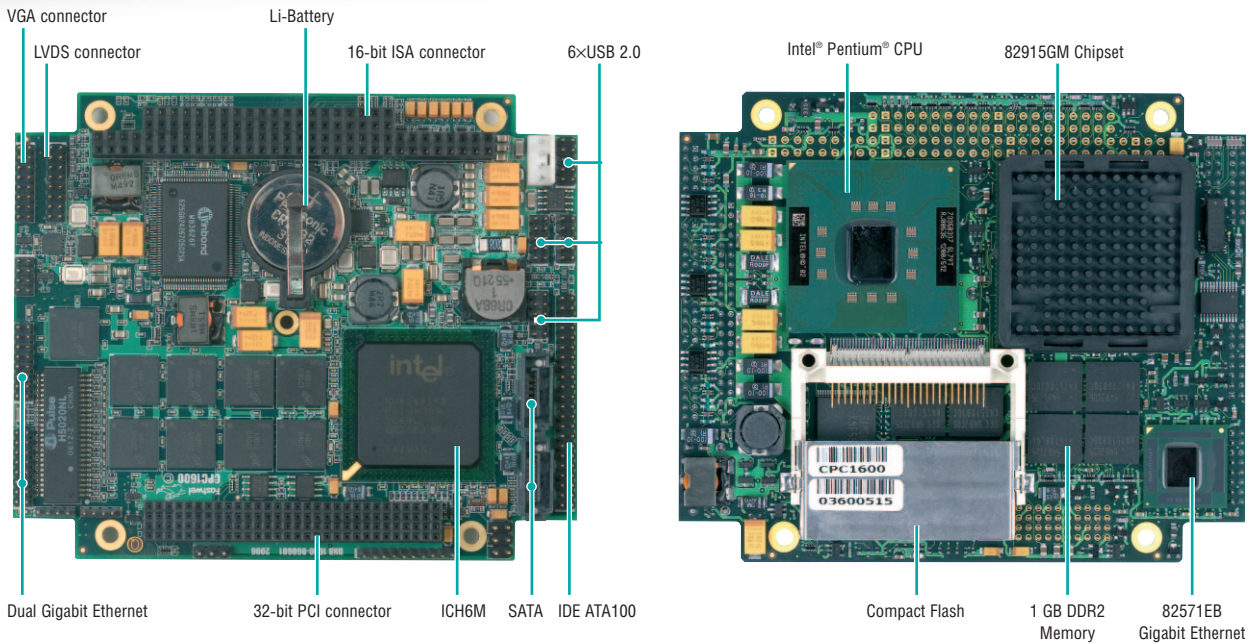
- Operating temperature:
 - 40°C to +85°C — industrial
 - 0°C to +70°C — commercial
- Storage temperature: -55°C to +95°C
- Humidity: 0% to 95%, noncondensing
- Shock/Vibration: 50G/2G
- Cooling: convection or conduction

Warranty

- 3 years for parts and labor



Board Layout



List of deliverables

- CPC1600 with heatspreader
- Connecting cables set
- 44-thread IDE cable
- SATA cable
- Adapter cables set
- Mounting screws set
- CD-ROM with documentation and service SW
- Accessories: radiator with fan

Ordering Information

CPC1600 Configuration

CPC1600 - 01 - P2.0 - RAM1024 - C \Options

Device Type

CPC1600 PC/104-Plus, Intel® Pentium® M, Intel® 915GM, DDR2, SVGA, SATA, 2xGigabit LAN

Processor

C1.0 Celeron M 1.0 GHz, LV, 400 MHz FSB
P1.4 Pentium M 1.4 GHz, 400 MHz FSB

Soldered Memory

RAM1024 1024 MB Soldered DDR2 SDRAM

Temperature Range

I Industrial Range, -40...+85°
C Commercial Range, 0...+70°

Options

\xxx Choose available options from the table

CPC1600 Available Options

Compact Flash Module	
\CF1024	1024 MB Compact Flash, industrial (CF1024C – commercial)
\CF2G	2 GB Compact Flash, industrial (CF2GC – commercial)
\CF4G	4 GB Compact Flash, industrial (CF4GC – commercial)
\CF8G	8 GB Compact Flash, industrial (CF8GC – commercial)
\CF16G	16 GB Compact Flash, industrial (CF16GC – commercial)
Coating	
\COATED	Protective coating
Operating System Presetting	
\XPE	Windows XP Embedded
\QNX	QNX 4.20, 6.0
\WCE	Windows CE
\LNX	Linux 2.4.20, 2.6.11

Other configurations and options are available upon request.

Example

CPC1600-01-P1.4-RAM512-C\CF1024C\COATED\XPE

PC/104-Plus, Intel® Pentium® M, Intel® 915GM, DDR2, SVGA, SATA, 2xGigabit LAN.
Pentium M 1.4 GHz, 400 MHz FSB
1024 MB soldered DDR2 SDRAM
Commercial temperature range 0...+70°C
1024 MB Compact Flash, commercial
Protective coating
Windows XP Embedded

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