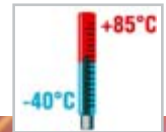


CPC1300

COM Express based on Intel® Pentium® M Module



**Best solutions
to fit your demands!**

- Intel® Pentium® M/Intel® Celeron® M processor up to 1 GB DDR2 SDRAM 400/533 MHz dual channel memory
- Gigabit Ethernet port
- LVDS display connector (resolution up to 2048×1536@75Hz)
- x16 PCI Express graphics interface
- Four x1 PCI Express
- Eight USB 2.0 ports
- Four Serial ATA, one IDE Ultra ATA/100 interface
- Operating temperature:
0°C to +70°C — commercial
-40°C to +85°C — industrial



Features

- Intel® Pentium® M/ Intel® Celeron® M processor up to 1 GB DDR2 SDRAM 400/533 MHz dual channel memory
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 - 0°C to +70°C — commercial
 - 40°C to +85°C — industrial

Overview

CPC1300 is a COM Express Module.

Based on Intel® Pentium® M/Intel® Celeron® M processors up to 2 GHz with 400/533 MHz front side bus and Intel chipset comprising 915GM GMCH and ICH6. Memory interface supports DDR2 SDRAMs through one SODIMM socket with capacity of up to 1 GB.

Multimedia functions are supported by interfaces for CRT-monitor, flat panels with dual LVDS interface and AC'97 audio codec. External graphic adapters can be connected through x16 PCI Express interface.

Gigabit Ethernet channel makes this board perfect for developing communication intensive applications.

Peripheral devices can be connected to CPC1300 through PCI Express interfaces, 8 high-speed USB 2.0 ports, LPC, AC'97.

CPC1300 storage subsystem supports four SATA and one IDE Ultra ATA/100 disk drives.

CPC1300 supports Suspend-to-RAM mode.

Fastwel also provides design kits (with KIB 1280/1282 and accessories) which complete and expand boards functionality.

Additional reliability of CPC1300 is provided by hardware monitoring, watchdog timer, reserved CMOS memory and a set of system monitoring features.

CPC1300 operates in industrial (-40°C to +85°C) and commercial (0°C to +70°C) temperature ranges.

Technical Specifications

System

- CPUs:
 - Intel® Pentium® M processor up to 2.26 GHz with 2 MB Level 2 Cache Memory and 400/533 MHz front side bus
 - Intel® Celeron® M processor up to 1.6 GHz with 400 MHz front side bus
- Chipset: 915GM GMCH & ICH6
- Up to 1 GB DDR2 PC4200 SDRAM, SODIMM socket
- CPU temperature and voltage control sensors
- Reserved CMOS memory
- MTBF: 170 000 hours

BIOS

Phoenix® BIOS with

- LAN Boot
- USB Boot
- Multi Boot
- Quick Boot

Graphics

- Video controller integrated into 915GM
- Video memory up to 64 MB shared with system
- Analog display interface supports resolutions up to 2048×1536 @ 75 Hz
- TV-Out

Storage

- One IDE Ultra ATA/100 interface connector
- Four Serial ATA interfaces

Software support

- Fastwel DOS™ (MST™ DOS compatible)
- Windows XP Embedded
- Linux® 2.6.11

I/O Interfaces & Expansion

- One Gigabit Ethernet port 10/100/1000 Mb/s
- One x16 PCI Express interface
- PCI Express interface configurable to 4 x1 or 1 x4
- 32-bit PCI interface
- AC'97 interface
- LPC interface
- Express Card interface support
- Eight USB 2.0 ports

Mechanical

- Dimensions: 95×125 mm (3.74"×4.92")
- Weight: 0.15 kg

Power requirements

- +12 V @ 3 A and +5 V @ 1 A

Environmental conditions

- Operating temperature:
 - 40°C to +85°C — industrial
 - 0°C to +70°C — commercial
- Storage temperature: -50°C to +95°C
- Humidity: 95% noncondensing
- Shock/Vibration: 50G/2G
- Cooling: heat spreader

Compliance

- PICMG COM.0. COM Express Module Base Specification Rev. 1.0. Pin-out type 2

List of Deliverables

- CPC1300 Module
- Screws set
- Heatsink for CPU and GMCH hub
- CD with drivers and documentation

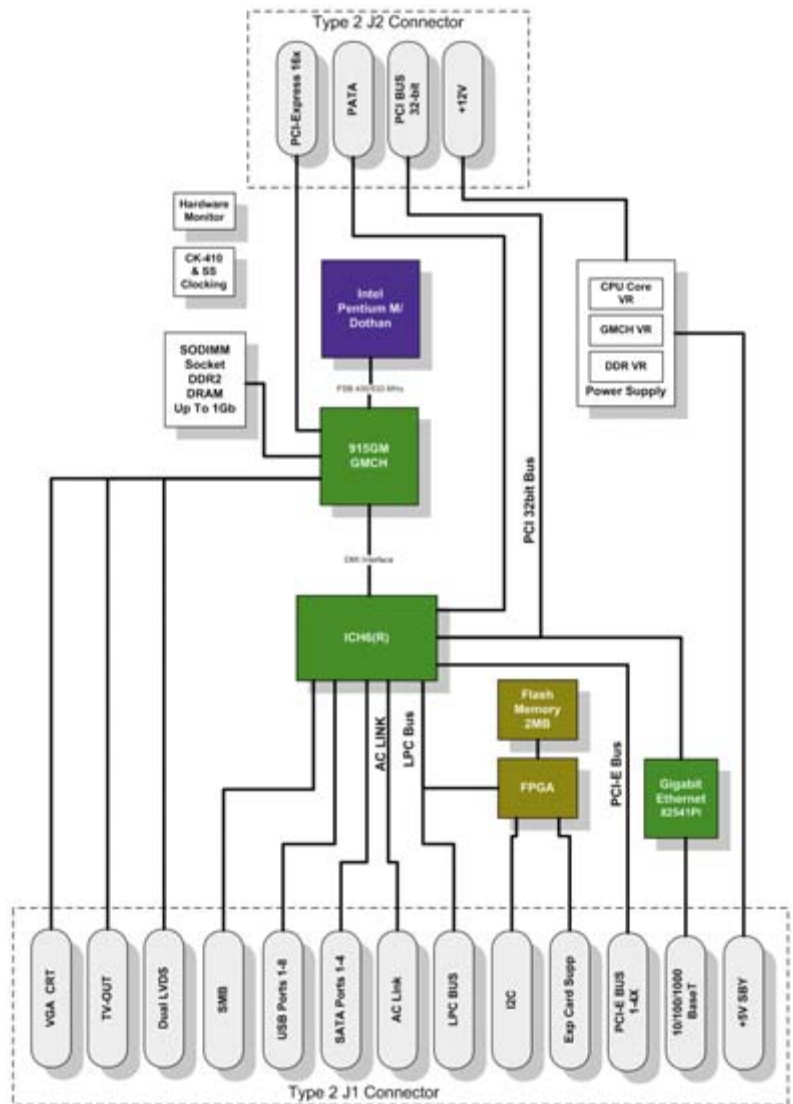
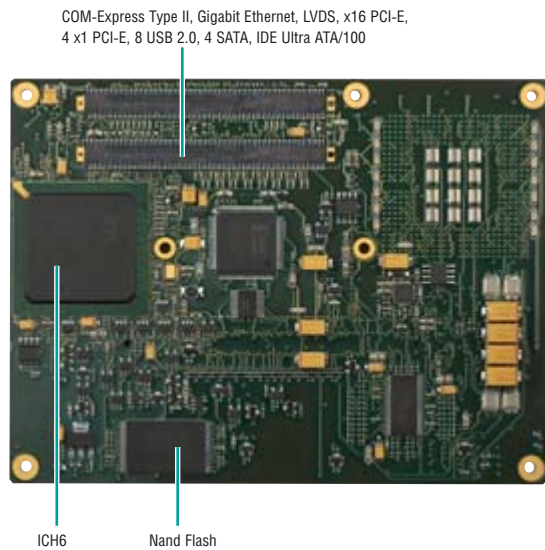
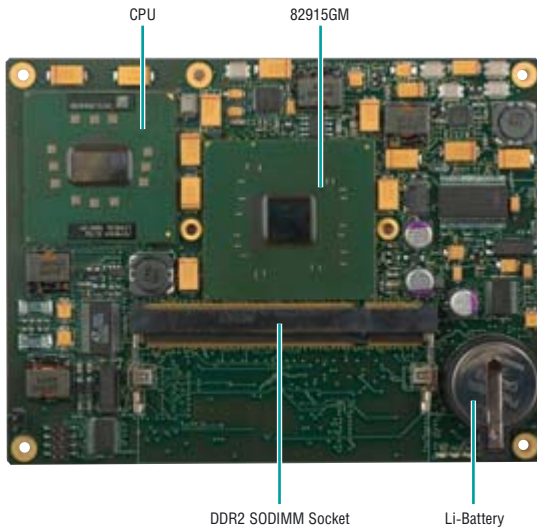
Warranty

- 3 years for parts and labor

CPC1300

COM Express based on Intel® Pentium® M Module

Board Layout



KIB1280

ATX form-factor compliant carrier board for ComExpress/ComExpress Extended Type II pinout modules.

Interfaces

- VGA, S-Video, LVDS
- 1xGbEthernet 10/100/1000-Base-T RJ45
- 1x16 PCI Express, 3x1 PCI Express, 3xPCI
- 6xUSB2.0
- IDE UltraATA, 4xSATA, CF Type I/II socket with IDE interface

- 2xCOM232, LPT, FDD, PS/2
- 2xExpress™ Card slots
- Audio line-in/out, MIC
- IrDA, LPC interface, SMBUS, PLCC, fan connector, control&signalling interfaces and LEDs, ATX power supply.

Please read User manual for complete product description.



CPC1300

COM Express based on Intel® Pentium® M Module

Ordering Information

CPC1300 Configuration

CPC1300 - 01- P2.0 - SDRAM1024 - I - \Options

Device Type

CPC1300 CPC1300 COM Express module, Intel® Pentium® M/Celeron® M, Intel® 915GM chipset, DDR2 SODIMM, Gigabit Ethernet, LVDS, 4 x1 PCI-Express, 8 USB, 4 SATA

CPUs

P1.0 Celeron® M 1.0 GHz, ULV, FSB 400 MHz
P1.4 Pentium® M 1.4 GHz, LV, FSB 400 MHz
P1.8 Pentium® M 1.8 GHz, FSB 400 MHz
P2.0 Pentium® M 2.0 GHz, FSB 533 MHz

SODIMM Memory Module

SDRAM512 512 MB DDR2 SODIMM SDRAM
SDRAM1024 1024 MB DDR2 SODIMM SDRAM

Temperature Ranges

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

Options

\xxx Choose available options from the table

CPC1300 Available Options

Coating	
\COATED	Protective coating

Other configurations and options are available upon request.

Example

CPC1300-01-P2.0-SDRAM1024-I

CPC1300 COM Express module, Intel® Pentium® M, Intel® 915GM chipset, DDR2 SODIMM, Gigabit Ethernet, LVDS, 4 x1 PCI-Express, 8 USB, 4 SATA
Pentium M 2.0 GHz, 533 MHz FSB
1024 MB DDR2 SDRAM
Industrial range, -40...+85°C

Ver. 0.1 2008

Product specifications are subject to change without notice

Applications



Mobile



Industrial Automation



Communications



Embedded

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RoHS



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