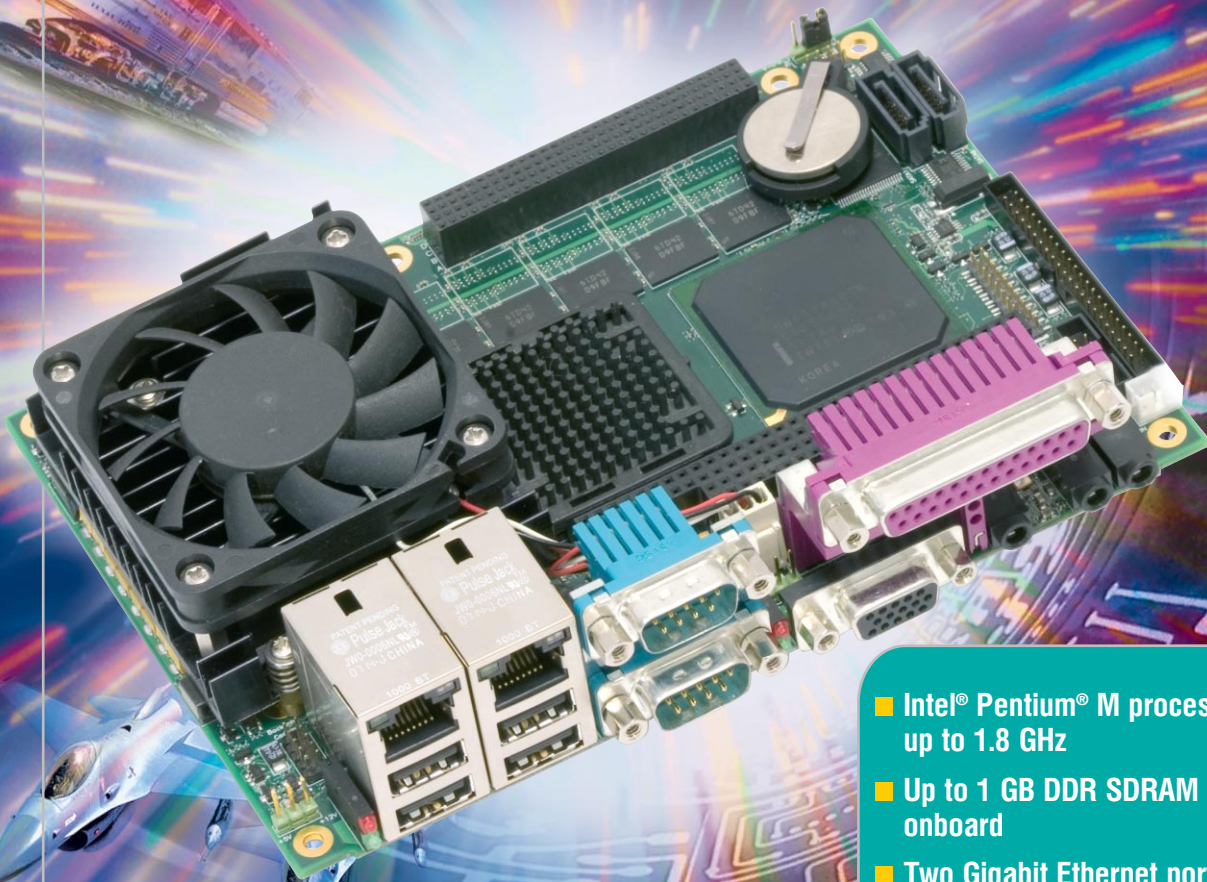
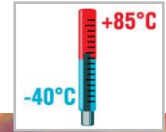


# CPC800

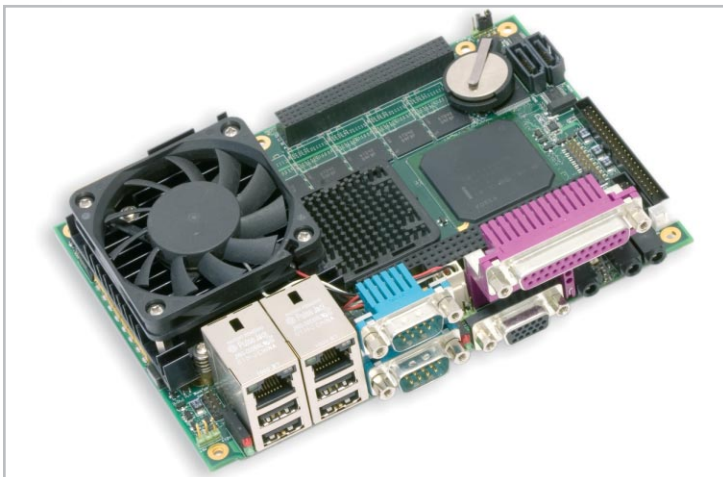
**Fastwel**   
Creating the Future!

## EPIC Intel® Pentium® M based SBC



**Best solutions  
to fit your demands!**

- Intel® Pentium® M processor up to 1.8 GHz
- Up to 1 GB DDR SDRAM ECC soldered onboard
- Two Gigabit Ethernet ports
- Four USB 2.0 ports
- Two SerialATA channels
- PC/104-Plus modules support
- Protective coating (optional)
- 50G/5G – shock/vibration resistance
- Operating temperature:
  - 0°C to +70°C – commercial
  - 40°C to +85°C – industrial



### Features

- Intel® Pentium® M processor up to 1.8 GHz
- Up to 1 GB DDR SDRAM ECC soldered onboard
- Two Gigabit Ethernet ports
- Four USB 2.0 ports
- Two SerialATA channels
- PC/104-Plus modules support
- Protective coating (optional)
- 50G/5G – shock/vibration resistance
- Operating temperature:
  - 0°C to +70°C — commercial
  - 40°C to +85°C — industrial

### Overview

CPC800 is a compact single board computer in EPIC form-factor. The board is based on Intel® Pentium® M processor up to 1.8 GHz and up to 1 Gb of DDR SDRAM.

All components including CPU, SDRAM and 32 MB solid-state disk are soldered onboard thus providing superior shock/vibration resistance.

For demanding applications there is a CompactFlash socket for cards of up to 16 GB.

Two Gigabit Ethernet ports make CPC800 an ideal platform for robust redundant systems. Very compact size of CPC800 – 115×165 mm – combines full set of PC functions including video and audio interfaces.

Onboard 32K nonvolatile RAM allows users to save critical data in case power fails. CPC800 also has 64K EEPROM memory for user applications.

One of the board's benefits is a PC/104 connector, which allows EPIC and PC/104 modules work together as an integral system.

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

### Technical Specifications

#### System

- Intel® Pentium® M processor, up to 1.8 GHz
- Up to 2 MB L2 on-die cache at CPU speed
- 400 MHz processor system bus
- Chipset: 82855GME GMCH & 6300 ESB ICH
- Up to 1 GB PC2700 soldered DDR SDRAM with ECC
- Hardware monitor: voltages and temperature monitoring, system control functions
- Programmable watchdog timer
- Real time clock with Li battery
- MTBF: 110000 hours

#### BIOS

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

#### Graphics

- Video controller integrated in 855GME
- 2D/3D built-in accelerator
- Shared video memory up to 64 MB
- Analog display connector supports resolution up to 2048×1536 @ 75 Hz
- LVDS support

#### Storage

- 32 MB solid-state disk soldered onboard
- CompactFlash™ Type I/II or Microdrive socket
- Two EIDE Ultra ATA/100 Interfaces
- Two SerialATA channels

#### Software Support

- Windows® XP, XPE
- QNX® 6.4
- Linux® 2.6
- Windows® CE
- Fastwel DOST™ (MS™ DOS compatible)

#### Interfaces

- Two Gigabit Ethernet ports 10/100/1000 Mb/s
- Four USB 2.0 ports
- PC/104: 16-bit ISA bus
- PC/104-Plus: 32-bit PCI bus
- Four serial ports, high speed NS16C550 compatible (2 RS-232 and 2 RS-485)
- Parallel port: SPP/ECP/EPP compatible
- PS/2 keyboard and mouse interface
- AC'97 2.3 compliant stereo audio
- LPC interface
- Three programmable LEDs

#### Mechanical

- Dimensions: 115×165×31.45 mm (4.5"×6.5"×1.2")
- Weight: 0.365 kg

#### Power Supply Options

- ATX Power connector: 5 V, 3.3 V, 12 V or
- External PC/104 Plus Power Supply (PCI connector) max 25 W

#### 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/5G
- Cooling: heatsink and fan

#### Warranty

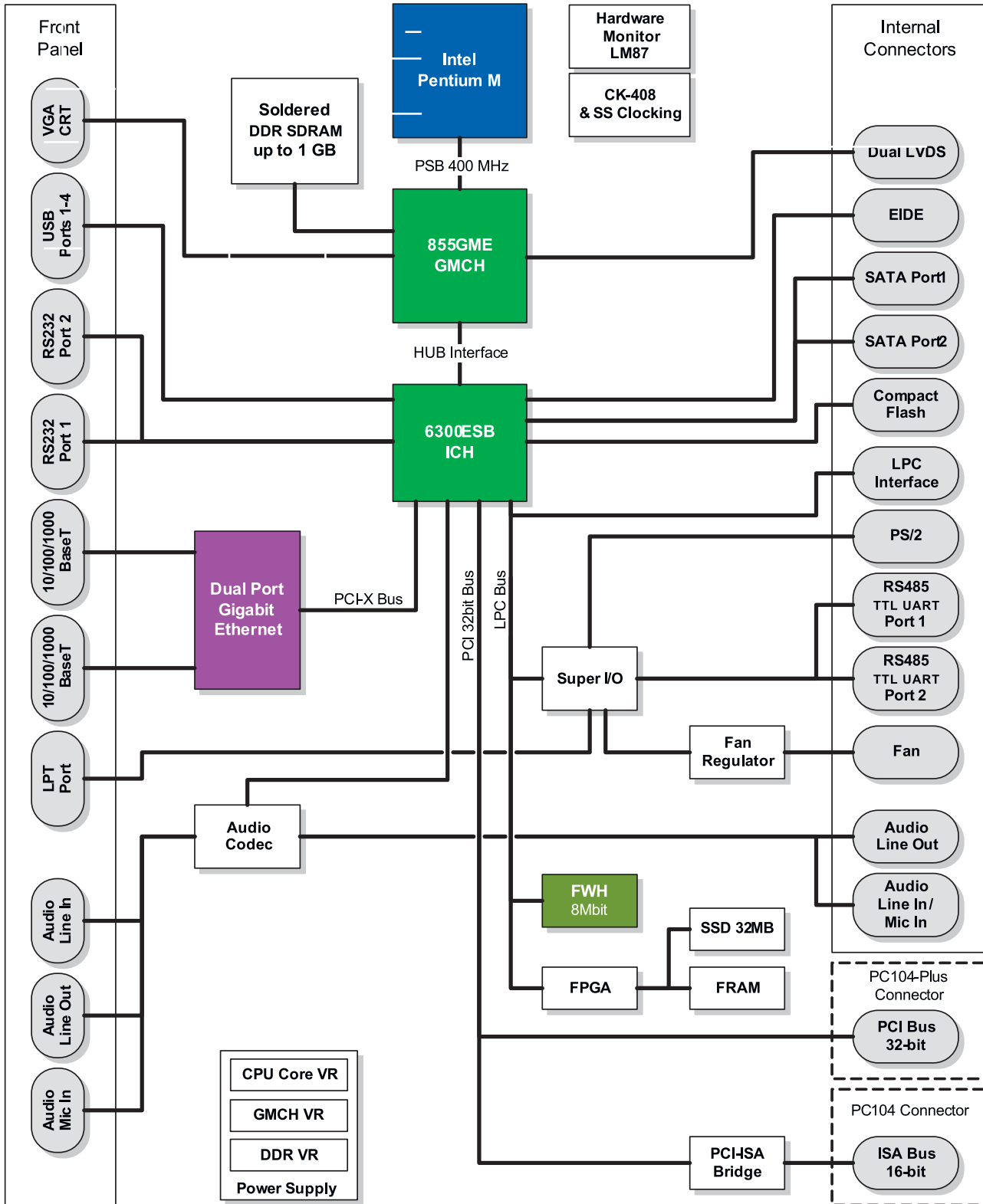
- 3 years for parts and labor

#### List of deliverables

- CPC800 processor module with fan (60×60×10) installed
- 80-thread IDE cable
- SATA cable
- SATA power cable
- RS-232/RS-485 cable
- ATX power cable
- CD-ROM with documentation and service SW
- Package



## Board Layout



## Ordering Information

### CPC800 Configuration

#### CPC800 - 02 - P1.8 - RAM1024 - I \Options

##### Device Type

CPC800 EPIC, Pentium® M, DDR SDRAM soldered, FFD 32MB, SVGA, 2xGigabite LAN, LVDS

##### Processor

C1.0 Celeron M 1.0 GHz, LV, 400 MHz FSB  
 P1.4 Pentium M 1.4 GHz, 400 MHz FSB  
 P1.8 Pentium M 1.8 GHz, 400 MHz FSB

##### Soldered Memory

RAM512 512 MB soldered DDR SDRAM ECC  
 RAM1024 1024 MB soldered DDR SDRAM ECC

##### Temperature Range

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

##### Options

\xxx Choose available options from the table

### CPC800 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)
Disk Drive 2.5" Installed	
\HDDxx	Hard Disk Drive 2.5" xx GB
\SSDxx	Solid State Drive 2.5" xx GB
Coating	
\COATED	Protective coating
Operating System Presetting	
\FDOS	Fastwel DOS
\XPE	Windows XP Embedded
\QNX	QNX 6.4
\WCE	Windows CE
\LNX	Linux 2.6

Other configurations and options are available upon request.

#### Example

**CPC800-02-P1.4-RAM512-C\CF1024C\HDD240\COATED\XPE**  
 EPIC, Pentium® M SBC, DDR, FFD 32Mb, SVGA, 2xGigabit LAN, LVDS  
 Pentium M 1.4 GHz, 400 MHz FSB  
 512 MB soldered DDR SDRAM  
 Commercial temperature range, 0...+70°C  
 1024 MB Compact Flash, commercial  
 Hard Disk Drive 2.5" 240 GB  
 Protective coating  
 Windows XP Embedded

## Applications

Ver. 1.2 2011

Product specifications are subject to change without notice



Embedded



Process Control



Avionics



Transportation

## Corporate Offices

### FASTWEL GROUP Company Limited

108 Profsoyuznaya str.  
 Moscow, Russia 117437  
 Tel: +7 (495) 232-1681  
 Fax: +7 (495) 232-1654  
 E-mail: info@fastwel.com  
 Web: www.fastwel.com

### FASTWEL Corporation US

45 Main Street, Suite 319  
 Brooklyn, New York 11201  
 Tel: 1.718.554.3686  
 Fax: 1.718.797.0600  
 Toll free: 1.877.787.8443  
 (1.877.RURUGGED)  
 E-mail: info@fastwel.com

READY FOR

