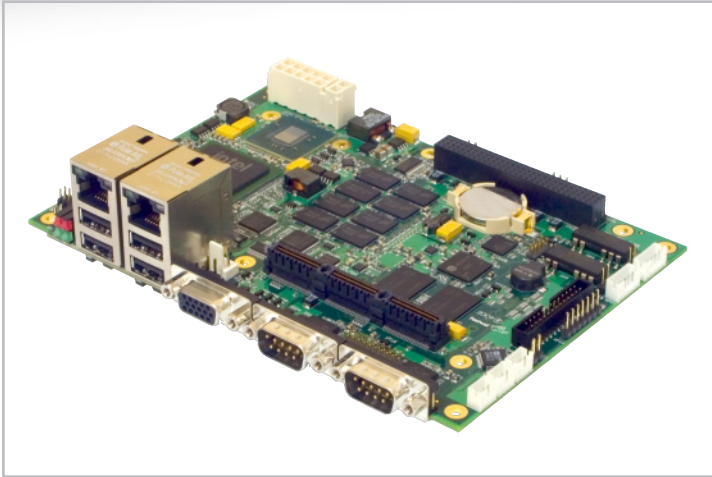


CPC805

EPIC SBC based on Intel® Atom N450 1.66 GHz
with COM-104 expansion connector



Features

- Intel Atom N450 processor (1.66 GHz)
- 2GB DDR2 SDRAM (soldered)
- 4GB NAND flash
- COM104 expansion connector
- Two 10/100/1000 Mbit/s ports
- 32-bit PCI, LPC, PCI-E, SMBus
- Compact flash socket
- USB 1.1, 2.0 port
- Six COM ports
- PS/2 keyboard/mouse port
- VGA, LVDS interfaces
- Industrial operating temperature range: -40°C to +85°C
- Protective coating (option)

Technical Specifications

System

- CPU: Intel Atom N450 1.66 GHz: IA 32-bit & 64-bit technology; Intel SIMD2 & 3 (SSE2 + SSE3 + SSSE3); Hyperthreading; Level 1 cache: 32 KB instr., 24 KB data; Level 2 cache: 512 KB; Intel SpeedStep
- DDR2 SDRAM 667 MHz w/o ECC up to 2 GB (soldered)
- FRAM Memory: 32 KB RAM for storage of Bios Setup parameters and user data; SPI bus
Watchdog timer: Internal, programmable
- MTBF: minimum 100 000 hours

Flash BIOS

- 8 Mbit SPI-Flash

Graphics

- VGA: resolution up to 1400×1050 @ 60 Hz, front panel connector;
- LVDS: resolution up to 1280×800 @ 60 Hz, single channel mode, onboard connector

Storage

- Flash disk: 2 (4) GB NAND Flash; (2 (4) channels), IDE interface; 40 (80) MB/s read, 30 (70) MB/s write
- CompactFlash Type II socket: PIO & BMIDE support; Ultra ATA 100/66/33 support
- SATA II Interface: up to 300 MB/s transfer rate; one onboard connector with Innodisk SATA DOM support; Two interfaces are routed to COM104 (A) connector

Software Support

- MS DOS 6.22
- Fastwel DOS™ 6.22
- Windows XP Embedded
- Linux 2.6
- QNX 6.4

Interfaces

- LAN: two 10/100/1000 Mb/s ports using two PCI-E x1 links: switchable between front panel and COM104 (A) connector
- USB: 1.1 (12 Mbps), USB 2.0 (480 Mbps) support, up to 4 devices connection via front panel connectors; Up to 6 devices via COM104 (A)
- PCI bus: routed to COM104 (B) connector; support for specification v.2.3; 32-bit/33 MHz; up to 4 bus master devices
- PCI-E Bus: routed to COM104 (A) connector; compatibility with PCI-E 1.1 specification; up to four x1 devices (2.5 Gbit/s); possibility to set x4 link (10 Gbit/s)
- LPC Bus: routed to COM104 (A) and service connectors; support for specification v1.0; support for one Master/DMA devices
- SMBus: conforms to specification v.2.0; up to 100 Kbps; routed to COM104(A) connector
- SPI Interface: routed to COM104 (A) connector; support for up to 3 devices (CS); up to 25 MHz frequency
- Serial ports:
COM1, COM3: RS232 (up to 1.5 Mbaud), front panel connectors;
COM5, COM6: RS232 (up to 1.5 Mbaud), TTL level, available at COM104(A);
COM2, COM4: RS422/485 (up to 460 Kbaud), isolated, onboard connector
- Universal parallel port: SPP, EPP, ECP modes support; onboard connector
- PS/2: keyboard and mouse port: onboard connector
- Audio: AC'97 codec (HD Audio); onboard connector (LineIn, LineOut, MicIn)
- Real time clock with CR2032 (3V) lithium battery backup
- Hardware Monitor: SMBus based; three power voltages monitoring; CPU and PCB temperatures monitoring

- Indicators: startup diagnostics LED; IDE/SATA activity; Ethernet channels LEDs (Link/Act); two programmable LEDs

Mechanical

- Dimensions: 165x115 mm (6.49"x4.53")
- Weight: 0.365 kg

Power

- Via external power connector from ATX source (+5V, +12V, -12V, +3.3V, +5V_STBY voltages plus PS_ON signal);
- From unipolar power source, 7V...30V;
- From PC/104-Plus (COM/104) power supply module, 18 W power consumption

Environmental conditions

- Operating temperature range: -40°C to +85°C
- Storage temperature range: -55°C to +90°C
- Humidity: 0% to 80%, non-condensing
- Single/multiple shock stability: up to 100G/50G
- Vibration: up to 5G

Warranty

- 3 years for parts and labor

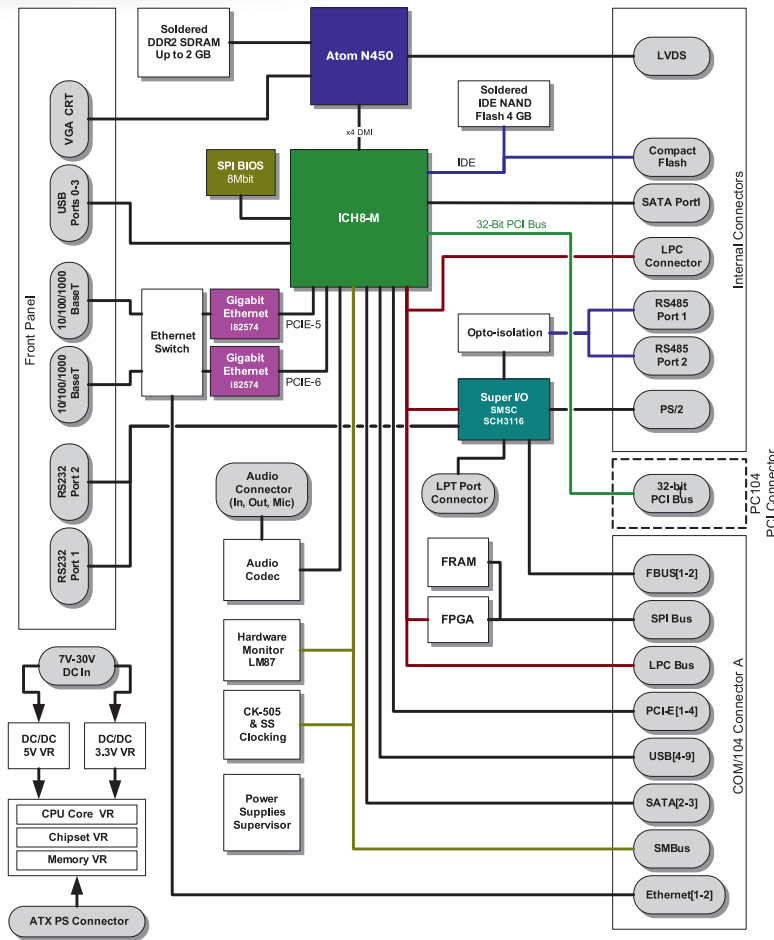
List of deliverables

- CPC805 module
- LVDS mating connector
- CD with software and documentation
- Package

CPC805

EPIC SBC based on Intel® Atom N450 1.66 GHz
with COM-104 expansion connector

Board Layout



Ordering Information

CPC805 Configuration

CPC805-01\Options

Device Type

CPC805-01 Atom N450 1.66 GHz, two Ethernet 10/100/1000 Mbps, four USB 2.0, one LPT, two RS-232, two RS-422/485 (isolated), -40...+85°C

Configurations

CPC805-01 2 GB DDR2 SDRAM, 4 GB NAND
CPC805-02 1 GB DDR2 SDRAM, no NAND

CPC805 Available Options

| Compact Flash Module | |
|-----------------------------|-----------------------------------|
| \CF1024 | 1024 MB Compact Flash, industrial |
| \CF2G | 2 GB Compact Flash, industrial |
| \CF4G | 4 GB Compact Flash, industrial |
| \CF8G | 8 GB Compact Flash, industrial |
| \CF16G | 16 GB Compact Flash, industrial |
| Coating | |
| \COATED | Protective coating |
| Operating System Presetting | |
| \DOS | MS DOS 6.22 |
| \FDOS | Fastwel DOS |
| \XPE | Windows XP Embedded |
| \QNX | QNX 6.4 |
| \LNX | Linux 2.6 |

Other configurations and options are available upon request.

Example

CPC805-01\CF8G\COATED\XPE

Atom N450 1.66 GHz, 2 GB DDR2 SDRAM, 4 GB NAND, Two Ethernet 10/100/1000 Mbps, four USB 2.0, one LPT, two RS-232, two RS-422/485 (isolated), -40...+85°C
8GB Compact flash
Protective coating
Windows XP Embedded

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



Ver. 0.2 2011
Product specifications are subject to change without notice