Technical Specification

Intel IvyBridge CPU (2/4 Cores)
- Intel i7-3517UE (DC, 2C/4T, 1.7 GHz, 1600 MHz, 4 MB, 17 W)

Panther Point PCH

Memory
- DDR3L SDRAM 1066, 1333 MHz with ECC up to 4 GB soldered, dual-channel.

Video Output (simultaneous output to 2 monitors)
- Two DisplayPort connectors (resolution up to 2560×1600@60Hz) at the front panel

PCI-E Bus
- CPU Hosts. PCI-E 2.0 support (up to 5GT/s):
  - Output via the PCI-E switch to J1 and J2 CPCI Serial connectors with support for two x8 FatPipe#1 and FatPipe#2 devices;
  - Support for the Non-Transparent mode for FatPipe#1;
  - Output via the PCI-E switch to J4 CPCI Serial connector with support for four x4 devices.
- PCH Hosts. PCI-E 2.0 support (up to 5GT/s):
  - Output to the mezzanine module on the left; support for 1 x4 or 4 x1 devices.

SMBUS Bus
- Compatibility with the 2.0 specification
- Speed up to 100 kbps

FLASH BIOS
- 64 Mbit SPI-Flash

SATA II Interface
- Three ports are routed to the J3 CPCI Serial connector.

SATA III Interface
- Two interfaces are routed to the J3 CPCI Serial connector
- Support for RAID 0, 1, 5, 10

2 ports LAN 10/100/1000 Mbit at PCI-E x4 Gen2
- Two interfaces are routed to the XS5 connector at the front panel
- Implementation of a server network adapter

USB ports
- Two USB2.0 ports are routed to connectors at the front panel
- 8/4 USB2.0 ports are routed to the J3 CPCI Serial connector*
- 4x USB3.0 ports are routed to the J3 CPCI Serial connector*

FRAM Memory
- 32 Kbyte, RAM 1 Kbyte for storing settings of the BIOS Setup
- Implemented on the SPI Bus

Real time clock (RTC)
- Power is supplied from a CR 2032 lithium battery (3V)

Watch dog timer
- Internal with a possibility of programmed control

SGPIO Interface
- Support for signaling according to the SFF-8485 Specification

Hardware monitor
- Implemented via PECI/SMBUS interfaces
- Monitoring of three supply voltages
- Monitoring of the CPU temperature
- Monitoring of the PCB temperature
- Monitoring of the RAM temperature

Support for the power source management Indication
- Board Startup Diagnostics LED / Hot Swapping Light, SATA/SD Drives Access LED

Features
- Intel IvyBridge processor (2 cores, up to 1,7 GHz);
- Up to 4 GB soldered, dual-channel DDR3 SDRAM with ECC;
- 2x DisplayPort up to 2560×1600@60Hz at the front panel;
- 2x Gigabit Ethernet ports (front panel);
- 2x USB 2.0 (front panel);
- Intermodule communication (PICMG CPCI S.0 CompactPCI® Serial); two x8 FatPipe PCI-E; 3 x USB 2.0; 4x USB 3.0; 3 SATA II, 2 SATA III;
- Conduction cooling;
- Protective coating (optional);
- -40...+85°C;
- Windows 7 Embedded, Linux 2.6, QNX 6.5.

Power Requirements
- Power voltage +12V, +5V_STBY (option)

Operating temperature range
- From -40 °C to +85 °C

Humidity
- Up to 80% non-condensing

Vibration / Single shock resistance
- 5g/100g

MTBF
- More than 100,000 hours

* when USB 3.0 is used, four USB 2.0 ports are utilized by the USB 3.0 ports

http://www.fastwel.com
**CPC510 3U 5HP Compact PCI S.0 Intel Core i7 CPU Board with Conduction cooling**

**Board Layout**

**Ordering Information**

**CPC510 Configuration**

**CPC510 - 01 - i72C1.7 - RAM4096 - RC – I**

**CPC510 Available Options**

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<tr>
<td>Win7e</td>
<td>Windows 7 Embedded</td>
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<tr>
<td>QNX</td>
<td>QNX 6.5</td>
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</tbody>
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Other configurations and options are available upon request.

**Delivery checklist**

1. CPC510 module;
2. Package.

**Corporate Offices**

**FASTWEL GROUP Co., Ltd**
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**
Fastwel Corporation US
6108 Avenida Encinas,
Suite B, Carlsbad,
CA 92011
Phone: 858-488-3663
E-mail: info@fastwel.com

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Product specifications are subject to change without notice.