CP32108

3U CPCI Processor Board Based on Intel® 6th Gen Core™ Processor

- Supports Intel® 6th Gen Xeon E3 and Core™ i7/i5/i3 processors
- Up to 16GB DDR4 2133 memory
- Compliant with PICMG2.0 R3.0 and PICMG2.30 (PlusIO) specifications
- Supports HDMI display output and “4K”
- Supports Power-fail Protection
Overview

CP32108 is a compact modular 3U CPCI single board computer compliant with CompactPCI specification. Based on Intel® 6th Skylake-H platform, CP32108 supports a variety of processors. On CP32108, there are rich interfaces like SATAIII, USB3.0, GbE, PCIe2.0, etc. In addition, CP32108 can provide up to 1TB SSD storage with mSATA interface.

CP32108 applies high-speed CPCI connector on J2, in order to transmit PCIe2.0, USB3.0, SATAIII signals. CP32108 supports up to x4 PCIe to rear with flexible PCIe configuration including 1 x4, 2 x2, 1 x2+2 x1 or 4 x1.

CP32108 integrates Intel® Gen9 HD Graphics P530 display controller, and supports various display outputs like eDP, DP and HDMI(with resolution up to 2560x2160 @24Hz, 24 bpp).

To be best applied in rail transportation field, CP32108 is equipped with 100M and 1000M Ethernet interfaces in the form of M12 connector.

The Power-fail Protection function of CP32108 can provide extra 20~60 seconds for programs to receive power-off signal and operate data protection, including data storage, database backup, system shutdown.

Based on Intel® Skylake-H platform, CP32108 has high-performance and low power consumption, and can provide ports like USB3.0/SATAII/PCIe2.0, etc. Better bandwidth for data transmission, extended operation temperature and the Power-fail Protection function greatly increase the reliability and applicability of CP32108 in severe environment.

Besides, LinkedHope® provides CP32108 with a wealth of software drivers (BSP), including VxWorks, Linux, Windows, etc., which reduce the workloads of system integrators and product developers, and greatly shorten the time-to-market.

CP32108 is designed and produced with full life-cycle management to best guarantee the long-term supply and maintenance for special industrial applications.

Target applications:

Rail Transportation, Command and control, Machinery, Industrial Control

☑ Innovation and Service change our lives!

Technical Information

Specification

- PICMG 2.0 R3.0 /PICMG2.30
- **Serial Port**
  - 1x RS232
- **Processor**
  - Xeon E3-1515M v5 (4x 2.8/3.7 GHz, 8 MB, 45/35W)
  - Xeon E3-1505L v5 (4x 2.0/2.8 GHz, 8 MB, 25 W)
  - Core i7-6820EQ (4x 2.8/3.5 GHz, 8MB, 45 / 35W)
  - Core i7-6822EQ (4x 2.0/2.8 GHz, 8MB, 25W)
  - Core i5-6440EQ (4x 2.7/3.4 GHz, 6MB, 45W / 35W)
  - Core i5-6442EQ (4x 1.9/2.7 GHz, 6MB, 25W)
  - Core i3-6100E (2x 2.7 GHz, 3 MB, 35W)
  - Core i3-6102E (2x 1.9 GHz, 3 MB, 25W)

**Ethernet**

- 4x GbE (routed to front), 2x 100mbps (routed to rear I/O)

**USB**

- Front I/O: 2x USB3.0
- Rear I/O: 4x USB2.0

**Chipset**

- Mobile Intel® 100 Series Chipset QM170, HM170 and CM236 PCH

| Dimension | 3U, 8HP |
| Memory | Up to 16GB SO-DIMM DDR4-2133 |
| Display | Intel® HD Graphics P530 |

- 1x HDMI1.4, with resolution up to 2560x2160@24Hz, 24 bpp

| BUS |

- 32bit/66MHz PCI bus
- Up to 7 peripheral slots
- 5V or 3.3V PCI

| Power Consumption |

- 25 ~ 55W

| Storage |

- 1x mSATAIII onboard
- 4x SATAIII on rear

| PCIe |

- x4 PCIe2.0 to rear
- 1 x4, 2 x2, 1 x2+2 x1 or 4 x1 configurable
Front I/O
- 1x HDMI
- 2x USB 3.0
- 2x GbE, 2x 100M bps (M12)
- 1x RS232 (M12)

BSP
- DOS
- Windows
- Linux
- VxWorks

Rear I/O
- 4x USB2.0
- 2x GbE
- 4x SATA III
- 1x PCIe x4

Environment
- Operation temperature: -40°C to +70°C
- Storage temperature: -55°C to +85°C (without battery)
- Humidity: 93% RH at 40°C (conformal coating optional)

Order Information

<table>
<thead>
<tr>
<th>Product</th>
<th>Part No.</th>
<th>Description</th>
</tr>
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<tbody>
<tr>
<td>CP32108</td>
<td>10-0000-0937</td>
<td>Intel® Core™ i7-6822EQ, 4x2.8GHz, Intel® QM170, Memory DDR4 8GB, RS232x1, PCIe x4, GbEx4, 100M bps x2, USB2.0x4, USB3.0x2, SATAIIIx4, mSATAx1, HDMIx1, working temperature: 0°C to +60°C, air cooling</td>
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<tr>
<td>CP32108</td>
<td>10-0000-0920</td>
<td>Intel® Core™ i7-6822EQ, 4x2.8GHz, Intel® QM170, Memory DDR4 8GB, RS232x1, PCIe x4, GbEx4, 100M bps x2, USB2.0x4, USB3.0x2, SATAIIIx4, mSATAx1, HDMIx1, working temperature: -40°C to +70°C, air cooling</td>
</tr>
</tbody>
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More optional configuration:
- CPU = Xeon E3-1515M v5 (4x 2.8/3.7 GHz, 8 MB, 45/35W)
  - Xeon E3-1505L v5 (4x 2.0/2.8 GHz, 8 MB, 25 W)
  - Core i7-6820EQ (4x 2.8/3.5 GHz, 8MB, 45 / 35W)
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  - Core i3-6100E (2x 2.7 GHz, 3 MB, 35W)
  - Core i3-6102E (2x 1.9 GHz, 3 MB, 25W)

Memory = 4GB, 8GB, 16GB

Please contact LinkedHope® sales rep for more ordering information.

Contact

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