CP42101

Rack mount 2U Rugged Data Processing Computer

- 3rd Generation Intel® Core™ Embedded i7 Processor
- Based on 6U CompactPCI® design, 3 Slots
- Modular design, Convenient for maintenance
Overview

CP42101 is a 2U Ruggedized Data Processing Computer, developed and designed by LinkedHope. The computer is compliant with PICMG® CompactPCI® specifications. Rugged structure and conduction cooled thermal solutions leave no worry about the board stability under harsh shock and vibration environment for end users.

CP42101 has 3rd Generation Intel® Core™ Embedded i7 Processor inside, strong performance, offers up to 16GB 1333 MHz DDR3 SDRAM, 1TB inside solid state storage with high speed, as can satisfy the large capacity information processing and storage requirements. An external storage interface with destruct and encrypt function, is reserved in the CP42101. It supports easy removable Data storage Unit, which can be up to 1TB Storage capacity. To achieve the purpose of data security and IP protection, users can load or remove sensitive data according their actual needs.

In addition to GbE, USB, COM, VGA and other interfaces through Mil plugs from the rear output, CP42101 still reserves a hidden user debug interface in the front of the chassis. In this case, users don’t have to frequently remove the heavy cable which butted with Mil plugs, when debugging.

The CP42101 totally enclosed with high level Electromagnetic Shielding Material, high performance/power ratio, works stably in extended temperature range, and is an ideal selection for high reliability and high availability required applications, like harsh environment communication, and can also be an ideal control unit in variant devices and equipment.

Target Applications:
Rail transportation, Emergency command vehicles, Chariots, warships, Airborne Platform, Large machinery.

Technical Information

Chassis

Rear Interfaces (Aviation Plugs)
- Ethernet: 4x GBE, 10/100/1000Mbps
- 2x USB2.0
- 2x RS232/TTL(Selectable)Serial Interface
- 1x RS-422/TTL(Selectable)Serial Interface
- 1x RS-485/TTL(Selectable)Serial Interface
- Grounding Interface
- Fuse Interface insurance
- Power Input: 220V/AC
- VGA (2048x1536)

Front Interfaces
- HDBoard (with a self-destruct feature) Interface
- 3x USB2.0
- 2x GbE (switchable between Front and Rear)
- 1x VGA (2048x1536)
- Power Button
- Reset Button
- DES Button

Dimension
- Length: 19inch (426mm)
- Width: 2U (88.1mm)
- Depth: 450mm

Power Consumption
- Up to 50W according to CPU
- can be adjusted according to customer demand

MTBF
- >50000h@40℃

Software support
- Windows XP/7 (VxWorks, Linux optional)

CPU Board

Processor
- Intel® Core i7-3555LE, 2x 2.5GHz

Chipset
- Intel® QM77
### Memory
- 4GB DDR3 1600/1333 (Up to 16GB)

### Storage
- SATA SSD (16GB) On Board

### Bus
- 64-bit/32bit (33MHz/66MHz) PCI
- 5V and 3.3V PCI signal compatible

### Display
- HD4000 iGFX,
- VGA (2048x1536)
- DVI, LVDS

### Mass Storage

<table>
<thead>
<tr>
<th>Data Transfer Rate</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sequential read speeds</td>
<td>&gt;230MB/s</td>
</tr>
<tr>
<td>Sequential write speeds</td>
<td>&gt;145MB/s</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Data Access Time</th>
<th>Details</th>
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<tbody>
<tr>
<td>Data Random Access Time</td>
<td>0.3ms</td>
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<table>
<thead>
<tr>
<th>Data Self-destruct Function</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Support for Hardware Data Destruction</td>
<td></td>
</tr>
<tr>
<td>Data Destruction rate</td>
<td>5GB/s</td>
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</table>

<table>
<thead>
<tr>
<th>Data Protection</th>
<th>Details</th>
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<tbody>
<tr>
<td>Data recoding for different flash features, Improve reliability, reduce the error rate</td>
<td></td>
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<tr>
<td>Static data refurbished mechanism</td>
<td></td>
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<tr>
<td>Health status predict for physical block, and Isolation mechanism</td>
<td></td>
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<tr>
<td>Plurality of Data safe areas</td>
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### Storage Capacity
- Up to 2x 1TB

### Memory Chip Type
- SLC flash (MLC optional)

### Data Storage Time
- No less than 10 years (at room temperature)

### Data Security
- support: ATA8 security commands
- support: real-time the Full Disk Encryption
- support: Default/Partition Key function up to 4 keys.
- Support: Hardware SHA 128/256 and True Random Number Generator (TRNG).

### Order Information

<table>
<thead>
<tr>
<th>Product</th>
<th>Part No.</th>
<th>Description</th>
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<tbody>
<tr>
<td>CP42101</td>
<td>10-0000-0595</td>
<td>3rd Generation Intel® Core™ Embedded i7 Processor 3555LE (2x 2.5GHz), 4GB of memory, 16GB OS storage disk, 256GB self-destructive data storage disk; 2U CPCI conduction cooled chassis; Depth 450mm; 19 inches; weight 10 kg; Aluminum alloy material; Jade gray spraying; The rear panel installed 13 Mil Plugs, front panel side hidden debug interface and removable equipment for HDBoard; Operating temperature: -25℃ ~ + 55℃</td>
</tr>
<tr>
<td>CP42101</td>
<td>10-0000-0601</td>
<td>3rd Generation Intel® Core™ Embedded i3 Processor 3120ME (2x 2.4GHz), 2GB of memory, 16GB OS storage disk, 256GB self-destructive data storage disk; 2U CPCI conduction cooled chassis; Depth 450mm; 19 inches; weight 10 kg; Aluminum alloy material; Jade gray spraying; The rear panel installed 13 Mil Plugs, front panel side hidden debug interface; Operating temperature: -25℃ ~ + 55℃</td>
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</tbody>
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* The system configuration can be customized flexibly. For more information, please contact LinkedHope Sales REP.

### Contact

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