cPCI-A3515 Series

3U CompactPCI® Serial 4th/5th Generation Intel® Core™ Processor Blade with ECC

Features

- PICMG® CPCI-S.0 CompactPCI® Serial Processor Blade
- Quad-core 4th/5th Generation Intel® Core™ i7 processor
- Up to 16GB DDR3L ECC soldered memory
- Up to three independent displays
- Optional extended operating temperature -40°C to +85°C (with Intel® cTDP)
- Optional PICMG® 2.0 (CompactPCI®) support
- Smart Embedded Management Agent (SEMA) for system health monitoring

Specifications

Processor & System

CPU
- Quad-core Intel® Core™ i7-5700EQ Processor 2.6GHz (Turbo boost up to 3.4GHz), 6M Cache, 47/37W by cTDP
- Quad-core Intel® Core™ i7-4700EQ Processor 2.4GHz (Turbo boost up to 3.4GHz), 6M Cache, 47/37W by cTDP
- Supports Intel® Hyper-Threading and Turbo Boost Technology, VT-x, VT-D, vPro Technology

Chipset
- Intel® QM87 Chipset

Memory
- DDR3L-1333/1600 SDRAM ECC soldered, up to 16GB

BIOS
- AMI EFI BIOS, 128Mbit SPI flash memory

CompactPCI Serial Interface
- Interfaces below are routed to backplane through P1 to P5 connectors:
  - One PCIe x8, up to 8GT/s
  - Two PCIe x4, up to 8GT/s
  - Three PCIe x1, up to 5GT/s
  - Four SATA 6Gb/s
  - Two USB 3.0 ports
  - Eight USB 2.0 ports
  - Supports operation in system slot and in peripheral slot

PICMG Standards
- PICMG CPCI-S.0 CompactPCI Serial R1.0
- PICMG 2.0 CompactPCI R3.0

Connectivity

Ethernet
- Two Gigabit Ethernet faceplate ports

Graphics
- High-performance 3D engine integrated in Intel processor, supports up to three independent display outputs
  - One VGA port on faceplate (cPCI-A3515B only)
  - Two DisplayPorts on faceplate, support up to 2560×1440 pixels @60Hz, DVI, VGA and HDMI interfaces available via adapter cables

USB
- Two USB 3.0 ports on faceplate
- Two USB 2.0 ports on faceplate (cPCI-A3515B/D only)

Serial Port
- One RS-232/422/485 port on faceplate (cPCI-A3515B/D only)

Storage
- One SATA 3 Gb/s direct connector for 2.5” SATA storage drive (cPCI-A3515B/D only)
- Optional onboard 32GB SSD or mSATA socket

Operating System

OS
- Microsoft Windows 7/8, 32/64-bit
- Red Hat Enterprise Linux 6.6, 7.0
- Windows Embedded Standard 7, VxWorks, QNX and other OS support by request

Miscellaneous

LEDs
- Power, WDT, Drive Activity, Overheat, General Purpose

Battery
- Coin cell lithium battery onboard for RTC CMOS RAM for BIOS configuration

Watchdog Timer
- System Reset and NMI, with programmable interval, 1-65535 sec or 1-65535 minutes

Hardware Monitor
- Monitors CPU temperature, system temperature and DC voltages by SEMA

TPM
- Atmel TPM AT97SC3204 (optional by request)

Mechanical & Environmental

Form Factor
- 3U 4HP/8HP CompactPCI Serial
- 108mm x 160mm (L x W)

Operating Temperature
- -20°C to +70°C (Core™ i7-6700EQ and i7-5700EQ 47W)
- -40°C to +85°C (screened, Core™ i7-4700EQ and i7-5700EQ 47W adjusted to 37W by Intel® cTDP)

Storage Temperature
- -50°C to +100°C

RH Humidity
- 95% non-condensing

Shock
- 20G peak-to-peak, 11ms duration, operating

Vibration
- 2Grms random vibration, 5 to 500Hz in 3 axes, operating

Weight
- 386g (cPCI-A3515 with heatsink)
- 575g (cPCI-A3515B with heatsink)
- 578g (cPCI-A3515D with heatsink)

Certifications
- CE/ FCC
## I/O Table

<table>
<thead>
<tr>
<th>Processor Blades</th>
<th>GbE</th>
<th>USB</th>
<th>COM</th>
<th>Display</th>
<th>SATA 2.5&quot;</th>
<th>mSATA</th>
<th>Onboard SSD</th>
<th>Audio</th>
</tr>
</thead>
<tbody>
<tr>
<td>cPCI-A3515/4700E/M16</td>
<td>2 (RJ-45)</td>
<td>2 (3.0)</td>
<td>2 (DB9)</td>
<td>2 (DP)</td>
<td>1</td>
<td>1</td>
<td>1 (Line-in)</td>
<td>1 (Line-out)</td>
</tr>
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(1) Available by replacing onboard SSD with mSATA socket.
(2) Available by replacing mSATA socket with onboard SSD.

## Ordering Information

### Processor Blades

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<thead>
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</tr>
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<tbody>
<tr>
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</tr>
<tr>
<td>cPCI-A3515B/4700E/M8</td>
<td>2-slot (8HP) 3U CompactPCI Serial blade with Intel® Core™ i7-4700EQ processor and 8GB DDR3L-1600 ECC soldered memory, 2x DP, 2x GbE, 2x USB 3.0, COM, 2x USB 2.0, Line-in, Line-out, mSATA socket and SATA connector</td>
</tr>
</tbody>
</table>

### Accessories

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</tr>
</thead>
<tbody>
<tr>
<td>DP-DVI cable</td>
<td>DisplayPort to DVI adapter cable</td>
</tr>
<tr>
<td>DP-VGA cable</td>
<td>DisplayPort to VGA adapter cable</td>
</tr>
<tr>
<td>DP-HDMI cable</td>
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Contact us for different CPU, memory, SSD/HDD and mSATA combinations.