cPCI-3510(BL) Series

3U CompactPCI 4th/5th Generation Intel® Core™ i7 Processor Blade with ECC

Features

- Quad-core 4th/5th Generation Intel® Core™ i7 processor
- Up to 8GB DDR3L ECC soldered memory onboard (up to 16GB for cPCI-3510BL)
- Up to three independent displays
- System/Peripheral slot operation
- Intel® AMT 9.0 support

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 (cPCI-3510BL only)
    - Quad-core Intel® Core™ i7-4700EQ Processor 2.4GHz (Turbo boost up to 3.4GHz), 6M Cache, 47/37W by cTDP
    - Dual-core Intel® Core™ i5-4402E Processor 1.6GHz (Turbo boost up to 2.7GHz), 3M Cache, 25W
  - Supports Intel® Hyper-Threading and Turbo Boost Technology, VT-x, VT-D, vPro Technology
  - Chipset
    - Intel® QM87 Chipset
  - Memory
    - DDR3L-1333 SDRAM ECC soldered, up to 16GB (cPCI-3510BL)
    - DDR3L-1600 SDRAM ECC soldered, up to 8GB (cPCI-3510)
  - BIOS
    - AMI EFI BIOS, 64Mbit SPI Flash memory

- CompactPCI Bus
  - PCI 32-bit, 33/66 MHz, 3.3V or 5V universal V (I/O)
  - Supports operation in system slot as master or in peripheral slot as stand-alone blade without connectivity to CompactPCI® bus (Satellite mode)
  - PICMG Standards
    - PICMG 2.0 CompactPCI R3.0
    - PICMG 2.1 Hot Swap R2.0
    - PICMG 2.9 System Management (R1.0)

- Connectivity
  - PMC/XMC
    - Optional PCI 64-bit/66MHz PMC site or PCIe x1 XMC site
  - Ethernet
    - One Intel® I217LM controller for one Gigabit Ethernet front panel port with Intel® AMT 9.0 support
    - Three Intel® I210 controllers for one Gigabit Ethernet front panel port and two rear ports
    - Additional two Intel® 82574L controllers for two Gigabit Ethernet front panel ports on riser card (cPCI-3510L/cPCI-3510T)
  - Graphics
    - Integrated in Intel® processor, 3D engine
    - One DVI-I (digital+analog) port on front panel, analog switchable to rear, supports up to QXGA 2048x1536 pixels@75Hz, 32-bits
    - Two DisplayPorts on riser card, support up to 2560x1440 pixels @ 60Hz, DVI, VGA and HDMI interfaces are available by adapter cables (cPCI-3510BL/G only)
    - Three independent displays with different /contents
  - USB
    - Single USB 3.0 port on front panel, and up to three USB ports on front panel on selected SKUs
    - Three USB ports to rear, two on RTM panel
  - Audio
    - Line-in and Line-out ports on front panel (cPCI-3510(BL)D only)
  - PS/2
    - Keyboard/Mouse on cPCI-3510(BL)D and cPCI-3510(BL)G
  - Serial Port
    - Up to four serial ports
    - One RS-232/422/485 selectable port on front panel (cPCI-3510(BL)D/cPCI-3510L/cPCI-3510T)
    - One RS-232/422/485 10-pin header on riser card (cPCI-3510BL/G only)
    - Two serial ports on rear panel: one with Tx/Rx signal only, one converted from USB signal
Specifications

● Storage
  Blade
  One SATA 6 Gb/s direct connector for 2.5” onboard HDD
  (8HP & 12HP version only)
  CFast socket or mSATA socket
  Optional onboard 32GB SSD (by replacing CFast adapter board)
  RTM
  Three 7-pin SATA signal connectors
  Supports SATA RAID 0/1/5/10

● Operating System
  OS
  Microsoft Windows 7/8/10, 32/64-bit
  Red Hat Enterprise Linux 6.4
  Fedora 18
  Wind River VxWorks 6.9, 32/64-bit
  (Please contact ADLINK for other OS support)

● Miscellaneous
  LEDs
  Power, WDT, Storage Drive, 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 IPMI
  TPM
  Atmel TPM AT97SC3204 (optional support upon request)

● Mechanical & Environmental
  Form Factor
  3U 4HP/8HP/12HP CompactPCI
  100mm x 160mm (L x W)
  Operating Temperature
  -20°C to +70°C (Core™ i7-4700EQ and i7-5700EQ 47W)
  -40°C to +85°C (screened, Core™ i5-4402E, 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
  Net weight 713.55g (cPCI-3510(BL)D with heatsink)
  Net weight 718.20g (cPCI-3510(BL)G with heatsink)
  Certifications
  CE/ FCC
## I/O Table

<table>
<thead>
<tr>
<th>Model</th>
<th>GbE</th>
<th>USB</th>
<th>COM</th>
<th>Display</th>
<th>PS/2 KB/MS</th>
<th>Storage</th>
<th>Onboard SSD</th>
<th>Audio</th>
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(1) Switched from front port
(2) Available by replacing CFast or mSATA board with onboard SSD adapter board
Ordering Information

- **cPCI-3510BL/5700E/M16/S32**
  1-slot (4HP) 3U CompactPCI blade with Intel® Core™ i7-5700EQ processor and 16GB DDR3L-1333 ECC soldered memory, DVI, 2x GbE, 1x USB 3.0 and onboard 32GB SSD

- **cPCI-3510/4700E/M8/S32**
  1-slot (4HP) 3U CompactPCI blade with Intel® Core™ i7-4700EQ processor and 8GB DDR3L-1600 ECC soldered memory, DVI, 2x GbE, 1x USB 3.0 and onboard 32GB SSD

- **cPCI-3510BLD/5700E/M16**
  2-slot (8HP) 3U CompactPCI blade with Intel® Core™ i7-5700EQ processor and 16GB DDR3L-1333 ECC soldered memory, DVI, 2x GbE, 1x USB 3.0, COM, 2x USB 2.0, PS/2 KB/MS, Line-in, Line-out, CFast socket and SATA connector

- **cPCI-3510D/4700E/M4**
  2-slot (8HP) 3U CompactPCI blade with Intel® Core™ i7-4700EQ processor and 4GB DDR3L-1600 ECC soldered memory, DVI, 2x GbE, 1x USB 3.0, RJ-45 COM, 2x DisplayPort, PS/2 KB/MS, 1x USB 2.0, CFast socket and SATA connector

- **cPCI-3510BG/5700E/M16**
  2-slot (8HP) 3U CompactPCI blade with Intel® Core™ i7-5700EQ processor and 16GB DDR3L-1333 ECC soldered memory, DVI, 2x GbE, 1x USB 3.0, RJ-45 COM, 2x DisplayPort, PS/2 KB/MS, 1x USB 2.0, CFast socket and SATA connector

- **cPCI-3510G/4700E/M4**
  2-slot (8HP) 3U CompactPCI blade with Intel® Core™ i7-4700EQ processor and 4GB DDR3L-1600 ECC soldered memory, DVI, 4x GbE, 1x USB 3.0, 1x USB 2.0, COM, CFast socket and SATA space

- **cPCI-3510M/4700E/M4 (available by request)**
  2-slot (8HP) 3U CompactPCI blade with Intel® Core™ i7-4700EQ processor and 4GB DDR3L-1600 ECC soldered memory, 3x DVI, 2x GbE, 1x USB 3.0, 2x USB 2.0, 2x COM, PS/2 KB/MS, Line-in, Line-out, CFast socket and SATA connector

- **cPCI-3510P/4700E/M4 (available by request)**
  3-slot (12HP) 3U CompactPCI blade with Intel® Core™ i7-4700EQ processor and 4GB DDR3L-1600 ECC soldered memory, DVI, 2x GbE, 1x USB 3.0, COM, 2x USB 2.0, PS/2 KB/MS, Line-in, Line-out, CFast socket, SATA connector and PMC/XMC connector

- **cPCI-3510S/4700E/M4**
  2-slot (8HP) 3U CompactPCI blade with Intel® Core™ i7-4700EQ processor and 8GB DDR3L-1600 ECC soldered memory, DVI, 2x GbE, 1x USB 3.0, CFast socket and PMC/XMC connector

- **cPCI-3510T/4700E/M4 (available by request)**
  2-slot (8HP) 3U CompactPCI blade with Intel® Core™ i7-4700EQ processor and 4GB DDR3L-1600 ECC soldered memory, DVI, 1x USB 3.0, 2x GbE in RJ-45 and 2x GbE in MIL-STD M12 connectors, COM (RS-232/422/485), CFast socket and SATA space

- **Rear Transition Module**
  - **cPCI-R3P00**
    8 HP Rear I/O module with 2x GbE, 2x COM, 2x USB 2.0, 3x SATA connectors, VGA, 50mm depth
  - **cPCI-R3P00T**
    8 HP Rear I/O module with 2x GbE, 2x COM, 2x USB 2.0, 3x SATA connectors, VGA, 80mm depth

- **Accessories**
  - **SATA drive installation kit**
    2.5” SATA drive installation package including bracket, screws
  - **Y-cable for keyboard & mouse**
    Y-cable for keyboard & mouse and 200mm in cable length
  - **DisplayPort to DVI cable**
    DisplayPort to DVI adapter cable with 150mm cable (one is included in cPCI-3510(BL)G package by default)
  - **DisplayPort to VGA cable**
    DisplayPort to VGA adapter cable with 150mm cable
  - **DisplayPort to HDMI cable**
    DisplayPort to HDMI adapter cable with 150mm cable
  - **RJ-45 to DB9 cable (cPCI-3510(BL)G only)**
    RJ-45 to DB9 COM adapter and 200mm in cable length
  - **SCSI 100p to IO cable**
    (cPCI-3510M only and available by request)
    SCSI 100-pin male to 2 x DVI-D female, 2 x DB9 male, 2 x USB female, 2 x PS/2 Female, 2 x audio jack, 150 mm cable

  Contact us for different CPU, memory, SSD/HDD, CFast and mSATA combinations.