# cPCI-3510 Series

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



## **Features**

- Quad-core 4th Generation Intel® Core™ i7 processor
- Up to 8GB DDR3L-1600 ECC soldered memory onboard
- Supports three independent displays
- System/Peripheral slot operation
- PICMG 2.30 CompactPCI PlusIO compliant











**CompactPCI®** 



cPCI-3510

cPCI-3510D

cPCI-3510G

cPCI-3510L

cPCI-3510N

# Specifications \

## **Processor & System**

µFC-BGA Intel® Core™ i7-4860EQ Processor, 6M Cache,

up to 3.20 GHz, 47W

µFC-BGA quad-core Intel® Core™ i7-4700EQ Processor,

6M Cache, up to 3.40 GHz, 47/37W by cTDP

uFC-BGA dual-core Intel® Core™ i5-4402E Processor.

3M Cache, up to 2.70 GHz, 25W

Supports Intel® Hyper-Threading and Turbo Boost

Technology, VT-x, VT-D, vPro Technology

Chipset Intel® QM87 PCH chipset

Memory DDR3L-1600 SDRAM with ECC soldered, up to 8GB

AMI® EFI BIOS, 64Mbit SPI Flash memory

CompactPCI Bus PCI 32bit, 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 2.0 CompactPCI R3.0 PICMG 2.1 Hot Swap R2.0

PICMG 2.9 System Management (R1.0)

PICMG 2.30 CompactPCI PlusIO

#### Connectivity

Graphics

USB

PICMG Standards

PMC/XMC Optional One PCI 64bit/66MHz PMC site or PCI Express 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 only)

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

Two DisplayPorts on riser card, support up to 2560×1440 pixels @60Hz, DVI, VGA and HDMI interfaces are available by

adapter cables (cPCI-3510G only)

Three independent displays with different /contents

Single USB 3.0 port on front panel, and up to three USB 2.0

ports on front panel on selected SKUs

Three USB ports to rear, two on RTM panel

Serial Port Up to four serial ports

> One RS-232/422/485 selectable port on front panel One RS-232/422/485 10-pin header on riser card

(cPCI-3510G only)

Two serial ports on rear panel: one with Tx/Rx signal only,

one converted from USB signal

Audio Line-in and Line-out ports on front panel (cPCI-3510D only) PS/2

Keyboard/Mouse on cPCI-3510D and cPCI-3510G

Storage

SBC One SATA 6 Gb/s direct connector for 2.5" onboard HDD

(8HP & 12HP version only)

CFAST 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**

Microsoft Windows 7/8, 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 supports)

#### Miscellaneous

LED Power (green), WDT(amber), Storage Drive (blue), Overheat (red), General purpose(yellow)

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

System Reset and NMI, with Programmable Interval, 1-65535 Watchdog Timer

sec or 1-65535 minutes

Monitors CPU temperature, system temperature and DC Hardware Monitor voltages by IPMI

TPM

Atmel TPM AT97SC3204 (optional support upon request)

### Mechanical & Environmental

Form Factor 3U 4HP/8HP/12HP CompactPCI equipped with HMJ1 and J2 connector for cPCI-3510, UHM J2 connector for cPCI-3511

100mm x 160mm (L x W)

Operating Temperature -20°C to +70°C (Core™ i7-4700EQ 47W)

-40°C to +85°C (Core™ i5-4402E & Core™ i7-4700EQ 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, non-operating Vibration 2 Grms random vibration between 5-500Hz in 3 axis

Certification

Weight

Net weight 713.55g (cPCI-3510D with heatsink) Net weight 718.20g (cPCI-3510G with heatsink)

Certifications CE/ FCC

http://www.adlinktech.com/cPCI/

# I/O Table

		GbE	USB 3.0	USB 2.0	СОМ	VGA	DVI	DP	PS/2 KB/MS	SATA	CFast	On board SSD	Line-in	Line-out
cPCI-3510	Faceplate	2	1			1 D'	VI-I							
	Onboard										1	optional(2)		
cPCI-3510D	Faceplate	2	1	2	1 (DB-9)	1 D'	VI-I		1					
	Onboard									1	1	optional(2)	1	1
cPCI-3510G	Faceplate	2	1	1	1 (RJ-45)	1 D'	VI-I	2	1					
	Onboard				1 (10-pin)					1	1	optional(2)		
201 02101	Faceplate	4	1	1	1(DB-9)	1 D'	VI-I							
cPCI-3510L	Onboard									1	1	optional(2)		
cPCI-3510M	Faceplate	2	1	2	2 (DB-9)	1 DVI-I	2 DVI-D		1				1	1
	Onboard									1	1	optional(2)		
cPCI-R3P00(T)	Faceplate	2		2	2	1(1)								
	Onboard									3				

- (1) Switched from front port (2) Available by replacing CFAST socket adapter board to SSD adapter board (3) cPCI-3510M is shipped with 100-pin connector converting I/O listed

# **Ordering Information**

Model Number	Description/Configuration
CPU Board	
cPCI-3510/4700E/M8/S32	1-slot (4HP) cPCI-3510 with Intel® Core™ i7-4700EQ processor and 8GB DDR3L-1600 ECC soldered memory, DVI, 2 x GbE, 1 x USB 3.0 and onboard 32GB SSD
cPCI-3511/4700E/M8/S32	1-slot (4HP) cPCI-3511 CPCI PlusIO blade with Intel® Core™ i7-4700EQ processor and 8GB DDR3L-1600 ECC soldered memory, DVI, 2 x GbE, 1 x USB 3.0 and onboard 32GB SSD
cPCI-3510D/4700E/M4	2-slot (8HP) cPCI-3510 with Intel® Core™ i7-4700EQ processor and 4GB DDR3L-1600 ECC soldered memory, DVI, 2 x GbE, 1 x USB 3.0, COM, 2 x USB 2.0, PS/2 KB/MS, Line-in, Line-out, CFast and on board SATA drive space
cPCI-3510G/4700E/M4	2-slot (8HP) cPCI-3510 with Intel® Core™ i7-4700EQ processor and 4GB DDR3L-1600 ECC soldered memory, DVI, 2 x GbE, 1 x USB 3.0, RJ-45 COM, 2 x DisplayPort, PS/2 KB/MS, 1x USB 2.0, CFast socket and on board SATA drive space
cPCI-3511L/4700E/M4	2-slot (8HP) cPCI-3511L CPCI PlusIO blade with Intel® Core™ i7-4700EQ processor and 4GB DDR3L-1600 ECC soldered memory , DVI, 4 x GbE, 1 x USB 3.0, 1 x USB 2.0, RJ-45 COM, CFast socket and on board SATA drive space
cPCI-3510L/4700E/M4	2-slot (8HP) cPCI-3510 with Intel® Core™ i7-4700EQ processor and 4GB DDR3L-1600 ECC soldered memory , DVI, 4 x GbE, 1 x USB 3.0, 1 x USB 2.0, RJ-45 COM, CFast socket and on board SATA drive space
cPCI-3510P/4700E/M4	3-slot (12HP) cPCI-3510 with Intel® Core™ i7-4700EQ processor and 4GB DDR3L-1600 ECC soldered memory , DVI, 2 x GbE, 1 x USB 3.0, COM, 2 x USB 2.0, PS/2 KB/MS, Line-in, Line-out, CFast, on board SATA drive space and PMC/XMC

## Rear Transition Module

cPCI-R3P00	8 HP Rear I/O module with GbEx2,COMx2, USBx2, SATAx3, VGA, 50mm depth				
cPCI-R3P00T	8 HP Rear I/O module with GbEx2,COMx2, USBx2, SATAx3, VGA, 80mm depth				

#### Accessories

DP-HDMI cable	DisplayPort to HDMI adapter cable				
DP-VGA cable	DisplayPort to VGA adapter cable				
DP-DVI cable	DisplayPort to DVI adapter cable (one is included in cPCI-3510G package by default)				
DB-3SSD	32GB SSD adapter board				
DB-3CFAST	CFast socket adapter board				
A0003301103					

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





