

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



cPCI-3510 cPCI-3510D cPCI-3510G cPCI-3510L cPCI-3510M

Specifications

Processor & System

CPU	uFC-BGA Intel® Core™ i7-4700EQ Processor, 6M Cache, up to 3.40 GHz, 47/37W by cTDP uFC-BGA 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
BIOS	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 Standards	PICMG 2.0 CompactPCI R3.0 PICMG 2.1 Hot Swap R2.0 PICMG 2.9 System Management PICMG 2.30 CompactPCI PlusIO

Connectivity

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)
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-3510G only) Three independent displays with different /contents
USB	Single USB 3.0 port on front panel, and up to three USB 2.0 ports 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 10pin header on riser card (cPCI-3510G only) Two serial ports on rear panel: one with Tx, Rx signal only, one converted from USB port supporting RS-232/422/485
Audio	Line-in and Line-out ports on front panel (cPCI-3510D only)
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

OS	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)
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Miscellaneous

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

Mechanical & Environmental

Form Factor	3U 4HP/8HP/12HP CompactPCI 100mm x 160mm (LxW)
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	CE/ FCC

I/O Table

		GbE	USB 3.0	USB 2.0	COM	VGA	DVI	DP	PS/2 KB/MS	SATA	CFast	On board SSD	Line-in	Line-out
cPCI-3510	Faceplate	2	1			1 DVI-I								
	Onboard										1	optional ⁽²⁾		
cPCI-3510D	Faceplate	2	1	2	1 (DB-9)	1 DVI-I			1					
	Onboard									1	1	optional ⁽²⁾	1	1
cPCI-3510G	Faceplate	2	1	1	1 (RJ-45)	1 DVI-I		2	1					
	Onboard				1 (10-pin)					1	1	optional ⁽²⁾		
cPCI-3510L	Faceplate	4	1	1	1 (DB-9)	1 DVI-I								
	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

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-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-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

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

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

