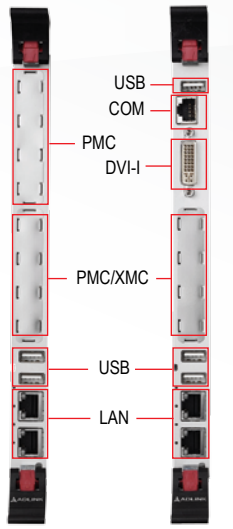
cPCI-6510 Series

6U CompactPCI® Intel® Core™ i7 Universal Blade with two PMC sites





Features

- 32nm Intel® Core™ i7 SV, LV, ULV processors with ECC
- Up to 8GB DDR3-1066 ECC soldered memory
- Two 64-bit/133MHz PMC sites with rear I/O
- One PCI-Express x8 XMC site
- Optional dual DVI ports for independent displays

CompactPCI®

EXTENDED TEMPERATURE

2

Specifications

Processor & System

CPU	µFC-BGA Intel® Core™ i7-610E Processor 2.53GHz, 4 MB L2, TDP 35W
	µFC-BGA Intel® Core™ i7-620LE Processor 2.0GHz, 4 MB L2, TDP 25W
	µFC-BGA Intel® Core™ i7-620UE Processor 1.06GHz, 4 MB L2, TDP 18W
	µFC-BGA Intel® Core™ i5-520E Processor 2.4GHz, 3 MB L2, TDP 35W
	µFC-BGA Intel® P4505 1.86GHz, 2 MB L2, TDP 35W
	µFC-BGA Intel® U3405 1.06GHz, 2 MB L2, TDP 18W
Chipset	Intel® QM57 PCH
Memory	Dual Channel DDR3-800/1066 MHz with ECC soldered onboard, maximum capacity 8GB
BIOS	AMI® EFI BIOS, 64M bit SPI flash memory
CompactPCI Bus	PCI 64 bit/66MHz, 3.3V or 5V universal V(I/O)
	Supports operation in system and peripheral slots with CompactPCI® bus communication (Universal mode)
PICMG Standards	PICMG® 2.0 CompactPCI® R3.0
	PICMG® 2.1 Hot Swap R2.0
	PICMG® 2.9 System Management R1.0
	PICMG® 2.16 Packet Switching Backplane R1.0

Connectivity

PMC/XMC	Two PCI 64 bit/133 MHz PMC sites with rear I/O (PIM)
	One PCI-Express x8 XMC site shared with inner PMC site
Ethernet	Four PCI-Express Intel® 82574L Gigabit Ethernet controllers
	Two 10/100/1000BASE-T front panel ports
	Two 10/100/1000BASE-T PICMG 2.16 ports
	Two additional 10/100/1000BASE-T ports from Intel® 82576EB on RTM cPCI-R6100
Graphics	Integrated in Intel® Core™ i7 Processor
	Two DVI channels, one to front and one to rear
	Up to QXGA analog signal, switchable to front or rear
	Additional discrete ATI/AMD E4690 GPU supporting two DVI-I ports on RTM cPCI-R6700
	One front panel DVI-I (digital+analog) port (cPCI-6510V only)
USB	Up to three USB 2.0 front panel ports (two for cPCI-6510, three for cPCI-6510V)
	Six USB ports routed to rear
PS/2	PS/2 keyboard/mouse port is routed to rear
Serial Port	Max. three 16C550 compatible serial ports
	One RJ-45 port on front panel (cPCI-6510V only), two serial ports routed to rear
Audio	High Definition Audio signals routed to rear

Storage

SBC	One removable Serial ATA direct connector for 2.5" onboard HDD, occupies outer PMC site
	CompactFlash socket onboard (Standard temperature range support only)
RTM*	Up to 3 SATA ports
	CF (x1) and SD (x1) sockets
	Eight SAS ports by LSISAS1068E with hardware RAID by two mini SAS x4 connectors
	*Available interfaces dependent on RTM model selected

Operating System

OS	Microsoft Windows® 2008 Server
	Microsoft Windows® XP Professional SP3
	Microsoft Windows® 7
	Fedora™ 12
	Red Hat Enterprise 6.1
	WindRiver VxWorks 6.8
	(Please contact ADLINK for other OS support)

Miscellaneous

LED	Power (green), WDT (amber), Hot Swap (blue), Hard Disk (red)
Battery	Coin cell lithium battery onboard for RTC CMOS RAM
Watchdog Timer	System Reset and NMI, with programmable interval, 1-65535 seconds or minutes
Hardware Monitor	Monitors CPU temperature, system temperature, Vcore and DC voltages

Mechanical & Environmental

Form Factor	6U 4HP CompactPCI®
Operating Temperature	0°C to +60°C
	-20°C to +70°C (cPCI-ET6510)
	-40°C to +80°C (cPCI-EX6510)
Storage Temperature	-40°C to +85°C
Rel. Humidity	95% non-condensing
Shock	20G peak-to-peak, 11ms duration, non-operating
Vibration	2 Grms random vibration, 5-500Hz, each axis, operating
Power Consumption	Core™ i7-610E 2.53GHz, soldered 2GB DDR3-1067 under Windows® XP with 100% CPU loading

	Current (A)	Power (W)
5V	4.44	22.21
3.3V	6.09	20.10
Total		42.31

Weight	Net weight 793.5g with heatsink
EMI/EMC	EN 55022 Class A, EN 55024, EN 61000-3-2, EN 61000-3-3

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I/O Table

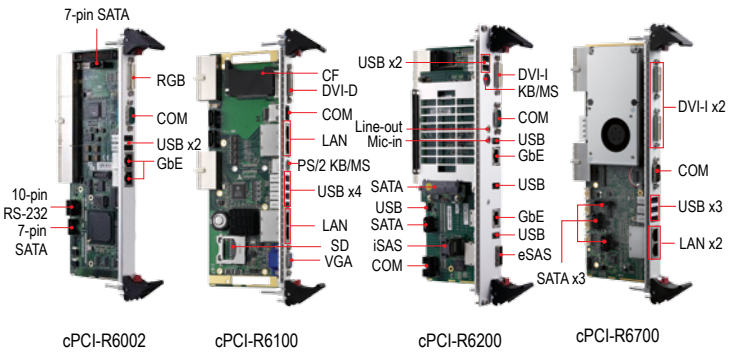
		GbE	USB 2.0	COM	DVI	VGA	PMC	XMC	SATA	CF	Mic-in	Line-out	PS/2 KB/MS	SD	SAS
SBC															
cPCI-6510	**Faceplate**	2	2												
	Onboard						2	1		1					
cPCI-6510V	**Faceplate**	2	3	1 (RJ-45)	1 (DVI-I)										
	Onboard						1	1	1 (for 2.5" HDD)	1					
RTM															
cPCI-R6002	**Faceplate**	2	2	1 (DB-9)	1 (DVI-I)										
	Onboard		1 (5-pin)	1(1) (10-pin)					2 (7-pin)						
cPCI-R6100	**Faceplate**	4	4	1 (RJ-45)	1	1							1		
	Onboard								2 (7-pin)	1(3)				1	
cPCI-R6110	**Faceplate**	2	4			1							1		
	Onboard								3(2)	1(3)				1	
cPCI-R6200	**Faceplate**	2	5	1 (DB-9)	1 (DVI-I)						1	1	1		4 (SFF-8088)
	Onboard		1 (5-pin)	1(1) (10-pin)					3(2)	1(2) (optional)					4 (SFF-8087)
cPCI-R6700	**Faceplate**	2	3	1 (DB-9)	2 (DVI-I)										
	Onboard		2	1(1) (10-pin)					3 (7-pin)		1 (10-pin)		1 (10-pin)		
cPCI-R6500D	**Faceplate**	2	1		2 (DVI-I +DVI-D)										
	Onboard		1 (10-pin)	2 (10-pin)					3 (7-pin)		1 (10-pin)		1 (10-pin)		

(1) Tx, Rx signals only
(2) Two 7-pin signal connectors onboard for external HDDs and one direct connector for onboard 2.5" SATA HDD. Optional CompactFlash slot is supported by replacing SATA connector adapter with CompactFlash adapter. SATA HDD and CF cannot be used simultaneously.
(3) Converted from USB

Ordering Information

Model Number	Description/Configuration
Processor Blades	
cPCI-6510/610/M4G	6U CompactPCI® blade with Core™ i7 610E 2.53GHz and 4GB DDR3-1066 ECC soldered onboard memory, dual PMC sites
cPCI-6510V/610/M8G	6U CompactPCI® blade with Core™ i7 610E 2.53GHz and 8GB DDR3-1066 ECC soldered onboard memory, single PMC site
cPCI-6510V/620L/M4G	6U CompactPCI® blade with Core™ i7 620LE 2.0GHz and 4GB DDR3-1066 ECC soldered onboard memory, single PMC site
cPCI-ET6510V/620L/M4G	6U CompactPCI® blade with Core™ i7 620LE 2.0GHz and 4GB DDR3-1066 ECC soldered onboard memory, single PMC site and -20°C to +70°C operating
cPCI-EX6510V/620L/M4G	6U CompactPCI® blade with Core™ i7 620LE 2.0GHz and 4GB DDR3-1066 ECC soldered onboard memory, single PMC site and -40°C to +80°C operating
Rear Transition Modules	
cPCI-R6002	4HP Rear I/O module with GbE x2, COMx2, USB x3, SATA x2, DVI-I
cPCI-R6100	4HP Rear I/O module with GbE x4, COM, USB x4, SATAx2, DVI, VGA, PS/2, CF, SD socket
cPCI-R6110	4HP Rear I/O module with GbE x2, USB x4, SATA x3, VGA, PS/2, CF, SD socket
cPCI-R6700	4HP Rear I/O module with discrete GPU ATI/AMD E4690, DVI-I x2, GbE x2, USB x3, COM x2, KB/MS hearder, SATA x3, audio header
cPCI-R6200	8HP Rear I/O module with GbE x2, USB x6, DVI-I, SATA x3, Mic-in, Line-out, PS/2 KB/MS, SAS x8
cPCI-R6210	4HP Rear I/O module with USB x2, DVI-I, PIM x2, COM x1, SATA x2
Mezzanines	
DB-CF-SA	CompactFlash socket adapter card (for cPCI-R6110 and cPCI-R6200)

Contact us for different CPU, memory options.
See 6U RTM selection guide for more options.



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Note: All specifications are subject to change without further notice.