cPCI-6520 Series

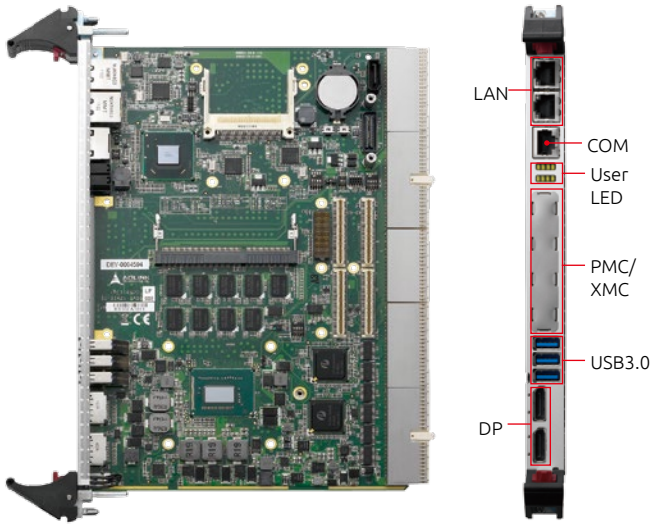
6U CompactPCI 3rd Gen Intel® Core™ i7 Processor Blade with ECC SDRAM

Features

- Low power 22nm the 3rd generation Intel® Core™ i7 processor
- Dual channel DDR3 ECC memory, one channel soldered and one channel SO-CDIMM
- Supports three independent displays: (2xDP/VGA+VGA/DVI)
- USB 3.0 and PCI Express Gen3 support
- Remote management and optional TPM support

CompactPCI®

EXTENDED TEMPERATURE



Specifications

Processor & System

CPU

µFC-BGA quad-core Intel® Core™ i7-3615QE processor, 2.3GHz, 6MB L3 cache, 45W TDP

µFC-BGA quad-core Intel® Core™ i7-3612QE processor, 2.1GHz, 6MB L3 cache, 35W TDP

µFC-BGA dual-core Intel® Core™ i7-3555LE processor, 2.5GHz, 4MB L3 cache, 25W TDP

µFC-BGA dual-core Intel® Core™ i7-3517UE processor, 1.7GHz, 4MB L3 cache, 17W TDP

Passive heatsink

Chipset

Intel® QM77 PCH

Memory

Dual channel DDR3-1333/1600 SDRAM with ECC, up to 16GB

One channel in SO-CDIMM socket up to 8GB; one channel soldered onboard up to 8GB (dependent on availability of memory modules and chips)

BIOS

AMI® EFI BIOS, 64Mbit SPI flash memory

CompactPCI Bus

PCI 32/64-bit, 33/66MHz, 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

PICMG 2.16 Packet Switch Backplane R1.0

Connectivity

PMC/XMC

One PCI 32/64-bit, 33/66/133MHz PMC site or PCI-Express x8 XMC site with rear I/O

Ethernet

Three Intel® 82574IT GbE and one Intel® 82579LM PHY controllers for two 10/100/1000BASE-T ports on front panel and two 10/100/1000BASE-T ports to J3 for PICMG 2.16

Two additional 10/100/1000BASE-T ports from Intel® 82576EB on RTM (cPCI-R6100 or cPCI-R6110)

Graphics

Integrated in Intel® processor

Two dual mode DisplayPorts on front panel with optional DVI/VGA/HDMI support by adapter cable

DVI, eDP and VGA routed to rear

Supports three independent displays by 2x DP or 2x VGA on front panel and one DVI/VGA/eDP in rear

USB

Three USB 3.0 ports on front panel

Six USB 2.0 ports routed to rear

PS/2

PS/2 keyboard/mouse port to rear

Serial Port

Up to three 16C550 compatible serial ports

One RJ-45 RS-232/422/485 port on front panel

Two serial ports routed to rear

Audio

High Definition Audio signals routed to rear

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Specifications

Storage

SBC

One SATA 6 Gb/s direct connector for 2.5” onboard drive (removable)

Optional CFast socket (shares space with SATA direct connector)

CompactFlash socket onboard

RTM*

Up to three SATA ports

CF (x1) and SD (x1) sockets

Eight SAS ports supporting hardware RAID via two mini-SAS x4 connectors (LSISAS1068E)

*Available interfaces dependent on RTM model selected

Operating System

OS

Microsoft Windows Server 2008, XP, 7

Red Hat Enterprise Linux 6.2

Fedora 16

Wind River VxWorks 6.9

(Please contact ADLINK for other OS support)

Miscellaneous

LED

Power, WDT, Hard Disk, Hot Swap and Port 80

Battery

Coin cell lithium battery onboard for RTC CMOS RAM

TPM

Atmel AT97SC3204 (optional, support upon request)

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 (single slot) CompactPCI

233.33mm x 160mm (LxW)

Equipped with J1, J2, J3, J5 connectors

Operating Temperature

0°C to +60°C standard

-20°C to +70°C extended temperature (cPCI-ET6520)

Storage Temperature

-40°C to 85°C extreme temperature (cPCI-EX6520 with Core™ i7 3555LE and Core™ i7 3517UE CPU)

RH Humidity

95% non-condensing

Shock

15G peak-to-peak, 11ms duration, non-operating

Vibration

2 Grms random vibration, 5-500Hz, each axis, operating

Power Consumption

3.23A @3.3V, 9.68A @5V, total 59W for Core i7-3612QE

3.37A @3.3V, 12.12A @5V, total 71.7W for Core i7-3615QE

Weight

Net weight 791g with heatsink

EMI/EMC

EN 55022 Class A, EN 55024, EN 61000-3-2, EN 61000-3-3

I/O Table

		GbE	USB 2.0	USB 3.0	COM	DVI	VGA	DP	PMC/ XMC	SATA	CFast	CF	Mic-in	Line-out	PS/2 KB/MS	SD	SAS
cPCI-6520	Faceplate	2		3	1 (RJ-45)			2									
	Onboard								1		1(1)	1					
cPCI-R6100	Faceplate	4	4		1 (RJ-45)	1	1								1		
	Onboard									2 (7-pin)		1				1	
cPCI-R6110	Faceplate	2	4				1								1		
	Onboard									3(3)		1(4)				1	
cPCI-R6200	Faceplate	2	5		1 (DB-9)	1 (DVI-I)							1	1	1		4 (SFF-8088)
	Onboard		1 (5-pin)		1(2) (10-pin)					3(3)		1 (optional) (3)					4 (SFF-8087)
cPCI-R6500D	Faceplate	2	1			2 (DVI-I +DVI-D)											
	Onboard		1 (10-pin)		2 (10-pin)					3(5) (7-pin)			1 (10-pin)		1 (10-pin)		
cPCI-R65N0	Faceplate	2	1		1	2									1		
	Onboard		1		1 (Tx/Rx)					3 (7-pin)			1 (10-pin)				

(1) Removable adapter design. SATA adapter by default, can be replaced with CFast adapter.
(2) Tx, Rx signals only.
(3) Two 7-pin signal connectors onboard for external HDDs and one direct connector for onboard 2.5" SATA drive. SATA direct connector can be replaced with CompactFlash adapter (DB-6920CF).
(4) Converted from USB.
(5) Space is reserved onboard for one 2.5" SATA drive.

Ordering Information

Processor Blades

- **cPCI-6520/3612Q/M4-0**
  4HP cPCI-6520 with Intel® Core™ i7-3612QE processor and 4GB DDR3-1333 ECC soldered memory with 2 xGbE, 3 xUSB3.0, COM, 2 xDP, SATA, CF and PMC/XMC
- **cPCI-6520/3555L/M0-4**
  4HP cPCI-6520 with Intel® Core™ i7-3555LE processor and 4GB DDR3-1333 ECC SODIMM module with 2 xGbE, 3 xUSB3.0, COM, 2 xDP, SATA, CF and PMC/XMC
- **cPCI-6520/3612Q/M4-4**
  4HP cPCI-6520 with Intel® Core™ i7-3612QE processor and 4GB DDR3-1333 ECC soldered memory and 4GB SODIMM module with 2 xGbE, 3 xUSB3.0, COM, 2 xDP, SATA, CF and PMC/XMC

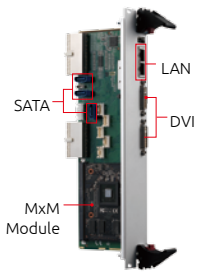
Rear Transition Modules

- **cPCI-R6002**
  4HP Rear I/O module with GbE x2, COM x2, USB x3, SATA x2, DVI-I
- **cPCI-R6100**
  4HP Rear I/O module with GbE x2, USB x4, SATA x3, VGA, PS/2, CF, SD socket
- **cPCI-R6110**
  4HP Rear I/O module with GbE x2, COM, USB x4, SATA x3, VGA, PS/2, CF, SD socket
- **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-R6500D**
  8HP Rear I/O module with AMD Radeon E6760 MXM module, 2x GbE, 1x DVI-I, 1x DVI-D, 1x USB,and 10-pin KB/MS, audio, 2x COM headers
- **cPCI-R65N0**
  8HP Rear I/O module with NVIDIA GeForce GTX660M MXM 3.0 module, supports DVI-I, DVI-D, USB 2.0, 2x GbE, COM (RS-232/422/485), PS/2 KB/MS

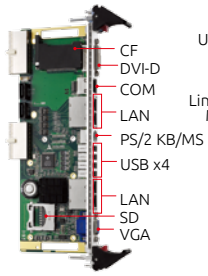
Accessories

- **DB-CFast**
  CFast socket adapter board with screws
- **DP-DVI cable**
  DisplayPort to DVI adapter cable
- **DP-VGA cable**
  DisplayPort to VGA adapter cable
- **DP-HDMI cable**
  DisplayPort to HDMI adapter cable

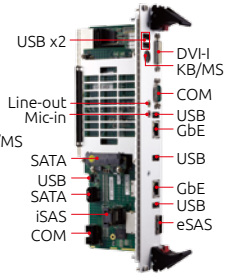
Contact your ADLINK representative for different CPU, memory and storage combinations.
See 6U RTM selection guide for more options.



cPCI-R6500D



cPCI-R6100



cPCI-R6200

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