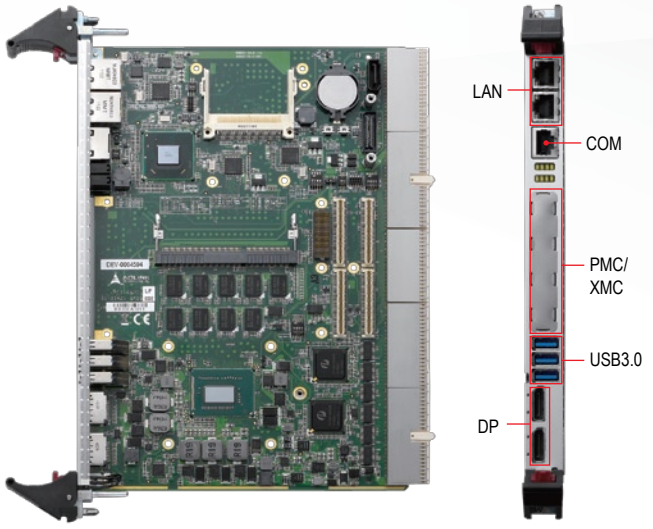
cPCI-6520 Series

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: DisplayPort, DVI, VGA, HDMI
- USB 3.0 and PCI-Express Gen3 support
- Remote management and TPM support

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 (Panther Point)
RAM	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)
Standard	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 DVI/VGA/HDMI support by adapter cable
	One DVI, eDP and VGA routed to rear
	Additional discrete ATI E4690 GPU supporting two DVI-I ports on RTM cPCI-R6700
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

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 7 32/64-bit
	Red Hat Enterprise Linux 6.2
	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
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
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	TBD
Weight	TBD

Safety & EMI

Certification	CE/ FCC

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(1)	1					
cPCI-R6002	**Faceplate**	2	2		1 (DB-9)	1 (DVI-I)											
	Onboard		1 (5-pin)		1(2) (10-pin)					2 (7-pin)		1 (optional) (3)					
cPCI-R6100	**Faceplate**	4	4		1 (RJ-45)	1	1								1		
	Onboard									2 (7-pin)		1				1	
cPCI-R6110	**Faceplate**	2	4			1	1								1		
	Onboard									3(3)		1(4)					
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-R6700	**Faceplate**	2	3		1 (DB-9)	2 (DVI-I)											
	Onboard		1 (5-pin)		1(2) (10-pin)					3(5) (7-pin)			1 (10-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.

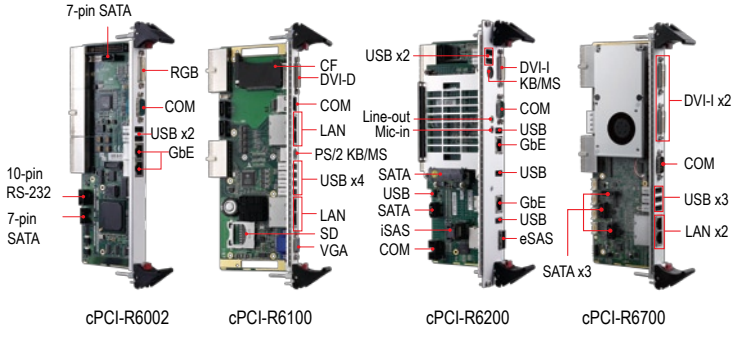
Ordering Information

Model Number	Description/Configuration
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 x4, COM, USB x4, SATA x2, DVI, VGA, PS/2, CF, SD socket
cPCI-R6110	4HP Rear I/O module with GbE x2, COM, USB x4, SATA x3, DVI, 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-R6700	4HP Rear I/O module with discrete GPU ATI/AMD E4690, DVI-I x2, GbE x2, USB x3, COM x2, KB/MS header, SATA x3, audio header

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-R6002 cPCI-R6100 cPCI-R6200 cPCI-R6700