cPCI-6530 Series

6U CompactPCI 4th Generation Intel® Core™ i7 Processor Blade with two PMC/XMC sites

NEW

USB 3.0
COM
DVI-I

USB 2.0
USB 3.0
User LED
LAN

cPCI-6530   cPCI-6530V
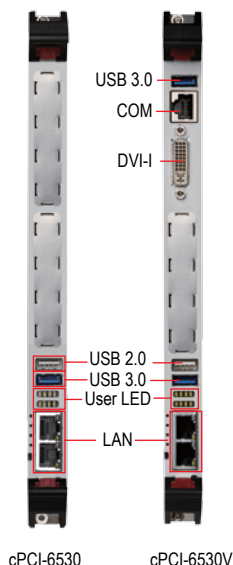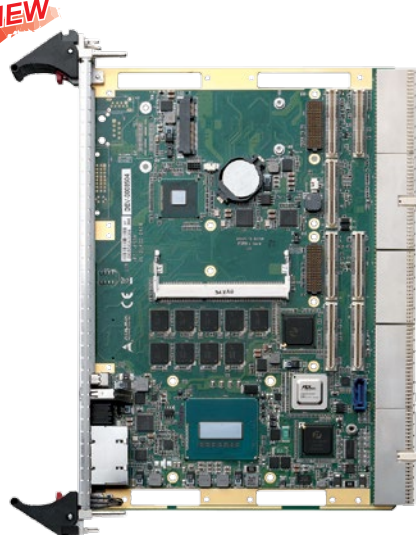
Features

- Quad-core 4th Generation Intel® Core™ i7 processor with ECC
- Dual channel DDR3L ECC memory, soldered and SO-CDIMM, up to 16GB
- Versatile storage: SSD, CFAST, mSATA
- Dual PMC/XMC sites
- Remote management and TPM support

CompactPCI®   **EXTENDED TEMPERATURE**

Specifications

Processor & System

CPU	µFC-BGA quad-core Intel® Core™ i7-4700EQ processor, 2.4/3.4GHz, 6MB L3 cache, 47/37W TDP
	µFC-BGA dual-Core Intel Core i5-4402E processor, 2.7GHz, 3MB L3 cache, 25W TDP
Chipset	Intel® QM87 Express Chipset
Memory	Dual channel DDR3L-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 devices and modules)
BIOS	AMI® EFI BIOS, 64MB SPI flash memory
CompactPCI Bus	PCI 64-bit, 66MHz, 3.3V or 5V universal V(I/O)
	Supports operation in system slot and in peripheral slot with CompactPCI® bus communication (Universal 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	Up to Two PMC/XMC sites
	PMC1 or XMC1: 64b/33,66,133M or PCIe x8 Gen2 (space shared with I/Os & onboard drive)
	PMC2 or XMC2: 64b/33,66,133M or PCIe x8 Gen2 with rear I/O
Ethernet	Three Intel® I210 Gigabit Ethernet controllers and one Intel® I217 PHY controller
	Two 10/100/1000BASE-T ports on front panel with iAMT support on one port
	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 with DX11.1 and OCL1.2
	One DVI-I port on front panel
	One VGA, eDP and DVI routed to rear
	All graphics interfaces are independent channels
	Supports three independent displays
	Additional discrete ATI E4690 GPU supporting two DVI-I ports on RTM (cPCI-R6700)
	Additional graphics MXM with ATI E6760 GPU or nVidia Geforece 660 GPU supporting two DVI ports on RTM (cPCI-R6500 series)
USB	Up to two USB 3.0 and one USB 2.0 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 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)
	One mSATA socket
	Optional CFAST socket by replacing 2.5" SATA drive direct connector
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 7/8 32, 64-bit
	Red Hat Enterprise Linux 6.4
	Wind River VxWorks 6.9
	(Please contact ADLINK for other OS support)

Miscellaneous

LED	Power, WDT, Hard Disk, Hot Swap and Port 80 user LED
Battery	Coin cell lithium battery onboard for RTC CMOS RAM
TPM	Version 1.2
	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, J4, J5 connectors Operating
Temperature	-20°C to +70°C extended temperature
	-40°C to +85°C extreme extended temperature for Core™ i7 4700EQ CPU adjusted to 37W by cTDP)
Storage Temperature	-50°C to +100°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	2.73A @3.3V, 11.65A @5V, total 67.26W
Weight	500.2g (cPCI-6530 with heatsink assembled)

Safety & EMI

Certification	CE/ FCC Class A

I/O Table

		GbE	USB 2.0	USB 3.0	COM	DVI	VGA	PMC/XMC	SATA	CFast	CF	mSATA	Mic-in	Line-out	PS/2 KB/MS	SD	SAS
cPCI-6530	**Faceplate**	2	1	1													
	Onboard							2	1 (7-pin)			1					
cPCI-6530V	**Faceplate**	2	1	2	1 (RJ-45)	DVI-I											
	Onboard							1	2	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]						
cPCI-R6200	**Faceplate**	2	5		1 (DB-9)	1					1		1	1		4 (SFF-8088)	
	Onboard		1 (5-pin)		1[2] (10-pin)				3[3]		1[3] (opt.)						4 (SFF-8087)
cPCI-R6700D	**Faceplate**	2	3		1 (DB-9)	2x (DVI-I)											
	Onboard		1 (5-pin)		1[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 (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-6530/4700E/M4-4	4HP cPCI-6530 with Intel® Core™ i7-4700EQ and 4GB DDR3L-1600 ECC soldered memory and 4GB SODIMM module with 2x GbE, 1x USB 2.0, 1x USB 3.0 and dual PMC/XMC sites
cPCI-6530V/4700E/M4-4	4HP cPCI-6530V with Intel® Core™ i7-4700EQ and 4GB DDR3L-1600 ECC soldered memory and 4GB SODIMM module with 2x GbE, 1x USB 2.0, 2x USB 3.0, 1x RJ-45 COM and single PMC/XMC site
cPCI-6530V/4402E/M4-0	4HP cPCI-6530V with Intel® Core™ i5-4402E and 4GB DDR3L-1600 ECC soldered memory with 2x GbE, 1x USB 2.0, 2x USB 3.0, 1x RJ-45 COM and single PMC/XMC site
cPCI-6530V/4700E/M8-8	cPCI-6530 with Intel® Core™ i7-4700EQ and 8GB DDR3L-1600 ECC soldered memory and 8GB SO-DIMM module with 2x GbE, 1x USB2.0, 2x USB 3.0 and single PMC/XMC site
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-R6700D	8HP Rear I/O module with discrete GPU ATI/AMD E4690, DVI-Ix2, GbE x2, USB x3, COM x2, PS/2 header, SATA x3, audio header
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
Accessory	
DB-CFast	CFast socket adapter board with screws for cPCI-6530

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