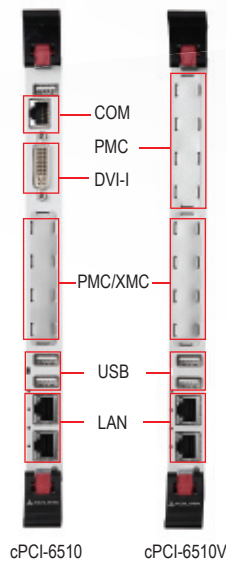
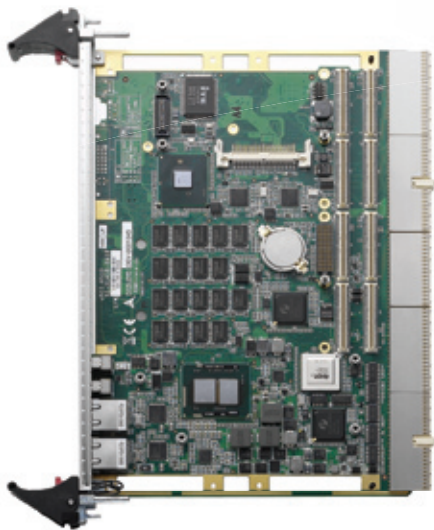


cPCI-6510 Series

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

Rugged interconnect™
TECHNOLOGIES
WHERE TECHNOLOGY IS KEY - FOR REAL WORLD APPLICATIONS



Features

- 32nm Intel® Core™ i7-620 SV, LV, ULV processors with ECC
- Up to 8GB DDR3-1066 ECC soldered memory
- Two 64-bit/133MHz PMC sites with rear signals
- Optional PCI-Express x8 XMC site
- Supports system/peripheral universal mode

Specifications

Processor System

CPU	<p>µFC-BGA Intel® Core™ i7-610E Processor 2.53GHz, 4 MB L2, TDP 35W</p> <p>µFC-BGA Intel® Core™ i7-620LE Processor 2.0GHz, 4 MB L2, TDP 25W</p> <p>µFC-BGA Intel® Core™ i7-620UE Processor 1.06GHz, 4 MB L2, TDP 18W</p> <p>Support Intel® Hyper-Threading and Turbo Boost Technology</p>
Chipset	Intel® QM57 chipset PCH
RAM	Dual Channel DDR3-800/1067 MHz with ECC soldered onboard, maximum capacity 8GB
BIOS	AMI® EFI BIOS, dual 16Mbit SPI Flash memory
CompactPCI Bus	<p>PCI 64-bit/ 66MHz, 3.3V or 5V universal V(I/O)</p> <p>Supports operation in system and peripheral slots with CompactPCI bus communication (Universal mode)</p>
Standard	<p>PICMG 2.0 CompactPCI R3.0</p> <p>PICMG 2.1 Hot Swap R2.0</p> <p>PICMG 2.9 System Management R1.0</p> <p>PICMG 2.16 Packet Switching Backplane R1.0</p>

Connectivity

PMC/XMC	<p>Two PCI 64bit/133MHz PMC sites with rear signals (PIM)</p> <p>One PCI-Express x8 XMC site shared with inner PMC site</p>
Ethernet	<p>Four PCI-Express Intel® 82574L Gigabit Ethernet controllers</p> <p>Two 10/100/1000BASE-T front panel ports</p> <p>Two 10/100/1000BASE-T PICMG 2.16 ports</p> <p>RTM cPCI-R6100 provides two additional 10/100/1000BASE-T ports by PCI-Express Intel® 82576EB GbE Controller</p>
Graphics	<p>Integrated in Intel® Core™ i7-620 Processor</p> <p>Two DVI channels, one to front and one to rear</p> <p>Up to QXGA analog signal, switchable to front or rear</p> <p>One front panel DVI-I (digital+analog) port (cPCI-6510V only)</p>
USB	<p>Up to three USB 2.0 front panel ports (two for cPCI-6510, three for cPCI-6510V)</p> <p>Six USB ports routed to rear</p>
PS/2	PS/2 Keyboard Mouse port is routed to rear
Serial Port	<p>Max. three 16C550 compatible serial ports</p> <p>One RJ-45 port on front panel (cPCI-6510V only), two serial ports routed to rear</p>
Audio	High definition audio signals routed to rear

Storage

SBC	<p>One removable Serial ATA direct connector for 2.5" onboard HDD, occupies outer PMC site</p> <p>CompactFlash socket onboard</p>
RTM*	<p>Two 7-pin SATA signal connectors and one direct connector for 2.5" SATA HDD</p> <p>CF socket</p> <p>One SD socket</p> <p>One internal and one external 68-pin SCSI connector by LSI53C1020 SCSI Ultra320 single channel controller, support RAID 1</p>

* Available interfaces dependent on RTM model selected

Operating System

OS	<p>Microsoft Windows® XP Professional SP3</p> <p>Microsoft Windows® 7</p> <p>RedHat Enterprise Linux (TBD)</p> <p>Wind River Vxworks 6 (TBD)</p> <p>(Please contact ADLINK for other OS support)</p>
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Miscellaneous

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

Mechanical & Environmental

Form Factor	6U 4HP CompactPCI
Operating Temperature	0 to 60°C standard
	Extended temperature optional
Storage Temperature	-40 to 85°C
RH Humidity	95% non-condensing
Shock	15G peak-to-peak, 11ms duration, non-operating
Vibration	1.88 Grms random vibration between 5-500Hz in 3 axis
Power Consumption	TBD

Safety & EMI

Certification	CE/ FCC
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I/O Table

		GbE	USB 2.0	COM	DVI	VGA	PMC/XMC	SATA	SCSI	CF	Mic-in	Line-out	PS/2 KB/MS	SD
SBC														
cPCI-6510	Face-plate	2	2											
	On-board						2/1 ⁽¹⁾	1		1				
cPCI-6510V	Face-plate	2	3	1 (RJ-45)	1 (DVI-I)									
	On-board					1	1		1					
RTM														
cPCI-R6000-NF	Face-plate	2	2	1 (DB-9)	1 (DVI-I)				1					
	On-board		1	1 ⁽²⁾ (10-pin)				2 (7-pin)	1					
cPCI-R6000D-NF	Face-plate	2	4	1 (DB-9)	1 (DVI-I)								1	
	On-board			1 ⁽²⁾ (10-pin)				3 ⁽³⁾		1 ⁽³⁾	1	1		
cPCI-R6100	Face-plate	4	4	1 (RJ-45)	1	1							1	
	On-board							2 (7-pin)		1				1
cPCI-R6110	Face-plate	2	4			1							1	
	On-board							3 ⁽³⁾		1 ⁽³⁾				1

(1) Two PMC and one XMC sites. The XMC site is share the same space with the inner PMC site.

(2) Tx, Rx signals only.

(3) Two 7-pin signal connectors onboard for external HDDs and one direct connector for onboard 2.5" SATA HDD. SATA direct connector can be replaced by CompactFlash adapter (DB-CF-SA) for CF slot.

Ordering Information

Model Number	Description/Configuration
Processor Blade	
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-6510/620L/M2G	6U CompactPCI blade with Core™ i7 620LE 2.0GHz and 4GB DDR3-1066 ECC soldered onboard memory, dual PMC sites
cPCI-6510V/620/M2G	6U CompactPCI blade with Core™ i7 610E 2.53GHz and 2GB 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-6510V/620U/M2G	6U CompactPCI blade with Core™ i7 620UE 1.06GHz and 2GB DDR3-1066 ECC soldered onboard memory, single PMC site
Rear Transition Module	
cPCI-R6000-NF	4HP Rear I/O module with GbEx2, COMx2, USBx3, SATAx2, SCSI, DVI-I
cPCI-R6000D-NF	8HP Rear I/O module with GbEx2, COMx2, USBx5, SATAx2, SCSI, DVI-I, PS/2 and Mic-in, Line-out
cPCI-R6100	4HP Rear I/O module with GbEx4, COM, USBx4, SATAx2, DVI, VGA, PS/2, CF, SD
cPCI-R6110	4HP Rear I/O module with GbEx2, COM, USBx4, SATAx3, VGA, PS/2, CF, SD
Mezzanine	
DB-CF-SA	CompactFlash socket adapter card (for cPCI-R6000D and cPCI-R6110)

