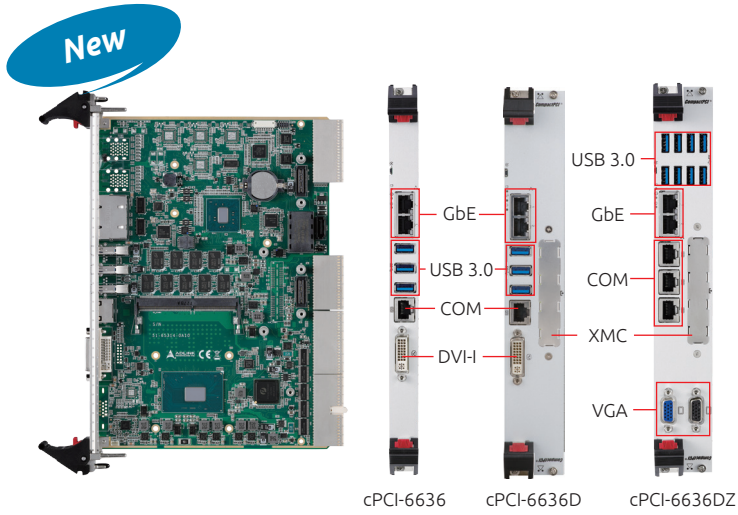
cPCI-6636(KL) Series

6U CompactPCI 6th/7th Gen Intel® Xeon® E3 and Core™ i7/i3 Processor Blade

Features

- Supports 6th/7th Gen Intel® Xeon® E3 and Intel® Core™ i7/i3 processor
- Up to 32GB DDR4-2133 memory, soldered and SO-DIMM, optional ECC
- XMC connector support (8HP models)
- Up to 8x USB 3.0
- Up to 4x GbE to rear I/O
- SEMA 3.5 support



Specifications

Processor & System

CPU

New
New
Intel® Core™ i7-7820EQ 3GHz, 4C/8T, GT2, 8M cache, 45W (35W by cTDP)
Intel® Core™ i3-7102E 2.1GHz, 2C/4T, 3M cache smart, 25W
Intel® Xeon® E3-1505M v5, 2.8/3.7GHz, 4C/8T, GT2, 8M, 45W (35W by cTDP)
Intel® Core™ i7-6820EQ 2.8/3.5GHz, 4C/8T, GT2, 8M, 45W (non ECC)
Intel® Core™ i3-6100E 2.7GHz, 2C/4T, GT2, 3M, 35W

Chipset

Intel® HM170 Chipset (w/o ECC)
Intel® CM236 Chipset (w/ ECC)
*cPCI-6636(D) default with CM236
*cPCI-6636DZ default with HM170

RAM

Dual channel DDR4-2133 SDRAM, up to 32GB
One channel soldered onboard up to 16GB; one channel in SO-DIMM socket up to 16GB
ECC supported with CM236 Chipset

BIOS

AMI UEFI BIOS, 64Mbit SPI serial flash memory

CompactPCI Bus

PCI 64-bit/66MHz, 3.3V or 5V universal V (I/O)
cPCI-6636(D) supports operation in system and peripheral slots without CompactPCI bus communication (Satellite mode)
cPCI-6636DZ supports operation in host slot only

PICMG standards

PICMG 2.0 CompactPCI Rev. 3.0
PICMG 2.1 Hot Swap Specification Rev. 2.0
PICMG 2.16 Packet Switching Backplane not supported by cPCI-6636DZ

Connectivity

XMC

One XMC slot on cPCI-6636D/DZ

Ethernet

Up to one Intel® PHY I219LM and three Intel® LAN controller I210IT
Two 10/100/1000BASE-T ports on front panel, switchable to rear
Two 10/100/1000BASE-T ports to J3 for PICMG 2.16

Graphics

Integrated in Intel processor
Intel® HD Graphics 530 on Core™ i7/i3; Intel® HD Graphics P530 on Xeon® E3
Supports DirectX 12 and OpenGL 4.4 for Xeon® E3 and Open GL4.5 for Core™ i7/i3
cPCI-6636DZ: Two VGA ports on front panel
cPCI-6636(D): one DVI-I port, 2x DVI to rear

USB

cPCI-6636DZ: eight USB 3.0 ports
cPCI-6636(D): three USB 3.0 ports

Serial Port

cPCI-6636DZ: 3x RJ-45 on faceplate (converts to 6x RS-232 TX/RX)
cPCI-6636(D): 1x RJ-45 RS-232/422/485

Audio

High Definition Audio signals to J3

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Specifications

Storage

1x SATA 6Gb/s direct connector for 2.5” onboard drive
1x SATA 6Gb/s 7-pin connector
1x CFast slot on 1-slot version by default
3x SATA to rear J3, J5

Operating System

OS

Windows 10, 7 Pro (64-bit)
RHEL 7.3 and above (64-bit)
Ubuntu 16.10 (64-bit)
Fedora 22 (64-bit)
VxWorks 7 upon request
(Please contact ADLINK for other OS support)

Miscellaneous

LEDs

1x WDT on faceplate
1x Power on faceplate
1x HDD on faceplate

Battery

Coin cell lithium battery onboard for RTC CMOS

Watchdog Timer

System Reset and NMI, with programmable interval, 1-65535 seconds or minutes

Hardware Monitor

Monitors CPU temperature, system temperature, Vcore and DC voltage
Supported by onboard SEMA 3.5 BMC

TPM

TPM 2.0 support on cPCI-6636 and cPCI-6636D

Mechanical & Environmental

Form Factor

6U 4/8HP CompactPCI
233.33mm x 160mm (LxW)
cPCI-6636(D) equipped with J1, J2, J3 and J5
cPCI-6636DZ equipped with J1, J2

Operating Temperature

0°C to 60°C
Extended Temperature: -20°C to 70°C (SKU dependent, by screening)

Storage Temperature

-40°C to 85°C

Relative Humidity

95% non-condensing

Shock

20G peak-to-peak, 11ms duration, non-operating

Vibration

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

Power Consumption

Intel® Core™ i7-6820EQ/CM236 with BIOS EIST Enabled / CTDP Normal in Win 10: 1.74A@3.3V, 11.94A@5V, 65.442W max.
Intel® Xeon® E3-1505M v5/CM236 with BIOS EIST Enabled / CTDP Normal in Win 10: 1.85A@3.3V, 12.48A@5V, 68.505W max.

Weight

Net weight with heatsink for cPCI-6636DZ: 730g

Safety & EMI

Certifications

CE/FCC

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I/O Table

		GbE	USB 2.0	USB 3.0	COM	DVI	VGA	XMC	SATA	CFast	CF	Mic-in	Line-out	PS/2 KB/MS	SD	SAS
SBC																
cPCI-6636 (4HP)	Faceplate	2		3	1	1 (DVI-I)										
	Onboard								2 (2.5", 7-pin)	1						
	Rear	2	6		2	2	1		3			1	1	1		
cPCI-6636D (8HP)	Faceplate	2		3	1	1 (DVI-I)										
	Onboard							1	2 (2.5", 7-pin)							
	Rear	2	6		2	2	1		3			1	1	1		
cPCI-6636DZ (8HP)	Faceplate	2		8	6 (RS-232)		2		1							
	Onboard							1	2 (2.5", 7-pin)							
	Rear															
RTM																
cPCI-R6002	Faceplate	2	2		1	1										
	Onboard				1[1]				3							
cPCI-R6002D	Faceplate	2	4		1	1						1	1	1		
	Onboard				1[1]				3							
cPCI-R6100	Faceplate	4[2]	4		1	DVI-D	1							1		
	Onboard								3		1[3]				1	
cPCI-R6110	Faceplate	2	4				1							1		
	Onboard								3		1[3]				1	
cPCI-R66S0	Faceplate	4	3		1 (DB-9)	2 (DVI-D)						1	1	1		4 (SFF-8088)
	Onboard				1 (10-pin)				3							4 (SFF-8087)

(1) Tx, Rx signals only.
(2) Two from the front processor blade, two from the RTM onboard Ethernet controller I350-AM2.
(3) Converted from USB, Window OS installation not supported.

cPCI-6636(KL) Series

Ordering Information

Processor Blades

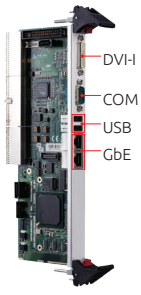
- **cPCI-6636SL/6820E/M0-4**
  6U 4HP cPCI-6636SL with quad-core Intel® Core™ i7-6820EQ processor, 4GB DDR4-2133 SODIMM, 2x GbE, COM, DVI-I, 3x USB 3.0, 2.5" SATA and CFast; with J1, J2, J3, J5
- **cPCI-6636SL/6820E/M0-8**
  6U 4HP cPCI-6636SL with quad-core Intel® Core™ i7-6820EQ processor, 8GB DDR4-2133 SODIMM, 2x GbE, COM, DVI-I, 3x USB 3.0, 2.5" SATA and CFast; with J1, J2, J3, J5
- **cPCI-6636SL/6820E/M0-16**
  6U 4HP cPCI-6636SL with quad-core Intel® Core™ i7-6820EQ processor, 16GB DDR4-2133 SODIMM, 2x GbE, COM, DVI-I, 3x USB 3.0, 2.5" SATA and CFast; with J1, J2, J3, J5
- **cPCI-6636SLD/6820E/M0-16**
  6U 8HP cPCI-6636SLD with quad-core Intel® Core™ i7-6820EQ processor, 16GB DDR4-2133 SODIMM, 2x GbE, COM, DVI-I, 3x USB 3.0, 2.5" SATA and XMC; with J1, J2, J3, J5
- **cPCI-6636SL/1505/M16-0**
  6U 4HP cPCI-6636SL with Intel® Xeon® E3-1505M v5 processor, one channel of onboard 16GB DDR4 ECC with 2x GbE, COM, DVI-I, 3x USB, 2.5" SATA
- **cPCI-6636SL/6820E/M16-16**
  6U 4HP cPCI-6636SL with quad-core Intel® Core™ i7-6820EQ processor, 16GB DDR4-2133 soldered and 16GB DDR4-2133 SODIMM, with 2x GbE, COM, DVI-I, 3x USB 3.0, 2.5" SATA and CFast; with J1, J2, J3, J5
- **cPCI-6636SLD/6820E/M16-16**
  6U 8HP cPCI-6636SLD with quad-core Intel® Core™ i7-6820EQ processor, 16GB DDR4-2133 soldered and 16GB DDR4-2133 SODIMM, with 2x GbE, COM, DVI-I, 3x USB 3.0, 2.5" SATA and XMC; with J1, J2, J3, J5
- **cPCI-6636SLDZ/6820E/M4-0**
  6U 8HP cPCI-6636SLDZ with quad-core Intel® Core™ i7-6820EQ processor, 4GB DDR4-2133 soldered, with 2x GbE, 6x COM, 2x VGA, 8x USB 3.0, 2.5" SATA and XMC; with J1, J2 only

Rear Transition Modules

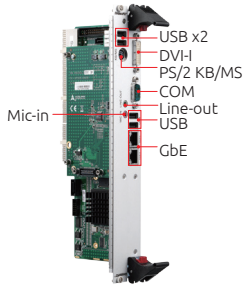
(Only compatible with cPCI-6636(D) with J3, J5)

- **cPCI-R6002**
  4HP Rear I/O module with 2x GbE, 2x COM, 3x USB, SATA, DVI-I
- **cPCI-R6002D**
  8HP Rear I/O module with 2x GbE, 1x COM, 4x USB2.0, DVI-I, PS/2 and Mic-in, Line-out interfaces
- **cPCI-R6100**
  4HP Rear I/O module with 4x GbE, RJ-45 COM, 4x USB, DVI, VGA, PS/2
- **cPCI-R6110**
  4HP Rear I/O module with 2x GbE, 4x USB, VGA, PS/2
- **cPCI-R66S0**
  6U 8HP Rear I/O module with 4x GbE, COM, 8x SAS, 2x DVI-D, 3x USB 2.0, PS/2, Audio

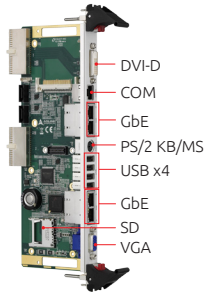
See 6U RTM selection guide for more options.



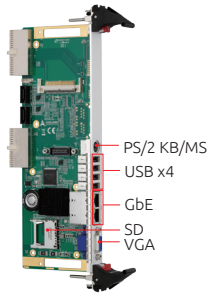
cPCI-R6002



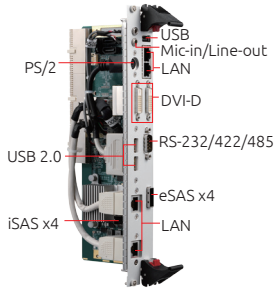
cPCI-R6002D



cPCI-R6100



cPCI-R6110



cPCI-R66S0

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