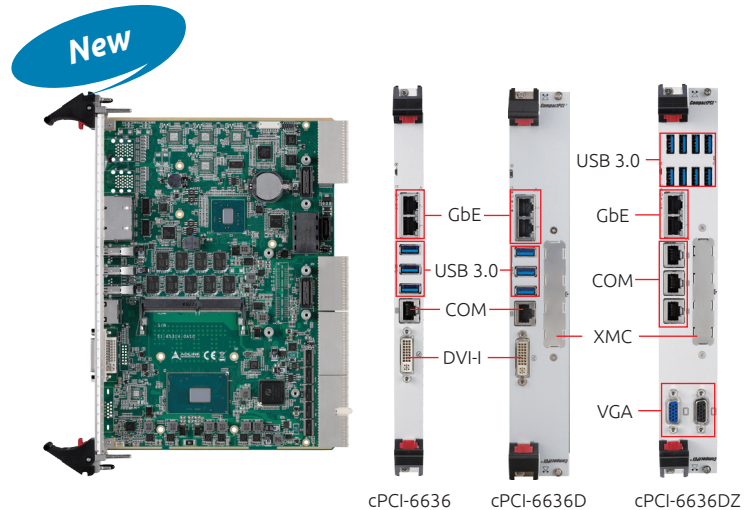


cPCI-6636(KL) Series

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** Intel® Core™ i7-7820EQ 3GHz, 4C/8T, GT2, 8M cache, 45W (35W by cTDP)
- New** 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

cPCI-6636(KL) Series



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

cPCI-6636(KL) Series

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)			2 (2.5", 7-pin)	1						
	Onboard								3			1	1	1		
cPCI-6636D (8HP)	Faceplate	2	6	3	1	1 (DVI-I)			2 (2.5", 7-pin)							
	Onboard							1	3							
cPCI-6636DZ (8HP)	Faceplate	2			2	2	1		3			1	1	1		
	Onboard								1							
cPCI-6636DZ (8HP)	Faceplate	2		8	6 (RS-232)	2	2		1							
	Onboard							1	2 (2.5", 7-pin)							
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

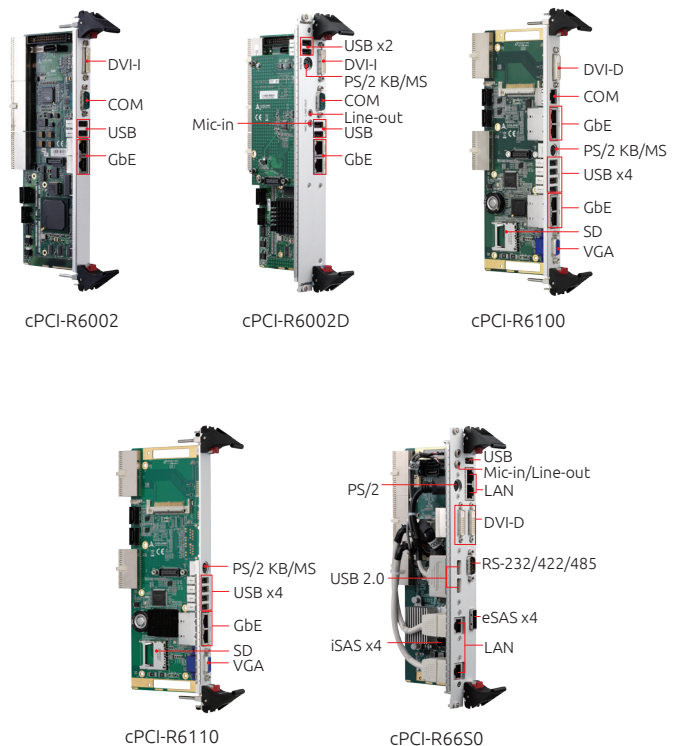
- **cPCI-6636SL/6820E/M0-4**
6U 4HP cPCI-6636SL with quad-core Intel® Core™ i7-6820EQ processor, 4GB DDR4-2133 SODIMM, 2x GbE, COM, DVI-I, 3x USB 3.0, 2.5" SATA and CFast; with J1, J2, J3, J5
- **cPCI-6636SL/6820E/M0-8**
6U 4HP cPCI-6636SL with quad-core Intel® Core™ i7-6820EQ processor, 8GB DDR4-2133 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-R6650**
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.



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[cPCI-6636SLDZ/6820E/M0-8](#) [cPCI-6636SLD/6100E/M8-0](#)