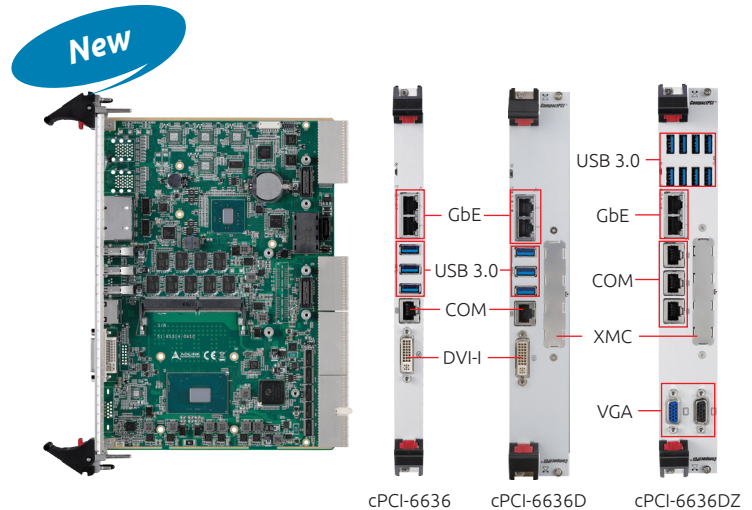


cPCI-6636

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

Features

- Supports 6th 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

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

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

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

Ordering Information

Processor Blades

- 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.

