

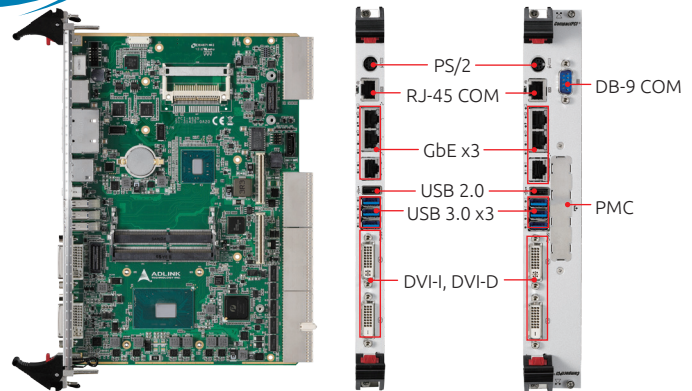
cPCI-6630(KL) Series

6U CompactPCI 6th/7th Gen Intel® Core™ i7/Celeron® Processor Blade

Features

- Quad-core 6th/7th Gen Intel® Core™ i7/Celeron® processor
- Up to 32GB DDR4-2133/2600 memory via two SO-DIMMs
- 5V power input only
- Up to 3 independent displays
- Legacy IO supported: PS/2, PMC, CompactFlash
- Optional SEMA 3.0 support

New



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® Core™ i7-6820EQ 2.8GHz, 4C/8T, GT2, 8M cache, 45W (35W by cTDP)
- Intel® Celeron® G3900E 2.4GHz, 2C/2T, GT1, 2M cache, 35W

Chipset

- Intel® HM170 PCH for 6th gen CPU
- Intel® HM175 PCH for 7th gen CPU

RAM

- Dual channel DDR4-2133/2600 via 2 SO-DIMMs up to 32GB

BIOS

- AMI UEFI BIOS, 64Mbit SPI serial flash memory

CompactPCI Bus

- PCI 64-bit/66MHz to J1, universal V (I/O)
- Supports Host/Satellite mode

PICMG standards

- PICMG 2.0 CompactPCI Rev. 3.0
- PICMG 2.1 Hot Swap Specification Rev. 2.0
- PICMG 2.16 Packet Switching Backplane Rev. 1.0

Connectivity

PMC

- One 32-bit/33MHz PMC site by adapter board (cPCI-6630D)

Ethernet

- Three GbE ports on faceplate by Intel® I219 and I210
- Two GbE switchable to rear for PICMG 2.16

Graphics

- Integrated in Intel processor
- Intel® HD Graphics 530/510
- Supports DirectX 12 and OpenGL 4.4
- DVI-I and DVI-D on front panel with VGA signal switchable to J3
- Additional 1x DP to J5

USB

- 3x USB 3.0 and 1x USB 2.0 on faceplate
- 6x USB 2.0 routed to rear

PS/2

- PS/2 keyboard/mouse port on faceplate, switchable to rear

Serial Port

- 1x RS-232/422/485 on faceplate (4HP)
- Additional 1x RS-232/422/485 on 2nd layer of faceplate (8HP)
- 2 COM(TX/RX) to J3

Audio

- High Definition Audio signals to J3

Rear I/O Signals

- Audio, 6x USB 2.0, 3x SATA, VGA to J3
- KB/MS, 2x COM (TX/RX), PCIe x4, DP to J5

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Specifications

• Storage

Processor Blade

- 1x SATA 6Gb/s direct connector for 2.5" onboard drive
- 1x SATA 7-pin header
- 1x CFast socket (optional CompactFlash supported by USB-to-IDE)
- 2x SATA 3Gb/s ports routed to J3
- 1x SATA 3Gb/s port routed to J5

RTM

Available interfaces dependent on RTM model selected

• Operating System

OS

- Windows 10, 8.1, 7 Pro (64-bit)
- RHEL 6 and above (64-bit)
- VxWorks 6.8, 6.9, 7, older version by request
- QNX 6.5, QNX 6.6
- (Please contact ADLINK for other OS support)

• Miscellaneous

LEDs

- 8x indication LEDs for port 80h on faceplate
- 1x WDT on faceplate and signal to rear
- 1x Power on faceplate and signal to rear
- 1x HDD on faceplate and signal to rear
- 1x Hot Swap on faceplate and signal to rear

Battery

Coin cell lithium battery onboard for RTC CMOS RAM

TPM

N/A

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 optional onboard SEMA 3.0 BMC

• Mechanical & Environmental

Form Factor

- 6U 4/8HP CompactPCI
- 233.33mm x 160mm (LxW)
- Equipped with J1, J2, J3, J5 HM connectors

Operating Temperature

0°C to 60°C

Extended Temperature

-20°C to 70°C (SKU dependent, by screening)

Storage Temperature

-50°C to 100°C

Relative Humidity

95% non-condensing

Shock

15G peak-to-peak, 11ms duration, non-operating

Vibration

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

Power Consumption

Intel® Core™ i7-6820EQ with BIOS EIST Enabled / CTPD Normal in Win 7:
14.58A@5V, 72.9W max.

Intel® Celeron® G3900E with BIOS EIST Enabled / CTPD Normal in Win 7:
5.83A@5V, 29.15W max.

Weight

Net weight 642g with heatsink for cPCI-6630D

• Safety & EMI

Certifications

CE/FCC

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I/O Table

		GbE	USB 2.0	USB 3.0	COM	DVI	VGA	DP	PMC/XMC	SATA	CFast	Compact-Flash	Mic-in	Line-out	PS/2 KB/MS	SD	SAS
SBC																	
cPCI-6630(KL) (4HP)	Faceplate	3	1	3	1 (RJ-45)	DVI-I DVI-D									1		
	Onboard				1 (10-pin header)					2 ⁽¹⁾	1 ⁽²⁾						
cPCI-6630D (8HP)	Faceplate	3	1	3	1 (RJ-45) 1 (DB-9)	DVI-I DVI-D									1		
	Onboard								PMC	2 ⁽¹⁾	1 ⁽²⁾						
RTM																	
cPCI-R6002	Faceplate	2	2		1 (DB-9)	DVI-I											
	Onboard		1 (5-pin)		1 (10-pin header)					2 (7-pin)							
cPCI-R6002D	Faceplate	2	4		1 (DB-9)	DVI-I							1	1	1		
	Onboard		1 (5-pin)		1 (10-pin header)					1x 2.5" SATA + 2x 7-pin							
cPCI-R6100	Faceplate	4	4		1 (RJ-45)	DVI-D	1								1		
	Onboard									2x 7-pin		1 ⁽³⁾				1	
cPCI-R6110	Faceplate	2	4				1								1		
	Onboard									1x 2.5" SATA + 2x 7-pin		1 ⁽³⁾				1	
cPCI-R6120	Faceplate	2	4				1								1		
	Onboard									2x 2.5" SATA + 1x 7-pin		1 ⁽³⁾				1	

(1) One 2.5" SATA drive by adapter board, one 7-pin SATA port.

(2) One CFast and CompactFlash slot (default CFast, CompactFlash is converted from USB signal).

(3) CompactFlash converted from USB signal.

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Ordering Information

Processor Blades

- **cPCI-6630/6820/M4G**
6U 4HP cPCI-6630 with Intel® Core™ i7-6820EQ and 4GB DDR4-2133, DVI-I, DVI-D, 3x GbE, 3x USB 3.0, USB 2.0, RJ-45 COM, PS/2
- **cPCI-6630D/6820/M4G**
6U 8HP cPCI-6630 with Intel® Core™ i7-6820EQ, 4GB DDR4-2133, DVI-I, DVI-D, 3x GbE, 3x USB 3.0, USB 2.0, RJ-45 COM x1, PS/2, DB-9 COM, SATA, CFast and PMC site
- **cPCI-6630/G3900/M4G**
6U 4HP cPCI-6630 with Intel® Celeron® G3900E and 4GB DDR4-2133, DVI-I, DVI-D, 3x GbE, 3x USB 3.0, USB 2.0, RJ-45 COM, PS/2
- **cPCI-6630D/G3900/M4G**
6U 8HP cPCI-6630 with Intel® Celeron® G3900E, 4GB DDR4-2133, DVI-I, DVI-D, 3x GbE, 3x USB 3.0, USB 2.0, RJ-45 COM, PS/2, DB-9 COM and PMC site
- **cPCI-6630KL/7820/M4G/CFA**
6U 4HP cPCI-6630 with Intel® Core™ i7-7820EQ, 4GB DDR4-2133/2600, DVI-I, DVI-D, 3x GbE, 3x USB 3.0, USB 2.0, RJ-45 COM, PS/2, SATA, and CFast
- **cPCI-6630KL/7102/M4G/CFA**
6U 4HP cPCI-6630 with Intel® Core™ i3-7102E and 4GB DDR4-2133/2600, DVI-I, DVI-D, 3x GbE, 3x USB 3.0, USB 2.0, RJ-45 COM, PS/2, SATA, and CFast

Rear Transition Modules

- **cPCI-R6002**
4HP Rear I/O module with 2x GbE, 2x COM, 3x USB, 2x 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-R6120**
8HP Rear I/O module with 2x GbE, 4x USB, VGA, PS/2, w/ space for dual SATA drive

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

