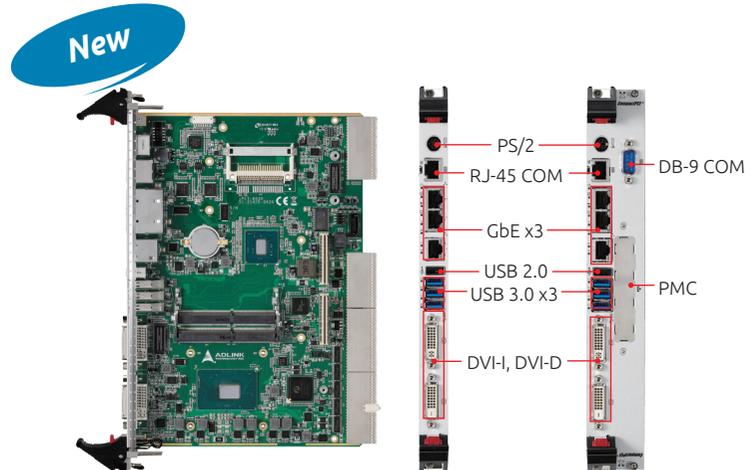# cPCI-6630(KL) Series

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

PS/2
RJ-45 COM
GbE x3
USB 2.0
USB 3.0 x3
DVI-I, DVI-D
DB-9 COM
PMC

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

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 / CTDP Normal in Win 7: 14.58A@5V, 72.9W max.
  Intel® Celeron® G3900E with BIOS EIST Enabled / CTDP Normal in Win 7: 5.83A@5V, 29.15W max.

  ### Weight
  Net weight 642g with heatsink for cPCI-6630D

- ## Safety & EMI

  ### Certifications
  CE/FCC

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	Faceplate	3	1	3	1 (RJ-45)	DVI-I DVI-D									1		
	Onboard				1 (10-pin header)					2[1]	1[2]						
cPCI-6630D	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.

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, GbE x3, USB 3.0 x3, USB 2.0 x1, RJ-45 COM, PS/2

- **cPCI-6630D/6820/M4G**

  6U 8HP cPCI-6630 with Intel® Core™-6820EQ and 4GB DDR4-2133, DVI-I, DVI-D, GbE x3, USB 3.0 x3, USB 2.0 x1, RJ-45 COM x1, PS/2, DB-9 COM and PMC site

- **cPCI-6630/G3900/M4G**

  6U 4HP cPCI-6630 with Intel® Celeron® G3900E and 4GB DDR4-2133, DVI-I, DVI-D, GbE x3, USB 3.0 x3, USB 2.0 x1, RJ-45 COM, PS/2

- **cPCI-6630D/G3900/M4G**

  6U 8HP cPCI-6630 with Intel® Celeron® G3900E and 4GB DDR4-2133, DVI-I, DVI-D, GbE x3, USB 3.0 x3, USB 2.0 x1, RJ-45 COM, PS/2, DB-9 COM and PMC site

- **cPCI-6630/7820/M4G**

  6U 4HP cPCI-6630 with Intel® Core™ i7-7820EQ and 4GB DDR4-2133/2600, DVI-I, DVI-D, GbE x3, USB 3.0 x3, USB 2.0 x1, RJ-45 COM, PS/2

- **cPCI-6630/7102/M4G**

  6U 4HP cPCI-6630 with Intel® Core™ i3-7102E and 4GB DDR4-2133/2600, DVI-I, DVI-D, GbE x3, USB 3.0 x3, USB 2.0 x1, RJ-45 COM, PS/2

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.

cPCI-R6002   cPCI-R6002D   cPCI-R6100   cPCI-R6110   cPCI-R6120

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