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

Specifications

Processor & System

- CPU
  - 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® 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 (BHP)
  - 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
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(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™ i7-6820EQ 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.