cPCI-6930 Series

6U CompactPCI 10-core 22nm Intel® Xeon® Processor Blade

Features

- Up to 10-core Intel® Xeon processor 1.8GHz and 25MB LLC
- Up to 192GB DDR3 ECC registered memory by RDIMMs
- Two USB 3.0, four GbE ports on front panel
- Onboard SATA NAND Flash and optional CF, CFast socket
- Optional SAS 6Gb/s port for 2.5” drive onboard

CompactPCI®

Specifications

- Processor & System
  CPU
  LGA1356 ten-core Intel® Xeon® E5-2448L v2 Processor, 1.8GHz, 25MB LLC, TDP 70W
  LGA1356 eight-core Intel® Xeon® E5-2428L v2 Processor, 1.8GHz, 20MB LLC, TDP 60W
  LGA1356 six-core Intel® Xeon® E5-2418L v2 Processor, 2.0GHz, 15MB LLC, TDP 50W
  LGA1356 eight-core Intel® Xeon® E5-2448L Processor 1.8GHz, 20MB LLC, TDP 70W
  LGA1356 six-core Intel® Xeon® E5-2428L Processor 1.8GHz, 15MB LLC, TDP 60W
  LGA1356 quad-core Intel® Xeon® E5-2418L Processor 2.0GHz, 10MB LLC, TDP 50W
  Passive heatsink

  Chipset
  Intel® C600 PCH

  Memory
  Three channel DDR3-1600 ECC register SDRAM with three RDIMM slots, up to 192GB capacity (dependent on availability of memory modules)

  BIOS
  AMI® EFI BIOS, 64Mbit SPI flash memory

  CompactPCI Bus
  PCI 64-bit, 66MHz, 3.3V or 5V universal V(I/O)
  Supports operation in system slot as master or in peripheral slot as stand-alone blade without connectivity to CompactPCI® bus (Satellite mode)

  PIGMIG Standards
  PICMG 2.0 CompactPCI R3.0
  PICMG 2.1 Hot Swap R2.0
  PICMG 2.9 System Management R1.0
  PICMG 2.16 Packet Switch Backplane R1.0

- Connectivity
  PMC/XMC
  One PCI 32/64-bit, 33/66/133MHz PMC site or PCI-Express x8 XMC site

  Ethernet
  One Intel® 82580 Gigabit Ethernet controller for four 10/100/1000BASE-T ports
  Two Intel® 82574L Gigabit Ethernet controllers for two 10/100/1000BASE-T ports to J3 for PICMG 2.16
  Two additional 10/100/1000BASE-T ports from Intel® 82576EB on RTM (cPCI-R6100 or cPCI-R6110)

  Graphics
  SMI SM750 2D graphics chip
  16MB embedded 32-bit DDR memory at 166MHz
  Two analog RGB signals to front and rear for VGA interfaces with dual display support
  Up to 1920x1440 resolution

  USB
  Two USB 3.0 and three USB 2.0 ports on front panel
  Six USB 2.0 ports routed to rear

  PS/2
  PS/2 keyboard/mouse port to rear

  Serial Port
  Up to three 16C550 compatible serial ports
  One DB-9 RS-232 port on front panel
  Two serial ports routed to rear

  Audio
  High Definition Audio signals routed to rear
Specifications

● Storage
  Processor Blade
  4GB SATA NAND flash onboard
  One SATA 6 Gb/s direct connector for 2.5” onboard drive (removable)
  Optional CF or CFast socket (shares space with SATA direct connector)
  Optional SAS direct connector for 2.5” onboard drive (shares space with SATA direct connector; not available concurrently with COM, USB, PMC/XMC site on layer 2)

  RTM*
  Up to three SATA ports
  CF (x1) and SD (x1) sockets
  Eight SAS ports supporting hardware RAID via two mini-SAS x4 connectors (LSISAS1068E)
  cPCI-R6200, contact ADLINK for assistance
  *Available interfaces dependent on RTM model selected

● Operating System
  OS
  Microsoft Windows 7 32/64-bit
  Microsoft Windows Server 2008 64-bit
  Red Hat Enterprise Linux 6.1
  Fedora 15
  Wind River VxWorks 6.9 (Please contact ADLINK for other OS support)

● Miscellaneous
  LED
  Power, WDT, Hard Disk, Hotswap and Port 80 User LEDs
  Battery
  Coin cell lithium battery onboard for RTC CMOS RAM
  TPM
  Infineon SLB 9635 TT1.2 (optional, support upon request)
  Watchdog Timer
  System Reset and NMI, with Programmable Interval, 1-65535 seconds or minutes
  Hardware Monitor
  Monitors CPU temperature, system temperature, Vcore and DC voltages

● Mechanical & Environmental
  Form Factor
  6U 4/8HP (single/dual slot) CompactPCI
  233.33mm x 160mm (LxW)
  Operating Temperature
  0° to +55°C with forced air flow
  Storage Temperature
  -40° to +85°C
  RH Humidity
  95% non-condensing
  Shock
  15G peak-to-peak, 11ms duration, non-operating
  Vibration
  2 Grms random vibration, 5-500Hz, each axis, operating
  Power Consumption
  8-C Xeon E5-2448L processor, 12GB DDR3-1600 under Windows 7 with 100% CPU usage
  19.6A@5V, 4.6A@3.3V, total 113.2W when Turbo boost and HT enabled;
  16.7A@5V, 4.4A@3.3V, total 98W when Turbo boost and HT disabled
  Weight
  Net weight 1087.6g with heatsink
  EMI/EMC
  EN 55022 Class A, EN 55024, EN 61000-3-2, EN 61000-3-3
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(1) Removable adapter design. SATA adapter by default, can be replaced with CF, CFast or SAS adapter.
(2) Tx, Rx signals only.
(3) Two 7-pin signal connectors onboard for external HDDs and one direct connector for onboard 2.5” SATA drive. SATA direct connector can be replaced by CompactFlash adapter (DB-6920CF) for CF slot.
(4) Converted from USB.
(5) Space is reserved onboard for one 2.5” SATA drive.
Ordering Information

Processor Blades

- **cPCI-6930/2418/8G**
  4HP cPCI-6930 with Intel® Xeon® E5-2418 processor and 1x 8GB DDR3-1333 RDIMM with GbE x4, USB 2.0 x3, USB 3.0 x1, VGA

- **cPCI-6930D/2448v2/96G**
  8HP cPCI-6930D with Intel® Xeon® E5-2448L processor and 3x32GB DDR3L-1600 LR-RDIMM with GbE x4, USB 2.0 x3, USB 3.0 x2, VGA, COM, SATA, and PMC/XMC

- **cPCI-6930D/2448/M12G**
  8HP cPCI-6930 with Intel® Xeon® E5-2448L processor and 3x32GB DDR3L-1600 LR-RDIMM with GbE x4, USB 2.0 x3, USB 3.0 x2, VGA, COM, SATA, PMC/XMC

- **cPCI-6930D/2428/8G**
  8HP cPCI-6930 with Intel® Xeon® E5-2428L processor and 2x4GB DDR3-1333 RDIMM with GbE x4, USB 2.0 x3, USB 3.0 x2, VGA, COM, SATA, PMC/XMC

- **cPCI-6930/2418/6G**
  8HP cPCI-6930 with Intel® Xeon® E5-2418L processor and 2x2GB DDR3-1333 RDIMM with GbE x4, USB 2.0 x3, USB 3.0 x2, VGA, COM, SATA, PMC/XMC

Rear Transition Modules

- **cPCI-R6002**
  4HP Rear I/O module with GbE x2, COM x2, USB x3, SATA x2, DVI-I

- **cPCI-R6002D**
  8HP Rear I/O module with 2x GbE, 2x COM, 5x USB, 2x SATA, VGA, PS/2 KB/MS

- **cPCI-R6100**
  4HP Rear I/O module with GbE x4, COM, USB x4, SATA x2, VGA, PS/2, CF, SD socket

- **cPCI-R6110**
  4HP Rear I/O module with GbE x2, COM, USB x4, SATA x3, DVI, VGA, PS/2, CF, SD socket

- **cPCI-R6120**
  8HP Rear I/O module with 2x GbE, 4x USB, 2x SATA, VGA, PS/2 KB/MS, CF, SD w/space for dual SATA drives

- **cPCI-R6500/A8860**
  4HP Rear I/O module with AMD E8860MF MXM 3.0 graphics module with DVI-I x1, DVI-D x1, GbE x2, USB x1

- **cPCI-R6500D**
  8HP Rear I/O module with AMD X3AE676-AN MXM 3.0 graphics module with DVI-I x1, DVI-D x1, GbE x2, USB x2, COM x2, PS/2 x1, audio, SATA x3

- **cPCI-R6501D**
  8HP Rear I/O module with AMD X3AE676-AN MXM 3.0 graphics module with DVI-I x1, DVI-D x1, GbE x2, USB x1, 2.5" SATA drive space, SATA x3 (one reserved for SATA drive)

- **cPCI-R65N0/NV950**
  6U 8HP Rear I/O module with NVIDIA GTX950M MXM 3.0 graphics module Type A with DVI-I x1, DVI-D x1, GbE x2, USB x2, COM x1, PS/2 x1, SATA x3

Accessory

- **DB-SAS**
  SAS adapter board

- **DB-CFast**
  CFast socket adapter board with screws

  Contact your ADLINK representative for different CPU, memory and storage combinations.

  See 6U RTM selection guide for more options.