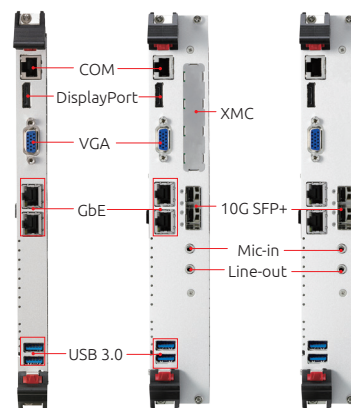
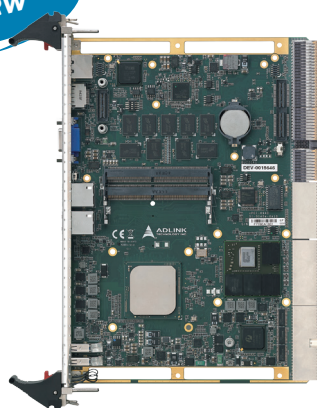


cPCI-6940

6U CompactPCI Intel® Xeon® Processor D-1500 Processor Blade with AMD Radeon™ E8860 GPU

Features

- 14nm multi-core Intel® Xeon® D-1500 family processor (formerly "Broadwell-DE")
- 16GB DDR4-2133 ECC soldered memory & up to 32GB DDR4-2133 ECC socket type memory, max. 48GB
- Integrated AMD Radeon™ E8860 GPU onboard supporting DirectX 11.1, Open GL 4.2, Open CL 1.2
- Dual 10G SFP+ ports on front panel (8HP versions)
- PCIe x16 to J4 UHM connector for rear expansion
- Extended temperature with Xeon® server grade processor


New


cPCI-6940

cPCI-6940DX

cPCI-6940DH

Specifications

Processor & System

CPU	uFC-BGA 16-core Intel® Xeon® D-1577 SoC, 1.3GHz/2.1GHz, 24MB LLC, 45W TDP uFC-BGA 12-core Intel® Xeon® D-1559 SoC, 1.5GHz/2.1GHz, 18MB LLC, 45W TDP, -40°C to 85°C uFC-BGA 8-core Intel® Xeon® D-1539 SoC, 1.6GHz/2.2GHz, 12MB LLC, 35W TDP, -40°C to 85°C
RAM	16GB DDR4-2133 ECC soldered memory & 2x SODIMM supporting up to 32GB of DDR4-2133 ECC socket type memory (up to 48GB total)
BIOS	AMI EFI BIOS, 64Mbit SPI flash memory
CompactPCI Bus	PCI 64bit/66MHz to J1, universal V(I/O) Supports satellite and stand alone modes in Peripheral slots
PICMG standards	PICMG® 2.0 CompactPCI® Rev. 3.0 PICMG® 2.1 Hot Swap Specification Rev.2.0 PICMG® 2.9 System Management Bus Rev. 1.0 PICMG® 2.16 Packet Switching Backplane Rev.1.0

Connectivity

XMC	One PCIe x8 Gen2 XMC site BOM option (cPCI-6940DX only) Optional 12V power support
Ethernet	Two 1/10G SFP+ ports on front panel (8HP version only) One Intel® 82580 4-port GbE Controller providing 2 GbE to the front panel and 2 GbE to J3 for PICMG 2.16
Graphics	AMD Embedded Radeon™ E8860 GPU 1x VGA and 1x DisplayPort on front panel (DP up to 3840 x 2160, at 60Hz) 2x DVI-D and RGB to rear (RGB is switched from front)
USB	2x USB 3.0 on front panel 4x USB 2.0 and 2x USB 3.0 routed to rear USB 3.0 downgradeable to 2.0
PS/2	PS/2 keyboard/mouse port to rear
Serial Port	1x RS-232/422/485 on front panel 1x RS-232 + 1x TX/RX to J3 and 1x TX/RX to J5
Audio	Mic-in, Line-out on front panel (8HP version only)
PCIe	1x PCIe x16 to J4, configurable to 1x PCIe x8 to J4 and PCIe x8 to XMC on layer 2 1x PCIe x4 to J5, configurable to 4x PCIe x1
Rear I/O Signals	6x USB 2.0, 2x COM, 2x SATA, PS/2 KB/MS to J3 2x GbE, 1x VGA switched from front to J3 PCIe x16 to J4 through UHM connector or 1x PCIe x8 to J4 and PCIe x8 to XMC on layer 2 2x DVI-D, 2x SATA, 1x PCIe x4, 1x COM(TX/RX), GPIO, USB 3.0 signal to J5

Storage

Processor Blade	1x SATA 6Gb/s direct connector for 2.5" onboard drive or DB-CFast 1x SATA 6Gb/s direct connector for 2.5" onboard SATA drive on layer 2 daughter board (cPCI-6940DH only) 4x supports SATA 3Gb/s ports routed to J3/J5
RTM	Available interfaces dependent on RTM model selected

Operating System

OS	Windows® Server 2012 (limited performance on VGA) Windows® 7 (64-bit) RHEL 7 and above VxWorks 7 Ubuntu 12 (Please contact ADLINK for other OS support)
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Miscellaneous

LEDs	8x indication LEDs for 80h POST on front panel 1x WDT (red) on front and rear 1x Power (green) on front and rear 1x HDD (yellow) on front and rear 1x Hot Swap (blue) on front and rear
Battery	Coin cell lithium battery onboard for RTC CMOS RAM
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
TPM	Atmel AT97SC3204 through LPC interface

Specifications

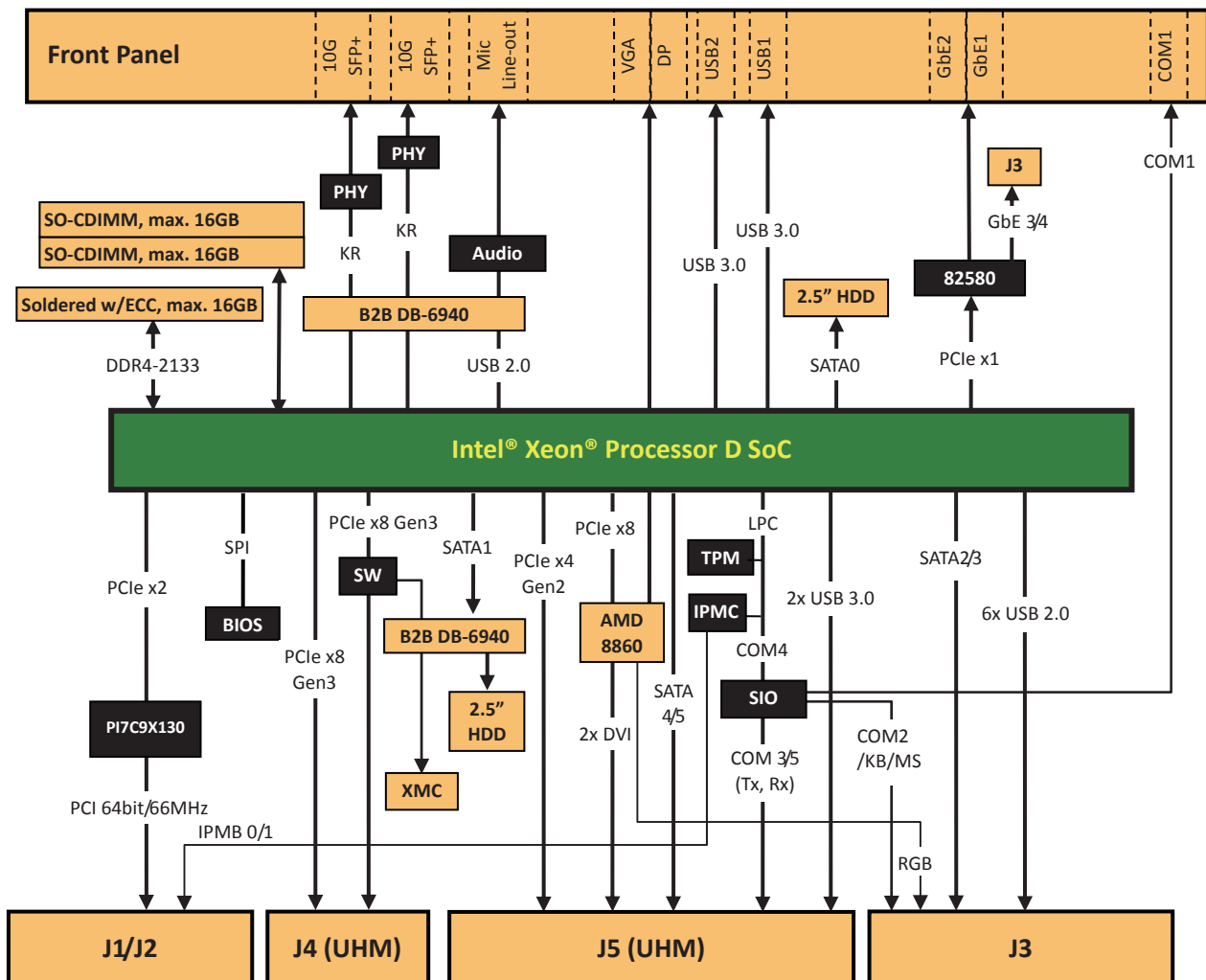
Mechanical & Environmental

Form Factor	6U 4/8HP CompactPCI
	233.33mm x 160mm (LxW)
	Default equipped with J1, J2, J3 HM connectors, J4, J5 with UHM connectors
Operating Temp.	Operating Temperature: 0°C to 60°C (D-1577)
	Extended Temperature: -20°C to 70°C by default (D-1559 & D-1539) -40°C to 85°C (D-1559 & D-1539 by screening)
Storage Temp.	-50°C to 100°C
Relative Humidity	95% non-condensing
Shock	40G peak-to-peak, 11ms duration, non-operating
Vibration	3.5Grms random vibration, 5-500Hz, each axis, operating
Power Consumption	Intel® Xeon® Processor D-1577, 45W with BIOS EIST Enabled / CTD Normal, 16GB DDR4-2133, Win 7: 5.24A@3.3V, 12.7A@5V, total 80.80W
Weight	TBD

Safety & EMI

Certifications CE/FCC

cPCI-6940 Block Diagram



I/O Table

		GbE	10G SFP+	USB 2.0	USB 3.0	COM	DVI	VGA	XMC	SATA	CFast	CF	Mic-in	Line-out	PS/2 KB/MS	SD	SAS
Processor Blades																	
cPCI-6940 (4HP)	Faceplate	2			2	1	1	1		1 ⁽¹⁾	1 ⁽¹⁾						
	Onboard																
cPCI-6940DX (8HP)	Faceplate	2	2		2	1	1	1					1	1			
	Onboard								1	1 ⁽¹⁾	1 ⁽¹⁾						
cPCI-6940DH (8HP)	Faceplate	2	2		2	1	1	1					1	1			
	Onboard									2 ⁽¹⁾	1 ⁽¹⁾						
Rear Transmission Modules																	
cPCI-R6002	Faceplate	2		2		1	1 (VGA signal only)										
	Onboard									2 (7-pin)							
cPCI-R6002D	Faceplate	2		4		1	1 (VGA signal only)								1		
	Onboard									3 (2x 7-pin+1x 2.5" space) ⁽³⁾							
cPCI-R6100	Faceplate	4		4		1 (RJ-45)		1 (VGA only)							1		
	Onboard									2 (7-pin)		1 ⁽²⁾				1	
cPCI-R6110	Faceplate	2		4				1 (VGA only)							1		
	Onboard									3 (2x 7-pin+1x 2.5" space) ⁽³⁾							
cPCI-R6120	Faceplate	2		4				1 (VGA only)							1		
	Onboard									2 (2.5" SATA drive onboard)							
cPCI-R65N0	Faceplate	2		1		1	DVI-I DVI-D ⁽⁵⁾								1		
	Onboard					1 (TX/RX, 10-pin header)				3 (7-pin)							

(1) Removable adapter design. SATA adapter by default, can be replaced with CF, CFast or SAS adapter.

(2) Converted from USB.

(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) Space is reserved onboard for one 2.5" SATA drive.

(5) Supported by PCIe x4 from cPCI-6940 to MXM module on the RTM

Ordering Information

Model Number	Description/Configuration
Processor Blades	
cPCI-6940/D1559/M16-0	4HP 6U CompactPCI blade with Intel® Xeon® D-1559 processor 1.5GHz, AMD E8860 GPU and 16GB DDR4-2133 ECC soldered memory with DP, VGA, 2x GbE, COM, 2x USB 3.0, onboard SATA slot
cPCI-6940/D1539/M16-0	4HP 6U CompactPCI blade with Intel® Xeon® D-1539 processor 1.6GHz, AMD E8860 GPU and 16GB DDR4-2133 ECC soldered memory with DP, VGA, 2x GbE, COM, 2x USB 3.0, onboard SATA slot
cPCI-6940DH/D1577/M16-0	8HP 6U CompactPCI blade with Intel® Xeon® D-1577 processor 1.3GHz, AMD E8860 GPU and 16GB DDR4-2133 ECC soldered memory with DP, VGA, 2x GbE, COM, 2x USB 3.0, 10G SFP+ x2, audio, 2x 2.5" SATA space
cPCI-6940DH/D1559/M16-0	8HP 6U CompactPCI blade with Intel® Xeon® D-1559 processor 1.3GHz, AMD E8860 GPU and 16GB DDR4-2133 ECC soldered memory with DP, VGA, 2x GbE, COM, 2x USB 3.0, 10G SFP+ x2, audio, 2x 2.5" SATA space
cPCI-6940DX/D1577/M16-0	8HP 6U CompactPCI blade with Intel® Xeon® D-1577 processor 1.3GHz, AMD E8860 GPU and 16GB DDR4-2133 ECC soldered memory with DP, VGA, 2x GbE, COM, 2x USB 3.0, 10G SFP+ x2, audio, XMC slot
cPCI-6940DX/D1559/M16-0	8HP 6U CompactPCI blade with Intel® Xeon® D-1559 processor 1.5GHz, AMD E8860 GPU and 16GB DDR4-2133 ECC soldered memory with DP, VGA, 2x GbE, COM, 2x USB 3.0, 2x 10G SFP+, audio, XMC slot

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, 2x COM, 5x USB, 2x SATA, VGA, PS/2 KB/MS (without audio output with cPCI-6940)
cPCI-R6100	4HP Rear I/O module with 4x GbE, 4x COM, 2x SATA, DVI, VGA, PS/2, CF, SD socket
cPCI-R6110	4HP Rear I/O module with 2x GbE, 4x USB, 3x SATA, VGA, PS/2 KB/MS, CF, SD
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-R65N0/NV950	8HP Rear I/O module with NVIDIA GeForce GTX 950 MXM 3.0 graphics module Type A with 2x DVI, 2x GbE, COM, USB, 3x SATA, PS/2 KB/MS, audio

