

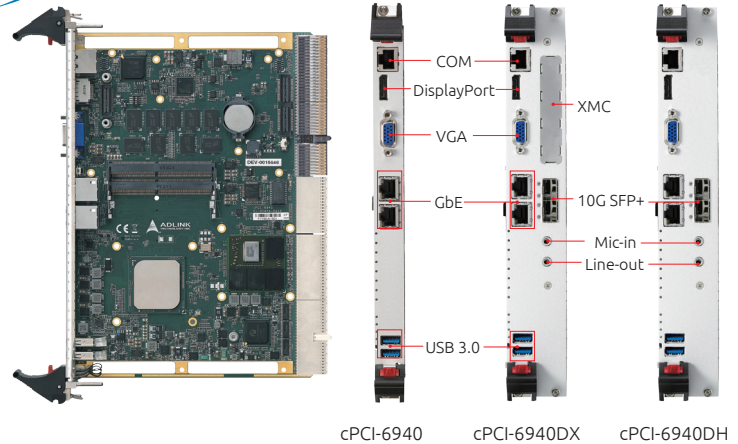
# cPCI-6940

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

New

### 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



### Specifications

#### Processor & System

##### CPU

uFC-BGA 16-core Intel® Xeon® D-1577 SoC, 1.3GHz/ 2.1GHz, 24MB LLC, 45W TDP, -40°C to 85°C

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-1548 SoC, 2.0GHz/ 2.6GHz, 12MB LLC, 45W TDP

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

Note: The cPCI-6940 J4 supports PCIe x16, which has a signal conflict with PICMG 2.5 backplanes. Do not insert the cPCI-6940 into a peripheral slot of backplanes supporting PICMG 2.5.

##### 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

## Specifications

### ● 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® Server 2008 R2 (Limited performance on VGA)
- Windows® 10 Enterprise x64
- Windows® 7 (64-bit)
- RHEL 7 and above
- VxWorks 7
- Ubuntu 12 (Please contact ADLINK for other OS support)

### ● 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

### ● 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.

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 / CTDTP Normal, 16GB DDR4-2133, Win 7: 5.24A@3.3V, 12.7A@5V, total 80.80W

#### Weight

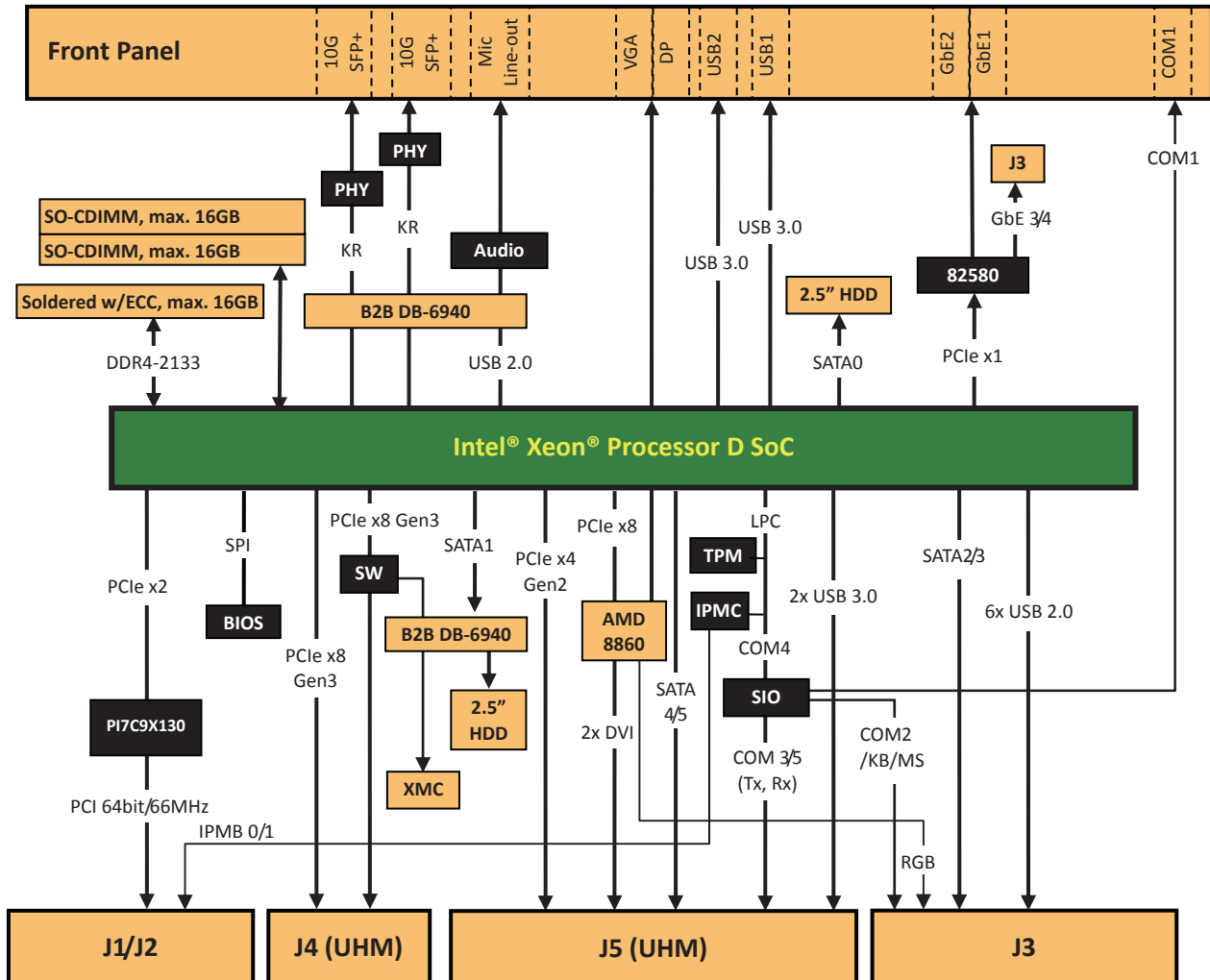
TBD

### ● 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
<b>Processor Blades</b>																	
cPCI-6940 (4HP)	Faceplate	2			2	1	1	1									
	Onboard									1 <sup>(1)</sup>	1 <sup>(1)</sup>						
cPCI-6940DX (8HP)	Faceplate	2	2		2	1	1	1					1	1			
	Onboard								1	1 <sup>(1)</sup>	1 <sup>(1)</sup>						
cPCI-6940DH (8HP)	Faceplate	2	2		2	1	1	1					1	1			
	Onboard									2 <sup>(1)</sup>	1 <sup>(1)</sup>						
<b>Rear Transmission Modules</b>																	
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) <sup>(3)</sup>							
cPCI-R6100	Faceplate	4		4		1 (RJ-45)		1 (VGA only)							1		
	Onboard									2 (7-pin)		1 <sup>(2)</sup>				1	
cPCI-R6110	Faceplate	2		4				1 (VGA only)							1		
	Onboard									3 (2x 7-pin+1x 2.5" space) <sup>(3)</sup>							
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 <sup>(5)</sup>								1		
	Onboard					1 (TX/RX, 10-pin header)				3 (7-pin)							
cPCI-RMPS2	Faceplate	2 (M12)		3 (M12)		2	DVI-I, DVI-D										
	Onboard			1		1				2							

(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

## Processor Blades

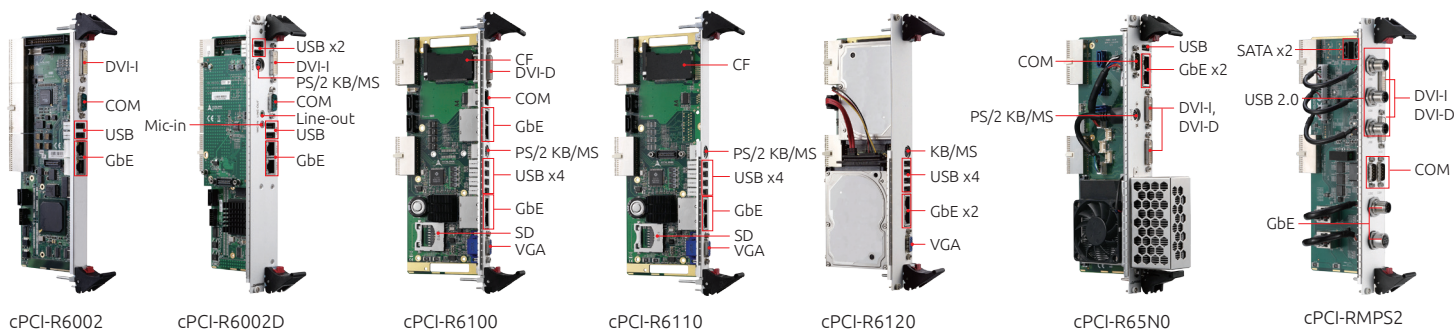
- cPCI-6940/D1559/M16-0**  
 4HP 6U CompactPCI blade with Intel® Xeon® D-1559 processor 1.5GHz, AMD E8860 GPU and 16GB DDR4-2133 ECC soldered memory with DP, VGA, 2x GbE, COM, 2x USB 3.0, onboard SATA slot
- cPCI-6940/D1548/M16-0**  
 4HP 6U CompactPCI blade with Intel® Xeon® D-1548 processor 2.0GHz, 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
- cPCI-RMP52**  
 6U 8HP RTM with 2x M12 GbE, 3x M12 USB 2.0, DVI-I, DVI-D, 2x COM, 2x USB 3.0

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

cPCI-R65N0

cPCI-RMP52



Компания «ЭлектроПласт» предлагает заключение долгосрочных отношений при поставках импортных электронных компонентов на взаимовыгодных условиях!

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- Подбор аналогов;
- Консультации по применению компонента;
- Поставка образцов и прототипов;
- Техническая поддержка проекта;
- Защита от снятия компонента с производства.



#### Как с нами связаться

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