

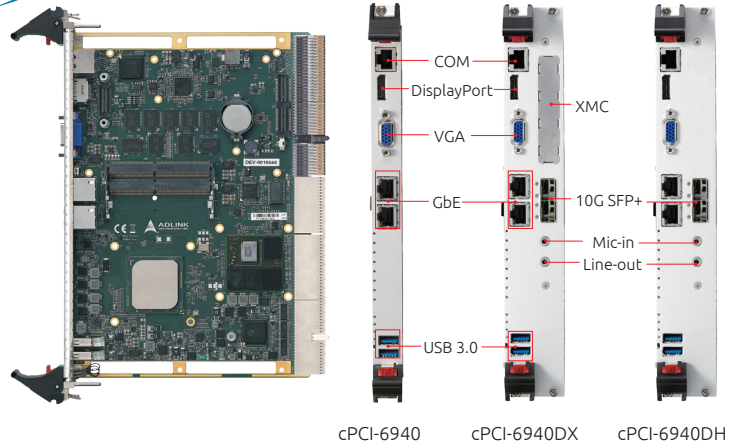
# cPCI-6940

## 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

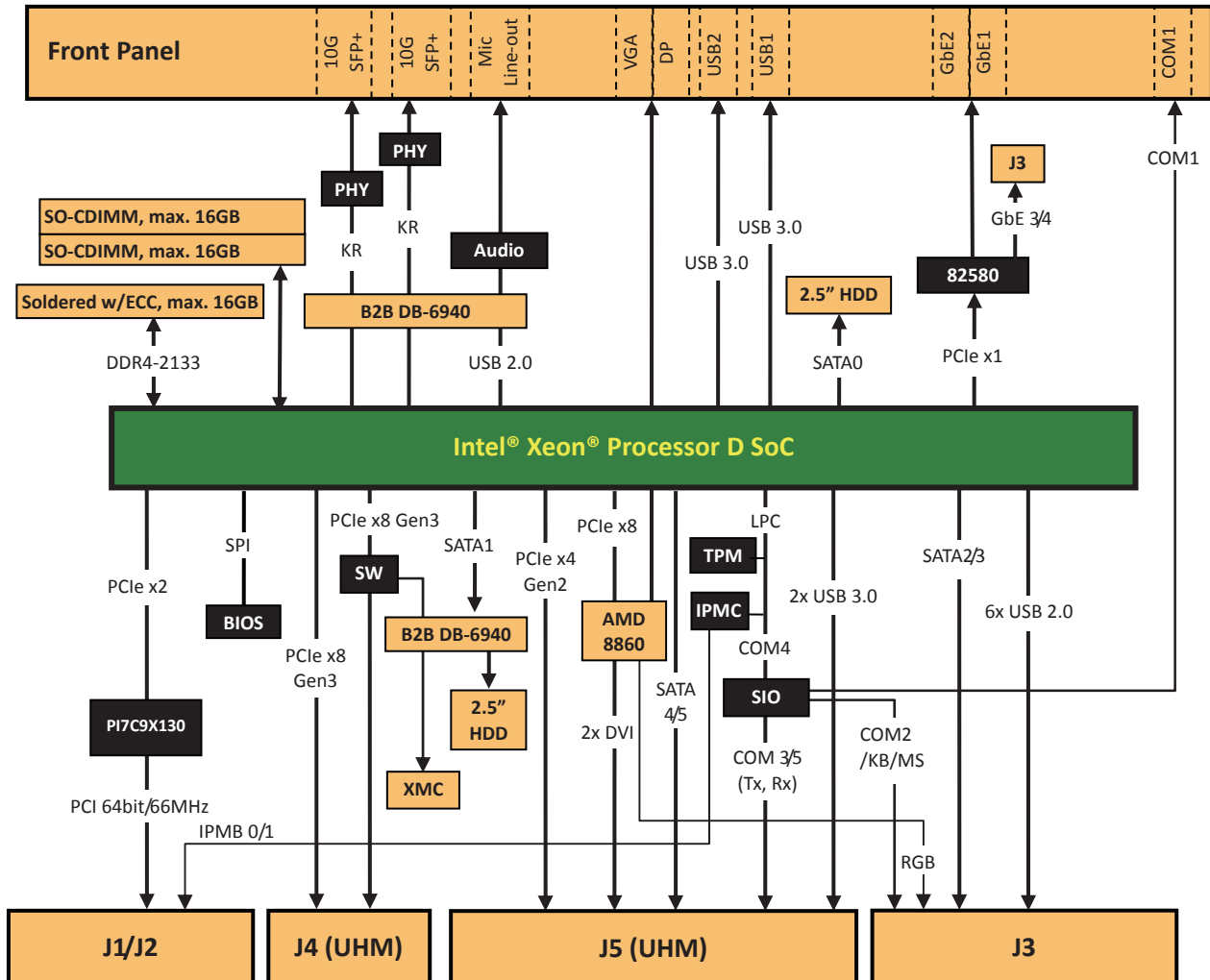
TBD

### ● 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

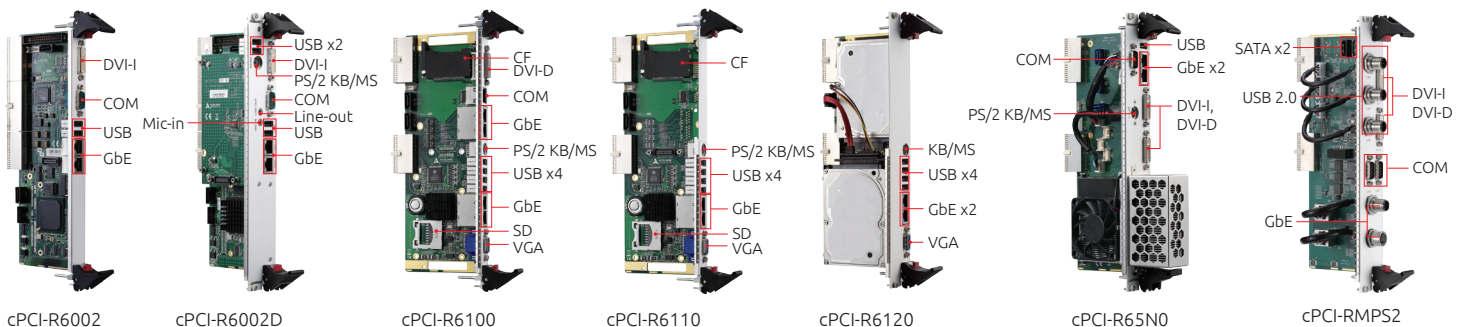
- cPCI-6940/D1559/M16-0**  
 4HP 6U CompactPCI blade with Intel® Xeon® D-1559 processor 1.5GHz, AMD E8860 GPU and 16GB DDR4-2133 ECC soldered memory with DP, VGA, 2x GbE, COM, 2x USB 3.0, onboard SATA slot
- cPCI-6940/D1548/M16-0**  
 4HP 6U CompactPCI blade with Intel® Xeon® D-1548 processor 2.0GHz,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





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

Наши преимущества:

- Оперативные поставки широкого спектра электронных компонентов отечественного и импортного производства напрямую от производителей и с крупнейших мировых складов;
- Поставка более 17-ти миллионов наименований электронных компонентов;
- Поставка сложных, дефицитных, либо снятых с производства позиций;
- Оперативные сроки поставки под заказ (от 5 рабочих дней);
- Экспресс доставка в любую точку России;
- Техническая поддержка проекта, помощь в подборе аналогов, поставка прототипов;
- Система менеджмента качества сертифицирована по Международному стандарту ISO 9001;
- Лицензия ФСБ на осуществление работ с использованием сведений, составляющих государственную тайну;
- Поставка специализированных компонентов (Xilinx, Altera, Analog Devices, Intersil, Interpoint, Microsemi, Aeroflex, Peregrine, Syfer, Eurofarad, Texas Instrument, Miteq, Cobham, E2V, MA-COM, Hittite, Mini-Circuits, General Dynamics и др.);

Помимо этого, одним из направлений компании «ЭлектроПласт» является направление «Источники питания». Мы предлагаем Вам помощь Конструкторского отдела:

- Подбор оптимального решения, техническое обоснование при выборе компонента;
- Подбор аналогов;
- Консультации по применению компонента;
- Поставка образцов и прототипов;
- Техническая поддержка проекта;
- Защита от снятия компонента с производства.



#### Как с нами связаться

**Телефон:** 8 (812) 309 58 32 (многоканальный)

**Факс:** 8 (812) 320-02-42

**Электронная почта:** [org@eplast1.ru](mailto:org@eplast1.ru)

**Адрес:** 198099, г. Санкт-Петербург, ул. Калинина, дом 2, корпус 4, литера А.