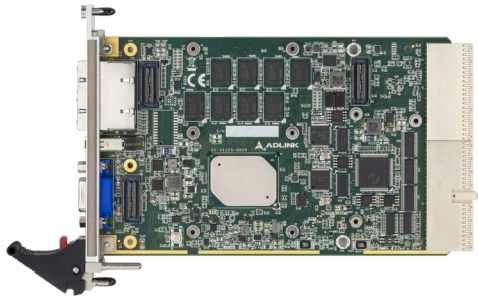
cPCI-3630 Series

3U CompactPCI Quad-Core Intel Atom® Processor X Series Blade

Features

- Low power quad-core Intel Atom® x7-E3950 Processor (formerly Apollo Lake I)
- Up to 8GB DDR3L-1600 ECC soldered memory
- Optional onboard 32GB SSD support
- Smart Embedded Management Agent (SEMA) for system health monitoring
- Optional additional GbE ports with MIL-STD M12 connectors
- EN 50155 compliant for railway applications





cPCI-3630 cPCI-3630D cPCI-3630G cPCI-3630M cPCI-3630N cPCI-3630S cPCI-3630T cPCI-3630TR

Specifications

Processor & System

CPU

Quad-core Intel Atom® x7-E3950 SoC processor, 1.6GHz, TDP 12W

Dual-core Intel Atom® x5-E3930 SoC processor, 1.3GHz, TDP 6.5W

Memory

Dual channel DDR3L-1600 ECC soldered, up to 8GB

BIOS

AMI EFI BIOS, dual 16M bytes SPI flash memory

CompactPCI Bus

PCI 32-bit, 33/66MHz, 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)

PICMG standards

PICMG 2.0 CompactPCI R3.0

PICMG 2.1 Hot Swap R2.0

Connectivity

XMC

PCIe x1 XMC site on 2nd or 3rd layer daughter board

Ethernet

Two 10/100/1000BASE-T Gigabit Ethernet Ports on faceplate by Intel® I210 controllers, switchable to J2

Two additional GbE in M12 MIL-STD connectors on layer 2 daughter board by Intel® I210 (cPCI-3630T, cPCI-3630TR)

Graphics

Integrated in Intel® processor

One VGA on faceplate switchable to rear transition module by BIOS option

Additional two DisplayPort support up to 4096x2160p by using cPCI-3630G

Serial Port

Optional serial port on selected dual-slot SKUs (cPCI-3630D, cPCI-3630G, cPCI-3630T, cPCI-3630TR)

Two serial ports routed to rear transition module

PS/2

Optional PS/2 keyboard mouse on cPCI-3630D, cPCI-3630G

USB

One USB 3.0 on front panel 1st layer

One USB 2.0 routed to rear transition module

Two additional USB 2.0 on cPCI-3630D, cPCI-3630M

Audio

Optional Mic-in, Line-out on cPCI-3630D

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Specifications

Storage

Blade

One onboard 32GB SSD in 4HP version. Offering 32GB SSD/CFAST/mSATA on daughter board by option for 8HP version

One Serial ATA direct connector for 2.5" onboard HDD on selected SKUs (shared with SATA to RTM)

RTM

Two SATA 3Gb/s port routed to RTM
(shared with cPCI-3630 layer 2 SATA port)

Operating System

OS

Windows 10 64-bit

Yocto 2.0

Wind River VxWorks 7.0 (by request)

QNX 7.0 (by request)

(Please contact ADLINK for other OS support)

Miscellaneous

LED

Power, WDT, Storage Drive, Thermal, General Purpose

LEDs are reserved to rear by BOM option (contact ADLINK for assistance)

Battery

Coin cell lithium battery onboard for RTC backup power
(optional Gold Capacitor)

Watchdog Timer

System Reset and NMI, with programmable interval, 1-65535 seconds or minutes

Controlled by SEMA

Hardware Monitor

Monitors CPU temperature, system temperature, Vcore and DC voltage by SEMA

Security

Trusted Platform Module TPM 2.0 (by customer request)

Mechanical & Environmental

Form Factor

3U 4HP/8HP CompactPCI

100mm x 160mm (L x W)

Operating Temperature

EN50155 Tx

Standard: -40°C to 70°C (fanless)

Extreme: -40°C to +85°C (screened, with forced air flow)

Storage Temperature

EN50155 Tx

-50°C to +100°C

Relative Humidity

95% non-condensing

Shock

EN50155:2017/IEC61373 Edition 2.0:2010, Category 1 class B Body mounted

Vibration

EN50155:2017/IEC61373 Edition 2.0:2010, Category 1 class B Body mounted

Altitude

4000m, MIL-STD-810G w/Change 1, Method 500.6, Procedure II

Power Consumption

23.75W by cPCI-3630/E3950/M8G

15.50W by cPCI-3630/E3930/M8G

Weight

cPCI-3630TR: Net weight 480g with heatsink

Safety & EMI

Certification

CE/FCC

EMC Directive 2014/30/EU (EN55032 / EN55024)

EMC Directive 2014/30/EU (EN50121-3-2)

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I/O Table

		GbE	Display	USB	COM	PS/2 KB/MS	Storage[2]	SSD	Audio	XMC
SBC										
cPCI-3630 (4HP)	Faceplate	2 (RJ-45)	1 VGA[3]	1 (3.0)						
	Onboard							1		
cPCI-3630D (8HP)	Faceplate	2 (RJ-45)	1 VGA[3]	1 (3.0) 2 (2.0)	1 (DB9)	1			1 (Line-in) 1 (Line-out)	
	Onboard						1 (SATA)	Optional [4]		
cPCI-3630G (8HP)	Faceplate	2 (RJ-45)	1 VGA[3] + 2 DP	1 (3.0) 1 (2.0)	1 (RJ45)	1				
	Onboard						1 (SATA)	Optional [4]		
cPCI-3630M (8HP)	Faceplate	2 (RJ-45)	1 VGA[3] + 2 DP	1 (3.0) 2 (2.0)	2 (DB9)	1				
	Onboard						1 (SATA)	Optional [4]	1 (Line-in) 1 (Line-out)	
cPCI-3630N (4HP)	Faceplate									
	Onboard						1 (SATA)	Optional [4]		
cPCI-3630S (8HP)	Faceplate	2 (RJ-45)	1 VGA[3]	1 (3.0)						
	Onboard							Optional [4]		1
cPCI-3630T (8HP)	Faceplate	2 (RJ-45)[1] 2 (M12)	1 VGA[3]	1 (3.0)	1 (DB9)					
	Onboard						1 (SATA)	Optional [4,5]		
cPCI-3630TR (8HP)	Faceplate	4 (RJ-45)	1 VGA[3]	1 (3.0)	1 (DB9)					
	Onboard						1 (SATA)	Optional [4,5]		
RTM										
cPCI-R3610(T)	Faceplate	2 (RJ-45)	1 VGA[3]	1 (2.0)	2 (DB9)					
	Onboard						1 (SATA)[6]			

(1) Two RJ-45 connectors from Intel® I210 GbE controllers and two M12 MIL-STD connectors from Intel® 82574L GbE controllers
(2) SATA port is shared with rear transition module SATA port
(3) Switchable to front or rear by BIOS selection
(4) Available by soldering SSD with DB-3SSD adapter board, or replacing the daughter board with CFast or mSATA options.
(5) When select cPCI-3630T/cPCI-3630TR with mSATA daughter board, strongly recommend to pre-installed mSATA module during production.
(6) Share SATA with cPCI-3630 main board SATA

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cPCI-3630 Series

Ordering Information

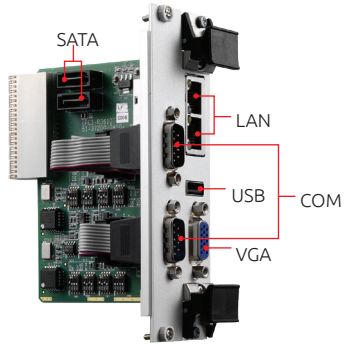
CPU Board

- **cPCI-3630/E3950/M4G/S32**
  1-slot (4HP) 3U CompactPCI blade with Intel Atom® x7-E3950 processor, 4GB DDR3L-1600 soldered memory, supports VGA, USB 3.0, 2x GbE and onboard 32GB SSD
- **cPCI-3630D/E3950/M4G**
  2-slot (8HP) 3U CompactPCI blade with Intel Atom® x7-E3950 processor, 4GB DDR3L-1600 soldered memory, supports VGA, USB 3.0, 2x GbE, COM (RS-232/422/485), 2x USB 2.0, PS/2 keyboard mouse, line-in, line-out, and SATA connector
- **cPCI-3630G/E3950/M4G**
  2-slot (8HP) 3U CompactPCI blade with Intel Atom® x7-E3950 processor, 4GB DDR3L-1600 soldered memory, supports VGA, USB 3.0, 2x GbE, 2x DP, COM in RJ-45, PS/2 KB/MS, USB 2.0, and SATA connector
- **cPCI-3630M/E3950/M4G**
  2-slot (8HP) 3U CompactPCI blade with Intel Atom® x7-E3950 processor, 4GB DDR3L-1600 soldered memory, supports VGA, USB 3.0, 2x GbE, one 100-pin connector with signal of 2x DP, 2x COM, PS/2 KB/MS, audio, 2x USB 2.0 and mating testing cable
- **cPCI-3630N/E3950/M4G/S32**
  1-slot (4HP) 3U CompactPCI blade with Intel Atom® x7-E3950 processor, 4GB DDR3L-1600 soldered memory, no I/O only LEDs (Power, HDD, WDT, GP, GbE LEDs), and onboard 32GB SSD
- **cPCI-3630S/E3950/M4G**
  2-slot (8HP) 3U CompactPCI blade with Intel Atom® x7-E3950 processor, 4GB DDR3L-1600 soldered memory, supports VGA, USB 3.0, 2x GbE, XMC site on Layer-2
- **cPCI-3630T/E3950/M4G**
  2-slot (8HP) 3U CompactPCI blade with Intel Atom® x7-E3950 processor, 4GB DDR3L-1600 soldered memory, supports, VGA, USB 3.0, 2x GbE in RJ-45 and 2x GbE in MIL-STD M12 connectors, COM (RS-232/422/485), and SATA connector
- **cPCI-3630TR/E3950/M4G (available by request)**
  2-slot (8HP) 3U CompactPCI blade with Intel Atom® x7-E3950 processor, 4GB DDR3L-1600 soldered memory, supports VGA, USB 3.0, 4x GbE in RJ-45 connectors, COM (RS-232/422/485), and SATA connector

Rear Transition Module

- **cPCI-R3610**
  8HP Rear I/O module with 2x GbE, 1x USB 2.0, VGA, 2x COM, 1x SATA 3Gb/s, 50mm depth
- **cPCI-R3610T**
  8HP Rear I/O module with 2x GbE, 1x USB 2.0, VGA, 2x COM, 1x SATA 3Gb/s, 80mm depth

Contact us for different CPU, memory and storage combinations.



cPCI-R3610T

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