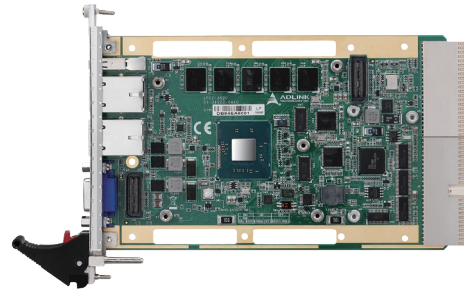# cPCI-3620 Series

3U CompactPCI Quad-Core Intel Atom® Processor Blade

Features

- Low power quad-core Intel Atom® Processor E3845 SoC
- Up to 4GB DDR3L-1333 ECC soldered memory
- 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

CompactPCI®

EXTENDED TEMPERATURE

cPCI-3620   cPCI-3620D   cPCI-3620S   cPCI-3620T   cPCI-3620TR   cPCI-3620N

Specifications

- **Processor & System**

  CPU
  µFC-BGA quad-core Intel Atom® processor E3845 SoC, 1.9GHz, 2MB L2 cache, TDP 10W

  Memory
  Single channel DDR3L-1333 ECC soldered, up to 4GB

  BIOS
  AMI EFI BIOS, dual 64M Bit 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 2.1 CompactPCI R3.0
  PICMG 2.1 Hot Swap R2.0

- **Connectivity**

  PMC/XMC
  One optional PCI 32-bit/66 MHz PMC site or 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-3620T only)

  Graphics
  Integrated in Intel® processor
  One VGA on faceplate switchable to rear transition module by BIOS option

  Serial Port
  Optional serial port on selected dual-slot SKUs (cPCI-3620D, cPCI-3620T, cPCI-3620TR)
  Two serial ports routed to rear transition module

  PS/2
  Optional PS/2 keyboard mouse on cPCI-3620D

  USB
  One USB 3.0 on front panel
  One USB 2.0 routed to rear transition module
  Two additional USB 2.0 on cPCI-3620D

  Audio
  Optional Mic-in, Line-out on cPCI-3620D

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Specifications

- **Storage**

  Blade
  One onboard 32GB SSD on daughter board
  One Serial ATA direct connector for 2.5" onboard HDD on selected SKUs (shared with SATA to RTM)

  RTM
  One SATA 3Gb/s port routed to RTM
  (shared with cPCI-3620 layer 2 SATA port)

- **Operating System**

  OS
  Windows 7/8/10 32/64-bit
  Red Hat Enterprise Linux 6.5
  Fedora 20
  Wind River VxWorks 5.5 (by request), 6.4, 6.9
  (Please contact ADLINK for other OS support)

- **Miscellaneous**

  LED
  Power, WDT, Storage Drive, Thermal, General Purpose

  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

- **Mechanical & Environmental**

  Form Factor
  3U 4HP/8HP CompactPCI
  100mm x 160mm (L x W)

  Operating Temperature
  Standard: -40°C to 70°C (fanless)
  Extreme: -40°C to +85°C (screened, with forced air flow)

  Storage Temperature
  -50°C to +100°C

  Relative Humidity
  95% non-condensing

  Shock
  20G peak to peak, 11ms duration, operating

  Vibration
  2Grms random vibration, 5 to 500Hz in 3 axes, operating

  Power Consumption
  2.75A@5V, 13.75W (Windows 8, max. load)

  Weight
  cPCI-3620: 350g (with heat sink)
  cPCI-3620T: 470g (with heat sink)

- **Safety & EMI**

  Certification
  CE/FCC

I/O Table

		GbE	Display[3]	USB	COM	PS/2 KB/MS	Storage[2]	SSD	Audio	XMC
SBC										
cPCI-3620 (4HP)	**Faceplate**	2 (RJ-45)	1 (VGA)	1 (3.0)						
	Onboard							1		
cPCI-3620D (8HP)	**Faceplate**	2 (RJ-45)	1 (VGA)	1 (3.0) 2 (2.0)	1 (DB9)	1			1 (Line-in) 1 (Line-out)	
	Onboard						1 (SATA)	Optional [4]		
cPCI-3620S (8HP)	**Faceplate**	2 (RJ-45)	1 (VGA)	1 (3.0)						
	Onboard							Optional [4]		1
cPCI-3620T (8HP)	**Faceplate**	2 (RJ-45)[1] 2 (M12)	1 (VGA)	1 (3.0)	1 (DB9)					
	Onboard						1 (SATA)	Optional [4]		
cPCI-3620TR (8HP)	**Faceplate**	4 (RJ-45)	1 (VGA)	1 (3.0)	1 (DB9)					
	Onboard						1 (SATA)	Optional [4]		
RTM										
cPCI-R3610(T)	**Faceplate**	2 (RJ-45)	1 (VGA)	1 (2.0)	2 (DB9)					
	Onboard						1 (SATA)			

(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 module to 3DB-SSD adapter board
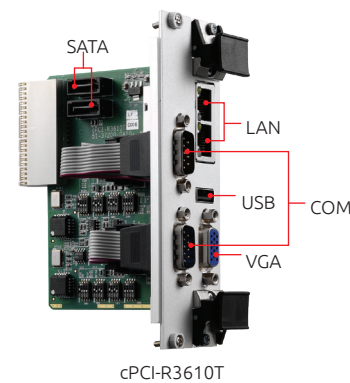
cPCI-3620 Series

Ordering Information

CPU Board

- **cPCI-3620/E3845/M4G/S32**

  1-slot (4HP) 3U CompactPCI blade with Intel Atom® processor E3845 and 4GB DDR3L-1333 soldered memory, supports VGA, USB 3.0, 2x GbE and onboard 32GB SSD

- **cPCI-3620D/E3845/M4G**

  2-slot (8HP) 3U CompactPCI blade with Intel Atom® processor E3845 and 4GB DDR3L-1333 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-3620N/E3845/M4G/S32**

  1-slot (4HP) 3U CompactPCI blade with Intel Atom® processor E3845 and 4GB DDR3L-1333 soldered memory, no I/O only LEDs (Power, HDD, WDT, GP, GbE LEDs), and onboard 32GB SSD

- **cPCI-3620S/E3845/M4G**

  2-slot (8HP) 3U CompactPCI blade with Intel Atom® processor E3845 and 4GB DDR3L-1333 soldered memory, supports VGA, USB 3.0, 2x GbE XMC site on Layer-2

- **cPCI-3620T/E3845/M4G**

  2-slot (8HP) 3U CompactPCI blade with Intel Atom® processor E3845 and 4GB DDR3L-1333 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-3620TR/E3845/M4G (available by request)**

  2-slot (8HP) 3U CompactPCI blade with Intel Atom® processor E3845 and 4GB DDR3L-1333 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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