



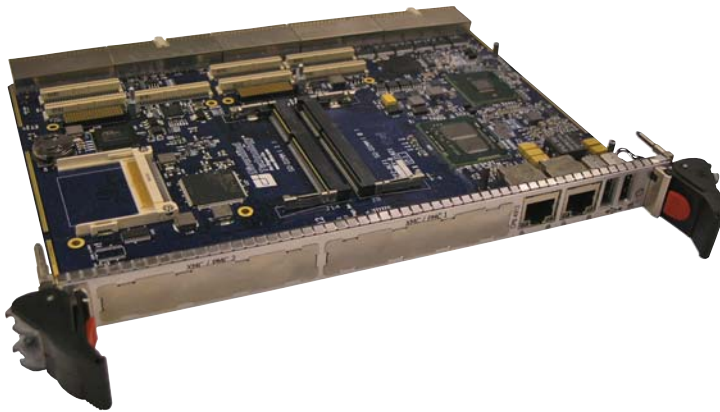
QR Code - Scan to Link



# CPB4912

## CompactPCI Processor Blade

**CompactPCI**



The CPB4912 is a PICMG 2.16-compliant packet switched backplane (PSB) processor blade based on the Intel® Core™ i7 processor. It combines high performance with low power, making it an ideal fit for telecommunications and Internet IP-based applications, as well as industrial control, testing services, and medical monitoring.

With faster, intelligent, multi-core technology that applies processing power where it's needed most, the Intel® Core™ i7 processor delivers incredible breakthrough performance for the CPB4912, allowing multitask applications to perform faster and unleashing incredible digital media processing. The CPB4912 adds great flexibility via two PMC/XMC sites and Rear Transition Module (RTM) support. This board is a cost effective choice for application developers addressing high performance, converging Telecom and Internet IP-based markets such as media gateways, 2.5G/3G wireless, server clusters, IP DSLAM and voice/video/data servers.

### Product Features

#### Form Factor

PICMG 2.16 CompactPCI CPU Blade

#### CPU

- Intel® Core™ i7 Processor up to 2.53GHz

#### Chipset

- Intel® QM57 Chipset

#### Memory

- Total of 8GB of DDR3-800/1066 (PC3-8500 or PC3-6400) via (2) DDR3 Unbuffered SO-DIMMs with ECC

#### Front Panel and Onboard I/O

- (2) 10/100/1000 Ethernet on RJ-45 connectors
- (2) USB 2.0 Ports
- (1) CompactFlash socket
- (2) PMC/XMC sites, (1) with PIM

#### RTM and Backplane I/O

- (2) PICMG 2.16 Gigabit Ethernet interfaces
- PMC/XMC PIM I/O
- Serial Port COM2
- (2) x1 PCI-E lanes
- (3) Serial ATA ports
- (3) USB 2.0 ports
- Dual Video support:
  - (1) DVI-I port and (1) DVI-D port
- 64-bit / 66MHz PCI bus

#### Physical Dimensions:

- 6U CompactPCI 2.16 form factor

#### OS Support

- Microsoft Windows XP
- Microsoft Windows Server 2008
- Microsoft Windows 7
- Linux SKU is TBD

#### Warranty

Parts and labor covered for 2 years

**General**

- Intel® Core™ i7 Processor up to 2.53GHz
- Other CPU Options: 1.33GHz ULV and 2.00GHz LV
- Intel QM57 Chipset
- Total of 8GB of DDR3-800/1066 (PC3-8500 or PC3-6400) via (2) DDR3 unbuffered SO-DIMMs with ECC
- Phoenix EFI BIOS (8MB flash chip)
- Trusted Platform Module

**Front Panel or Onboard:**

- Two 10/100/1000 Ethernet on RJ-45 connectors
- Dual USB 2.0 Ports
- One CompactFlash socket
- Two PMC/XMC sites, (1) with PIM

**To RTM or Backplane**

- Dual PICMG® 2.16 Gigabit Ethernet interfaces to the J3 connector
- PMC/XMC PIM I/O through CompactPCI J3 connector
- Serial Port COM2 through CompactPCI J4
- Two x1 PCI-E lanes through CompactPCI J4
- Three Serial ATA ports through CompactPCI J4
- Three USB 2.0 ports through CompactPCI J4
- Dual Video support via one DVI-I port and one DVI-D port, both at J5
- 64-bit / 66MHz PCI bus

**OS Compatibility**

- Microsoft Windows XP
- Microsoft Windows Server 2008
- Microsoft Windows 7
- Linux SKU is TBD

**BIOS**

- Phoenix UEFI BIOS (flash chip size is 8MB)
- ACPI Rev 1.0b and 2.0 compliant
- SMBIOS 2.3.1 compliant
- Plug-n-Play 1.0a compliant
- Processor microcode update BIOS support
- Thermal Management
- Headless Operation  
(Serial Console Redirection; BIOS Flash via serial port)
- Peripheral enable or disable
- USB 2.0 Legacy Keyboard and Mouse;  
Boot from Mass Storage Devices
- Pop-up Boot Menu
- S.M.A.R.T. Support
- BIOS Boot Specification (BBS)
- Security features
- Keyboard features
- Fast POST Support
- Multi Boot
- PXE 2.1 Boot ROM
- Watchdog (integrated into PCH)

**Clock / Calendar**

- Real-time clock with battery backup CMOS RAM

**Mechanical**

- 9.2 in. x 6.3 in. 0.8 in. (233.35 mm x 160 mm x 20.32 mm)
- 6U x 4HP
- Conforms to:
  - PICMG 2.0 CompactPCI R3.0
  - PICMG 2.1 Hotswap R3.0
  - PICMG 2.9 System Management R1.0
  - PICMG 2.16 Packet Switching Backplane R1.0

**Power Requirements**

Board Version	Max Power	Typical Power
2.53GHz, 8GB	54W	47W
2.00GHz, 8GB	48W	40W
1.33GHz, 8GB	39W	35W

**Environmental****Operating**

- Temperature: 0°C to 65°C
- Humidity (RNC): 10% to 85% non-condensing
- Altitude: 4,000m / 13,000 ft @ 40°C
- Shock: 10g 11ms half-sine
- Vibration: 5-100Hz @ 1g sine sweep  
Random 5-20Hz @ 0.01g<sup>2</sup>/Hz; 20-500 -3dB slope

**Storage and Transit (in approved packaging)**

- Temperature: -40° to 70°C
- Humidity (RNC): 10% to 90% non-condensing
- Altitude: 12,192m / 40,000 ft
- Shock: 40g 6ms half-sine, 500/axis
- Vibration: 5-50Hz @ ½g 50-100Hz @ 3g sine sweep  
Random 5-20Hz @ 0.01g<sup>2</sup>/Hz; 20-500 -3dB slope

**Reliability and Serviceability**

- MTBF: 311,479 hours @ 25°C
- 2 year limited warranty

**Regulatory Compliance**

- Designed for NEBS/ETSI Compliance
- CE Certification with national deviations
- Safety: UL/cUL 60950-1:2007; EN/IEC 60950-1:2006
- EMI/EMC: FCC 47 CFR Part 15 Class A;  
EN 55022:2006 with A1; EN 50024:1998 with A1 and A2

**Ordering Information****CPB4912/2530**

CPU Blade with 2.53GHz Intel® Core™ i7 Processor,  
4MB L2 Cache

**CPB4912/2000**

CPU Blade with 2.00GHz Intel® Core™ i7 Processor,  
4MB L2 Cache

**CPB4912/1330**

CPU Blade with 1.33GHz Intel® Core™ i7 Processor,  
4MB L2 Cache

**Options**

PMC/PIM Integration  
XMC/PIM Integration  
CRT4912-VHD : Rear Transition Module (Video and Hard drive)  
CRT4912-4E : Rear Transition Module (4 Ethernet Ports)  
URT4812 : Rear Transition Module (Dual DVI)

All products are shipped FOB factory (MS). Specifications subject to change without notice. Trademarks are the property of their respective owners.  
(C) Copyright 2011 by Diversified Technology, Inc. All rights reserved.