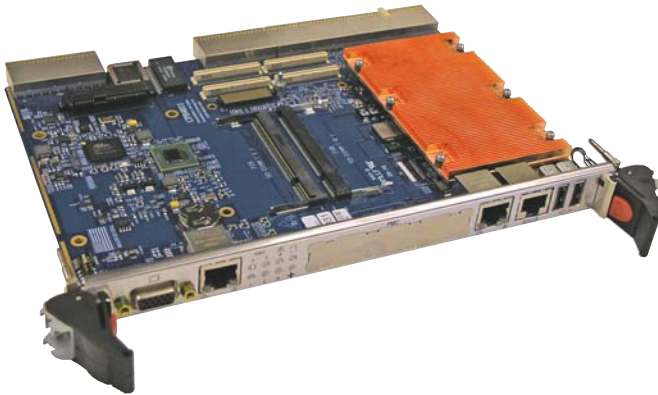# CPB4811

CompactPCI Processor Blade

CompactPCI

Diversified Technology's CPB4811 PICMG® 2.16-compliant packet switched backplane (PSB) processor blade combines high performance with low power for telecom and Internet IP-based applications.

The CPB4811 features the high performance Intel® Core 2 Duo processor at speeds up to 2.16GHz with 4MB L2 cache. The CPB4811 is based on the Intel® 3100 chipset with 667MHz front side bus. System memory of up to 4GB is supported via two DDR2-400 SO-DIMMs. Onboard are dual Gigabit Ethernet ports routed according to PICMG 2.16, two 10/100/1000Mbps Ethernet port available at the front panel, one XMC/PMC site (64-bit/133MHz and x4 PCIe) with PIM, ATI ES1000 graphics controller, VGA connector, High Speed USB, serial ports, and a SATA hard drive connector. The CPB4811 also includes a two-stage watchdog timer for enhanced system reliability.

The CPB4811 can operate in any slot of a PICMG® 2.16-compliant Packet Switched Backplane (PSB). It will power on and function as a PSB node board in either system or peripheral slots of a CompactPCI chassis and will be isolated from the backplane PCI bus interface. PICMG® 2.9 system management is also supported via a satellite management controller.

The CPB4811 drone processor blade is a cost effective choice for application developers addressing high performance, converging Telecom and Internet IP-based markets such as VPN switches, 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/Cache
Intel® Core 2 Duo processor with max speed of 2.16GHz and up to 4MB L2 cache

Bus Interface
• Intel® 3100 Chipset
• 667MHz Front Side Bus
• No CompactPCI Bus Connectivity

Memory
• (2) SO-DIMM sockets
• 512MB to 8GB of DDR2-400 memory

I/O
• (2) Gigabit Ethernets on 2.16 Switched Fabric
• (2) 10/100/1000 ENET Interface on Front Panel
• (2) Serial ATA ports to RTM
• (1) XMC/PMC Site with PIM I/O to RTM
• (2) USB 2.0 ports on Front Panel
• (2) USB 2.0 port to RTM
• (1) Serial port on Front Panel
• (1) Serial port to RTM
• (2) x1 PCIe ports to RTM
• SFF SATA Hard drive connector
• 2D VGA selectable to RTM or Front Panel

Physical Dimensions:
• 9.2" x 6.3" x 0.8"
• 6U CompactPCI 2.16 form factor

OS Support
64-bit and 32-bit support for:
Windows Vista, Windows XP,
Windows 2008 Server R2, Enterprise Linux

Warranty
Parts and labor covered for 2 years

www.dtims.com/cpci • **sales@dtims.com** • **1.800.443.2667**

Diversified Technology®
An Ergon Co.

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CPU/Cache
• Intel® Core 2 Duo processor (up to 2.16GHz)
• 32KB on-die L1 cache; up to 4MB on-die L2 cache

Bus Interface
• Intel® 3100 Chipset
• 667MHz Front Side Bus
• No CompactPCI Bus Connectivity
• Supports one onboard 64-bit/133MHz 3.3V PMC cards
• Supports one onboard x4 PCIe XMC card

Memory
• Two DDR2 SO-DIMM sockets
• Supports registered and ECC modules
• 512MB to 8GB of total memory
• DDR2-400 memory speed

Data Path
• 64-bit/667MHz on CPU and memory bus
• 64-bit/133MHz on onboard PCI bus
• x4 PCIe

Flash Memory
• 1MB Flash for BIOS
• Supports a 2.5" SATA Drive via onboard SFF header

Ethernet
• Two Gigabit Ethernet Interfaces on 2.16 Switched Fabric
• Two 10/100/1000 Ethernet Interface on Front Panel

Peripherals and I/O Interfaces
• Two SATA interfaces to RTM
• One 64-bit/133MHz PMC sites with PIM
• One x4 PCIe XMC site with PIM
• Hardware Monitor

I/O Interface	Front Panel	Rear Panel
COM 1	RJ45	N/A
COM 2	N/A	J5
USB #1	USB2.0 Type A	N/A
USB #2	USB2.0 Type A	N/A
2.16 GbE	N/A	J3
2.16 GbE	N/A	J3
GbE #1	RJ45	N/A
GbE #2	RJ45	N/A
Serial ATA (2)	N/A	J5
PCIe x1	N/A	J5
Video	HD15 -(selectable)-	J5
USB #3	N/A	J5
USB #4	N/A	J5

Note: Rear Panel I/O accessible with DTI's Rear Transition Modules.

Supervisory
• Two-stage programmable watchdog timer drives interrupt on 1st stage
  and hardware reset on 2nd stage

Management
• Integrated IPMI 1.5-compliant satellite management controller
• Communicates with system management BMC or host processor
• Compliant with PICMG 2.9

Interoperability
• Validated to operate in a PICMG 2.16-compliant system platform
• 3rd party PSB products

OS Compatibility
• 64-bit and 32-bit support for: Windows Vista, Windows XP,
  Windows 2008 Server R2, Enterprise Linux

BIOS
• AMI BIOS
• PCI 2.2
• ACPI 1.0b and 2.0
• SMBIOS 2.3.1
• PnP 1.0a

BIOS cont'd
• Serial console redirection
• Multi-boot Support (Floppy, HD, CD, USB, Network)
• Legacy USB Support
• S.M.A.R.T. Support
• Pop-up Boot Menu
• PXE 2.1 Boot Rom
• Enhanced Intel® SpeedStep® Technology
• PnP 1.0a
• Serial console redirection
• Multi-boot Support (Floppy, HD, CD, USB, Network)
• Legacy USB Support
• S.M.A.R.T. Support
• Pop-up Boot Menu
• PXE 2.1 Boot Rom
• Enhanced Intel® SpeedStep® Technology

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 R3.0 (Core), 2.9 (Management)
  2.12 (SW interoperability), 2.15 (PTMC) and 2.16 R1.0 (PSB) specifications

Power Requirements

Board Version	Max Power	Typical Power
1.06GHz Core 2	29W	27W
1.50GHz Core 2	35W	33W
2.16GHz Core 2	45W	40W

Environmental
Operating
• Temperature: -5° to 55°C
  Call for Extended Range Support
• 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 @ 0.01g2/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 @ 0.01g2/Hz; 20-500 -3dB slope

Reliability and Serviceability
• MTBF: 230,296 hours @ 25°C
  Calculated using Telcordia Issue 1, Method I, Case 3
• 2 year limited warranty

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

Ordering Information
CPB4811/1060
CPU Blade with 1.06GHz Intel Core 2 Duo processor, 2MB L2 cache

CPB4811/1500
CPU Blade with 1.50GHz Intel Core 2 Duo processor, 4MB L2 cache

CPB4811/2160
CPU Blade with 2.16GHz Intel Core 2 Duo processor, 4MB L2 cache

* All provide long life-cycle support

Options
Rear Transition Module *Contact your Sales Representative*
PMC/PIM Integration

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www.dtims.com/cpci

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