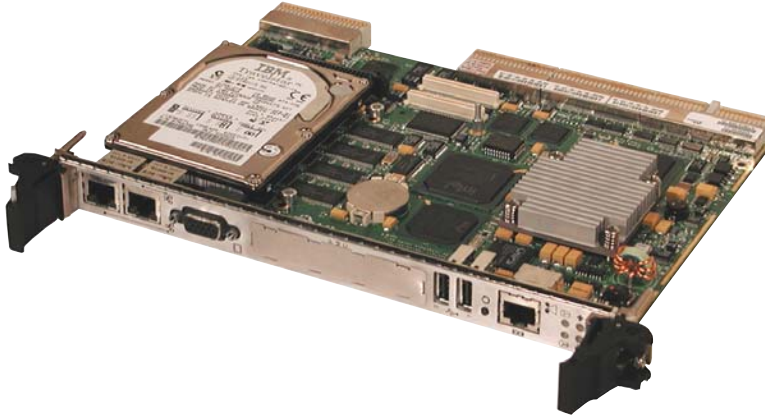


## 2.16 PSB System/Peripheral Processor Blade

**cPB-4321**



- Intel® 1GHz Pentium®III Processor-M, 256KB L2 Cache
- Intel® 440GX Chipset with 100MHz FSB
- 512MB or 1GB ECC SDRAM
- PCI Video with 2MB SDRAM
- Two Fast Ethernet Interfaces & PMC Site
- Onboard 2.5" Ultra DMA/33 EIDE Drive, Optional CompactFlash™ Support
- 6U x 4HP, Operates as System or Peripheral Processor
- PICMG® 2.16, 2.1 R2.0 and 2.9 R1.0 Compliant

*Diversified Technology's modular cPB-4321 hot-swap CompactPCI™ processor blade, compliant with the PICMG 2.16 packet switched backplane (PSB) open standard, offers superb value with a feature set optimized for Internet, telecom and industrial control applications.*

The cPB-4321 comes with a low power, 1GHz Intel Pentium III processor with 256KB L2 cache, 440GX chipset with 100MHz front side bus, and either 512MB or 1GB ECC SDRAM. Onboard are two 10/100Mbps/sec Ethernet auto-negotiating controllers, Ultra DMA/33 IDE hard drive, 32-bit/33MHz PMC site, PS/2 keyboard and mouse interfaces, Universal Serial Bus (USB) and serial ports, floppy interface and a SVGA CRT controller. An optional CD-ROM drive mezzanine card facilitates software installation; an optional IDE-compatible CompactFlash carrier card is available.

As a System Master processor blade in a CompactPCI multiprocessing system, the cPB-4321 interfaces to the backplane through a transparent PCI-to-PCI bridge allowing it to communicate directly with all peripheral CPU boards in the system via the CompactPCI bus. Optionally, it may operate in a peripheral slot, where it receives power but does not communicate on the CompactPCI bus.

Part of DTI's PlexSys family of PSB products, the cPB-4321 operates in a PICMG 2.16-compliant system such as DTI's cPS-4081 4U general purpose, carrier grade computing platform with cSB-4240 Ethernet level 2/3 switch. The IPMI 1.0-compliant Baseboard Management Controller (BMC), when used with the cCM-3401 chassis management module supports a comprehensive, protected lights-out management scheme. Also included is a programmable two-stage watchdog timer for enhanced system reliability and a 2-year limited warranty.

Modular and standards-based, Diversified Technology's cPB-4321 system/peripheral processor blade is the high-value choice for application developers addressing high performance industrial, Telecom and Internet IP-based markets such as VPN switchers, media gateways, 2.5G/3G wireless, server clusters, IP DSLAM and voice/video/data servers.



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## SPECIFICATIONS

### CPU / Cache / Chipset

- Intel Low Power (BGA2) Pentium III at 1GHz
- 32KB internal L1 cache; 256KB 64-bit on-die L2 Cache
- Intel 440GX

### Bus Interface

- 100MHz Front Side Bus; 64-bit/33 MHz CompactPCI Bus interface
- 5V V(I/O) CompactPCI signaling as host, 3.3V or 5V V(I/O) as peripheral processor
- Supports onboard 32-bit/33MHz 3.3V PMC card

### Memory

- Configured with either 512MB or 1GB 72-bit registered PC100 3.3V ECC SDRAM

### Data Path

- 64-bit/100MHz on CPU and memory bus
- 64-bit/33MHz on off-board CompactPCI bus; 32-bit/33MHz on onboard PCI bus
- Intel 21154 PCI-to-PCI bridge

### Flash Memory

- 4MB Flash: 1MB for BIOS, 3MB for user
- 512KB EPROM BIOS recovery module

### Peripherals & I/O Interface

- Optional 20GB 2.5" EIDE drive mounted on board, or CompactFlash Type II drive carrier
- 32-bit/33MHz IEEE P1386.1 PMC socket
- Front panel & rear port push button reset
- Two IDE, System Health and Hot Swap LEDs on front panel

I/O Interface	Front Panel	Rear Panel
COM 1	RJ-45	J5
COM 2	N/A	J5
USB 0	4-pin USB	J5*
USB 1	4-pin USB	J5*
SVGA	15-pin D-shell	J5
PS/2 Keyboard	N/A	J5
PS/2 Mouse	N/A	J5
Floppy	N/A	J5
EIDE	2.5" HD (44-pin)	J5
Ethernet A	RJ-45	J3
Ethernet B	RJ-45	J3
AT Speaker	N/A	J5

\*Custom configurations only

### Clock / Calendar

- Real-time clock with 256 byte battery backup CMOS RAM

### Supervisory

- Two-stage programmable watchdog timer drives NMI or "INIT" on 1st stage, hardware reset on 2nd stage
- IPMI-based (1.0 compliant) 2.9-compliant Baseboard Management Controller (BMC)

### Interoperability

- Validated to operate in a PICMG 2.16-compliant system platform such as DTI's cPS-4081
- DTI's cCM-3401 star topology Chassis Management Module
- DTI's cSB-4240 24-port level 2/3 Ethernet Switch Blade
- 3rd party PSB products

### OS Compatibility

- General: PC-compatible
- Enhanced: Windows® 2000; Linux®; VxWorks®

### BIOS

- Phoenix core
- Console redirection, PXE 2.0 option ROM

### Mechanical

- 9.2 in. x 6.3 in. x 0.8 in. (233.35 mm x 160 mm x 20.32 mm)
- 6U x 4HP
- Conforms to PICMG 2.0 R3.0 (Core), 2.1 R2.0 (Hot Swap), 2.3 (PMC I/O), 2.12 (SW interoperability), 2.12 (PTMC), 2.9 R1.0 (System Management) and 2.16 R1.0 (PSB) specifications

### Power Requirements

Max Power Dissipation	42.2W
ICC typ.	*+5V 4A
	+12V 20mA
	+3.3V 6A

\*Measured with 1GHz CPU and 512MB memory

### Environmental

#### Operating

- Temperature: 0° to 50°C / 32° to 122°F (w/ 200LFM)
- Humidity (RNC): < 95% @ 40°C / 104°F
- Altitude: 4,572m / 15,000ft
- Shock: Trapezoidal, 50G, 170 inches/sec
- Vibration: 5-500Hz @ 3.13g RMS Random

#### Storage and Transit (w/HD)

- Temperature: -40° to +65°C / -40° to 149°F (w/ HD)
- Humidity (RNC): < 95% @ 40°C / 104°F
- Altitude: 15,240m / 50,000ft
- Shock: Free Fall 36"
- Vibration: 5-500Hz @ 3.13g RMS Random

#### Reliability & Serviceability

- MTBF: 14.6 years
- MTTR: 3 minutes, plus system startup (hot-swap system)
- Silicon serial number
- 2 year limited warranty

#### Regulatory Compliance

- NEBS compliant
- CE Certification
- Safety: UL/cUL 60950; EN/IEC 60950; CB Report Scheme CB Certificate and Report
- EMC/EMI: FCC 47 CFR Part 15, Subpart B, Class B; EN55022, EN50081-1/CISPR22; Bellcore GR-1089; EN55024

#### Ordering Information

##### cPB-4321/1000-A

2.16 Processor Blade with 1GHz Pentium III processor, 512MB ECC SDRAM and EIDE hard drive

##### cPB-4321/1000-B

2.16 Processor Blade with 1GHz Pentium III processor, 1GB ECC SDRAM and EIDE hard drive

##### cPB-4321/1000-C

2.16 Processor Blade with 1GHz Pentium III processor, 1GB ECC SDRAM, EIDE hard drive, and CD-ROM mezzanine card. Occupies 2 Slots

#### Options

cRT-455P 6U x 4HP Rear I/O Transition Module  
IDE CompactFlash Carrier and media



All products are shipped FOB factory (MS).  
Specifications subject to change without notice.  
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For more information or to order, please contact us.