

2.16 High-density System/Peripheral Processor Blade

cPB-4325



- Single/Dual Intel® 933MHz Pentium®III Processor with 512KB L2 Cache
- ServerWorks™ LE-T Chipset with 133MHz FSB
- Up to 1GB ECC SDRAM
- PCI Video with 2 MB SDRAM
- Two Gigabit & One Fast Ethernet Interfaces
- Optional Onboard 2.5" Ultra DMA/33 EIDE Drive or CompactFlash™ Drive Carrier
- 6U x 4HP, Operates as System or Peripheral Processor
- Optional Mezzanine I/O Expansion Card with Dual PMC & Dual Fibre Channel Interfaces and Backplane Bridge
- PICMG® 2.16, 2.1 R2.0 and 2.9 R1.0 Compliant

Diversified Technology's cPB-4325 high-density, high-performance, hot swappable CompactPCI™ processor blade, compliant with the PICMG 2.16 packet switched backplane (PSB) open standard and offers exceptional processing power, high availability and I/O expansion for carrier-grade telecom/Internet and other mission critical applications.

The cPB-4325 comes with one or two low power, 933MHz Intel Pentium III processors with 512KB L2 caches installed for optimum performance in uniprocessing or symmetric multiprocessing systems in a single CompactPCI slot. The ServerWorks LE-T chipset, with 133MHz FSB, supports up to 1GB ECC SDRAM and either five slots @ 64-bit/66MHz or seven slots @ 64-bit/33MHz. Onboard are two 10/100/1000Mbps/sec Ethernet auto-negotiating controllers, one 10/100Mbps/sec Ethernet controller, optional Ultra DMA/33 IDE hard drive or CompactFlash disk, PS/2 keyboard/mouse interface, Universal Serial Bus (USB) and serial ports, floppy interface and a SVGA CRT controller. An optional mezzanine card provides dual 64-bit/66MHz PMC sites, dual Fibre Channel interfaces and bus-segment bridging at 33 or 66MHz for up to seven additional slots.

Functioning as a System Master processor blade in a CompactPCI multiprocessing system, the cPB-4325 supports hosting of hot swap peripherals. 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-4325 operates in a PICMG 2.16-compliant system such as the DTI cPS-4081 4U general purpose, carrier grade computing platform and cSB-4240 Ethernet level 2/3 switch. The IPMI 1.5-compliant Baseboard Management Controller (BMC), when used with the eCM-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.

High performance. High availability. I/O and bus expandability. Diversified Technology's cPB-4325 system/peripheral, dense processor blade is the right choice for application developers addressing high performance, carrier-grade 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.



**Diversified
Technology®**
An Ergon Co.

www.dtims.com • sales@dtims.com • 1.800.443.2667

SPECIFICATIONS

CPU / Cache / Chipset

- Single/Dual Intel Low Voltage Pentium III at 933MHz
- 32KB internal L1 cache; 512KB 64-bit on-die L2 Cache
- ServerWorks LE-T

Bus Interface

- 133MHz Front Side Bus; 64-bit/33-66 MHz CompactPCI Bus interface
- 3.3V or 5V V(I/O) CompactPCI signaling as host or peripheral processor
- Supports mezzanine card with dual 64-bit/66MHz 3.3V PMC cards, dual Fibre Channel Interfaces and 64-bit/33MHz bridge

Memory

- One 168-pin right-angled socket for up to 1GB registered PC133 ECC 3.3V SDRAM

Data Path

- 64-bit/133MHz on CPU and memory bus
- 64-bit/66-33MHz on off-board CompactPCI bus; 64-bit/66MHz on onboard PCI bus
- Intel 21154-BE PCI-to-PCI bridge

Flash Memory

- 15MB Flash: 1MB for BIOS, 14MB for user
- 512KB EPROM BIOS recovery module

Peripherals & I/O Interface

- Optional 2.5" EIDE drive or CompactFlash carrier
- PCI video with 2MB memory
- Front panel & rear port push button reset
- Reset, IDE, two user-defined, 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	N/A	J5
USB 2	N/A	J5
SVGA	15-pin D-shell	J5
PS/2 K/M	6-pin	J5
Floppy	N/A	J5
EIDE	2.5" HD (44-pin)	J5
GB Ethernet A	RJ-45	J3
GB Ethernet B	RJ-45	J3
10/100 Ethernet	RJ-45	J5
AT Speaker	N/A	J5

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 (1.5 compliant) 2.9-compliant Baseboard Management Controller (BMC); 6 SMBuses

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 CompactPCI PSB products

OS Compatibility

- Windows® 2000 Server; Windows® XP Server; Red Hat Linux® (version 7.2 or higher); VxWorks (Single CPU only)

BIOS

- AMI Core
- Console redirection, PXE 2.0 option ROM

Mechanical

- 9.2" x 6.3" x 0.8" (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), 2.9 R1.0 (System Management) and 2.16 R1.0 (PSB) specifications

Power Requirements

Max Power Dissipation	43.2W
ICC typ. *	+5V 1.8-3.4A
	+12V 10mA
	+3.3V 3.9A

*Measured with 1-2 933MHz CPU and 1GB memory

Environmental

Operating

- Temperature: 0° to 45°C / 32° to 113°F (w/ 250LFM)
- 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 +85°C / -40° to 185°F
- 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: 25.6 years
- MTTR: 3 minutes, plus system startup (hot swap system)
- Silicon serial number
- 2 year limited warranty

Regulatory Compliance

- Designed for NEBS level-3 and /ETSI installations
- 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-4325/933

2.16 Processor Blade with single 933MHz Pentium III processor

cPB-4325/D933

2.16 Processor Blade with dual 933MHz Pentium III processors

Options

PC133 SDRAM

2.5" IDE HD or CompactFlash disk

cMC-4325 mezzanine card, occupies additional slot

cRT-455P 6U x 4HP Rear I/O Transition Module



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