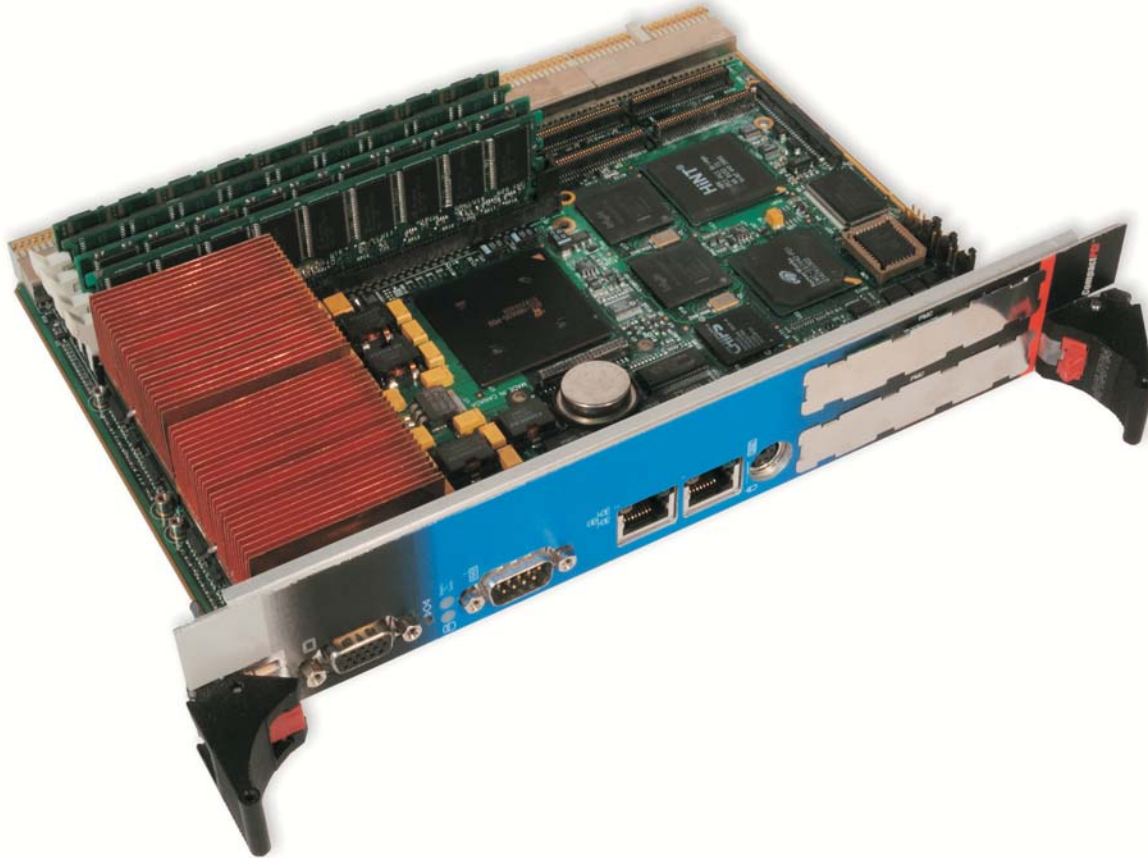


cPCI-DT64

6U Compact PCI 64-bit/66MHz PCI System/Peripheral Processor

Dual Pentium III Processors, Gigabit Ethernet and up to 4 GB RSDRAM



2.16 Compliant



- ▶ Hot-swappable, 4 and 8 HP processor boards for mission-critical applications.
- ▶ Kontron's cPCI-DT64 is a hotswappable, system/peripheral processor that features dual Intel Pentium® III processors, Gigabit Ethernet and up to 4 GB of memory. Rich features provide developers with the performance required to develop next-generation applications.

- ▶ Dual Pentium® III Processors to 1.26 GHz with 512K cache or two Low Voltage Intel® Pentium® III Processors with 512K cache at 933MHz
- ▶ ServerWorks ServerSet III LE chipset
- ▶ Up to 4 GB RSDRAM
- ▶ Two 10Base-T /100Base-Tx/1000Base-T Ethernet connectors
- ▶ Hot-Swappable
- ▶ PMC expansion slot
- ▶ Optional Ultra160/320 SCSI
- ▶ IPMI support

Impossible requirements?

Don't change the requirements...

Kontron's cPCI-DT64 is a high-density, CompactPCI, system/peripheral board for mission critical industrial, military and communications applications such as core routers, wireless basestations, media and VoIP gateways.

The cPCI-DT64 breaks new ground with standard onboard features including dual Intel® Pentium® III processors at speeds up to 1.26 GHz, ServerWorks LE chipset, 64-bit/66 MHz PCI bus and two Gigabit Ethernet ports.

The high-performance ServerWorks LE chipset provides both 133 MHz front side bus and PC133 memory support.

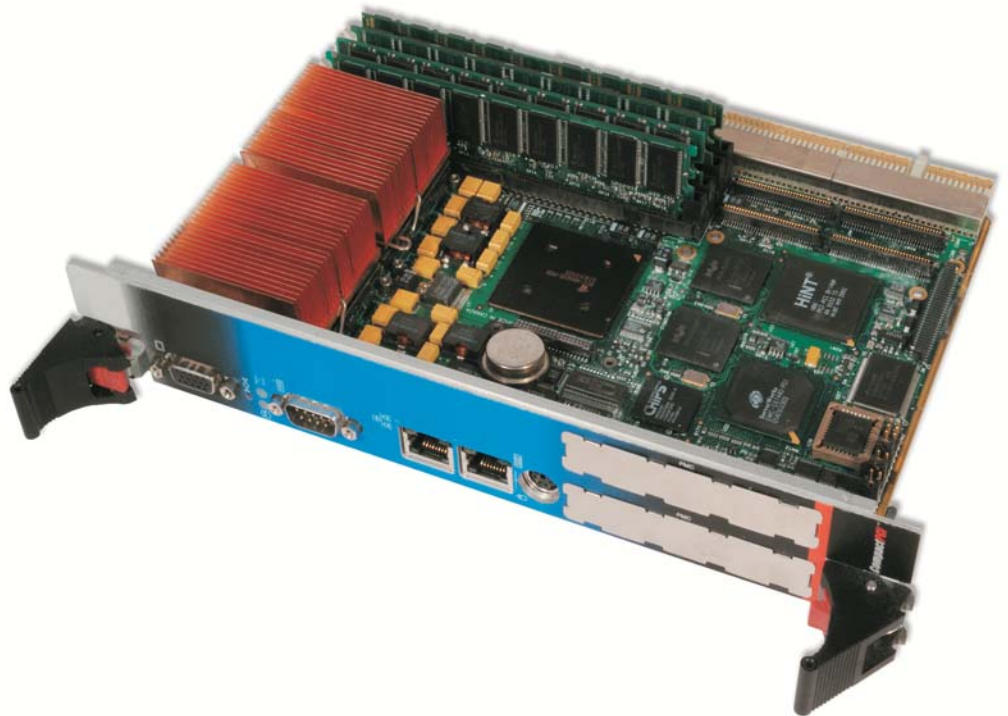
Software support is provided for Windows 2003 Server, Windows 2000, Windows XP, Linux, VxWorks and other operating systems.

Used in conjunction with Kontron's latest generation of XL-VHDS or XL-PSB packet switched backplane platforms, the cPCI-DT64 provides an integrated PICMG 2.16 platform for high-density, best-of-class server solutions.

In addition, a Kontron mezzanine drives an additional PCI segment and supports an EIDE hard drive in both 8 HP or 4 HP form factors.

The full set of features that accompany the cPCI-DT64 can be used to develop a wide range of solutions, particularly for the growing needs of the datacom and CTI server communities.

Available with up to 4 GB RSDRAM in dualslot (8HP) and 2 GB in single-slot (4HP) boards, front or rear I/O configuration, 64-bit/66 MHz PMC expansion slot with PMC I/O Module (PIM) support and SCSI support, the cPCI-DT64 is a highperformance engine that will power the most demanding applications.



Specifications

... learn about the tremendous feature set

CPU

- Dual Pentium® III Processor 1.26GHz, 866MHz; or two Low Voltage Intel® Pentium® III Processors with 512K cache at 800MHz/933MHz
- Serverworks ServerSet III LE chipset (CNB30LE North Bridge & CSB5 South Bridge)

Bus Interfaces

- Front Side Bus at 133 MHz
- PCI Bus 66MHz/64-bit; PCI bus 33MHz/32-bit, External backplane
- PMC 64-bit, 66-MHz Expansion, PMC I/O module support (PIM)
- Kontron Embedded Mezzanine for HD support

Cache

- 16/16KB Instruction / Data Level 1
- On 1.2GHz CPU, 512KB Advanced Transfer Cache (on-die, full speed L2 cache with ECC)

Memory

- Four 168-pin latching DIMM sockets, 64/72-bit
- PC-133 RSDRAM, 133 MHz Registered SDRAM non-ECC/ECC mode (single bit error correction, multiple bit detection via Serverworks ServerSet III LE); all 4 GB cacheable (per CPU)
- 8HP configuration: Up to 4 GB of SDRAM
- 4HP configuration: Up to 2 GB of SDRAM, custom 4HP modules

Data Path

- 64-bit on CPU; 64-bit and 32-bit on PCI busses, LPC bus
- Supports scatter / gather, Fast Type-F DMA

Interrupts

- 11 edge sensitive and configurable
- 4 PCI level sensitive, configurable to any interrupt vector for PnP compatibility

Flash Memory

- 512KB for BIOS field upgrade
- 32KB user serial EEPROM

I/O

I/O controller:	SMSC PC87417 super I/O
USB Ports:	Two (USB 1.1 compliant)
Serial Ports:	Two (One RS-232 COM1, COM2 configurable as RS-232/RS-422/485)
Hard Disk:	PCI EIDE Ultra DMA/100, support for four IDE drives (in master/slave configuration); PIO Mode 4, Bus Master IDE or synchronous DMA mode transfers up to 100 MB/s
Floppy Disk:	Support for two drives (1.44 MB) supported only through the Rear Transition Module
Gigabit Ethernet:	Two PCI 10Base-T/100Base-Tx/1000Base-T (Intel 82544)
CompactFlash:	Supports CompactFlash disk module (on primary channel)
SCSI:	Optional Dual Channel Ultra 160/320 SCSI, (1 channel front, 1 channel rear access)

Video

- PCI video controller (C&T 69000) with 2 MB video memory
- Supports CRT with resolution up to 1280 x 1024, 256 colors

Clock / Calendar

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

Connectors

- Faceplate (front access configuration)**
- Serial port COM1 (DB-9)
 - CRT (female D-sub 15-pin)
 - Keyboard & PS/2 mouse (6-pin DIN)
 - Gigabit Ethernet (two RJ-45 for copper with link activity indicators)
 - Reset button
 - PMC

Rear access configuration

- Interfaces on J3/J4/J5 (through Rear Transition Module, available separately)
- CRT, 2 x serial, 2 x USB, SMBus, I2C, Reset, 2 x Ethernet, PS/2 mouse, PS/2 Keyboard, SCSI, EIDE, floppy disk interface

BIOS

- Phoenix BIOS in Boot Block Flash with recovery code; save CMOS in Flash option, and boot from LAN capability
- Auto configuration, extended setup
- Setup console redirection to serial port (VT100 mode) with CMOS setup access
- All onboard peripherals can be enabled or disabled by software and VGA by jumper
- Diskless, keyboardless, and videoless operation extensions;
- System, video and LAN BIOS shadowing
- Programmable memory wait states
- DMI & HDD S.M.A.R.T. support
- Advanced Configuration and Power Interface (ACPI 1.0), Intelligent System Monitoring (advanced thermal management such as resume, overheat alarm and auto slow down)

Supervisory

- Support of a system management interface (IPMI) via an IPMI controller
- Two-stage software programmable watchdog timer, time out from 16 msec to 4.5 min
- Silicon Serial ID TAG for unique board identification accessible via software
- Hardware system monitor (voltages, temperature), CPU temperature monitor / alarm; board temperature sensor, power failure / low battery detector; SMBus

OS Compatibility

- Windows® XP, DOS6.22, Windows® 2000, Linux, VxWorks and Windows® 2003 Server

Mechanical

- 6U (10.5") x 6.3" x 4HP or 8HP, Standard cPCI 6U board
- Compliant to PICMG 2.0 Rev. 3.0 specifications

Power Requirements* (see note)

- Supply Voltage Vcc = +3.3V +5% -3%, +5V +5% -3%, +12V ±5%, -12V ±5%
- ICC typ. +5V: (a) 1.2A (b) 2.0A (c) 5.7A (d) 5.9A
- ICC typ. +3.3V: (a) 4.8A (b) 6.1A (c) 6.0A (d) 6.3A
- ICC max +5V: (a) 1.8A (b) 3.6A (c) 11.3A (d) 9.9A

	Operating	Storage and Transit
Temperature:	0-50°C/32-122°F (4HP) 0-50°C/32-122°F (8HP)	-40 to +70°C / -40 to 158°F -40 to +70°C / -40 to 158°F
Humidity:	5% to 95% @ 40°C/104°F non-condensing	5% to 95% @ 40°C/104°F non-condensing
*Altitude:	4,000m/13,123ft	15,000m/49,212ft
Shock:	Designed to meet IEC 68-2-27	
Vibration:	5 to 500Hz, 1G, each axis	5 to 50Hz, 2G; 50 to 500Hz, 3G, each axis

Reliability

- MTBF: > 140,000hrs @ 30°C/86°F (Telcordia SR-332, Issue 1)
- USB and mouse / keyboard voltage protected by self-resetting fuses
- 2 year limited warranty

Meets or exceeds:

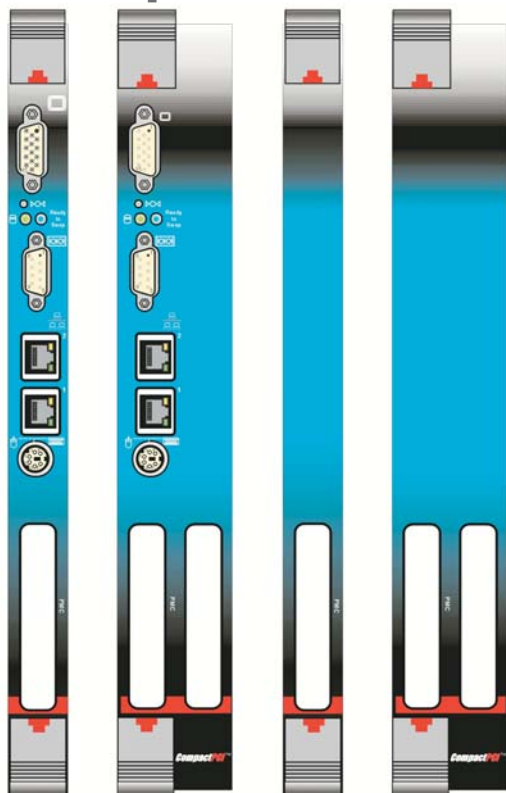
- Safety:** UL 1950; CSA C22.2 No 950; EN 60950; IEC950
- EMI/EMC:** USA FCC 47 CFR Part 15/CISPR22, Class B
CANADA ICES-003 Class B
EUROPE CE Mark to EN55022 Class B / EN55024

Notes Power Requirements

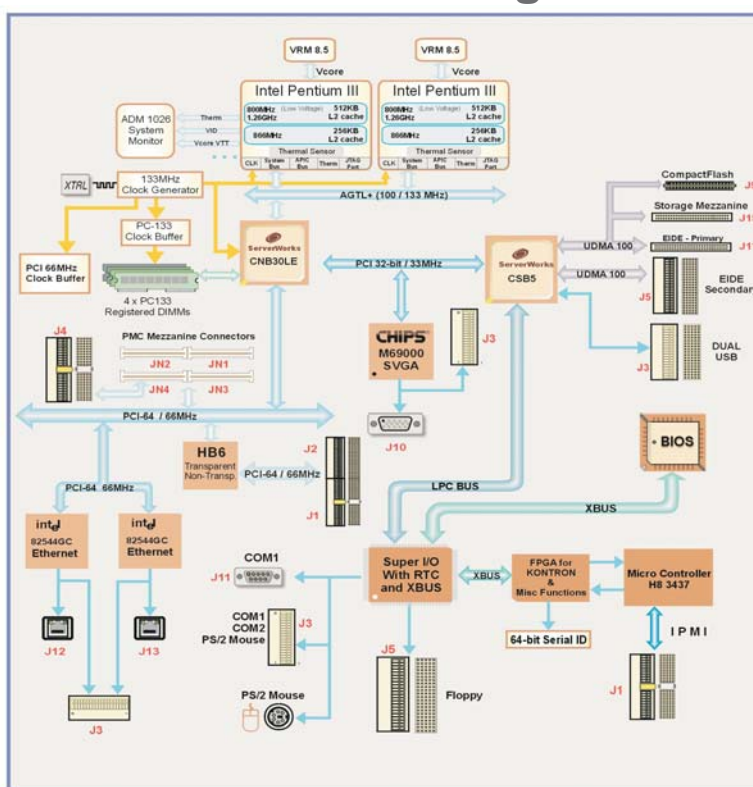
- (a) Single 800MHz, 2GB RAM, (b) Dual 800MHz, 4GB RAM
(c) Dual 866MHz, 4GB RAM, (d) Dual 1.26GHz, 4GB RAM

Altitude (operating): May require additional cooling above 1800m/5905ft

Frontpanel



Functional Block Diagram



Ordering Information

Product	Description ¹	Order No.
DT64	Dual Pentium III 1.26GHz, 8HP, Front I/O, 4GB	T6006BB##_1-7N000
DT64	Single Pentium III 1.26GHz, 8HP, Rear I/O, 2GB	T6006AD##_1-7J000
DT64	Single Pentium III 1.26GHz, 8HP, Front I/O, 1GB	T6006AB##_1-7H000
DT64	Dual LV Pentium III 933MHz, 4HP, Front I/O, 2GB	T6006HA##_1-CE000
DT64	Dual LV Pentium III 933MHz, 4HP, Rear I/O, 1GB,	T6006HC##_1-CB000
DT64	Dual LV Pentium III 933MHz, 4HP, Front I/O, 1GB	T6006HA##_1-CB000
Call for SCSI adapter, IDE HD, CompactFlash and PMC slot options.		
More options available, call your Kontron sales representative		
Rear Transition Module (RTM)		
CTM80-2	Single slot (4HP) RTM, SCSI and LAN connectors	T6701AA_1-00
CTM80-2	Single slot (4HP) RTM, SCSI connector and 2.16 configuration	T6701AC_1-00
CTM80-2	Single slot (4HP) RTM, PIM and 2.16 configurations	T6701AD_1-00
CTM80-2	Dual slot (8HP) RTM, PIM and LAN connectors, 1 x 60GB HD	T6701BB_1-AD

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