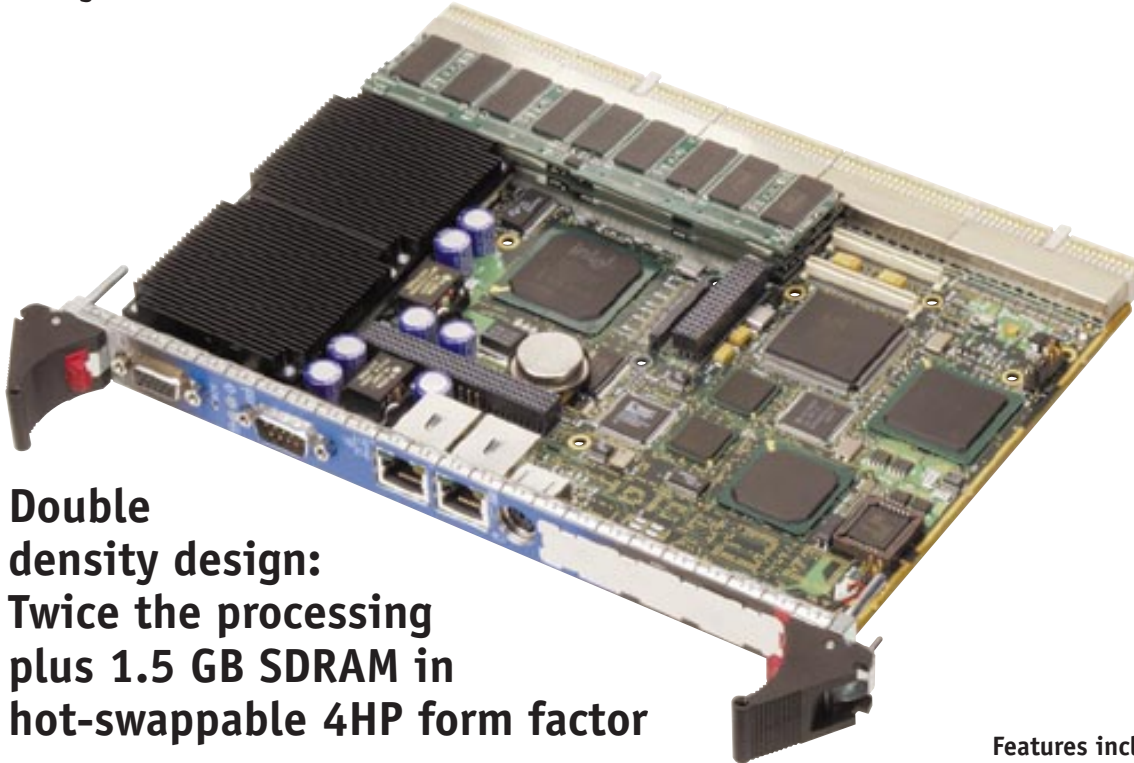


➤ cPCI-DMXS64GX

➤ 6U CompactPCI® 64-bit System Processor

Dual Pentium® III Processors LP 700 MHz and up to 1.5 GB SDRAM in single slot format



➤ Double density design: Twice the processing plus 1.5 GB SDRAM in hot-swappable 4HP form factor

Kontron introduces the cPCI-DMXS64GX system processor, the latest in Kontron's series of extreme density CompactPCI® 6U SBCs targeted at the new Internet and telecommunications infrastructure market.

As the market continues to demand increased performance in a smaller footprint, the cPCI-DMXS64GX delivers on all accounts. Featuring the same high standard, high availability features as previous Kontron board-level solutions, this SBC essentially doubles the performance with two Pentium III Low Power processors in SMP configuration at 700 MHz each and up to 1.5 GB of SDRAM, all designed into a single slot (4HP) footprint.

This powerful building-block is an ideal starting point in building open, high density systems deployed for mission-

critical CTI servers, VoIP equipment, and broadband data or intelligent network switches. With exceptional uptime and outstanding processing power, the cPCI-DMXS64GX may be used in conjunction with any of Kontron's CompactPCI peripheral processors – cPCI-MXP, cPCI-MXP64 and cPCI-MXP64GX – for scalable multi-processing using IPTalky™ technology (IP on CompactPCI bus) for Windows® NT, VxWorks, pSOS and Linux-based applications.

The cPCI-DMXS64GX is built with the Intel 440GX AGPset, a Front Side Bus of 100 MHz, a 64-bit PCI bus, and SCSI-2 LVDS. It is also packed with other high availability features such as hot swap capability, dual Ethernet, IPMI controller, low power dissipation and passive cooling.

- The cPCI-DMXS64GX system processor is the latest in Kontron's series of extreme density CompactPCI® 6U SBCs targeted at the new Internet and telecommunications infrastructure market.

Features include:

- Dual Pentium III processors - Low Power, 700 MHz with on-die 256KB L2 Cache
- Intel 440GX AGPset
- Up to 1.5 GB SDRAM in single slot form factor
- Hot-Swappable
- Supports SCSI Ultra-2 LVDS
- PCI-to-PCI transparent bridge
- PMC, USB, Serial and Parallel Ports, PCI EIDE
- Dual 10/100Base-TX Ethernet and one AGP Video Controller

► cPCI-DMXP64GX - Technical Specifications

CPU

- Dual Pentium III processor - Low Power 500 and 700 MHz
- Intel 440GX AGPset
- Hot swappable
- 21-signal High-Availability controller: Select, Healthy, Reset for 7 CPCI I/O slots

Bus Interfaces

- 100 MHz front side bus
- CompactPCI® Bus, 32-bit/64-bit (33 MHz) J1 and J2
- PCI-to-PCI bridge: DEC 21154; supports up to 7 REQ/GNT for fullyloaded CompactPCI® system
- PCI mezzanine (PMC)
- Kontron mezzanine with PCI bus, FD and EIDE support
- SMBus (for system management of CPU temperature monitoring, DRAM control, Clock buffers and power control)

Cache/CPU

- 16/16 KB Instruction / Data CPU-internal Level 1
- 256 KB 64-bit wide on-die Level 2 pipelined burst

Memory

- Three 168-pin latching DIMM sockets, 64/72-bit
- Up to 1.5 GB of SDRAM with parity or ECC (for single bit error correction and double bit error detection)

Data Path

- 64-bit CPU bus; 32-bit AGP bus; 32-bit on local PCI and 64-bit on CPCI bus

Interrupts

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

Flash Memory

- 512 KB for BIOS field upgrade; Silicon Serial ID TAG for unique board identification accessible via software

I/O

I/O: SMC FDC37C672

USB Ports: Two

Serial Ports: Three serial ports, one configurable as RS-485

Parallel Port: One multiple mode parallel port (SPP, EPP, ECP)

Floppy Disk: Support for two drives (360 KB to 1.44 MB)

EIDE: Two channel Bus Master PCI EIDE; support for four IDE Type 4 drives (master/slave configuration); LBA, PIO Mode 0-4 and Ultra DMA/33

CompactFlash™ Module: Optional bootable CompactFlash™ disk interfaces to primary EIDE channel, user upgradeable, master/slave

SCSI: Supports SCSI Ultra-2 LVDS up to 80 MB/s

Ethernet: Two 10/100 Mb/s Ethernet, PCI 10/100Base-TX ports (Intel 82559 controller)

HD / FD Mezzanine Card: Optionally onboard using Kontron's cMC series mezzanine cards

Video

- Integrated Intel 69000 based 64-bit AGP CRT SVGA controller with 2MB video memory
- CRT resolutions up to 800 x 600, 16.8 M colors; 1024 x 768, 64K colors; or 1280 x 1024, 256 colors, non-interlaced

Clock / Calendar

- Real-time clock with (replaceable) battery backup, CMOS RAM

Connectors in "Front" configuration

- CRT (15-pin D-sub); serial COM 1 (9-pin D-sub); two Ethernets (RJ-45 with link / activity indicators); PS/2 mouse / keyboard (6-pin mini-Din); PMC; reset; Interfaces on J3/J4/J5 (Rear-panel transition module, cTM80-STD (available in 4HP and 8HP) available separately) CRT; 3 x serial; 2 x USB; 1 x parallel; SMBus; I2C; speaker I/F; Reset; 2 x Ethernet; PS/2 mouse; keyboard; SCSI; 2 x EIDE; floppy disk interface; fan fail monitoring

BIOS Features

- Award Elite BIOS in Boot Block Flash with recovery code; save CMOS in Flash option, and boot from LAN capability
- Auto configuration, extended setup;
- CC000-E0000 address blocking; PnP tables
- Setup console redirection to serial port (VT100 mode) with CMOS setup access
- Software enable/disable of onboard Ethernet & SCSI; hardware enable/disable of onboard video
- Diskless, keyboardless, and videoless operation extensions
- System, video, SCSI, and LAN BIOS shadowing
- Programmable memory wait states
- Advanced security feature for floppy and HDD; DMI & HDD S.M.A.R.T. support
- Advanced Configuration and Power Interface (ACPI 1.0), AdvancedPower Management (APM 1.2), advanced thermal management (resume, overheat alarm and auto slow down), and Green support

Supervisory

- Two-stage software programmable Watchdog timer drives NMI on 1ststage and system reset on 2nd stage
- Programmable CPU temperature monitor/alarm
- Power failure / low battery detector
- Front Panel LEDs: Disk (IDE/SCSI) activity, Hot Swap LED, and Ethernet activity and link

OS Compatibility

- MS-DOS™, Windows® 95/98, Windows® NT, VxWorks™, pSOS™, QNX™, Linux, and Solaris

Mechanical (compliant to IEEE 1101.10; compliant to PICMG 2.0 Rev 2.1)

- 233 x 160 x 41 mm / 9.2 x 6.3 x 1.6 in; 6U x 8HP (dual slot) Mechanically
- 233 x 160 x 20.5 mm / 9.2 x 6.3 x 0.8 in; 6U x 4HP (single slot) Mechanically

Power Requirements

Supply Voltages: +3.3V: +5%, -3% / +5V +5%, -3% / +12V +5%, -3%

Supply Current:* 3.3V: TBD

5V: TBD

12V: TBD

Power Dissipation: 53W max.

Environmental

	Operating	Storage and Transit
Temp.:	0-60°C/32-140°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:	4,572 m / 15,000 ft	15,240 m / 50,000 ft
Shock:	Designed to meet IEC 68-2-27	
Vibration:	Designed to meet IEC 68-2-6	

Reliability

- MTBF: > 100,000 hours @ 55°C / 131°F (MIL-HDBK-217F)
- Board serial number in EEPROM
- USB, keyboard, mouse and SCSI voltage protected by self-resetting fuses
- 2 year limited warranty

Designed to meet or exceed:

Safety: UL 1950; CSA C22.2 No 950; EN 60950; IEC950

EMI/EMC: FCC 47 CFR Part 15/CISPR22, Class B; CE Mark to EN55022/EN50082

 **kontron**
www.kontron.com

Corporate Offices

US / Canada
616 Curé-Boivin
Boisbriand (Québec) Canada J7G 2A7
Tel. (450) 437-5682
Fax (450) 437-8053
sales@us.kontron.com

Europe, Middle East and Africa
Oskar-von-Miller-Straße 1
85386 Eching/Munich Germany
Tel. +49 81-65 77 0
Fax +49 81-65 77 219
sales@de.kontron.com

Asia Pacific
6F, No.9, Lane 235, Pao-Chiao Rd.,
Hsin-Tien, Taipei Hsien, 231 Taiwan
Tel. +886-2-2910 3532
Fax +886-2-2910 3482
sales@tw.kontron.com

