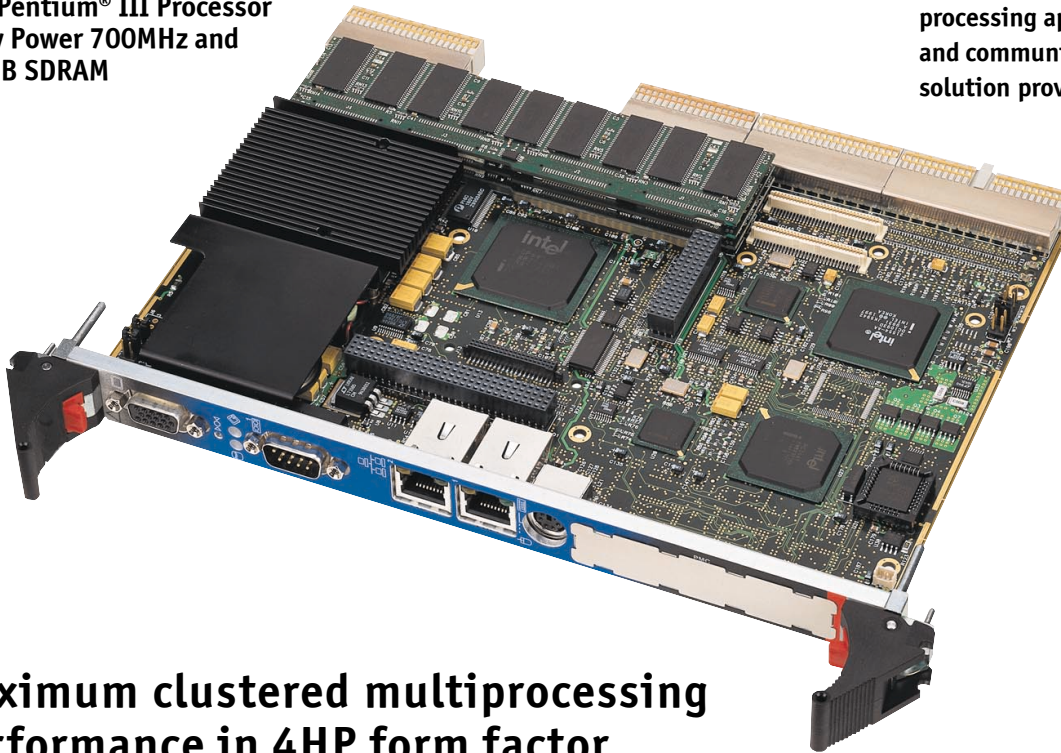


➤ cPCI-MXP64

➤ 6U CompactPCI 64-bit peripheral processor

with Pentium® III Processor
– Low Power 700MHz and
768MB SDRAM



- Kontron's cPCI-MXP64 is a hot-swappable, passive cooled peripheral processor that incorporates a comprehensive set of performance-enhancing features into one single slot footprint capable of high performance scalable multi-processing applications for CTI and communications gateway solution providers.

➤ Maximum clustered multiprocessing performance in 4HP form factor

Hot-swappable and exceptionally reliable, the cPCI-MXP64 peripheral processor delivers state-of-the-art CompactPCI® technology in a single slot form factor designed for solution providers who deliver mission critical applications in both the data communications and telecommunications markets.

The cPCI-MXP64 is designed with an ultra high performance Intel Pentium III Processor - Low Power with a 100MHz Front Side Bus and clock speeds of up to 700MHz. Other performance enhancements include the integration of a 64-bit cPCI bus, up to 768MB of SDRAM, and a unique standalone circuitry which enables it to be independent of the system processor. The end result is a

passive cooled, high-density board-level solution with superb performance and increased MTBF (Mean-Time-Between-Failure).

With the cPCI-MXP64, Kontron also introduces innovative clustered multiprocessing using IPTalky™ technology (IP on CompactPCI bus) for Windows®NT, VxWorks® and Linux®-based applications. It also provides dual Ethernet support for routing LAN traffic or for VoIP applications that demand complete redundancy.

Additional on-board features include one multiple mode parallel port (SPP, EPP, ECP), two serial ports, and a 64-bit AGP CRT SVGA controller with 2MB video memory.

- Up to Pentium III processor - Low Power, 700MHz with on-die 256k
- L2 cache
- Intel 440BX AGPset
- Hot-swappable
- Up to 768MB SDRAM even in single slot form factor
- PCI-to-PCI non-transparent bridge, multiprocessing using IPTalky™
- PMC, USB, serial and parallel ports, PCI EIDE
- Dual 10/100Base-TX Ethernet and one AGP video controller

► cPCI-MXP64 - Technical Specifications

CPU

- Intel® Pentium® III processor - Low Power 400, 500 and 700MHz
- Intel 440BX AGPset

Bus Interface

- Front Side Bus up to 100MHz
- CompactPCI bus, 64-bit (33MHz) J1 and J2
- PCI-to-PCI non-transparent bridge: Intel's 21554; supports up to seven REQ/GNT for fully loaded CompactPCI system
- PCI mezzanine (PMC)
- Kontron mezzanine with floppy drive and EIDE support
- SMBus (for system management of CPU temperature monitoring, DRAM control, clock buffers and power control)

Cache

- 16/16k instruction/data CPU-internal Level 1
- 256k 64-bit wide on-die Level 2 pipelined burst

Memory

- Three 168-pin latching DIMM sockets; 64/72-bit
- Up to 768MB of SDRAM with parity or ECC (for single bit error correction and double bit error detection) in single and dual slot form factor

Data Path

- 64-bit on CPU and video memory, 32-bit on local PCI and 64-bit CompactPCI bus

Interrupts

- Eleven edge sensitive and configurable
- Four PCI level sensitive, configurable to any interrupt vector for Plug-n-Play compatibility

DMA Channels (ISA)

- Four 8-bit, three 16-bit
- Supports scatter/gather, fast Type-F DMA

Flash Memory

- 512k 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: Two (one RS-232, COM1, COM2 configurable as RS-422/485)

Parallel Port: One bi-directional with all IEEE 1284 protocols supported with BIOS selectable IRQs and addressing

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

EIDE: Support for two IDE 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

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

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

Video

- 64-bit AGP video controller (Intel 69000) with 2MB video memory
- CRT resolutions up to 1024 x 768 x 64k colors or 1280 x 1024 x 256 colors

Clock/Calendar

- Real-time clock with (replaceable) battery backup, CMOS RAM connectors in "front" configuration

Connectors

Front

- CRT (15-pin DSUB); serial COM1 (9-pin DSUB); two Ethernets (RJ-45 with link/activity indicators); PS/2 mouse/keyboard (6-pin mini-Din)

Rear

- Interfaces on J3/J5 (rear-panel transition module, cTM80-STD2S and cTM80-STD1S available separately)
- CRT; 2x serial; 2x USB; 1x parallel; SMBus; I2C; speaker I/F; Reset; IR; 2x Ethernet; PS/2 mouse/keyboard; 2x EIDE; floppy disk interface; fan fail monitoring 2x EIDE; floppy disk interface

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; Plug-n-Play tables
- Setup console redirection to serial port (VT100 mode) with CMOS setup access
- Software enable/disable of onboard Ethernet; hardware enable/disable of onboard video
- Diskless, keyboardless and videless operation extensions
- System, video and LAN BIOS shadowing
- Programmable bus and I/O speeds, and 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), Advanced Power 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 1st stage and system reset on 2nd stage
- Programmable CPU temperature monitor/alarm
- Power failure/low battery detector
- Front panel LEDs: IDE activity, SCSI activity, Ethernet activity & link and 'Ready to Swap' blue LED

OS Support

- DOS, Windows®95/98/2000/NT, VxWorks®, QNX™, Solaris® and Linux®

Dimensions (W x H x D)

(compliant to IEEE 1101.10; compliant to PICMG 2.0 Rev 3.0)

- 9.2 x 6.3 x 1.6-inch (233 x 160 x 41mm) 6U x 8HP (dual slot) mechanically
- 9.2 x 6.3 x 0.8-inch (233 x 160 x 20.5mm) 6U x 4HP (single slot) mechanically

Power Requirements

Supply Voltages: +3.3V ±5% / +5V ±5% / +12V ±5%

Supply Current*: 3.3V 2A (max.)

5V 5A (max.)

12V 0.75A (max.)

Power Dissipation: 40W (max.)

* Intel Pentium III processor - Low Power 500MHz with 32MB SDRAM

Operating Environment

Temperature: 0 ° to 60 °C (32 ° to 140 °F (with airflow))

Humidity: 5 to 95% @ 40 °C (104 °F) non-condensing

Altitude: 15,000-feet (4,572-meter)

Shock: Designed to meet IEC 68-2-27

Vibration: Designed to meet IEC 68-2-6

Non-Operating Environment

Temperature: -40 ° to 70 °C (-40 ° to 158 °F)

Humidity: 5 to 95% @ 40 °C (104 °F) non-condensing

Altitude: 50,000-feet (15,240-meter)

Reliability

• MTBF: >100,000hrs @ 55 °C (131 °F) MIL-HDBK-217F

• Board serial number in EEPROM

• USB, keyboard, mouse and voltage protected by self-resetting fuses

• Two 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



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