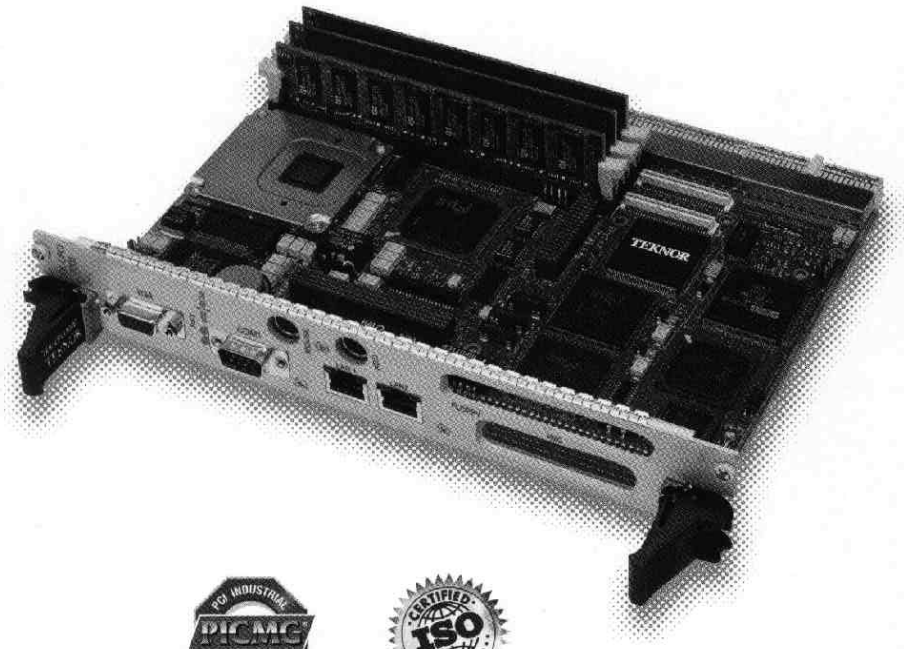
CompactPCI™ Pentium® II Industrial Single Board Computer

TEK-CPCI 1003



- Up to 266 MHz Mobile Pentium® II processor with 512 KB of L2 Cache
- Intel 82443BX and Intel 82371AB PIIX4 Chip Sets
- Up to 384 MB SDRAM (768 MB using RSDRAM)
- USB, Serial and Parallel Ports
- PCI EIDE and two 10/100Base-TX Ethernets
- PMC and Ultra Fast/Wide SCSI 3
- PCI-to-PCI Bridge
- 64-bit AGP SVGA CRT controller using 2 MB Rambus™ video memory
- Hard disk / Floppy Mezzanine Module

Teknor's Pentium® II powered TEK-CPCI 1003 industrial SBC provides the highest performance, the highest integration and is a competitively priced Computer Engine on a standard CompactPCI™ dual slot 6U form factor fully compliant to PICMG 2.0 Rev. 2.1 specification.

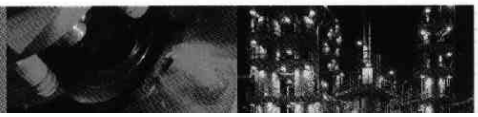
The **TEK-CPCI 1003** is the first CompactPCI™ industrial SBC based on Intel's Pentium® II processor in a "mini-cartridge" package, 512 KB L2 pipelined burst cache and Intel's 82443BX and 82371AB PIIX4 Chip Sets. It is intended to provide the highest level of performance and throughput for the 32/64-bit CompactPCI™ operating environments. The rugged design of the **TEK-CPCI 1003**, as well as its very rich feature-set, makes it an outstanding choice for numerous high-availability applications ranging from telecom to computer intensive industrial and mission-critical medical applications. Superior reliability and data integrity are achieved using Error Checking and Correction (ECC). The usage of standard DIMMs provides significant cost savings.

The **TEK-CPCI 1003** comes standard with a CPU temperature sensor, which allows for efficient thermal management. In addition, an optional IDE-compatible CompactFlash™ module is available for harsh environments. The optional Hard disk / Floppy mezzanine module is available for applications where the highest level of integration is of utmost importance.

The Award BIOS, in Boot Block Flash memory, supports serial/parallel ports remapping / disable, keyboard disable, console redirection, PCI Bus Scan displaying a list of all PCI boards and devices installed. PCI-to-PCI bridging is fully supported.

Teknor's TEK-CPCI 1003 is the highest performance, highest integration CompactPCI™ industrial SBC offered today. It is an ideal choice for developers addressing telecommunication, medical, industrial control and high availability market applications. It is simply the best value you can buy today!

As founding member of the PICMG consortium, Teknor is the designer and manufacturer of the world's most advanced and reliable industrial computer boards and systems.



TEKNOR INDUSTRIAL COMPUTERS INC.

CompactPCI™ Industrial Single Board Computer

TEK CPCI 1003

Technical Specifications

CPU
- Single 233 MHz or 266 MHz Mobile Pentium® II processor
- Intel 82443BX and Intel 82371AB PIIX4 Chip Sets

Bus Interface
- CompactPCI™ Bus, 32-bit (33 MHz) J1 and J2
- PCI Mezzanine (PMC)
- Proprietary Mezzanine with PCI and AT bus, FD and EIDE interfaces to support on-board HD, on-board FD as well as future PCI expansions
- SMBus (for system management of CPU temperature monitoring, DRAM control, Clock buffers and power control)

Cache
- 16/16 KB Instruction / Data CPU-internal Level 1 cache
- 512 KB internal 64-bit wide Level 2 pipelined burst

Memory
- Three 168-pin latching DIMM sockets
- Up to 384 MB of SDRAM (768 MB using RSDRAM) with parity or ECC (for single bit error correction and double bit error detection) via Intel 82443BX Chip Set

Data Path
- 64-bit on CPU and video memory; 32-bit on local PCI and CompactPCI™ bus

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

DMA Channels
- Four 8-bit, three 16-bit

Flash Memory
- 256 KB for BIOS field upgrade; serial ID TAG for unique board identification
- CompactFlash™ Module: up to 24 MB
- IDE-compatible CompactFlash™ technology; supported by all OS and Real-Time OS with no extra drivers required; User upgradeable; Bootable using any OS

I/O
SMC FDC37C672

Serial Ports: Four RS-232 ports configurable as COM1-4, serial port 2 can be RS-232 or RS-422/485

Parallel Port: One bi-directional with all IEEE 1284 protocols supported (compatibility, nibble, byte, EPP, and ECP) with BIOS selectable IRQs and addressing

Floppy Disk: Support for two drives (360 KB to 1.44 MB); keyboard; PS/2 mouse

Intel 82371AB

USB Ports: Two

EIDE: Two channel Bus Master PCI EIDE; support for four IDE Type 4 drives in master / slave configuration; LBA, PIO Mode 0-4 and Ultra DMA/33; CompactFlash™ Disk: Optional bootable CompactFlash™ module interfaces to primary EIDE channel, user upgradeable, master / slave

Ethernet: Two PCI 10/100 Mb Ethernet, 10/100Base-TX ports (Intel 82558)

SCSI: Supports 16-bit Ultra Wide SCSI up to 40 MB/s; 8-bit Fast SCSI 2 up to 10 MB/s; 8-bit Ultra SCSI up to 20 MB/s (Adaptec 7880)

HD/FD Mezzanine Module: On-board option using proprietary mezzanine module

Video
- 64-bit AGP video controller (Cirrus Logic GD5465); 2 MB Rambus™ video memory; support for CRT only
- CRT resolutions up to 1024 x 768 x 64K colors or 1280 x 1024 x 256 colors
- V-PORT™ (Asynchronous Digital Video) interface supporting video on graphics and graphics on video overlays; V-PORT™ signals accessible via rear I/O

PCI-to-PCI Bridge
- DEC 21150; supports up to 7 REQ/GNT for fully loaded CompactPCI™ system

Clock / Calendar
- Real-time clock with (replaceable) battery backup CMOS RAM

Connectors
Front Plate Connectors: CRT (15-pin D-sub); serial COM (9-pin D-sub); Ethernets (Two RJ-45 with link / activity indicators); PS/2 mouse (connector on mezzanine); keyboard (6-pin mini-Din on mezzanine)

Interfaces Available Through Rear I/O:
(rear-panel transition board available separately)
- CRT; V-Port™; 4 x serial; 2 x USB; 1 x parallel; SMBus; speaker I/F; Reset switch; IR; 2 x Ethernet; PS/2 mouse; keyboard; SCSI; 2 x EIDE; floppy disk interface; fan fail monitoring; VIPer Vision expansion header

BIOS Features
- Award BIOS in Boot Block Flash
- Auto configuration, extended setup, Plug and Play tables
- Diskless, keyboardless and videoless operation extensions
- BIOS POST and Setup console redirection to serial port
- Support for memory hole at 15-16MB / ISA bus aliasing and CC000-E0000 address blocking
- Programmable CPU and memory wait states
- System, video and SCSI BIOS shadowing
- Advanced power management support
- Ability to boot MS-DOS™ and user applications from Flash Disk

Supervisory
- Software programmable; 2-level Watchdog timer drives NMI on 1st level and system reset on 2nd level; programmable CPU temperature monitor / alarm
- Power failure / low battery detector; front Panel LEDs: IDE activity, SCSI activity, Ethernet 1 activity, Ethernet 2 activity, and Ethernet 2 link

OS Compatibility
- MS-DOS™; Windows® 95; Windows® NT; VxWorks®

Mechanical
- 233 x 160 x 41 mm / 9.2 x 6.3 x 1.6 in.; 6U x 8HP board mechanically compliant to IEEE 1101.10; compliant to PICMG 2.0 Rev 2.1

Power Requirements

Supply Voltages:	+3.3V:	±5% / +5V±5% / +12V ±5%
Supply Current:*	3.3V:	7.5 A max.
	5V:	2.0 A max.
	12V:	0.25 A max.
Power Dissipation:	32W maximum	

**233 MHz Mobile Pentium® II Processor with 32 MB DRAM*

Environmental

	Operating	Storage and Transit
Temperature:	0° to 60°C (w/airflow)	-40° to +70°C
Humidity:	5% to 95% @ 40°C non-condensing	5% to 95% @ 40°C non-condensing
Altitude:	15,000 feet / 4,572 m.	50,000 feet / 5,240 m.
Shock:	Compliant with IEC 68-2-27	
Vibration:	Compliant with IEC 68-2-6	

Reliability
- MTBF: > 100,000 hours @ 55°C (MIL-HDBK-217F)

Designed to meet or exceed:
- UL, cUL; FCC CFR 47 Part 15, Level A, CE Mark to CISPR 22 EN55022 Class B
- USB and keyboard voltage protected by self-resetting fuses
- Board serial number in EEPROM
- 2 year Limited Warranty

Order Guide

Configurations

1. TEK-CPCI 1003 @ 233
- SBC with 233 MHz Mobile Pentium® II processor
- 2 MB Rambus™ video memory
- 512 KB L2 Pipelined Burst Cache
- Two PCI 10/100Base-TX Ethernets
- Ultra Wide SCSI
- PCI-to-PCI Bridge

2. TEK-CPCI 1003 @ 266
- SBC with 266 MHz Mobile Pentium® II processor
- 2 MB Rambus™ video memory
- 512 KB L2 Pipelined Burst Cache
- Two PCI 10/100Base-TX Ethernets
- Ultra Wide SCSI
- PCI-to-PCI Bridge

Options
- SDRAM: up to 384 MB DIMMS
- CompactFlash™ Module: 0, 4, 10, 15, 24 MB*
- Hard disk / Floppy Mezzanine Module

**Consult factory for highest density available*

TEKNOR INDUSTRIAL COMPUTERS INC.

Printed in Canada 5-1003_1-0 98/04

For more information or to order, please call

1-800-387-4222

Fax Order Hotline

1-450-437-5254

All products are shipped FOB factory (Canada).

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CE All TEKNOR standard products are CE marked.

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