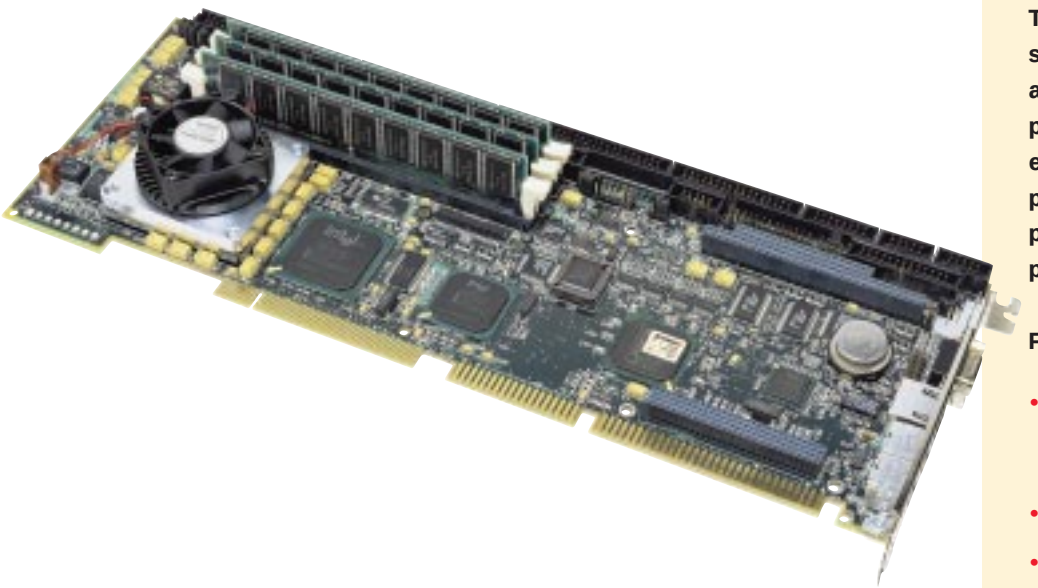
PCI-944
Superior performance and low power



Mobile Pentium® II processor in a mini-cartridge package*

The PCI-944 SBC combines the superior performance of the P6 micro-architecture while meeting the unique power consumption and slot requirements of the embedded market. It features a Pentium® II processor - Low Power in a mini-cartridge package*, high performance PCI Ultra DMA/33 IDE, Ultra Fast/Wide SCSI-3, and 10Base-T/100Base-TX Ethernet controllers.

Universal Serial Bus (USB) ports, serial/parallel ports, a floppy interface, and CompactFlash™ disk support are also onboard.

A Chips and Technologies PCI 64-bit CRT/Flat Panel video controller with 2 MB of SDRAM and a PanelLink™ interface are optional.

The PCI-944 SBC is the ideal solution for applied computing application developers addressing power-sensitive, slot-sensitive environments. It enables high performance while minimizing packaging and maximizing product life.

Features include:

- **Pentium® II processor - Low Power 333 MHz with 256 KB ECC L2 Cache Intel 440BX chipset**
- **Up to 768 MB SDRAM/RSDRAM**
- **USB, Serial and Parallel Ports**
- **Ultra DMA/33 IDE (Dual) & Ultra Fast/Wide SCSI 3**
- **10/100Base-TX Ethernet**
- **PCI 64-bit Flat Panel/CRT Video with 2 MB SDRAM**

** Teknor Applicom entered a Technical License Agreement to manufacture processor modules for its SBCs, using the mini-cartridge form factor and Intel Pentium®II - Low Power processors.*

PCI-944 - Technical Specifications

CPU
- Single performance-enhanced Pentium® II processor - low power 266, 333 MHz
- Intel 82440BX chipset (66 MHz Front Side Bus)

Bus Interface
- PCI Bus (120-pin, 33 MHz)
- ISA Bus (98-pin, 8.33 MHz)
- High drive ISA buffers to support up to 20-slot backplane
- PC/104-*Plus* (embedded PCI)

Cache
- 16/16 KB Instruction / Data Level 1
- 256 KB internal 64-bit wide SPB non-blocking ECC Level 2

Memory
- Three 168-pin latching DIMM sockets, 64/72-bit
- Up to 768 MB with 2, 4, 8, 16 or 32 M x 64/72, 66 MHz Synchronous DRAM / Registered SDRAM non-ECC/ECC mode (single bit error correction, double bit detection via Intel 82440BX chip set); 512 MB cacheable

Data Path
- 64-bit on CPU and video memory bus; 32-bit on PCI bus; 16-bit on ISA bus

Interrupts
- 11 edge sensitive and configurable
- 4 PCI level sensitive, configurable to any interrupt vector for PnP compatibility
- All ISA onboard interrupts are PnP compliant

DMA Channels (ISA)
- Four 8-bit, three 16-bit
- Supports scatter / gather, Fast Type-F DMA

Flash Memory
- 2 Mb (256 KB) Boot Block for BIOS field upgrade
- 4 KB Serial EEPROM for user configuration

I/O
I/O: SMC FDC37C672

USB Ports: Two

Serial Ports: Two RS-232 (16C550) with 16 byte FIFO as COM1-4 with BIOS selectable IRQs and addressing; serial port 2 BIOS configurable as RS-422/485

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

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

EIDE: PCI EIDE Ultra DMA/33, support for four IDE drives (master/slave configuration); PIO Mode 4, Bus Master IDE or synchronous DMA mode transfers up to 33 MB/s

CompactFlash™ Disk: Optional bootable CompactFlash™ module interfaces to secondary IDE channel, user upgradeable, master/slave

SCSI: PCI Ultra Fast/Wide SCSI-3 with operation up to 40 MB/s and data bursts to the host at full PCI speeds; also Fast and Ultra SCSI-2 (Adaptec AIC 7880)

Ethernet: PCI 10Base-T/100Base-TX (Intel 82559)

Video
- PCI 64-bit CRT/Flat Panel controller with 2 MB 83 MHz SDRAM memory (C&T69000A)
- Support monochrome & color Plasma, EL, DSTN, SSTN, TFT/CRT panels with resolution up to 800 x 600, 16.8M colors; 1024 x 768, 64K colors; or 1280 x 1024, 256 colors, non-interlaced
- Compatible with CGA, EGA, Hercules, MDA, VGA, SVGA, XGA, and SXGA

Clock / Calendar
- Real-time clock with 256 byte battery backup CMOS RAM

Connectors
Rear I/O Bracket: CRT (female DB-15 slim); Ethernet (RJ-45 with link/activity indicators); PS/2 mouse (6-pin mini-DIN); PS/2 keyboard (6-pin mini-DIN)

Headers: USB (10-pin shrouded); serial ports (two 10-pin shrouded); parallel port (26-pin shrouded); floppy (34-pin shrouded); EIDE (two 40-pin shrouded); SCSI-3 (68-pin subminiature D receptacle); SCSI-2 (50-pin shrouded); flat panel (50-pin shrouded); XGA panel (26-pin shrouded); PanelLink™ (20-pin shrouded); AT keyboard, speaker, reset, EIDE hard disk activity LED (16-pin shrouded); V-PORT™ (26-pin); NTSC out (14-pin); PS/2 mouse (4-pin locking); CPU fan (2-pin locking); SCSI LED (2-pin locking); PC/104 (104-pin); PC/104-*Plus* (120-pin)

BIOS
- Award Elite BIOS in Boot Block Flash with recovery code; save CMOS in Flash option, and boot from LAN capability
- Auto configuration, extended setup
- CC00-E000 address blocking; PnP tables
- Setup console redirection to serial port (VT100 mode) with CMOS setup access
- Software enable/disable onboard Ethernet and SCSI
- Diskless, keyboardless, and videoless operation extensions
- System, video, LAN and SCSI BIOS shadowing
- Advanced security feature for floppy and HDD; DMI and 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
- Programmable bus and I/O speeds, and memory wait states

Supervisory
- Two-stage watchdog timer with history bit drives NMI on 1 st stage, system reset on 2 nd stage
- Power failure / low battery detector
- Programmable CPU temperature monitor / alarm

OS Compatibility
- PC and MS-DOS™; Windows® 3.X; Windows® 95; Windows® 98; Windows®NT 4.0/5.0; OS/2® Warp; SCO UNIX™; QNX™; NOVELL™; UnixWare™

Mechanical
- 38 x 122 x 34 mm at CPU / fan (13.32 x 4.80 x 1.35 in. at CPU / fan)
- Conforms to IEEE P996 PC/AT bus, PCI Rev. 2.1, PICMG Rev. 2.0, and PC/104-*Plus* Rev 1.0 specifications

Power Requirements

Supply Voltage	Vcc = +5V + 5% / +12V + 5%	
Mobile Pentium II:	**266**	**333**
ICC typ. +5V	TBD	TBD
ICC susp. +5V	TBD	TBD
+12V	TBD	TBD

Environmental

	Operating	**Storage and Transit**
Temperature:	0° to 55°C/32° to 131°F (w/airflow)	-40° to +70°C/-40° to 158°F
Humidity (RNC):	5% to 95% @ 40°C/104°F non-condensing	0% to 95% @ 40°C/104°F non-condensing
Altitude:	4,572 m / 15,000 ft	15,240 m / 50,000 ft
Shock:	5 G, each axis	
Vibration:	1.5 G, each axis	

Reliability
- MTBF: TBD
- SCSI termination, USB and mouse / keyboard voltage protected by self-resetting fuses
- Unique silicon serial number accessible via software
- 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; CE Mark to EN55022/EN50082

PCI944.1 11/99

Teknor Applicom helps customers speed to market with applied computing solutions featuring single board computers and integrated systems specifically designed for Industrial Automation, Internet, Telecommunications, Mobile Computing and all types of high-speed, high-availability applications.

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