PCI-936

Integrated technology for an "all-in-one" solution



Combined Pentium® processing power and Intel chipset deliver performance at a competitive price



Engineered for high performance applications

The PCI-936 "all-in-one" CPU is a high performance, single board computer using the Intel Pentium® or Pentium® with MMX™ technology processor and Intel 82430HX PCI set with a high efficiency onboard CPU switching regulator.

Highly integrated, it features PCI peripheral controllers for dual channel EIDE, Ultra Fast SCSI, Flat Panel / CRT graphics and 10/I00Base-TX Ethernet.

In addition to a standard floppy disk interface and serial/parallel ports, the PCI-936 provides two Universal Serial Bus (USB) ports and supports Plug and Play I/O.

Features include:

point.

- Up to 233MHz Pentium[®] processor with MMX[™] technology
- Intel 82430HX chipset (with ECC support)
- Up to 512MB FPM or EDO DRAM
- 512KB L2 Cache and 4MB Flash Disk
- PCI EIDE and Ultra SCSI
- PCI FP/CRT SVGA
- 10/100Base-TX Ethernet

PCI-936 - Technical Specifications

Bus Interface

- PICMG: PCI Rev. 2.1 compliant PICMG Rev. 2.0 compliant
- ISA: Drives up to 20 slots
- IBM PC/AT mechanical format

CPU Type & Speed

- 133, 166MHz Pentium® processor
- Intel 166, 200 & 233MHz Pentium® with MMX™ technology
- · Intel 82430HX chipset

- DRAM: FPM or EDO 8 to 512MB using up to four 72-pin SIMMs
- · Parity / non-parity & ECC support
- L2 Cache: 512KB synchronous pipelined burst, 512MB cacheability
- Flash Disk: 2MB or 4MB
- · Unique silicon serial number
- 4KB Serial EEPROM

Data Path

- 64-bit on CPU bus
- 32-bit on PCI bus
- · 16-bit on ISA bus

- Chips & Tech 65550 graphics processor
- 2MB EDO video memory
- CRT resolutions to 1280 x 1024 x 256 colors
- Flat panel resolutions up to 1024 x 768 x 64K colors
- · Flat Panel support for monochrome, S/S and D/D STN, EL and TFT displays
- · 24-bit color video DAC
- 64-bit graphics engine with BitBLT
- Simultaneous CRT / Flat Panel support
- V-PORT™ (Asynchronous Digital Video) interface

1/0

I/O: SMCFDC37C932 Ultra I/O

Serial: Two RS-232 ports configurable as COM1-4; COM2 can be RS-422/485 configured by BIOS software

Parallel: 1 bi-directional port with all IEEE 1284 protocols supported (compatibility, nibble, byte, EPP, and ECP)

Hard disk: Two channel PCI EIDE; drives up to four hard disks Floppy disk: Interface for two, 1.44 or 2.88MB floppy drives

USB: Two Universal Serial Bus (USB) Ports

Clock / Calendar

Real-time clock with battery backup

Supervisor Utilities

- Dual Watchdog timers
- Power failure / low battery detector
- Reset history status
- · CPU temperature sensor / alarm

SCSI

- · PCI Ultra SCSI, 8-bit bus
- Symbios 53C860 Risc Engine
- 20MB/s synchronous transfers
- 7MB/s asynchronous transfers
- PCI Rev., 2.1 compliant bus master
- SCSI BIOS Boot Capable
- · Active Terminations

Ethernet

- 10/100Base-TX interface
- Intel 82557 Ethernet controller
- PCI Rev. 2.1 compliant bus master
- Integrated link and activity LEDs

- Award BIOS
- · Updatable BIOS in Boot Block Flash
- Auto configuration and extended setup
- Programmable CPU and memory wait states
- BIOS shadowing in RAM
- Extensions for diskless, keyboardless and videoless operations
- Ability to boot MS-DOS and user applications from Flash disk
- Advanced power management support
- CPU thermal management
- · Plug and Play peripheral support

External Connectors

- IDE hard disk (2), floppy disk, parallel & serial ports (2): individual shrouded headers
- AT keyboard, speaker, reset port: combo shrouded header
- CRT: DB-15
- · Flat Panel display: 50-pin shrouded header
- V-PORT™: 26-pin header
- · SCSI: 50-pin shrouded header
- PS/2 mouse: 6-pin DIN connector + 4-pin locking header
- · PS/2 keyboard: 6-pin DIN connector
- · Ethernet: shielded RJ-45
- Power: 6-pin locking header
- 12V DC Fan: 2-pin locking header

Operating Temperature

- 0° to 62°C / 32° to 143°F (with airflow)
- CPU case temperature 70°C / 158°F
- · Consult factory for high speed processor temperature specs
- Extended temperature range available

Noncondensing Relative Humidity

• 5% to 95%

Electrical / Mechanical

- Conforms to the IEEE P996 PC/AT bus specification, PCI specifications Rev. 2.1 and PICMG Rev. 2.0
- · High drive buffers on ISA-bus for backplanes up to 20 slots

Supply Voltage

• $Vcc = +5V \pm 5\%$ +12V ±5%

Supply Current IPP: +12V 7 6mA

IPP: +12V /.0IIIA			
Pentium:	133	166	
ICC typ.*: @+5V	4.00A	4.50A	
ICC susp.: @+5V	2A	2A	
MMX:	166	200	233
ICC typ.: @+5V	4.51A	4.70A	4.91A
ICC such : @ EV	2 41 4	2 444	2 40 4

^{*} Measured with 16MB DRAM, 512KB Cache, 2MB video memory, SCSI, Ethernet, keyboard, floppy and hard disks installed.

Board Dimensions

• 13.33 in. x 4.8 in. / 338.5 mm x 121.9 mm

- >128,000 hours (MIL-HDBK-217F)
 - * Based on Ground Benign environment, operating ambient: 20°C / 68° F, temperature rise: 10° C / 50° F

Operating Systems Compatibility
• PC and MS-DOS™, Windows® 3.X, Windows® 95, Windows® 98, Windows® NT, OS/2® Warp, SCO UNIX™, QNX™, NOVELL™, UnixWare™

Warranty Period

· Two years















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