PCI-936

Integrated technology for an “all-in-one” solution



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

Features include:

- **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**

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.

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

Memory
- 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

Video
- 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

I/O
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

BIOS
- 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 ±5%
  +12V ±5%

Supply Current
IPP: +12V 7.6mA

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 susp.: @+5V	2.41A	2.44A	2.48A

** 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

MTBF
- >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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