Labels: Socketed SIMMs · PCI Fast/Wide SCSI-2 Controller · IDE Hard Drive Controller · Floppy Disk Controller · Serial Port #2 · Serial Port #1 · Socketed L2 Cache DIMM · Pentium™ Processor · Parallel Port · AT Keyboard Interface · PCI Bus · On-board Speaker · ISA Bus

STATE-OF-THE-ART PERFORMANCE

The Texas Micro P5000HX series CPUs are robust, industrialized, single-board computers supporting the highest performance Intel Pentium™ processors. Featuring the Intel™ 430HX PCI chip set, ISA bus performance has been significantly improved and PCI bus graphics/IDE performance is improved by up to 10%. Reliability/data integrity is improved due to higher levels of integration and support for Error Checking and Correction (ECC) memory using standard 36-bit DRAM SIMMs. All I/O connections have polyfuse or other enhanced ESD protection.

The SBC supports processor speeds up to 200MHz, four 72-pin SIMM sockets for up to 256MB of RAM, and either 256KB or 512KB of pipeline burst synchronous L2 cache.

In addition to the enhanced IDE (EIDE) and floppy controllers, an on-board, 16-bit Fast/Wide SCSI-2 host adapter features true 32-bit PCI bus mastering DMA with 256-byte FIFO. This enables SCSI bus transfer speeds of up to 20MBytes/sec, maximizes DMA transfers, reduces system latencies, and maximizes I/O throughput for optimal utilization of the 132MBytes/sec PCI local bus.

Two serial ports (with baud generation to 115.2KB, 38.4KB sustained) and a Centronics™ compatible Enhanced Parallel/Capabilities port (EPP/ECP) provide superior I/O throughput.

EXCEPTIONAL PCI/ISA BUS CAPABILITY

The Model P5000HX series, using a 66MHz PCI/ISA chip set, provides exceptional PCI and ISA bus performance and drive capability. The CPU supports primary and secondary PCI busses (up to 12 add-in cards) and up to 20 ISA add-in cards. The Texas Micro enhanced Phoenix™ BIOS provides a setup utility which automatically updates the configuration information, integral extended setup program for ISA and PCI system configuration, and user definable drive parameters. It can be configured to operate in systems without keyboards, disks, or monitors and provides serial redirection. Flash memory is used for BIOS upgrades, PCI configuration, and BIOS utilities.

The P5000HX CPUs are high performance, cost effective solutions for real-time applications such as data/voice/image processing, medical/scientific systems, and industrial control/monitoring. They are perfect for environments where processing speed and high media bandwidth/throughput/data integrity are critical.

KEY FEATURES

■ 100MHz through 200MHz Pentium™ processors supported

■ Integrated ECC support using up to 256MB of standard DRAM SIMMs

■ 256KB or 512KB synchronous pipeline burst L2 cache

■ FDC, PCI EIDE and 16-bit PCI Fast/Wide SCSI-2 peripheral controllers

■ 1 RS-232C and 1 configurable RS-232/422/485 serial port, 16550 compatible

■ Parallel port with all IEEE 1284 protocols supported (compatibility, nibble, byte, EPP and ECP)

■ PS/2 mouse and AT keyboard headers

■ Watchdog Timer (150 ms and 1.2 sec timeout periods)

■ Texas Micro enhanced Phoenix™ BIOS

■ Meets FCC Class A specification: CISPR 22 Class B

■ Two year limited warranty

Texas Microsystems, an ISO 9001 certified manufacturer, has been designing and manufacturing industrial computers and components since 1975. A founding member of PICMG, they developed the industry's first PC compatible computers using passive backplanes. The company offers a full line of rugged rackmount, benchtop, and mobile computer systems, CPU cards and add-on peripherals; and SPARC telecommuications/internetworking servers. Texas Microsystems' products are manufactured in the USA specifically for industrial automation, computer telephony integration, and other mission critical, high reliability applications.

MODEL P5000HX SERIES SINGLE BOARD COMPUTERS

SPECIFICATIONS

- **CPU:** 100, 133, 166, or 200MHz Pentium™ with 430HX at 66MHz processor bus speed. Internal 16KB cache and FPU

- **Cache:** 256KB or 512KB Level 2 write-back cache; zero wait state at 66MHz (8ns synchronous pipeline burst COAST SRAM)

- **Memory Subsystem:**
  Four 72-pin sockets organized in two banks, supporting: Up to 256MB with 1/2/4/8/16 x 36, 60/70ns, Fast Page Mode DRAM SIMMS - parity or ECC mode (single bit error correction, double bit detection) via chip set

- **Bus Interface:**
  AT Bus (98 pin) fully buffered (8.33MHz)
  PCI Bus (120 pin) fully buffered (33MHz)

- **Addressing:**
  Real and protected mode supported
  Real address mode - 20-bit.
  Protected address mode - 16-bit on bus access

- **Data Path:**
  64-bit on board; 16-bit on ISA bus access, 32-bit on PCI local bus

- **Interrupts:**
  11 edge sensitive and configurable
  4 PCI level sensitive, configurably mapped as IRQ 9, 10, 11 or 15

- **DMA Channels:** Four 8-bit, three 16-bit. Supports scatter/gather, F Type DMA

- **Flash Memory:** 2Mb (256KB)

- **Clock/Calendar:** DS12887, or equivalent, Real Time Clock accurate to +/- 12 minutes/year, at 25°C; includes CMOS

- **Form Factor:** 13.28" (33.73 cm) x 4.80" (12.19 cm)

- **Power Requirements:** (w/8MB - 64MB DRAM)

	Input power	21-35W
	+5V	4.3 - 7.0A
	+12V	0.1A
	-12V	0.1A

- **Peripheral Support:**
  PCI EIDE, PCI SCSI-2 (Adaptec 7870 with 8-bit Fast, 16-bit Fast/Wide or mixture)

- **Connectors:** (Polyfuse or ESD protected)
Floppy drive	(shrouded header)
PCI-EIDE	(shrouded header)
PCI SCSI-2 (PCI Rev. 2.1)	(68-pin high density receptical)
Serial port 1	(DB9P on slot bracket)
Serial port 2	(10-pin header)
Bi-directional parallel port	(DB25S on slot bracket)
AT keyboard, speaker, reset	(8-pin header)
PS/2 Mouse	(10-pin header)

- **BIOS Features:**
  Watchdog Timer: 150ms and 1.2 sec time as + periods
  AT compatible Phoenix™ BIOS with extensions for diskless, keyboardless and videoless operation
  System and video BIOS shadowing

- **Operating Systems Compatibility:**
  PC and MS-DOS™, Windows™, Windows NT™, Windows 95™ , OS/2, SCO UNIX™, Interactive UNIX™, iRMX™ for PCs, iRMX™ for Windows, QNX™, NEXTSTEP 486™, SOLARIS™; NOVELL™ UnixWare™, Netware and other NOS environments

- **SCSI Drivers Available:**
  DOS™ 5.0 thru 6.X, Windows™ 3.1, Windows for Workgroups™ 3.1X, Windows NT™ 3.1, Windows 95™, OS/2 2.X, WARP™ 3.0, NOVELL™ Netware 3.1X, 4.X, SCO Unix™ 3.2.4 ODT™ 3.0, Solaris™ X86, and UnixWare™ 2.X

  Device drivers are updated on a frequent basis. For the most current listing/availability, dial toll free into our Fax-On-Demand system **(800) 627-8700**, ext. **190** and request document #**1990**.

ENVIRONMENTAL

	OPERATING	NON-OPERATING
Temperature	0° to 60°C (32° - 140°F)	-40° to +70°C (-40° to 158°F)
Humidity	5 to 95% @ 40°C, non-condensing	0 to 95% @ 40°C, non-condensing

ORDERING GUIDE

	MODEL NUMBER
100MHz Pentium™ PCI/ISA Single-Board Computer with 256KB secondary cache	P5100HX/256
133MHz Pentium™ PCI/ISA Single-Board Computer with 256KB secondary cache	P5133HX/256
133MHz Pentium™ PCI/ISA Single-Board Computer with 512KB secondary cache	P5133HX/512
166MHz Pentium™ PCI/ISA Single-Board Computer with 256KB secondary cache	P5166HX/256
166MHz Pentium™ PCI/ISA Single-Board Computer with 512KB secondary cache	P5166HX/512
200MHz Pentium™ PCI/ISA Single-Board Computer with 512KB secondary cache	P5200HX/512
4MB 70ns DRAM (1M x 36)	TMM-10036/70
8MB 70ns DRAM (2M x 36)	TMM-20036/70
16MB 70ns high-density DRAM (4M x 36)	TMM-40036HD/70
32MB 60ns high-density DRAM (8M x 36)	TMM-80036HD/60
64MB 60ns high-density DRAM (16M x 36)	TMM-16036HD/60
Serial port 2 harness (COM2)	SCF1
Combination serial port 2 and PS/2 mouse harness	SM1
IDE drive cable	DCI-18/22
SCSI device cables	DCSW-1 through DCSW-5
50 pin to 68-pin F-F or M-M, 16-bit to 8-bit adapter	SCA1 or SCA2

Flex/Floppy drive cables, static dissipative wrist strap, and User's/technical manual included.

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