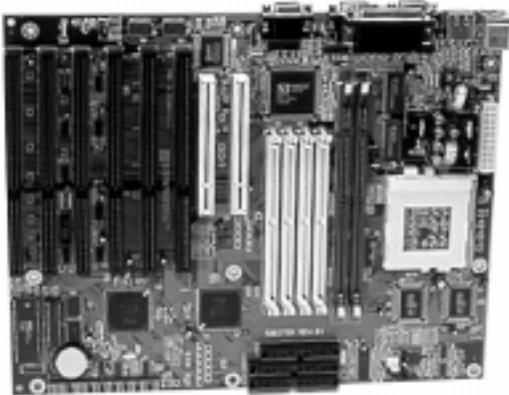


# 586MBIX SERIES

## Pentium MMX ATX PCI/ISA Motherboard



### FEATURES

- **Designed to Accept 6 Full Length Slots When Cable Headers are Mounted Flush and All The Higher Components are Off to The Side**
- **1MB Video Is Onboard to Save a Slot**
- **Watchdog Timer for Unattended Operation - Reboots if System Hangs Up. The Time Generates a Pulse That The OS Returns. If The System is Hung Up and The Pulse is Not Returned, The Watchdog Timer Activates The Re-Boot Sequence.**
- **Automatic Reboot After Power Failures**
- **D.F.I. ( Damage Free Intelligence) Monitors The Internal Temperature and Provided An Overheat Alarm. Monitors Both The 5 & 12 Volt Power and Provides A Power Fan Failure Alarm**
- **Automatic Heat Sink Fan Control Saves Energy and Prolongs Fan Life**
- **Pentium Power for Windows & NT Solutions**

### DESCRIPTION

586MBIX Series motherboard is designed to meet the needs of the industrial market. Delivering a PC platform that accommodates 6 full length ISA boards, Watchdog Timer for unattended operation - reboots if system hangs up, 1 MB PCI video onboard. In addition all the features and options are provided including both 168 and 72 pin memory sockets, Ultra DMA-33, modem Ring on-Wake up and USB (universal serial port). All current Pentium level CPUs' from Intel, AMD and Cyrix are supported as is MMX extensions.

The most demand for the 586MBIX was seen in the Computer Telephony market with Instrumentation and Security also showing a demand for this configuration. The industrial market is undergoing the evolutionary pressures of changing from DOS based solutions to the more challenging Windows95 and WindowsNT platforms. With the increased capabilities that the newer OS provides, a Pentium level platform is becoming the standard. The 586MBIX SERIES performance and features make it the right choice for the industrial market.



## SPECIFICATIONS

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### Processor Supported

Intel Pentium 75MHz through 200MHz Cyrix/  
IBM/SGS 6x86 P120+ through P166+, M2  
Intel Pentium MMX 166 / 200 / 233 MHz AMD  
K5 series 75MHz through 166MHz, AMD K6  
166, 200, 233

### Chipset

Intel 82430TX PCI Set

### Video Chip Set

S3 Trio64V2 (82C775)

### Voltage

Processor Voltage - Core 3.5V; 2.5V  
Processor Voltage - I/O 3.5V; 3.3V

### BIOS

Award, 1Mb Flash EPROM - Windows95 Plug  
and Play Compatible  
Flash EPROM for easy BIOS upgrades  
Supports LS120 drive and USB function

### Cache Memory

Cache Memory Pipeline burst: 512KB Write back  
cache installed on the system board

### System Memory

Memory Capacity 8MB to 256 MB Maximum  
On-board  
SIMM Support Four 72-pin sockets for DRAM  
SIMMs or 2 168 pin DIMM sockets using x64  
EDO, fast page mode or SDRAM  
System will auto-detect and optimize for EDO if  
present

### Integrated I/O

Ultra I/O controller  
Two NS16C550A compatible high speed UARTS  
One SPP/ECP/EPP parallel port  
Floppy Controller - 2 Drives supported 360KB  
through 2.88MB

### Energy Efficient Design

Supports ACPI specification and OS directed  
power management  
RTC timer to power-on or wake up the system  
Modem Ring-On/Wake-Up the system

### System power management supported.

CPU stopped clock control  
Hardware supports SMI green mode  
Microsoft®/Intel® APM 1.2 compliant  
Soft Power supported - ACPI v1.0a

### Damage Free Intelligence (D.F.I.)

Monitors processor temperature and overheat  
alarm  
Monitors 5V and 12V power voltages and failure  
alarm  
Automatic processor fan control to save energy,  
prevent system overheat and prolong fan life

### PCI IDE Interface

Supports 'Ultra 33' Synchronous DMA Mode, and  
ATAPI IDE CD-ROMs  
PCI IDE Controller 2 channels, 2 Master, 1 Slave  
Each Channel  
Supports PIO Mode 3, Mode 4 and LBA  
Bus mastering reduces CPU utilization during disk  
transfer

### Serial Port

2 Ports, RS-232C, 9-pin NS16550A compatible

### Parallel Port

1 Centronics compatible, 25-pin, SPP/ECP/EPP

### Watchdog Timer

Adjustable time out from 500ms to 32 sec

### Universal Serial Bus

2 USB 1.0 ports for serial transfers at 1.2 or 1.5  
Mbit/sec

### On board Graphics Accelerator

S3 Trio64V + accelerated 64-bit graphics  
controller  
1MB video memory on board

### Video playback feature

VESA DDC2B for Plug & Play monitors

### Graphics Resolutions

1024 x 768 x 256 colors, 800 x 600 x 64K colors,  
640 x 480 x 16M colors

### Expansion Slots

1 dedicated PCI slot, 5 dedicated ISA slot, 1 shared  
PCI/ISA slot  
(All Slots Full Length)

### Board Type

ATX standard mounting holes  
Board Size - 308 x 230 mm (12.13" x 9.06")

### Environmental Specifications

Operating Temperature	0 to +55 degree C
Operating Humidity	5 to 92% R.H.N.C. @ 36 degree C
Storage Temperature	-40 to +70 degree C
Airflow Requirement	100 CFM Air Flow Required
Fan Cooled Processor Heat Sink	Required

## SPECIFICATIONS CONT.

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### Standard Compliance and Agency Approval UL, CE, CSA approved

FCC compliant (FCC DOC)  
Windows 95 Plug and Play Microsoft® / Intel®  
APM 1.2 compliant  
Microsoft PC97 compliant  
(special order) IrDA compliant IR interface

### Special Features

- VGA, FDDA, Parallel, Serial, Mouse and Watchdog Timer can be disabled and IRQ3, 4, 5, 7, 9, 10, 11, and 12 can be released
- BIOS can auto-detect IDE drive type
- Video Memory can be released for DOS monochrome applications
- Additional pin plug connectors for Parallel, Serial, USB, Mouse and Keyboard for embedded chassis design
- Key Lock, Reset, Speaker, Power On, HD LED, and Green LED

## ORDERING GUIDE

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### Model 586MBIX100

ATX Motherboard, 100MHz Pentium

### Model 586MBIX133

ATX Motherboard, 133MHz Pentium

### Model 586MBIX166

ATX Motherboard, 166MHz Pentium

### Model 586MBIX200X

ATX Motherboard, 200MHz Pentium MMX

### Model 586MBIX233X

ATX Motherboard, 233MHz Pentium MMX



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