

Chapter 1: Introduction

Welcome

Congratulations on your purchase of the P6EX-MM mainboard. The P6EX-MM mainboard complies with the specifications for a microATX motherboard. MicroATX boards are no larger than 9.6" x 9.6" (244mm x 244mm). The microATX form factor permits reduced case sizes and smaller power supply units. However, the board can also be used in standard ATX cases if required. The P6EX-MM includes a SLOT1 for a Pentium-II/Celeron CPU cartridge using a 66MHz system bus. This is a compact board with integrated audio and video systems. It is ready for immediate use after the addition of memory modules and a CPU cartridge.

This chapter contains the following information:

- **About the Manual** explains how the information in this manual is organized
- **Checklist** comprises a list of the standard and optional components that are shipped with this mainboard
- **Features** highlights the functions and components that make this one of the best value mainboards on the market

About the Manual

The manual consists of the following chapters:

Introduction

Use the **Introduction** chapter to learn about the features of the mainboard, and the checklist of items that are shipped with the package.

Installation

Use the **Installation** chapter to learn how to install the mainboard and get your system up and running.

Setup

Use the **Setup** chapter to configure the mainboard for optimum performance.

Software

Use the **Software** chapter to learn how to use the software drivers and support programs that are provided with this mainboard.

Checklist

Compare the contents of your mainboard package with the standard checklist below. If any item is missing or appears damaged, please contact the vendor of your mainboard package.

Standard Items

- ✓ 1 x P6EX-MM Mainboard
- ✓ 1 x Cable/Bracket Pack
 - Diskette drive ribbon cable
 - IDE drive ribbon cable
 - Retention Module (for Pentium-II Cartridge)
- ✓ This User's Manual
- ✓ Software Support CD-ROM Disk or diskettes

Optional Items

- ✓ System Hardware Monitor IC chip (W83781D)

Features

The key features of the P6EX-MM mainboard are support for the mainstream Pentium-II class processor, and the integrated audio and video sub-systems. The mainboard supports firmware configuration of the processor voltage, clock and system bus. Hardware monitoring can be provided by an optional monitoring chip.

Affordable Performance

The Slot1 with 66MHz system bus supports the low-cost Celeron CPU cartridge, or Pentium-II cartridges running at 233MHz, 266MHz, 300MHz, and 333MHz. These processors deliver maximum performance for minimum cost. Setting the board up for different CPUs is easily accomplished using firmware.

Integrated Design

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Flexible Memory Support

The board has two DIMM slots which support EDO RAM or SDRAM modules with capacities up to 256 MB.

Versatile Expansion Options

The board has 3 expansion slots. Two PCI slots can be used by 32-bit PCI expansion cards. One ISA slot can be used by an 8-bit/16-bit ISA expansion cards. Systems using this board can be easily installed with network adapters or internal modems, and still have slots free for future expansion.

Integrated I/O

The board features a full set of I/O ports – Parallel, Serial, 2 x USB, Game/MIDI, and audio jacks for stereo in, stereo out, and microphone. The ports are arranged in a two-tier array which is supported by standard ATX I/O templates. The integrated graphics system has a feature connector so that you can easily add in auxiliary video cards such as an MPEG decoder or video capture card. Optionally, you use built-in connectors to install an infrared port, and re-assign the second serial port to the IR port.

Built-in Video

The system is installed with a RIVA 128 AGP graphics system with 4 MB of video memory. This permits a high resolution XGA display with a 24-bit color depth. The RIVA graphics system includes hardware acceleration for Windows Direct Draw APIs, MPEG 1 and 2 compressed video, and Intel Indeo compressed video.

Built-in Audio

The built-in audio chip provides a full duplex, 16-bit sound system that is compatible with the Sound Blaster and Windows Sound standards. It allows simultaneous recording and playback, and can record at CD-quality sampling rates of 44 kHz.

Programmable Firmware

The mainboard includes Award BIOS which allows BIOS setting of CPU parameters. The fully programmable firmware enhances the system features and allows users to set power management, (optional) LAN and Modem wake up alarms, and so on.