

# Chapter 1: Introduction

## Welcome

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Congratulations on your purchase of the P6BX-Me mainboard. The P6BX-Me 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 P6BX-Me includes a SLOT1 for a Pentium-II CPU cartridge using either a 66 MHz or 100 MHz system bus. Principal features of the board are an AGP slot for a graphics adapter and an integrated sound system.

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

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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**

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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 P6BX-Me 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 disc or diskettes

### **Optional Items**

- ✓ System Hardware Monitor IC chip (W83781D)

## **Features**

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The P6BX-Me mainboard features a slot-1 Pentium-II processor socket and support for a 100 MHz system bus, plus backward compatible support for a 66 MHz system. This means that the mainboard will support the first generation of Pentium-II processors (clocking from 233 MHz up to 333 MHz) and also the latest generation of Pentium-II processors (clocking from 350 MHz to 450 MHz and beyond).

The P6BX-Me also has an accelerated graphics port (AGP), built-in PCI stereo sound system and three usable expansion slots. In short, the P6BX-Me is a very flexible mainboard that supports a wide range of performance options from low-cost Celeron through to the most powerful PC processor available from Intel.

### ***Selectable Performance***

The combination of a slot-1 Pentium-II socket and support for both 66 MHz and 100 MHz system bus means that this system will support all variations of the Pentium-II processor. As well as the low-cost Celeron processor (with no level 2 cache), the board can support the following Pentium-IIs; 233/66, 266/66, 300/66, 333/66, 350/100, 400/100, and 450/100. This board can be configured for entry-level, small office/home

office, mainstream business, and power user performance levels. Changing processor configurations is easily accomplished using firmware settings.

### ***Highly Integrated Design***

The system features a high degree of integration based on the Intel 440BX chipset. The Intel 440BX chipset comprises the 82443BX AGPset and the 82371EB PCIsset. Together they provide the system logic for the Pentium-II board with 66 MHz or 100 MHz system bus. Support for a Rev. 1 compliant AGP graphics adapter is provided. In addition, the chipset enables Ultra DMA bus-mastered PCI IDE channels, USB ports, Error Correction Code (ECC) memory modules, and ACPI (advanced configuration and power management interface) functions.

### ***Keyboard Power On Option***

Using the system BIOS settings, you can configure the system to turn on using keyboard hot keys or password. A green keyboard is not required.

### ***Three Memory Sockets***

Unlike many competing ATX-micro mainboards, this board has sockets for three SDRAM memory modules. The sockets support 3.3V 168-pin SDRAM memory modules which can be PC-100 compliant, using a 100 MHz memory bus, or using a 66 MHz memory bus. With standard SDRAM, each socket can support a module with 8, 16, 32, 64, or 128 MB for a maximum capacity of 384 MB. Using Registered SDRAM, the capacity can be doubled to a maximum of 768 MB. The sockets will support memory that has no error correction, memory with EC (error correction) and memory with ECC (error correction code).

### ***Four Usable Expansion Slots***

The board has a total of five expansion slots; one AGP slot for an accelerated graphics port display adapter, two 32-bit PCI slots, and two 8/16-bit ISA slots. However, one of the PCI slots is shared with one of the ISA slots so that only one of the slots can be used at any one time. Since this mainboard has integrated audio, two built-in IDE channels and a floppy disk interface, plus a full set of I/O ports including two USB ports, four usable expansion slots provide enough potential for full system expansion, such as the addition of a network adapter, a fax/modem and so on.

### ***Integrated I/O Ports***

The board features a full set of I/O ports – PS/2 keyboard, PS/2 mouse, parallel, two serial, two USB, Game/MIDI, and audio jacks for stereo in, stereo out, and microphone. Optionally, an infrared port can be installed as an alternative to the second serial port. The ports are arranged in a two-tier array which is supported by standard ATX I/O templates.

### ***Built-in PCI Audio***

The built-in PCI audio chip provides a full duplex 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, hardware monitoring (optional), LAN and Modem wake up alarms, and so on.

### ***Optional Hardware Monitoring***

The Winbond W83781D hardware monitoring chip can be specified as a factory installed option. This chip can provide hardware monitoring of critical internal temperatures and voltages. This option is useful for large scale network administration and diagnostic routines. The optional thermal detector, which interacts with the W83781D monitoring chip, gives accurate information on the actual temperature of the Pentium-II processor module in Slot-1. This option is useful for large-scale network administration and diagnostic routines.