

Chapter 1: Introduction

Welcome

Congratulations on your purchase of the P6BA-A+ mainboard. This mainboard delivers workstation-level performance by supporting the latest and most powerful Intel Pentium-II processors. In addition, it adopts the new Advanced Graphics Port (AGP) and can be installed with a large capacity of fast SDRAM memory modules.

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 P6BA-A+ Mainboard
- ✓ 1 x Cable/Bracket Pack
 - Diskette drive ribbon cable
 - IDE drive ribbon cable
 - Retention Module (for Pentium-II / Celeron Cartridge)
- ✓ This User's Manual
- ✓ Software Support CD-ROM Disk or diskettes

Optional Items

- ✓ System Hardware Monitor IC chip (W83871D)

Features

The key features of the P6BA-A+ mainboard are the high-level of performance and the system support for the latest technologies in personal computing. The P6BA-A+ supports the most powerful processors and graphics sub-systems so that it challenges the performance levels of UNIX-based graphics workstations.

The mainboard also supports state-of-the-art network management software and system monitoring hardware. A P6BA-A+ based system can easily provide an energy efficient workstation or client file server.

High-Performance Processing

The processor Slot-1 (plus the retention module) supports the latest high-performance Pentium-II processors from Intel. The mainboard uses the latest Pentium-II support logic chips. This chipset also supports a 100 MHz host and memory bus.

Configuration without Jumpers

The P6BA-A+ uses the system BIOS to set the processor clock and voltage so that system configuration for all supported processors can be made using firmware.

Ultra-fast Graphics

The mainboard has a built-in Advanced Graphics Port (AGP) so that you can optionally install any of the new generation of AGP cards. The system meets the AGP

1.0 standard with support for 1X/2X speed transfers and BIOS control of the memory display buffer.

High-capacity Memory Support

The P6BA-A+ has three DIMM (dual in-line memory module) sockets. The sockets can be installed with 3.3 Volt unbuffered SDRAM modules. Each memory module can have up to 128 MB of memory so a maximum of 384 MB can be installed. We recommend that you use 100 MHz SDRAMs with PC/100 specification for maximum performance.

Energy-saving Features

This mainboard uses an ATX power supply. The system BIOS supports automatic wake-up for network and modem calls. Therefore a P6BA-A+ based system can be always online for critical network and other applications yet still meet important energy saving targets.

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.

Maximum Expansion Potential

The P6BA-A+ has seven free expansion slots. Two slots are available for 16-bit ISA cards, and 5 slots support 32-bit PCI card. (one PCI slot and one ISA slot are shared. You can install an ISA card or a PCI card, but not both together.) In addition, there is an AGP slot for the optional installation of an AGP graphics card.

Full Set of I/O Ports

The mainboard has a full range of standard I/O ports;

- Two enhanced IDE channels each supporting two devices
- One floppy diskette connector supporting up to two drives
- One parallel port and two serial ports
- Two USB (universal serial bus) ports
- Two PS/2 ports, one for keyboard and one for pointing device.

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.