

Chapter 1: Introduction

Welcome

Congratulations on your purchase of the P5SD-B+ mainboard. The P5SD-B+ mainboard is the latest generation of socket-7 motherboards with support for an accelerated graphics port AGP, a high-speed system bus, and onboard PCI IDE channels with UltraDMA-33 extensions. As a socket-7 board, the P5SD-B+ supports a wide range of Pentium MMX processors, the Pentium-compatible AMD K5/K6 series, the Cyrix/IBM 6X86, and the IDT C6 series CPUs. Five expansion slots are available for add-in cards as well as the AGP slot for a graphics adapter. The mainboard has dual power connectors and can run using an ATX or an AT power supply. In short, the P5SD-B+ mainboard delivers powerful entry-level performance and supports a wide range of inexpensive components.

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 P5SD-B+ Mainboard
- ✓ 1 x Cable/Bracket Pack
 - Diskette drive ribbon cable
 - IDE drive ribbon cable
- ✓ This User's Manual
- ✓ Software Support Disks

Features

The main feature of the P5SD-B+ mainboard is that it provides a cost effective socket-7 board that supports a wide range of inexpensive processors. However, it upgrades the socket-7 format with a 100 MHz system bus and support for AGP graphics adapters.

Low-cost Processing

The socket-7 processor socket supports a wide range of low-cost Pentium and Pentium-compatible processors from a variety of vendors. You can install the board with an Intel Pentium or Pentium MMX, an AMD K5 or K6, a Cyrix/IBM 6X86, or an IDT C6. The board will support CPU clocks from 90 MHz through to over 300 MHz, and CPU voltages of 2.1 up to 3.5 volts. All the supported processors have internal level-1 cache memory and the mainboard is installed with 512K of PDSRAM level-2 external cache memory.

Versatile Memory Support

The board has two SIMM sockets for older 72-pin EDO or FP DRAM modules, and two DIMM sockets for newer 168-pin SDRAM modules. The SIMM sockets allow memory from older machines to be recycled into a modern, performance, socket-7 system.

AGP Graphics Support

The mainboard has an AGP slot for the optional installation of an accelerated graphics port video adapter. AGP is today's standard for high-performance 2D and 3D video processing

Versatile Expansion Options

The board has 6 expansion slots. Four PCI slots can be used by 32-bit PCI expansion cards. Two ISA slots can be used by 8-bit/16-bit ISA expansion cards. One PCI slot is shared with one of the ISA slots. This means that you can use either of the slots, but not both. Five free slots, plus an AGP slot for a graphics adapter, allows a high degree of system expansion.

Integrated I/O

The board features a full set of standard I/O ports. An AT enhanced keyboard DIN socket is pre-installed and connectors are available for one parallel, two serial, two USB, PS/2 mouse, and infrared ports. The mainboard is installed with two PCI IDE channels which can support Ultra-DMA-33 disk drives, and a floppy disk drive interface.

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.