

Chapter 1: Introduction

Welcome

Congratulations on your purchase of the P5SS-Me mainboard. The P5SS-Me mainboard is a micro ATX board measuring 243.8 mm by 198.2 mm and using a 4-layer printed circuit board. This is a socket-7 board which supports a wide range of Pentium and Pentium-compatible processors which adhere to the socket-7 pinout. The board supports a system bus frequency of up to 100 MHz. The P5SS-Me is supplied with an AGP 3D-graphics controller and a 3D-audio controller pre-installed on the motherboard. The high level of integration contributes to the stability of the system, and means that the board is ready to use with the addition of just a socket-7 CPU and a DIMM memory module.

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 P5SS-Me Mainboard
- ✓ 1 x Cable/Bracket Pack
 - Diskette drive ribbon cable
 - IDE drive ribbon cable
 - Serial Port Bracket
- ✓ This User's Manual
- ✓ Software Support Diskettes or CD-ROM Disc

Features

This is an economic platform which provides entry-level through to business-class Pentium performance for minimum cost. The board is highly integrated and includes a 3D-graphics system and a 3D-audio system. To create a fully working PC, you need only add a Pentium/Pentium-compatible processor and a memory module.

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, or a Cyrix/IBM 6X86. The board will support a wide range of CPU clocks all the way through to over 500 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 can be optionally installed with either 1 or 2 MB of level-2 cache memory.

Up to 1 Gigabyte Memory Capacity

The board has two DIMM sockets for the installation of one or two 168-pin DIMM memory modules. The DIMM memory modules should be installed with SDRAM memory chips. The board supports a wide range of memory bus frequencies all the way through to 100 MHz. The board will support the popular PC-100 DIMM modules which run over a 100 MHz memory bus. Each DIMM module can be installed with up to 512 MB of memory so total maximum memory is 1 GB.

Highly Integrated Design

This mainboard features a high level of integrated functions provided by the onboard chipsets. The SIS 530 provides all the north bridge support – CPU and memory addressing, PCI-IDE controller, and PCI-bus interface. In addition, the SIS 530 provides a complete AGP graphics controller solution. The SIS 5595 provides the south bridge support – ACPI power management, keyboard controller, and USB interface. The Winbond W83877 is a single chip I/O solution, and the Elite PCI Audio-CMI8338 chip provides the onboard 3D audio feature. This highly integrated mainboard ensures stability and allows a fully functional system to be created by adding just a processor and memory.

Built-in AGP 3D-Graphics

This mainboard features a built-in 3D-graphics controller integrated in the SIS 530 chipset. The graphics controller uses a shared memory architecture that allows it use either 2 MB, 4 MB, or 8 MB of the system's main memory. The graphics controller has hardware accelerators for both 3D and 2D graphics. The graphics system will support extended high resolution displays up to 1600 x 1200. At an XGA resolution of 1024 x 768, the graphics system supports a color depth of 16 million colors.

Built-in PCI 3D Sound

The Elite PCI Audio chip is a single chip solution for 3D audio. The chip provides Sound Blaster 16-bit-compatible audio, plus support for Microsoft's DirectSound 3D specification and Aureal A3D interface. The sound ports include jacks for speakers, microphone and stereo in, and a game/MIDI port. The audio system supports full duplex operation and drivers are available for WIN 95/98 and WIN NT 4.0. The audio system also support SPDIF 24-bit digital sound input and output.

Solid Expansion Options

Because this is a highly integrated board with built-in video, audio, and a full set of I/O ports, it does not require a full set of expansion slots. The board provides three usable slots. The board has three 32-bit PCI slots and one 8/16-bit ISA slot. The ISA slot is shared with one of the PCI slots meaning that you can use either the ISA slot or the PCI slot, but not both at the same time.

Integrated I/O

Courtesy of the Winbond W83877 I/O chip and the SIS 530/5595 chipset, the board has a comprehensive set of integrated I/O ports. The I/O port array features PS/2 keyboard and mouse ports, a parallel port, two USB ports, one serial port, one VGA port, a game/MIDI port, and three audio jacks. Optionally, you can use the built-in mainboard headers to add in a second serial port, or a serial infrared port. The mainboard has two PCI-IDE channels and a floppy disk drive interface.

Keyboard Power On Feature

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

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, CPU and memory timing, LAN and Modem wake up alarms, and so on.