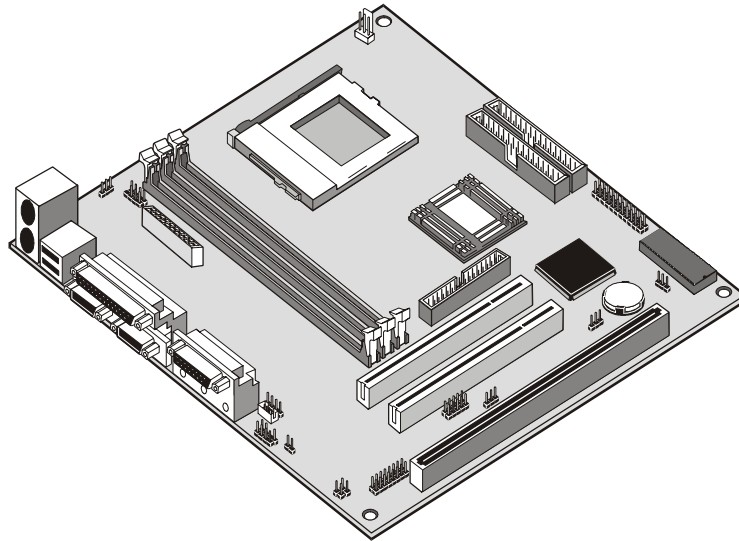


# Chapter 1: Introduction

## Welcome

Congratulations on purchasing the P5SS-ML mainboard. This mainboard supports the installation of the popular and inexpensive socket-7 processor series that lets users choose from a huge range of reliable and powerful processors from a wide variety of vendors.

The P5SS-ML is a micro-ATX mainboard that uses 4-layer printed circuit board and measures 19cm x 24.4cm. The board includes a socket-7 processor slot that supports the wide range of powerful and inexpensive socket-7 processors. The mainboard features the SiS530 chipset that supports a 100 MHz front side bus. The board is highly integrated and includes a 3D sound system, a 3D graphics system, a V.90 56Kbps fax/modem (on a separate module) and a 10BaseT/100BaseTX network adapter. The P5SS-ML lets system integrators create an economic PC that is ready for dial-up and network communications.



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
- ❑ **Recommendations** lists some Do's and Don'ts from the manufacturer to help ensure reliability and performance from this product
- ❑ **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 P5SS-ML Mainboard
- ✓ 1 x Cable/Bracket Pack
  - Diskette drive ribbon cable
  - IDE drive ribbon cable (supports UDMA 33)
- ✓ 1 x Network adapter extension bracket
- ✓ 1 x V.90 Fax/modem DAA Module
- ✓ This User's Manual
- ✓ Software Support CD-ROM Disc

### ***Optional items***

- ✓ Digital audio extension bracket

## Recommendations

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This mainboard automatically determines the CPU clock frequency and system bus frequency for the kind of processor that you install. We strongly recommend that you do not overclock the mainboard to run processors or other components faster than their rated speed.

Overclocking components can adversely affect the reliability of the system and introduce errors into your system. Overclocking can permanently damage the mainboard by generating excess heat in components that are run beyond the rated limits.

Components on this mainboard can be damaged by discharges of static electricity. Handle the board carefully holding it by the edges. Don't flex or stress the circuit board. Keep the board in its static-proof packing until you are ready to install it. Follow the static guidelines given at the beginning of Chapter 2.

## Features

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The key features of this mainboard are the socket-7 processor support, and the high degree of integration including built-in audio, video, communications, and networking.

### ***Socket-7 Processors***

The socket-7 processor socket supports many different kinds of Pentium and Pentium-compatible processors from a variety of vendors. You can install this board with a legacy Intel Pentium or Pentium-MMX, an AMD K5 or K6/K6-2/K6-III, a Cyrix/IBM 6x86L or 6x86MX/MII, or an IDT C6 series. The mainboard supports a wide range of CPU clock speeds and system bus speeds of 60, 66, 75, 83, 95 and 100 MHz. The mainboard BIOS supports automatic processor configuration so you can configure the board for the processor without using jumpers.

### ***SiS530 Chipset***

The SiS530 chipset provides full support for socket-7 mainboards and meets PC99 and PCI Revision 2.2 requirements. It includes a built-in AGP, 2D/3D graphics controller, level-2 cache controller, an integrated DRAM controller, and hosts the onboard PCI IDE channels with support for UDMA 33/66.

### ***Up to 1.5 GB Memory Capacity***

The board has three DIMM sockets for the installation of 168-pin, 3.3V non-buffered DIMM memory modules. The DIMM memory modules must be installed with SDRAM memory chips. The board supports a memory bus of 66 MHz or 100 MHz, so you can choose between inexpensive 66 MHz memory modules or high-performance PC-100 memory modules. Each installed memory module can be populated with 8 MB up to 512 MB of memory, so a maximum total of 1.5 GB memory can be installed.

### ***Built-in AGP, 2D/3D Graphics System***

The mainboard has a built-in graphics system with a shared memory architecture so that up to 8 MB system memory can serve as video memory. The 64-bit graphics system supports a 100 MHz host interface to VGA to speed up the GUI performance and the video playback frame rate.

### ***Built-in PCI 3D Sound***

The system includes built-in PCI 3D audio support. 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 can output sound to 4 loudspeakers and also supports SPDIF 24-bit digital sound input and output.

#### ***Built-in V.90 Fax/modem***

The mainboard includes an integrated fax/modem. The fax/modem supports 56 Kbps transmission using the V.90 protocol. The fax/modem is integrated with the built-in audio system to support voice as well as data transmissions. You must install a DAA module (with line and telephone sockets) in order to use the integrated fax/modem.

#### ***Built-in Networking***

The mainboard has an integrated LAN adapter. The board ships with a network extension bracket which connects the RJ45 network socket to the board. The RJ45 socket plugs directly into a twisted-pair cable networking architecture using either 10BaseT or 100BaseTX transmission technology.

#### ***Expansion Options***

The board has good expansion capability with two 32-bit PCI slots and one legacy 8/16-bit ISA slot.

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

The mainboard has a comprehensive set of integrated I/O ports. The I/O ports are installed as connectors on the mainboard or can be installed on the system case using extension brackets. The I/O ports include two PS/2 ports for mouse and keyboard, a parallel port, two USB ports, one serial port, a monitor port, a game/MIDI port, sound jacks, and an optional infrared port. The mainboard includes connections for floppy diskette drives and two PCI IDE channels.

#### ***Keyboard Power On Feature***

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

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

The system supports hardware monitoring so that monitoring software applications can generate warnings if critical parameters, such as voltages and temperatures, are exceeded

### ***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. The firmware can also be used to set parameters for different socket-7 processor clock speeds so that you don't need to change mainboard jumpers and switches.