

# Chapter 1: Introduction

## Welcome

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Congratulations on your purchase of the P6SE-ML mainboard. This mainboard features a Slot1 processor slot that supports the most powerful processors from Intel, including the SEPP Celeron, the Pentium-II and the Pentium-III. The P6SE-ML is a micro-ATX board that measures 224mm by 190mm.

The mainboard features a very high degree on integration. It includes a sound system, a graphics system, built-in networking and a built-in fax/modem. With the addition of a processor and a memory module, the system is ready for use as a multimedia workstation with built-in 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,
- ☐ **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 P6SE-ML Mainboard
- ✓ 1 x Cable/Bracket Pack
  - Diskette drive ribbon cable
  - IDE drive ribbon cable
- ✓ Fax/modem extension bracket
- ✓ Network adapter extension bracket
- ✓ This User's Manual
- ✓ Software Support CD-ROM Disc

## Features

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The key feature of this mainboard is the high degree of integrated components. The board includes a PCI 3D sound system, an AGP graphics adapter, a V.90 fax /modem, and a 10BaseT/100BaseTX network adapter. To create a full multimedia PC that is ready for dial-up and LAN networking, you need only add a processor and a memory module.

### ***Support for Pentium-III/Pentium-II Cartridges or SEPP Celeron***

This is a micro-ATX mainboard with a SLOT1 processor slot. Currently the slot-1 can be installed with three different kinds of processors; Pentium-III cartridges, Pentium-II cartridges and SEPP Celerons. Pentium-III cartridges feature 512K of level-2 cache memory with improved instructions to handle 3D audio and video, speech recognition, MPEG2 motion picture encoding/decoding, and TCP/IP internet connections. The Pentium-III runs over a 100 MHz system bus and operates at clock speeds from 450 MHz up to 500 MHz or more.

The Pentium-II cartridges are very powerful processors which include 32K of internal level-1 cache memory and 512K of external level-2 cache memory. The first generation of Pentium-II cartridges ran over a 66 MHz system bus, but current Pentium-II cartridges run over a 100 MHz system bus and operate at clock speeds from 350 MHz up to 450 MHz or more. The slot1 processor can also be used by the SEPP Celeron processors which can operate over a 66/100 MHz system bus and operate at clock speeds up to 466 MHz.

System assemblers can install either a Pentium-III or Pentium-II cartridge or the SEPP Celeron in the slot1 processor slot. System assemblers can choose the processor they need to meet performance or price targets. You can configure the system for any of the supported processor clock speeds using the BIOS setup utility. It is not necessary to set switches or jumpers.

### ***Choice of Memory Options***

The board has three DIMM slots for the installation of 168-pin, 3.3V standard or registered SDRAM (Synchronous Dynamic Random Access Memory) memory modules. The system supports memory that has built-in error correction (EC), error correction code (ECC), or has no error correction.

If you are using a Pentium-III/PentiumII processor cartridge that operates over a 100 MHz system bus, you must install PC-100 compliant memory modules (memory that operates at 100 MHz). If you install the SEPP Celeron processor or an older Pentium-II that runs at 66 MHz, you can install memory that operates at 66 MHz (you can install PC-100 memory if you wish, but the system will run the memory at 66 MHz).

You can install one, two or three modules. Each memory module can hold a maximum capacity of 256 MB of standard SDRAM chips so maximum memory capacity is 768 MB.

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

This mainboard uses the Xcel2000 chip as a north bridge and the SiS5595 as a south bridge. The combination includes an integrated AGP accelerated graphics adapter and support for a 100 MHz or a 66 MHz system bus. The chipset also provides a memory controller, a PCI interface and ACPI power management.

### ***Built-in 3D Graphics System***

The Xcel200 chip includes a 64-bit accelerated graphics adapter. The graphics system uses 8 MB of shared system memory as a frame buffer to provide extended VGA resolutions of up to 1600 x 1200 pixels with 24-bit True Color color depth.

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

The Elite PCI Audio CMI 8338 is a single chip solution for PCI-bus 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 can output sound to 4 loudspeakers and also supports SPDIF 24-bit digital sound input and output.

### ***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.

### ***Built-in Communications***

The mainboard has an integrated fax/modem. The board ships with a fax/modem extension bracket which connects the line and telephone RJ11 sockets to the board. The fax/modem supports the V.90 protocol

that allows transmissions at up to 56Kbps and is fully compatible with earlier transmission and error correction standards. It supports automatic fall back and caller ID.

### ***Expansion Options***

Because this mainboard has a full set of built-in features, it is supplied with just two expansion slots. One ISA slot provides support for legacy 8/16-bit ISA cards. One PCI slot can be used by 32-bit PCI cards.

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

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, a monitor port, a game/MIDI port, and three audio jacks. Optionally, you can use the built-in mainboard header to add in an infrared port. The mainboard has two PCI-IDE channels and a floppy disk drive interface.

### ***Hardware Monitoring***

The mainboard is installed with an integrated hardware monitoring system. Using this system and the monitoring software supplied with the board, users and system administrators can monitor critical parameters such as the CPU temperature, the fan speeds and so on. Hardware monitoring helps maintain the system and reduce maintenance costs and downtime.

### ***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.

### ***Programmable Firmware***

The mainboard includes Award BIOS that 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 processor clock speeds so that you don't need to change mainboard jumpers and switches.