

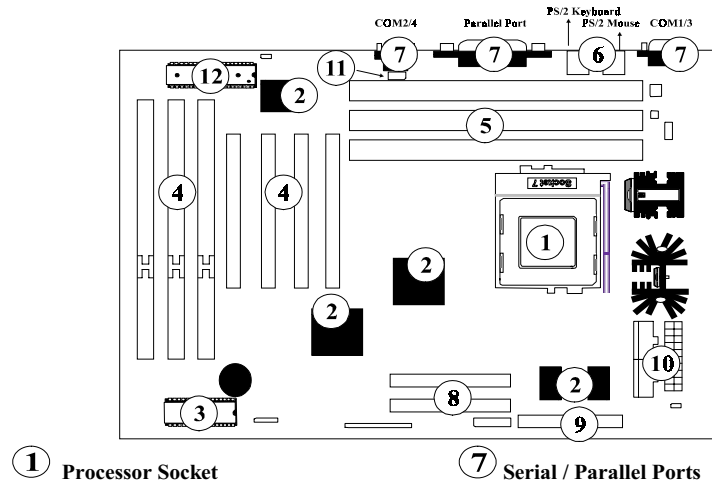
1 Introduction

Main Features

The P5TX-A mainboard integrates the latest advances in processor, memory, and I/O technologies into an Mini ATX form factor that combines performance, flexibility, and easy of use into a highly integrated mainboard capable of meeting a variety of price / performance levels. The P5TX-A mainboard utilizes Intel's Pentium® 82439 TX PCIset. The board design will accept all Pentium family processors since P54C to P55C (supporting Intel's Pentium® Processor with MMX™ technology) at speed of 90MHz to 233MHz. It also supports Cyrix /IBM 6x86 and AMD K5 processors. The memory subsystem supports up to 256MB of DRAM using standard 168-pin DIMM that accept Fast Page Mode (FPM), Extended Data Out (EDO) and Synchronous DRAM (SDRAM) memory.

P5TX-A integrates a full set of I/O chip on board. The Intel 82371AB PCI/IDE Xcelerator (PIIX4) provides an integrated Bus Mastering IDE controller with two high performance IDE interfaces for up to four devices. It also supports two low cost Universal Serial Bus (USB) port to fit today and tomorrow's requirement. The Winbond W83877F Super I/O controller provides standard PC I/O function.

Mainboard Description



Introduction

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|-----------------------------|--------------------------|
| ② Chipset | ⑧ PCI IDE Connectors |
| ③ System BIOS | ⑨ FDD Connector |
| ④ Expansion Slots | ⑩ Power Supply Connector |
| ⑤ DIMM Socket | ⑪ USB Header |
| ⑥ PS/2 Mouse & Keyboard Set | ⑫ Keyboard Controller |

Specification

1. Processor Socket:

One Socket 7 supports:

- Pentium[®] Processor 90/100/120/133/150/166/200 MHz. (P54C)
- Intel's Pentium[®] Processor with MMX[™] technology. (P55C)
- Cyrix IBM 6x86 and AMD K5 CPU.
- Upgrade capacity to future Pentium[®] OverDrive[®] Processor.

2. Chipset:

- Intel 82439TX (MTXC) & 82371AB (PIIX4) PCIset
- Winbond 83877F series.

3. System BIOS:

- Award flash BIOS.
 - DMI 2.0
 - PnP 1.0a
 - PCI 2.1
 - CD ROM boot
 - APM 1.2
 - ACPI 1.0

4. Expansion Slots:

- 3 16-bit ISA slots with 100% ISA compatible function.
- 4 32-bit PCI slots all support PCI master.
 - PCI specification version 2.1.

5. DIMM Sockets:

- 3 DIMM sockets with memory size from 8MB to 256MB.

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- Support Memory Module with 8/16/32/64/128 MB 3.3V unbuffered EDO or synchronous DRAM (SDRAM) and 5V unbuffered EDO or FPM DRAM.
 - Compliance with JEDEC specifications for 3.3V unbuffered EDO/SDRAM Module.
- 6. PS/2 Mouse & Keyboard Set:**
- Provides Connectors for PS/2 mouse & keyboard connector.
- 7. Serial / Parallel Ports:**
- One multi-mode parallel port with chip-protect circuitry supports standard, enhanced (EPP), high speed (ECP) mode.
 - Two high speed 16C550 UART compatible buffer fast serial port.
 - Support IrDA/ASKIR or Fast IR (optional) Infrared Interface.
- 8. PCI IDE Connector:**
- Build-in Intel 82371AB chip 32-bit PCI IDE interface with 2 IDE channels.
 - Independent Timing of up to 4 drives.
 - PIO Mode 4 transfers up to 14 MB/Sec.
 - Support *Ultra* DMA 33 Synchronous DMA mode transfers up to 33 MB/Sec.
 - Support glue-less *Swap-Bay* option with full electrical isolation.
- 9. FDD Connector:**
- One floppy drive connector supports 360K/ 720K / 1.2MB / 1.44MB/2.88MB or 3 mode floppy drives.
- 10. Power Supply Connector:**
- Provide the connectors for standard PC/AT and ATX power supply.
- 11. USB Header:**
- Provide the interface for use of two USB channels.
 - Two USB V1.0 Ports for serial transfers at 1.5 or 12 MB/Sec.
 - Support UHCI Design Guide Rev1.1 interface.
- 12. Keyboard Controller:**
- It is function compatible with Intel 8042 Keyboard Controller, which provides enhanced gate A20 switching & PS/2 compatible mouse.

Introduction

Mainboard Layout

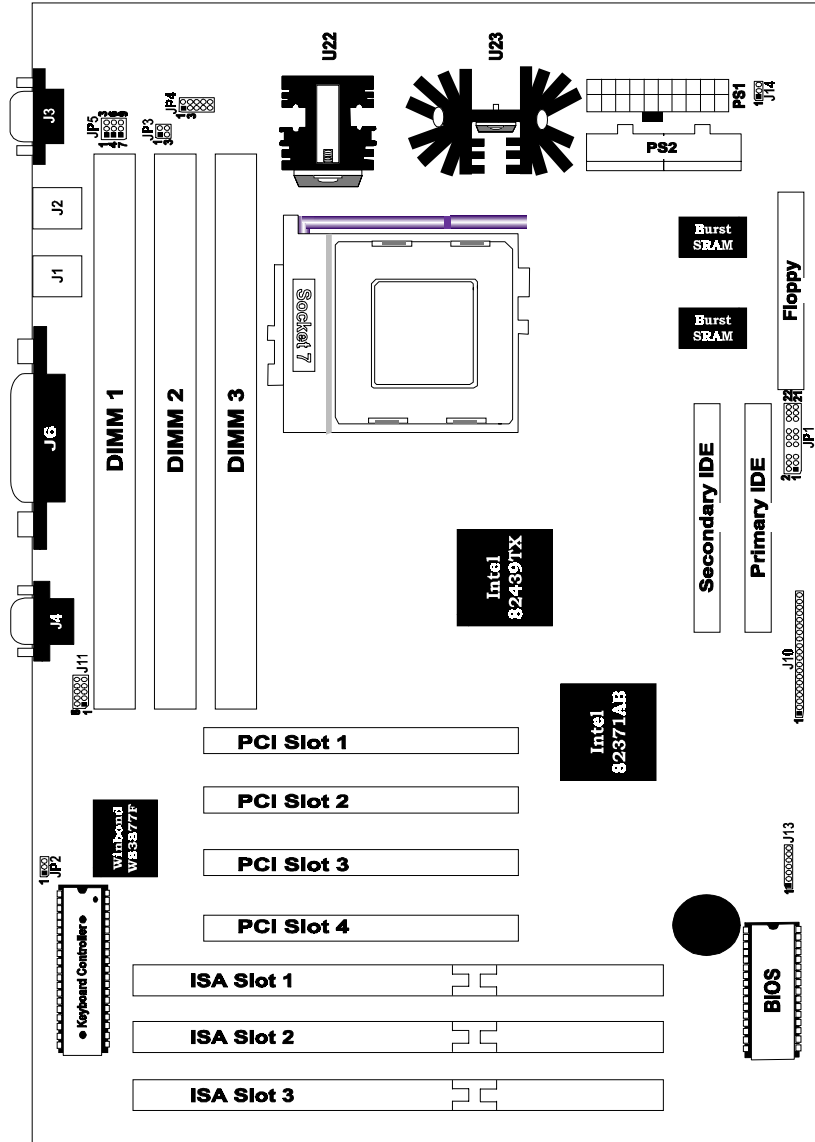


Figure 1. P5TX-A Mainboard Layout