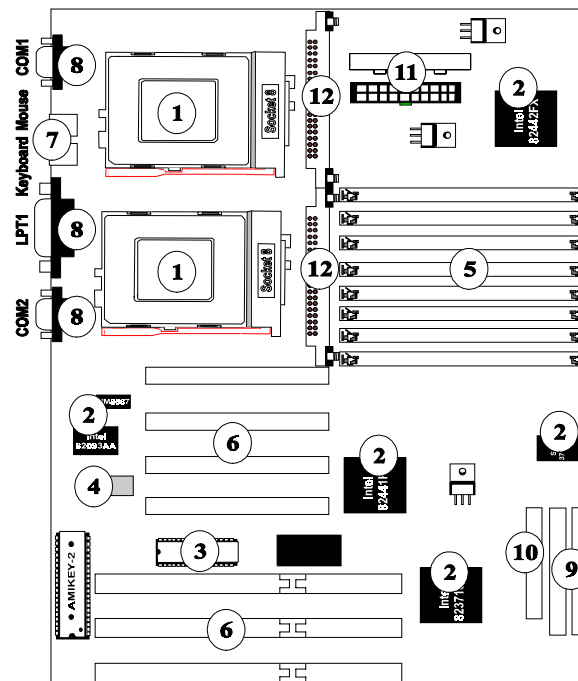


# 1 Introduction

## Mainboard Description

### P6FX2-A PCB:1.1



- |                        |                                     |
|------------------------|-------------------------------------|
| ① Processor Socket     | ⑦ PS/2 Mouse & Keyboard Set         |
| ② Chipset              | ⑧ Serial / Parallel Ports           |
| ③ System BIOS          | ⑨ PCI IDE Connectors                |
| ④ USB Header           | ⑩ FDD Connector                     |
| ⑤ Memory Socket (SIMM) | ⑪ Power Supply Connectors           |
| ⑥ Expansion Slots      | ⑫ Header 8 VRM Sockets for PCB V1.1 |

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## **Mainboard Introduction**

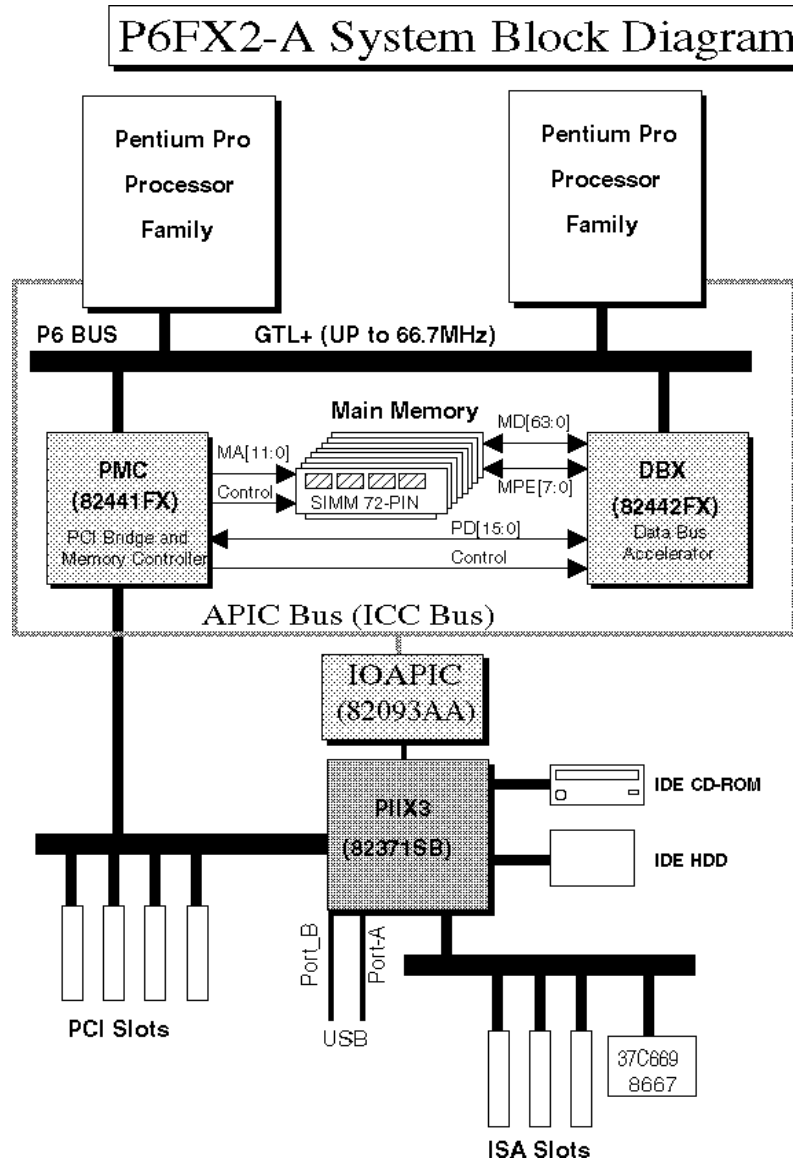
The P6FX2-A mainboard integrates the latest advances in processor, memory, and I/O technologies into an ATX form factor that combines performance, flexibility, and easy of use into a highly integrated mainboard capable of meeting a variety of price/performance levels.

The P6FX2-A mainboard is a fully Symmetric Multi-Processor (SMP) board that utilizes Intel's 82440FX PCIset. The board design will accept Pentium Pro processors at speeds of 150MHz to 200MHz with dual type 8 Zero Insertion Force (ZIF) sockets.

The memory subsystem supports up to 512MB of DRAM using standard 72-pin SIMM sockets that accept Fast Page Mode (FPM) , Extended Data Out (EDO) and Burst Extended Data Out (BEDO) memory.

The P6FX2-A integrates a full set of I/O chips on board. The Intel 82371SB PCI/IDE Xccelerator (PIIX3) 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 SMC 37C669 Super I/O controller provides standard PC I/O functions.

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**System Block Diagram**

**1. Processor:**

## *P6FX2-A*

Dual Socket 8 support Intel Pentium Pro 150/166/180/200 MHz  
Upgrade to P6S and P6T CPU.

### **2. Chipset:**

Intel	440FX Pentium Pro chipset, including : 82441FX (PMC) 82442FX (DBX) 82371SB (PIIX3) 82093AA (IOAPIC)
SMC	37C669 (Super I/O Controller)

### **3. System BIOS:**

AMI BIOS

### **4. USB Header:**

Provides 1 USB Header (Header 5x2) to support 2 USB Ports.

### **5. Memory Socket (SIMM):**

Supports 8MB to 512MB , FPM, EDO and BEDO.

### **6. Expansion Slot:**

3 ISA Bus Slots.  
4 PCI Bus Slots.

### **7. PS/2 Mouse & Keyboard Set:**

Provides Connectors for PS/2 Keyboard & PS/2 Mouse.

### **8. Serial / Parallel Port:**

Provides two serial ports and one parallel port.

### **9. PCI IDE Connector:**

2 Enhanced PCI IDE up to 4 IDE Device Connectors.

### **10. FDD Connector:**

Provides an on-board FDD Connector which supports  
360KB/720KB/1.2MB/1.44MB/2.88MB type drives.

### **11. Power Supply Connectors:**

Provides the connectors for standard PC power supply and ATX power supply.

### **12. Header 8 VRM Sockets:**

P6FX2-A needs one Voltage Regulator Module (VRM) installed on header 8  
socket for each Pentium Pro Processor.

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## Features

### ☐ CPU:

- Dual Socket 8 supports Pentium Pro 150/166/180/200 MHz CPU
- Upgradable to P6S and P6T CPUs.

### ☐ BIOS:

- AMI BIOS with Green Flash ROM .
- Compliant with Intel and Windows 95 PNP.  
    ⌘ PNP specification V1.0a
- Compliant with MPS V1.4.
- Compliant with APM V1.2.
- Compliant with DMI V2.0.

### ☐ Memory:

- 8 pieces of 72-pin SIMM sockets with memory size from 8MB to 512MB.
- Supports Parity or ECC Function. (It needs parity SIMMs to make it work).
- Supports 50ns and 60ns Fast Page Memory (FPM) with X-3-3-3 timings.
- Supports 50ns and 60ns Extended Data Out (EDO) Memory with X-2-2-2 timings.
- Supports 50ns Burst Extended Data Out (BEDO) Memory with X-1-1-1 timings.
- Supports 60ns Burst Extended Data Out (BEDO) Memory with X-2-2-2 timings.

### ☐ Slots:

- 3X16-bit ISA slots with 100% ISA compatible function.
- 4X32-bit PCI slots all support PCI master.  
    ⌘ Fully Synchronous PCI Bus Interface.

## *P6FX2-A*

- ⌘ PCI Rev. 2.1 - 5V Interface Compliant.
- ⌘ 25/27.5/30/33 MHz
- ⌘ PCI to DRAM > 100 MB/sec

### ☐ **IDE:**

- The build-in Intel 82371SB chip, 32-bit PCI IDE interface with 2 IDE channels.
  - ⌘ Supports PIO and Bus master IDE
  - ⌘ PIO Mode 4 Transfers Up to 16 MB/sec
  - ⌘ Integrated 8X32-bit Buffer for Bus Master IDE PCI Burst Transfers
  - ⌘ Supports Separate Master / Slave IDE mode.
  - ⌘ Plug and Play compatible

### ☐ **FDD:**

- Two floppy drives support 360K/720K/1.2MB/1.44MB/2.88MB and 3 mode floppy drives.

### ☐ **I/O:**

- One multi-mode parallel port with chip-protect circuitry supports standard, enhanced (EPP), high speed (ECP) mode.
- Two high speed 16C550 compatible Buffer fast serial port.
- One Universal Serial Bus (USB) Header supports for 2 USB Ports.

### ☐ **System and Power Management:**

- Supports Advanced Power Management (APM) Ver. 1.2.
- Supports Soft Power Down Function with ATX power supply.
- Supports CPU Cooling Fan Failure Detection capability. ( Via CPU Cooling Fan Connectors)
- Supports CPU Over Temperature Detection capability. (Via CPU Cooling Fan Connectors)
- Supports Green LED Flash function as system enters suspend mode.