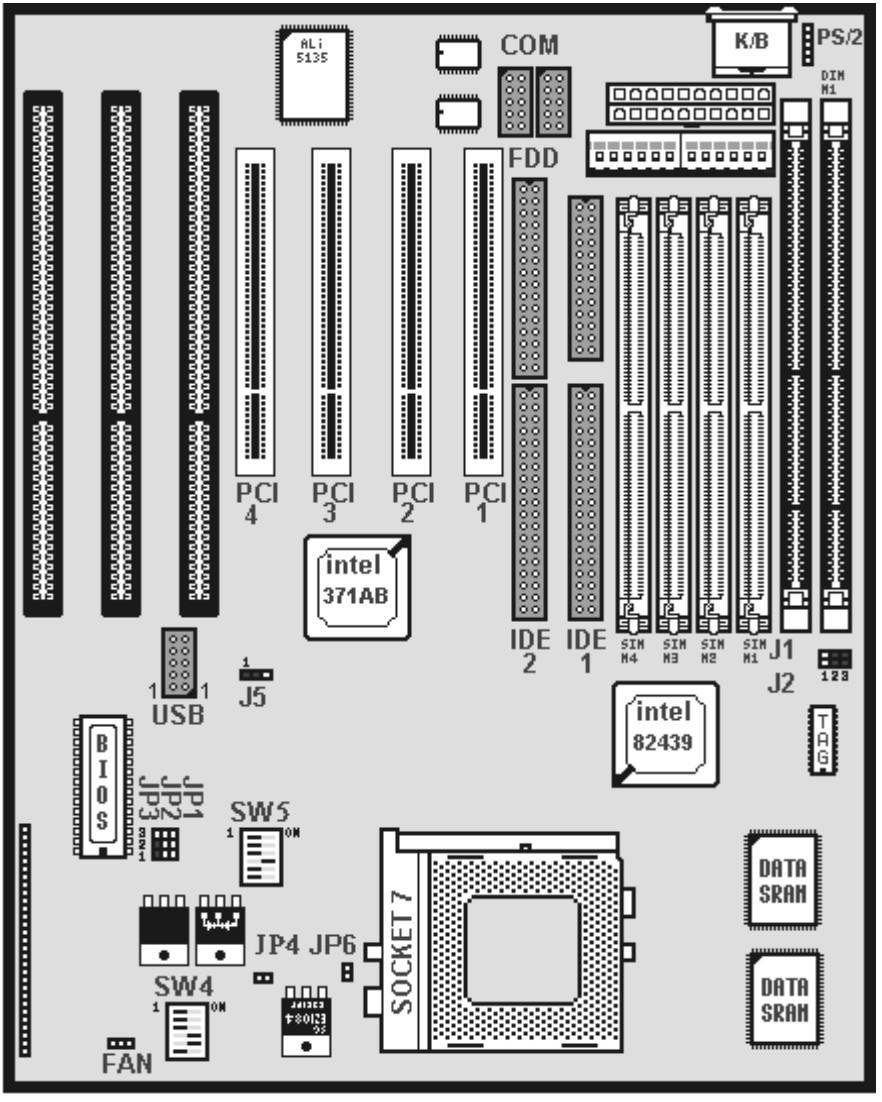
Introduction

A. Specifications

System Chipset	Intel 82430 TX chipset.
CPU	One 321-pin socket 7 for Intel Pentium (P54C/CQS/ CS, P55C), AMD 5k86, K5, K6, Cyrix 6x86 (L, M2), IDT C6 processors, support 90/100/ 120/133/150/166/180/200/225/233/266/300MHz.
Memory	Expandable to 256MB (4 banks) with four 72-pin SIMM sockets onboard (Support Fast Page Mode and EDO DRAM 5-2-2-2) and two 168-pin DIMM socket (support Syncchronous DRAM module 5-1-1-1).
Cache	64-bit 256/512KB L2 Pipeline Burst SRAM onboard.
I/O	ALi 5135, two high speed 16550 compatible serial ports, one Multi-Mode. Parallel Port support SPP/EPP/ECP standard mode. Two onboard PCI IDE Ports (32 bit data transfer). Support two 360/720KB/1.2/1.44/2.88MB floppy disk devices. One PS/2 Mouse port.
BIOS	Award System BIOS installed in socket (Flash and PnP).
Expansion slots	Four PCI Master Slots and three 16-bit ISA Slots.
Dimension	4-layer PCB, 2/3 baby size (220mm x 280mm).
Others	Support Ultra DMA/33, ACPI, SM Bus, GPID, USB Bus, Keyboard Power On/Off, Modem Ring On, ATX Power supply.

Setup Guide

A. Layout Diagram

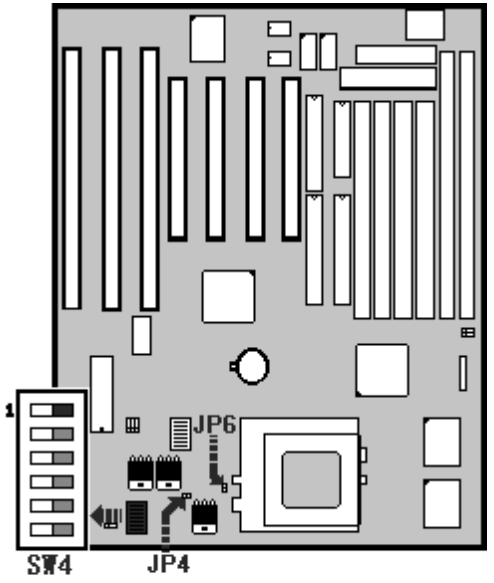


B. Switch Settings for CPUs

On = Short; Off = Open

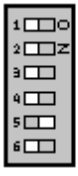
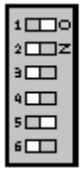
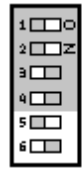
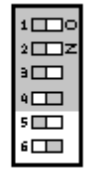
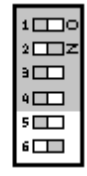
Intel, AMD, Cyrix	SW5				SW5			
	1	2	3	CLK	4	5	6	RATE
Pentium 75 MHz	X	X	X	50	Off	Off	Off	1.5
Pentium 90 MHz	On	Off	Off	60	Off	Off	Off	1.5
Pentium 100 MHz	Off	Off	Off	66	Off	Off	Off	1.5
Pentium 120 MHz	On	Off	Off	60	On	Off	Off	2
Pentium 133 MHz	Off	Off	Off	66	On	Off	Off	2
Pentium 150 MHz	On	Off	Off	60	On	On	Off	2.5
Pentium (MMX) 166 MHz	Off	Off	Off	66	On	On	Off	2.5
Pentium (MMX) 200 MHz	Off	Off	Off	66	Off	On	Off	3
Pentium (MMX) 233 MHz	Off	Off	Off	66	Off	Off	Off	3.5
Pentium (MMX) 266 MHz	Off	Off	Off	66	On	Off	On	4
AMD-5k86-P75-75MHz	X	X	X	50	Off	Off	Off	1.5
AMD-5k86-P90-90MHz	On	Off	Off	60	Off	Off	Off	1.5
AMD-K5-75MHz -PR75	X	X	X	50	Off	Off	Off	1.5
AMD-K5-90MHz -PR90	On	Off	Off	60	Off	Off	Off	1.5
AMD-K5-100MHz-PR100	Off	Off	Off	66	Off	Off	Off	1.5
AMD-K5-90MHz-PR120	On	Off	Off	60	Off	Off	Off	1.5
AMD-K5-100MHz-PR133 Off	Off	Off	Off	66	Off	Off	Off	1.5
AMD-K5-133MHz-PR166	Off	Off	Off	66	On	On	Off	1.75
AMD-K6(MMX)-166MHz	Off	Off	Off	66	On	On	Off	2.5
AMD-K6(MMX)-200MHz	Off	Off	Off	66	Off	On	Off	3
AMD-K6(MMX)-233MHz	Off	Off	Off	66	Off	Off	Off	3.5
AMD-K6(MMX)-266MHz	Off	Off	Off	66	On	Off	On	4
AMD-K6(MMX)-300MHz	Off	Off	Off	66	On	On	On	4.5
Cyrix 6x86-100MHz-P120+	X	X	X	50	On	Off	Off	2
Cyrix 6x86-110MHz-P133+	On	On	Off	55	On	Off	Off	2
Cyrix 6x86-120MHz-P150+	On	Off	Off	60	On	Off	Off	2
Cyrix 6x86-133MHz-P166+	Off	Off	Off	66	On	Off	Off	2
Cyrix 6x86-150MHz-P200+	Off	On	Off	75	On	Off	Off	2
Cyrix MX-150MHz-PR166	On	Off	Off	60	On	On	Off	2.5
Cyrix MX-166MHz-PR200	Off	Off	Off	66	On	On	Off	2.5
Cyrix MX-200MHz-PR233	Off	Off	Off	66	Off	On	Off	3
Cyrix MX-233MHz-PR266	Off	Off	Off	66	Off	Off	Off	3.5

C. CPU Voltage Settings

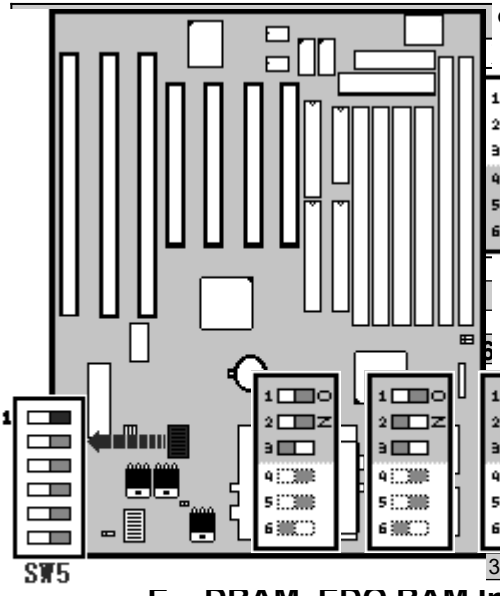


- V I/O default setting: 3.30V
  Vcore default setting: 2.8V
  JP4 = Short, JP6 = Open
- Switch voltage is applied, making the temperature lower and voltage steadier.
- All the voltage specifications adopted here are the averages of the working voltage suggested by the CPU makers, to make any CPU applied work with the best performance.
- In Single voltage CPU VI/O=Vcore.

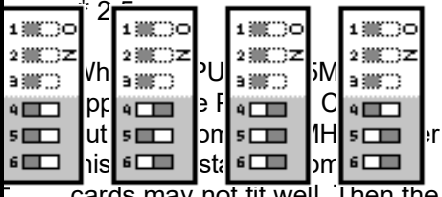
- In **Dual voltage CPU**, you only need to set up **Vcore**. Just **"Short" JP4** and **"Open" JP6**, VI/O will supply 3.3V automatically.
- Remember to make sure CPU voltage set up is 100% correct by referring to Page 10 and Page 11. Any voltage error setup happened in Dual Voltage CPU will cause system unstable or doesn't work, or even worse is that it will burn out your CPU.

SW4 = 586 CPU Voltage Select						JP4	JP6
Intel P54C, Cyrix M1, AMD-5k86 / K5						Open	**Short**
		Intel P55C, Cyrix 6x86L /MX/ MII, AMD-K6/ -2				**Short**	Open
P54C voltage		**VI/O**		**Vcore**			
3.52V	3.45V	**3.45V**	3.30V	**3.20V**	2.90V	2.80V	**2.20V**
							

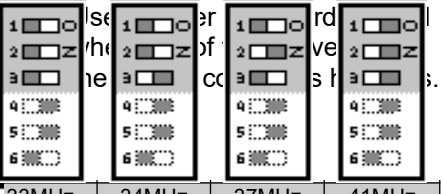
D. CPU Frequencies



- The CPU type default setting is Intel Pentium 166MHz=66 MHz

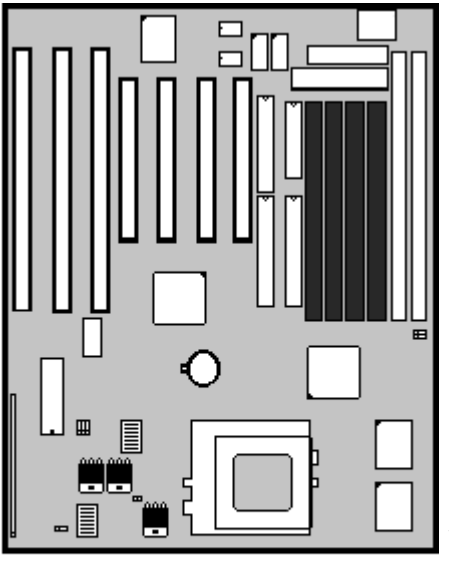


cards may not fit well. Then the system becomes unsteady, tends to hang up easily or even results in boot failure.



33MHz	34MHz	37MHz	41MHz

E. DRAM, EDO RAM Installation Procedures:



- With 586 CPUs, two FPM/EDO RA
  sockets to compose a bank for the

- MEMO for Installing System:
  ⊕ Concerning memory setup, you
  Feature Setup" under BIOS setup
  or system hang, user without engir
  to change BIOS set up.
  ⊕ If system boot failure, please cle
  polish **Gold-Finger** of DRAM with

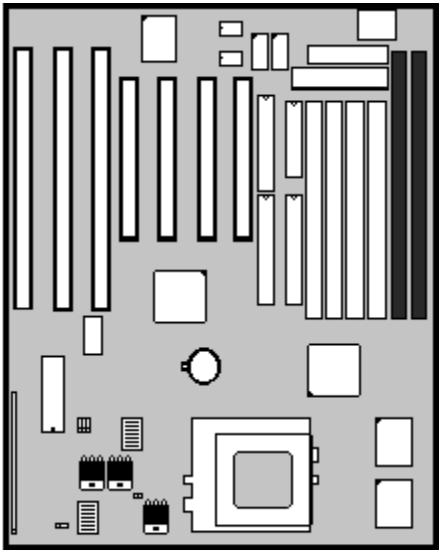
- SIMM Socket output voltage is 5V, expandable to 256MB.

- Support 5V Fast Page Mode/ Extended Data Out RAM.

- The BIOS DRAM default setting is 70 ns. Change the BIOS "Chipset Feature Setup" default setting to 60ns for better performance, if the chipset is marked 60ns.

- Change nothing if EDO RAM is used. BIOS automatically detects the RAM type.

F. SDRAM, Cache Memory Installation Procedures:

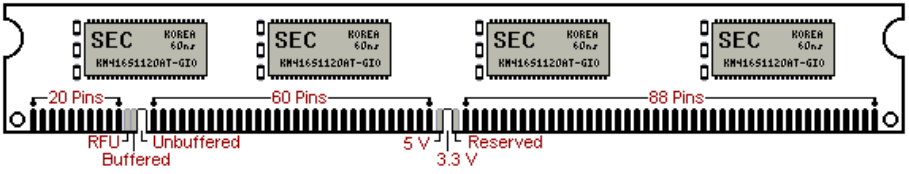


- 256KB or 512KB Cache memory on board
- A 168-pin DIMM can support up to 128MB SDRAM.

- SDRAM working voltage Default setting is 3.3V.(Only)

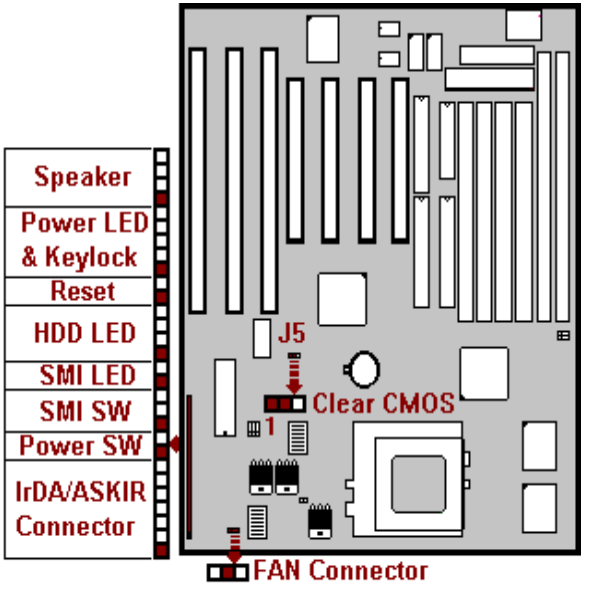
- First, verify the working voltage of the SDRAM module in either DIMM socket (DIMM1 or DIMM2-table free).
- You can set up the BIOS "Chipset Feature Setup" to the best working condition basing on the type of SDRAM you are using.

The Dual Inline Memory Module (DIMM) must be 3.3 Volt and Unbuffered Synchronus DRAM (SDRAM) 8MB, 16MB, 32MB or 64MB. The following illustration shows the type of DIMM Module.



168-PIN SDRAM DIMM Notch Key Definitions

G. Other Jumper Settings



- **Speaker:** Connect to the system's speaker for beeping.
- **Keylock:** Keyboard lock switch and Power LED connector.
- **Reset:** Short to restart system.
- **HDD LED:** LED ON when on board PCI IDE ha hard disk activates.
- **SMI LED:** LED ON when system is in any Saving mode.

- **Keyboard Power On/Off Function (Patent Is Under Application!!!)**
  1.Turn on the system by pressing the "Ctrl-***" keys simultaneously (Strike the "*" key 3 times while holding the "Ctrl" key.)
  2. Press "Ctrl-***" again to turn off the system. This function becomes invalid during POST (Power-On-Self-Test).
  3. CPU Fan Auto Turn Off: The CPU fan automatically turns off when the system enters the Suspend state. Remember to connect the CPU fan to its connector on the mainboard to enable this function.

- **SMI SW:**
  Short to enter sleep mode. A keystroke or mouse movement (mouse driver exits) will instantly "wake up" the system.

- **POWER SW (FOR ATX POWER SUPPLY):**
  The button should be a momentary switch that is normally open. Pushing the ATX Power Switch will immediately change the system status. Before or during "POST", you need to hold the button for four seconds in order to turn off the system.

- **J5: Clear CMOS**
  Turn off the system and short pins 2-3 (J5) to clear CMOS. Then short pins 1-2 before turning it on. You may damage the chipset if you power on the system by shorting pins 2-3.

J5	
1-2	Normal operation(Default).
2-3	for clearing CMOS Data.

- **CPU Cooler Fan connector**
  This is the connector for CPU cooler. Never use the jumper to short the connector. Serious damages caused this way will not be warrantied.

- **Modem Ring On Function Operation: (Only available by using ATX Power Supply)**
  1. Enter BIOS setup.
  2. Select Power Management Setup.
  3. Resume by Ring: Enable.
  4. Save BIOS setup and Reboot.
  5. Booting from DOS, Windows, or Windows 95.
  6. Turn off the system by:

  a. ATX-Power Switch
  b. Keyboard Power On/Off
  c. Windows 95 Software Power Off

  7. System Waiting for Modem Ring On

  When Modem Ringing Signal Active, System will wake-up.