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HOW TO USE THIS MANUAL

This manual is written in a user-friendly style. It would be advisable for users to read it in an orderly sequence :

1. For Hardware Information:

Read “**Page A: COMPONENT LOCATION DIAGRAM**”, “**Page B: CHECK LIST OF THE PACKAGING**” and “**Page C: CONNECTORS DESCRIPTION**”.

2. For Mainboard and System Features:

Read “**Chapter 1 Introduction**” in detail, and you will find helpful information on mainboard and system features. Especially, when you want to do some feature setup, detailed instructions are provided therein to help you through.

3. For CPU, Memory and Drivers Installation:

Read “**Chapter 2 Installation**” for your CPU, memory and application drivers installation. Detailed instructions are provided to guide all kinds of users.

4. For BIOS Update and Setup:

Read “**Chapter 3 Award BIOS Setup**” for updating your mainboard BIOS and setting up your BIOS Configuration.

5. For other Technical Support:

Read “**APPENDIX A**”, fill and send the Request Form to your dealer for other technical support.

Your system dealer will set up the mainboard according to your demand of the computer. It means that the current settings of your mainboard may not be the same as the defaults shown in this user's manual. If you need to change your configuration, please ask your dealer first. Be sure this will not void your system warranty, or ask your dealer to do it for you.

The mainboard , quick description as following :

This mainboard supports 100MHz host clock Socket 7 processor, ie. AMD K6-2, AMD K6-III, Cyrix MII. Of course, the mainboard also supports 66 ~ 83.3 MHz host clock Socket 7 processor, ie. Intel Pentium & Pentium processor with MMX technology , AMD K5/K6 , Cyrix 6X86/6X86MX , and IDT Winchip.

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CHAPTER 1 INTRODUCTION

The mainboard supports not only 100MHz host clock Socket 7 processors, ie. AMD K6-2, K6-III, Cyrix MII., Rise mP6, but also 66MHz host clock Socket 7 processor such as Intel , AMD , Cyrix and IDT .

1-1 SYSTEM FEATURES

- ☞ Intel Pentium[®] (P54C) CPU operating from 75MHz to 200MHz, Intel Pentium MMX[™] 166~233MHz (P55C), AMD K5, AMD K6, AMD K6-2, AMD K6-III, Cyrix 6x86MX[™], MII, 6x86L, Rise mP6.
- ☞ SiS530 and SiS5595 chipset including Hardware Health Monitor function.
- ☞ VGA on board, the VGA function inside the SiS530 chipset, to speed up VGA GUI performance and the video playback frame rate. With shared memory area from 2MB to 8MB, step by 2MB.
- ☞ On-board 512KB/1MB L2 Cache (Pipeline Burst SRAM).
- ☞ Three 168-pin DIMM sockets for three banks of 64-bit wide path up to 1.5GB SDRAM.
- ☞ Built-in Switching Voltage Regulator.(VRM 8.2 Spec.)
- ☞ CPU core voltage range from 1.5V to 3.5V.
- ☞ Three PCI slots compliance with reversion 2.1 of the PCI Local Bus specification and two 16-bit ISA slots.
- ☞ Dual Master IDE connectors supporting Ultra DMA/33/66, up to four devices in two channels for connecting of high capacity hard disk, CD-ROM, tape backup etc..
- ☞ USB (Universal Serial Bus) Connectors supporting up to 127 peripheral devices.
- ☞ AT style Keyboard Connector and PS/2 Mouse Header.
- ☞ SMC-FDC37M602 high-speed Super Multi-I/O chipset.
- ☞ Infrared Transfer (IrDA TX/RX) Connector.
- ☞ One FDD Port supporting two devices up to 2.88MB.
- ☞ Two 16550A fast UARTs compatible Serial Ports.
- ☞ One EPP/ECP mode Parallel Printer Port.
- ☞ PCB Dimension is 240mm x 220mm (9.44" x 8.65") ; Baby-AT Form Factor.
- ☞ AT & ATX Power Supply Connector.

1-2 SOFTWARE POWER OFF CONTROL

5010M Mainboard supports Software Power Off Control feature through the SMM code in the BIOS under Windows 95/98, and MS-DOS operation system environment. To enable this function, you should use ATX power supply.

First, you should connect the power switch cable (provided by the ATX case supplier) to the connector “PS-ON” on the mainboard. In the BIOS screen of POWER MANAGEMENT SETUP’, choose “User Defined” (or “Min. Power Saving” or “Max. Power Saving”) in ‘Power Manager’ and choose “Yes” in ‘PM Control by APM’.

In Windows 95/98, if you would like to power off the system, you just choose “shutdown the computer ?” in the “Shut Down Windows“ from Windows 95/98, then the system power will be off directly, and become the stand-by status. If you would like to restart the system, just press the power switch button, and the system will be powered on.

Note : If you will leave your system idle for several days, we suggest you use hardware power off to shut down your system.

1-3 Wake-On-LAN

The remote Wake-On-LAN(WOL) mode of operation is a mechanism that uses Advanced Micro Device Magic Packet technology to power up a sleeping workstation on the network. This mechanism is accomplished when the LAN card receives a specific packet of information, called a Magic Packet, addressed to the node on the network. For additional protection, Secure ON is an optional security feature that can be added to the Magic Packet that requires a password to power up the sleeping workstation. When the LAN card is in remote Wake-On-LAN mode, main system power can be shut down leaving power only for the LAN card and auxiliary power recondition.

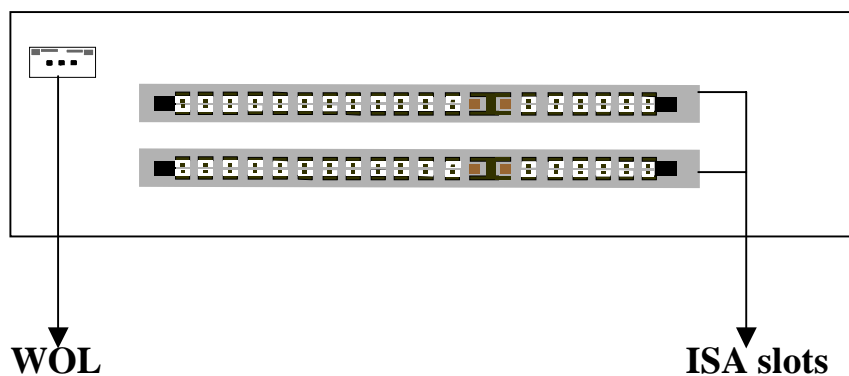
The LAN card performs no network activities while in the remote Wake-On-LAN mode of operation. It only monitors the network for receipt of a Magic Packet. If a Magic Packet is addressed to the LAN card on the network, the LAN card wake up the system. If the Secure ON feature has been enabled, the password added to the Magic Packet is also verified prior to waking up the system.

WOL LAN card will provide a 3-pin line to connect the WOL connector on the mainboard.

CAUTION :

For Wake-on-LAN, the +5V standby line for the power supply must capable of delivering $+5V \pm 5%$ at 720mA. Failure to provide adequate standby current when implementing Wake-on-LAN, can damage the power supply.

Before you enable Wake-on-LAN function, first check your power supply specification to meet the above requirement or not.

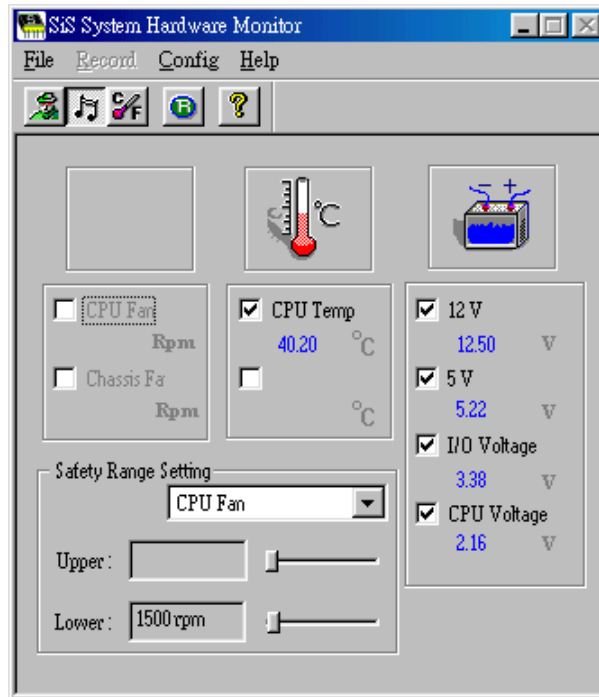


1-4 SiS System Hardware Monitor

SiS System Hardware Monitor is a self-diagnostic system for PC and only is executed on *SiS 5591/5595 series* chipset. It will protect PC Hardware by monitoring several critical items including Power Supply Voltage, Fan Speed, and CPU temperature, which may damage system under malfunction.

■ Run SiS System Hardware Monitor

Select "Start" / "Programs" / "SiS Monitor", and then you will see the main menu as below.



■ Guideline to use SiS System Hardware Monitor

STATUS : The value below each item is the current detected value of the item. Different color of values has different meaning. "Blue" means the item is normal; "Red" means it's out of safety range and a warning message reminding you to treat this error will pop up at this time.

FAN : If you would like to enable this item, please click the "CPU FAN" or "Chassis FAN" from "Visible" item under "Config" pull-down menu.

LIMIT : User can adjust all limit value by drawing the scroll box next to Upper or Lower value. Of course, User can set back limits to default value by choosing the "Reset to Default" item under "Config" pull-down menu.

EXIT : Only choosing the "Exit" item under the "File" will exit Hardware Monitor. If you click the "X" minimize box on the right corner of the caption bar, it will just be minimized as an icon.

HELP : If you need more detailed information about how to use this application, please refer to the content of "Help" item in Hardware Monitor menu bar.

CHAPTER 2 INSTALLATION

2-1 INSTALLATION PROCEDURE

Before installing the computer, please prepare all components such as CPU, DRAM; peripherals such as hard disk, keyboard, CD-ROM and accessories such as cables. Then, install the system as following:

1. Put CPU, heat sink, cooling fan and DRAM modules into the mainboard.
2. Set jumpers based on your configuration.
3. Set DIP switch based on your configuration.
4. Plug add-on cards into PCI/ISA slots, if needed.
6. Connect I/O and other cables to the system.
7. Make sure all components and devices are well connected, then screw the chassis cover to the case, and connect external devices which are cabled to the system.
8. Connect the power supply.
9. Turn on the power and set up System BIOS based on your configuration.

Note : It is very important to keep in mind that user should connect 110V power cord after all components are well connected.

2-2 CPU INSTALLATION

The mainboard supports one Pentium level CPU.

For installation, please notice CPU pin 1 must align with the ZIF socket 7 pin 1 location. Before you install or upgrade your CPU, please read CPU guide from CPU manufacturer to make sure the CPU voltage specification. Then choose the right installation in section 2-2-1 based on your CPU type / brand and follow the description to setup DIP Switch & Jumpers.

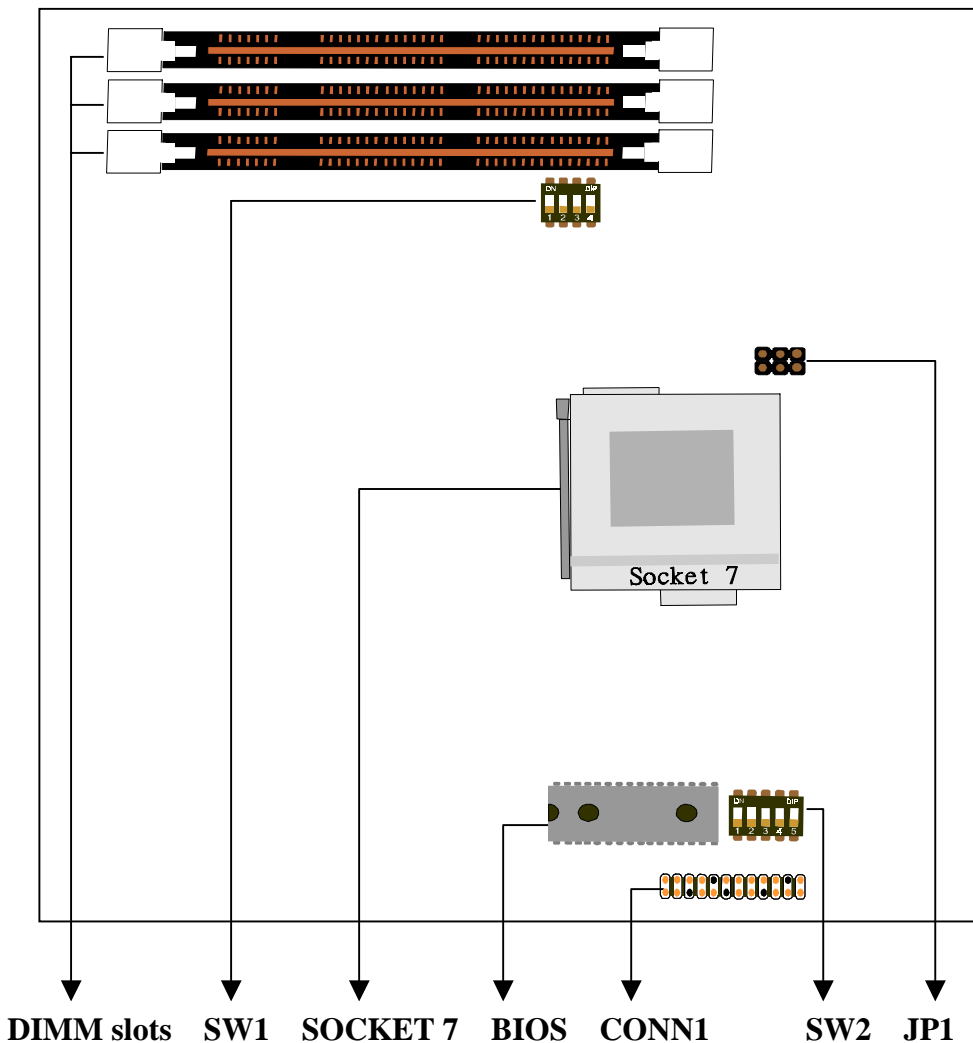
The mainboard uses the following DIP Switches, Jumper & BIOS for the user to install CPU easily.

SW1 (1-4) for Frequency_Ratio.

SW2 for different CPU voltage value;

JP1 for Single/Dual voltage selection.

BIOS for CPU host clock.



The following DIP switches, Jumper & BIOS charts are the effective information for you to setup correct CPU and total system speed, when installing your system with the mainboard :

SW1 settings for Intel CPU

Ratio	SW1-1	SW1-2	SW1-3	SW1-4
2.0x	OFF	ON	OFF	OFF
2.5x	OFF	ON	ON	ON
3.0x	OFF	OFF	ON	ON
1.5/3.5x	OFF	OFF	OFF	ON

SW1 settings for Non-Intel CPU

Ratio	SW1-1	SW1-2	SW1-3	SW1-4
2.0x	OFF	ON	OFF	OFF
2.5x	OFF	ON	ON	OFF
3.0x	OFF	OFF	ON	OFF
1.5/3.5x	OFF	OFF	OFF	OFF
4.0x	OFF	ON	OFF	ON
4.5x	OFF	ON	ON	ON
5.0x	OFF	OFF	ON	ON
5.5x	OFF	OFF	OFF	ON

*For Cyrix & IDT 66MHz, please set SW1-1 to ON.

BIOS settings for CPU host clock :

ROM PCI/ISA BIOS
 CHIPSET FEATURES SETUP
 AWARD SOFTWARE, INC.

Auto Configuration	: Enabled	Video BIOS Cacheable	: Enabled
Refresh Rate Control	: 15.6us	Memory Hole at 15M-16M	: Disabled
Ref/Act Command Delay	: 6T	DRAM Controller 1 T WR	: Enabled
Refresh Queue Depth	: 12	DRAM Controller 1 T RD	: Disabled
RAS Precharge Time	: 3T	PCI Post Write Buffer	: Enabled
RAS to CAS Delay	: 2T	PCI Delayed Transaction	: Disabled
ISA Bus Clock Frequency	: PCICLK/4	Auto Detect DIMM/PCI Clk	: Enabled
Starting Point of Paging	: 2T	Spread Spectrum	: Disabled
SDRAM CAS Latency	: 3T	CPU Host/SDRAM Clock	: 66/66MHz
SDRAM WR Retire Rate	: X-1-1-1		
DRAM Opt RAS Precharge	: Enabled		
Read Prefetch Memory RD	: Enabled		
Assert TRDY After Prefect	: 2QWs		
CPU to PCI Burst Mem. WR	: Enabled	ESC : Quit	↑↓→← : Select Item
CPU to PCI Post Write	: Enabled	F1 : Help	PU/PD/+/- : Modify
SDRAM Loading	: Medium	F5 : Old Values	(Shift)F2 : Color
AGP Aperture Size	: 128MB	F6 : Load BIOS	
System BIOS Cacheable	: Enabled	F7 : Load Setup Defaults	

SW2 settings

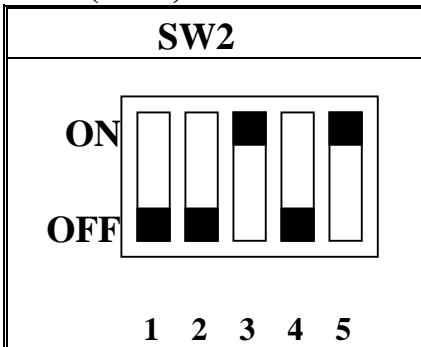
Vcore	SW2-1	SW2-2	SW2-3	SW2-4	SW2-5
1.5V	OFF	OFF	OFF	OFF	OFF
1.6V	ON	OFF	OFF	OFF	OFF
1.7V	OFF	ON	OFF	OFF	OFF
1.8V	ON	ON	OFF	OFF	OFF
1.9V	OFF	OFF	ON	OFF	OFF
2.0V	ON	OFF	ON	OFF	OFF
2.1V	OFF	ON	ON	OFF	OFF
2.2V	ON	ON	ON	OFF	OFF
2.3V	OFF	OFF	OFF	ON	OFF
2.4V	ON	OFF	OFF	ON	OFF
2.5V	OFF	ON	OFF	ON	OFF
2.6V	ON	ON	OFF	ON	OFF
2.7V	OFF	OFF	ON	ON	OFF
2.8V	ON	OFF	ON	ON	OFF
2.9V	OFF	ON	ON	ON	OFF
3.0V	ON	ON	ON	ON	OFF
3.1V	OFF	OFF	OFF	OFF	ON
3.2V	ON	OFF	OFF	OFF	ON
3.3V	OFF	ON	OFF	OFF	ON
3.4V	ON	ON	OFF	OFF	ON
3.5V	OFF	OFF	ON	OFF	ON

2-2-1 CPU TYPE SELECTION

A. Intel Pentium® CPU (P54C)

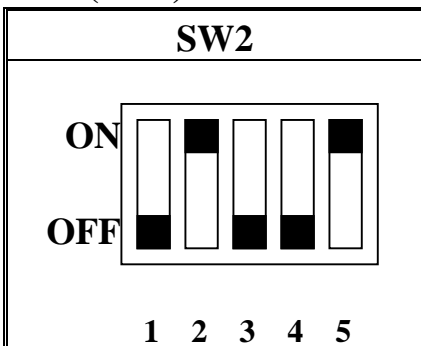
- ※ **P54C VRE : 3.400V~3.600V** (The fourth line of the mark on the under-side of the processor contains a code that identifies the voltage level type. V is VRE, S is standard.)

SW2(3.5V)



- ※ **P54C STD : 3.135V ~ 3.600V** (The fourth line of the mark on the under-side of the processor contains a code that identifies the voltage level type. V is VRE, S is standard.)

SW2(3.3V)





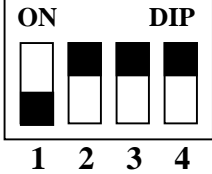
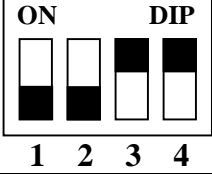
JP1 Setting

Mode	JP1		
	Single Voltage Mode (Vcore = Vi/o)	1-2 open	3-4 open

CPU host clock setting from “CHIPSET FEATURES SETUP” in “BIOS”:

Auto Configuration	: Enabled	Video BIOS Cacheable	: Enabled
Refresh Rate Control	: 15.6us	Memory Hole at 15M-16M	: Disabled
Ref/Act Command Delay	: 6T	DRAM Controller 1 T WR	: Enabled
Refresh Queue Depth	: 12	DRAM Controller 1 T RD	: Disabled
RAS Precharge Time	: 3T	PCI Post Write Buffer	: Enabled
RAS to CAS Delay	: 2T	PCI Delayed Transaction	: Disabled
ISA Bus Clock Frequency	: PCICLK/4	Auto Detect DIMM/PCI Clk	: Enabled
Starting Point of Paging	: 2T	Spread Spectrum	: Disabled
SDRAM CAS Latency	: 3T	CPU Host/SDRAM Clock	: 66/66MHz
SDRAM WR Retire Rate	: X-1-1-1		
DRAM Opt RAS Precharge	: Enabled		
Read Prefetch Memory RD	: Enabled		
Assert TRDY After Prefect	: 2QWs		
CPU to PCI Burst Mem. WR	: Enabled	ESC : Quit	↑↓→← : Select Item
CPU to PCI Post Write	: Enabled	F1 : Help	PU/PD/+/- : Modify
SDRAM Loading	: Medium	F5 : Old Values	(Shift)F2 : Color
AGP Aperture Size	: 128MB	F6 : Load BIOS	
System BIOS Cacheable	: Enabled	F7 : Load Setup Defaults	

66MHz CPU host clock

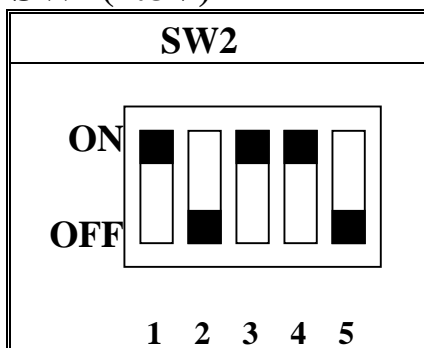
CPU Brand	CPU Type / Speed	SW1
Intel Pentium®	100MHz (66x1.5)	
Intel Pentium®	133MHz (66x2.0)	
Intel Pentium®	166MHz (66x2.5)	
Intel Pentium®	200MHz (66x3.0)	

B. Intel Pentium MMX™ CPU (P55C)

CPU host clock setting from “CHIPSET FEATURES SETUP” in “BIOS”:

Auto Configuration	: Enabled	Video BIOS Cacheable	: Enabled
Refresh Rate Control	: 15.6us	Memory Hole at 15M-16M	: Disabled
Ref/Act Command Delay	: 6T	DRAM Controller 1 T WR	: Enabled
Refresh Queue Depth	: 12	DRAM Controller 1 T RD	: Disabled
RAS Precharge Time	: 3T	PCI Post Write Buffer	: Enabled
RAS to CAS Delay	: 2T	PCI Delayed Transaction	: Disabled
ISA Bus Clock Frequency	: PCICLK/4	Auto Detect DIMM/PCI Clk	: Enabled
Starting Point of Paging	: 2T	Spread Spectrum	: Disabled
SDRAM CAS Latency	: 3T	CPU Host/SDRAM Clock	: 66/66MHz

SW2(2.8V)



JP1 Setting

Mode	JP1		
Dual Voltage Mode (Vcore ≠ Vi/o)	1-2 closed	3-4 closed	5-6 closed

66MHz CPU host clock

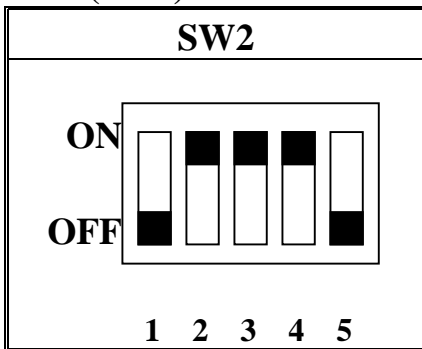
CPU Brand	CPU Type / Speed	SW1
Intel Pentium™ MMX	166MHz (66x2.5)	<p>ON DIP</p> <p>1 2 3 4</p>
Intel Pentium™ MMX	200MHz (66x3.0)	<p>ON DIP</p> <p>1 2 3 4</p>
Intel Pentium™ MMX	233MHz (66x3.5)	<p>ON DIP</p> <p>1 2 3 4</p>

C. Cyrix 6x86MX CPU

CPU host clock setting from “CHIPSET FEATURES SETUP” in “BIOS”:

Auto Configuration	: Enabled	Video BIOS Cacheable	: Enabled
Refresh Rate Control	: 15.6us	Memory Hole at 15M-16M	: Disabled
Ref/Act Command Delay	: 6T	DRAM Controller 1 T WR	: Enabled
Refresh Queue Depth	: 12	DRAM Controller 1 T RD	: Disabled
RAS Precharge Time	: 3T	PCI Post Write Buffer	: Enabled
RAS to CAS Delay	: 2T	PCI Delayed Transaction	: Disabled
ISA Bus Clock Frequency	: PCICLK/4	Auto Detect DIMM/PCI Clk	: Enabled
Starting Point of Paging	: 2T	Spread Spectrum	: Disabled
SDRAM CAS Latency	: 3T	CPU Host/SDRAM Clock	: 66/66MHz

SW2(2.9V)



JP1 Setting

Mode	JP1		
Dual Voltage Mode ($V_{core} \neq V_{i/o}$)	1-2 closed	3-4 closed	5-6 closed

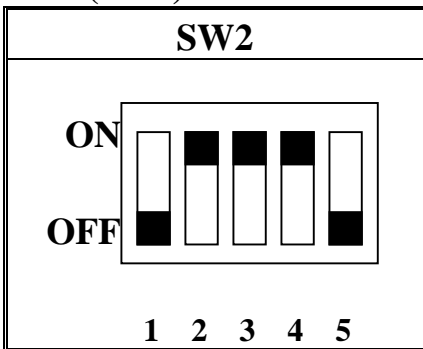
66MHz CPU host clock

CPU Brand	CPU Type / Speed	SW1
Cyrix 6x86MX	PR166 (66x2.0)	<p>ON</p> <p>DIP</p> <p>1 2 3 4</p>
Cyrix 6x86MX	PR200 (66x2.5)	<p>ON</p> <p>DIP</p> <p>1 2 3 4</p>
Cyrix 6x86MX	PR233 (66x3.0)	<p>ON</p> <p>DIP</p> <p>1 2 3 4</p>

CPU host clock setting from “CHIPSET FEATURES SETUP” in “BIOS”:

Auto Configuration	: Enabled	Video BIOS Cacheable	: Enabled
Refresh Rate Control	: 15.6us	Memory Hole at 15M-16M	: Disabled
Ref/Act Command Delay	: 6T	DRAM Controller 1 T WR	: Enabled
Refresh Queue Depth	: 12	DRAM Controller 1 T RD	: Disabled
RAS Precharge Time	: 3T	PCI Post Write Buffer	: Enabled
RAS to CAS Delay	: 2T	PCI Delayed Transaction	: Disabled
ISA Bus Clock Frequency	: PCICLK/4	Auto Detect DIMM/PCI Clk	: Enabled
Starting Point of Paging	: 2T	Spread Spectrum	: Disabled
SDRAM CAS Latency	: 3T	CPU Host/SDRAM Clock	: 75/75MHz

SW2(2.9V)



JP1 Setting

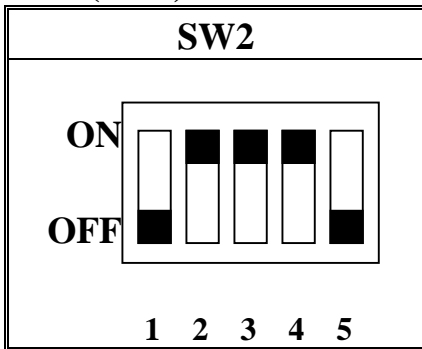
Mode	JP1		
Dual Voltage Mode (Vcore ≠ Vi/o)	1-2 closed	3-4 closed	5-6 closed

75MHz CPU host clock

CPU Brand	CPU Type / Speed	SW1										
Cyrix 6x86MX	PR233 (75x2.5)	<p>The diagram shows a 4-pin switch labeled SW1. The pins are numbered 1 to 4. The ON/OFF status for each pin is as follows:</p> <table border="1"> <tr> <th>Pin</th> <th>Status</th> </tr> <tr> <td>1</td> <td>OFF</td> </tr> <tr> <td>2</td> <td>ON</td> </tr> <tr> <td>3</td> <td>ON</td> </tr> <tr> <td>4</td> <td>OFF</td> </tr> </table>	Pin	Status	1	OFF	2	ON	3	ON	4	OFF
Pin	Status											
1	OFF											
2	ON											
3	ON											
4	OFF											

D. Cyrix MII CPU

SW2(2.9V)



JP1 Setting

Mode	JP1		
Dual Voltage Mode (Vcore ≠ Vi/o)	1-2 closed	3-4 closed	5-6 closed

CPU host clock setting from “CHIPSET FEATURES SETUP” in “BIOS”:

Auto Configuration	: Enabled	Video BIOS Cacheable	: Enabled
Refresh Rate Control	: 15.6us	Memory Hole at 15M-16M	: Disabled
Ref/Act Command Delay	: 6T	DRAM Controller 1 T WR	: Enabled
Refresh Queue Depth	: 12	DRAM Controller 1 T RD	: Disabled
RAS Precharge Time	: 3T	PCI Post Write Buffer	: Enabled
RAS to CAS Delay	: 2T	PCI Delayed Transaction	: Disabled
ISA Bus Clock Frequency	: PCICLK/4	Auto Detect DIMM/PCI Clk	: Enabled
Starting Point of Paging	: 2T	Spread Spectrum	: Disabled
SDRAM CAS Latency	: 3T	CPU Host/SDRAM Clock	: 66/66MHz


66MHz CPU host Clock

CPU Brand	CPU Type / Speed	SW1
Cyrix MII	300MHz (66x3.5)	<p>The diagram shows a 4-position switch labeled SW1. The ON position is indicated by a black top half, and the OFF position is indicated by a white top half. Position 1 is ON, 2 is OFF, 3 is OFF, and 4 is DIP (black).</p>

CPU host clock setting from “CHIPSET FEATURES SETUP” in “BIOS”:

Auto Configuration	: Enabled	Video BIOS Cacheable	: Enabled
Refresh Rate Control	: 15.6us	Memory Hole at 15M-16M	: Disabled
Ref/Act Command Delay	: 6T	DRAM Controller 1 T WR	: Enabled
Refresh Queue Depth	: 12	DRAM Controller 1 T RD	: Disabled
RAS Precharge Time	: 3T	PCI Post Write Buffer	: Enabled
RAS to CAS Delay	: 2T	PCI Delayed Transaction	: Disabled
ISA Bus Clock Frequency	: PCICLK/4	Auto Detect DIMM/PCI Clk	: Enabled
Starting Point of Paging	: 2T	Spread Spectrum	: Disabled
SDRAM CAS Latency	: 3T	CPU Host/SDRAM Clock	: 75/75MHz

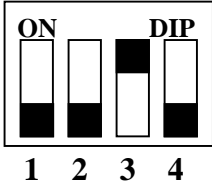
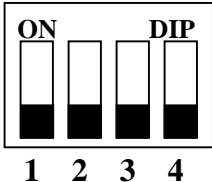
75MHz CPU host Clock

CPU Brand	CPU Type / Speed	SW1
Cyrix MII	300MHz (75x3.0)	

CPU host clock setting from “CHIPSET FEATURES SETUP” in “BIOS”:

Auto Configuration	: Enabled	Video BIOS Cacheable	: Enabled
Refresh Rate Control	: 15.6us	Memory Hole at 15M-16M	: Disabled
Ref/Act Command Delay	: 6T	DRAM Controller 1 T WR	: Enabled
Refresh Queue Depth	: 12	DRAM Controller 1 T RD	: Disabled
RAS Precharge Time	: 3T	PCI Post Write Buffer	: Enabled
RAS to CAS Delay	: 2T	PCI Delayed Transaction	: Disabled
ISA Bus Clock Frequency	: PCICLK/4	Auto Detect DIMM/PCI Clk	: Enabled
Starting Point of Paging	: 2T	Spread Spectrum	: Disabled
SDRAM CAS Latency	: 3T	CPU Host/SDRAM Clock	: 83/83MHz

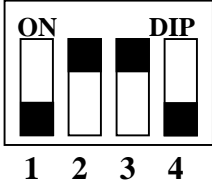
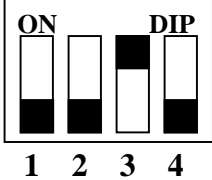
83MHz CPU host Clock

CPU Brand	CPU Type / Speed	SW1
Cyrix MII	333MHz (83x3.0)	
Cyrix MII	366MHz (83x3.5)	

CPU host clock setting from “CHIPSET FEATURES SETUP” in “BIOS”:

Auto Configuration	: Enabled	Video BIOS Cacheable	: Enabled
Refresh Rate Control	: 15.6us	Memory Hole at 15M-16M	: Disabled
Ref/Act Command Delay	: 6T	DRAM Controller 1 T WR	: Enabled
Refresh Queue Depth	: 12	DRAM Controller 1 T RD	: Disabled
RAS Precharge Time	: 3T	PCI Post Write Buffer	: Enabled
RAS to CAS Delay	: 2T	PCI Delayed Transaction	: Disabled
ISA Bus Clock Frequency	: PCICLK/4	Auto Detect DIMM/PCI Clk	: Enabled
Starting Point of Paging	: 2T	Spread Spectrum	: Disabled
SDRAM CAS Latency	: 3T	CPU Host/SDRAM Clock	: 100/100MHz

100MHz CPU host Clock

CPU Brand	CPU Type / Speed	SW1
Cyrix MII	366MHz (100x2.5)	 <p>ON DIP</p> <p>1 2 3 4</p>
Cyrix MII	380MHz (100x3.0)	 <p>ON DIP</p> <p>1 2 3 4</p>

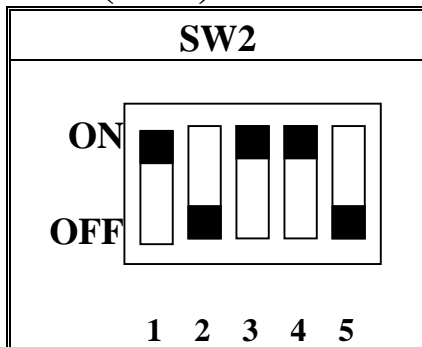
*** If your CPU type is not included in this section, please set SW1 according to your CPU working frequency. (Please refer to page 9.)**

E. Cyrix 6x86L CPU (dual voltage)

CPU host clock setting from “CHIPSET FEATURES SETUP” in “BIOS”:

Auto Configuration	: Enabled	Video BIOS Cacheable	: Enabled
Refresh Rate Control	: 15.6us	Memory Hole at 15M-16M	: Disabled
Ref/Act Command Delay	: 6T	DRAM Controller 1 T WR	: Enabled
Refresh Queue Depth	: 12	DRAM Controller 1 T RD	: Disabled
RAS Precharge Time	: 3T	PCI Post Write Buffer	: Enabled
RAS to CAS Delay	: 2T	PCI Delayed Transaction	: Disabled
ISA Bus Clock Frequency	: PCICLK/4	Auto Detect DIMM/PCI Clk	: Enabled
Starting Point of Paging	: 2T	Spread Spectrum	: Disabled
SDRAM CAS Latency	: 3T	CPU Host/SDRAM Clock	: 66/66MHz

SW2(2.8V)



JP1 Setting

Mode	JP1		
Dual Voltage Mode ($V_{core} \neq V_{i/o}$)	1-2 closed	3-4 closed	5-6 closed

66MHz CPU host clock

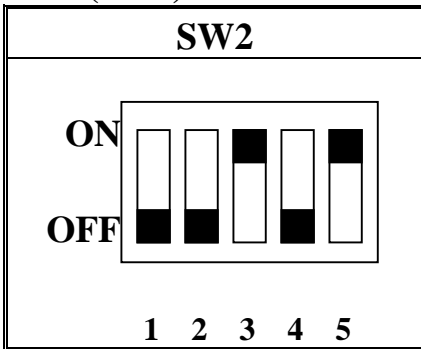
CPU Brand	CPU Type / Speed	SW1
Cyrix 6x86L	PR166+ (66x2.0)	<p>ON</p> <p>DIP</p> <p>1 2 3 4</p>

F. AMD-K5 CPU Series

CPU host clock setting from “CHIPSET FEATURES SETUP” in “BIOS”:

Auto Configuration	: Enabled	Video BIOS Cacheable	: Enabled
Refresh Rate Control	: 15.6us	Memory Hole at 15M-16M	: Disabled
Ref/Act Command Delay	: 6T	DRAM Controller 1 T WR	: Enabled
Refresh Queue Depth	: 12	DRAM Controller 1 T RD	: Disabled
RAS Precharge Time	: 3T	PCI Post Write Buffer	: Enabled
RAS to CAS Delay	: 2T	PCI Delayed Transaction	: Disabled
ISA Bus Clock Frequency	: PCICLK/4	Auto Detect DIMM/PCI Clk	: Enabled
Starting Point of Paging	: 2T	Spread Spectrum	: Disabled
SDRAM CAS Latency	: 3T	CPU Host/SDRAM Clock	: 66/66MHz

SW2(3.5V)



JP1 Setting

Mode	JP1		
Single Voltage Mode (Vcore = Vi/o)	1-2 open	3-4 open	5-6 open

66MHz CPU host clock

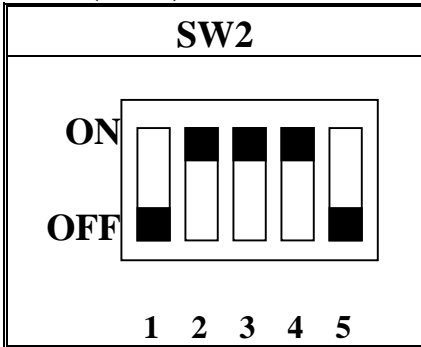
CPU Brand	CPU Type / Speed	SW1
AMD-K5	PR100 (66x1.5)	<p>ON DIP</p> <p>1 2 3 4</p>
AMD-K5	PR133 (66x1.5)	<p>ON DIP</p> <p>1 2 3 4</p>
AMD-K5	PR166 (66x2.5)	<p>ON DIP</p> <p>1 2 3 4</p>

G. AMD-K6 CPU

CPU host clock setting from “CHIPSET FEATURES SETUP” in “BIOS”:

Auto Configuration	: Enabled	Video BIOS Cacheable	: Enabled
Refresh Rate Control	: 15.6us	Memory Hole at 15M-16M	: Disabled
Ref/Act Command Delay	: 6T	DRAM Controller 1 T WR	: Enabled
Refresh Queue Depth	: 12	DRAM Controller 1 T RD	: Disabled
RAS Precharge Time	: 3T	PCI Post Write Buffer	: Enabled
RAS to CAS Delay	: 2T	PCI Delayed Transaction	: Disabled
ISA Bus Clock Frequency	: PCICLK/4	Auto Detect DIMM/PCI Clk	: Enabled
Starting Point of Paging	: 2T	Spread Spectrum	: Disabled
SDRAM CAS Latency	: 3T	CPU Host/SDRAM Clock	: 66/66MHz

SW2(2.9V)



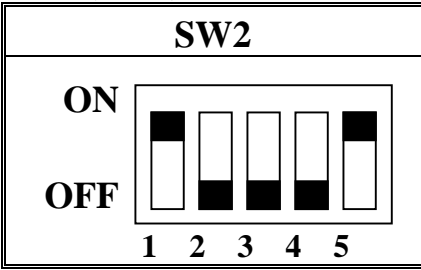
JP1 Setting

Mode	JP1		
Dual Voltage Mode (Vcore ≠ Vi/o)	1-2 closed	3-4 closed	5-6 closed

66MHz CPU host clock

CPU Brand	CPU Type / Speed	SW1
AMD-K6	166MHz (66x2.5)	<p>ON DIP</p> <p>1 2 3 4</p>
AMD-K6	200MHz (66x3.0)	<p>ON DIP</p> <p>1 2 3 4</p>

SW2(3.2V)



66MHz CPU host clock

CPU Brand	CPU Type / Speed	SW1
AMD-K6	233MHz (66x3.5)	

SW2(2.2V)



66MHz CPU host clock

CPU Brand	CPU Type / Speed	SW1
AMD-K6-2	233MHz (66x3.5)	
AMD-K6 AMD-K6-2	266MHz (66x4.0)	
AMD-K6	300MHz (66x4.5)	
AMD-K6-2	366MHz (66x5.5)	

CPU host clock setting from “CHIPSET FEATURES SETUP” in “BIOS”:

Auto Configuration	: Enabled	Video BIOS Cacheable	: Enabled
Refresh Rate Control	: 15.6us	Memory Hole at 15M-16M	: Disabled
Ref/Act Command Delay	: 6T	DRAM Controller 1 T WR	: Enabled
Refresh Queue Depth	: 12	DRAM Controller 1 T RD	: Disabled
RAS Precharge Time	: 3T	PCI Post Write Buffer	: Enabled
RAS to CAS Delay	: 2T	PCI Delayed Transaction	: Disabled
ISA Bus Clock Frequency	: PCICLK/4	Auto Detect DIMM/PCI Clk	: Enabled
Starting Point of Paging	: 2T	Spread Spectrum	: Disabled
SDRAM CAS Latency	: 3T	CPU Host/SDRAM Clock	: 95/95MHz

SW2(2.2V)



JP1 Setting

Mode	JP1		
Dual Voltage Mode (Vcore ≠ Vi/o)	1-2 closed	3-4 closed	5-6 closed

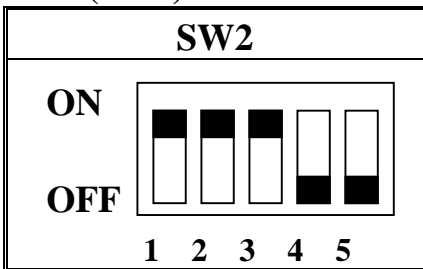
95MHz CPU host clock (option)

CPU Brand	CPU Type / Speed	SW1
AMD-K6-2	333MHz (95x3.5)	<p>ON: pins 1, 2, 3 up; pin 4 down DIP: pins 1, 2, 3, 4 up</p>
AMD-K6-2	380MHz (95x4.0)	<p>ON: pins 1, 3 down; pins 2, 4 up DIP: pins 1, 2, 3, 4 up</p>

CPU host clock setting from “CHIPSET FEATURES SETUP” in “BIOS”:

Auto Configuration	: Enabled	Video BIOS Cacheable	: Enabled
Refresh Rate Control	: 15.6us	Memory Hole at 15M-16M	: Disabled
Ref/Act Command Delay	: 6T	DRAM Controller 1 T WR	: Enabled
Refresh Queue Depth	: 12	DRAM Controller 1 T RD	: Disabled
RAS Precharge Time	: 3T	PCI Post Write Buffer	: Enabled
RAS to CAS Delay	: 2T	PCI Delayed Transaction	: Disabled
ISA Bus Clock Frequency	: PCICLK/4	Auto Detect DIMM/PCI Clk	: Enabled
Starting Point of Paging	: 2T	Spread Spectrum	: Disabled
SDRAM CAS Latency	: 3T	CPU Host/SDRAM Clock	: 100/100MHz

SW2(2.2V)



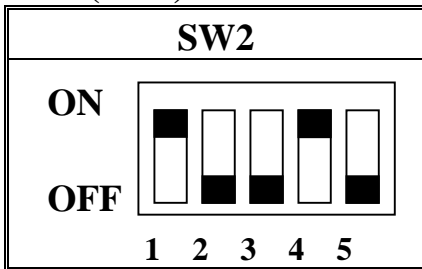
JP1 Setting

Mode	JP1		
Dual Voltage Mode (Vcore ≠ Vi/o)	1-2 closed	3-4 closed	5-6 closed

100MHz CPU host clock

CPU Brand	CPU Type / Speed	SW1
AMD-K6-2	300MHz (100x3.0)	<p>ON: 1, 2, 4 are black; 3 is white. DIP: 1, 2, 4 are black; 3 is white.</p>
AMD-K6-2	350MHz (100x3.5)	<p>ON: 1, 2, 3, 4 are all black. DIP: 1, 2, 3, 4 are all black.</p>
AMD-K6-2	400MHz (100x4.0)	<p>ON: 1, 3 are black; 2, 4 are white. DIP: 1, 3 are black; 2, 4 are white.</p>

SW2(2.4V)



JP1 Setting

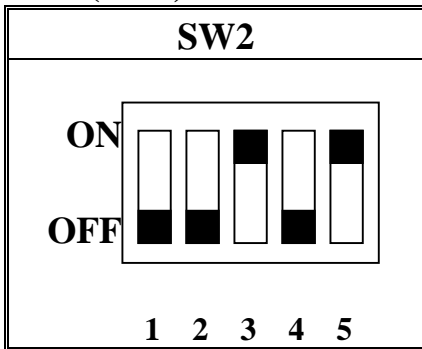
Mode	JP1		
Dual Voltage Mode (Vcore ≠ Vi/o)	1-2 closed	3-4 closed	5-6 closed

100MHz CPU host clock

CPU Brand	CPU Type / Speed	SW1												
AMD-K6-2	450MHz (100x4.5)	<table border="1"> <thead> <tr> <th>ON</th> <th colspan="3">DIP</th> </tr> </thead> <tbody> <tr> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>1</td> <td>2</td> <td>3</td> <td>4</td> </tr> </tbody> </table>	ON	DIP							1	2	3	4
ON	DIP													
1	2	3	4											
AMD-K6-III	400MHz (100x4.0)	<table border="1"> <thead> <tr> <th>ON</th> <th colspan="3">DIP</th> </tr> </thead> <tbody> <tr> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>1</td> <td>2</td> <td>3</td> <td>4</td> </tr> </tbody> </table>	ON	DIP							1	2	3	4
ON	DIP													
1	2	3	4											
AMD-K6-III	450MHz (100x4.5)	<table border="1"> <thead> <tr> <th>ON</th> <th colspan="3">DIP</th> </tr> </thead> <tbody> <tr> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>1</td> <td>2</td> <td>3</td> <td>4</td> </tr> </tbody> </table>	ON	DIP							1	2	3	4
ON	DIP													
1	2	3	4											

H. IDT WinChip2

SW2(3.5V)



JP1 Setting

Mode	JP1		
Single Voltage Mode ($V_{core} = V_i / o$)	1-2 open	3-4 open	5-6 open

CPU host clock setting from “CHIPSET FEATURES SETUP” in “BIOS”:

Auto Configuration	: Enabled	Video BIOS Cacheable	: Enabled
Refresh Rate Control	: 15.6us	Memory Hole at 15M-16M	: Disabled
Ref/Act Command Delay	: 6T	DRAM Controller 1 T WR	: Enabled
Refresh Queue Depth	: 12	DRAM Controller 1 T RD	: Disabled
RAS Precharge Time	: 3T	PCI Post Write Buffer	: Enabled
RAS to CAS Delay	: 2T	PCI Delayed Transaction	: Disabled
ISA Bus Clock Frequency	: PCICLK/4	Auto Detect DIMM/PCI Clk	: Enabled
Starting Point of Paging	: 2T	Spread Spectrum	: Disabled
SDRAM CAS Latency	: 3T	CPU Host/SDRAM Clock	: 66/66MHz

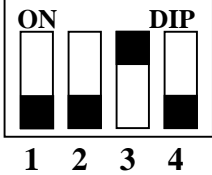
66MHz CPU host clock

CPU Brand	CPU Type / Speed	SW1
IDT WinChip2	200MHz (66x3.0)	<p>ON</p> <p>DIP</p> <p>1 2 3 4</p>
IDT WinChip2	233MHz (66x3.5)	<p>ON</p> <p>DIP</p> <p>1 2 3 4</p>

CPU host clock setting from “CHIPSET FEATURES SETUP” in “BIOS”:

Auto Configuration	: Enabled	Video BIOS Cacheable	: Enabled
Refresh Rate Control	: 15.6us	Memory Hole at 15M-16M	: Disabled
Ref/Act Command Delay	: 6T	DRAM Controller 1 T WR	: Enabled
Refresh Queue Depth	: 12	DRAM Controller 1 T RD	: Disabled
RAS Precharge Time	: 3T	PCI Post Write Buffer	: Enabled
RAS to CAS Delay	: 2T	PCI Delayed Transaction	: Disabled
ISA Bus Clock Frequency	: PCICLK/4	Auto Detect DIMM/PCI Clk	: Enabled
Starting Point of Paging	: 2T	Spread Spectrum	: Disabled
SDRAM CAS Latency	: 3T	CPU Host/SDRAM Clock	: 75/75MHz

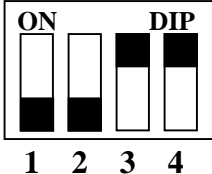
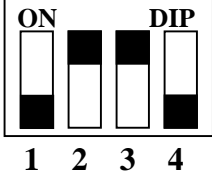
75MHz CPU host clock

CPU Brand	CPU Type / Speed	SW1
IDT WinChip2	225MHz (75x3.0)	

CPU host clock setting from “CHIPSET FEATURES SETUP” in “BIOS”:

Auto Configuration	: Enabled	Video BIOS Cacheable	: Enabled
Refresh Rate Control	: 15.6us	Memory Hole at 15M-16M	: Disabled
Ref/Act Command Delay	: 6T	DRAM Controller 1 T WR	: Enabled
Refresh Queue Depth	: 12	DRAM Controller 1 T RD	: Disabled
RAS Precharge Time	: 3T	PCI Post Write Buffer	: Enabled
RAS to CAS Delay	: 2T	PCI Delayed Transaction	: Disabled
ISA Bus Clock Frequency	: PCICLK/4	Auto Detect DIMM/PCI Clk	: Enabled
Starting Point of Paging	: 2T	Spread Spectrum	: Disabled
SDRAM CAS Latency	: 3T	CPU Host/SDRAM Clock	: 100/100MHz

100MHz CPU host clock

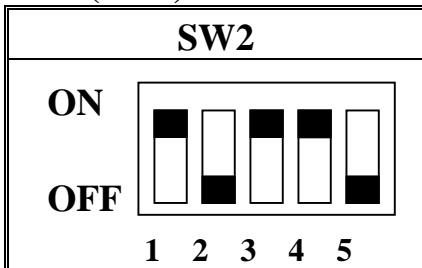
CPU Brand	CPU Type / Speed	SW1
IDT WinChip2	266MHz (100x2.33)	
IDT WinChip2	300MHz (100x2.5)	

I. RISE mP6

CPU host clock setting from “CHIPSET FEATURES SETUP” in “BIOS”:

Auto Configuration	: Enabled	Video BIOS Cacheable	: Enabled
Refresh Rate Control	: 15.6us	Memory Hole at 15M-16M	: Disabled
Ref/Act Command Delay	: 6T	DRAM Controller 1 T WR	: Enabled
Refresh Queue Depth	: 12	DRAM Controller 1 T RD	: Disabled
RAS Precharge Time	: 3T	PCI Post Write Buffer	: Enabled
RAS to CAS Delay	: 2T	PCI Delayed Transaction	: Disabled
ISA Bus Clock Frequency	: PCICLK/4	Auto Detect DIMM/PCI Clk	: Enabled
Starting Point of Paging	: 2T	Spread Spectrum	: Disabled
SDRAM CAS Latency	: 3T	CPU Host/SDRAM Clock	: 100/100MHz

SW2(2.8V)



JP1 Setting

Mode	JP1		
Dual Voltage Mode (Vcore ≠ Vi/o)	1-2 closed	3-4 closed	5-6 closed

CPU Brand	CPU Type / Speed	SW1
Rise mP6	266MHz (100x2.0)	

2-3 SYSTEM MEMORY INSTALLATION

The mainboard provides three 168-pin DIMM sockets for system memory expansion from 8MB to 1.5GB SDRAM. These three DIMMs are arranged to three banks, please refer to page A.

Bank/DIMM	Memory Module	Total Memory
Bank0/DIMM1	8/16/32/64/128/256/512MB	8MB~512MB
Bank1/DIMM2	8/16/32/64/128/256/512MB	8MB~512MB
Bank2/DIMM3	8/16/32/64/128/256/512MB	8MB~512MB
Total System Memory		8MB~1536MB

DRAM type, Size, parity supported:

- ⌚ 3.3V, Single/double-side, 8/16/32/64/128/256/512Mbytes SDRAM with SPD.
- ⌚ Both parity or non-parity are available.
- ⌚ Both 4Mbx4 and 16Mbx4 (Each side has 16 chips.) SDRAM devices are supported in the form of Registered DIMMs only.

-
- ◆ *For 66MHz host bus CPUs use 12ns or faster DIMM module;*
 - ◆ *For 100MHz host bus CPUs use 10ns or faster and PC-100 compliant modules .*
-

⌚ SPD (Serial Presence Detect)

This EPROM contains speed and design information of the memory module. The mainboard may get optimal performance via accessing the data of SPD.

⌚ ECC (Error Check and Correction)

This mainboard can support the ECC function while utilizing parity modules. To enable this function, users must set “DRAM Data Integrity Mode” to “ECC” through “Chipset Features Setup” from the BIOS setup screen. In a word, ECC’s function is to detect and correct the errors of transfer data.

CAUTION: It is important that user should install DIMM modules first in DIMM1 in order to enable the shared memory for on-board VGA.

2-4 SiS IDE DRIVER INSTALLATION

The IDE driver installation procedure is as following :

➤ Setup for Windows 95/98 :

1. Starting Windows 95/98.
2. Put the All-In-One CD into your CD-ROM drive.
3. Select "SiS 530/5595 IDE Driver Setup" on the Autorun main menu.
4. Select "Install SiS driver", then click "Next".
5. Choose PIO or DMA mode driver depending on your system, then press "Next".
6. Select "Yes, I want to restart my computer now.", then press "OK".

➤ Setup for WinNT :

1. Starting WinNT.
2. Put All-In-One CD into your CD-ROM drive.
3. Pull up "Start" menu, select "Settings", then "Control Panel".
4. In "Control Panel" Windows, select "SCSI Adapter".
5. In "SCSI Adapter" Windows, select "Drivers".
6. In "SCSI Adapter" Windows, select "Add", then select "Have Disk".
7. Type D:\SIS\SIS530\IDE\NT, select "OK". (If the CD-ROM drive is D.)
8. In "Install Driver" Windows, select "SiS PCI MASTER IDE Miniport Driver", then select "OK".
9. Type D:\SIS\SIS530\IDE\NT, select "continue".
10. Select "Yes" to restart your computer.

2-5 SiS 530 AGP DRIVER INSTALLATION

➤ Setup for Windows95/98 :

1. Starting Windows95/98.
2. Put All-In-One CD into your CD-ROM drive.
3. Select "SiS 530 Onchip AGP Driver Setup" on the Autorun main menu.
4. Press "Next".
5. Press "Next" to continue the typical type installation.
6. Press "Next".
7. Press "Finish" to restart your computer.

➤ **Setup for WinNT :**

1. Start WinNT.
2. Put All-In-One CD into your CD-ROM drive.
3. Run Display program where it is located in the Control Panel and select Display.
4. Choose "Settings" of Display Properties.
5. Select "Display Type"...
6. Select "Change"... from the display options.
7. Select "Have Disk"...
8. NT will prompt you for the driver path. If the CD-ROM is in driver "d:", enter "d:\sis\sis530\vga\ winnt40", then press "OK".
9. NT will once again prompt for confirmation, click "OK" and it will have a dialog box with the message "You are about to install a third-party driver". Click "Yes" and it will show "The drivers were successfully installed".
10. Click "OK" button, and select Close in the following dialog box. And it will show "Do you want to restart your computer now".
11. Select "Yes" and the system will restart.

2-6 SiS PCI IRQ ROUTING PROGRAM

➤ **Setup for Windows 95**

1. Starting Windows 95.
2. Put the All-In-One CD into your CD-ROM drive.
3. Select "Install SiS PCI IRQ Routing Program" on the Autorun main menu.
4. Press "Next".
5. Press "Next".
6. Press "Yes" or "No" depending on if you want to view the README file or not.
7. Press "Finish" to restart computer.

2-7 SiS 530/5595 HARDWARE MONITOR INSTALLATION

➤ **Setup for Win95/98/NT**

1. Start Windows95/98/NT.
2. Insert All-In-One CD into your CD-ROM drive.
3. Choose "Install SiS 530/5595 Hardware Monitor" in the installation main menu.
4. Press "Next".
5. Press "Finish" to restart the computer.

CHAPTER 3 AWARD BIOS SETUP

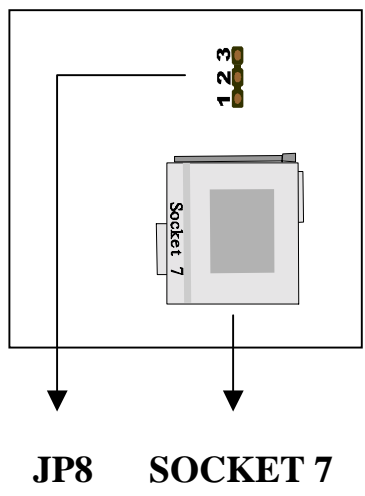
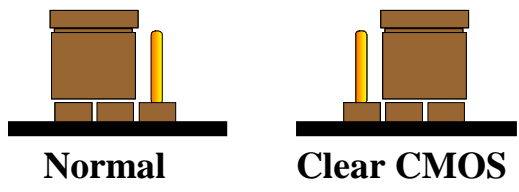
Award BIOS manufacturer provides access to the system BIOS through the hardware and software on each *5010M Mainboard*. The hardware consists of a Flash ROM and the software is a group of programs that are installed in the ROMBIOS along with all the other data that should be included into the BIOS.

The *5010M Mainboard* will require special driver supplied by the manufacturer to update the BIOS SETUP program. It is desirable to read the following pages in detail for updated BIOS driver installation; or you can ask your system dealer for help.

After the driver has been successfully updated, it is very important to reset the CMOS settings. Detailed CMOS settings are shown in the following sections.

NOTE FOR CLEARING CMOS: To clear CMOS you should shut down computer first, then set JP8 2-3 closed at least 5 seconds to clear, and put it back to 1-2 closed normal position and restart your computer.

	JP8
Normal	1-2 closed
Clear CMOS	2-3 closed



3-1 UPDATE BIOS PROCEDURE

If the BIOS needs to be updated, you can get the updated BIOS driver from All-In-One CD(in “flash” directory) in the package. The BIOS updated driver includes :

“awdfash.exe” -- BIOS update utility program
“awdfash.doc”
“(update BIOS filename with version number).bin”

The update procedure is in the following:

1. Boot the system to DOS mode in a normal manner.
2. Insert All-In-One CD into your CD-ROM drive.
3. Change working directory to your CD-ROM drive, D or E, which contains the update BIOS driver. -- Type “d:\flash” or “e:\flash”, “ENTER”.
4. Run the BIOS update utility -- type “awdfash”, then press “ENTER” key.
5. Type “(update BIOS file name with version number).bin”, ENTER.
6. If you do not want to save the old BIOS Type “N” when the screen displays the message : " Do you want to save BIOS (Y/N) ?".
7. Type “Y” when the screen shows the message : " Are you sure to program (Y/N) ?".
8. Follow instructions displayed on the screen. DO NOT remove the CD from the CD-ROM drive nor turn the system power off until the BIOS update is completed.
9. Turn the power off. Clear the data in CMOS according to the procedure described in the previous page.
10. Turn the system power on and test that your system is working properly.

3-2 SYSTEM BIOS CONFIGURATION SETUP

The following pages explain how to set up the system configuration (CMOS) under the Award BIOS. The SETUP program is stored in the Read-Only-Memory (ROM) on the mainboard. To do the SETUP procedure, press the key when the system is booting up. The following main menu will appear. Please select "STANDARD CMOS SETUP" to enter the next screen.

ROM PCI/ISA BIOS
CMOS SETUP UTILITY
AWARD SOFTWARE, INC.

STANDARD CMOS SETUP	INTEGRATED PERIPHERALS
BIOS FEATURES SETUP	SUPERVISOR PASSWORD
CHIPSET FEATURES SETUP	USER PASSWORD
POWER MANAGEMENT SETUP	IDE HDD AUTO DETECTION
PNP/PCI CONFIGURATION	SAVE & EXIT SETUP
LOAD BIOS DEFAULTS	EXIT WITHOUT SAVING
LOAD SETUP DEFAULTS	
ESC: Quit	↓→←:Select Item
F10: Save & Exit Setup	(Shift) F2 : Change Color
Time, Date, Hard Disk Type	

The section on the bottom of the main menu explains how to control this screen. The other section displays the items highlighted in the list.

3-2-1. STANDARD CMOS SETUP

This screen records some basic hardware information, and sets the system clock and error handling. These records can be lost or corrupted if the on-board battery has failed or is weak.

ROM PCI/ISA BIOS
STANDARD CMOS SETUP
AWARD SOFTWARE, INC.

Date (mm:dd:yy) : Wed, June 05 1998									
Time(hh:mm:ss) : 13 : 37 : 14									
HARD DISKS	TYPE	SIZE	CYLS	HEAD	PRECOMP	LANDZ	SECTOR	MODE	
Primary Master	: Auto	0	0	0	0	0	0	Auto	
Primary Slave	: Auto	0	0	0	0	0	0	Auto	
Secondary Master	: Auto	0	0	0	0	0	0	Auto	
Secondary Slave	: Auto	0	0	0	0	0	0	Auto	
Drive A : 1.44M, 3.5 in.									
Drive B : None									
Floppy 3 Mode Support : Disabled									
Video : EGA/VGA									
Halt On: All Errors									
					Base Memory : 640K				
					Extended memory : 7168K				
					Other Memory : 384K				

					Total Memory : 8192K				
ESC : Quit			↑↓→←:Select Item				PU/PD/+/- : Modify		
F1 : Help			(Shift) F2 : Change Color						

Date

The date format is <day>, <date><month><year>. Press<F3> to show the calendar.

Day : The date, from Sun to Sat, determined by the BIOS and is display-only.

Date : The date, from 1 to 31.

Month : The month, Jan. through Dec.

Year : The year, from 1900 to 2099.

Time

The time format is <hour><minute><second>. The time is calculated based on the 24-hour military-time clock. For example, 1p.m. is 13:00:00.

Primary/Second Master, Secondary Master/Slave

These categories identify the types of the 2 channels that have been installed in the computer. There are 45 predefined types and 4 user definable types are for Enhanced IDE BIOS. Type 1 to 45 are predefined. Type **'user'** is user-definable. Press PgUp/PgDn to select a numbered hard disk type or type the number and press<Enter>. If you select **'Auto'**, the BIOS will auto-detect the HDD & CD-ROM Drive at the POST stage and show the IDE for HDD & CD-ROM Drive. If you select **'user'**, you will need to know the information listed below. Enter the information directly from the keyboard and press <Enter>. This information should be from your hard disk vender or dealer. If the controller of the HDD interface is ESDI, the selection shall be **'Type 1'**; if SCSI, the selection shall be **'None'**. If no device is installed select **'NONE'** and press <Enter>.

Type : drive type ; Size : automatically adjusts ; CYLS : number of cylinders ; HEAD : number of heads ; PRECOMP : write precom ; LANDZ : landing zone SECTOR : number of sectors ; MODE : mode type

Drive A, Drive B

This category identifies the types of floppy disk drive A or drive B that have been installed in the computer.

None : No floppy drive installed ; **360K, 5.25 inch** : 5.25" PC-type 360KB capacity
1.2M, 5.25 inch : 5.25" AT-type 1.2MB capacity
720K, 3.5 inch : 3.5" double-side 720KB capacity
1.44M, 3.5 inch : 3.5" double-side 1.44MB capacity
2.88M, 3.5 inch : 3.5" double-side 2.88MB capacity

Floppy 3 Mode Support

This is the Japanese standard floppy drive. This standard stores 1.2MB in a 3.5" diskette.

Video

This category selects the type of video adapter used for the primary system monitor. Although secondary monitors are supported, you do not have to select the type in Setup.

EGA/VGA : Enhanced Graphics Adapter/Video Graphics Array. For EGA, VGA, SEGA, SVGA or PGA monitor adapters.
CGA 40 : Color Graphics Adapters, power up in 40 column mode.
CGA 80 : Color Graphics Adapters, power up in 80 column mode.
MONO : Monochrome adapter, includes high resolution monochrome adapters

Halt On

This category determines whether the computer will stop if an error is detected during power up.

No errors : The system boot will not be stopped for any error that may be detected.

All errors : When the BIOS detects a non-fatal error the system will be stopped and you will be prompted.

All, But Keyboard : The system boot will not stop for a keyboard error, it will stop for all other errors.

All, But Diskette : The system boot will not stop for a disk error, it will stop for all other errors.

All, But Disk / Key : The system boot will not stop for a disk error, it will stop for all other errors.

Memory

This category is display-only which is determined by POST (Power On Self Test) of the BIOS. **Base Memory**: The POST will determine the amount of base (or conventional) memory installed in the system. The value of the base memory is typically 512K or 640K based on the memory installed on the mainboard. **Extended Memory**: How much extended memory is present during the POST. This is the amount of memory located above 1MB in the CPU's memory address map. **Other Memory**: This refers to the memory located in the 640K to 1024K address space. This is memory that can be used for different applications. DOS users this area to load device drivers in an effort to keep as much base memory free for application programs. The BIOS is the most frequent user of this RAM area since this is where it shadows RAM.

3-2-2. BIOS FEATURES SETUP

This screen is a list of system configuration options. Some of them are defaults required by the mainboard's design, others depend on the features of your system.

ROM PCI/ISA BIOS
 BIOS FEATURES SETUP
 AWARD SOFTWARE, INC.

Virus Warning	: Disabled	Video BIOS Shadow	: Enabled
CPU Internal Cache	: Enabled	C8000-CBFFF Shadow	: Disabled
External Cache	: Enabled	CC000-CFFFF Shadow	: Disabled
Quick Power On Self Test	: Enabled	D0000-D3FFF Shadow	: Disabled
Boot Sequence	: A,C,SCSI	D4000-D7FFF Shadow	: Disabled
Swap Floppy Drive	: Disabled	D8000-DBFFF Shadow	: Disabled
Boot Up NumLock Status	: On	DC000-DFFFF Shadow	: Disabled
Security Option	: Setup		
PCI/VGA Palette Snoop	: Disabled		
OS Select for DRAM>64MB	: Non-OS2		
Report No FDD For Win95	: Yes		
		Esc : Quit ↑↓→←:Select Item F1 : Help PU/PD/+/- : Modify F5 : Old Values (SHIFT) F2 : Color F6 : Load BIOS Defaults F7 : Load Setup Defaults	

Virus Warning

When this item is enabled, the Award BIOS will monitor the boot sector and partition table of the hard disk drive for any attempt at modification. If an attempt is made, the BIOS will halt the system and the following error message will appear. Afterward if necessary, you will be able to run an anti-virus program to locate and remove the problem before any damage is done.

Warning ! Disk boot sector is to be modified. Type 'Y' to accept write or 'N' to abort write Award software.

Enabled : Activates automatically when the system boots up, if anything attempts to access the boot sector or hard disk partition table.

Disabled : No warning message will appear when anything attempts to access the boot sector or hard disk partition table.

Many disk diagnostic programs which attempt to access the boot sector table can cause the above warning message. If you will be running such a program, we recommend that you first disable Virus Protection beforehand.

CPU, Internal Cache, External Cache

These two categories speed up memory access. However, it depends on CPU/chipset design. The default value is 'enabled'.

Quick Power On Self Test

This category speeds up Power On Self Test after you power up the computer. If you set enabled, BIOS will shorten or skip some checked items during POST.

Boot Sequence

This category determines which drive to search first for the Disk Operating System (i.e., DOS).

Swap Floppy Drive

This item allows you to determine whether to enable the swap floppy drive or not. The choice : Enabled/ Disabled

Boot Up NumLock Status

This allows you to determine the default state of the numeric keypad. By default, the system boots up with NumLock on.

ON : Keypad is numeric keys. **OFF** : Keypad is arrow keys.

Security Option

This category allows you to limit access to the system and Setup, or just to Setup. To disable security, select PASSWORD SETTING at Main Menu and then you will be asked to enter password. Do not type anything and just press <Enter>, it will disable security. Once the security is disabled, the system will boot and you can enter Setup freely.

PCI/VGA Palette Snoop

It determines whether the MPEG ISA/VESA VGA cards can work with PCI/VGA or not.

Enabled : When PCI/VGA working with MPEG ISA/VESA VGA Card.

Disabled : When PCI/VGA not working with MPEG ISA/VESA VGA Card.

OS Select for DRAM > 64MB

This item allows you to access the memory that is over 64MB in OS/2. The choice : Non-OS2, OS2

Report No FDD For WIN95

Set this item to Yes BIOS will report FDD to Win95. If in standard CMOS setup, set Drive A to none, and set this item to yes. Inside Win95, My Computer and File manager Disk(A:) will show Removable Disk (A:).

Video BIOS Shadow

Determines whether video BIOS will be copied to RAM. However it is optional depending on chipset design. Video Shadow will increase the video speed. The choice : Enabled/Disabled

C8000 – CBFFF Shadow, DC000-DFFFF Shadow

These categories determine whether option ROMs will be copied to RAM. An example of such option ROM would be the support of onboard SCSI. The choice : Enabled/Disabled

3-2-3. CHIPSET FEATURES SETUP

This screen controls the setting for the chipset on the mainboard.

ROM PCI/ISA BIOS
CHIPSET FEATURES SETUP
AWARD SOFTWARE, INC.

Auto Configuration	: Enabled	Memory Hole at 15M-16M	: Disabled
Refresh Rate Control	: 15.6us	DRAM Controller 1 T WR	: Enabled
Ref/Act Command Delay	: 6T	DRAM Controller 1 T RD	: Enabled
Refresh Queue Depth	: 12T	PCI Post Write Buffer	: Enabled
RAS Precharge Time	: 3T	PCI Delayed Transaction	: Disabled
RAS to CAS Delay	: 3T	Auto Detect DIMM/PCI Clk	: Enabled
ISA Bus Clock Frequency	: PCICLK/4	Host Clock (CPU/SDRAM)	: 66/66MHz
Starting Point of Paging	:2T		
SDRAM CAS Latency	: 3T		
SDRAM WR Retire Rate	: X-1-1-1		
DRAM Opt RAS Precharge	: Enabled		
Read Prefetch Memory RD	: Enabled		
Assert TRDY After Prefet	: 2QWs		
CPU to PCI Burst Mem. WR	: Enabled		
CPU to PCI Post Write	: Enabled		
SDRAM Loading	: Medium	Esc: Quit	:Select Item
SDRAM MA Current	: Weak	F1 : Help	PU/PD/+/-:Modify
AGP Aperture Size	: 128MB	F5 : Old Values (Shift)	F2 :Color
System BIOS Cacheable	: Enabled	F6 :Load BIOS Defaults	
Video BIOS Cacheable	: Enabled	F7 : Load Setup Defaults	

Auto Configuration

Pre-defined values for DRAM, cache timing according to CPU type & system clock. When this item is enabled, the pre-defined items will become SHOW-ONLY.

Refresh Rate Control; Ref/Act Command Delay; Refresh Queue Depth

These controls are for the characteristics of DRAM refresh operation. Bits control the depth of refresh queue. To minimize the performance penalty caused by refresh cycles, the concept of refresh queue is introduced. Refresh request is arbitrated with other DRAM request. If a refresh request does not get serviced, it enters the refresh queue. The priority of refresh request is promoted to highest when the refresh queue is full.

RAS Precharge Time

Define the length of time for Row Address Strobe is allowed to precharge.

RAS to CAS Delay

You can select RAS to CAS Delay time in HCLKs of 2/2 or 3/3. The system board designer should set the values in this field, depending on the DRAM installed. Do not change the values in this field unless you change specifications of the installed DRAM or the installed CPU.

ISA Bus Clock Frequency

This item allows you to set the ISA bus here. The settings are tied to the speed of the PCI bus operates at 33MHz, a setting of PCICLK/4 would yield an ISA bus speed of approximately 8MHz, the standard speed of the ISA bus. While most devices operate at higher ISA bus speeds, try a slower bus speed if our ISA device does not function properly a high bus speed.

PCICLK/3 : PCI clock type PCICLK4/ : PCI clock type

Starting Point of Paging

This item controls when to precharge RAS# after the DRAM cycle that its page miss option is enabled.

SDRAM CAS Latency

Control SDRAM CAS# Latency. You could select CAS latency time in HCLKS of 2/2 or 3/3. The system board designer should set the values in this field, depending on the DRAM installed. Do not change the values in this field unless you change specifications of the installed DRAM or the installed CPU. The choice : 2T, 3T.

SDRAM WR Retire Rate

This sets the timing for burst mode read (or writes) from SDRAM. Burst read and write requests are generated by the CPU in four separate parts. The first part provides the location within the DRAM where the read or write is to take place while the remaining three parts provide the actual data. The lower the timing numbers, the faster the system will address memory.

DRAM Opt RAS Precharge

When this function is enabled, SiS530 use the information about the destinations of consecutive cycles to optimize RAS precharge time.

Read Prefetch Memory RD

Disable or Enable the read prefetch operation.

Assert TRDY After Prefet

This option controls the characteristic for 33MHz PCI Target bridge.

CPU to PCI Burst Mem. WR

Disable or Enable CPU to PCI burst memory write.

CPU to PCI Post Write

Select Enabled to post write cycles from the CPU to the PCI IDE interface. IDE accesses are posted in the CPU to PCI buffers, for cycle optimization. The choice : Enabled, Disabled.

SDRAM Loading

Improve the setup time of MD for read/write DRAM by SiS530 internal clock, SDRCLK and SDWCLK. We could set this option by necessary for gathering more compatibility.

SDRAM MA Current

If there is abnormal line on the screen after plugging two or three SDRAM modules into DIMM slots, please set this item to solve the problem. The choice : weak, strong.

AGP Aperture Size

Select the size of the AGP aperture. The aperture is a portion of the PCI memory address range dedicated for graphics memory address space. Host cycle that hit the aperture range are forwarded to the AGP without any translation. See www.agpforum.org for AGP information. The choice : 4, 8, 16, 32, 64, 128, 256.

System BIOS Cacheable

Select Enabled allows caching of the system BIOS ROM at F0000h-FFFFFh, resulting in better system performance. However, in any program writes to this memory area, a system error may result.

Video BIOS Cacheable

Select Enabled allows caching of the video BIOS ROM at F0000h-FFFFFh, resulting in better system performance. However, in any program writes to this memory area, a system error may result.

Memory Hole At 15M-16M

In order to improve performance, certain space in memory can be reserved for ISA cards. This memory must be mapped into the memory below 16MB.

DRAM Controller 1 T WR; DRAM Controller 1 T RD

For VGA share memory read and write control.

PCI Post Write Buffer

Enable/Disable CPU to PCI Post Write.

PCI Delayed Transaction

This chipset has an embedded 32 bit posted write buffer to support deadly transactions cycles. Select “enabled” to support compliance with PCI specification version 2.1.

Auto Detect DIMM/PCI Clk

If this item is enabled, the unused DIMM and PCI clock will be disabled. If this item is disabled the unused DIMM and PCI slot will still get the active clock signal.

Host Clock (CPU/SDRAM)

Use this item to set CPU base clock frequency which includes 66/66、75/75、83/83、95/95、100/100、105/105 and 112/112MHz.

Note: After you change the CPU Clock Frequency and the system can not start, please do the following procedures:

- 1. Turn the system off firstly.**
- 2. Turn on the system. Then press and hold the “ Insert ” key at boot.**
- 3. Select the proper frequency in the item of *CPU Clock Frequency*.**
- 4. Save and Exit Setup.**

3-2-4. POWER MANAGEMENT SETUP

This screen controls the 'green' features of this mainboard.

ROM PCI/ISA BIOS
POWER MANAGEMENT SETUP
AWARD SOFTWARE, INC.

ACPI function	: Disabled	VGA Activity	: Enabled
Power Management	: User Define	IRQ [3-7 , 9-15], NMI	: Enabled
Video Off Option	: Susp, stby-off	IRQ Break Suspend	: Disabled
Video Off Method	: DPMS	Power Button Over Ride	: Instant Off
	Suspend		
Switch Function	: Break/wake	Ring Power Up Control	: Disabled
Doze Speed (div by)	: 2/8	LAN Power Up Control	: Disabled
Stdby Speed (div by)	: 1/8	KB Power ON Password	: Enter
MODEM Use IRQ	: 4	Power Up by Alarm	: Disabled
Hot key Function As	: Disable		
AC PWR State Resume	: Disable		
** PM Timers **			
HDD Off After	: Disable	Esc: Quit	↑↓→← : Select Item
Doze Mode	: Disable	F1 : Help	PU/PD/+/- : Modify
Standby Mode	: Disable	F5 : Old Values	(Shift) F2: Color
Suspend Mode	: Disable	F6 : Load BIOS Defaults	
** PM Events **		F7 : Load Setup Defaults	
HDD Ports Activity	: Enabled		
COM Ports Activity	: Enabled		
LPT Ports Activity	: Enabled		

ACPI Function This item allows you to determine the ACPI OS or not.

Power Management

This category allows you to select the type (or degree) of power saving and is directly related to the following modes : **Doze; Standby; Suspend; HDD Power Down.**

Disabled : No power management. Disable all 4 modes.

Min. Power Saving : Minimum power management. Doze = 1hr ; Standby = 1hr ;
Suspend = 1hr ; HDD Power Down = 15min

Max. Power Saving : Maximum power management only available for SL CPU. Doze
=1min;Standby=1min;Suspend= min; HDD Power Down=1min

User Defined : Allows you to set each mode individually. When not disabled, each of
the range are from 1min to 1hr. except for HDD Power Down which
ranges from 1 to 15min. and disable.

If you would like to use Software Power-off Control function, you cannot choose “Disabled” here, and should select “Yes” in PM Control by APM.

Video Off Option

When enabled, this feature allows the VGA adapter to run in a power saving mode.

Always On	Monitor will remain on during power saving modes.
Suspend	Monitor blanked when the systems enters the Suspend mode.
Susp, Stby	Monitor blanked when the system enters Suspend or Standby mode
All Modes	Monitor blanked when the system enters any power saving mode.

Video Off Method

This determines the manner in which the monitor is blanked.

V/H SYNC+Blank : This selection will cause the system to turn off the vertical and horizontal sync. ports and write blanks to the video buffer.

Blank Screen : This option only write blanks to the video buffer.

DPMS : Initial display power management signaling.

Switch Function

This item is set disabled, system will not use external SMI button to wake up. When this item set Break/Wake the system can use external SMI button wake up.

Doze Speed (div by)

When enabled and after the set time of system inactivity, the CPU clock will run at slower speed while all other devices still operate at full speed.

Standby Speed (div by)

When enabled and after the set time of system inactivity, the fixed disk drive and the video would be shut off while all other devices still operate at full speed.

MODEM Use IRQ

This item determines the IRQ in which the MODEM can be used. The choice : 3,4,5,7,9,11,NA.

Hot Key Function As

After user set this option, user can hold down the “Control” , “Alt” and “backspace” key to achieve this setting function. The choices are: Power Off, Suspend, Disabled.

AC PWR State Resume

When you set this item enabled, the ATX power supplier will return to its previous state when the AC power is restored from a previous sudden-off for a period of time. If

this item is disabled, system is turned on while power is recovered with 4 seconds. *The following 4 modes are Green PC power saving function which are only user configuration when 'User Defined' power management has been selected.*

HDD Off After

When enabled and after the set time of system inactivity, the hard disk drive will be powered down while all other devices remain active.

Doze Mode

When enabled and after the set time of system inactivity, the CPU will run at slower speed while all other devices still operate at full speed.

Standby Mode

When enabled and after the set time of system inactivity, the fixed disk drive and the video would be shut off while all other devices still operate full speed.

Suspend Mode

When enabled and after the set time of system inactivity, all devices except the CPU will be shut off.

PM Events

These are I/O events whose occurrence can prevent the system from entering a power saving mode or can awaken the system from such a mode. In effect, the system remains alert for anything which occurs on a device which is configured as on, even when the system is in a powered down mode. When an I/O device wants to gain the attention of the operating system, it signals this by causing an IRQ(Interrupt ReQuest) to occur. When the operating system is ready to respond to the request, it interrupts itself and performs the service. When set to off, activity will neither prevent the system from going into a power management mode nor awaken it.

VGA Activity

When enabled, any video device restarts the global timer for Standby mode.

IRQ [3-7,9-15], NMI

When enabled, an event occurring on each device listed below restarts the global time for Standby mode. IRQ [3-7,9-15], NMI; Primary IDE 0; Primary IDE 1; Secondary IDE 0; Secondary IDE 1; Floppy Disk; Serial Port; Parallel Port.

IRQ Break Suspend

When enabled, the device which occupies the IRQ8 can wake up the system.

Power Button Over Ride

Instant-off : When push the power button, the system power will be off immediately.
Delay 4 secs.: when push the power button, it will enter suspend mode. We need to push the power button and hold for 4 seconds to turn off the power.

Ring Power Up Control

Enabled : when system in suspend mode, modem can awake the system.
Disabled : modem cannot awake the modem.

LAN Power Up Control

Enabled : You can wake up by LAN. Disabled : You cannot wake up by LAN.

KB Power ON Password

This category allows you to wake up your system by keying in the password. The process is as bellow: Password: when users select this option, it will show “Enter Password:”. After users type the password, it will show “ Confirm Password:” and users have to type the same password to confirm. Under power-off condition, if users type the correct password, the system will be powered on immediately.

If you have set the keyboard password power on function, but forget password, you can CLEAR CMOS to clear the password; otherwise you can't power on the system.



CAUTION: With SiS 530 chipset on board, this KB Power On Password function will be invalid. If the power supplied is experienced a break down or the power cord is plugged off. And even if power supply is restored and computer restarted, this function can not be restored any longer.

Power Up by Alarm

When enabled, two additional lines will be added to the screen : Date (of Month) Alarm to let user set the desired date and time. After power off, the system will automatic power on at the specified date and time.

3-2-5. PNP/PCI CONFIGURATION

ROM PCI/ISA BIOS

PNP/PCI CONFIGURATION
AWARD SOFTWARE, INC.

PNP OS Installed : No Resources Controlled By : Auto Reset Configuration Data : Disabled	Assign IRQ for VGA : Enabled Assign IRQ for USB : Enabled
Esc: Quit ↑↓→← :Select Item F1 : Help PU/PD/+/- : Modify F5 : Old Values (Shift) F2: Color F6 : Load BIOS Defaults F7 : Load Setup Defaults	

PNP OS Installed

This item allows you to determine PnP OS or not. Choices are Yes or No.

Resources Controlled By

The Award Plug and Play BIOS has the capability to automatically configure all of the boot and Plug and Play compatible devices. However, this capability means absolutely nothing unless you are using a Plug and Play OS such as Windows 95. Choices are Auto and Manual.

Reset Configuration Data

This item allows you to determine whether to reset the configuration data or not.

Assign IRQ for VGA/USB

When this items is enabled, the system will assign an IRQ for VGA/USB. If this item is disabled, the VGA/USB will not occupy an IRQ; therefore the IRQ of VGA/USB will be released for other usage.

3-2-6. INTEGRATED PERIPHERALS

This section page includes all the items of IDE hard drive and Programmed

Input/Output features. See also Section “Chipset Features Setup”.

ROM PCI/ISA BIOS
INTEGRATED PERIPHERALS
AWARD SOFTWARE, INC.

Internal PCI/IDE	: Both	Parallel Port Mode	: ECP+EPP1.9
IDE Primary Master PIO	: Auto	ECP Mode Use DMA	: 3
IDE Primary Slave PIO	: Auto	PS/2 mouse function	: Enabled
IDE Secondary Mater PIO	: Auto	USB Controller	: Enabled
IDE Secondary Slave PIO	: Auto	USB Keyboard Support	: Disabled
Primary Master UltraDMA	: Auto	Init Display First	
Primary Slave UltraDMA	: Auto	VGA Shared Memory Size	: 2 MB
Secondary Master UltraDMA	: Auto	VGA Memory Clock(MHz)	100
Secondary Slave UltraDMA	: Auto	Current CPU Temperature	
IDE Burst Mode	: Enabled	Current CPUFAN Speed	60 ⁰ C/140 ⁰ F
IDE Data Port Post Write	: Disabled	+12V :	Vcc :
IDE HDD Block Mode	: Enabled	Vcc3.3	Vcore :
IDE Data Port Post Write	: Disabled		
Onboard FDC Controller	: Enabled		
Onboard Serial Port 1	: 3F8/IRQ4	Esc: Quit	↑↓→← :Select Item
Onboard Serial Port 2	: 2F8/IRQ3	F1 : Help	PU/PD/+/- : Modify
UART2 Mode	: Standard	F5 : Old Values	(Shift) F2: Color
		F6 : Load BIOS Defaults	
Onboard Parallel Port	: 378/IRQ7	F7 : Load Setup Defaults	

Internal PCI/IDE

This item is for deciding which channel of IDE controller can be used.

IDE Primary Master/Slave PIO IDE; Secondary Master/Slave PIO

PIO - Programmed Input/Output, it allows the BIOS to tell the controller what it wants and then let the controller and the CPU to complete the task by themselves. This is simpler and more faster. Your system supports five modes, 0 - 4, which primarily differ in timing. When **Auto** is selected, the BIOS will select the best available mode.

Primary Master/Slave UDMA; Secondary Master/Slave UDMA

Auto, will support the Ultra DMA function. Disabled, will not support the Ultra DMA function.

IDE Burst Mode

Bus Master generates PCI burst cycles control.

IDE Data Port Post Write

This item is set enabled will use IDE burst read mode.

IDE HDD Block Mode

This allows your HD controller to use the fast block mode to transfer data to and from your HD drive.

Enabled : IDE controller uses block mode.

Disabled : IDE controller uses standard mode.

Onboard FDC controller

This should be enabled if your system has a floppy disk drive (FDD) installed on the system board and you wish to use it. Even when so equipped, if you add a higher performance controller, you will need to disable this feature. The choice : Enabled, Disabled

Onboard Serial Port 1 / 2

This time allows you to determine access onboard serial port 1 / port 2 controller with which I/O address.

UART2 Mode

This lets you select the Infrared mode. Choices are Standard, HPIR, and ASKIR. If you choose HPIR or ASKIR mode, the screen will show another two lines to let you choose 'IR Function Duplex' (Full or Half) and 'RxD TxD Active' (Hi Lo; Lo Hi; Hi Hi; Lo Lo).

Onboard Parallel Port

Select a logical LPT port name and matching address for the physical parallel(printer) port. Select Compatible or Extended unless you are certain both your hardware and software support EPP or ECP mode. The choice: 378H/IRQ7, 278H/IRQ5, 3BCH/IRQ7, Disabled.

Parallel Port Mode

Let user select error check mode. This item is not recommended to change except user has special request.

ECP Mode Use DMA

Select a DMA channel for the port. Choices are 3, 1.

PS/2 mouse function

If you use the PS/2 mouse connector, please set this item enabled.

USB controller

Select “Enabled” if your system contains a Universal Serial Bus (USB) controller and you have a USB keyboard. The Choice : Enabled, Disabled.

USB Keyboard Support

Enabled will support USB keyboard in Win95 2.1 and NT 5.0 or above operating system.

Init Display First

This item will activate the AGP in the multi-display environment, it displayed, if disabled, and the system has both AGP and PCI VGA card, the AGP monitor will not display.

VGA Shared Memory Size

Select the size of the VGA shared memory. The VGA shared memory is a portion of PCI memory address range dedicated for graphics memory address space.

VGA Memory Clock (MHz)

This option is set the clock speed of VGA memory. The VGA memory range from 40MHz to 70MHz by 1MHz step.

Current CPU Temperature

It shows the current system temperature.

Current CPU FAN Speed

It shows the running speed of the CPU fan. The value will be changing when the system is running. If you do not install the fan, the value will show 0.

ROM PCI/ISA BIOS
 CMOS SETUP UTILITY
 AWARD SOFTWARE, INC.

STANDARD CMOS SETUP BIOS FEATURES SETUP CHIPSET FEATURES SETUP POWER MANAGEMENT SETUP PNP/PCI CONFIGURATION LOAD BIOS DEFAULTS LOAD SETUP DEFAULTS	INTEGRATED PERIPHERALS SUPERVISOR PASSWORD USER PASSWORD IDE HDD AUTO DETECTION SAVE & EXIT SETUP EXIT WITHOUT SAVING
ESC: Quit ↑↓→←: Select Item F10: Save & Exit Setup (Shift) F2 : Change Color	
Time, Date, Hard Disk Type	

ROM PCI/ISA BIOS
 CMOS SETUP UTILITY
 AWARD SOFTWARE, INC.

Hard Disks	Type	Size	CYLS	HEAD	PRECOMP	LANDZ	SECTOR	MODE
Primary Master :								
Select Primary Master Option (N=Skip) : N								
<u>Options</u>	Size	CYLS	Head	PRECOMP	LANDZ	Sector	Mode	
2(Y)	1337	648	64	0	2594	63	LBA	
1	1339	2595	16	65535	2594	63	NORMAL	
3	1338	1297	32	65535	2594	63	LARGE	
Note : Some OSes (like SCO-UNIX) must use "Normal" for installation ESC : Skip								

The next step is 'save and exit'. If you select this item and press 'Y', then these records will be saved in the CMOS memory on the mainboard. It will be checked every time you turn your computer on.

ROM PCI/ISA BIOS
 CMOS SETUP UTILITY
 AWARD SOFTWARE, INC.

STANDARD CMOS SETUP	INTEGRATED PERIPHERALS
BIOS FEATURES SETUP	SUPERVISOR PASSWORD
CHIPSET FEATURES SETUP	USER PASSWORD
POWER MANAGEMENT SETUP	IDE HDD AUTO DETECTION
PNP/PCI CONFIGURATION	SAVE & EXIT SETUP
LOAD BIOS DEFAULTS	EXIT WITHOUT SAVING
LOAD SETUP DEFAULTS	
ESC: Quit	
↑↓→←:Select Item	
F10: Save & Exit Setup	
(Shift) F2 : Change Color	
Time, Date, Hard Disk Type	

ROM PCI/ISA BIOS
 STANDARD CMOS SETUP
 AWARD SOFTWARE, INC.

STANDARD CMOS SETUP	INTEGRATED PERIPHERALS
BIOS FEATURES SETUP	PASSWORD SETTING
CHIPSET FEATURES SETUP	IDE HDD AUTO DETECTION
POWER MANAGEMENT SETUP	SAVE & EXIT SETUP
PNP/PCI CONFIGURATION	EXIT WITHOUT SAVING
LOAD BIOS DEFAULTS	SAVE to CMOS and EXIT (Y/N):Y
ESC: Quit	
↑↓→←:Select Item	
F10: Save & Exit Setup	
(Shift) F2 : Change Color	
Save Data to CMOS & Exit SETUP	

LOAD BIOS DEFAULTS When your mainboard has problems and needs to trouble shoot the system, you can use this function. The default values loaded only affect the BIOS Features Setup, Chipset Features Setup, Power Management Setup and PNP/PCI Configuration Setup. There is no effect on the Standard CMOS Setup. To use this function, select it from main menu and press <Enter>. A line will appear on the screen asking if you want to load the BIOS default values. Press <Yes> and <Enter> then the BIOS default values will be loaded.

LOAD SETUP DEFAULTS This allows you to load optimal settings which are stored in the BIOS ROM. The default values loaded only affect the BIOS Features Setup, Chipset Features Setup, Power Management Setup and PNP/PCI Configuration Setup. There is no effect on the Standard CMOS Setup. To use this function, select it from main menu and press <Enter>. A line will appear on the screen asking if you want to load the Setup default values. Press <Yes> and <Enter> then the Setup default values will be loaded.

SUPERVISOR PASSWORD / USER PASSWORD This allows you to set the password. The mainboard defaults with password disabled. If you set both supervisor and user passwords, only the supervisor password allows you to enter the BIOS SETUP program.

Enter/Change password : Enter the current password. And at the prompt, key-in your new password (up to eight alphanumeric characters), then press <Enter>. At the next prompt, confirm the new password by typing it again and press <Enter>.

Disable password : Press the <Enter> key instead of entering a new password when the ‘Enter Password’ dialog box appears. A message will appear for confirming that the password is disabled.



CAUTION: If you forgot your password, you must disable the CMOS by turning the power off and setting JP 8 to ‘2-3’, then ‘1-2’ to reload the system.

IDE HDD AUTO DETECTION This allows you to detect the IDE hard disk driver’s parameters and enter them into ‘Standard CMOS Setup’ automatically. If the auto-detected parameters displayed do not match the ones that should be used for your hard drive, do not accept them. Press <N> to reject the values and enter the correct ones manually on the Standard CMOS Setup screen.

SAVE & EXIT SETUP This allows you to save the new setting values in the CMOS memory and continue with the booting process. Select what you want to do, press <Enter>.

EXIT WITHOUT SAVING This allows you to exit the BIOS setup utility without recording any new values or changing old ones.

※ Control Key Description ※

UP ARROW	↑	Move to previous item
DOWN ARROW	↓	Move to next item
LEFT ARROW	←	Move to the item in the left hand
RIGHT ARROW	→	Move to the item in the right hand
Esc KEY	Esc	Main Menu : Quit and not save changes Setup menu : Exit current page and return to main menu
PgUp KEY		Increase the numeric value or make changes
PgDn KEY		Decrease the numeric value or make changes
F1 KEY	Help	General help
F2 KEY	< Shift > +F2	Change color from total 16 colors
F5 KEY	Old Value	Restore the pervious CMOS value from CMOS
F6 KEY	Load BIOS default	Load the default CMOS value from BIOS default table
F7 KEY	Load setup default	Load Setup default
F10 KEY	Save & Exit Setup	Save all the CMOS changes and Exit setup, only for Main Menu