

1. INTRODUCTION

The SIS5600 mainboard is a high-performance mainboard based on the advanced Pentium II Microprocessor and featuring PCI Local Bus and Accelerated Graphics Port feature. The mainboard offers a high degree of flexibility in configuration and is fully IBM PC/AT compatible.

1.1 KEY FEATURES

- Versatile INTEL Processor Support: INTEL 233 or above Pentium® II Processor
INTEL Celeron 266MHz or above
INTEL Celeron A 300MHz or above
INTEL 350,400,450MHz Pentium® II Processor
INTEL 500MHz KATMAI Processor
- SIS5600 B2 AGPset with I/O subsystems and featuring front-Side Bus (FSB) platform", which boasts a 100-MHz internet bus speed
- 1MB or 2MB Flash ROM
- CPU Built-In Level 2 Cache: 512KB or less Pipelined burst Level 2 cache in the Pentium II Single Edge contact cartridge
- Boot from any bootable device – LS120, ZIP, Floppy, IDE, CD-ROM
- On-board SIS I/O chipset (ITE compatible)
- 3V SDRAM support , 168-pin DIMM x 3, PC100 with SPD recommend
- 3x PCI Local Bus Slots, 2 x 16-bits ISA Bus slots, 1 x AGP(Accelerated Graphics Port) slots
- On board Sound (Crystal 4235)
- Award System 4.51 BIOS, with DMI support, Plug and Play BIOS
- 1x Floppy Controller + 2 Serial Port + 1 Parallel Port , Meet EPP/ECP parallel port spec.
- 16550A compatible, high speed UART, IrDA IR function
- ATX Form card support
- PS2 Mouse and Keyboard connector
- 2 channel Universal Serial Bus interface
- Onboard PCI Bus Master IDE interface supports 4 IDE device with 2 channel
- Supports Ultra DMA/33 and Bus-Master IDE DMA Mode 2
- Use Synchronous Switching Regulator, High efficient synchronous switching regulator , Full TTL DAC Control
- Size 250mm x 220mm

1.2 CHECKLIST

- ◆ SIS5600 Mainboard x 1
- ◆ User's Guide x 1
- ◆ MMCD 7.0 Ver 1.3 or later x 1
- ◆ Cable Pack included (IDE x 1, FDD x 1, Com1 & Com2 x 1, LPT1 x 1 , Audio connetcor card x 1 ,ATX From card x 1)

1.3 STATIC ELECTRICITY PRECAUTIONS

Static electricity can easily damage your SIS5600 mainboard. Following procedures can help you to protect your mainboard from electrostatic discharge :

- Keep the mainboard and other system components in their anti-static packaging until you are ready to install them.
- Ground yourself before removing any system component from its protective anti-static packaging. A grounded surface within easy reach is the expansion slot covers at the rear of the system case or any other unpainted portion of the system chassis.
- Frequently ground yourself to discharge any static electric charge that may build up in your body while working on installation and/or configuration.
- Handle the mainboard by its edges or by the mounting bracket to avoid touching its components.

The SIS5600 mainboard is easily damaged by static electricity. Follow the precautions below while unpacking or installing the mainboard.

1. Before handling the mainboard, ground yourself by grasping an unpainted portion of the system's metal chassis.
2. Remove the mainboard from its anti-static packaging and place it on a grounded surface, component side up.
3. Check the mainboard for damage. If any integrated circuit appears loose, press carefully to seat it firmly in its socket.

The mainboard comes with Slot 1 socket for the Pentium II CPU. Follow these steps to install Pentium II CPU.

Step 1

Turn the mainboard upside down, and insert the 2 screws from the bottom at the right position.

Step 2

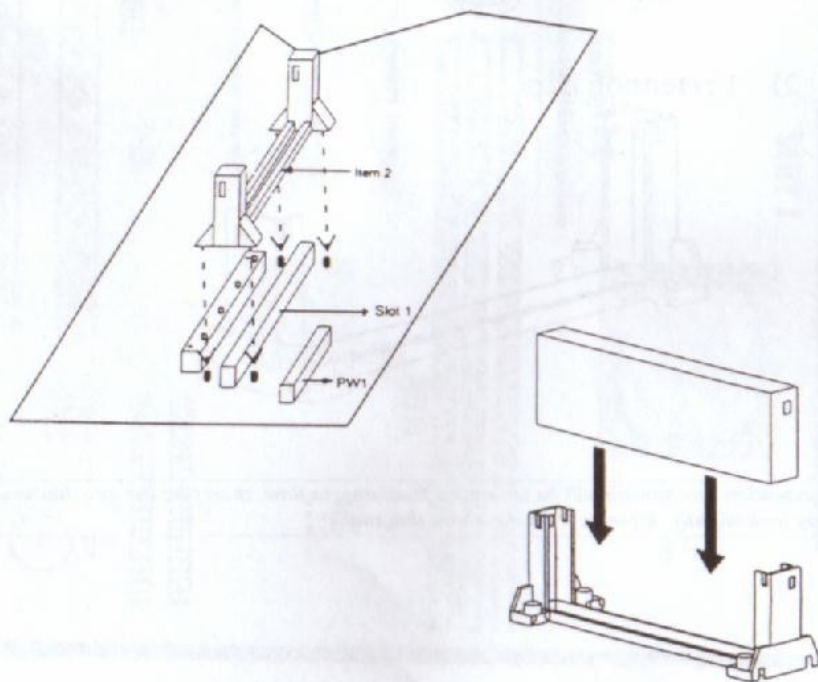
Set the retention clip right on top of the 2 sets of screws which are along the sides of Slot 1. If the retention clip is installed incorrectly, you will not be able to insert the CPU into the retention clip and in this situation you might need to rotate the retention clip by 180 degree.

Step 3

You need to tighten the 4 screws on the retention clip till the neck of the screws cannot be seen from the bottom of the board.

Step 4

To install the CPU, flatten the two latches on the side of the CPU, insert the CPU into the retention clip. Lock the two latches to secure the CPU. Insert the clip portion of the CPU supporter so that the heat sink can sit on top of the whole CPU supporter. Set the necessary jumpers according to the frequency of your Pentium II CPU. Refer to the CPU frequency table.



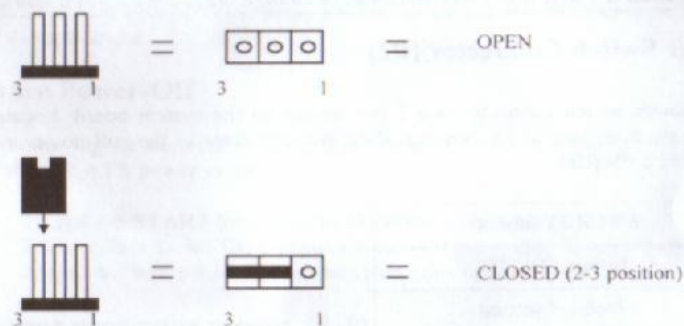
2.3 HOW TO SET JUMPER

Jumper switch is used to select between various operating modes. A jumper switch consists of two or three gold pins, which stretches out from the system board. By using the cap to cover two pins is to short those pins. If the cap is not placed on any pins at all, it indicates to leave the pins open.

To set a jumper switch, please refer to below :

- ◆ to close a jumper, insert the plastic jumper cap over two pins of a jumper
- ◆ to open a jumper, remove the jumper cap

* The following conventions are used to represent the proper jumper settings :



NOTE : When you open a jumper, attach the plastic jumper cap to one of the pins so you won't lose it.

2.4 JUMPERS & CONNECTORS

CPU FAN connector (JP12)

Plug in the fan cable to the 3-pin fan connector onboard. The fan connector is marked CPU FAN and FAN on the system board.

Pin1	Sense
Pin2	+12V
Pin3	GND

Setting the CPU Voltage

This mainboard supports Pentium II VID function, the CPU core voltage is automatically detected, the range is from 1.3V to 3.5V.

Pentium II VID signal provides CPU voltage auto-detection, therefore, no worries on wrong CPU voltage select.

Flash ROM Voltage Selector (JP9)

Pin	Description
1-2	12v (default)
2-3	5v

Note : The factory default is 1-2, it is not recommended to change the factory default setting.

ATX Soft-Power Switch Connector (P2)

The ATX soft-power switch connector is a 2 pin header on the system board. Locate the power switch cable from your ATX housing. Plug this connector to the soft-power switch connector marked P2 PWRBT.

P2	PWERBT function
Post ON	Instant ON/OFF
Post OFF	Delay 4 second

Power Led and Keylock Connector (P4)

Keylock connector enables and disables the keyboard key-in function on the case.

Pin	Description
1	LED Output
2	N.C
3	Ground
4	Keylock
5	Ground

SB-Link connector(JP6) (For 5595B2 ONLY)

SB-Link is a connector used especially with a Creative PCI sound card. The SB-link guides signals from the ISA bus to the PCI sound card through a cable which comes with the PCI sound card. This is necessary because some DOS based games address the ISA bus directly.

ATX power connector pinout (J21)

The ATX power supply provides a single 20-pin connector.

Pin	Description	Pin	Description
1	3.3V	11	3.3V
2	3.3V	12	-12V
3	Ground	13	Ground
4	+5V	14	PS-ON
5	Ground	15	Ground
6	+5V	16	Ground
7	Ground	17	Ground
8	Power OK	18	-5V
9	5VSB	19	+5V
10	+12V	20	+5V

Note: Some ATX-Power does not have -5V voltage output, it will effect some functional of ADD-ON card device.

Software Power-Off

Following the steps below to use the "Software Power-Off control" function in windows 95 with ATX power supply.

- 1.Click the **START** button on the Windows 95 task bar.
- 2.Select Shut Down The computer to turn off the system. It is now safe to turn off your computer." will not be shown when using this function.

AT power connector pinout (J20)

The AT power supply provides a single 12-pin connector.

Pin	Description
1	+5V
2	+5V
3	+5V
4	-5V
5	Ground
6	Ground
7	Ground
8	Ground
9	-12V
10	+12V
11	+5V
12	Power Good

Selecting the CPU Frequency

The possible settings of current CPU available on the market are listed below, and please verify the CPU Frequency table to set the correct CPU Clock+Ratio.

CPU FREQUENCY TABLE					
Frequency	Ratio	Clock	Frequency	Ratio	Clock
233MHz	JP2	JP21	350MHz	JP2	JP21
66x3.5	JP3	JP22	100x3.5	JP3	JP22
	JP4	JP23		JP4	JP23
	JP5			JP5	
266MHz	JP2	JP21	400MHz	JP2	JP21
66x4	JP3	JP22	100x4	JP3	JP22
	JP4	JP23		JP4	JP23
	JP5			JP5	
300MHz	JP2	JP21	450MHz	JP2	JP21
66x4.5	JP3	JP22	100x4.5	JP3	JP22
	JP4	JP23		JP4	JP23
	JP5			JP5	
333MHz	JP2	JP21	500MHz	JP2	JP21
66x5	JP3	JP22	100x5	JP3	JP22
	JP4	JP23		JP4	JP23
	JP5			JP5	
366MHz	JP2	JP21			
66x5.5	JP3	JP22			
	JP4	JP23			
	JP5				

FOR INTERNAL TEST ONLY

JP21, JP22, JP23 – CPU Clock Selectors

CPU Clock Selectors					
60MHz	66MHz	75MHz	83.3MHz	90MHz	100MHz
JP21	JP21	JP21	JP21	JP21	JP21
JP22	JP22	JP22	JP22	JP22	JP22
JP23	JP23	JP23	JP23	JP23	JP23

66/100MHz# Selector (P8)	Setting	Description
	Open	100MHz
	Close	66 / 100MHz

Note: The mainboard chipset supports maximum 100MHz Frequency, the over 100MHz settings are for internal test ONLY, which may cause serious system damage.

Speaker Connector (P6)

Pin	Description
1	Data Out
2	N.C
3	Ground
4	+5V

Hard-Disk Active LED (P5)

Pin	Description
1	Active signal
2	Ground
3	Ground
4	Active signal

Reset Switch Connector (P3)

Attach the Reset push cable to this connector

Setting	Description
Open	Normal Mode
Close	Reset System

CMOS state (JP10)

JP10	CMOS Setting
2-3	Normal operation
1-2	Clear CMOS

Onboard Sound Enable/Disable (JP13)

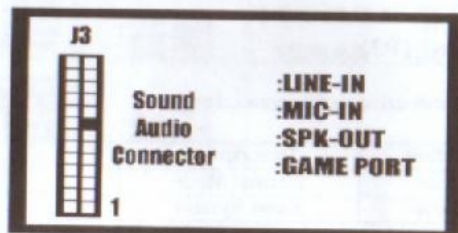
JP13	Description
1-2	Enable
2-3	Disable

On board Connector Description

ATX From Card – J18



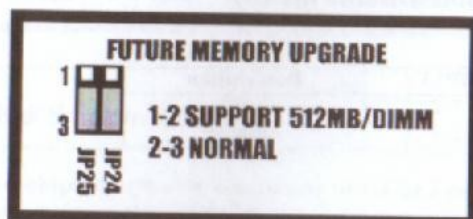
On Board Audio Connector – J3



CD Audio Connector – J2, J1

Connect to "Audio" on the CD-ROM drive, and the signal for Panasonic jack is G-S-G-S and S-G-G-S for Sony.

Future Memory upgrade – JP24, JP25



2.5 MEMORY CONFIGURATION

The DIMM types supported are EDO and SDRAM. This mainboard has three 168 pin DIMM sockets that allow you to install system memory up to 768MB.

"SIS5600 chipset can only use either 3.3V EDO or 3.3V SDRAM, so we cannot mix EDO and SDRAM at the same time."

In 100MHz system, SPD SDRAM and PC100 specification SDRAM is preferred.

DIMM 1	DIMM 2	DIMM 3	DIMM size
4MB/8MB/ 16MB/32MB/64MB /128MB /256MB	NONE	NONE	Size=DIMM 1 SIZE INSTALLED
4MB/8MB/ 16MB/32MB/64MB /128MB /256MB	4MB/8MB/ 16MB/32MB/64M B/128MB /256MB		Size=DIMM 1 + DIMM 2 SIZE INSTALLED
4MB/8MB/ 16MB/32MB/64MB /128MB /256MB	4MB/8MB/ 16MB/32MB/64M B/128MB /256MB	4MB/8MB/ 16MB/32MB/64M B/128MB /256MB	Size=DIMM 1 + DIMM 2 + DIMM 3 SIZE INSTALLED
	4MB/8MB/ 16MB/32MB/64M B/128MB /256MB		Size=DIMM 2 SIZE INSTALLED
	4MB/8MB/ 16MB/32MB/64M B/128MB /256MB	4MB/8MB/ 16MB/32MB/64M B/128MB /256MB	Size=DIMM 2 + DIMM 3 SIZE INSTALLED
		4MB/8MB/ 16MB/32MB/64M B/128MB /256MB	Size=DIMM 3 SIZE INSTALLED
4MB/8MB/ 16MB/32MB/64MB /128MB /256MB		4MB/8MB/ 16MB/32MB/64M B/128MB /256MB	Size=DIMM 1 + DIMM 3 SIZE INSTALLED

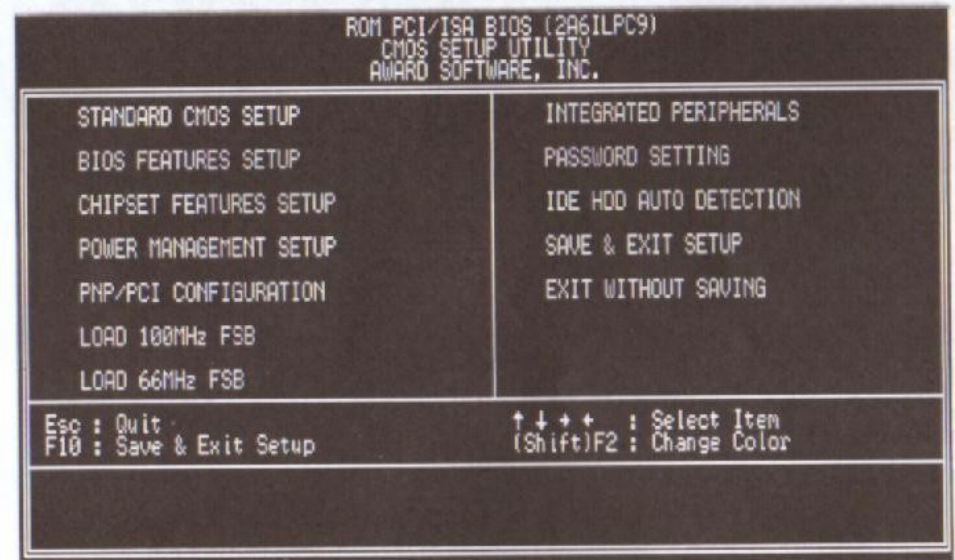
Serial Presence Detect (SPD)

- Specification:
 - SDRAMS: SDRAM SPD specification Rev 1.1 or later
- SPD usage and VIA BX Pro/Pro Plus systems
 - 100MHz Systems:
 - MUST use SPD method to detect/size memory.
 - If BIOS detects non-SPD DIMMS (or SPD data is invalid) in a system, then BIOS should "BEEP" and stop executing POST. --"depends on the factory BIOS setting"
- What happens if non-SPD DIMMS are used in 100MHz system:
 - BIOS cannot verify if the DIMMS used, meet 100MHz requirement.
 - Memory access without programming Buffer strengths FIRST, may return incorrect data and/or damage the memory
 - Incorrect Buffer strength programming for REG. SDRAM.
 - CAS# Latency, RAS#-CAS# delay and RAS# Precharge bits will need to be programmed to lowest performance values
 - BIOS cannot distinguish between 2&4 bank 64MB SDRAMs.

3. AWARD BIOS SETUP

Enter the Award Setup program's Main Menu as follows:

1. Turn on or reboot the system. The following message appears at the bottom of the screen:
"Press to enter setup, ESC to skip memory test"
2. Press the key to enter the Award BIOS setup program and the following screen appears:

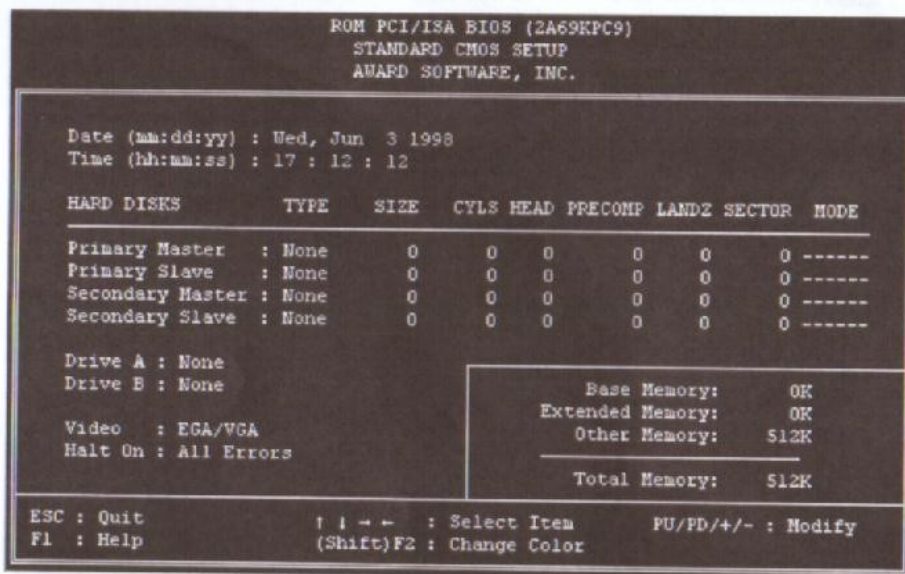


3. Choose an option and press <Enter>. Modify the system parameters to reflect the options installed in the system. (See the following sections for more information.)
4. Press <Esc> at anytime to return to the Main Menu.
5. In the Main Menu, choose "SAVE AND EXIT SETUP" or <F10> to save your changes and reboot the system. Choosing "EXIT WITHOUT SAVING" or <Esc> ignores your changes and exits the program.

3.1 STANDARD CMOS SETUP

Run the Standard CMOS Setup as follows.

1. Choose "STANDARD CMOS SETUP" from the Main Menu and a screen with a list of items appears.



2. Use the arrow keys to move between items and to select values. Modify the selected fields using PgUp/PgDn/+/-keys. Some fields let you enter numeric values directly.

Data (mm/dd/yy) Type the current date
Time (hh:mm:ss) Type the current time

Primary / Secondary master and slave

Choose from the standard hard disk types 1 to 46, or "User" defined. If you choose "User", run the IDE HDD Auto detection function from the Main Menu, or enter the HDD information directly from the keyboard and press <Enter>. If you use Auto mode the BIOS can Auto detect HDD type and do not need to enter any HDD information from the keyboard.

Drive A & B

- Choose 360KB 5 1/4", 1.2MB 5 1/4", 720MB 3 1/2", 1.44MB 3 1/2", Not installed

Video

Choose Monochrome, Color 40x25, VGA/EGA, Color 80x25

Halt On

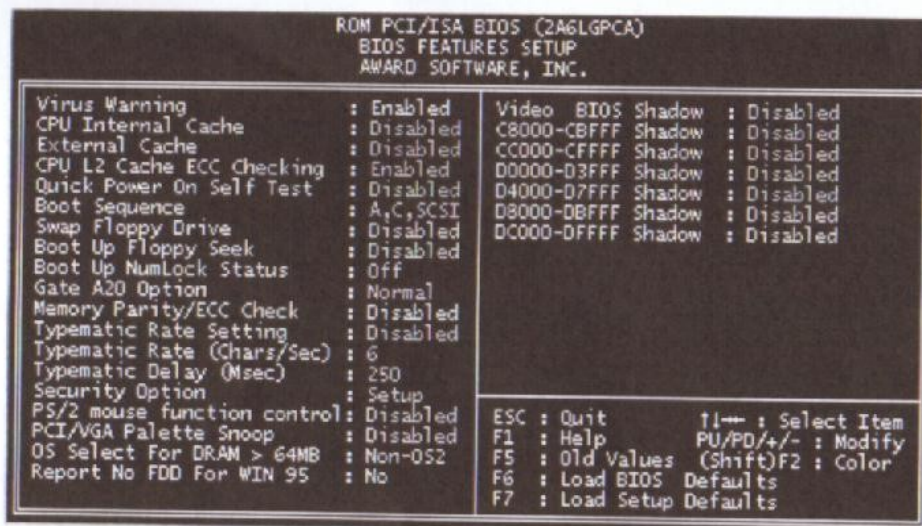
Choose All Errors (Default), No Errors, All, But Keyboard; All, But Diskette; All, But Disk/Key

3. After you have finished with the Standard CMOS Setup program, press the <ESC> key to return to the Main Menu.

3.2 BIOS FEATURES SETUP

Run the BIOS Features Setup as follows.

1. Choose "BIOS FEATURES SETUP" from the Main Menu and a screen with a list of items appears.



2. Use the arrow keys to move between items and to select values. Modify the selected fields using the PgUp/PgDn/+/-Keys. An explanation of <F> keys follows:

- <F1>: "Help" gives options available for each item.
- <F2>: Change color
- <F5>: Get the old values. The user started the current session with these values.
- <F6>: Load all options in the BIOS Features Setup with the BIOS Default values.
- <F7>: Load all options in the BIOS Features Setup with the Setup Default values.

A short description of the screen items follows:

Virus Warning

Choose Enabled or Disabled. Enable this option and a SYSTEM WARNING MESSAGE appears when the system detects a virus.

CPU Internal Cache

Choose Enabled or Disabled. This option lets you enable the CPU's Cache internal cache Choose Enable.

External Cache

Choose Enabled or Disabled. This option lets you enable the external cache memory. For better performance, make sure you always choose "Enabled."

CPU L2 Cache ECC Checking

This function controls the ECC check capability in the CPU level 2 cache.

Quick Power On

Choose Enabled or Disabled. Enabled provides a fast POST and boot-Self Test up speed.

Boot Sequence

This field determines where the system looks first for an operating system. Options are C,A; A,CDROM,C; CDROM,C,A; D,A; E,A; F,A; LS/ZIP, C and A,C

Swap Floppy Drive

Choose Enabled or Disabled. When Enabled Floppy drives A & B are swapped under DOS.

Boot Up Floppy Seek

Choose Enabled or Disabled. "Disabled" provides a fast boot and reduces the possibility of damage to the heads.

Boot Up Num Status

Choose On or Off. On puts numeric keypad in Num Lock mode at Lock Status boot-up. Off puts this keypad in arrow key mode at boot-up.

Boot Up System

Choose High or Low. This option lets you choose system bootup speed. The default is High.

Gate A20 Option

Choose Fast or Normal. This item lets you use the GA20 from the chipset or the keyboard controller.

Memory Parity/ECC Check

No function

Typematic Rate Setting

Choose Enabled or Disabled. Enable this option to adjust the keystroke repeat rate.

Typematic Rate (chars/sec)

Choose the rate a character keeps repeating.

Typematic Delay (Msec.)

Choose how long after you press a key that a character begins repeating.

Security Option

Choose Setup, or System. Use this feature to prevent unauthorized system boot-up or unauthorized use of BIOS Setup.

"System" - Each time the system boots the password prompt appears

"Setup" - Password prompt only appears if you attempt to enter the Setup program.

PS/2 mouse function control

Choose the onboard PS/2 mouse port Enable/Disable

Video BIOS VIDEO shadow

Copies BIOS code from slower ROM to faster RAM. Shadow BIOS can then execute from RAM.

Report No FDD For WIN95

Select "NO" will bypass all FDD access in WIN95 system.

- After you have finished with the BIOS Features Setup program, press the <ESC> key and then follow screen instructions to save or disregard your settings.

3.3 CHIPSET FEATURES SETUP

The "CHIPSET FEATURES SETUP" includes settings for the chipset dependent features. These features are related to system performance.



Caution : Make sure you fully understand the items contained in this menu before you try to change anything. You may change the parameter settings to improve system performance. However, it may cause system unstable if the setting are not correct for your system configuration.

AUTO Configuration- Default "Enable"

RAS Pluse Width Refresh
RAS Precharge Time
RAS to CAS Delay
CPU to PCI Post Write

All value are base on SIS5600 DRAM controller Factory default setting(depending on the memory modules that you are using.)

SDRAM CAS Latency - this bit contains the information for SDRAM during initialization

SDRAM WR Retire Rate - this bit controls the timing that SIS5600 writes data into SDRAM during burst cycles

RAMW# assertion timing - this bit for EDO/FP DRAM only

SDRAM Input Signals-
SDRAM Output signals-

These control bits are used to adjust the internal SDRAM clock used to latch MD(63:0) driven out by SDRAM. The value being programmed will be subject to SDRAM TAC specification

Memory Hole At 15M-16M

-Enabling this feature reserves 15MB to 16MB memory address space to ISA expansion cards that specifically require this setting. This makes the memory from 15MB and up unavailable to the system. Expansion cards can only access memory up to 16MB.

Chipset Features – AGP Aperture Size (MB)

-Memory—mapped, graphics data structures can reside in a Graphics aperture. Leave on 64MB default setting.

Chipset Features – Auto detect DIMM/PCI Clk

- to meet the EMI specification, it will disable all un-detect DIMM CLK.

Chipset Features – Spread Spectrum

- Leave on default setting.

Chipset Features – Concurrent PCI/Host

- Allow PCI masters from both PCI buses active at the same time

3.4 POWER MANAGEMENT SETUP

The Power Management controls the mainboard a "green" features that for the power saving Mode, Display turn off and HDD power down that together form the hardware power conservation scheme.

Run the Power Management Setup as follows:

1. Choose "POWER MANAGEMENT SETUP" from the Main Menu and a screen with a list of items appears.



2. A short description of the screen items follows:

Power Management – Default "User Define"

User Define: allows you to set power saving options according to your preference
Disable: disables the power saving features

Min Saving: puts the system into power saving mode after 40 min of system inactivity

Max Saving: puts the system into power saving mode after 30sec of system inactivity

Video OFF Option - Default "Suspend -> off"

This field determines when to active the video off feature for monitor power management. The settings are ALL Modes -> Off, Always On; Suspend -> Off; and Susp,Stby -> Off.

Video off Method – Default " V/H Sync+Blank"

These options are available: DMPS OFF, DPMS Reduce ON, Blank Screen, V/H SYNC+Blank, DPMS Standby, and DMPS Suspend. The DPMS features allows the BIOS to control the video display card if it supports the DPMS features.

Soft-off by PWRBTN - Default "Instant-off"

When set to Soft Off, the ATX switch can be used as a normal system power -off button when pressed for less than 4 sec. Suspend allows the button to have a dual function where pressing less than 4 sec. Will place the system in sleep mode. Regardless of the setting, holding the ATX switch for more than 4 sec. Will power off the system.

Modem Ring Resume - Default "Disable"

This allows either settings of Enable or Disable for powering up the computer (turns the ATX power supply on) when the modem receives a call while the computer is off.

Power Up by Alarm - Default "Disable"

This allows the computer automatic Power On at a certain time of the day by selecting Everyday, which will allow you to set the time or at a certain time and day by selecting by Date

KB Power ON PASSWORD -Default "Disable"

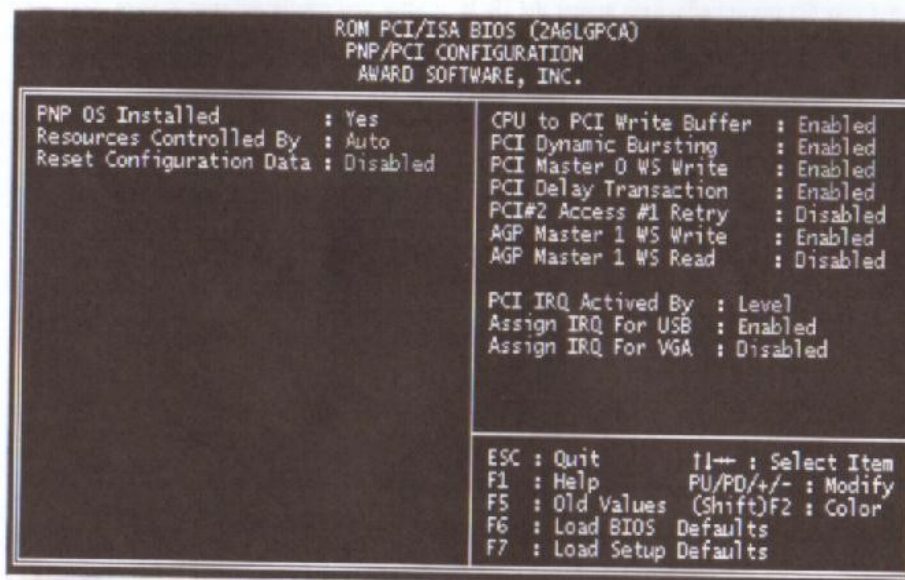
Keyboard Power on feature, the user may set up a Traditional password for Keyboard power up functions, and this is for ATX power supply only.

3.5 PNP/PCI SLOT CONFIGURATION

The "PNP/PCI SLOT CONFIGURATION" sets the system for use with PCI bus cards.

Run the PNP/PCI Slot Configuration program as follows.

1. Choose "PCI SLOT CONFIGURATION" from the Main Menu and a screen with a list of items appears.
2. Use the arrow keys to move between items and to select values. Modify the selected fields using the PgUp/PgDn/+/-keys. <F> keys are explained below:



- <F1>: "Help" gives options available for each item.
- <F2>: Change color
- <F5>: Get the old values. The user started the current session with these values.
- <F6>: Load all options in the BIOS Features Setup with the BIOS Default values.
- <F7>: Load all options in the BIOS Features Setup with the Setup Default values.

1. After you have finished with the PCI Slot Configuration program, press the <ESC> key and then follow screen instructions to save or disregard your settings.

PNP OS Installed (YES)

-This field allows you to use a Plug-and-Play (PnP) operating system to configure the PCI bus slots instead of using the BIOS. Thus interrupts may be reassigned by the OS when YES is selected. When a non-PnP OS is installed or to prevent reassigning of interrupt settings, select the default setting as "YES".

Resources Controlled By (Manual/Auto)

-setting this option to manual allows you to individually assign the IRQs and DMAs to the ISA and PCI devices. Set this to AUTO to enable the auto configuration function.

Reset configuration Data

-In case conflict occurs after you assign the IRQs or after you configure your system, you can enable this function, allow your system to automatically reset your configuration and reassign the IRQs.

Factory Setting:

- CPU to PCI Write Buffer - Default "Enable"
- PCI Dynamic Bursting - Default "Enable"
- PCI Master 0 WS Write - Default "Enable"
- PCI Delay Transaction - Default "Enable"
- PCI#2 Access #1 Retry - Default "Disable"
- AGP Master 1 WS Write - Enable
- AGP Master 1WS Read - Disable

PCI IRQ Activated By - Level

Assign IRQ For USB : Default " Enable" , the chipset USB controller require a IRQ to access all USB device

Assign IRQ For VGA : Default "Disable" , if the VGA card does not required a IRQ , it will free a limited IRQ for other device.

3.6 LOAD 100MHz FSB

This Main Menu item loads the best system values. These settings are recommended for all **100MHz FSB CPU**. If the CMOS is corrupted when enter BIOS setup utility you must load setup default again. Choose this item and the following message appears:

```
PNP/PCI CONFIGURATION
LOAD 100MHz FSB
LOAD 66MHz FSB
```

To use the Setup defaults, change the prompt to "Y" and press <Enter>.

3.6a LOAD 66MHz FSB

This Main Menu item loads the best system values. These settings are recommended for all **66MHz FSB CPU**. If the CMOS is corrupted when enter BIOS setup utility you must load setup default again. Choose this item and the following message appears:

```
PNP/PCI CONFIGURATION
LOAD 100MHz FSB
LOAD 66MHz FSB
```

To use the Setup defaults, change the prompt to "Y" and press <Enter>.

3.7 INTEGRATED PERIPHERALS SETUP

The "INTEGRATED PERIPHERALS" is used to control the values of the I/O chipset registers. These registers control the mode of HDD type and I/O address port.

Run the Integrated Peripherals as follows:

1. Choose "INTEGRATED PERIPHERALS" from the Main Menu and a screen with a list

```

ROM PCI/ISA BIOS (2A6/LPC9)
INTEGRATED PERIPHERALS
AWARD SOFTWARE, INC.

Internal PCI/IDE : Both
IDE Primary Master PIO : Auto
IDE Primary Slave PIO : Auto
IDE Secondary Master PIO: Auto
IDE Secondary Slave PIO: Auto
Primary Master UltraDMA: Auto
Primary Slave UltraDMA: Auto
Secondary Master UltraDMA: Auto
Secondary Slave UltraDMA: Auto
IDE Burst Mode : Enabled
IDE HDD Block Mode : Enabled

Onboard FDC Controller : Enabled
Onboard Serial Port 1 : 3F8/IRQ4
Onboard Serial Port 2 : 2F8/IRQ3
IR Address Select : Disable

Onboard Parallel Port : 378/IRQ7
Parallel Port Mode : SPP

PS/2 mouse function : Enabled
USB Controller : Enabled
USB Keyboard Support : Disabled
Init Display First : PCI Slot
Current System Temp. :
Current CPUFAN1 Speed :
Current CPUFAN2 Speed :
IN0(U) : IN1(U) :
IN2(U) : IN3(U) :
    
```

IDE Hard Disk Drive Mode Setting

The BIOS support two kind of methods to set up your IDE Hard Disk Drive Mode. One is auto, the other is manual mode.

In auto mode BIOS can auto detect HDD's mode, but in some old type HDD that can't meet ATA specification, the BIOS will detect wrong Mode and cause system boot fail. You must change auto mode to manual mode and try a proper mode that can meet your HDD specification. There are five modes defined in manual mode. They are mode 0,1,2,3,4. The default setting for on board timing is auto mode that it will provide optimum performance for your HDD.

IDE HDD Block Mode

Choose Enabled or Disabled. If your IDE HDD supports BLOCK MODE, then you can enable this function to speed up the HDD Access time. If not, please disable this function to avoid an HDD Access Error.

Onboard PCI IDE Controller

The on Chip PCI IDE controller is default "Enable" setting, if you disable On-Chip primary and secondary PCI IDE, it will disable the on board IDE controller. Make sure you do this if you want to use an IDE controller other than on the mainboard IDE controller.

Onboard FDD Controller

The default setting for the "Onboard FDC Controller" is "Enabled". This setting allows you to connect your floppy disk drives to the onboard "Floppy" connector. Choose the "Disabled" setting if you want to use a separate controller card.

Serial Port

The "Onboard Serial Port 1" and "Onboard serial Port 2" lines control the assignments for the mainboard's two onboard serial connectors. They can be assigned as COM1, COM2, COM3, COM4 for serial Port 1 and serial Port 2, or disable.

Parallel Port

The options for "Onboard Parallel Port" is 378H. This item controls the on-board parallel port connector, if you are using an I/O card with a parallel port, make sure the address don't conflict.

Parallel Port Mode

The options for "Onboard LPT Port Mode" is default SPP mode, you can select EPP, ECP, and SPP Mode just change setting, if you have a parallel interface peripheral device, use one of the parallel port enhancements and set this line for the enhanced mode that your peripheral supports.

ECP Mode Use DMA

The option for "ECP Mode use DMA" is default DMA3 if your system has ECP preheat device, when you are using some I/O card, make sure the DMA channel don't conflict. When you have done with this section, press the <ESC> key to go back to the main screen.

APPENDIX I

1. Drivers overview

To make use of the advance features of SIS5600 mainboard, extended patch/driver are required. The following application are currently supported:

1. Microsoft Windows 95/98
2. Microsoft Windows NT4.0

All Patch/Drivers are put on the Cdrom driver or diskette. The structure of the Cdrom driver/Diskette are as follows:

MMCD 7.0\SISMB\setup.exe ---- AGP miniport driver for WIN95/WIN98

for the diskette version, Pls follow the diskette label to install the patch/driver.

Quick Installation - Bus Master / PIO IDE Drivers / Ultra DMA Driver

- ◊ This board offers two E-IDE (Enhanced IDE) connectors, each of which can take two devices. Please set the primary channel for E-IDE hard disks and set the secondary channel for slow throughput ATAPI compliant peripherals (such as ATAPI CD-ROM).
- ◊ If you are installing a secondary E-IDE drive, you may have difficult getting the two drives to work together since some brands of E-IDE drivers won't work on the same bus as another brand. You will have to designate one drivers as master and another as slave.

Windows 95/98 SYSTEM INFO. update Installation (Driver diskette /CDrom driver bundled)

The installation procedures described here were based on the Windows 95 Final Beta Release version and WIN98 Full/OEM version.

SISMB - SIS AGP miniport driver for WIN95/WIN98

This driver should be installed on a system with the sis5600 chipset.

The SIS5600 Driver is only supported by Windows 95 OSR 2.1 (4.00.950 B) or later version.

For **Windows 95** users, you will need to

1. Get "USBSUPP.EXE" from Microsoft, which includes the USB supplement and a new memory manager (VMM32.VxD) needed for the AGP DIME (Direct Memory Execute) feature.
2. Get DirectX 5.0 from Microsoft. DirectX 5.0 is the first DirectX version that supports AGP's DIME.
2. Run program "SETUP.EXE" in the SIS5600 driver floppy/Cdrom driver. It will automatically install the driver.

Windows 98

Before install Win98.

1. Enable "OnChip USB" in BIOS Chipset Features setup menu.
2. Enable "Assign IRQ for USB" in PNP/PCP Configuration Setup menu.

After Installing Win98

1. run "setup" to install SIS 5600 AGP Miniport Driver. (MMCD 7.0\SISMB\setup.exe)

PCI card (or PCI Universal serial devices):

If you are WIN95 OSR 2.0 user (it shows "?PCI Universal serial Devices"), you may obtain USBSUPP.exe from microsoft or our AGP product driver for installing Microsoft USB supplement which create "USB Supplement to OSR2" in the list of ADD/Remove program tool under Control Panel. After USBSUPP.exe update, run WIN95 SYSINFO update (driver diskette) setup.exe again.

You can see that it displays "SIS Power Management Controller" and "SIS PCI to USB Universal Host Controller".

NOTE: If user want to upgrade Windows 95 to Windows 95 OSR 2.1 (4.00.950 B), it's necessary to remove USB from other device.

APPENDIX II

On Board I/O Address & IRQ Maps

System Resource	IRQ	I/O Address
Timer	IRQ0	040-043
Keyboard	IRQ1	060-064
Programable INT Controller	IRQ2	0020-0021 00A0-00A1
COM2 (B)	IRQ3	2F8-2FF
COM1 (A)	IRQ4	3F8-3FF
Floppy	IRQ6	3F0-3F7
LPT1	IRQ7	378-37F
Real Time Clock	IRQ8	070-071
PS/2 Mouse	IRQ12	
Math Coprocessor	IRQ13	0F0-0FF
IDE 1	IRQ14	1F0-1F7
IDE 2	IRQ15	170-177

Note : IRQ 5,9,10 and 11 will be available for other interface card.

****** ATTENTION ******

UK Customers only !!!
For Technical Support on this product call
PCS Helpline
Tel: 0891 - 35 44 00
Calls Charged at premium rate 50p per min.