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Item Checklist

Please check that your package is complete. If you discover damaged or missing items, please contact your retailer.

Motherboard x 1

- 40-pin IDE Connector Flat Cable x 1
- 34-pin Floppy Disk Drive Flat Cable x 1
- User Manual x 1; CD x 1
- COM 2 Connector Flat Cable x 1

Option : Components will be include upon customer ordering instructions per Proforma Invoice & additional external procurement cost will be included.

1. *Specification*

Microprocessor

- fç* Supports for a single Pentium II and Pentium III or Celeron processor
- fç* Optional CPU card to support PPGA Celeron
- fç* Supports 66/75/83/100 MHz host bus clock, selectable by jumpers
- fç* Slot 1 connector

Cache and System Memory

- fç* 0K/128K/512KB cache, built in Pentium II and Pentium III or Celeron processor
- fç* 3 x 168 pin dual in line memory module (DIMM) sockets
- fç* Support up to 768 MB of synchronous DRAM (SDRAM)

Chipset (SiS 620/5595 PCI AGP/VGA chip set)

***fç* SiS 620 PCI/AGP VGA controller**

- Integrated AGP VGA for hardware 2D/3D video/graphics accelerators
- Integrated PCI bus mastering controller
- Integrated DRAM controller

***fç* SiS 5595 PCI system I/O controller**

- Multifunction PCI-to-ISA bridge
- Universal Serial Bus (USB) and DMA controllers
- Two fast IDE interfaces that support up to four IDE drives or devices
- Power management logic
- Real-time clock

Video/Graphics Subsystems

- fç* Integrated high performance & high quality AGP 2D/3D accelerator
- fç* Programmable 2MB, 4MB, and 8MB shared frame buffer
- fç* Optional 4MB or 8MB local frame buffer (manufacturing option)
- fç* 24 bit true color RAMDAC up to 230MHz pixel clock, supports 1024*768 8/16/32 bpp @85Hz NI
- fç* DVD hardware accelerator

Audio Subsystems

- fç* ESS solo1 PCI 3D single chip audio controller
- fç* Mic-in, Line-in, Line-out, MIDI/Game port

I/O Features

- fç* 1 x FDD Port support up to 2.88MB
- fç* 1 x Parallel Port (LPT) support ECP/EPP
- fç* 2 x High Speed Serial (16C550 UART) Ports
- fç* 2 x IDE Ports support Ultra DMA/33
- fç* 2 x Universal Serial Bus (USB) Ports
- fç* 1 x PS/2 Keyboard Port
- fç* 1 x PS/2 Mouse Port
- fç* 1 x IrDA Front Port
- fç* 1 x VGA port

Expansion Slots

- fç* 2 x 16-bit ISA Slots
- fç* 3 x 32-bit PCI Slots

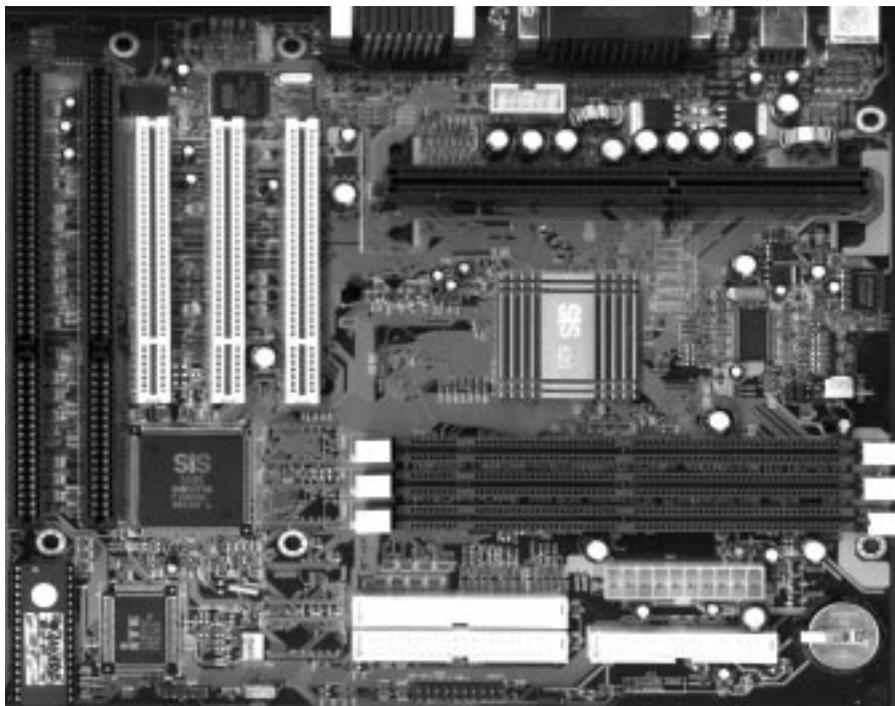
Other Features

- fç* Award BIOS (2Mb flashable)
- fç* Plug and Play compatible
- fç* Advanced Power Management (APM) 1.2 support
- fç* Advanced Configuration and Power Interface (ACPI) 1.0 support
- fç* Hardware monitoring (voltage and temperature)
- fç* Wake on LAN, Wake on Ring, Keyboard power on, RTC wake up

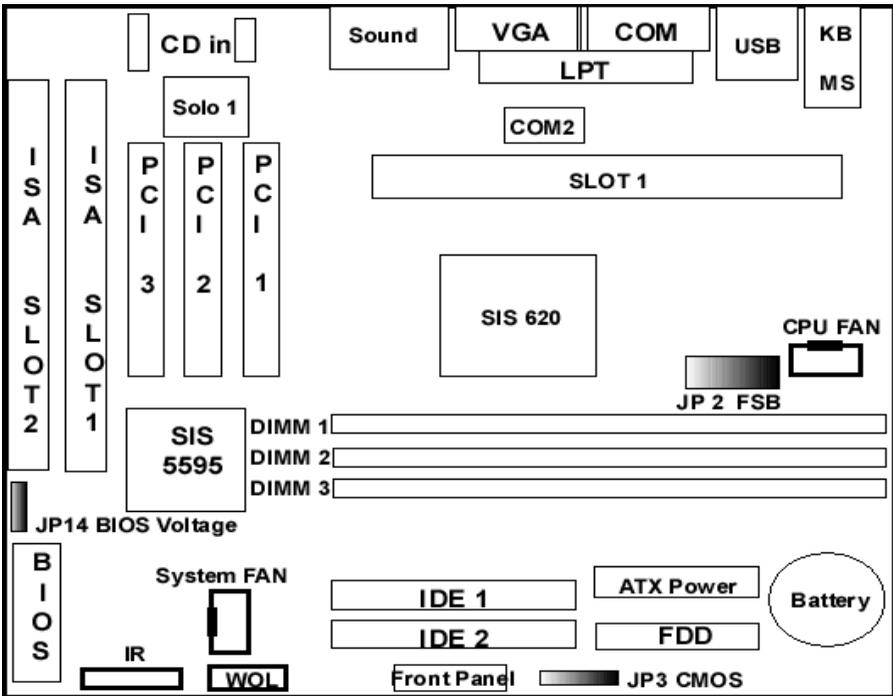
Form Factor

Micro ATX, 244mmX215mm

2. *Parts Of The Mother Board*



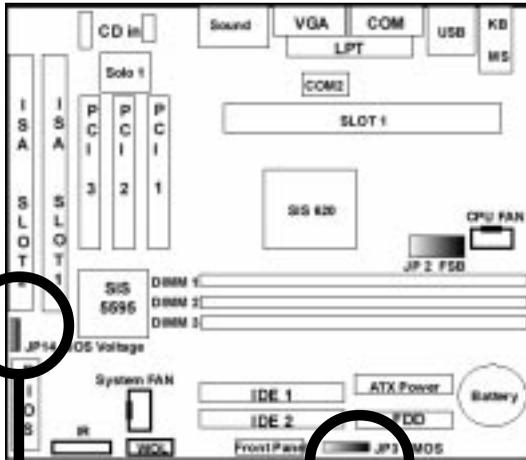
3. MotherBoard Layout Quick View



Jumper:

1. JP2: CPU Front Side Bus setting (From 66 MHZ to 100 MHZ)
2. JP3: CMOS Clear (Set the BIOS Data to Factory default)
3. JP14: BIOS Vlotage Setting (5V or 12V)

4-1 Jumper Overview



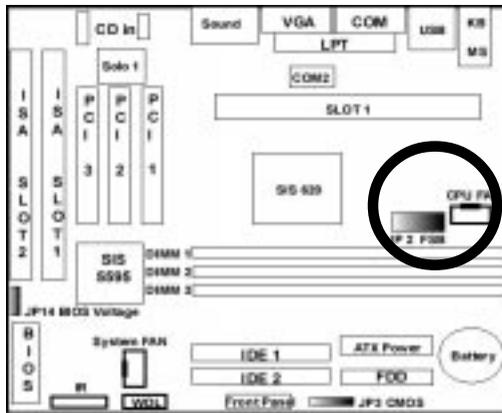
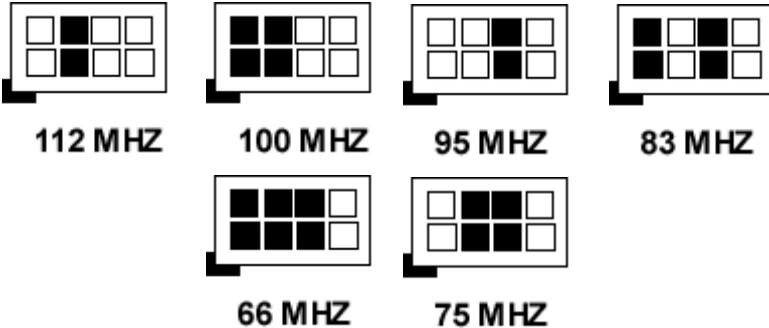
BIOS ROM Voltage

1-2: 12V
2-3: 5V

CMOS Clear

1-2 : CMOS Clear
2-3 : Normal

Major Clock Setting

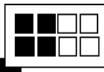
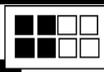
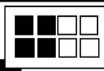
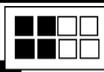
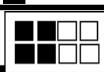


Reference Table

1 - 2	3 - 4	5 - 6	7 - 8	CPU FSB	SDRAM
ON	ON	ON	ON	90 MHz	90 MHz
ON	ON	ON	OFF	66 MHz	66 MHz
OFF	ON	ON	OFF	75 MHz	75 MHz
OFF	ON	ON	ON	83 MHz	55 MHz
ON	OFF	ON	OFF	83 MHz	83 MHz
ON	OFF	ON	ON	95 MHz	63 MHz
OFF	OFF	ON	OFF	95 MHz	95 MHz
ON	ON	OFF	OFF	100 MHz	100 MHz
OFF	ON	OFF	ON	112 MHz	75 MHz
OFF	ON	OFF	OFF	112 MHz	112 MHz

4-2 CPU Setting

1. Most current Intel Pentium II, Pentium III or Celeron CPU will fix the CPU Clock Ratio, User just need to decide the CPU Front Side Bus for the CPU. The Mother Board provide the Clock from 66MHZ to 112 MHZ for user to setup. (Please refer to the Page 7 or the following sample.)
2. User also can define the CPU Clock Ratio in the BIOS setup utility for the CPU which did not fix the Clock Ratio.
3. If user fail to power up the system (No Display), please Clear the CMOS then boot up again or Press [Insert] key to power up the system. If still fail, please check the Memory is contact well or not and also well adjust the CPU Front Side Bus for the related CPU.

CPU	Front Side Bus (JP 2)	Clock Ratio (BIOS)
Pentium II / III 350 MHZ	 100 MHZ	3.5 X
400 MHZ	 100 MHZ	4 X
450 MHZ	 100 MHZ	4.5 X
500 MHZ	 100 MHZ	5 X
Celeron 300A	 66 MHZ	4.5 X
Celeron 300A (Over Clock) Run 450 MHZ	 100 MHZ	4.5 X

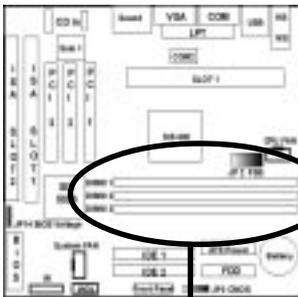
If user fail to Over Clock the CPU, please set back the Front Side Bus and the CPU Clock Ratio back to normal. (Load the Factory Default by Clear the CMOS or Press [Insert] key to boot up, then re-setting again)

4-3 Install System Memory Modules

Must Install DIMM Module from DIMM Slot 1

This motherboard support 3 slots for 168-pin 3.3V Non-buffered DIMM modules, providing support for up to 768 MB of main memory using DIMM modules from 8MB to 256MB. For 66MHz host bus CPUs, please use 10ns or faster DIMM modules. For 100MHz host bus CPUs, please use 8ns or faster DIMM modules. The following is the example to install the system SDRAM memory module combination: if you have two DIMM Modules, you has better install them into DIMM Slot 1 & Slot 2 with the Max possible memory size up to 256MB (128 + 128) if the 128MB DIMM module is available.

Numbers of the Memory Module	DIMM1	DIMM2	DIMM3	Memory Size	Max. Size
1	1st			8~256MB	256 MB
2	1st	2nd		8~256 MB	512 MB
3	1st	2nd	3rd	8~256 MB	768 MB



- 1
- 2
- 3

The DIMM types supported SDRAM (Synchronous DRAM). The following is the summary:

Single side:

1Mx64 (8MB), 2Mx64 (16MB), 4Mx64 (32MB), 8Mx64 (64MB), 16Mx64 (128MB)

Double side:

1Mx64x2 (16MB), 2Mx64x2 (32MB), 4Mx64x2 (64MB), 8Mx64x2 (128MB).

Total Memory Size:

There is no jumper setting required for the memory size or type. It is automatically detected by the system BIOS, and the total memory size is to add them together.

Please Install the DIMM Module from DIMM Slot 1

4-4 External Connction

1. Unplug your power supply when adding or removing expansion cards or other system components. Failure to do so may cause severe damage to both your motherboard and expansion cards.

2. Ribbon cables should always be connected with the red stripe on the Pin 1 side of the connector. The Four Corners of the connectors are labeled on the motherboard. Pin 1 is the side closest to the power connector on hard drives and floppy drives. IDE ribbon cable must be less than 18in. (46cm), with the second drive connector no more than 6in. (15cm) from the first connector.

3. The motherboard requires a power supply and a power good signal. Make the ATX power supply can take at least 10mAmp load on the 5V Standby lead (5VSB) to meet the standard ATX specification.

4. To prevent electrical spikes, make sure that the power supply is not connected to an outlet when making or removing connections. Power supplies contain power remains, which can damage electrical components.

5. Expansion Card Installation Procedure

! Read the documentation for your expansion card and make any necessary hardware or software settings for your expansion card, such as jumpers.

! Remove your computer system's cover and the bracket plate on the slot you intend to use. Keep the bracket for possible future use.

! Carefully align the card's connectors and press firmly.

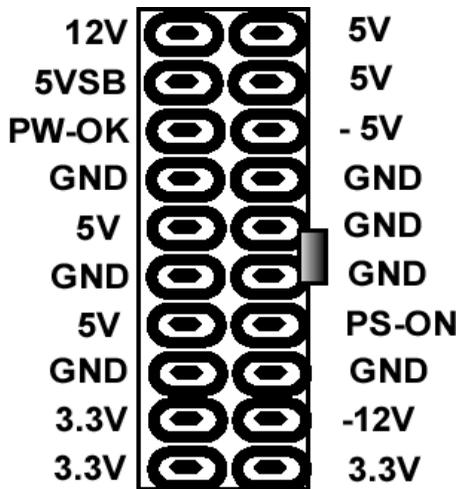
! Secure the card on the slot with the screw you removed above.

! Replace the computer system's cover.

! Set up the BIOS if necessary (such as IRQ xx Used By ISA: Yes in PNP AND PCI SETUP)

4-5 ATX Power Supply Connector

Plug the connector from the power directly into the 20-pin male ATX PW connector on the motherboard as shown in the following figure. The plug from the power supply will only insert in one orientation because of the different hole sizes. Find the proper orientation and push down firmly making sure that the pins are aligned and the power supply is off before connecting or disconnecting the power cable.

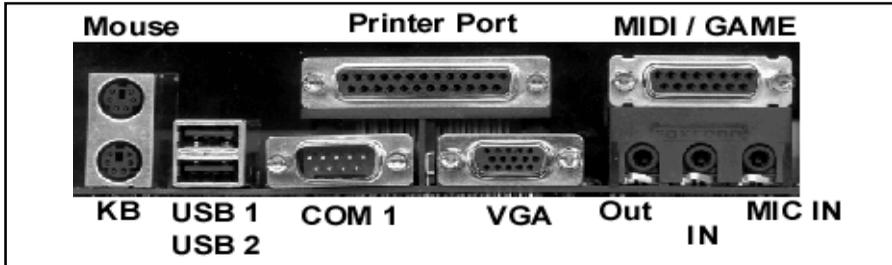


ATX Power Connector

Make sure that your ATX power supply can supply at least 10 mAmp on the 5-volt standby lead (5VSTB). You may experience difficulty in powering on your system if your power supply cannot support the load. For Wake on LAN support, your ATX power supply must supply at least 1 Amp.

You should plug in/out the Power Cable to/from the Mother Board more carefully, all the Pins should be connect at the same time.

4-6 KB, Mouse, USB, COM, VGA and LPT



PS/2 Keyboard Connector

The onboard PS/2 keyboard connector. The view angle of drawing shown here is from back panel of the housing.

	Pin	Description	Pin	Description
	1	Keyboard Clock	2	GND
	3	Keyboard Data	4	N.C.
	5	+5VDC	6	N.C.

PS/2 Mouse Connector

The onboard PS/2 mouse connector. The view angle of drawing shown here is from back panel of the housing.

	Pin	Description	Pin	Description
	1	Mouse Clock	2	GND
	3	Mouse Data	4	N.C
	5	+5VDC	6	N.C

USB (Universal Serial Bus Connector)

You can attach USB devices to the USB connector. The Mother board contains two USB connectors, which are marked as USB. USB is a new serial bus design that is capable of cascading low-/medium-speed peripherals (less than 12Mbps) such as keyboard, mouse, joystick, scanner, printer and modem/ISDN. With USB, complex cable connections at the back panel of your PC can be eliminated.

Pin	Description	Pin	Description
1	+5 VDC	5	+5VDC
2	DATA -	6	DATA-
3	DATA +	7	DATA+
4	Ground	8	Ground

Serial Devices (COM1/COM2)

The onboard serial connectors are 9-pin D-type connector on the back Panel of mainboard. The serial port 1 connector is marked as COM1 and the serial port 2 connector is marked as COM2.

Printer Port (LPT)

The onboard printer connector is a 25-pin D-type connector marked PRINTER. The view angle of drawing shown here is from back panel of the housing.

Line In

For the External Audio signal Input

Mic In

Connect to Microphone

Line Out (Speaker Out)

Connect to Speaker

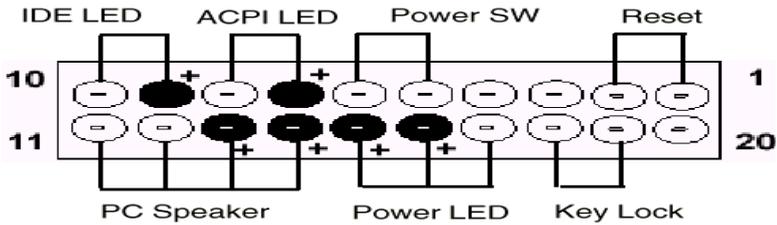
VGA Port

Connect to Monitor

MIDI / GAME Port

Connect to MIDI device or Game Pad or joystick

4-7 Front Panel Connection



1). IDE Activity LED (Pin 9,10)

This connector connects to the IDE (hard disk) activity indicator light on the system cabinet.

2). System Power LED (Pin 15,16,17)

This 3-pin connector lights the system power LED when the motherboard has power.

3). ACPI LED (Pin 7,8)

ACPI LED can be used to control the blinking of a LED at the frequency of 1 HZ to indicate the system is at power saving mode.

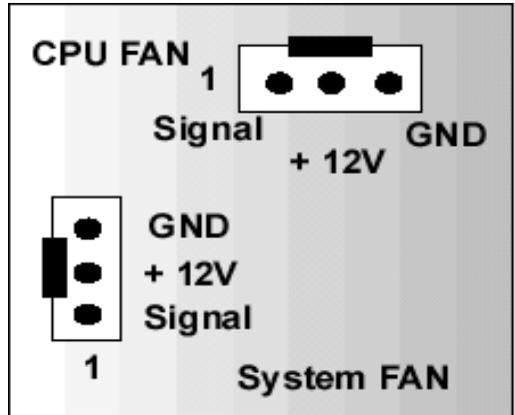
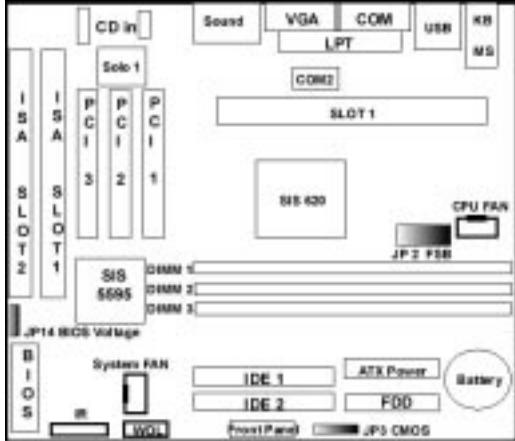
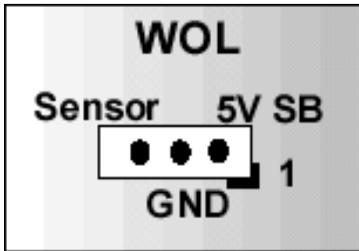
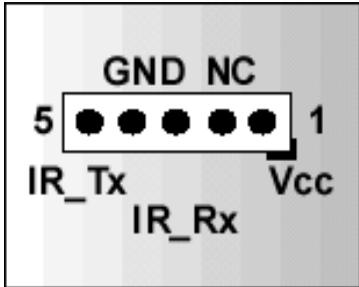
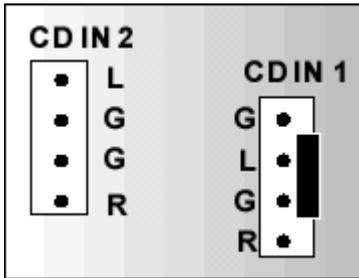
4). ATX Power Switch (Pin 5,6)

The system power is controlled by a push-switch, connected to this lead. Pushing the button once will turn on the power and pushing again will turn off the power. The system power LED shows that status of the system's power. If the power to the ATX power supply is interrupted while the motherboard is on, standby power will remember that the motherboard should be on and boot the computer when power is reapplied to the ATX power supply.

5). Reset Switch (Pin 1,2)

This 2-pin connector connects to the case-mounted reset switch for rebooting your computer without having to turn off your power switch. This is a preferred method of rebooting in order to prolong the life of the system's power supply.

4-8 FAN, IR, WOL, CD IN Connector



A. CPU & System Cooling FAN Connector:

This connectors support a CPU cooling fan of 500 mA (6WATT, +12V) or less. Orient the fan so that the heat sink fins allow airflow to go across the onboard heat sink(s). Depending on the fan manufacturer, the wiring and plug may be different. The red wire should be positive (+12V), while the black should be ground. Connect the fan plug to the board taking into consideration the polarity of the connector.

B. IrDA Compliant Infrared Module Connector

This connector support the optional wireless transmitting and receiving infrared module. This module mounts to a small opening on system cases that support this feature. You must also configure UART 2. Use Infrared in Chipset Features Setup to select whether UART 2 is directed for use with COM2 or IrDA. When IrDA is selected in BIOS, COM2 will be disabled. Use the five pins as shown and connect a ribbon cable from the module to the motherboard to the pin definitions.

Pin 1	Vcc
Pin 2	NC
Pin 3	IR_RX
Pin 4	GND
Pin 5	IR_TX

C. Wake-On-LAN (WOL)

Attach the 3-pin connector from the LAN card which supports the Wake-On-LAN (WOL) function to the WOL connector on the motherboard.

This WOL function lets users wake up the connected computer through the LAN card. Please install according to the following pin assignment by the Page 15.

D. CD IN Connector

Provided 2 CD Audio Input Connectors that depending on the Cable user have, which connect from CDROM to this Connector

4-9 Power On Procedure

1. After all connections are made, close the system case cover.
2. Be sure that all switches are off (in some systems, marked with 0)
3. Make sure your power supply voltage is correctly set to 110V or 230V.
4. Connect the power supply cord into the power supply on the back
5. Connect the power cord into a power outlet
6. You may then turn on your devices in the following order:

Your monitor

External SCSI devices (starting with the last device on the chain)

Your system power. (press the ATX power switch on the front of the case.)

7. The power LED on the front panel of the system case will light. For ATX power supplies, the system LED will light when the ATX power switch is pressed. The monitor LED may light up after the system power up. If it complies with green standards or if it has a power standby feature. The system will then run power-on tests. While the tests are running, additional messages will appear on the screen. If you do not see anything within 30 seconds from the time you turn on the power, the system may have failed a power-on test. Recheck your jumper settings and connections or call your retailer for assistance.

8. During power-on, hold down <Delete> to enter BIOS setup menu if you want to run the BIOS Setup Utility.

Powering Off your computer: You must first exit or shut down your operating system before switching off the power switch. For ATX power supplies, you can press the ATX power switch after exiting or shutting down your operating system. If you use Windows 95/98, click the Start button, click Shut Down, and then click Shut down the computer. The system will give three quick beeps after about 30 seconds and then power off after Windows shuts down. The message You can now safely turn off your computer will not appear when shutting down with ATX power supplies.

Appendix: BIOS SETUP TIPS

The document comes from the Award BIOS Manual, for reference only.

ROM PCI/ISA BIOS (2A6INECB) BIOS FEATURES SETUP AWARD SOFTWARE, INC.			
Virus Warning	: Enabled	Video BIOS Shadow	: Disabled
CPU Internal Cache	: Disabled	C0000-C0FFF Shadow	: Disabled
External Cache	: Disabled	CC000-CFFFF Shadow	: Disabled
CPU L2 Cache ECC Checking	: Enabled	D0000-D3FFF Shadow	: Disabled
Processor Number Feature	: Enabled	D4000-D7FFF Shadow	: Disabled
Quick Power On Self Test	: Disabled	D8000-DBFFF Shadow	: Disabled
Boot Sequence	: A,C,SCSI	DC000-DFFFF Shadow	: Disabled
Swap Floppy Drive	: Disabled		
Boot Up Floppy Seek	: Disabled		
Boot Up NumLock Status	: OFF		
Memory Parity Check	: Disabled		
Typeomatic Rate Setting	: Disabled		
Typeomatic Rate (Chars/Sec)	: 6		
Typeomatic Delay (Msec)	: 250		
Security Option	: Setup		
PCI/VGA Palette Snoop	: Disabled	ESC : Quit	↑↓ : Select Item
OS Select For DRAM > 64MB	: Non-OS2	F1 : Help	PU/PD/+/- : Modify
Report No FDD For WIN 95	: No	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. Afterwards, if necessary, you will be able to run an anti-virus program to locate and remove the problem before any damage is done.

Enabled Activates automatically when the system boots up causing a warning message to appear when 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.

CPU Internal Cache/External Cache

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

Enabled Enable cache

Disabled Disable cache

Quick Power On Self Test

This category speeds up Power On Self Test (POST) after you power up the computer. If it is set to Enable, BIOS will shorten or skip some check items during POST.

Enabled Enable quick POST

Disabled Normal POST

Boot Sequence

This category determines which drive to search first for the disk operating system (i.e., DOS). Default value is A,C.

C,A First search for hard disk drive then floppy disk drive.

A,C First search for floppy disk drive then hard disk drive.

CDROM, C, A System will first search for CDROM drive, then hard disk drive and the next is floppy disk drive.

C, CDROM, A System will first search for hard disk drive , then CDROM drive, and the next is floppy disk drive.

Swap Floppy Drive

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

Boot Up Floppy Seek

During POST, BIOS will determine if the floppy disk drive installed is 40 or 80 tracks. 360K type is 40 tracks while 760K, 1.2M and 1.44M are all 80 tracks.

Enabled BIOS searches for floppy disk drive to determine if it is 40 or 80 tracks. Note that BIOS can not tell from 720K, 1.2M or 1.44M drive type as they are all 80 tracks.

Disabled BIOS will not search for the type of floppy disk drive by track number.

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 number keys

Off Keypad is arrow keys

Boot Up System Speed

Selects the default system speed — the normal operating speed at power up.

High: Set the speed to high

Low: Set the speed to low

Gate A20 Option

This entry allows you to select how the gate A20 is handled. The gate A20 is a device used to address memory above 1 Mbytes. Initially, the gate A20 was handled via a pin on the keyboard. Today, while keyboards still provide this support, it is more common, and much faster, for the system chipset to provide support for gate A20.

Normal keyboard

Fast chipset

Typematic Rate Setting

This determines if the typematic rate is to be used. When disabled, continually holding down a key on your keyboard will generate only one instance. In other words, the BIOS will only report that the key is down. When the typematic rate is enabled, the BIOS will report as before, but it will then wait a moment, and, if the key is still down, it will begin the report that the key has been depressed repeatedly. For example, you would use such a feature to accelerate cursor movements with the arrow keys.

Enabled Enable typematic rate

Disabled Disable typematic rate

Typematic Rate (Chars/Sec)

When the typematic rate is enabled, this selection allows you select the rate at which the keys are accelerated.

Typematic Delay (Msec)

When the typematic rate is enabled, this selection allows you to select the delay between when the key was first depressed and when the acceleration begins.

Security Option

This category allows you to limit access to the system and Setup, or just to Setup

OS Select for DRAM > 64

This item allows you to access the memory that over 64MB in OS/2.

The choice: Non-OS2, OS2.

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

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.

Enabled Video shadow is enabled

Disabled Video shadow is 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 support of on-board SCSI.

Enabled Optional shadow is enabled

Disabled Optional shadow is disabled

ROM PCI/ISA BIOS (2A6INECB) CHIPSET FEATURES SETUP AWARD SOFTWARE, INC.	
Auto Configuration : Enabled	Auto Detect DIMM/PCI Clk: Enabled
RAS Pulse Width Refresh : 5T	Spread Spectrum : Disabled
RAS Precharge Time : 3T	CPU Host/SDRAM Clock : Default
RAS to CAS Delay : 3T	CPU Clock Ratio Jumpless: Enabled
ISA Bus Clock Frequency : PCICLK/4	Processor Core Frequency: x 4.0
Starting Point of Paging: 2T	
SDRAM CAS Latency : 3T	
SDRAM WR Retire Rate : X-2-2-2	
CPU to PCI Burst Mem. WR: Disabled	
System BIOS Cacheable : Enabled	
Video RAM Cacheable : Enabled	
Memory Hole at 15M-16M : Disabled	
AGP Aperture Size : 64MB	
Stability Test Bit : Disabled	
Concurrent function(MEM): Enabled	ESC : Quit
Concurrent function(PCI): Enabled	F1++ : Select Item
CPU Pipeline Control : Enabled	F1 : Help PU/PD/+/- : Modify
PCI Delay Transaction : Enabled	F5 : Old Values (Shift)F2 : Color
SDRAM Synchronous Mode : Enabled	F6 : Load BIOS Defaults
	F7 : Load Setup Defaults

RAS Pulse Width Refresh

The system designer must select the number of CPU clock cycles allotted for the RAS pulse refresh, according to DRAM specifications.

The choice: 4T, 5T, 6T, 7T.

RAS Precharge Time

The precharge time is the number of cycles it takes for the RAS to accumulate its charge before DRAM refreshes. If insufficient time is allowed, refresh may be incomplete and the DRAM may fail to retain data.

The Choice: 2T, 3T, 4T, 5T.

RAS to CAS Delay

When DRAM is refreshed, both rows and columns are addressed separately. This setup item allows you to determine the timing of the transition from RAS (row address strobe) to CAS (column address strobe).

The choice: 2T, 3T, 4T, 5T.

ISA Bus Clock Frequency

You can set the speed of the AT bus at one-third or one-fourth of the CPU clock speed.

The choice: 7.159MHz, PCICLK/3, PCICLK/4.

Starting Point of Paging

This value controls the start timing of memory paging operations.

The choice: 1T, 2T, 4T, 8T.

SDRAM CAS Latency

When synchronous DRAM is installed, the number of clock cycles of CAS latency depends on the DRAM timing. Do not reset this field from the default value specified by the system designer.

The choice: 2T, 3T.

SDRAM WR Retire Rate

The system designer must select the correct timing for data transfers from the write buffer to memory, according to DRAM specifications.

The choice: X-1-1-1, X-2-2-2.

CPU to PCI Burst Mem. WR

Select enabled permits PCI burst memory write cycles, for faster performance. When disabled, performance is slightly slower, but more reliable.

Choices are Enabled, Disabled.

System BIOS Cacheable

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

The choice: Enabled, Disabled.

Video BIOS Cacheable

Selecting *Enabled* allows caching of the system BIOS ROM at C0000h-F7FFFh, resulting in better system performance. However, if any program writes to this memory area, a system error may result.

The choice: Enabled, Disabled.

Memory Hole at 15M-16M

You can reserve this area of system memory for ISA adapter ROM. When this area is reserved, it cannot be cached. The user information of peripherals that need to use this area of system memory usually discusses their memory requirements. The choice: Enabled, Disabled.

AGP Aperture Size

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

Concurrent Function [MEM]

When enabled, CPU access memory cycles and PCI masters access memory cycles can be concurrently issued onto host bus and PCI bus, respectively, and then the memory access cycles will be rearranged by SiS620 to memory sequentially. When disabled, either CPU or PCI masters starts memory access cycle will block the other one's cycle until the current cycle is finished. The choice: Enabled, Disabled.

Concurrent Function [PCI]

When this bit is enabled, CPU access PCI bus cycle and PCI masters access memory cycles can be concurrently issued onto host bus and PCI bus, respectively. By doing this, these cycles will be forwarded to PCI bus and memory bus at the same time. When disabled, either one of these two kinds of cycles will block the other until the current cycle is finished.

The choice: Enabled, Disabled.

CPU Pipeline Control

Enable/disable the CPU pipeline control. The choice: Enabled, Disabled.

PCI Delay Transaction

The chipset has an embedded 32-bit posted write buffer to support delay transactions cycles. Select *Enabled* to support compliance with PCI specification version 2.1. The choice: Enabled, Disabled.

CPU Clock Ration Jumpless

Enable/disable the CPU Clock ration control. The choice: Enabled, Disabled.

Processor Core Frequency

Select CPU Clock Ratio.

ROM PCI/ISA BIOS (2A6INECB)	
POWER MANAGEMENT SETUP	
AWARD SOFTWARE, INC.	
ACPI function	: Enabled
Power Management	: User Define
PM Control by APM	: No
Video Off Option	: Always On
Video Off Method	: Blank Screen
Switch Function	: Disabled
Doze Speed (div by):	8/8
Stcby Speed(div by):	8/8
MODEM Use IRQ	: NA
Hot Key Function As:	Disable
** PM Timers **	
HDD Off After	: Disable
Doze Mode	: Disable
Standby Mode	: Disable
Suspend Mode	: Disable
** PM Events **	
HDD Ports Activity	: Disabled
COM Ports Activity	: Disabled
LPT Ports Activity	: Disabled
VGA Activity	: Disabled
IRQ (3-7,9-15),NMI	: Disabled
IRQ 8 Break Suspend	: Disabled
Power Button Over Ride	: Instant Off
Ring Power Up Control	: Disabled
GPIOS Power Up Control	: Disabled
KB Power ON Password	: Enter
Power Up by Alarm	: Disabled
ESC : Quit	F10 : Select Item
F1 : Help	PU/PD/+/- : Modify
F5 : Old Values (Shift)	F2 : Color
F6 : Load BIOS Defaults	
F7 : Load Setup Defaults	

ACPI function

Select *Enabled* if your system has an ACPI function. The choice: Enabled, Disabled.

Power Management

This option allows you to select the type (or degree) of power saving for Doze, Standby, and Suspend modes. See the section *PM Timers* for a brief description of each mode. The following describes each power management mode:

Disable	No power management. Disables all four modes
Min. Power Saving	Minimum power management.
Max. Power Saving	Maximum power management
User Defined	Allows you to set each mode individually.

PM Control by APM

When enabled, an Advanced Power Management device will be activated to enhance the Max. Power Saving mode and stop the CPU internal clock. If Advance Power Management (APM) is installed on your system, selecting Yes gives better power savings. If the Max. Power Saving is not enabled, this will be preset to *No*.

Video Off Option

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

Always On Monitor remain on during power saving modes.

Suspend 2 Off Monitor blanked when systems enters to Suspend mode.

Susp,Stby 2 Off Monitor blanked when the system enters either Suspend or Standby modes.

All Modes 2 Off 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 synchronization ports

Blank Screen This option only writes blanks to the video buffer.

DPMS Select this option if your monitor supports the Display Power Management Signaling(DPMS)

Switch Function

You can choose whether or not to permit your system to enter complete Suspend mode. Suspend mode offers greater power savings, with a correspondingly longer awakening period..

The choice: Break/Wake, Disabled.

Doze Speed (div by)

Sets the CPUs speed during Doze mode. The speed is reduced to a fraction of the CPUs normal speed. The divisors range from 1 to 8

Stdby Speed (div by)

Select a divisor to reduce the CPU speed during *Standby* mode to a fraction of the full CPU speed. The speed is reduced to a fraction of the CPU normal speed. The divisors range from 1 to 8

MODEM Use IRQ

Name the interrupt request (IRQ) line assigned to the modem (if any) on your system. Activity of the selected IRQ always awakens the system.

The choice: 3, 4, 5, 7, 9, 10, 11, NA.

Hot Key Power Off

Select *Enabled* if your system has a hot key for soft power off.

The choice: Enabled, Disabled.

<p>PM Timers The following four modes are Green PC power saving functions which are only user configurable when <i>User Defined</i> Power Management has been selected.</p>
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HDD Off After

By default, this item is Disabled, meaning that no matter the mode the rest of the system, the hard drive will remain ready. Otherwise, you have a range of choices from 1 to 15 minutes or Suspend. This means that you can elect to have your hard disk drive be turned off after a selected number of minutes or when the rest of the system goes into a Suspend mode.

Doze Mode

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 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 at 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 You may disable activity monitoring of some common I/O events and interrupt requests so they do not wake up the system. The default wake-up event is keyboard activity.

HDD Ports Activity

When set to *On* (default), any event occurring at a HDD (serial) port will awaken a system which has been powered down.

COM Ports Activity

When set to *On* (default), any event occurring at a hard or floppy drive port will awaken a system which has been powered down.

LPT Ports Activity

When set to *On* (default), any event occurring at a LPT (printer) port will awaken a system which has been powered down.

VGA Activity

When set to *On* (default), any event occurring at VGA will awaken a system which has been powered down.

Power Button Over Ride

You could press the power button for more than 4 seconds forces the system to enter the Soft-Off state when the system has hung.

The choice: Soft-Off, Delay 4 Sec.

Ring Power Up Control

When you select *Enabled*, a signal from ring returns the system to Full On state. The choice: Enabled, Disabled.

GPIO5 Power Up Control

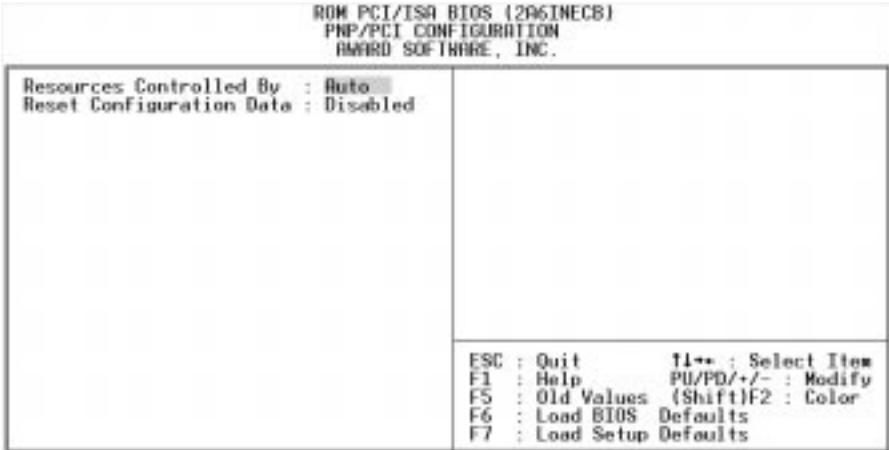
When you select *Enabled*, a signal from General Purpose Input 05 returns the system to Full On state. The choice: Enabled, Disabled.

KB Power ON Password

When you set a password for keyboard, The password you set the keyboard that returns the system to Full On state.

Power Up by Alarm

When you select *Enabled*, the following fields appear. They let you set the alarm that returns the system to Full On state. The choice: Enabled, Disabled.



Resource controlled by

The Award Plug and Play BIOS has the capacity 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 operating system such as Windows 95, 98.

The choice: Auto, Manual.

Reset Configuration Data

Normally, you leave this field Disabled. Select Enabled to reset Extended System Configuration Data (ESCD) when you exit Setup if you have installed a new add-on and the system reconfiguration has caused such a serious conflict that the operating system can not boot.

The choice: Enabled, Disabled.

ROM PCI/ISA BIOS (2A6INECB) INTEGRATED PERIPHERALS AWARD SOFTWARE, INC.			
Internal PCI/IDE	: Both	ECP Mode Use DMA	: 3
IDE Primary Master PIO	: Auto	PS/2 mouse function	: Enabled
IDE Primary Slave PIO	: Auto	USB Controller	: Enabled
IDE Secondary Master PIO	: Auto	USB Keyboard Support	: Disabled
IDE Secondary Slave PIO	: Auto	Init Display First	: :
Primary Master UltraDMA	: Auto	VGA Shared Memory Size	: 8 MB
Primary Slave UltraDMA	: Auto	Onboard Audio	: Enabled
Secondary Master UltraDMA	: Auto	Current CPU Temperature	: :
Secondary Slave UltraDMA	: Auto	Current CPUFAN1 Speed	: :
IDE Burst Mode	: Enabled	Current CPUFAN2 Speed	: :
IDE HDD Block Mode	: Enabled	IN0(V):	IN1(V):
		IN2(V):	IN3(V):
Onboard FDC Controller	: Enabled	ESC : Quit	↑↓ : Select Item
Onboard Serial Port 1	: Auto	F1 : Help	PU/PD/+/- : Modify
Onboard Serial Port 2	: Auto	F5 : Old Values (Shift)	F2 : Color
IR Address Select	: 3F8H	F6 : Load BIOS Defaults	
IR Mode	: HP SIR	F7 : Load Setup Defaults	
IR IRQ Select	: IRQ3		
Onboard Parallel Port 1	: 3BC/IRQ7		
Parallel Port Mode	: ECP		

Internal PCI / IDE

This chipset contains an internal PCI IDE interface with support for two IDE channels. The choice: Primary, Secondary, Both.

IDE Primary Master/Slave PIO

The four IDE PIO (Programmed Input / Output) fields let you set a PIO mode (0-4) for each of the four IDE devices that the onboard IDE interface supports. Modes 0 through 4 provide successively increased performance. In *Auto* mode, the system automatically determines the best mode for each device. The choice: Auto, Mode 0, Mode 1, Mode 2, Mode 3, and Mode 4.

Primary Master/Slave UltraDMA

UDMA (Ultra DMA) is a DMA data transfer protocol that utilizes ATA commands and the ATA bus to allow DMA commands to transfer data at a maximum burst rate of 33 MB/s. When you select *Auto* in the four IDE UDMA fields (for each of up to four IDE devices that the internal PCI IDE interface supports), the system automatically determines the optimal data transfer rate for each IDE device.

IDE Burst Mode

Selecting *Enabled* reduces latency between each drive read/write cycle, but may cause instability in IDE subsystems that cannot support such fast performance. If you are getting disk drive errors, try setting this value to *Disabled*. This field does not appear when the Internal PCI/IDE field, above, is *Disabled*. The choice: Enabled, Disabled.

IDE HDD Block Mode

The chipset contains a PCI IDE interface with support for two IDE channels. Select Enabled to activate the primary and/or secondary IDE interface. Select Disabled to deactivate this interface, if you install a primary and/or secondary add-in IDE interface IDE interface.

Enabled Secondary HDD controller used

Disabled Secondary HDD controller not used.

Onboard FDD 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/Port 2

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

The choice: 3F8/IRQ4, 2E8/IRQ3, 3E8/IRQ4, 2F8/IRQ3, Disabled, Auto.

IR Address Select

Select IR Address. Choices are: Disabled, 2F8H, 3E8H, 2E8H.

IR Mode

Select IR Mode. Choices are: HP SIR, ASKIR.

IR IRQ Select

Select IRQ for IR. Choices are: IRQ3, IRQ4, IRQ10, IRQ11.

Onboard Parallel Port 1

This item allows you to determine access onboard parallel port controller with which I/O address. The choice: 3BC/IRQ7, 378/IRQ7, 278/IRQ5, Disabled.

Parallel Port Mode

Select an operating mode for the onboard parallel (printer) port. The choice: SPP, EPP, ECP, ECP+EPP.

ECP Mode Use DMA

Select a DMA channel for the parallel port for use during ECP mode.

The choice: 3, 1.

PS/2 mouse function

If your system has a PS/2 mouse port and you install a serial pointing device, select *Disabled*. The choice: Enabled, Disabled.

USB Controller

Select *Enabled* if your system contains a Universal Serial Bus (USB) controller and you have USB peripherals. The choice: Enabled, Disabled.

Init Display First

This item allows you to decide to active which bus first (PCI Slot or AGP first).

The choice: PCI Slot, AGP.

VGA Shared Memory Size

Specify the size of system memory to allocate for video memory, from None to 8 MB. The choice: None, 2MB, 4MB, 8MB.

VGA Memory Clock (MHz)

Set the speed (MHz) of the VGA memory clock. The choice: 66, 75, 83, 100.

Current CPUFAN1/2 Speed

These fields display the *current* speed of up to two CPU fans, if your computer contains a monitoring system.

IN0-IN3

These fields display the *current* voltage of up to seven voltage input lines, if your computer contains a monitoring system.

--END--