M7VIQ

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English

M7VIQ Features (for V1.2)

CPU

- Single AMD Socket-A for AthlonTM (ThunderbirdTM) AthlonTM XP/ DuronTM processors.
- Running at 200/266 MHz Front Side Bus.

Chipset

- North Bridge: VIA KM266 (VT8375).
- South Bridge: VT8235.

- Main Memory Supports up to 2 DDR devices.
- Supports 200/266MHz (without ECC) DDR SDRAM devices. The largest memory capacity is 2GB.

- Slots Three 32-bit PCI bus master slots.
 - One CNR slot
- One AGP slot.

On Board IDE

- Supports four IDE disk drives.
- Supports PIO Mode 4, Master Mode and Ultra DMA 33/66/100/133 Bus Master Mode.

On Board VGA

Integrated Savage4 2D/3D Graphics Controller and Video Accelerator.

LAN Chipset

VIA VT6103(Optional)

Audio

- AC97 2.1 interface.
- PC99 complaint
- Supports 2 channels.

On Board Peripherals

- Supports 360K, 720K, 1.2MB, 1.44MB and 2.88MB floppy disk drivers.
- Supports 2 serial ports.
- Supports 1 multi-mode parallel port. (SPP/EPP/ECP mode)
- Supports PS/2mouse and PS/2keyboard
- Supports 2 back USB2.0 ports and 2 front USB2.0 ports (Optional).

BIOS

- AWARD legal Bios. Supports APM1.2. -
- -
- Supports ACPI. -
- Supports USB Function. _

Operating System
- Offers the highest performance for MS-DOS, Windows 2000, Windows Me, Windows XP, SCO UNIX etc.

Dimensions - Micro ATX Form Factor: 24.4cm X 24.4cm (W X L)

Package contents

- HDD Cable X1 -
- FDD Cable X1 -
- _ Fully Setup Driver CD X1
- Flash Memory Writer for BIOS update X 1 USB Cable X2 (Optional) -
- -
- Rear I/O Panelf or ATX Case X1 (Optional) _



Layout of M7VIQ

CPU Installation



- 1. Pull the lever sideways away from the socket then raise the lever up to 90-degree angle.
- 2. Locate Pin A in the socket and lock for the white dot or cut edge in the CPU. Match Pin A with the white dot/cut edge then insert the CPU.
- 3. Press the lever down. Then Put the fan on the CPU and buckle it and put the fan's power pot into the JCFAN1, then to complete the installation.

CPU/System Fan Headers: JCFAN1/JSFAN1



DDR DIMM Modules: DDR1-2

DRAM Access Time: 2.5V Unbuffered DDR 200/266 MHz Type required. DRAM Type: 64MB/ 128MB/256MB/ 512MB/ 1GB DIMM Module (184 pin)

| DIMM Socket Location | DDR Module | Total Memory Size (MB) |
|-------------------------|----------------------------------|---------------------------|
| DDR 1 | 64MB/128MB/256MB/512MB/1GB *1 | Max is |
| DDR 2 | 64MB/128MB/256MB/512MB/1GB *1 | 2GB |

* The list shown above for DRAM configuration is only for reference.

How to install a DIMM Module

1. The DIMM socket has a "Plastic Safety Tab", and the DIMM memory module has an "Asymmetrical notch", so the DIMM memory module can only fit into the sldt in one direction

2. Push the tabs out. Insert the DIMM memory modules into the socket at a 90-degree angle, then push down vertically so that it will fit into the place.

3. The Mounting Holes and plastic tabs should fit over the edge and hold the DIMM memory modules in place.



Jumpers, Headers, Connectors & Slots

Hard Disk Connectors: IDE1/ IDE2

The motherboard has a 32-bit Enhanced PCI IDE Controller that provides PIO Mode 0~4, Bus Master, and Ultra DMA/ 33/ 66/ 100/ 133 functionality. It has two HDD connectors IDE1 (primary) and IDE2 (secondary).

The IDE connectors can connect a master and a slave drive, so you can connect up to four hard disk drives. The first hard drive should always be connected to IDE1.

Floppy Disk Connector: FDD1

The motherboard provides a standard floppy disk connector that supports 360K, 720K, 1.2M, 1.44M and 2.88M floppy disk types. This connector supports the provided floppy drive ribbon cables.

Communication Network Riser Slot: CNR1

The CNR specification is an open Industry Standard Architecture, and it defines a hardware scalable riser card interface, which supports modem only.

Peripheral Component Interconnect Slots: PCI1-3

This motherboard is equipped with 3 standard PCI slots. PCI stands for Peripheral Component Interconnect, and it is a bus standard for expansion cards. This PCI slot is designated as 32 bits.

Accelerated Graphics Port Slot: AGP1

Unlike the mouse ports, keyboard ports and printer ports, this motherboard does not have built in video facilities; and therefore, requires a video card for one of the expansion slots. Your monitor will attach directly to that video card. Tis motherboard supports video cards for PCI, but is also equipped with an Accelerated Graphics Port (AGP). An AGP card will take advantage of AGP technology for improved video efficiency and performance, especially with 3D graphics.

Power Connectors: JATXPWR1



DIMM Power Selection Connector: JDIMMVO LT



 It strongly recommended to set DDR DIMM voltage in default setting 2.5V, and it for over voltage f unction.

Wake On LAN Header: WO L1



Clear CMOS Jumper: JCMOS

| JCMOS1 | Assignment |
|---------------------|----------------------------------|
| 1 Pin 1-2 on | Normal Operation (default) |
| 1 Pin 2-3 on | Clear CMOS Data |

Front USB Header: JUSB2/ JUSB3

| 2 | Pin | Assignment | Pin | Assignment |
|--|-----|------------|-----|------------|
| | 1 | +5V | 2 | +5 V |
| 1 0000 | 3 | Data (-) | 4 | Data (-) |
| | 5 | Data (+) | 6 | Data (+) |
| JUSB1/2 | 7 | Ground | 8 | Ground |
| | 9 | Key | 10 | NA |
| tree and the second sec | | | | |

5V/ 5VS B Selection for US B: JUS BV1/2/3



CPU Frequency Selection: JCLK1



5V/ 5VS B Selection for Keyboard: JKB V1

| £7. | | |
|-----|------------|------------|
| | JKBV1 | Assignment |
| | | 5V |
| | Pin 1-2 on | |
| | 1 | 5V_SB |
| | Pin 2-3 on | |

<u>کر _____</u>

CNR Codec Primary/ Secondary Selection: JCODECSEL

| J_CODECSEL | Assignment |
|------------|--------------------------------------|
| Pin 1-2 | On-board Primary Codec (Default). |
| Pin 2-3 | CNR Primary Codec. |



Front Panel Connector: JPANEL1

Audio DJ: JDJ1



Digital Audio Connector: JSPDIF1 (Optional)



Audio Subsystem: JF_AUDIO/JCDIN1

| 2 1 | JF_AUDIO1 (Front Audio Header) | | | O1 Header) |
|---|---|------------------------------------|----------------------------------|--|
| | JCDIN1 1 (CD-ROM Audio-In Header) | | | |
| 2 000 10 1 000 9 JAUDIO1 | | | | |
| 2 | JOD C ∎ODOC | 10 9 | JA | AUDIO1 |
| 2 1 1 Pin | Assign | 10 9 | J A Pin | AUDIO1 Assignment |
| 2 1 Pin 1 | Assign Mic | 10 9 ment In | JA Pin 2 | AUDIO1 Assignment Ground |
| 2 1 Pin 1 3 | Assign Mic Mic | ment In ower | JA Pin 2 4 | AUDIO1 Assignment Ground Audio Power |
| 2 1 Pin 1 3 5 | Assign Mic RT Line | ment In ower e Out | J <i>A</i> Pin 2 4 6 | AUDIO1 Assignment Ground Audio Power RT Line Out |
| 2 1 9 1 3 5 7 | Assign Mic Mic PC RT Line Reser | ment In ower e Out ved | JA Pin 2 4 6 8 | AUDIO1 Assignment Ground Audio Power RT Line Out NC |

Pin 6 and 10 are routed from Front Panel Audio Out.

| Jump | er Setting | Configuration |
|---|-----------------------------|---|
| 1 2 3 0 4 5 0 1 9 10 | Pin 5 and 6 Pin 9 and 10 | Audio line out signals are routed to the back panel audio line out connector. |
| 1 3 5 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 | No jumper s installed | Audio line out and mic in signals are available for front panel audio connectors |



Back Panel Connectors

Español

Características del M7VIQ

- UsaChipset Via KM266/ VT8235, W83697HF, LAN Chip (opcional).
- Contiene facilidades I/O integrados en la placa madre en el que incluye un puerto en serie, un puerto paralelo, un puerto de ratón PS/2, un puerto de teclado PS/2, puerto de audio, puertos USB, un puerto LAN (opcional), un puerto de juego, y un puerto para el monitor.
- Soporta single AMD Socket A para procesadores AthlonTM (ThunderbirdTM) / Athlon XPTM / DuronTM corriendo a 200/266 MHz Front Side Bus (FSB).
- Soporta Ultra 133/100/66/33, modos PIO, discos duros IDE, modo LBA.
- Soporta 2 dispositiv os DDR 200/266 MHz (sin ECC).
- Soporta una ranura CNR (solamente de Tipo B), tres ranuras PCI Bus de 32-bit, y una ranura AGP.
- Conforma con las especificaciones del factor de forma de tamaño PC Micro-ATX.
- Soporta sistemas operativos populares tales como Windows NT, Windows 2000, Windows ME, Windows XP, LINUX y SCO UNIX.
- Compatible con Via[®] AC'97 2.2.
- High S/N ratio reune los requistos del PC 99.
- 4CHDAC, aplicables para chipsets de principales placas madres.
- C Entrada de Línea phonejack compartido con el rear out.

Contenido del Paquete

- Cable HDD X1, Cable FDD X1, Configuración Completa del Driver CD X1
- Flash Memory Writer para actualización del BIOS X 1
- Cable USB X2 (Opcional)



Disposición del M7VIQ

• Panel Trasero I/O para Caja ATX X 1 (Opcional)

Instalación del CPU



1. Tire de la palanca del lado del zócalo, luego levante la palanca hasta un ángulo de 90 grados.

- 2. Sitúe el contacto A del zócalo y busque el punto blanco o corte el borde en la CPU. Empareje el contacto A con el punto blanco/ corte del borde, luego inserte la CPU.
- 3. Presione la palanca para abajo. Ponga el ventilador en la CPU y abróchelo. Luego ponga el puerto de corriente del ventilador en el JCFAN1. Y ya habrá completado su instalación.

CPU/ Cabezales del Sistema de Ventilación: JCFAN1/ JSFAN1



Módulos DDR DIMM: DDR1-2

DRAM Tiempor de Acceso: 25V Unbuffered DDR 200/266 MHz Tipo requerido. DRAM Tipo: 64MB/128MB/ 256MB/ 512MB/ 1GB Módulo DIMM (184 pin)

| Localización del Módulo DIMM | Módulo DDR | Total del Tamaño de Memoria (MB) |
|------------------------------------|----------------------------------|--|
| DDR 1 | 64MB/128MB/256MB/512MB/1GB *1 | Máximo de |
| DDR 2 | 64MB/128MB/256MB/512MB/1GB *1 | 2GB |

* La lista de arriba para la configuración DRAM es solamente para referencia.

Cómo instalar un Módulo DIMM

1. El zócab DIMM tiene una lengüeta plástica de seguridad y el módulo de memoria DIMM tiene una muesca asimétrica, así el módulo de memoria DIMM puede caber solamente en la ranura de una sóla dirección.

2. Tire la lengüeta hacia afuera. Inserte los módulos de memoria DIMM en el zócalo a los 90 grados, luego empuje hacia abajo verticalmente de modo que encaje en el lugar.

3. Los agujeros de montaje y las lengüetas plásticas deben caber por sobre el borde y sostenga los módulos de memoria DIMM en el lugar.



Conectores, Cabezales, Puentes y Ranuras

Conectores del Disco Duro: IDE1/ IDE2

La placa madre tiene un controlador de 32-bit PCI IDE que proporciona Modo PIO 0~4, Bus Master, y funcionalidad Ultra DMA / 33/ 66/ 100. Tiene dos conectores HDD IDE1 (primario) y IDE2 (secundario).

El conector IDE puede conectar a un master y un drive esclavo, así puede conectar hasta cuatro discos rígidos. El primer disco duro debe estar siempre conectado al IDE1.

Conector para el Disquete: FDD1

La placa madre proporciona un conector estándar del disquete (FDC) que soporta 360K, 720K, 1.2M, 1.44M y 2.88M fipos de disquete. Este conector utiliza los cables de cinta proporcionados por el disquete.

Banda de Suspensión de Comunicación y Red: CNR1

La especificación CNR es una abierta Industria de Arquitectura Estándar, que define una tarjeta de intelface escalable del hardware en el que soporta solamente modem.

Ranura de Interconexión del Componente Periférico: PCII-3

Ésta placa madre está equipada con 3 ranuras estándar PCI. PCI es la sigla para Interconexión del Componente Periférico, y es un bus estándar para tarjetas de expansión en el que suplanta a la antigua bus estándar ISA, en su mayoría de las partes. Ésta ranura PCI está diseñado con 32 bits.

Ranura del Puerto Acelerado para Gráficos: AGP1

Su monitor se fijará directamente a la tarjeta de video. Ésta placa madre soporta tarjetas de video para ranuras PCI, y también está equipado con un Puerto Acelerado para Gráficos (AGP/ solamente soporta 1.5Vy 4X tarjeta AGP). Ésta tarjeta AGP tomará ventaja de la tecnología del AGP para el mejoramierto de la eficiencia y funcionamiento del video, especialmente con gráficos 3D.

Conectores de Corriente: JATXPWR1



Conector de Selección de la Corriente DIMM: JDIMM VOLT

| Marrie . | | (** ₁ |
|---------------------------|-------------------------|------------------|
| 1 BBB 1 | Pin 1-2 encendido ==> | 2.5V |
| 2 | Pin 3-4 encendido ==> | 2.6V |
| JDIMMVOLT | Pin 5-6 encendido $==>$ | 2.7V |
| (Predeterminado ==> 2.5V) | Pin 7-8 encendido $==>$ | 2.8V |

 Ésta fuertemente recomendado fijar el voltaje del DDR DIMM en su voltaje predeterminado 2.5V, and it for over voltage function.

Cabezal Wake On LAN: WOL1



Puente de BorrarCMOS: JCMOS1

| منطقه | | | • |
|-----------|-------------------------|----------------------------------|-----|
| | JCMOS1 | Asignación | |
| | Contacto 1-2 on | Operación Normal (default) | |
| | 1 Contacto 2-3 on | Borrar Datos CMOS | |
| <u>``</u> | | | 3.5 |

Cabezal Frontal US B: JUS B2/JUS B3

| 2 1 | | JUSB2/ | 3 |
|-----------|------------|-----------|------------|
| Contactos | Asignación | Contactos | Asignación |
| 1 | +5V | 2 | +5V |
| 3 | Data (-) | 4 | Data (-) |
| 5 | Data (+) | 6 | Data (+) |
| 7 | Tierra | 8 | Ground |
| 9 | Key | 10 | NA |
| \ | | | u |

5V/ 5VS B Selección para US B: JUS BV1/2/3

| 1. | | | |
|-----|--------------------------|------------|-----|
| Í | JUSBV1/2/3 | Asignación | |
| | 1 Contactos 1-2 on | 5V | |
| | 1 Contactos 2-3 on | 5V_SB | |
| ×.' | | | - × |

Selección de Frecuencia del CPU: JCLK1



5V/5VSBSelección para Teclado: JKBV1



CNR Codec de Selección Primario/Secundario: JCODECSEL

| J_CODECSEL | Assignment |
|-------------------|---|
| Contacto 1 1-2 | Codec Primario integrado en la placa madre |
| Contacto 1 2-3 | CNR Codec Primario. |



Conector del Panel Frontal: JPANEL1

Audio DJ: JDJ1



Conector Digital de Audio: JSPDIF1 (Optional)



Subsistema de Audio: JF_AUDIO/JCDIN1

| | | Cabez Cabez Au | JF_AUDI zal Frontal JCDIN 1 zal de Entr dio CD-RC | O 1 de Audio) ada de DM) | |
|---|-----------------|----------------------|---|-----------------------------------|--|
| $2 \bigcirc 0 \bigcirc 0 \bigcirc 10 \\ 1 \bigcirc 0 \bigcirc 0 \bigcirc 9 \bigcirc 0 10 $ JAUDIO 1 | | | | | |
| Contactos | Asignacio | n | Contactos | Asignacion | |
| 1 | Entrada del M | /IC | 2 | Tierra | |
| 3 | Corriente del 1 | MIC | 4 | Corriente de Audio | |
| 5 | RT Salida de L | Linea | 6 | RT Salida de Linea | |
| 7 | Reservad | 0 | 8 | Key | |
| 9 | LFT Sanda de | Linea | 10 | LFT Salida de Linea | |
| Contactos 5 y 9 son encaminados a la Salida de Audio del Panel Frontal. Contactos 6 y 10 son encaminados desde la Salida de Audio del Panel Frontal. | | | | | |
| Conector del Panel Frontal de Audio/ Jumper Block | | | | | |
| JumperSetting Configuración | | | | | |

| Jumper Setting | | Configuración | |
|--|-----------------------------------|--|--|
| 1 3 3 5 5 7 6 7 6 7 6 7 6 7 6 7 6 7 6 7 6 7 10 | Contacto 5 & 6 Contacto 9 & 10 | La señal de salida de linea del Audio encamina al conector de la salida de linea del Audio ubicado en el panel trasero. | |
| 1 3 5 7 9 0 10 | No jumper s installed | La señal de salida de linea del Audio y la señal del entrada del mic estan disponibles des de el conector de Audio del panel frontal. | |

N.....



Conectores del Panel Trasero

Français

M7VIQ Particularités (pour V1.2)

CPU:

- Douile-A AMD Simple pour AthlonTM (ThunderbirdTM) / AthlonTM XP/DuronTM processeurs.
- Dirigeant à Autobus de Côté de Front de MHz 200/266.

- Chipset : Pont du Nord: VIA KM266 (VT8375).
- Pont du Sud : VT8235.

Mémoire Principale:

- Soutient dispositifs jusqu'à 2 DDR.
- Soutient dispositifs de DDR SDRAM (sans CEE).
- La plus grande capacité de mémoire(souvenir) est 2GB.

Fentes:

- Troisfentes de maître d'autobus PCI 32 bits.
- Une fente CNR.
- Une fente AGP.

Àbord IDE :

- Soutient quatre lecteurs de disques IDE.
- Soutient PIO Mode 4, le Mode de Maître et DMA Ultra 33/66/100/133 le Mode de Maître d'Autobus.

Àbord VGA :

Intégré Savage4 Contrôleur Graphique 2D/3D et Accélérateur Vidéo

ChipsetLAN :

VIA VT6103 (Facultatif).

Audio:

- AC97 2.1 interface.
- PC99 la plainte Soutient 2 canaux.

À bord Périphériques :

- Soutient 360Ko, 720Ko, 1.2MB, 1.44MB et 2.88MB des conducteurs de disquette.
- Soutient 2 ports périodiques.
- Soutient 1 multi-mode port parallèle. (SPP/EPP/ECP mode)
- Soutient le souris PS/2 et le clavier PS/2.
- Soutient 2 ports en arrière USB2.0 des et 2 ports en avant USB2.0 des (Facultatifs).

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- BIOS : ACCORDENT le BIOS légal.
 - Soutient APM1.2.
 - Soutient ACPL
- Soutient la Fonction d'USB.

Système de Fonctionnement :

Offre l'exécution(performance) la plus haute pour MS-DOS, Windows 2000, des Fenêtres Moi, Windows XP, SCO UNIX etc.

Dimensions :

Micro Facteur de Forme d'ATX : 24.4cm X 24.4cm (W X L)

Dessin d'M7VIQ



WarpSpeeder



Introduction

[WarpSpeeder[™]], a new powerful control utility, features three userfriendly functions including Overclock Manager, Overvoltage Manager, and Hardware Monitor.

The following three sections detail the installation of FastTrak 376 drivers on a system that has Windows 98/Me already installed. If you're installing the FastTrak 376 drivers on a system during a Windows 98/Me installation, see "Installing Drivers During Windows 98/Me Installation" on page 10. With the Overclock Manager, users can easily adjust the frequency they prefer or they can get the best CPU performance with just one click. The Overvoltage Manager, on the other hand, helps to power up CPU core voltage and Memory voltage. The cool Hardware Monitor smartly indicates the temperatures, voltage and CPU fan speed as well as the chipset information. Also, in the About panel, you can get detail descriptions about BIOS model and chipsets. In addition, the frequency status of CPU, memory, AGP and PCI along with the CPU speed are synchronically shown on our main panel.

Moreover, to protect users' computer systems if the setting is not appropriate when testing and results in system fail or hang, [WarpSpeederTM] technology assures the system stability by automatically rebooting the computer and then restart to a speed that is either the original system speed or a suitable one.

System Requirement

OS Support: Windows 98 SE, Windows Me, Windows 2000, Windows XP

DirectX: DirectX 81 or above. (The Windows XP operating system includes DirectX 8.1. If you use Windows XP, you do not need to install DirectX 8.1.)

Installation

1. Execute the setup execution file, and then the following dialog will pop up. Please click "Next" button and follow the default procedure to install.



2. When you see the following dialog in setup procedure, it means setup is completed. If the "Launch the WarpSpeeder Tray Utility" checkbox is checked, the Tray Icon utility and [WarpSpeeder™] utility will be automatically and immediately launched aftery ou click "Finish" button.



Usage

The following figures are just only for reference, the screen printed in this user manual will change according to your motherboard on hand.

[WarpSpeeder[™]] includes 1 tray icon and 5 panels:

1. Tray lcon:

Whenever the Tray Icon utility is launched, it will display a little tray icon on the right side of Windows Taskbar.



This utility is responsible for conveniently invoking [WarpSpeeder[™]] Utility. You can use the mouse by clicking the left button in order to invoke [WarpSpeeder[™]] directly from the little tray icon or you can right click the little tray icon to pop up a popup menu as following figure. The "Launch Utility" item in the popup menu has the same function as mouse left-click on tray icon and "Exit" item will close Tray Icon utility if selected.



2. Main Panel

If you click the tray icon, [WarpSpeeder[™]] utility will be invoked. Please refer do the following figure; the utility's first windowy ou will see is Main Panel.

Main Panel contains features as follows:

a. Display the CPU Speed, CPU external clock, Memory clock, AGP clock, and PCI

clock information.

b. Contains About, Voltage, Overclock, and Hardware Monitor Buttons for invoking respective panels.

c. With a user-friendly Status Animation, it can represent 3 overclock percentage stages

Man walking => ov erclock percentage from 100% ~ 110 % Panther running => overclock percentage from 110% ~ 120%

Car racing => ov erclock percentage from 120% ~ above



3. Voltage Panel

Click the Voltage button in Main Panel, the button will be highlighted and the Voltage Panel will slide out to up as the following figure.

In this panel, you can decide to increase CPU core voltage and Memory voltage or not. The default setting is "No". If you want to get the best performance of overclocking, we recommend you click the option "Yes".



4. Overclock Panel

Click the Overclock button in Main Panel, the button will be highlighted and the Overclock Panel will slide out to left as the following figure.

Overclock Panel contains the these features:

a. "-3MHz button", "-1MHz button", "+1MHz button", and "+3MHz button": provide user the ability to do real-time overclock adjustment.

Warning: Manually overclock is potentially dangerous, especially when the overclocking percentage is over 110 %. We strongly recommend you verify every speed you overclock by click the Verify button. Or, you can just click

Auto overclock button and let [WarpSpeeder[™]] automatically gets the best result for you.

b. "Recovery Dialog button": Pop up the following dialog. Let user select a restoring way if system need to do a fail-safe reboot.

| Recovery Options | X |
|--|---|
| Please select a recovery option that will decide what kind of restoring you want to do after system fail-safe reboot. | |
| Options Group Restore to Hardware Default CPU Clock Value Restore to the Previous Verified CPU Clock Value | |
| | |

c. "Auto-overclock button": User can click this button and [WarpSpeederTM] will set the best and stable performance and frequency automatically. [WarpSpeederTM] utility will execute a series of testing until system fail. Then system will do fail-safe reboot by using Watchdog function. After reboot, the [WarpSpeederTM] utility will restore to the hardware default setting or load the verified best and stable frequency according to the Recovery Dialog's setting.

d. "Verify button": User can click this button and [WarpSpeeder™] will proceed a testing for current frequency. If the testing is ok, then the current frequency will be saved into system registry. If the testing fail, system will do a fail-safe rebooting. After rebot, the [WarpSpeeder™] utility will restore to the hardware default setting or load the verified best and stable frequency according to the Recovery Dialog's setting.

Note: Because the testing programs, invoked in Auto-overclock and Verify, include DirectDraw, Direct3D and DirectShow tests, the DirectX 8.1 or newer runtime library is required. And please make sure your display card's color depth is High color (16 bit) or True color(24/32 bit) that is required for Direct3D rendering.



5. Hardware Monitor Panel

Click the Hardware Monitor button in Main Panel, the button will be highlighted and the Hardware Monitor panel will slide out to left as the following figure.

In this panel, you can get the real-time status information of your system. The information will be refreshed every 1 second.



6. About Panel

Click the About button in Main Panel, the button will be highlighted and the About Panel will slide out to up as the following figure.

In this panel, you can get model name and detail information in hints of all the chipset that are related to overclocking. You can also get the mainboard's BIOS model and the Version number of [WarpSpeeder[™]] utility.



Note: Because the overclock, overvoltage, and hardware monitor features are controlled by several separate chipset, [WarpSpeederTM] divide these features to separate panels. If one chipset is not on board, the correlative button in Main panel will be disabled, but will not interfere other panels' functions. This property can make [WarpSpeederTM] utility more robust.

Trouble Shooting

| PROBABLE | SOLUTION |
|--|---|
| No power to the system at all Power light don't illuminate, fan inside power supply does not tum on. Indicator light on keyboard does not tum on | * Make sure power cable issecurely plugged in * Replace cable * Contact techrical support |
| PROBABLE | SOLUTION |
| System inoperative. Keyboard lights are on, power indicator Ights are lit, hard drive is spinning. | * Using even pressure on both ends of the DIMM, press down firmly until the module snaps into place. |
| PROBABLE | SOLUTION |
| System does not boot from hard disk drive, can be booted from CD-ROM drive. | * Check cable running from disk to disk controller board. Make sure both ends are securely plugged in; check the drive type in the standard CMOS setup. * Backing up the hard drive is extremely important. All hard disks are capable o breaking down at any time |
| | |
| PROBABLE System only boots from CD-ROM. Hard disk can be read and applications can be used but booting from hard disk is impossible. | * Back up data and applications files. Reforma the hard drive. Re-install applications and data using backup disks. |
| | |
| ROBABLE Screen message says "Invalid Configuration" or | * Review system's equipment . Make sure |
| CMOS Failure." | correct information is in setup. |
| PROBABLE | SOLUTION |
| Cannot boot system after installing second hard drive. | * Set master/slave jumperscorrectly. * Run SETUP program and select correct drive types. Call drive manufacturers for compatibilitywith other drives |

Solución de Problemas

| CAUSA PROBABLE | SOLUCIÓN |
|---|--|
| No hay corriente en el sistema. La luz de corriente no ilumina, ventilador dentro de la fuente de alimentación apagada. Indicador de luz del teclado apagado. | * Asegúrese que el cable de transmisión esté seguramente enchufado. * Reemplace el cable. * Contacte ayuda técnica |
| CAUSA PROBABLE | SOLUCIÓN |
| Sistema inoperativo. Luz del teclado encendido, luz de indicador de corriente iluminado, disco rígido está girando. | * Presione los dos extremos del DIMM presione para abajo firmemente hasta que el módulo encaje en ellugar. |
| CAUSA PROBABLE | SOLUCIÓN |
| Sistema no arranca desde el disco rígido, puede ser arrancado desde el CD-ROM drive. | * Controle el cable de ejecución desde el disco hasta el disco del controlador. Asegúrese de que ambos lados estén enchufados cor seguridad; controle el tipo de disco en la configuraciónestándar CMOS. |
| | * Copiando el disco rígido es extremadamente importante. Todos los discos rígidos sor capaces de dañarse en cualquier momento. |
| | |
| CAUSA PROBABLE Sistema solamente arranca desde el CD-ROM. Disco rígido puede leer y aplicaciones pueden ser usados pero el arranque desde el disco rígido es imposible. | SOLUCION * Copie datos y documentos de aplicación Vuelva a formatear el disco rígido. Vuelva a instalar las aplicaciones y datos usando e disco de copiado. |
| CAUSA PROBABLE | SOLUCIÓN |
| Mensaje de pantalla "Invalid Configuration" o <u>"CMOS Failure"</u> | * Revise el equipo del sistema. Asegúrese de que la información configurada sea correcta |
| CAUSA PROBABLE | SOLUCIÓN |
| No puede arrancar después de instalar el segundo discorígido. | Fije correctamente el puente master/esclavo. * Ejecute el programa SETUP y seleccione e tipo de disco correcto. Llame a una manufacturación del deco para |

26/02/2003

| BIOS Setup | 1 |
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| 1 Main Menu | 3 |
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i

BIOS Setup

Introduction

This manual discussed Award[™] Setup program built into the ROM BIOS. The Setup program allows users to modify the basic system configuration. This special information is then stored in battery-backed RAM so that it retains the Setup information when the power is turned off.

The Award BIOS[™] installed in your computer system's ROM (Read Only Memory) is a custom version of an industry standard BIOS. This means that it supports Intel Pentium [®] 4 processor input/output system. The BIOS provides critical low-level support for standard devices such as disk drives and serial and parallel ports.

Adding important has customized the Award BIOSTM, but nonstandard, features such as virus and password protection as well as special support for detailed fine-tuning of the chipset controlling the entire system.

The rest of this manual is intended to guide you through the process of configuring your system using Setup.

Plug and Play Support

These AWARD BIOS supports the Plug and Play Version 1.0A specification. ESCD (Extended System Configuration Data) write is supported.

EPA Green PC Support

This AWARD BIOS supports Version 1.03 of the EPA Green PC specification.

APM Support

These AWARD BIOS supports Version 1.1&1.2 of the Advanced Power Management (APM) specification. Power management features are implemented via the System Management Interrupt (SMI). Sleep and Suspend power management modes are supported. Power to the hard disk drives and video monitors can be managed by this AWARD BIOS.

ACPI Support

Award ACPI BIOS support Version 1.0 of Advanced Configuration and Power interface specification (ACPI). It provides ASL code for power management and device configuration capabilities as defined in the ACPI specification, developed by Microsoft, Intel and Toshiba.

PCI Bus Support

This AWARD BIOS also supports Version 2.1 of the Intel PCI (Peripheral Component Interconnect) local bus specification.

DRAM Support

DDR (Double Data Rate Synchronous DRAM) are supported.

Supported CPUs

This AWARD BIOS supports the AMD Socket CPU.

Using Setup

In general, you use the arrow keys to highlight items, press $\langle Enter \rangle$ to select, use the $\langle PgUp \rangle$ and $\langle PgDn \rangle$ keys to change entries, press $\langle F1 \rangle$ for help and press $\langle Esc \rangle$ to quit. The following table provides more detail about how to navigate in the Setup program by using the keyboard.

| Keystroke | Function |
|-------------|---|
| Up arrow | Move to previous item |
| Down arrow | Move to next item |
| Left arrow | Move to the item on the left (menu bar) |
| Right arrow | Move to the item on the right (menubar) |
| Move Enter | Move to the item you desired |
| PgUp key | Increase the numeric value or make changes |
| PgDnkey | Decrease the numeric value or make changes |
| + Key | Increase the numeric value or make changes |
| -Key | Decrease the numeric value or make changes |
| Esc key | Main Menu – Quit and not save changes into CMOS Status Page Setup Menu and Option Page Setup Menu – Exit Current page and return to Main Menu |
| F1 key | General help on Setup navigation keys |
| F5 key | Load previous values from CMOS |
| F6 key | Load the fail-safe defaults from BIOS default table |
| F7 key | Load the optimized defaults |
| F10 key | Save all the CMOS changes and exit |

1 Main Menu

Once you enter Award BIOSTM CMOS Setup Utility, the Main Menu will appear on the screen. The Main Menu allows you to select from several setup functions. Use the arrow keys to select among the items and press <Enter> to accept and enter the sub-menu.

!! WARNING !!

The information about BIOS defaults on manual (Figure 1,2,3,4,5,6,7,8,9) is just for reference, please refer to the BIOS installed on board, for update information.

■ Figure 1. Main Menu

| Phoenix - AwardBIOS CMOS Setup Utility | | |
|--|-------------------------|--|
| ► Standard CMOS Features | ► Frequency Control | |
| Advanced BIOS Features | Load Optimized Defaults | |
| ► Advanced Chipset Features | Set Supervisor Password | |
| Integrated Peripherals | Set User Password | |
| ▶ Power Management Setup | Save & Exit Setup | |
| ► PnP/PCI Configurations | Exit Without Saving | |
| ► PC Health Status | Upgrade BIOS | |
| | | |
| Esc : Quit = F9 : Menu in BIUS = T↓ → ← : Select Item F10 : Save & Exit Setup | | |
| Time, Date, Hard Disk Type | | |

Standard CMOS Features

This submenu contains industry standard configurable options. Advanced BIOS Features

This submenu allows you to configure enhanced features of the BIOS.

Advanced Chipset Features

This submenu allows you to configure special chipset features.

Integrated Peripherals

This submenu allows you to configure certain IDE hard drive options and Programmed Input/ Output features.

Power Management Setup

This submenu allows you to configure the power management features.

PnP/PCI Configurations

This submenu allows you to configure certain "Plug and Play" and PCI options.

PC Health Status

This submenu allows you to monitor the hardware of your system.

Frequency Control

This submenu allows you to change CPU Vcore Voltage and CPU/PCI clock. (However, this function is strongly recommended not to use. Not properly change the voltage and clock may cause CPU or M/B damage!)

Load Optimized Defaults

This selection allows you to reload the BIOS when the system is having problems particularly with the boot sequence. These configurations are factory settings optimized for this system. A confirmation message will be displayed before defaults are set.



Set Supervisor Password

Setting the supervisor password will prohibit everyone except the supervisor from making changes using the CMOS Setup Utility. You will be prompted with to enter a password.



Set User Password

If the Supervisor Password is not set, then the User Password will function in the same way as the Supervisor Password. If the Supervisor Password is set and the User Password is set, the "User" will only be able to view configurations but will not be able to change them.



Save & Exit Setup

Save all configuration changes to CMOS(memory) and exit setup. Confirmation message will be displayed before proceeding.



Exit Without Saving

Abandon all changes made during the current session and exit setup. confirmation message will be displayed before proceeding.



Upgrade BIOS

This submenu allows you to upgrade bios.



2 Standard CMOS Features

The items in Standard CMOS Setup Menu are divided into 10 categories. Each category includes no, one or more than one setup items. Use the arrow keys to highlight the item and then use the PgUp or PgDn keys to select the value you want in each item.

■ Figure 2. Standard CMOS Setup

| Phoenix - AwardBIOS CMOS Setup Utility Standard CMOS Features | | | |
|--|--|--|--|
| Date (mm:dd:yy) | Thu, Jun 27 2002 | Item Help | |
| TTHE (III.MM.SS) | 17.40.00 | Menu Level 🕨 | |
| IDE Frimary Master IDE Primary Slave IDE Secondary Master IDE Secondary Slave | | Change the day, month, year and century | |
| Drive A Drive B | [1.44M, 3.5 in.] [None] | | |
| Video Halt On | [EGA/VGA] [All , But Keyboard] | | |
| Base Memory Extended Memory Total Memory | 640K 65472K 1024K | | |
| 1↓→+:Move Enter:Select + F5:Previous Val | /-/PU/PD:Value F10:Save ues F7: Optim | ESC:Exit F1:General Help mized Defaults | |

Main Menu Selections

This table shows the selections that you can make on the Main Menu.

| ltem | Options | Description |
|----------------------|------------------------------|--|
| Date | mm : dd : yy | Set the system date. Note that the 'Day' automatically changes when you set the date. |
| Time | hh : mm : ss | Set the system internal clock. |
| IDE Primary Master | Options are in its sub menu. | Press <enter> to enter the sub menu of detailed options</enter> |
| IDE Primary Slave | Options are in its sub menu. | Press <enter> to enter the sub menu of detailed options.</enter> |
| IDE Secondary Master | Options are in its sub menu. | Press <enter> to enter the sub menu of detailed options.</enter> |
| IDE Secondary Slave | Options are in its sub menu. | Press <enter> to enter the sub menu of detailed options.</enter> |
| Drive A | 360K, 5.25 in | Select the type of floppy |
| Drive B | 1.2M, 5.25 in | disk drive installed in your |
| | 720K, 3.5 in | System. |
| | 1.44M, 3.5 in | |
| | 2.88M, 3.5 in | |
| | None | |
| Video | EGA/VGA | Select the default video |
| | CGA 40 | device. |
| | CGA 80 | |
| | MONO | |

| ltem | Options | Description |
|-----------------|--------------------|-------------------------------|
| Halt On | All Errors | Select the situation in which |
| | No Errors | you want the BIOS to stop |
| | All, but Keyboard | the POST process and |
| | All, but Diskette | notify you. |
| | All, but Disk/ Key | |
| Base Memory | N/A | Displays the amount of |
| | | conventional memory |
| | | detected during boot up. |
| Extended Memory | N/A | Displays the amount of |
| | | extended memory detected |
| | | during boot up. |
| Total Memory | N/A | Displays the total memory |
| | | available in the system. |

3 Advanced BIOS Features

■ Figure 3. Advanced BIOS Setup

| Phoenix - AwardBIOS CMOS Setup Utility Advanced BIOS Features | | | |
|--|---|--|--|
| Virus Warning [Disabled] | Item Help | | |
| <u>CPU</u> Internal Cache [Enabled] | Menu Level 🕨 | | |
| External Cache [Enabled] CPU L2 Cache ECC Checking [Enabled] Out-the Deventor Conference (Enabled) | Allows you to choose | | |
| Boot Up NumLock Status [On] | feature for IDE Hard | | |
| Typematic Rate Setting [Disabled] | protection. If this | | |
| x Typematic Rate (Chars/Sec) 6 x Typematic Delay (Msec) 250 | function is enabled and someone attempt to | | |
| Security Option [Setup] APIC Mode [Enabled] | write data into this area , BIOS will show | | |
| MPS Version Control For OS[1.4] OS Select For DRAM > 64MB [Non-OS2] | a warning message on screen and alarm beep | | |
| Video BIOS Shadow [Enabled] Summary Screen Show [Disabled] | | | |
| | | | |
| t↓→+:Move Enter:Select +/-/PU/PD:Value F10:Save E | SC:Exit F1:General Help | | |

Virus Warning

This option allows you to choose the Virus Warning feature that is used to protect the IDE Hard Disk boot sector. If this function is enabled and an attempt is made to write to the boot sector, BIOS will display a warning message on the screen and sound an alarm beep. **Disabled** (default) Virus protection is disabled.

Enabled Virus protection is activated.

Boot Seq & Floppy Setup

First/ Second/ Third/ Boot Other Device

These BIOS attempt to load the operating system from the device in the sequence selected in these items.

The Choices: Floppy, LS120, HDD-0, SCSI, CDROM, HDD-1, HDD-2, HDD-3, ZIP100, LAN, Disabled.

Swap Floppy Drive

For systems with two floppy drives, this option allows you to swap logical drive assignments.

The Choices: Disabled (default), Enabled.

Boot Up Floppy Seek

Enabling this option will test the floppy drives to determine if they have 40 or 80

tracks. Disabling this option reduces the time it takes to boot-up. **The Choices: Disabled** (default), Enabled.

CPU Internal Cache

Depending on the CPU/chipset in use, you may be able to increase memory access time with this option.

The Choices: Enabled (default) Disabled

Enable cache. Disable cache.

External Cache

This option you to enable or disable "Level 2" secondary cache on the CPU, which may improve performance.
The Choices:
Enabled (default)
Disabled
Disabled
Disable cache.

CPU L2 Cache ECC Checking

This item allows you to enable/disable CPU L2 Cache ECC Checking. The Choices: Disabled, Enabled (default).

Quick Power On Self Test

Enabling this option will cause an abridged version of the Power On Self-Test (POST) to execute after you power up the computer.

The Choices: Enabled (default) Disabled

Enable quick POST. Normal POST.

Boot Up NumLock Status

Selects the NumLock. State after power on. On (default) Numpad is number keys. Off Numpad is arrow keys.

Gate A20 Option

Select if chipset or keyboard controller should control Gate A20. Normal A pin in the keyboard controller controls Gate A20. Fast (default) Lets chipset control Gate A20.

Typematic Rate Setting

When a key is held down, the keystroke will repeat at a rate determined by the keyboard controller. When enabled, the typematic rate and typematic delay can be configured. **Disabled** (default) Enabled

Typematic Rate (Chars/Sec)

Sets the rate at which a keystroke is repeated when you hold the key down. **The Choices: 6** (default), 8,10,12,15,20,24,30.

Typematic Delay (Msec)

Sets the delay time after the key is held down before it begins to repeat the keystroke. **The Choices: 250** (default), 500,750,1000.

Security Option

This option will enable only individuals with passwords to bring the system online and/or to use the CMOS Setup Utility.

| System | A password is required for the system to boot and is |
|-----------------|--|
| | also required to access the Setup Utility. |
| Setup (default) | A password is required to access the Setup Utility only. |

This will only apply if passwords are set from the Setup main menu.

APIC Mode

By selecting Enabled enables ACPI device mode reporting from the BIOS to the operating system.

The Choices: Enabled (default), Disabled.

MPS Version Control For OS

The BIOS supports version 1.1 and 1.4 of the Intel multiprocessor specification. Select version supported by the operation system running on this computer. **The Choices: 1.4** (default), 1.1.

OS Select For DRAM > 64MB

A choice other than Non-OS2 is only used for OS2 systems with memory exceeding 64MB. The Choices: Non-OS2 (default), OS2.

Video BIOS Shadow

Determines whether video BIOS will be copied to RAM for faster execution.

| The Choices: | |
|------------------|----|
| Enabled (default | t) |
| Disabled | |

Optional ROM is enabled. Optional ROM is disabled.

Summary Screen Show

This item allows you to enable/ disable display the Summary Screen Show. The Choices: Disabled (default), Enabled.

4 Advanced Chipset Features

This submenu allows you to configure the specific features of the chipset installed on your system. This chipset manage bus speeds and access to system memory resources, such as DRAM and external cache. It also coordinates communications with the PCI bus. The default settings that came with your system have been optimized and therefore should not be changed unless you are suspicious that the settings have been changed incorrectly.

■ Figure 4. Advanced Chipset Setup

| Phoenix - AwardBIOS CMOS Setup Utility Advanced Chipset Features | | | |
|--|--------------------------|--|--|
| DRAM Clock/Drive Control [Press Enter] DOD & DOD Prides Control [Dress Enter] | Item Help | | |
| Hor & P2r Bridge Control [Press Enter] CPU & PCI Bus Control [Press Enter] Memory Hole [Disabled] System BIOS Cacheable [Disabled] Video RAM Cacheable [Disabled] VGA Share Memory Size [32M] | Menu Level ► | | |
| ↑↓→+:Move Enter:Select +/-/PU/PD:Value F10:Save I F5:Previous Values F7: Optim | ESC:Exit F1:General Help | | |

DRAM Clock/Drive Control

To control the Clock/Drive. If you highlight the literal "Press Enter" next to the "DRAM Clock/Drive Control" label and then press the enter key, it will take you a submenu with the following options:

DRAM Clock

This item determines DRAM clock following 100MHz, 133MHz or By SPD. **The Choices:** 100MHz, 133MHz, **By SPD** (default).

DRAM Timing

This item determines DRAM clock/ timing follow SPD or not. **The Choices: By SPD** (default), Manual.

DRAM CAS Latency

When DRAM is installed, the number of clock cycles of CAS latency depends on the DRAM timing. The Choices: 2.5 (default), 2.

Bank Interleave

This item allows you to enable or disable the bank interleave feature. **The Choices: Disabled** (default), 2 bank, 4 bank.

Precharge to Active (Trp)

This items allows you to specify the delay from precharge command to activate command. The Choices: 2T, 3T (default).

, , , ,

Active to Precharge (Tras)

This items allows you to specify the minimum bank active time. **The Choices: 6T** (default), 5T.

Active to CMD (Trcd)

Use this item to specify the delay from the activation of a bank to the time that a read or write command is accepted. **The Choices**: 2T, **3T** (default).

DRAM Command Rate

This item controls clock cycle that must occur between the last valid write operation and the next command. **The Choices:** 1T Command, **2T Command** (default).

AGP & P2P Bridge Control

If you highlight the literal "Press Enter" next to the "AGP & P2P Bridge Control" label and then press the enter key, it will take you a submenu with the following options:

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.

The Choices: 64M (default), 256M, 128M, 32M, 16M, 8M, 4M.

AGP Driving Control

By choosing "Auto" the system BIOS will the AGP output Buffer Drive strength P Ctrl by AGP Card. By choosing "Manual", it allows user to set AGP output Buffer Drive strength P Ctrl by manual.

The Choices: Auto (default), Manual.

AGP Driving Value

While AGP driving control item set to "Manual", it allows user to set AGP driving.

The Choices: DA (default).

AGP Fast Write The Choices: Enabled, Disabled (default).

AGP Master 1 WS Write

When Enabled, writes to the AGP (Accelerated Graphics Port) are executed with one-wait states.

The Choices: Disabled (default), Enabled.

AGP Master 1 WS Read

When Enabled, read to the AGP (Accelerated Graphics Port) are executed with one wait states. The Choices: Disabled (default), Enabled.

CPU & PCI Bus Control

If you highlight the literal "Press Enter" next to the "CPU & PCI Bus Control" label and then press the enter key, it will take you a submenu with the following options:

PCI1 Master 0 WS Write

When enabled, writes to the PCI bus are executed with zero-wait states. The Choices: Enabled (default), Disabled.

PCI2 Master 0 WS Write

When enabled, writes to the AGP bus are executed with zero-wait states. The Choices: Enabled (default), Disabled.

PCI1 Post Write

When Enabled, CPU writes are allowed to post on the PCI bus. The Choices: Enabled (default), Disabled.

PCI2 Post Write

When Enabled, CPU writes are allowed to post on the AGP bus. The Choices: Enabled (default), 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. The Choices: Enabled (default), Disabled.



Memory Hole

When enabled, you can reserve an area of system memory for ISA adapter ROM. When this area is reserved, it cannot be cached. Refer to the user documentation of the peripheral you are installing for more information.

The Choices: Disabled (default), 15M – 16M.

System BIOS Cacheable

Selecting the "Enabled" option allows caching of the system BIOS ROM at F0000h-FFFFFh, which can improve system performance. However, any programs writing to this area of memory will cause conflicts and result in system errors. **The Choices:** Enabled, **Disabled** (default).

Video RAM Cacheable

Enabling this option allows caching of the video RAM, resulting a better system performance. However, if any program writes to this memory area, a system error may result.

The Choices: Disabled (default), Enabled.

VGA Share Memory Size

This item allows you to select the VGA share memory size. **The Choices: 32M** (default), 16M, 8M, Disabled.

5 Integrated Peripherals

■ Figure 5. Integrated Peripherals

| Phoenix – AwardBIOS CMOS Setup Utility Integrated Peripherals | | | | | | |
|--|--------------------------------|---|--------------------------|--------------------------------|-----------|------|
| ▶ OnChip IDE C ▶ OnChip PCI D ▶ SuperIQ Devi | ontrol evice ce | [Press Enter] [Press Enter] [Press Enter] | | Item Menu Level | Help ▶ | |
| Īnit Display OnChip USB C USB Keyboard | -First ontroller Support | [PCI Slot] [All Enabled] [Disabled] | | | | |
| | | | | | | |
| †↓→+:Move Ente F5:P | r:Select +/- revious Value | /PU/PD:Value s | F10:Save E F7: Optimi | ESC:Exit F1:0 ized Defaults | General | Help |

OnChip IDE Control

The chipset contains a PCI IDE interface with support for two IDE channels. Select "Enabled" to activate the first and / or second IDE interface. If you install a primary and / or secondary add-in IDE interface, select "Disabled" to deactivate an interface. If you highlight the literal "Press Enter" next to the "Onchip IDE Control" label and then press the enter key, it will take you a submenu with the following options:

On-Chip Primary / Secondary PCI IDE

The integrated peripheral controller contains an IDE interface with support for two IDE channels. Select Enabled to activate each channel separately. **The Choices: Enabled** (default), Disabled.

IDE Prefetch Mode

The "onboard" IDE drive interfaces supports IDE prefetching for faster drive access. If the interface does not support prefetching. If you install a primary and/or secondary add-in IDE interface, set this option to "Disabled". **The Choices: Enabled** (default), Disabled.

IDE Primary / Secondary Master / Slave PIO

The IDE PIO (Programmed Input / Output) fields let you set a PIO mode (0-4) for each of the IDE devices that the onboard IDE interface supports. Modes 0

through 4 provides successively increased performance. In Auto mode, the system automatically determines the best mode for each device. The Choices: Auto (default), Mode0, Mode1, Mode2, Mode3, Mode4.

IDE Primary / Secondary Master / Slave UDMA

Ultra DMA/100 functionality can be implemented if it is supported by the IDE hard drives in your system. As well, your operating environment requires a DMA driver (Windows 95 OSR2 or a third party IDE bus master driver). If your hard drive and your system software both support Ultra DMA/100, select Auto to enable BIOS support.

The Choices: Auto (default), Disabled.

IDE HDD Block Mode

Block mode is also called block transfer, multiple commands, or multiple sector read / write. If your IDE hard drive supports block mode (most new drives do), select Enabled for automatic detection of the optimal number of block mode (most new drives do), select Enabled for automatic detection of the optimal number of block read / write per sector where the drive can support. The Choices: Enabled (default), Disabled.

OnChip PCI Device

If you highlight the literal "Press Enter" next to the "OnChip PCI Device" label and then press the enter key, it will take you a submenu with the following options:

VIA-3058 AC97 Audio

This option allows you to control the onboard AC97 audio. The Choices: Auto (default), Disabled.

VIA-3068 MC97 Modem

This option allows you to control the onboard MC97 modem. The Choices: Auto (default), Disabled.

VIA-3043 OnChip LAN

This option allows you to control the onboard LAN. The Choices: Enabled (default), Disabled.

Onboard Lan Boot ROM

This item allows you to decide whether to invoke the boot ROM of the onboard LAN chip.

The Choices: Enabled, Disabled (default).

Super IO Device

If you highlight the literal "Press Enter" next to the "Super IO Device" label and then press the enter key, it will take you a submenu with the following options:

Onboard FDC Controller

Select Enabled if your system has a floppy disk controller (FDC) installed on the system board and you wish to use it. If install and FDC or the system has no floppy drive, select Disabled in this field. The Choices: Enabled (default), Disabled.

Onboard Serial Port 1

Select an address and corresponding interrupt for the first and second serial ports. The Choices: Disabled, 3F8/IRQ4 (default), 2F8/IRQ3, 3E8/IRQ4, 2E8/IRQ3, Auto.

Onboard Serial Port 2

Select an address and corresponding interrupt for the first and second serial ports. The Choices: Disabled (default), 2F8/IRQ3, 3F8/IRQ4, 3E8/IRQ4, 2E8/IRQ3, Auto.

UART Mode Select

This item allows you to determine which Infra Red (IR) function of onboard I/O chip.

The Choices: Normal, ASKIR, IrDA (default).

RxD, **TxD** Active

This item allows you to determine which Infrared (IR) function of onboard I/O chip.

The Choices: Hi / Lo (default), Hi / Hi, Lo / Hi, Lo / Lo.

IR Transmission Delay

This item allows you to enable/disable IR transmission delay. The Choices: Enabled (default), Disabled.

UR2 Duplex Mode

Select the value required by the IR device connected to the IR port. Full-duplex mode permits simultaneous two-direction transmission. Half-duplex mode permits transmission in one direction only at a time. The Choices: Half (default), Full.

Use IR Pins

Consult your IR peripheral documentation to select the correct setting of the TxD and RxD signals. The Choices: IR-Rx2Tx2 (default), RxD2, TxD2.

Onboard Parallel Port

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

The Choices: 378/IRQ7 (default), 278/IRQ5, 3BC/IRQ7, Disabled.

Parallel Port Mode

The default value is SPP. **SPP** (default)

EPP

| t) | Using Parallel port as Standard Printer Port. |
|----|---|
| | Using Parallel port as Enhanced Parallel |
| | Port. |
| | Using Parallel port as Extended Capabilities |
| | Port |
| | Using Parallel port as ECP & EPP mode. |

ECP

ECP+EPP

EPP Mode Select

Select EPP port type 1.7 or 1.9. The Choices: EPP 1.7(default), EPP1.9.

ECP Mode Use DMA

Select a DMA Channel for the port. The Choices: 3 (default), 1.

Game Port Address Game Port I/O Address.

The Choices: 201 (default), 209, Disabled.

Midi Port Address

Midi Port Base I/O Address. The Choices: 330 (default), 300, 290, Disabled.

Midi Port IRQ

This determines the IRQ in which the Midi Port can use. The Choices: 10 (default), 5.

Init Display First

With systems that have multiple video cards, this option determines whether the primary display uses a PCI Slot or an AGP Slot.

The Choices: PCI Slot (default), AGP.

OnChip USB Controller

This option should be enabled if your system has a USB installed on the system board. You will need to disable this feature if you add a higher performance controller. **The Choices: All enabled** (default).

USB Keyboard Support

Enables support for USB attached keyboards. The Choices: Disabled (default), Enabled.

6 Power Management Setup

The Power Management Setup Menu allows you to configure your system to utilize energy conservation and power up/power down features.

■ Figure 6. Power Management Setup

| Phoenix - AwardBIOS CMOS Setup Utility Power Management Setup | | | |
|---|--|--------------------------|--|
| ACPI function | [Enabled] | Item Help | |
| HCPI Suspend Type Power Management Option HDD Power Down Suspend Mode Video Off Option Video Off Method MODEM Use IRQ Soft-Off by PWRBTN State After Power Failure ► Wake Up/Power On Control ► Reload Global Timer Event | ISI(PUS)] [User Define] [Disable] [Suspend -> Off] [V/H SYNC+Blank] [3] [Instant-Off] [Off] [Press Enter] [Press Enter] | Menu Level ► | |
| -/++:Move Enter:Select +/- F5:Previous Value | -/PU/PD:Value F10:Save F7: Optim | ESC:Exit F1:General Help | |

ACPI function

This item displays the status of the Advanced Configuration and Power Management (ACPI).

The Choices: Enabled (default), Disabled.

ACPI Suspend Type

The item allows you to select the suspend type under the ACPI operating system.
The Choices: S1 (POS) (default)
S3 (STR)
S1 & S3
POS+STR

Power Management

This category allows you to select the type (or degree) of power saving and is directly related to the following modes: 1.HDD Power Down. 2.Suspend Mode.

There are four options of Power Management, three of which have fixed mode settings Min. Power Saving

> Minimum power management. Suspend Mode = 1 hr.HDD Power Down = 15 min

Max. Power Saving

Maximum power management only available for sl CPU's. Suspend Mode = 1 min. HDD Power Down = 1 min.

User Defined (default)

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

HDD Power Down

When enabled, the hard disk drive will power down and after a set time of system inactivity. All other devices remain active.

The Choices: Disabled (default), 1 Min, 2 Min, 3 Min, 4 Min, 5 Min, 6 Min, 7 Min, 8 Min, 9 Min, 10 Min, 11 Min, 12 Min, 13 Min, 14 Min, 15 Min.

Suspend Mode

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

The Choices: Disabled (default), 1 Min, 2 Min, 4 Min, 6 Min, 8 Min, 10 Min, 20 Min, 30 Min, 40 Min, and 1Hour.

Video Off Option

This field determines when to activate the video off feature for monitor power management.

The Choices: Suspend→Off (default), Always on, All Modes→Off.

Video Off Method

This option determines the manner in which the monitor is goes blank. V/H SYNC+Blank (default)

> This selection will cause the system to turn off the vertical and horizontal synchronization ports and write blanks to the video buffer. Blank Screen

This option only writes blanks to the video buffer.

DPMS

Initial display power management signaling.

Modem Use IRQ

This determines the IRQ, which can be applied in MODEM use. **The Choices: 3** (default),4 / 5 / 7 / 9 / 10 / 11 / NA.

Soft-Off by PWR-BTTN

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

The Choices: Delay 4 Sec, Instant-Off (default).

State After power failure

This field determines the action the system will automatically take when power is restored to a system that had lost power previously without any subsequent manual intervention. There are 3 sources that provide current to the CMOS area that retains these Power-On instructions; the motherboard battery (3V), the Power Supply (5VSB), and the Power Supply (3.3V). While AC is not supplying power, the motherboard uses the motherboard battery (3V). If AC power is supplied and the Power Supply is not turned on, 5VSB from the Power Supply is used. When the Power Supply is eventually turned on 3.3V from the Power Supply will be used.

There are 3 options: "Former-Sts", "On", "Off".

| "Former-Sts" | Means to maintain the last status of the CMOS when AC power is lost. |
|-----------------|--|
| "On" | Means always set CMOS to the "On" status when AC power is lost |
| "Off" (default) | Means always set CMOS to the "Off" status when AC power is lost. |

For example: If set to "Former-Sts" and AC power is lost when system is live, then after AC power is restored, the system will automatically power on. If AC power is lost when system is not live, system will remain powered off.

Wake Up/ Power On Control

If you highlight the literal "Press Enter" next to the "Wake Up/ Power On Control" label and then press enter key, it will take you to a submenu with the following options: **Power On by PCI card**

When you select Enabled, a PME signal from PCI card returns the system to Full On state.

The Choices: Disabled (default), Enabled. Wake Up on LAN/Ring

An input signal on the serial Ring Indicator (RI) line (in other words, an incoming call on the modem) awakens the system from a soft off state.

The Choices: Disabled (default), Enabled.

RTC Alarm Resume

This function is for setting date and time for your computer to boot up. During Disabled, you cannot use this function. During Enabled, Choose the Date and Time Alarm:

Date (of Month) Alarm You can choose which month the system will boot up.

Time (hh:mm:ss) Alarm You can choose shat hour, minute and second the system will boot up.

Note: If you have change the setting, you must let the system boot up until it oes to the operating system, before this function will work.

Reload Global Timer Events

Reload Global Timer Events 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 to a device, which is configured as Enabled, even when the system is in a power down mode.

VGA LPT & COM HDD & COM PCI Master off (default), on. LPT/COM (default), COM, LTP, None. On (default), off. Off (default), on.

7 PnP/PCI Configurations

This section describes configuring the PCI bus system. PCI, or Personal Computer Interconnect, is a system which allows I/O devices to operate at speeds nearing the speed of the CPU itself uses when communicating with its own special components. This section covers some very technical items and it is strongly recommended that only experienced users should make any changes to the default settings.

■ Figure 7. PnP/PCI Configurations

| Phoenix - AwardBIOS CMOS Setup Utility PnP/PCI Configurations | | | |
|---|---|---|--|
| PNP OS Installed Reset Configuration Data | [No] [Disabled] | Item Help | |
| Resources Controlled By × IRQ Resources PCI/VGA Palette Snoop Assign IRQ For VGA Assign IRQ For USB | [Auto(ESCD)] Press Enter [Disabled] [Enabled] [Enabled] | Menu Level ► Select Yes if you are using a Plug and Play capable operating system Select No if you need the BIOS to configure non-boot devices | |
| ↑↓→+:Move Enter:Select +/- E5:Previous Value | /PU/PD:Value F10:Save E s F7: Ontimi | ESC:Exit F1:General Help | |

PNP OS Installed

When set to YES, BIOS will only initialize the PnP cards used for the boot sequence (VGA, IDE, SCSI). The rest of the cards will be initialized by the PnP operating system like WindowTM 95. When set to NO, BIOS will initialize all the PnP cards. For non-PnP operating systems (DOS, NetwareTM), this option must set to NO.

The Choices: No (default), Yes.

Reset Configuration Data

The system BIOS supports the PnP feature which requires the system to record which resources are assigned and protects resources from conflict. Every peripheral device has a node, which is called ESCD. This node records which resources are assigned to it. The system needs to record and update ESCD to the memory locations. These locations (4K)

are reserved in the system BIOS. If the Disabled (default) option is chosen, the system's ESCD will update only when the new configuration varies from the last one. If the Enabled option is chosen, the system is forced to update ESCDs and then is automatically set to the "Disabled" mode.

The above settings will be shown on the screen only if "Manual" is chosen for the resources controlled by function.

Legacy is the term, which signifies that a resource is assigned to the ISA Bus and provides non-PnP ISA add-on cards. PCI / ISA PnP signifies that a resource is assigned to the PCI Bus or provides for ISA PnP add-on cards and peripherals.

The Choices: Disabled (default), Enabled.

Resources Controlled By

By Choosing "Auto(ESCD)" (default), the system BIOS will detect the system resources and automatically assign the relative IRQ and DMA channel for each peripheral.By Choosing "Manual", the user will need to assign IRQ & DMA for add-on cards. Be sure that there are no IRQ/DMA and I/O port conflicts.

IRQ Resources

This submenu will allow you to assign each system interrupt a type, depending on the type of device using the interrupt. When you press the "Press Enter" tag, you will be directed to a submenu that will allow you to configure the system interrupts. This is only configurable when "Resources Controlled By" is set to "Manual".

| IRQ-3 | assigned to | PCI Device |
|--------|-------------|------------|
| IRQ-4 | assigned to | PCI Device |
| IRQ-5 | assigned to | PCI Device |
| IRQ-7 | assigned to | PCI Device |
| IRQ-9 | assigned to | PCI Device |
| IRQ-10 | assigned to | PCI Device |
| IRQ-11 | assigned to | PCI Device |
| IRQ-12 | assigned to | PCI Device |
| IRQ-14 | assigned to | PCI Device |
| IRQ-15 | assigned to | PCI Device |

PCI / VGA Palette Snoop

Choose Disabled or Enabled. Some graphic controllers which are not VGA compatible take the output from a VGA controller and map it to their display as a way to provide boot information and VGA compatibility.

However, the color information coming from the VGA controller is drawn from the palette table inside the VGA controller to generate the proper colors, and the graphic controller needs to know what is in the palette of the VGA controller. To do this, the non-VGA graphic controller watches for the Write access to the VGA palette and registers the snoop data. In PCI based systems, where the VGA controller is on the PCI bus and a non-VGA

graphic controller is on an ISA bus, the Write Access to the palette will not show up on the ISA bus if the PCI VGA controller responds to the Write.

In this case, the PCI VGA controller should not respond to the Write, it should only snoop the data and permit the access to be forwarded to the ISA bus. The non-VGA ISA graphic controller can then snoop the data on the ISA bus. Unless you have the above situation, you should disable this option.

Disabled (default) Enabled Disables the function. Enables the function.

Assign IRQ For VGA

Lets the user choose which IRQ to assign for the VGA. **The Choices: Enabled** (default), Disabled.

Assign IRQ For USB

Lets the user choose which IRQ to assign for the USB. **The Choices: Enabled** (default), Disabled.

8 PC Health Status

■ Figure 8. PC Health Status

| Phoenix - AwardBIOS CMOS Setup Utility PC Health Status | | | |
|--|---|--|--|
| Current CPU Temperature | Item Help | | |
| Current SySFAN Speed | Menu Level 🕨 | | |
| 0.00 Voltage 3.3 V + 5 V +12 V −12 V | Enable/Disable show HardWare Monitor Value | | |
| - 5 V Show H/W Monitor in POST [Enabled] Chassis Open Warnning [Disabled] Shutdown Temperature [Disabled] | | | |
| | | | |
| t↓↔:Move Enter:Select +/-/PU/PD:Value F10:Save F5:Previous Values F7: Optim | ESC:Exit F1:General Help ized Defaults | | |

Current CPU Temperature

This field displays the current temperature of the CPU.

Current CPUFAN Speed

This field displays the current speed of CPU fan.

Current SYSFAN Speed

This field displays the current speed SYSTEM fan.

CPU Vcore/AGP Voltage/+3.3V/+5V/+12V/-12V/-5V/ Voltage Battery

Detect the system's voltage status automatically.

Show H/W Monitor in POST

If your computer contains a monitoring system, it will show PC health status during POST stage. The item offers several delay time for you to choose. **The Choices: Enabled** (default), Disabled.

Chassis Open Warning

The Choices: Disabled (defautl), Enabled.

Shutdown Temperature

This item allows you to set up the CPU shutdown Temperature. This item only effective under Windows 98 ACPI mode.

The Choices: Disabled (default), 60° C/140°F, 65° C/149°F, 70° C/158°F, 75° C/167°F.

9 Frequency Control

■ Figure 9. Frequency Control

| Phoenix - AwardBIOS CMOS Setup Utility Frequency Control | |
|---|---|
| Auto Detect DIMM/PCI Clk [Enabled] | I] Item Help |
| Spread Spectrum (+/-0.2 CPU Host/PCI Clock [Defaul | Menu Level ► |
| ↑↓→+:Move Enter:Select +/-/PU/PD:Va F5:Previous Values | lue F10:Save ESC:Exit F1:General Help F7: Optimized Defaults |

Auto Detect DIMM/PCI Clk

This item allows you to enable / disable auto Detect PCI Clock. The Choices: Enabled (default), Disabled.

Spread Spectrum

This item allows you to enable / disable spectrum for all clock. **The Choices: +/-0.25%** (default), Disabled, -0.5%, +/-0.5%, +/-0.75%.

CPU Host/ PCI Clock

This item allows you to select CPU Clock, and CPU over clocking.

| ~ | If unfortunately, the system's frequency that you are selected is |
|---|---|
| | not functioning, there are two methods of booting-up the system. |
| | Method 1: Clear the COMS data by setting the JCOMS1 ((2-3) closed) |
| | as "ON" status. All the CMOS data will be loaded a |
| | defaults setting. |
| | Method 2: Press the <insert> key and Power button simultaneously</insert> |
| | after that keep-on pressing the <insert> key until the</insert> |
| | power-on screen showed. This action will boot-up th |
| | system according to FSB of the processor. |
| | |

% It's strongly recommended to set CPU Vcore and clock in default setting. If the CPU Vcore and clock are not in default setting, it may cause CPU or M/B damage.