# M7VIG Pro

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# English

# **M7VIG Pro Features**

- Use VIA VT8375 (KM266)/ VT8235 Chipset, Winbond W83697HF, LAN Chip- VT6103 (optional).
- Contains on board I/O facilities, which include one serial port, one VGA port, a parallel port, a PS/2 mouse port, a PS/2 keyboard port, audio ports, USB 2.0 ports, a LAN port (optional) and a game port.
- Supports the single AMD Socket A for Athlon<sup>™</sup> (Thunderbird<sup>™</sup>) / Athlon XP<sup>™</sup> / Duron<sup>™</sup> processors running at 200/266 MHz Front Side Bus (FSB).
- Supports Ultra 133/100/66/33, PIO modes, IDE hard disk drives, LBA mode.
- Supports 2 DDR 200/266 MHz (without ECC) devices, maximum memory size up to 2GB.
- Supports 2 SDR 100/133 MHz (without ECC) devices, maximum memory size up to 2 GB.
- Supports one CNR Slot (Type B only), three 32-bit PCI Bus slots, and one AGP Slot.
- Complies with PC Micro-ATX form factor specifications.
- Supports popular operating systems such as Windows NT, Windows 2000, Windows ME, Windows XP, LINUX and SCO UNIX.
- AC'97 2.2 compatible.
- High S/N ratio meets PC 99 requirements.
- 6CH DAC, applicable for leading motherboard chipsets.
- Line-in phonejack share with rear out.
- Supports front audio pin head functions.

# **Package contents**

- O HDD Cable X 1, FDD Cable X 1, Fully Setup Driver CD X 1
- Flash Memory Writer for BIOS update X1
- USB Cable X 2 (Optional)
- C Rear I/O Panel for ATX Case X 1 (Optional)

# Layout of M7VIG Pro



# **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 port 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	Maxis
DDR 2	64MB/128MB/256MB/512MB/1GB *1	2GB

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

# **SDR DIMM Modules: SDR1-2**

DRAM Access Time: 3.3V Unbuffered SDR 100/133 MHz Type required. DRAM Type: 64MB/ 128MB/ 256MB/ 512MB/ 1GB DIMM Module (184 pin)

DIMM Socket Location	SDR Module	Total Memory Size (MB)
SDR 1	64MB/128MB/256MB/512MB/1GB *1	Maxis
SDR 2	64MB/128MB/256MB/512MB/1GB *1	2GB

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

• When you use DDR SDRAM, the memory power will automatically set to 2.5V.

# • When you use SDRAM, the memory power will automatically set to 3.3V.

● For the above settings, you can only use one kind of memory on this motherboard. It is forbidden to insert both kind of memory simultaneously. You must insert only DDR or SDRAM.

### How to install a DIMM Module DDR SDRAM

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 slot 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.



### SDRAM

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 slot 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  $0\sim4$ , 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**

Your monitor will attach directly to that video card. This motherboard supports video cards for PCI slots, but it 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: JDIMMVOLT** 

******		
	Pin 1-2 on ==> Pin 3-4 on ==>	2.5V 2.6V
JDIMMVOLT	$Pin 5-6 \text{ on } \Longrightarrow$	2.7V
(Default ==> $2.5V$ )	Pin 7-8 on ==>	2.8V
1755 August 1997 August 199		

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

### Wake On LAN Header: WOL1



**Clear CMOS Jumper: JCMOS1** 



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## Front USB Header: JUSB2/ JUSB3

					A
e e e e e e e e e e e e e e e e e e e		Pin1,2	==>	+5V	
		Pin3,4	==>	Data(-)	
	2 00000	Pin5,6	==>	Data(+)	
		Pin7,8	==>	Ground	
	JUSB2/3	Pin9	==>	KEY	
		Pin10	==>	NA	

5V/ 5VSB Selection for USB: JUSBV1



**CPU Frequency Selection: JCLK1** 



5V/ 5VSB Selection for Keyboard: JKBV1



### CNR Codec Primary/ Secondary Selection: JCODECSEL

1Pin 1-2 ==> On board primary Codec (Default)JCODECSELPin 2-3 ==> CNR primary Codec

## Front Panel Connector: JPANEL1



Audio Subsystem: JF\_AUDIO/ JCDIN1





**Back Panel Connectors** 



# Español

# Características del M7VIG Pro

- Usa Chipset VIA VT8375 (KM266)/ VT8235, Winbond W83697HF, LAN Chip- VT6103 (opcional).
- Contiene facilidades I/O integrados en la placa madre en el que incluye un puerto en serie, un puerto VGA, un puerto paralelo, un puerto de ratón PS/2, un puerto de teclado PS/2, puerto de audio, puertos USB 2.0, un puerto LAN (opcional) y un puerto de juego.
- Soporta single AMD Socket A para procesadores Athlon™ (Thunderbird™)/ Athlon XP™/ Duron™ corriendo a 200/266 MHz Front Side Bus (FSB).
- Soporta Ultra 133/100/66/33, modos PIO, discos duros IDE, modo LBA.
- Soporta 2 dispositivos DDR 200/266 MHz (sin ECC), memoria máxima de hasta 2 GB.
- Soporta 2 dispositivos SDR 200/266 MHz (sin ECC), memoria máxima de hasta 2 GB.
- 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 AC'97 2.2.
- High S/N ratio reune los requisitos del PC 99.
- 6CH DAC, aplicables para chipsets de principales placas madres.
- Entrada de Línea compartido con el rear out.
- Soporta funciones del cabezal de contactos del audio frontal.

# Contenido del Paquete

- Cable HDD X 1, Cable FDD X 1, Configuración Completa del Driver CD X 1
- Flash Memory Writer para actualización del BIOS X 1
- Cable USB X 2 (Opcional)
- Panel Trasero I/O para Caja ATX X 1 (Opcional)

# Disposición del M7VIG Pro



# Instalación de la CPU



- 1. Tire de la palanca del lado del zócalo, luego levante la palanca hasta un ángulo de 90 grados.
- 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.
- 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 Tiempo de Acceso: 2.5V 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.

# Módulo SDR DIMM: SDR1-2

DRAM Tiempo de Acceso: 3.3V Unbuffered SDR 100/133 MHz Tipo requerido.

DRAM Tipo: 64MB/ 128MB/ 256MB/ 512MB/ 1GB Módulos DIMM (184 contactos)

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

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

**•** Cuando use DDR SDRAM, la corriente de la memoria automáticamente se configurará a 2.5V.

● Cuando use SDRAM, la corriente de la memoria automáticamente se configurará a 3.3V.

## Cómo instalar un Módulo DIMM DDR SDRAM

1. El zócalo 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.

### **SDRAM**

1. El zócalo 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 tipos de disquete. Éste 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 interface escalable del hardware en el que soporta solamente modem.

### Ranura de Interconexión del Componente Periférico: PCI1-3

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. Esta 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. Ésta tarjeta AGP tomará ventaja de la tecnología del AGP para el mejoramiento de la eficiencia y funcionamiento del video, especialmente con gráficos 3D.

### **Conectores de Corriente: JATXPWR1**



## Conector de Selección de la Corriente DIMM: JDIMMVOLT



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 Borrar CMOS: JCMOS1





Selección de Frecuencia del CPU: JCLK1



5V/ 5VSB Selección para Teclado: JKBV1



## CNR Codec de Selección Primario/ Secundario: JCODECSEL



## **Conector del Panel Frontal: JPANEL1**



## Subsistema de Audio: JF\_AUDIO/JCDIN1





**Conectores del Panel Trasero** 



# **Trouble Shooting**

PROBABLE	SOLUTION
No power to the system at all Power light don't illuminate, fan inside power supply does not turn on. Indicator lighton keyboard does not turn on	* Make sure power cable is securely plugged in * Replace cable * Contact technical support
PROBABLE	SOLUTION
System inoperative. Keyboard lights are on, power indicator lights are lit, hard drive is spinning.	<ul> <li>Using even pressure on both ends of the DIMM, press down firmly until the module snaps into place.</li> </ul>
PROBABLE	SOLUTION
System does not boot from hard disk drive, can be booted from CD-ROM drive.	<ul> <li>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.</li> <li>Backing up the hard drive is extremely important. All hard disks are capable of</li> </ul>
	breaking down at any time.
PROBABLE	SOLUTION
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. Reformat the hard drive. Re-install applications and data using backup disks.
PROBABLE	SOLUTION
Screen message says "Invalid Configuration" or "CMOS Failure."	<ul> <li>Review system's equipment . Make sure correct information is in setup.</li> </ul>
PROBABLE	SOLUTION
Cannot boot system after installing second hard	* Set master/slave jumpers correctly.
drive.	* Run SETUP program and select correct drive types. Call drive manufacturers for compatibility with 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	<ul> <li>* Asegúrese que el cable de transmisión esté seguramente enchufado.</li> <li>* Reemplace el cable</li> </ul>
luz del teclado apagado.	* Contacte avuda 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 el lugar.
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 con seguridad; controle el tipo de disco en la configuración estándar CMOS.
	* Copiando el disco rígido es extremadamente importante. Todos los discos rígidos son capaces de dañarse en cualquier momento.
CAUSA PROBABLE	SOLUCIÓN
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.	* Copie datos y documentos de aplicación. Vuelva a formatear el disco rígido. Vuelva a instalar las aplicaciones y datos usando el disco de copiado.
CAUSA PROBABLE	SOLUCIÓN
Mensaje de pantalla "Invalid Configuration" o "CMOS Failure."	* Revise el equipo del sistema. Asegúrese de que la información configurada sea correcta.
CAUSA PROBABLE	SOLUCIÓN
No puede arrancar después de instalar el segundo disco rígido.	<ul> <li>* Fije correctamente el puente master/esclavo.</li> <li>* Ejecute el programa SETUP y seleccione el tipo de disco correcto. Llame a una manufacturación del disco para compatibilidad con otros discos.</li> </ul>

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# **BIOS Setup**

### Introduction

This manual discussed Award<sup>™</sup> 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<sup>™</sup> 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 <sup>®</sup> 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 BIOS<sup>TM</sup>, 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 (menu bar)
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 BIOS<sup>TM</sup> 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 BIOS ↑↓ + + : 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) Timo (bb:mm:sc)	Tue, Oct 22 2002	Item Help	
The (minami SS)	10.27.30	Menu Level 🕨	
<ul> <li>IDE Frimary Master</li> <li>IDE Primary Slave</li> <li>IDE Secondary Master</li> <li>IDE Secondary Slave</li> </ul>		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		
↑↓→+:Move Enter:Select +. F5:Previous Val	/-/PU/PD:Value F10:Save ues F7: Optim	ESC:Exit F1:General Help ized 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
	1.2M, 5.25 in	disk drive installed in your
Drive B	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	
CPU Internal Cache [Enabled]	Menu Level 🕨	
External Cache [Enabled] CPV L2_Cache_ECC Checking [Enabled]	Allows you to choose	
Quick Power On Self lest [Enabled] Boot Up NumLock Status [On]	the VIRUS warning feature for IDE Hard	
Gate A20 Option [Fast] Typematic Rate Setting [Disabled]	Disk boot sector protection. If this	
x Typematic Rate (Chars/Sec) 6 x Typematic Delay (Msec) 250	function is enabled	
Security Option [Setup] QPTC Mode [Enabled]	write data into this	
MPS Version Control For OS[1.4]	a warning message on	
Video BIOS Shadow [Enabled]		
Summary Screen Snow [Disabled]		
†↓++:Move Enter:Select +/-/PU/PD:Value F10:Save E E5:Previous Values F7: Optim	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

Enable cache. Disable cache.

### CPU L2 Cache ECC Checking

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

### **Ouick 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) Off Numpad is number keys. 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)
 Optional ROM is enabled.

 Disabled
 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. 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	ck/Drive Control [Press Enter] Item	Item	Help	
<ul> <li>HGF &amp; P2P Bridge Control [Press Enter</li></ul>	.]	Menu Level	Þ	
1↓↔:Move Enter:Select +/-/PU/PD:Value F5:Previous Values	F10:Save   F7: Optim	ESC:Exit F1:0 ized Defaults	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 Burst Len The Choices: 4** (default), 8.

### **DRAM Queue Depth**

This item permits to place the depths of the memory. The deeper the depth is, the better is this function. **The Choices: 4 level** (default), 2 level, 3 level.

### **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 Mode**

This item allows you to select the AGP Mode. The Choices: 4X (default), 2X, 1X.

### **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

This item allows you to enable or disabled 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 Control     OnChip PCT Davise	[Press Enter]	Item Help
<ul> <li>SuperIO Device</li> <li>SuperIO Device</li> <li>Init Display First</li> <li>OnChip USB Controller</li> <li>USB Keyboard Support</li> </ul>	[Press Enter] [PcI Slot] [All Enabled] [Disabled]	Menu Level ►
1↓→+:Move Enter:Select → F5:Previous Val	+/-/PU/PD:Value F10:Save lues F7: Optim	ESC:Exit F1:General Help ized Defaults

### **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  $\ensuremath{\mathrm{I/O}}$  address.

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

### **Parallel Port Mode**

The default value is S	PP.
SPP	Using Parallel port as Standard Printer Port.
EPP (default)	Using Parallel port as Enhanced Parallel
	Port.
ECP	Using Parallel port as Extended Capabilities
	Port
ECP+EPP	Using Parallel port as ECP & EPP mode.

**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).

### **Onboard USB Controller**

This item allows you to enable or disable VT6202 USB 2.0 UHCI and EHCI Controller which provide higher bandwidth (480Mbps) and is backward compatible with USB 1.1. **The Choices: Enabled** (Default), Disabled.

## 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	[SI(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   es F7: Optim	ESC:Exit F1:General Help ized Defaults

### 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) Power on Suspend S3 (STR) Suspend to RAM

### **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".

Means to maintain the last status of the CMOS when AC
power is lost.
Means always set CMOS to the "On" status when AC
power is lost
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 changed the setting, you must let the system boot up until it goes to the operating system, before this function 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

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

The Choices: Off (default), On.

### LPT & COM

When this option is set to **On**, any event occurring at a COM(serial)/LPT (printer) port will awaken a system which has been powered down.

The Choices: LPT/COM (default), COM, LPT, NONE.

### HDD & FDD

When this option is set to **On**, any event occurring on a hard drive or a floppy drive will awaken a system which has been powered down. **The Choices: On** (default), Off.

#### **PCI Master**

When set to **On**, you need a LAN add-on card which supports the power function. It should also support the wake-up on LAN jump. **The Choices: 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 +/- F5:Previous Value	/PU/PD:Value F10:Save E s F7: Optimi	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 Window<sup>TM</sup> 95. When set to NO, BIOS will initialize all the PnP cards. For non-PnP operating systems (DOS, Netware<sup>TM</sup>), 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 IRO 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 🕨	
-12 V	Enable/Disable show HardWare Monitor Value	
5 ∛ Show H∕W Monitor in POST [Enabled]		
1↓++:Move Enter:Select +/-/PU/PD:Value F10:Save E5:Previous Values E7: Optim	ESC:Exit F1:General Help	

### 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 Voltage/3.3V/+5V/+12V/-12V/-5V

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.

# 9 Frequency Control

■ Figure 9. Frequency Control

Ph	oenix - AwardBIOS Frequency	CMOS Setup Ut: Control	ility	
Auto Detect DIMM/P	PCI Clk [Enabled]		Item Help	
Spread Spectrum CPU Host/PCI Clock	[+/-0.20%] [Defau]t]		Menu Level ►	
↑↓→+:Move Enter:Sele F5:Previou	ct +/-/PU/PD:Valu s Values	e F10:Save   F7:Optim	ESC:Exit F1:Gen ized Defaults	eral Help

### 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.

	····· ···· ···· ··· ··· ··· ··· ··· ··
$\wedge$	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 as
	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 the
	system according to FSB of the processor.
	X 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.