Motherboard 7KT400ANL/ 7KT600NL

Chapter 1 Specifications 4

1.1. Introduction 4

1.2. Specifications and Features 5

CPU 5
Chipset for 7KT400ANL 5
Chipset for 7KT600NL 5
DDR SDRAM Memory 5
Universal Serial Bus 5
Integrated AGP Interface 5
LAN On Board (optional) 6
WOL (Wake On LAN) 6
Award BIOS 6
ATA 133 On Board 6
SATA RAID Interface On Board 6
PCI-Based AC 97 Digital Audio Processor 6

1.3. 7KT400ANL/7KT600NL Layout 7

1.4 CPU Installation 8

1.5 DDR SDRAM Installation 8

1.6. Connectors & Jumpers Setting 9

1.6.1 Back Panel I/O Connectors 9
1.6.1.1 PS/2 Mouse / Keyboard CONN. 9
1.6.1.2 4xUSB Ports on Back Panel: 9
1.6.1.3 Serial Interface Port: COM1/COM2 10
1.6.1.4 Parallel Interface Port 10
1.6.1.5 Audio Port Connectors 10
1.6.1.6 LAN Connector: RJ45 10

1.6.2 ATX Main Power Connectors: ATXPWR 11
1.6.3 Floppy Disk Connector: FDD 11
1.6.4 Hard Disk Connectors: IDE1/IDE2 11
1.6.5 Cooling Fan Connectors: 12
1.6.6 CD Audio-In: CD_IN1 12
1.6.7 Wake On LAN Connector: WOL 12
1.6.8 USB Pin Headers: USBR4/5 and USB6/7 13
1.6.9 AGP 8X/4X Slot 13
1.6.10 Front Panel Connectors: PANEL1 14
1.6.11 Infrared module: IR/CIR Connector 15
1.6.12 DEBUG-LED1 15
1.6.13 Serial ATA Connectors: CN2 and CN3 15
1.6.14 Front Audio Connector: FP-AUDIO I 16
1.6.15 SPDIF Digital Audio Connector: J1 16
1.6.16 CMOS Function Selector: JBAT1 17
1.6.17 Keyboard/Mouse Wake-up select: J9 17
1.6.18 CN4 and USB4/5 Wake-up Select: J2 and J4 18
1.6.19 CPU Frequency Select: J8 18

Chapter 2 Drivers & Utilities..... 19

2.1. Auto-run Menu 19
2.2. Installing VIA 4-in-1 Service Pack 20
2.3. Installing Audio Driver 21
2.4. Installing VT8237 RAID Driver 22
2.5. LAN Drivers (optional) 24

Chapter 3. Compatibility Test 25

(1) CPU Compatibility Test 25
(2) Memory Compatibility Test 26
(3) AGP Display Card Compatibility Test 28

(Chapter 4 will only be presented in CD version .) 29

Chapter 4 BIOS Setup 29

4.1. BIOS Support 29
4.2. Main Menu 32
4.3. Standard CMOS Features 35
4.4. Advanced BIOS Features 39
4.5. Advanced Chipset Features 43
4.6. Integrated Peripherals 50
4.7. Power Management Setup 57
4.8. PnP/PCI Configurations 63
4.9. PC Health Status 66
4.10. Frequency/Voltage Control 67
4.11. Load Fail-Safe Defaults 68
4.12. Load Optimized Defaults 69
4.13. Set Supervisor / User Password 70
4.14. Save & Exit Setup 71
4.15. Exit Without Saving 72

Chapter 1 Specifications

1.1. Introduction

7KT400ANL motherboard is an integration of AMD Athlon/Duron CPU in Socket 462 packaging and the North Bridge VIA KT400A (VT8377A) supporting 333/266 MHz Front Side Bus and DDR400/333/266 SDRAM.

7KT600NL motherboard is an integration of AMD Athlon/Duron CPU in Socket 462 packaging and the North Bridge VIA KT600 supporting 400/333/266 MHz Front Side Bus and DDR400/333/266 SDRAM.

Both motherboards are integrated with South Bridge VT8237 to support 16-bit V-Link, Serial ATA/RAID controller, UDMA133/100/66, 10/100 Fast Ethernet LAN and 6-channel AC97 Audio.

The resulting architecture will provide an ideal multi-task environment to support operating systems such as MS-DOS, Windows, Windows NT , Windows ME, Windows 2000, Novell, OS/2, Windows 95/98, Windows 98SE, Windows XP, UNIX, Liunx, SCO UNIX etc. This user-friendly manual is to describe in detail how to install, configure and use this motherboard with drivers and BIOS setup illustrations.

This manual is a general reference of the first release of this motherboard which is subject to update without notice. If any difference is found between this manual and the motherboard you are using, please refer to the Web Site provided on this manual.

1.2. Specifications and Features

CPU

| 400/333/266 MHz System Interface speed for 7KT600NL; 333/266 MHz System Interface speed fro 7KT400ANL
| Single Socket 462 for AMD ™ Athlon CPUs 700MHz~3000+ or higher*, and Duron CPUs 600 ~ 1400 MHz or higher*

* The higher frequency CPU should be compatible with Intel CPU specificiation as well as the motherboard latest BIOS version which is released in our Web Site.

Chipset for 7KT400ANL

| VIA KT400A North Bridge
| VIA VT8237 South Bridge.

Chipset for 7KT600NL

| VIA KT600 North Bridge
| VIA VT8237 South Bridge.

DDR SDRAM Memory

| Supporting 64/128/256/512....MB DDR module
| Supporting Synchronous 400/333/266MHz DDR SDRAM
| Supporting DDR 400 SDRAM in 2 DIMM slots (up to 2GB) and other in 3 DIMM slots (up to 3GB)
| Supporting CL2/2.5 for DDR266/333 and CL2/3 for DDR 400

Universal Serial Bus

| Supporting 4 on-board Universal Serial Bus(USB Ports) and 4 external Universal serial Bus(USB Ports).
| Supporting USB 2.0/1.1

Integrated AGP Interface

| Supporting 1 x AGP4X/8X slot

PCI

| Supporting 33MHz 5x PCI Bus slots

Award BIOS

- Supporting Plug & Play specification which detects the peripheral devices and expansion cards automatically
- Supporting CD-ROM, SCSI, LAN BOOT, Temperature sensor, LAN, Alarm Bus CLK setup
- Supporting Desktop Management Interface (DMI) function for recording mainboard specification

ATA 133 On Board

- Supporting four IDE devices.
- Supporting PIO Mode 5, Master Mode, high performance hard disk drives.
- Supporting Ultra DMA 33/66/100/133 Bus Master Mode.
- Supporting IDE interface for high density HDD and CD-ROM.
- Supporting LBA mode.

SATA RAID Interface On Board

- 2 x SATA (Serial ATA) ports on board
- Supporting data transfer rate up to 150MB/s in SATA Hard Disk Drive
- Supporting RAID interface by VT8237

PCI-Based AC 97 Digital Audio Processor

- AC 97 2.2 compatible Codec, 6-channel Audio interface
- CMI 9761A on board

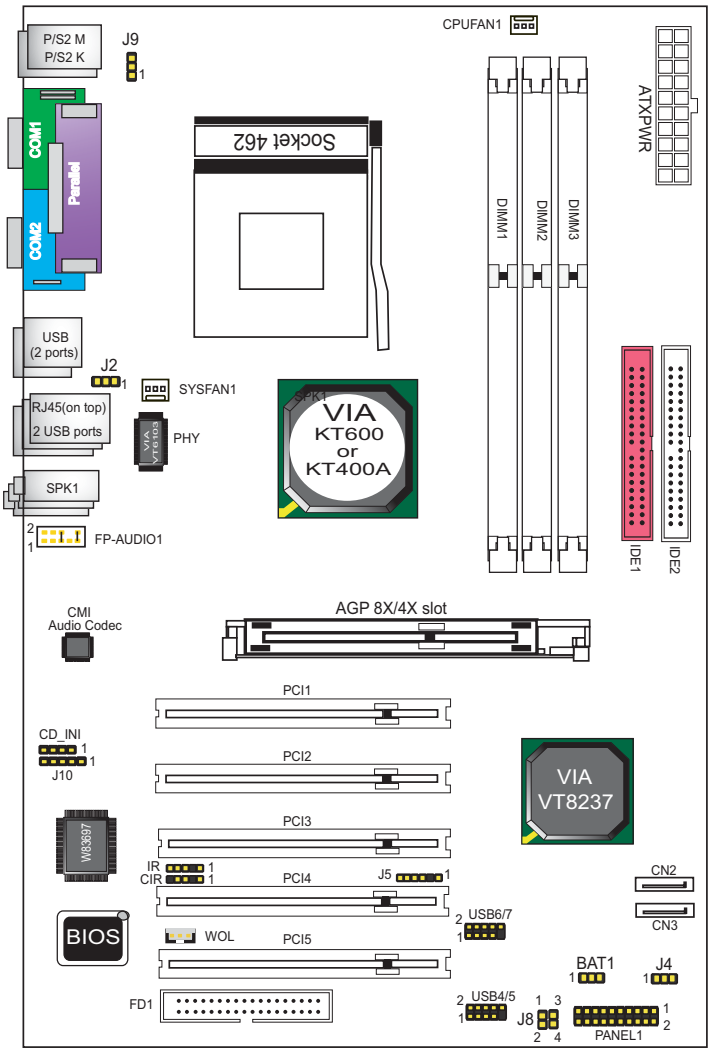
LAN On Board (optional)

- LAN Controller VT6103 on board
- Supporting 1 x RJ45 connector, with 10/100 Mb/s N-way auto-negotiation operation

WOL (Wake On LAN)

- Supporting system power-on by LAN Ring-up signal.

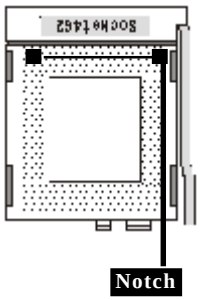
1.3. 7KT400ANL/7KT600NL Layout



1.4 CPU Installation

CPU Installation Procedures for Socket 462

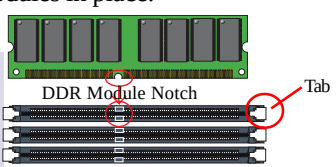
1. Pull the lever sideways away from the socket then raise the lever to a 90-degree angle.
2. Locate Pin 1 in the socket and look for the white dot or cut edge in the CPU. Match Pin 1 with the white dot/cut edge then insert the CPU.
3. Press the lever down to complete the installation.
4. Make sure the spec of the cooling fan is good enough.
5. Please lock the fan on CPU very carefully, or you will damage the resistor array even circuit line on the mainboard.



1.5 DDR SDRAM Installation

DDR SDRAM Installation Procedures:

1. The DDR socket has a "Plastic Safety Tab" and the DDR memory module has an asymmetrical notch", so the DDR memory module can only fit into the slot in one direction.
2. Push the tabs out. Insert the DDR memory modules into the socket at a 90-degree angle then push down vertically to fit onto place.
3. The Mounting Holes and plastic tabs should fit over the edge and hold the DDR memory modules in place.



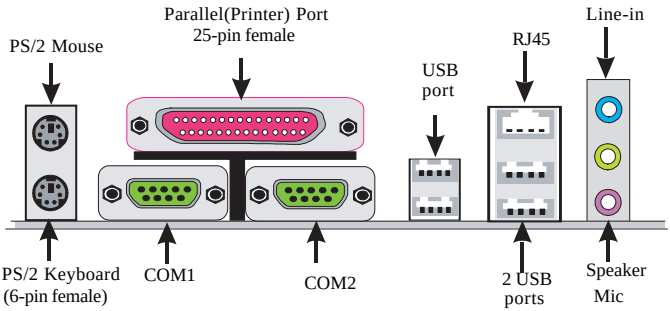
Note on SDRAM Support:

| Supporting 64/128/256/512.... MB DDR module
| Supporting Synchronous 400/333/266MHz DDR SDRAM
| Supporting DDR 400 SDRAM in 2 DIMM slots (up to 2GB) and other in 3 DIMM slots (up to 3GB)
| Supporting CL2/2.5 for DDR266/333 and CL2/3 for DDR 400

1.6. Connectors & Jumpers Setting

1.6.1 Back Panel I/O Connectors

This motherboard provides the following back panel connectors:



1.6.1.1 PS/2 Mouse / Keyboard CONN.

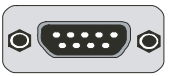
The motherboard provides a standard PS/2 mouse / Keyboard mini DIN connector for attaching a PS/2 mouse. You can plug a PS/2 mouse / Keyboard directly into this connector.

1.6.1.2 4xUSB Ports on Back Panel:

The motherboard provides a OHCI(Open Host Controller Interface)Universal Serial Bus Roots for attaching USB devices such as a keyboard, mouse and other USB devices. You can plug the USB devices directly into this connector.

1.6.1.3 Serial Interface Port: COM1/COM2

The serial interface port is sometimes referred to as an RS-232 port or an asynchronous communication port. Mice, printers, modems and other peripheral devices can be connected to a serial port. The serial port can also be used to connect computer systems together . If you like to transfer the contents of your hard disk to another system, it can be accomplished with serial port.



COM1/2: Serial Connector

1.6.1.4 Parallel Interface Port

Unlike serial ports, parallel interface ports have been standardized. Sometimes called a Centronics port, the parallel port is almost exclusively used with printers. The parallel port on your system is a 25-pin, DB 25 connector.

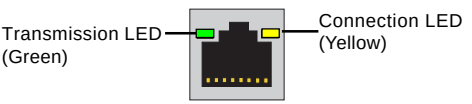
1.6.1.5 Audio Port Connectors

Speaker out is a connector for Speakers or Headphones. Line-in is used for external CD player, Tape player, or other audio devices. Mic is a connector for the microphones.

1.6.1.6 LAN Connector: RJ45

One RJ45 connector is on Back Panel for networking connection and also provides support for Wake On LAN function.

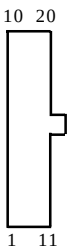
RJ45: LAN Connector



1.6.2 ATX Main Power Connectors: ATXPWR

This connector supports the power button on-board. Using the ATX power supply, functions such as Modem Ring Wake-Up and Soft Power Off are supported on this motherboard . This power connector supports instant power-on functionality, which means that the system will boot up instantly when the power connector is inserted on the board.

ATX 4-pin power connector only support +12V voltage.



Pin	Signal	Pin	Signal
1	3.3V	11	3.3V
2	3.3V	12	-12V
3	GND	13	GND
4	5V	14	PS-ON
5	GND	15	GND
6	5V	16	GND
7	GND	17	GND
8	PW-OK	18	-5V
9	5V_SB	19	5V
10	12V	20	5V

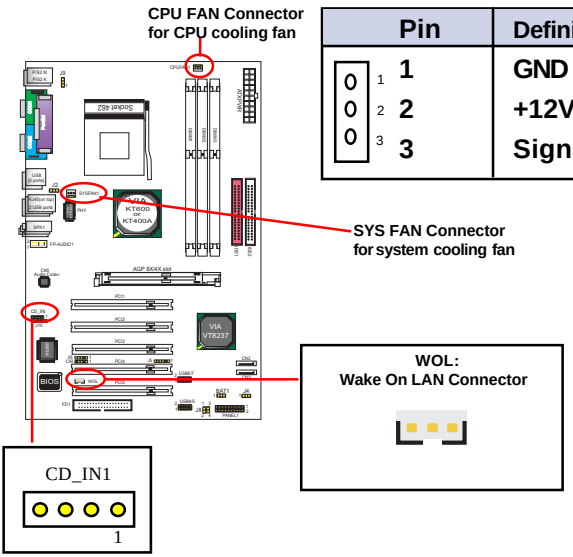
1.6.3 Floppy Disk Connector: FDD

This connector supports the provided floppy drive ribbon cable. After connecting the single end to the board, connect the two plugs on the other end to the floppy drives.

1.6.4 Hard Disk Connectors: IDE1/IDE2

These connectors are provided with IDE hard disk ribbon cable into the package . After connecting the end of cable with single connector to the mainboard, connect the other two connectors at the other end to your hard disk. If you install two hard disks, you must configure the second drive to Slave mode by setting its jumper settings. BIOS now supports SCSI device or IDE CD-ROM boot up (see "HDD Sequence SCSI/IDE First" & "Boot Sequence" in the BIOS Features Setup of the BIOS SOFTWARE).

1.6.5 Cooling Fan Connectors:



Pin	Definition
1	GND
2	+12VDC
3	Signal

1.6.6 CD Audio-In: CD_IN1

CD_IN1 are the connectors for CD-Audio Input signal. Please connect them to CD-ROM CD-Audio output connector.

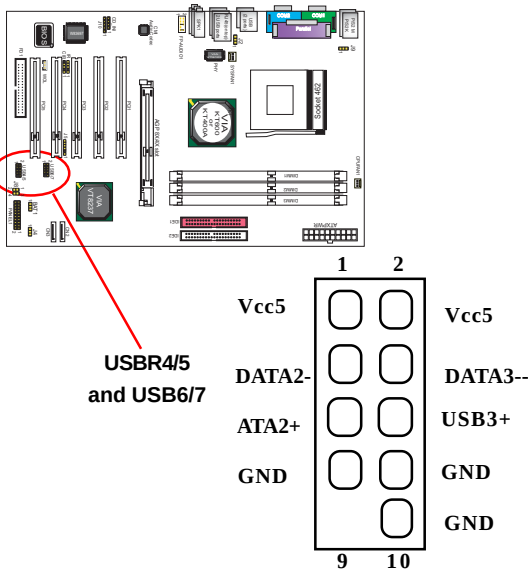
Pin CDIN	Definition
1	CD-L
2	CD-GND
3	CD-GND
4	CD-R

1.6.7 Wake On LAN Connector: WOL

CN2 is an Wake On LAN (WOL) connector for transmitting the Ring signal from a PCI LAN card to wake up system. If you use a PCI LAN card for system networking, you can connect this Wake On LAN connector with the PCI LAN card on board for Wake On LAN function.

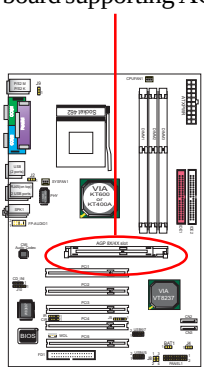
1.6.8 USB Pin Headers: USBR4/5 and USB6/7

USBR2/3 are 2x5 Pin Headers for support of 4 external USB ports. Each USB pin header requires a USB cable to connect to the chasis Front Panel for expansion of two USB ports.

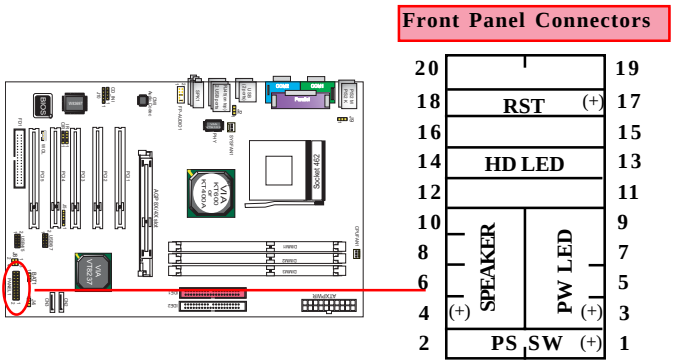


1.6.9 AGP 8X/4X Slot

AGP 8X/4X Slot on board supporting AGP 8X/4X digital display.



1.6.10 Front Panel Connectors: PANEL1



PSSW

The system power is controlled by a momentary switch connected to this lead. Pushing the button once will switch the system ON.

Power LED Lead (PW_LED)

The system power LED lights when the system power is on.

Speaker Connector (SPEAKER)

The speaker (onboard or offboard) provides error beep code information during the Power Self-Test when the computer cannot use the video interface. The speaker is not connected to the audio subsystem and does not receive output from the audio subsystem.

Hard Drive LED Connector (HD_LED)

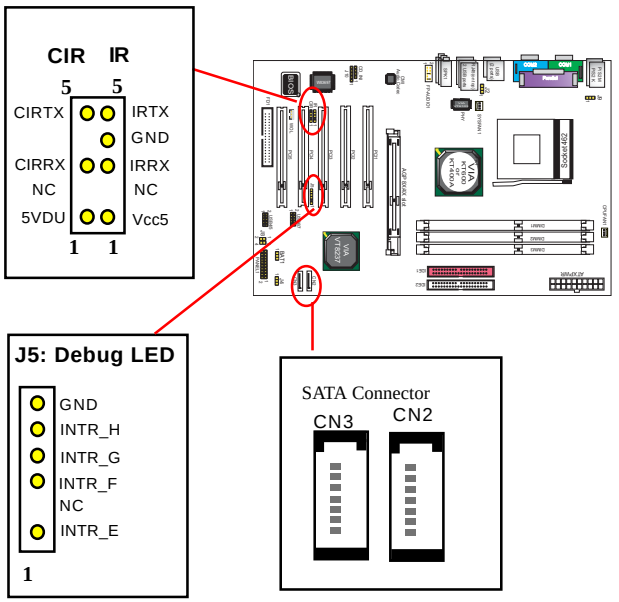
This connector supplies power to the cabinet IDE activity LED. Read and write activity by devices connected to the Primary or Secondary IDE connectors will cause the LED to light up.

Reset Switch Lead (RST)

The connector can be connected to a reset switch. Press this reset switch to restart system.

1.6.11 Infrared module: IR/CIR Connector

This connector supports the optional wireless transmission and reception infrared module. You must configure the setting through the BIOS setup to use the IR function.



1.6.12 DEBUG-LED1

This connector supports the SPIII debug.

1.6.13 Serial ATA Connectors: CN2 and CN3

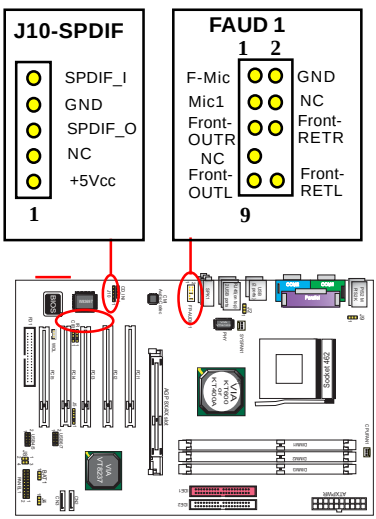
Two SATA Connectors are built on board for high speed data transfer rate up to 150MB/s. Hard Disk Drive with Serial ATA Interface is supported by these two SATA Connector. For RAID configuration, VT8237 supports CN2 and CN3 to configure RAID 0/1 system. RAID driver is provided in Driver CD for user's installation.

1.6.14 Front Audio Connector: FP-AUDIO I

This connector is a 2-channel audio-out connector supporting audio-out function.

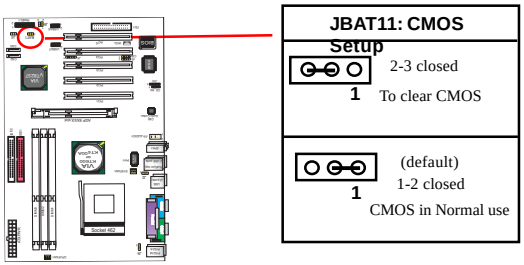
1.6.15 SPDIF Digital Audio Connector: J1

J1 supports the digital interface format SPDIF and provides the digital Audio input/output playback and supporting digital device (MD, Speaker)..



1.6.16 CMOS Function Selector: JBAT1

When you have problem with booting system, you may clear CMOS to restore the optimum default BIOS data.

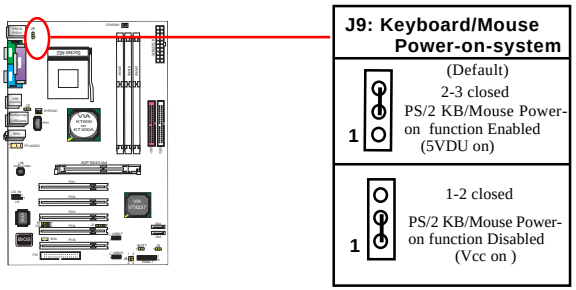


The "Clear CMOS" steps:

1. Remove the Jumper cap of JBAT1 from 1-2.
2. After 1 or two seconds, set JBAT1 to 2-3 closed with the jumper cap.
3. After 1 or two seconds, restore the JBAT1 to 1-2 closed.
   Now, the CMOS RAM has restored to the optimum default setting.

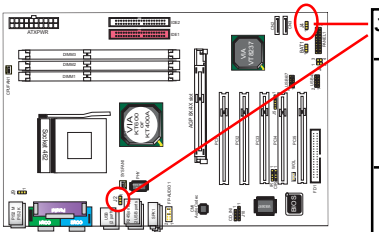
1.6.17 Keyboard/Mouse Wake-up select: J9

J9 is designed to enable /disable the Power-on-system function by PS/2 Keyboard/Mouse:



1.6.18 CN4 and USB4/5 Wake-up Select: J2 and J4

J2/J4 is designed to enable /disable the Wake-up--system function by USB Keyboard/Mouse (for CN4 and USB4/5):

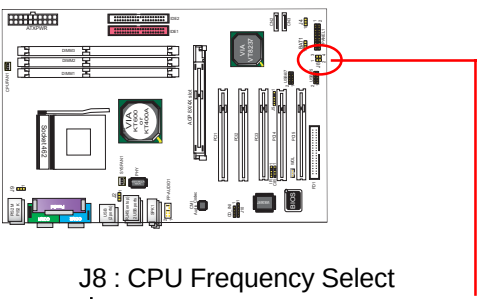


J2/J4: USB Keyboard/Mouse Wake-up-system Select

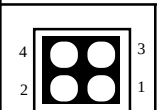
2-3 closed
(Default)
USB KB/Mouse Wake-up function Enabled
(5VDU on)

1-2 closed
USB KB/Mouse Wake-up function Disabled
(Vcc on)

1.6.19 CPU Frequency Select: J8



J8 : CPU Frequency Select

			
200MHz	166 MHz	133 MHz (default)	100 MHz

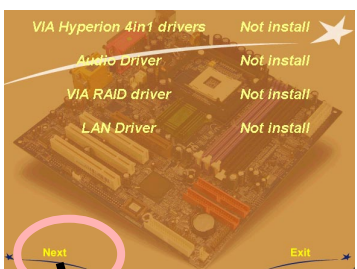
Chapter 2 Drivers & Utilities

There are motherboard drivers and utilities included in the disc attached in this motherboard package. You don't have to install all of them for booting your system. But after you have finished the hardware installation, you have to install an operation system (such as windows XP) before you are able to install any drivers or utilities.

Note: Please be aware of the different Procedures for installing drivers for Windows 98/ME/XP/2000 .

2.1. Auto-run Menu

You can use the auto-run menu in the driver CD attached in the motherboard package. Then choose the utility or driver to start installation.

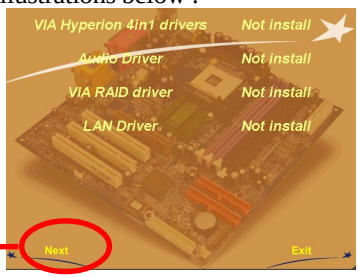


Click on "Next" to start.

2.2. Installing VIA 4-in-1 Service Pack

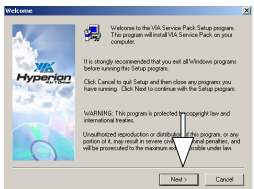
Enter the item "Chipset" of the Autorun program and install the VIA Service Pack. Follow the illustrations below :

(1)
Click "Next" on the Main Menu to start .

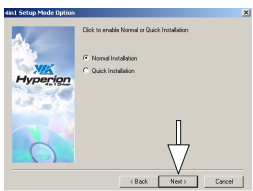


Click on "Next" to start.

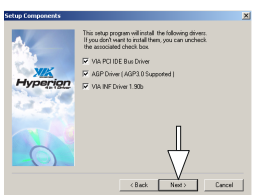
(2)
Click "Next" to continue.



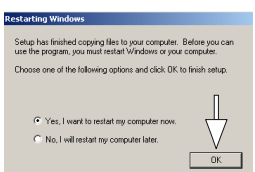
(3)
Click "Yes" to continue



(4)
Click "Next" to install VIA ATAPI Vender Support Driver, AGP Driver and VIA INF Driver.



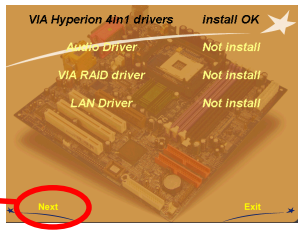
(5)
Tick the Restart button and click "OK" to restart system and complete the Chipset driver setup.



2.3. Installing Audio Driver

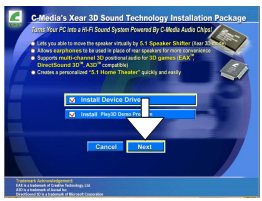
This motherboard comes with an AC97 CODEC V2.2, 6-channel compatible. You can find the Audio driver from this Auto-run menu.

(1)
Click "on "Next" to start Audio setup now.

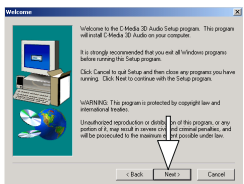


Click on "Next" to start.

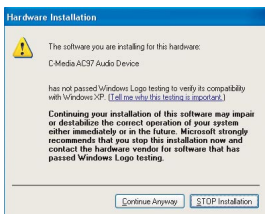
(2)
Click "Next" button to install C-Media Sound.



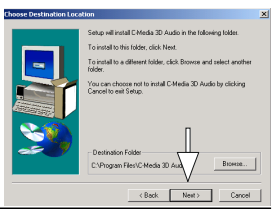
(3)
Click "Next" to continue.



(4)
For WinXP, the hardware setup will be given a warning. Click on the Continue Anyway to continue.



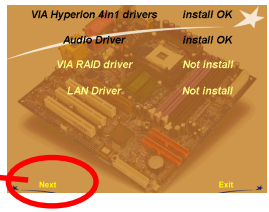
(5)
When this screen appears, click "Next" to continue until finish.



2.4. Installing VT8237 RAID Driver

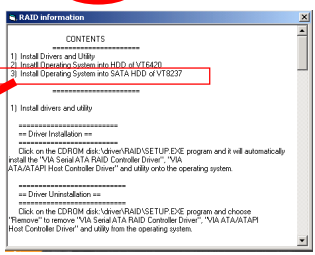
RAID driver should be installed manually into your OS. Following the following instructions to install VT8237 RAID driver into your system.

(1)
Click "Next to start RAID driver now.

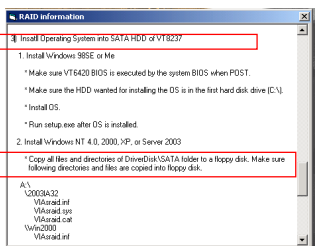


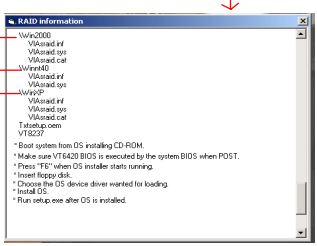
Click on "Next" to start.

(2)
Instantly, the VT8237 RAID driver instructions reveals. First, select the VT8237 RAID driver setup guidelines.



(3)
To start RAID setup, first install your Windows system with VT8237, and during OS setup, copy all driver files into OS. (You must follow the instructions shown herewith.)





Win2000
WinNT4.0
WinXP

(4)
Follow the Installation Guideline shown here to complete the VT8237 RAID Driver setup. Please select the correct driver for your specific OS.

(5)

During OS setup, the setup program will prompt you to insert the RAID Driver Diskette into Drive A. So you must get ready the VT8237 RAID driver diskette.

(6)

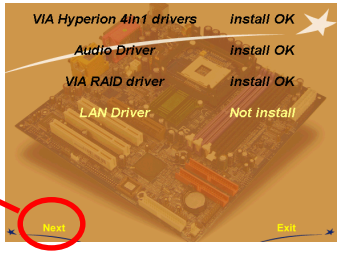
If you cannot find a VT8237 RAID Driver diskette provided by the Motherboard dealer or distributor, you then have to make one by yourself. The path to find the VT8237 RAID Driver is: Driver Support CD/Driver/RAID/Driver Disk

(7)

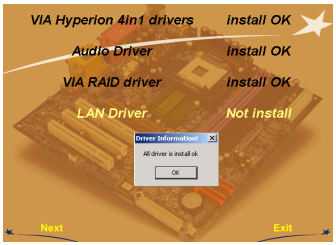
Download all files from the "Driver Disk" folder into a floppy disk and you make the VT8237 RAID Driver Disk by yourself now. You can now use this Driver Disk in WinNT/2K/XP setup.

2.5. LAN Drivers (optional)

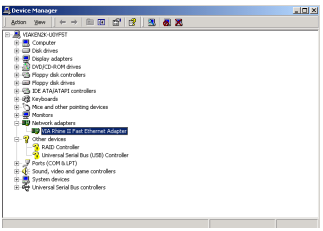
(1)
Click "Next " to start VT8103 LAN Driver setup.



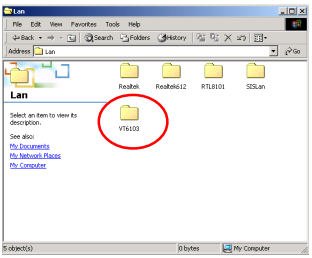
(2)
Instantly, Setup Wizard completes LAN setup in a few seconds.



(3)
To verify that LAN driver is setup, enter the Device Manager of your OS and check that LAN driver appears.



(4)
In case you want to re-install LAN driver, open the Driver CD to find the VT6103 LAN Driver for installation.



Chapter 3 Test Report

Chapter 3. Compatibility Test

(1) CPU Compatibility Test

Nucleus	Model	CLK	Voltage	Bus Speed	CPU S.P.E.C	Stepping	RESET 10 Time	PW On/Off 10 Time	CC WS 2002 Test
DURON	800M	8	1.6V	100			PASS	PASS	17.6
DURON	950M	9.5	1.6V	100			PASS	PASS	19.6
DURON	1400	10.5	1.5V	133			PASS	PASS	21.2
DURON	1600	12	1.5V	133			PASS	PASS	27.5
DURON	1800	13.5	1.5V	133			PASS	PASS	29.5
MORGAN	1.0G	10	1.75V	133			PASS	PASS	30.4
MORGAN	1.2G	12	1.75V	100			PASS	PASS	22.8
MORGAN	1.3G	13	1.75V	100			PASS	PASS	23.1
ATHLON	1100M	11	1.75V	100			PASS	PASS	23.9
ATHLON	1200M	12	1.75V	100			PASS	PASS	22.5
ATHLON	1.0G	10	1.75V	133			PASS	PASS	24.5
ATHLON	1.2G	9	1.75V	133			PASS	PASS	26
ATHLON	1.4G	10.5	1.75V	133			PASS	PASS	27.9
ATHLON XP	1500+	10	1.75V	133			PASS	PASS	28.6
ATHLON XP	1600+	10.5	1.75V	133			PASS	PASS	30.4
ATHLON XP	1700+	11	1.75V	133			PASS	PASS	30.6
ATHLON XP	1800+	11.5	1.75V	133			PASS	PASS	30.8
ATHLON XP	1900+	12	1.75V	133			PASS	PASS	32.6
ATHLON XP	2000+	12.5	1.75V	133			PASS	PASS	32.4
ATHLON XP	2100+	13	1.75V	133			PASS	PASS	33.8
ATHLON XP	2200+	13.5	1.65V	133			PASS	PASS	34
ATHLON XP	2400+	14.5	1.65V	133			PASS	PASS	36.5
ATHLON XP	2500+	11	1.65V	166			PASS	PASS	36.9
ATHLON XP	2600+	11.5	1.65V	166			PASS	PASS	38.7
ATHLON XP	2700+	12	1.65V	166			PASS	PASS	39.3
ATHLON XP	2800+	12.5	1.65V	166			PASS	PASS	39.2
ATHLON XP	3000+	13	1.65V	166			PASS	PASS	41.1
ATHLON XP	3200+	11	1.65V	200			PASS	PASS	43.2

Nucleus	Model	CLK	Voltage	Bus Speed	CPU S.P.E.C	Stepping	RESET 10 Time	PW On/Off 10 Time	CC WS 2002 Test
SEMPRON	2800+	166	1.6V	2000			PASS	PASS	37.6
SEMPRON	2200+	166	1.6V	1500			PASS	PASS	28.7
ATHRON XP	3000+	166	1.65V	2166			PASS	PASS	40.3
ATHRON XP	2500+	166	1.65V	1833			PASS	PASS	36.6
ATHRON XP	3200+	200	1.65V	2217			PASS	PASS	41
ATHRON XP	2200+	133	1.65V	1800			PASS	PASS	33.8
ATHRON XP	2100+	133	1.65V	1740			PASS	PASS	33
ATHLON	1200	100	1.75V	1200			PASS	PASS	24
MORGAN	1200	100	1.75V	1200			PASS	PASS	22.9

(2) Memory Compatibility Test

Module Vender	IC_Vender	IC_Serial Numbers	CAPACITY/ SIDE	DRAM CLK	Location	Memtest 1.04	WS 2002 Business	S3 Mode 10 Times
Kingston	KINGSTON	D3208DH1T-5	512M/D	400	DIMM 1,2,3,4	N/A	N/A	N/A
Pmi	PMI	PM4D328D5	256M/S	400	DIMM 1,2,3,4	N/A	N/A	N/A
Geil	GEIL	GL3LC32G88TG-5	512M/D	400	DIMM 1,2,3,4	N/A	N/A	N/A
Kingmax	KINGMAX	KDL388F4EA-50	512M/D	400	DIMM 1,2,3,4	N/A	N/A	N/A
Adata	ADATA	ADD8608A8A-5B	256M/S	400	DIMM 1,2,3,4	N/A	N/A	N/A
Adata	HYNIX	HY5DU56822BT-D43	256M/S	400	DIMM 1,2,3,4	N/A	N/A	N/A
Kingston	HYNIX	HY5DU56822CT-D43	256M/D	400	DIMM 1,2,3,4	N/A	N/A	N/A
Transcend	MOSEL	V58C2256804SAT5B	512M/D	400	DIMM 1,2,3,4	N/A	N/A	N/A
SEITEC	SEITEC	DDR32M8AT-5	512M/D	400	DIMM 1,2,3,4	N/A	N/A	N/A
Transcend	SAMSUNG	K4H560838C-TCB3	512M/D	333	DIMM 1,2,3,4	N/A	N/A	N/A
Kingmax	KINGMAX	KDL684T4AA-60	256M/D	333	DIMM 1,2,3,4	N/A	N/A	N/A
Armas	SAMSUNG	K4H280838B-TCB0	256M/D	266	DIMM 1,2,3,4	N/A	N/A	N/A
Apacer	NANYA	NT5DS16M8AT-7K	256M/D	266	DIMM 1,2,3,4	N/A	N/A	N/A
Apacer	ELPIDA	N2DS12880AT-75B	256M/D	266	DIMM 1,2,3,4	N/A	N/A	N/A
Hynix	HYNIX	HY5DU28822AT-L	256M/S	266	DIMM 1,2,3,4	N/A	N/A	N/A
Kingston	KINGSTON	D3208DH1T-5	512M/D	400	DIMM 1,2,3	N/A	N/A	N/A
Pmi	PMI	PM4D328D5	256M/S	400	DIMM 1,2,3	PASS	33.8	N/A
Geil	GEIL	GL3LC32G88TG-5	512M/D	400	DIMM 1,2,3	N/A	N/A	N/A
Kingmax	KINGMAX	KDL388F4EA-50	512M/D	400	DIMM 1,2,3	N/A	N/A	N/A
Adata	ADATA	ADD8608A8A-5B	256M/S	400	DIMM 1,2,3	PASS	30.9	N/A
Adata	HYNIX	HY5DU56822BT-D43	256M/S	400	DIMM 1,2,3	PASS	25.8	N/A
Kingston	HYNIX	HY5DU56822CT-D43	256M/D	400	DIMM 1,2,3	PASS	33.9	N/A
Transcend	MOSEL	V58C2256804SAT5B	512M/D	400	DIMM 1,2,3	N/A	N/A	N/A
SEITEC	SEITEC	DDR32M8AT-5	512M/D	400	DIMM 1,2,3	N/A	N/A	N/A
Transcend	SAMSUNG	K4H560838C-TCB3	512M/D	333	DIMM 1,2,3	PASS	31.3	N/A
Kingmax	KINGMAX	KDL684T4AA-60	256M/D	333	DIMM 1,2,3	PASS	24.8	N/A
Hynix	HYNIX	HY5DU56822AT-H	512M/D	266	DIMM 1,2,3	PASS	26.4	N/A
Apacer	NANYA	NT5DS16M8AT-7K	256M/D	266	DIMM 1,2,3	PASS	30.7	N/A
Apacer	ELPIDA	N2DS12880AT-75B	256M/D	266	DIMM 1,2,3	PASS	29.7	N/A
Synnex	LD	LD0256BW3208	256M/S	266	DIMM 1,2,3	PASS	24.8	N/A
Kingston	KINGSTON	D3208DH1T-5	512M/D	400	DIMM 1,2	PASS	36	N/A
Pmi	PMI	PM4D328D5	256M/S	400	DIMM 1,2	PASS	33.2	N/A
Geil	GEIL	GL3LC32G88TG-5	512M/D	400	DIMM 1,2	PASS	34.6	N/A
Kingmax	KINGMAX	KDL388F4EA-50	512M/D	400	DIMM 1,2	PASS	33.7	N/A
Adata	ADATA	ADD8608A8A-5B	256M/S	400	DIMM 1,2	PASS	30.3	N/A
Adata	HYNIX	HY5DU56822BT-D43	256M/S	400	DIMM 1,2	PASS	33.7	N/A
Kingston	HYNIX	HY5DU56822CT-D43	256M/D	400	DIMM 1,2	PASS	32.1	N/A

Module Vender	IC_Vender	IC_Serial Numbers	CAPACITY/ SIDE	DRAM CLK	Location	Memtest 1.04	WS 2002 Business	S3 Mode 10 Times
Transcend	MOSEL	V58C2256804SAT5B	512M/D	400	DIMM 1,2	PASS	34.5	N/A
SEITEC	SEITEC	DDR32M8AT-5	512M/D	400	DIMM 1,2	PASS	34.3	N/A
Transcend	SAMSUNG	K4H560838C-TCB3	512M/D	333	DIMM 1,2	PASS	24.3	N/A
Kingmax	KINGMAX	KDL684T4AA-60	256M/D	333	DIMM 1,2	PASS	24	N/A
TwinMOS	WINBOND	W942508AH-6	256M/D	333	DIMM 1,2	PASS	30.3	N/A
Hynix	HYNIX	HY5DU56822AT-H	512M/D	266	DIMM 1,2	PASS	26.2	N/A
Apacer	ELPIDA	N2DS12880AT-75B	256M/D	266	DIMM 1,2	PASS	28.7	N/A
Synnex	LD	LD0256BW3208	256M/S	266	DIMM 1,2	PASS	22.5	N/A
Kingston	KINGSTON	D3208DH1T-5	512M/D	400	DIMM 3,4	N/A	N/A	N/A
Pmi	PMI	PM4D328D5	256M/S	400	DIMM 3,4	N/A	N/A	N/A
Geil	GEIL	GL3LC32G88TG-5	512M/D	400	DIMM 3,4	N/A	N/A	N/A
Kingmax	KINGMAX	KDL388F4EA-50	512M/D	400	DIMM 3,4	N/A	N/A	N/A
Adata	ADATA	ADD8608A8A-5B	256M/S	400	DIMM 3,4	N/A	N/A	N/A
Adata	HYNIX	HY5DU56822BT-D43	256M/S	400	DIMM 3,4	N/A	N/A	N/A
Kingston	HYNIX	HY5DU56822CT-D43	256M/D	400	DIMM 3,4	N/A	N/A	N/A
Transcend	MOSEL	V58C2256804SAT5B	512M/D	400	DIMM 3,4	N/A	N/A	N/A
SEITEC	SEITEC	DDR32M8AT-5	512M/D	400	DIMM 3,4	N/A	N/A	N/A
Transcend	SAMSUNG	K4H560838C-TCB3	512M/D	333	DIMM 3,4	N/A	N/A	N/A
Kingmax	KINGMAX	KDL684T4AA-60	256M/D	333	DIMM 3,4	N/A	N/A	N/A
TwinMOS	WINBOND	W942508AH-6	256M/D	333	DIMM 3,4	N/A	N/A	N/A
Hynix	HYNIX	HY5DU56822AT-H	512M/D	266	DIMM 3,4	N/A	N/A	N/A
Apacer	ELPIDA	N2DS12880AT-75B	256M/D	266	DIMM 3,4	N/A	N/A	N/A
Synnex	LD	LD0256BW3208	256M/S	266	DIMM 3,4	N/A	N/A	N/A
Kingston	KINGSTON	D3208DH1T-5	512M/D	400	DIMM 1,3	PASS	35.9	N/A
Pmi	PMI	PM4D328D5	256M/S	400	DIMM 1,3	PASS	33.3	N/A
Geil	GEIL	GL3LC32G88TG-5	512M/D	400	DIMM 1,3	PASS	34.5	N/A
Kingmax	KINGMAX	KDL388F4EA-50	512M/D	400	DIMM 1,3	PASS	33.2	N/A
Adata	ADATA	ADD8608A8A-5B	256M/S	400	DIMM 1,3	PASS	25.9	N/A
Adata	HYNIX	HY5DU56822BT-D43	256M/S	400	DIMM 1,3	PASS	33.3	N/A
Kingston	HYNIX	HY5DU56822CT-D43	256M/D	400	DIMM 1,3	PASS	31.6	N/A
Transcend	MOSEL	V58C2256804SAT5B	512M/D	400	DIMM 1,3	PASS	33.2	N/A
SEITEC	SEITEC	DDR32M8AT-5	512M/D	400	DIMM 1,3	PASS	34.4	N/A
Transcend	SAMSUNG	K4H560838C-TCB3	512M/D	333	DIMM 1,3	PASS	25	N/A
Kingmax	KINGMAX	KDL684T4AA-60	256M/D	333	DIMM 1,3	PASS	23.3	N/A
TwinMOS	WINBOND	W942508AH-6	256M/D	333	DIMM 1,3	PASS	30.6	N/A
Hynix	HYNIX	HY5DU56822AT-H	512M/D	266	DIMM 1,3	PASS	25.1	N/A
Apacer	ELPIDA	N2DS12880AT-75B	256M/D	266	DIMM 1,3	PASS	22.8	N/A
Synnex	LD	LD0256BW3208	256M/S	266	DIMM 1,3	PASS	25.2	N/A
Kingston	KINGSTON	D3208DH1T-5	512M/D	400	DIMM 2,3	PASS	35.8	N/A
Pmi	PMI	PM4D328D5	256M/S	400	DIMM 2,3	PASS	33.2	N/A
Geil	GEIL	GL3LC32G88TG-5	512M/D	400	DIMM 2,3	PASS	34.3	N/A
Kingmax	KINGMAX	KDL388F4EA-50	512M/D	400	DIMM 2,3	PASS	33.4	N/A
Adata	ADATA	ADD8608A8A-5B	256M/S	400	DIMM 2,3	PASS	26	N/A
Adata	HYNIX	HY5DU56822BT-D43	256M/S	400	DIMM 2,3	PASS	33.1	N/A
Kingston	HYNIX	HY5DU56822CT-D43	256M/D	400	DIMM 2,3	PASS	33.3	N/A
Transcend	MOSEL	V58C2256804SAT5B	512M/D	400	DIMM 2,3	PASS	34.9	N/A
SEITEC	SEITEC	DDR32M8AT-5	512M/D	400	DIMM 2,3	PASS	35.1	N/A
Transcend	SAMSUNG	K4H560838C-TCB3	512M/D	333	DIMM 2,3	PASS	25.6	N/A
Kingmax	KINGMAX	KDL684T4AA-60	256M/D	333	DIMM 2,3	PASS	23.1	N/A
TwinMOS	WINBOND	W942508AH-6	256M/D	333	DIMM 2,3	PASS	30.8	N/A
Hynix	HYNIX	HY5DU56822AT-H	512M/D	266	DIMM 2,3	PASS	26	N/A
Apacer	ELPIDA	N2DS12880AT-75B	256M/D	266	DIMM 2,3	PASS	30.6	N/A
Synnex	LD	LD0256BW3208	256M/S	266	DIMM 2,3	PASS	25.3	N/A

Module Vender	IC_Vender	IC_Serial Numbers	CAPACITY/ SIDE	DRAM CLK	Location	Memtest 1.04	WS 2002 Business	S3 Mode 10 Times
Kingston	KINGSTON	D3208DH1T-5	512M/D	400	DIMM 1	PASS	32.7	N/A
Pmi	PMI	PM4D328D5	256M/S	400	DIMM 1	PASS	28.4	N/A
Geil	GEIL	GL3LC32G88TG-5	512M/D	400	DIMM 1	PASS	33.1	N/A
Kingmax	KINGMAX	KDL388P4EA-50	512M/D	400	DIMM 1	PASS	33.3	N/A
Adata	ADATA	ADD8608A8A-5B	256M/S	400	DIMM 1	PASS	28.3	N/A
Adata	HYNIX	HY5DU56822BT-D43	256M/S	400	DIMM 1	PASS	32.1	N/A
Kingston	HYNIX	HY5DU56822CT-D43	256M/D	400	DIMM 1	PASS	30	N/A
Transcend	MOSEL	V58C2256804SAT5B	512M/D	400	DIMM 1	PASS	33.3	N/A
SEITEC	SEITEC	DDR32M8AT-5	512M/D	400	DIMM 1	PASS	33.8	N/A
Transcend	SAMSUNG	K4H560838C-TCB3	512M/D	333	DIMM 1	PASS	23	N/A
Kingmax	KINGMAX	KDL684T4AA-60	256M/D	333	DIMM 1	PASS	21.2	N/A
TwinMOS	WINBOND	W942508AH-6	256M/D	333	DIMM 1	PASS	28.9	N/A
Hynix	HYNIX	HY5DU56822AT-H	512M/D	266	DIMM 1	PASS	23	N/A
Apacer	ELIXIR	N2DS12880AT-75B	256M/D	266	DIMM 1	PASS	28.7	N/A
Synnex	LD	LD0256BW3208	256M/S	266	DIMM 1	PASS	28.5	N/A
Kingston	KINGSTON	D3208DH1T-5	512M/D	400	DIMM 2	PASS	32.4	N/A
Pmi	PMI	PM4D328D5	256M/S	400	DIMM 2	PASS	31	N/A
Geil	GEIL	GL3LC32G88TG-5	512M/D	400	DIMM 2	PASS	33.4	N/A
Kingmax	KINGMAX	KDL388P4EA-50	512M/D	400	DIMM 2	PASS	32.9	N/A
Adata	ADATA	ADD8608A8A-5B	256M/S	400	DIMM 2	PASS	28.7	N/A
Adata	HYNIX	HY5DU56822BT-D43	256M/S	400	DIMM 2	PASS	31.2	N/A
Kingston	HYNIX	HY5DU56822CT-D43	256M/D	400	DIMM 2	PASS	31	N/A
Transcend	MOSEL	V58C2256804SAT5B	512M/D	400	DIMM 2	PASS	33.5	N/A
SEITEC	SEITEC	DDR32M8AT-5	512M/D	400	DIMM 2	PASS	32.9	N/A
Transcend	SAMSUNG	K4H560838C-TCB3	512M/D	333	DIMM 2	PASS	23.2	N/A
Kingmax	KINGMAX	KDL684T4AA-60	256M/D	333	DIMM 2	PASS	20.6	N/A
TwinMOS	WINBOND	W942508AH-6	256M/D	333	DIMM 2	PASS	28.6	N/A
Hynix	HYNIX	HY5DU56822AT-H	512M/D	266	DIMM 2	PASS	23	N/A
Apacer	ELIXIR	N2DS12880AT-75B	256M/D	266	DIMM 2	PASS	29.2	N/A
Synnex	LD	LD0256BW3208	256M/S	266	DIMM 2	PASS	28.4	N/A
Kingston	KINGSTON	D3208DH1T-5	512M/D	400	DIMM 3	PASS	33.2	N/A
Pmi	PMI	PM4D328D5	256M/S	400	DIMM 3	PASS	30.8	N/A
Geil	GEIL	GL3LC32G88TG-5	512M/D	400	DIMM 3	PASS	33.4	N/A
Kingmax	KINGMAX	KDL388P4EA-50	512M/D	400	DIMM 3	PASS	33.5	N/A
Adata	ADATA	ADD8608A8A-5B	256M/S	400	DIMM 3	PASS	29	N/A
Adata	HYNIX	HY5DU56822BT-D43	256M/S	400	DIMM 3	PASS	30.9	N/A
Kingston	HYNIX	HY5DU56822CT-D43	256M/D	400	DIMM 3	PASS	31.3	N/A
Transcend	MOSEL	V58C2256804SAT5B	512M/D	400	DIMM 3	PASS	33.4	N/A
SEITEC	SEITEC	DDR32M8AT-5	512M/D	400	DIMM 3	PASS	32.9	N/A
Transcend	SAMSUNG	K4H560838C-TCB3	512M/D	333	DIMM 3	PASS	21.2	N/A
Kingmax	KINGMAX	KDL684T4AA-60	256M/D	333	DIMM 3	PASS	23	N/A
TwinMOS	WINBOND	W942508AH-6	256M/D	333	DIMM 3	PASS	28.6	N/A
Hynix	HYNIX	HY5DU56822AT-H	512M/D	266	DIMM 3	PASS	23	N/A
Apacer	ELIXIR	N2DS12880AT-75B	256M/D	266	DIMM 3	PASS	29.7	N/A
Synnex	LD	LD0256BW3208	256M/S	266	DIMM 3	PASS	28.5	N/A

Module Vender	IC_Vender	IC_Serial Numbers	CAPACITY/ SIDE	DRAM CLK	Location	Memtest 1.04	WS 2002 Business	S3 Mode 10 Times
Kingston	KINGSTON	D3208DH1T-5	512M/D	400	DIMM 4	N/A	N/A	N/A
Pmi	PMI	PM4D328D5	256M/S	400	DIMM 4	N/A	N/A	N/A
Geil	GEIL	GL3LC32G88TG-5	512M/D	400	DIMM 4	N/A	N/A	N/A
Kingmax	KINGMAX	KDL388P4EA-50	512M/D	400	DIMM 4	N/A	N/A	N/A
Adata	ADATA	ADD8608A8A-5B	256M/S	400	DIMM 4	N/A	N/A	N/A
Adata	HYNIX	HY5DU56822BT-D43	256M/S	400	DIMM 4	N/A	N/A	N/A
Kingston	HYNIX	HY5DU56822CT-D43	256M/D	400	DIMM 4	N/A	N/A	N/A
Transcend	MOSEL	V58C2256804SAT5B	512M/D	400	DIMM 4	N/A	N/A	N/A
SEITEC	SEITEC	DDR32M8AT-5	512M/D	400	DIMM 4	N/A	N/A	N/A
Transcend	SAMSUNG	K4H560838C-TCB3	512M/D	333	DIMM 4	N/A	N/A	N/A
Kingmax	KINGMAX	KDL684T4AA-60	256M/D	333	DIMM 4	N/A	N/A	N/A
TwinMOS	WINBOND	W942508AH-6	256M/D	333	DIMM 4	N/A	N/A	N/A
Hynix	HYNIX	HY5DU56822AT-H	512M/D	266	DIMM 4	N/A	N/A	N/A
Apacer	ELIXIR	N2DS12880AT-75B	256M/D	266	DIMM 4	N/A	N/A	N/A
Synnex	LD	LD0256BW3208	256M/S	266	DIMM 4	N/A	N/A	N/A

(3) AGP Display Card Compatibility Test

Win98 SE 1024 x 768 x 32 bit

AGP Model	Vendor	AGP Mode	Dirver Version	3DMARK 2001SE Bench Mode	Quake III Demo 001		
					frames	seconds	fps
GEFROCE 4 MX440	MSI	4X	4.13.01.2942	5421	1346	9.7	138.8
G 450	MATROX	4X	4.12.01.2120	1091	1346	49.4	27.3
FX5600	ELSA	8X	4.14.10.5664	8180	1346	8.6	157.2
GEFORCE III TI500	WINFAST	4X	4.13.01.2942	1578	1346	8.6	157.2
RADEON	ATI	4X	4.13.01.9039	3289	1346	20.4	66

Win98 SE 1280 x 1024 x 16 bit

AGP Model	Vendor	AGP Mode	Dirver Version	3DMARK 2001SE Bench Mode	Quake III Demo 001		
					frames	seconds	fps
XPERT 2000	ATI	4X	4.13.7192	743	1346	88.9	15.1
GF4 TI4200	WINFAST	8X	4.14.10.5664	5158	1346	13.5	99.6
V7700 GEFORCE II GTS	ASUS	4X	4.13.01.2942	4094	1346	13.3	101.3
GEFORCE III	ESLA	4X	4.13.01.2942	6233	1346	10	134.7
GEFORCE II MX400	GIGABYTE	4X	4.13.01.2942	2718	1346	22.5	59

Win 2000 1024 x 768 x 32 bit

AGP Model	Vendor	AGP Mode	Dirver Version	3DMARK 2001SE Bench Mode	Quake III Demo 001		
					frames	seconds	fps
RADEON 8500LE	ATI	4X	5.13.1.6166	8214	1346	9.1	147.8
GF4 TI4200	WINFAST	8X	4.4.0.3	9823	1346	8.9	150.8
V7100 GEFORCE II MX	ASUS	4X	3.0.8.2	2799	1346	21.5	62.7
GF4 MX 440	WINFAST	4X	4.4.0.3	6294	1346	8.6	157.2
GEFORCE II GTS	MSI	4X	3.0.8.2	4210	1346	13.4	100.6

Win 2000 1280 x 1024 x 16 bit

AGP Model	Vendor	AGP Mode	Dirver Version	3DMARK 2001SE Bench Mode	Quake III Demo 001		
					frames	seconds	fps
GEFORCE III	ELSA	4X	3.0.8.2	6202	1346	9.5	141.6
GEFORCE II MX	GIGABYTE	4X	3.0.8.2	2489	1346	24.6	54.7
GEFROCE II MX200	MSI	4X	3.0.8.2	1666	1346	38.2	35.5
MX440	JOYTECH	8X	4.4.0.3	5486	1346	10.8	124.2
GEFORCE II MX400	GIGABYTE	4X	3.0.8.2	2731	1346	22.8	59

Win XP 1024 x 768 x 32 bit

AGP Model	Vendor	AGP Mode	Dirver Version	3DMARK 2001SE Bench Mode	Quake III Demo 001		
					frames	seconds	fps
FX5950	WINFAST	8X	5.3.0.3	13350	1346	6.3	212.4
GEFORCE II MX200	WINFAST	4X	3.0.8.2	1300	1346	44.5	30.3
RADEON 9700	ATI	8X	5.6.7.2	10040	1346	6.9	196.2
GF4 TI4200	PROLINK	8X	4.4.0.3	11060	1346	6.6	205.1
GEFORCE 4 MX440	MSI	4X	3.0.8.2	6039	1346	8.6	157

Win XP 1280 x 1024 x 16 bit

AGP Model	Vendor	AGP Mode	Dirver Version	3DMARK 2001SE Bench Mode	Quake III Demo 001		
					frames	seconds	fps
GEFORCE III TI500	WINFAST	4X	5.6.7.2	7256	1346	8.1	166.5
GEFORCE 4 MX 440	WINFAST	8X	4.4.0.3	5859	1346	10.4	129.9
G 550	MATROX	4X	5.86.32.0	1153	1346	51.1	26.3
FX5700	WINFAST	8X	5.6.7.2	8277	1346	7.6	177.2
GEFORCE II MX200	PROLINK	4X	3.0.8.2	1671	1346	38.2	35.6

Chapter 4 BIOS Setup

(Chapter 4 will only be presented in CD version .)

4.1. BIOS Support

This chapter discusses the Award BIOS Setup program built in the ROM BIOS. The Setup program allows the user to modify the basic system configuration. The modification is then stored in battery-backed RAM so that it can retain the setup information after the power is turned off. The Award BIOS installed in your computer system ROM (Read Only Memory)is a custom version of an industry standard BIOS. The BIOS provides critical low-level support for standard devices such as disk drives and serial and parallel ports. This chapter is intended for guiding you through the process of configuring your system BIOS.

Plug and Play Support

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

EPA Green PC Support

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

PCI Bus Support

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

APM Support

This 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.

DRAM Support

DDR (Double Data Rate) are supported.

Setup Menu

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

Note:

BIOS version 1.0 is for reference only. If there is a change in BIOS version, please use the actual version on the BIOS.

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)
Esc	Main Menu: Quit without saving changes Submenus: Exit Current page to the next higher level menu
Move Enter	Move to item you desired
PgUp key	Increase the numeric value or make changes
PgDn key	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

4.2. Main Menu

Once you enter AWARD BIOS CMOS Set up Utility, the Main Menu will appear on the screen and allows you to select from several setup function. Use the arrow keys to select the items and press<Enter> to enter the sub-menu.

> *Attention:*
> *The information about BIOS defaults in this manual is just for reference, please refer to the BIOS installed on board for default BIOS confirmation.*

Phoenix - AwardBIOS CMOS Setup Utility

▶ Standard CMOS Features	▶ Frequency/Voltage Control
▶ Advanced BIOS Features	Load Fail-safe Defaults
▶ Advanced Chipset Features	Load Optimized Defaults
▶ Integrated Peripherals	Set Supervisor Password
▶ Power Management Setup	Set User Password
▶ PNP/PCI Configurations	Save & Exit Setup
▶ PC Health Status	Exit without Saving

Esc : Quit F9: Menu in BIOS ←→↑↓: Select Item
F10 : Save & Exit Setup

Time , Date , Hard Disk Type ...

Standard CMOS Features

This setup page includes all the items in standard compatible BIOS.

Advanced BIOS Features

This setup page includes all the items of the BIOS special enchanced features.

Advanced Chipset Features

This setup page includes all the items of the Chipset special enchanced features.

Integrated Peripherals

This selection page includes all the items of the IDE hard drive and Programmed Input/Output features.

Power Management Setup

This setup page includes all the items of the power manage ment features.

PnP/PCI Configurations

This setup page includes the user defined or default IRQ Setting.

PC Health Status

This page shows the hardware Monitor information of the system.

Frequency/Voltage Control

This setup page controls the CPU's clock and frequency ratio.

Load Fail-safe Defaults

Use this menu to load the BIOS default values for the minimal/stable performance for your system to operate.

Load Optimized Defaults

These settings are for configuring a workable computer when something is wrong. If you cannot boot the computer successfully, select the BIOS Setup options and try to diagnose the problem after the computer boots. These settings do not provide optional performance.

Set Supervisor/User Password

Change, set, or, disable password. It allows you to limit access to the system and Setup, or just to Setup.

Save & Exit Setup

Save CMOS value changes to CMOS and exit setup.

Exit Without Saving

Abandon all CMOS value changes and exit setup.

4.3. Standard CMOS Features

This main option in the Standard CMOS Setup Menu is divided into 10 fields or items. Each field provides one or more setup choices. Use the arrow keys to highlight the field and then use the <PgUp> or <PgDn> keys to select the value or choice.

Phoenix - AwardBIOS CMOS Setup Utility

Standard CMOS Features

Date(mm:dd:yy)	Tue,Jun 6 2002	Item Help
Time (hh:mm:ss)	11:26:10	Menu Level
IDE Primary Master	None	
IDE Primary Slave		Change the day, month,year and century.
IDE Secondary Master		
IDE Secondary Master	None	
Drive A	1.44M,3.5 in	
Drive B	None	
Floppy 3 Mode Support	Disabled	
Video	EGA/VGA	
Halt On	All,But Keyboard	
Base Memory	640K	
Extended Memory	65472K	
Total Memory	1024K	

←→↑↓: Move Enter:Select +/-/PU/PD:Value F10:Save ESC:Exit F1:General Help
F5:Previous Values F6:Fail-Safe Defaults F7:Optimized Defaults

Main Menu Selections

Item	Options	Description
Date (mm : dd :yy)	Month Day Year	Set the system,date. Note that the 'Day' automatically changes when you set the data.
Time (hh : mm : SS)	Hour Minute Second	Select the hour, minute and second of the time.
IDE Primary Master	Options are in its sub menu.	Press<Enter> to enter sub menu.
IDE Primary/ Slave	Options are in its sub menu.	Press<Enter> to enter sub menu.
IDE Second-ary Master	Options are in its sub menu.	Press<Enter> to enter sub menu.
IDE Second-ary Slave	Options are in its sub menu.	Press<Enter> to enter sub menu
Drive A Drive B	None 360K,5.25in, 1.2M,5.25in 720K,3.5M 1.44M,3.5in 2.88M,3.5in	Select the type of floppy disk drive installed in your system.
Floppy 3 Mode Support	Disabled Driver A Driver B Both	Disable or support the 3rd floppy mode in Drive A
Video	EGA/VGA CGA 40 CGA 80 MONO	Select the default video device.

Item	Options	Description
Halt On	All Errors No Errors All, but Keyboard All, but Diskette All, but Disk/Key	Select the situation in which you want the BIOS to stop the POST process and notify.
Base Memory	(640K)	The amount of conventional memory detected during boot up.
Extended Memory	(65472K)	The amount of conventional memory detected during boot up.
Total Memory	(1024K)	The total memory available in system.

IDE Primary(Master/Slave)/Secondary(Master/Slave)

Press Enter on these items to show the following sub-menu:

Primary Master/Secondary

IDE HDD Auto-Detection	Press Enter	Item Help
IDE Primary Master	Auto	
Access Mode	Auto	Menu Level
Capacity	13022MB	
Cylinder	25232	
Head	16	
Precomp	0	
Landing Zone	25231	
Sector	61	

←→↑↓: Move Enter:Select +/-/PU/PD:Value F10:Save ESC:Exit F1:General Help
F5:Previous Values F6:Fail-Safe Defaults F7:Optimized Defaults

IDE HDD Auto-Detection

Press Enter on this item to let BIOS auto-detect your Hard Disk and show all the Primary Hard Disk Parameters (Capacity, Cylinder, Head, Precomp, Landing Zone, Sector) on the menu.

IDE Primary(Master/Slave) / Secondary(Master/Slave)

This item allows you to detect the Hard Disk in 3 ways.

The Choices: Auto: BIOS Auto-detect HDD;
None: No Hard Disk detected;
Manual: Manually detect HDD

Access Mode

This item allows you to select the Access mode to the Hard Disk..

The Choices:

CHS: Select the Cylinder, Head, Sector addressing mode to access Hard Disk;

LBA: Select the Logical Block Addressing mode to access Hard Disk.

Large: Select Large Mode to access Hard Disk;

Auto: Allow BIOS to auto-access Hard Disk;

Capacity

Showing the capacity of Hard Disk in MB.

Cylinder

Showing the number of cylinder in the Hard Disk.

Head

Showing the number of heads in the Hard Disk.

Precomp

The number of Pre-compensation.

Landing Zone

Number of Landing zone in the Hard Disk.

Sector

The number of Sector in the Hard Disk.

4.4. Advanced BIOS Features

Phoenix - AwardBIOS CMOS Setup Utility
Advanced BIOS Features

		Item Help
Virus Warning	Disabled	
CPU Internal Cache	Enabled	
External Cache	Enabled	
Quick Power On Self Test	Enabled	
First Boot Device	Floopy	
Second Boot Device	HDD-0	
Third Boot Device	CD-ROM	
Boot Other Device	Enabled	
Swap Floppy Drive	Disabled	
Boot Up Floppy Seek	Disabled	
Boot Up NumLock Status	On	
Gate A20 Option	Fast	
Typematic Rate Setting	Disabled	
X Typematic Rate (Chars/Sec)	6	
X Typematic Delay (Msec)	250	
Security Option	Setup	
OS Select For DRAM >64MB	Non-OS2	
HDD S.M.A.R.T. Capability	Disabled	
Video BIOS Shadow	Enabled	
EPA / (H/W Monitor) Show	H/W Monitor	

←→↑↓: Move Enter:Select +/-/PU/PD:Value F10:Save ESC:Exit F1:General Help
F5:Previous Values F6:Fail-Safe Defaults F7:Optimized Defaults

Virus Warning

This option allows you to choose the VIRUS Warning feature for IDE Hard Disk boot sector protection. If this function is enabled and someone attempts to write data into this area, BIOS will show a warning message on screen and alarm beep.

The Choices:

Disabled,;Enabled.

CPU Internal / External Cache

Allows you to Enable or Disable the CPU's L1(Internal) / L2 (External) cache to provide better performance.

The choices:

Enabled; Disabled

Quick Power On Self Test

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

The choices:

Enabled; Disabled

First/Secondary/Third Boot Device

This BIOS attempts to load the operating system from the devices in the sequence selected in these items.

The Choices:

Floppy; LS120; HDD-0; SCSI; CDROM; HDD-1; HDD-2; HDD-3; ZIP100; LAN; USB-FDD; USB-Zip; USB-CDROM; USB-HDD; Disabled

Boot Other Device

Allows user to set booting from other devices.

The Choices:

Enabled; Disabled

Swap Floppy Drive

If the system has two floppy drives, you can swap the logical drive name assignments.

The Choices:

Disabled; Enabled.

Boot Up Floppy Seek

If enabled, this item allows BIOS to test floppy drives to determine whether they have 40 or 80 tracks.

The Choices:

Disabled; Enabled.

Boot Up NumLock Status

Select power on state for Numlock..

The Choices

On: Numpad is number keys;

Off: Numpad is arrow keys;

Gate A20 Option

Select if chipset or keyboard controller should control Gate A20.

The choices:

Normal: A pin in the keyboard controller controls Gate A20.

Fast: Lets chipset control Gate A20.

Typematic Rate Setting

Allows user to adjust the key stroke repeat rate.

The choices:

Enabled: Enabled this option to adjust keystroke repeat rate;

Disabled: Function disabled.

Typematic Rate (Char/Sec)

If typematic Rate is enabled, this option controls the speed of repeating keystrokes ranging between 6**(default)** and 30 characters per second.

Typematic Delay (Msec)

If typematic Rate is enabled, this option sets the time interval for displaying the first and the second characters.

The Choices: 250; 500; 750;1000

Security Option

This category allows you to determine whether to use password access the system and Setup,or just Setup.

The choices:

System: To access system and BIOS Setup with correct password.

Setup: To access BIOS Setup with correct password.

OS Select For DRAM >64MB

Select the operating system that is running with greater than 64MB of RAM on the system.

The Choices: Non-OS2; OS2

HDD S.M.A.R.T. Capability

Allows user to choose the Self-monitoring Analysis and Reporting Technology for Hard Disk Drive.

The choices: Disabled; Enabled

Video BIOS Shadow

Use this item to enable/disable the Video BIOS Shadow function.

The Choices: Enabled; Disabled

EPA / (H/W Monitor) Show

Use this item to enable/disable the Environmental Protection Association (EPA) / Hardware Monitor) logo on initiating screen..

The choices: H/W Monitor; EPA Logo

4.5. Advanced Chipset Features

This section allows you to configure the system based features of the installed chipset. This chipset manages bus speeds and access to system memory resources, such as DRAM and external cache. It also coordinates communications of the PCI bus. It must be stated that these items should never be altered. The default settings are set up to provide the best operating conditions for your system. The time you might need to make any changes would be if you discover that data is lost while using your system.

Phoenix - AwardBIOS CMOS Setup Utility
Advanced Chipset Features

		Item Help
▶ DRAM Clock/Drive Control	Press Enter	
▶ AGP & P2P Bridge Control	Press Enter	
▶ CPU & PCI Bus Control	Press Enter	
Memory Hole	Disabled	
System BIOS Cacheable	Disabled	
Video RAM Cacheable	Disabled	

←→↑↓: Move Enter:Select +/-/PU/PD:Value F10:Save ESC:Exit F1:General Help
F5:Previous Values F6:Fail-Safe Defaults F7:Optimized Defaults

DRAM Clock/Drive Control

Press Enter on this item to open the Sub-menu as shown below:

Phoenix - AwardBIOS CMOS Setup Utility
DRAM Clock/Drive Control

		Item Help
Current FSB Frequency	133MHz	
Current DRAM Frequency	100MHz	
DRAM Clock	B33SPD	
DRAM Timing	Auto By SPD	
x DRAM CAS Latency	2.5	
x Bank Interleave	Disabled	
x Precharge to Active(Trp)	3T	
x Active to Precharge (Tras)	7T	
x Active to CMD(Trcd)	3T	
DRAM Burst Length	4	
DRAM Command Rate	2T Command	
Write Recovery Time	3T	
TWTR	2T	

←→↑↓: Move Enter:Select +/-/PU/PD:Value F10:Save ESC:Exit F1:General Help
F5:Previous Values F6:Fail-Safe Defaults F7:Optimized Defaults

Current FSB Frequency
This item shows the current FSB Frequency

Current DRAM Frequency
This item shows the current DRAM Frequency

DRAM Clock
This item is to set the DRAM clock..
The Choices: By SPD; 133 MHz; 166 MHz; 200 MHz

DRAM Timing
This item is to set the DRAM transaction timing.
The Choices: Auto by SPD; Turbo; Ultra; Manual

x DRAM CAS Latency
When DRAM Timing is set Manual, use this item to set the DRAM CAS Latency tine. .
The Choices: 1.5; 2; 2.5; 3

x Bank Interleave
When DRAM Timing is set Manual, use this item to set the DRAM Bank Interleave.
The Choices: Disabled; 2 Bank; 4 Bank

x Precharge to Active(Trp)
When DRAM Timing is set Manual, use this item to set the DRAM Precharge to Active(Trp) cycle.
The Choices: 2T; 3T; 4T; 5T

x Active to Precharge (Tras)
When DRAM Timing is set Manual, use this item to set the Tras Non-DDR400/DDR400 cycle.
The Choices: 6T; 7T; 8T; 9T

x Active to CMD(Trcd)
When DRAM Timing is set Manual, use this item to set the DRAM Active to CMD(Trcd) cycle.
The Choices: 2T;3T; 4T; 5T

DRAM Burst Length
Use this item to set the DRAM Burst cycle Length.
The Choices: 4; 8

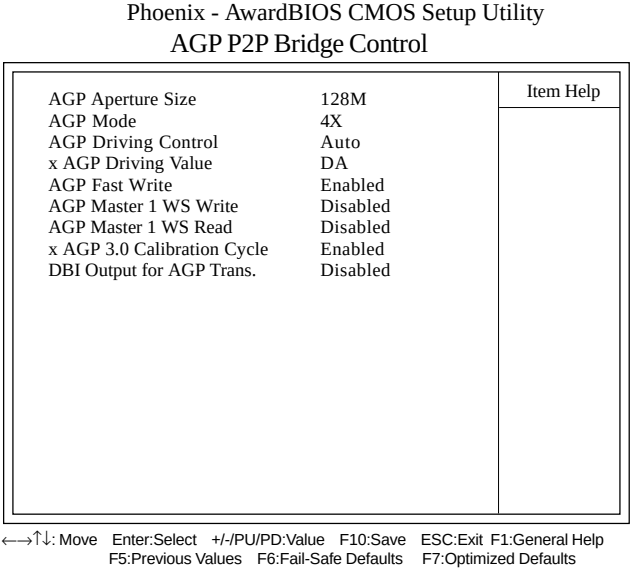
DRAM Command Rate
Use this item to set the DRAM Command Rate.
The Choices: 2T Command; 1T command

Write Recovery Time
Use this item to set the Write Recovery Time.
The Choices: 3T; 2T

tWTR
Use this item to set the cycle time between the Write and the Read .
The Choices: 1T; 2T

AGP P2P Bridge Control

Press Enter on this item to open the Sub-menu as shown below:



AGP Aperture Size

This item is to set the AGP Aperture memory size.

The Choices: 1G;512M; 256M; 128M; 64M; 32M; 16M; 8M; 4M

AGP Mode

This item is to set the AGP mode.

The Choices: 8X; 4X; 2X; 1X

AGP Driving Control

This item is to set the AGP Driving Control mode.

The Choices: Auto; Manual

x AGP Driving Time
When AGP Driving Control is set manual, use this item to set the AGP Driving address value.
The Choices: 00 ~ FF in 1h stepping (To key in a Hex. number)

AGP Fast Write
This item is to enable / disable the AGP Fast Write function.
The Choices: Enabled; Disabled

AGP Master 1 WS Write
This item is to enable / disable the AGP Master 1 WS Write function.
The Choices: Enabled; Disabled

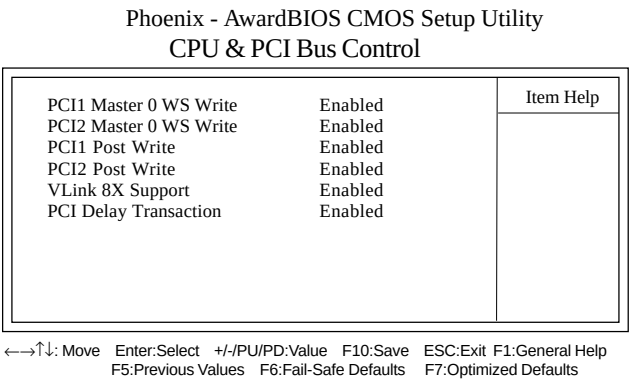
AGP Master 1 WS Read
This item is to enable / disable the AGP Master 1 WS Read function.
The Choices: Enabled; Disabled

AGP 3.0 Calibration Cycle
This item is to enable / disable the AGP 3.0 Calibration Cycle function.
The Choices: Enabled ; Disabled

DBI Output for AGP Trans.
This item is to enable / disable the DBI Output for AGP Transaction function.
The Choices: Enabled ; Disabled

CPU & PCI Bus Control

Press Enter on this item to open the Sub-menu as shown below:



PCI1/2 Master 0 WS Write

This item is to enable / disable the PCI1/2 Master 0 Wait State Write function.

The Choices: Enabled; Disabled

PCI1/2 Post Write

This item is to enable / disable the PCI1/2 POST Write function.

The Choices: Enabled; Disabled

VLink 8X Support

This item is to Enable / disable the VLink 8X Support.

The Choices: Enabled; Disabled

PCI Delay Transaction

This item is to Enable / disable the PCI Delay Transaction.

The Choices: Enabled; Disabled

Memory Hole

Use this item to enable or disable the Memory Hole.

The Choices: Disabled; 15M ~ 16M

System BIOS Cacheable

Use this item to enable / disable the System BIOS Cacheable function.

The choices: Enabled; Disabled

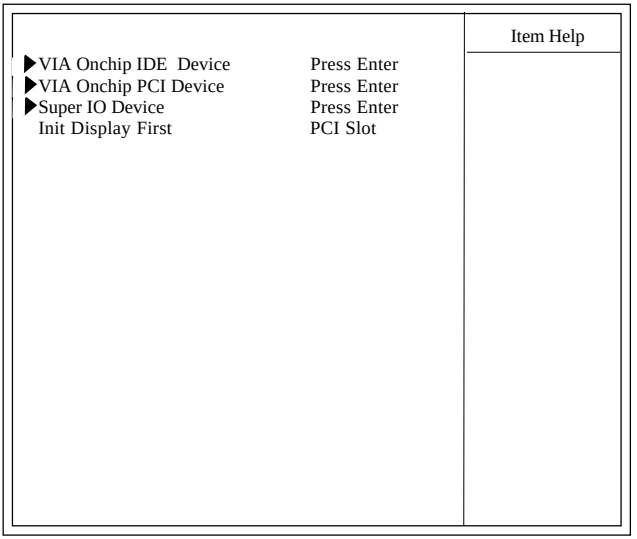
Video RAM Cacheable

Use this item to enable / disable the Video BIOS Cacheable function.

The choices: Enabled; Disabled

4.6. Integrated Peripherals

Phoenix - AwardBIOS CMOS Setup Utility
Integrated Peripherals



▶VIA OnChip IDE Device

Press Enter on this item to open the Sub-menu as shown below:

Phoenix - AwardBIOS CMOS Setup Utility
VIA OnChip IDE Device

		Item Help
OnChip SATA	Enabled	
SATA Mode	RAID	
OnChip IDE Channel0	Enabled	
OnChip IDE Channel1	Enabled	
IDE Prefetch Mode	Enabled	
Primary Master PIO	Auto	
Primary Slave PIO	Auto	
Secondary Master PIO	Auto	
Secondary Slave PIO	Auto	
Primary Master UDMA	Auto	
Primary Slave UDMA	Auto	
Secondary Master UDMA	Auto	
Secondary Slave UDMA	Auto	
IDE HDD Block Mode	Enabled	

←→↑↓: Move Enter:Select +/-/PU/PD:Value F10:Save ESC:Exit F1:General Help
F5:Previous Values F6:Fail-Safe Defaults F7:Optimized Defaults

OnChip SATA

This item is to enable / disable the On Chip SATA interface for IDE.

The choices: Enabled; Disabled

SATA Mode

This item is to set the SATA Mode for the IDE.

The choices: RAID; IDE

OnChip IDE Channel0

This item is to enable / disable the IDE Primary Master/Slave channel.

The choices: Enabled; Disabled

OnChip IDE Channel1

This item is to enable / disable the IDE Secondary Master/Slave channel.

The choices: Enabled; Disabled

IDE Prefetch Mode
This item is to enable / disable the IDE Prefetch Mode. If enabled, data will be prefetched into buffer during data access.
The choices: Enabled; Disabled

Primary Master/Slave PIO
If OnChip IDE Channel is enabled, this item is to select the IDE Primary Master/Slave PIO mode (Programmed Input Output Mode). Mode4 is the fastest mode.
The choices: Auto; Mode0; Mode1; Mode2; Mode3; Mode4

Secondary Master/Slave PIO
If OnChip IDE Channel1 is enabled, this item is to select the IDE Secondary Master/Slave PIO mode (Programmed Input Output Mode). Mode4 is the fastest mode.
The choices: Auto; Mode0; Mode1; Mode2; Mode3; Mode4

Primary Master/Slave UDMA
If OnChip IDE Channel0 is enabled, this item is to select the IDE Primary Master/Slave UDMA mode (Ultra Direct Memory Access Mode).
The choices: Auto; Disabled

Secondary Master/Slave UDMA
If OnChip IDE Channel0 is enabled, this item is to select the IDE Secondary Master/Slave UDMA mode (Ultra Direct Memory Access Mode).
The choices: Auto; Disabled

IDE HDD Block Mode
Use this item to enable / disable the IDE HDD Block Mode (Multi-sector Mode).
The choices: Disabled; Enabled

▶VIA OnChip PCI Device

Press Enter on this item to open the Sub-menu as shown below:

Phoenix - AwardBIOS CMOS Setup Utility
VIA OnChip PCI Device

		Item Help
VIA-3058 AC97 Audio	Auto	
VIA-3043 OnChip LAN	Enabled	
OnBoard LAN Boot ROM	Disabled	
OnChip USB Controller	All Enabled	
USB 2.0 Controller	Enabled	
USB Device Function	Disabled	
USB Keyboard Support	Enabled	
USB Mouse Support	Enabled	

←→↑↓: Move Enter:Select +/-/PU/PD:Value F10:Save ESC:Exit F1:General Help
F5:Previous Values F6:Fail-Safe Defaults F7:Optimized Defaults

VIA-3058 AC97 Audio

This item is to autodetect or disable the VIA AC'97 Audio.
The choices: Auto; Disabled

VIA-3043 OnChip LAN

This item is to enable/disable the VIA onchip LAN interface.
The choices: Enabled; Disabled

Onboard LAN boot ROM

This item is to enable/disable the onboard LAN boot ROM.
The choices: Enabled; Disabled

OnChip USB Controller

To select the USB ports supported by Onchip USB Controller.
The choices: All Enabled; All Disabled;
1&2 USB Ports; 1&3 USB Ports;2 & 3 USB ports;
1 USB Port; 2 USB ports; 3 USB ports

USB 2.0 Controller

This item is to enable/disable the USB 2.0 controller.
The choices: Enabled; Disabled

USB Device Function

This item is to enable/disable the USB device function..
The choices: Enabled; Disabled

USB Keyboard / Mouse Support

To enable/disable the USB Keyboard/Mouse function..
The choices: Enabled; Disabled

▶Super IO Device

Press Enter on this item to open the Sub-menu as shown below:

Phoenix - AwardBIOS CMOS Setup Utility
Super I/O Device

		Item Help
Onboard FDC Controller	Enabled	
Onboard Serial Port 1	3F8/IRQ4	
Onboard Serial Port 2	2F8/IRQ3	
UART Mode Select	Normal	
x RxD, TxD Active	Hi, Lo	
x IR Transmission Delay	Enabled	
x UR2 Duplex Mode	Half	
x Use IR Pins	IR-Rx2Tx2	
Onboard Parallel Port	378/IRQ7	
Parallel Port Mode	ECP	
x EPP Mode Select	EPP1.7	
ECP Mode Use DMA	3	
CIR Port Address	Disabled	
x CIR Port IRQ	11	

←→↑↓: Move Enter:Select +/-/PU/PD:Value F10:Save ESC:Exit F1:General Help
F5:Previous Values F6:Fail-Safe Defaults F7:Optimized Defaults

Onboard FDC Controller

The choices: Enabled; Disbled

Onboard Serial Port 1/2

Select an address and corresponding interrupt for the first and second serial ports.

The Choices: Auto; 3F8/IRQ4; 2F8/IRQ3; 3E8/IRQ4;2E8/ IRQ3; Disabled.

UART Mode Select
This item allows you to select which Infra Red(IR) function of the onboard I/O chip you wish to use.
The Choices: Normal(default), IrDA, ASKIR.

RxD, TxD Active
This item allows you to select the high /Low status of the RxD, TxD Active mode.
The Choices: Hi,Lo; Lo,Hi; Lo,Lo; Hi,Hi

IR Transmission delay
This item allows you to enable / disable the IR Transmission Delay function.
The Choices: Enabled; Disabled

UR2 Duplex Mode
This item allows you to select which Infra Red(IR) function of the onboard I/O chip you wish to use.
The Choices: Half; Full.

Use IR Pins
This item allows you to select the IR Pins.
The Choices: IR-Rx2Tx2; RxD2, TxD2

Onboard Parallel Port
This item allows you to select the Onboard Parallel Port .
The Choices: 378/IRQ7; 278/IRQ5; 3BC/IRQ7; Disabled

Parallel Port Mode
The choices are for Parallel Port Mode select:
SPP: Using Parallel port as Standard Parallel Port;
EPP: Using Parallel port as Enhanced Parallel Port;
ECP: Using Parallel port as ExtendedCapabilites Port;
ECP+EPP: Using Parallel port as ECP+EPP mode;
Normal: Normal Parallel port mode

EPP Mode Select
The Choices: EPP1.7; EPP1.9

ECP Mode Use DMA
The Choices: 3, 1.

CIR Port Address
The choices are for setting CIR Port Address:
The choices: Disabled; 3F8; 2F8; 3E8; 2E8

CIR Port IRQ
The choices are for setting CIR Port IRQ if CIR port is not disabled:
The choicws: 11: 5

Init Display First
Use this item to select the initial Display as the first display.
The choices: PCI Slot; AGP

4.7. Power Management Setup

Phoenix - AwardBIOS CMOS Setup Utility

Power Management Setup

ACPI Function	Enabled	Item Help
Power Management Option	User Define	
HDD Power Down	Disabled	
Suspend Mode	Disabled	
Video Off Option	Suspend -> Off	
Video Off Method	V/H SYNC+Blank	
Modem Use IRQ	3	
Soft-off by PWR-BTTN	Instant-off	
▶ IRQ/Event Activity Detect	Press Enter	

←→↑↓: Move Enter:Select +/-/PU/PD:Value F10:Save ESC:Exit F1:General Help
F5:Previous Values F6:Fail-Safe Defaults F7:Optimized Defaults

ACPI Function

The choices are for enabling or disabling the Advanced Configuration and Power Management (ACPI).

Power Management Option

The choices are for setting the Power management mode: User Define (default); Min Saving; Max Saving.

HDD Power Down

The Choices are for enabling or disabling the HDD Power Down function.

Disabled(default); 1Min~15 Min in 1 minute stepping

Suspend Mode

The Choices are for setting the length of suspend:

Disabled(default); 1Min~1hour.

Video Off Option

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

The Choices: Always on; Suspend->off

Video Off Method

The choices are for determining the manner in which the monitor is blanked.

The choices:

V/H SYNC+Blank: Turn off the vertical and horizontal synchronization ports and write blanks to the video buffer.

Blank Screen: Writes blanks to the video buffer.

DPMS Support: Initial display power management signaling.

Modem Use IRQ

This determines the IRQ, which can be applied in Modem use.

The choices: 3; 4; 5; 7; 9; 10; 11; NA

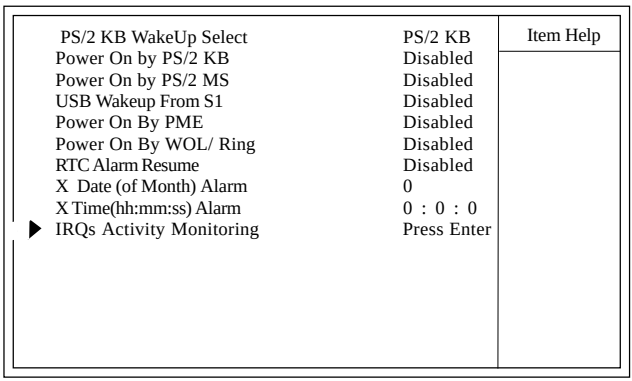
Soft-Off by PWRBTN

Use this item to select the Soft-Off by Power Button mode.

The Choices: Instant-Off; Delay 4 Sec.

▶IRQ/Event Activity Detect

Press Enter on this item to open the Sub-menu as shown below:



PS/2 KB WakeUp Select
Use this item to select the PS/2 KB Wake up mode.
The choices: Hot Key; Password

Power On by PS/2 KB
If PS2KB Wakeup is set to Hot Key, use this item to select Hot Key.
The choices: Ctrl+1~12; Disabled; Any Key; Wake; Power

Power On by PS/2 MS
Use this item to enable / disable the PS2 Mouse Wake up.
The choices: Enabled; Disabled

USB Wakeup From S1
Use this item to enable/disable the USB Wakeup From S1 function.
The choices: Enabled; Disabled

Power On By PME
Use this item to enable/disable the Power On by PME function.

Power On By WOL/Ring
Use this item to enable/disable the Power On by WOL/Ring function.

RTC Alarm Resume
Use this item to enable/disable the RTC Alarm Resume function.
Date: If RTC Alarm Resume is enabled, set the date with this item.
Time: If RTC Alarm Resume is enabled, set the time with this item.

▶IRQs Activity Monitoring
Press Enter on this item to open the Sub-menu as shown below:

Phoenix - AwardBIOS CMOS Setup Utility
VIA OnChip IDE Device

		Item Help
Primary INTR	On	
IRQ3 (COM 2)	Enabled	
IRQ4 (COM 1)	Enabled	
IRQ5 (LPT 2)	Enabled	
IRQ6 (Floppy Disk)	Disabled	
IRQ7 (LPT 1)	Enabled	
IRQ8 (RTC Alarm)	Disabled	
IRQ9 (IRQ2 Redir)	Disabled	
IRQ10 (Reserved)	Disabled	
IRQ11 (Reserved)	Disabled	
IRQ12 (PS/2 Mouse)	Enabled	
IRQ13 (Coprocessor)	Enabled	
IRQ14 (Hard Disk)	Enabled	
IRQ15 (Reserved)	Disabled	

←→↑↓: Move Enter:Select +/-/PU/PD:Value F10:Save ESC:Exit F1:General Help
F5:Previous Values F6:Fail-Safe Defaults F7:Optimized Defaults

Primary INTR
Use this item to enable / disable the Primary Interrupt setup.
The choices: Enabled; Disabled

IRQ3 (COM 2)
Use this item to enable / disable the IRQ3 for COM 2.
The choices: Enabled; Disabled

IRQ4 (COM 1)
Use this item to enable / disable the IRQ4 for COM 1.
The choices: Enabled; Disabled

IRQ5 (LPT 2)
Use this item to enable / disable the IRQ5 for LPT 2.
The choices: Enabled; Disabled

IRQ6 (Floppy Disk)
Use this item to enable / disable the IRQ6 for Floppy Disk.
The choices: Enabled; Disabled

IRQ7 (LPT1)
Use this item to enable / disable the IRQ7 for Floppy Disk.
The choices: Enabled; Disabled

IRQ8 (RTC Alarm)
Use this item to enable / disable the IRQ8 for RTC Alarm.
The choices: Enabled; Disabled

IRQ9 (IRQ2 Redir)
Use this item to enable / disable the IRQ2 redirect.
The choices: Enabled; Disabled

IRQ10 (Reserved)
Use this item to enable / disable the reserved IRQ10.
The choices: Enabled; Disabled

IRQ11 (Reserved)
Use this item to enable / disable the reserved IRQ11.
The choices: Enabled; Disabled

IRQ12 (PS/2 Mouse)
Use this item to enable / disable the IRQ12 for PS/2 Mouse.
The choices: Enabled; Disabled

IRQ13 (Coprocessor)
Use this item to enable / disable the IRQ13 for Coprocessor.
The choices: Enabled; Disabled

IRQ14 (Hard Disk)
Use this item to enable / disable the IRQ14 for hard disk.
The choices: Enabled; Disabled

IRQ15 (Reserved)
Use this item to enable / disable the reserved IRQ15.
The choices: Enabled; Disabled

4.8. PnP/PCI Configurations

This section describes configuration of 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 when communicating with the components on board. This section covers some very technical items and it is strongly recommended that only experienced users should make any changes to the default settings.

Phoenix - AwardBIOS CMOS Setup Utility

PnP/PCI Configurations

		Item Help
Reset Configuration Data	Disabled	
Resources Controlled by	Auto(ESCD)	
x IRQ Resources	Press Enter	
PCI/VGA Pallete Snoop	Disabled	

←→↑↓: Move Enter:Select +/-/PU/PD:Value F10:Save ESC:Exit F1:General Help
F5:Previous Values F6:Fail-Safe Defaults F7:Optimized Defaults

Reset Configuration Data

The system BIOS supports the PnP feature so the system needs to record which resource is assigned and proceeds to get rid of resource conflict. Every peripheral device has a node, which is called ESCD (Extended System Configuration Data. This node records which resources are assigned to it. If Disabled (Default) is chosen, the system ESCD will update only when the new configuration varies from the last one. If Enabled is chosen, the system is forced to update ESCDs and then is automatically reset to the "Disabled" mode.

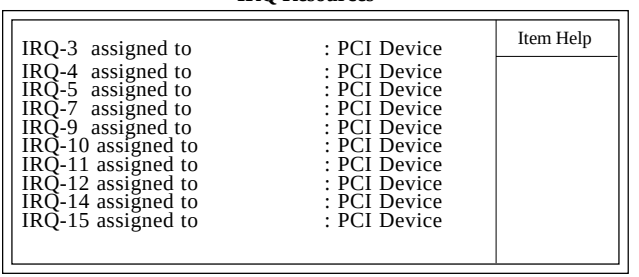
Resources Controlled By

By Choosing "Auto(ESCD)" , 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 no IRQ/DMA and I/O port conflict exists.

X IRQ Resources :

Press Enter to configure the following Submenus

IRQ Resources



IRQ Resources

When resources are controlled manually, assign each system interrupt a type, depending on the type of device using the interrupt.

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 provideboot 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, 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 graphi controller can then snoop the data on the ISA bus.Unless you have the above situation, you should disable this option.

The choices: Disabled (default); Enabled

4.9. PC Health Status

Phoenix - AwardBIOS CMOS Setup Utility

PC Health Status

		Item Help
Smart Fan1 Temperature	Disabled	
x Fan1 Tolerance Value	5	
Smart Fan2 Temperature	Disabled	
x Fan2 Tolerance Value	5	
System Temperature	( )	
CPU Temperature	( )	
CPUFAN 1 Speed	( )	
SYSFAN 1 Speed	( )	
Vcore	( )	
Vcc 3.3V	( )	
Vcc 5.0V	( )	
Vcc 12.V	( )	
Vbat	( )	
Vsb 5.0V	( )	

←→↑↓: Move Enter:Select +/-/PU/PD:Value F10:Save ESC:Exit F1:General Help
F5:Previous Values F6:Fail-Safe Defaults F7:Optimized Defaults

Smart Fan1 Temperature

To disable or set up the Smart Fan1/2 Temperature.
The choices: Disabled; 30^0C/86^0F; 35^0C/95^0F; 40^0C/104^0F

Smart Fan2 Temperature

To disable or set up the Smart Fan1/2 Temperature.
The choices: Disabled; 30^0C/86^0F; 35^0C/95^0F; 40^0C/104^0F

Fan1/2 Tolerance value

This item is to disable or set up the Fan1/2 telerance value.
The choices: Disabled; Min = 1; Max = 5 (key in Dec. number)

System/CPU Temp

This item shows the current System/CPU temperature.

CPUFAN1/SYSFAN1 Speed

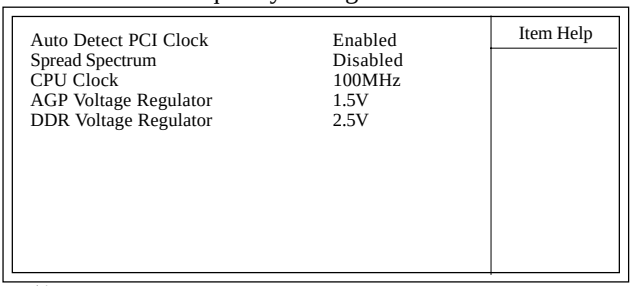
This item shows the CPU/System fan speed running on board.

Vcc 3.3V/5.0V/12V/Vbat/Vsb 5.0

These items show the respective voltage running on board.

4.10. Frequency/Voltage Control

Phoenix - AwardBIOS CMOS Setup Utility
Frequency/Voltage Control



Auto Detect PCI CLK

This item allows you to enable/disable auto detect PCI CLOCK.
The Choices: Disabled; Enabled

Spread Spectrum

Allows you to enable / disable the Spread Spectrum function.
The Choices: Disabled; Enabled

CPU Clock

Allows you to set the CPU Clock.
The Choices: Min = 100; Max = 233 (To key in the Dec. number)

AGP Voltage Regulator

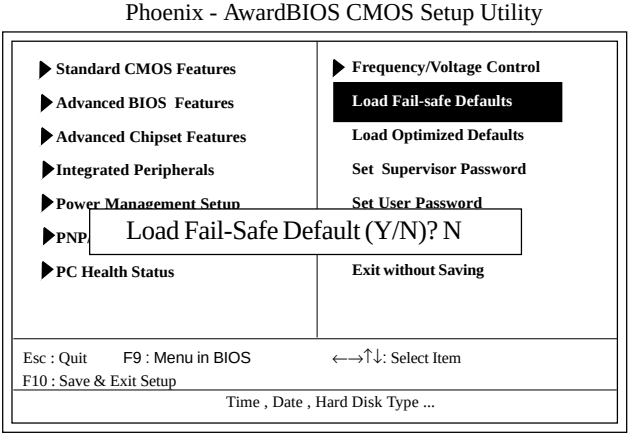
Allows you to set the CPU clock for next boot..
The Choices: 1.5V; 1.6V; 1.7V; 1.8V

DDR Voltage Regulator

Allows you to set the DDR voltage.
The Choices:2.5V; 2.6V; 2.7V; 2.8V

4.11. Load Fail-Safe Defaults

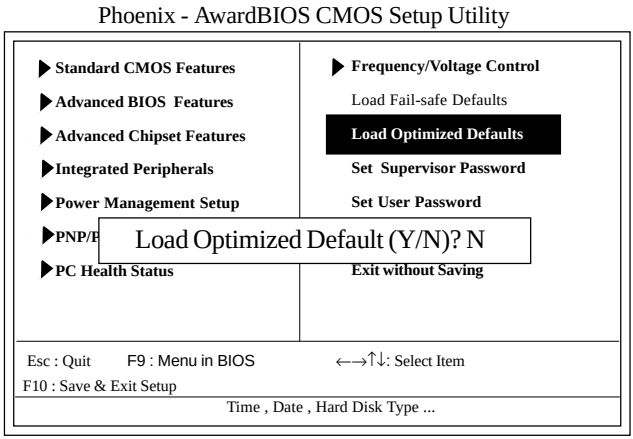
When you press <Enter> on this item, you get a confirmation dialog box with a message similar to below:



Pressing 'Y' loads the default values that are factory settings for optimal performance of system operations.

4.12. Load Optimized Defaults

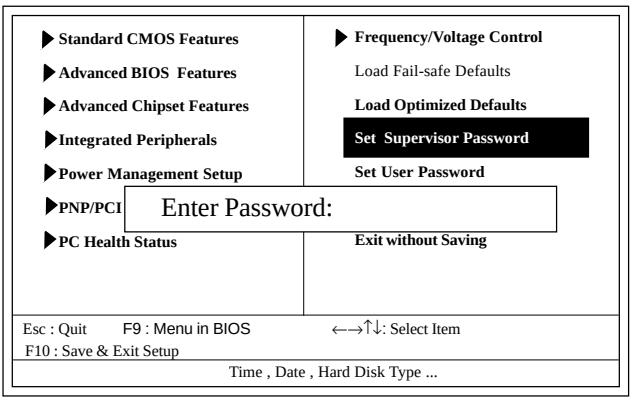
When you press <Enter> on this item, you get a confirmation dialog box with a message similar to:



Pressing 'Y' loads the default values that are factory settings for optimal performance of system operations.

4.13. Set Supervisor / User Password

Phoenix - AwardBIOS CMOS Setup Utility



When you select this function, the following message will appear at the center of the screen to assist you in creating a password.

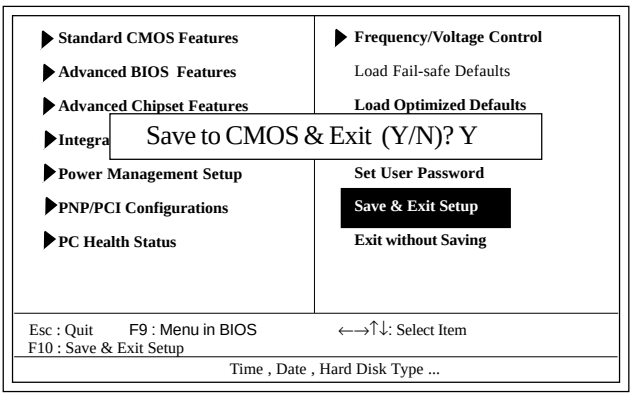
Enter Password (for Supervisor/User)

Type a password, up to eight characters, and press <Enter>.The password you type now will clear any previously entered password from CMOS memory. You will be asked to confirm the password. Type the password again and press <Enter>. You may also press <ESC> to abort the selection and not enter a password. To disable the password, just press <Enter> when you are prompted to enter a password. A message will confirm that you wish to disable the password. Once the password is disabled, the system will boot without asking user to enter a password.

Password for System or BIOS Setup

If you select “System” at the Security Option of BIOS Features Setup Menu, you will be prompted for the password every time when the system is rebooted, or any time when you try to enter Setup. If you select “Setup” at the Security Option of BIOS Features Setup Menu, you will be prompted only when you try to enter Setup.

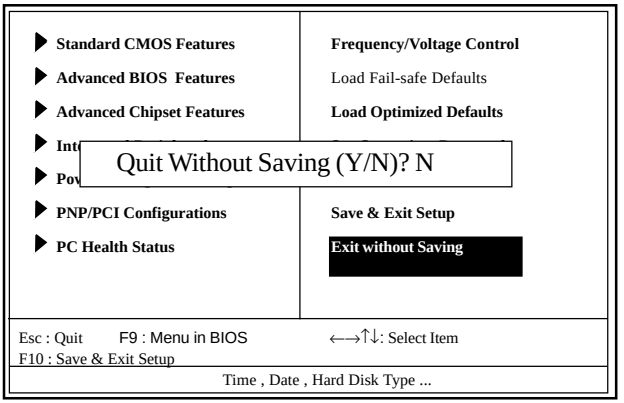
4.14. Save & Exit Setup



Typing “Y” will quit the Setup Utility and save the user setup value to RTC CMOS RAM.
Typing “N” will return to the Setup Utility.

4.15. Exit Without Saving

Phoenix - AwardBIOS CMOS Setup Utility



Typing “Y” will quit the Setup Utility without saving to RTC CMOS RAM.
Typing “N” will return to the Setup Utility.