

## 4. BIOS CONFIGURATION

Award's BIOS ROM has a built-in Setup program that allows users to modify the basic system configuration. This type of information is stored in battery-backed CMOS SRAM so that it retains the Setup information when the power is turned off.

### 4.1. ENTERING SETUP

Power ON the computer and press <Del> immediately will allow you to enter Setup. If the message disappears before you respond and you still wish to enter Setup, restart the system to try again by turning it OFF then ON or pressing the "RESET" bottom on the system case. You may also restart by simultaneously press <Ctrl>, <Alt>, and <Del> keys.

### 4.2. CONTROL KEYS

Up arrow	Move to previous item
Down arrow	Move to next item
Left arrow	Move to the item in the left hand
Right arrow	Move to the item in the right hand
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
PgUp key	Increase the numeric value or make changes
PgDn key	Decrease the numeric value or make changes
F1 key	General help, only for Status Page Setup Menu and Option Page Setup Menu
F2 key	Change color from total 16 colors
F3 key	Reserved
F4 key	Reserved
F5 key	Restore the previous CMOS value from CMOS, only for Option Page Setup Menu
F6 key	Load the default CMOS value from BIOS default table, only for Option Page Setup Menu
F7 key	Load the default
F8 key	Reserved
F9 key	Reserved
F10 key	Save all the CMOS changes, only for Main Menu

### 4.3. GETTING HELP

#### 4.3.1. Main Menu

The on-line description of the highlighted setup function is displayed at the bottom of the screen.

#### 4.3.2. Status Page Setup Menu / Option Page Setup Menu

Press F1 to pop up a small help window that describes the appropriate keys to use and the possible selections for the highlighted item. To exit the Help Window press <Esc>.

### 4.4. THE MAIN MENU

Once you enter Award BIOS CMOS Setup Utility, the Main Menu (Figure 4.1) will appear on the screen. The Main Menu allows you to select from nine setup functions and two exit choices. Use arrow keys to select among the items and press <Enter> to accept or enter the sub-menu.

CMOS Setup Utility-Copyright( C ) 1984-1999 Award Software	
▶ 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                                    ↑↓→← : Select Item F10:Save & Exit Setup	
Time, Date, Hard Disk Type...	

Figure 4.1: Main Menu

- 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 Award special enhanced features.
- Advanced Chipset Features  
This setup page includes all the items of chipset special features.
- Integrated Peripherals  
This setup page includes all onboard peripherals.
- Power Management Setup  
This setup page includes all the items of Green function features.
- PnP/PCI Configurations  
This setup page includes all the configurations of PCI & PnP ISA resources.
- PC Health Status  
This setup page is the System auto detect Temperature, voltage , fan speed.
- Frequency/Voltage Control  
This setup page is select CPU' s type.
- Load Fail-Safe Defaults  
Fail-Safe Defaults indicates the value of the system parameters which the system would be in safe configuration.
- Load Optimized Defaults  
Optimized Defaults indicates the value of the system parameters which the system would be in best performance configuration.
- Set Supervisor password  
Change, set, or disable password. It allows you to limit access to the system and Setup, or just to Setup.

- Set User password  
Change, set, or disable password. It allows you to limit access to the system.
- Save & Exit Setup  
Save CMOS value settings to CMOS and exit setup.
- Exit Without Saving  
Abandon all CMOS value changes and exit setup.

#### 4.5. STANDARD CMOS FEATURES MENU

The items in Standard CMOS Setup Menu (Figure 4.2) are divided into 9 categories. Each category includes no, one or more than one setup items. Use the arrows to highlight the item and then use the <PgUp> or <PgDn> keys to select the value you want in each item.

CMOS Setup Utility-Copyright( C ) 1984-1999 Award Software		
Standard CMOS Features		
Date (mm:dd:yy)	Time (hh:mm:ss)	Item Help
Thu , Jan 7 1999	2 : 31 : 24	Menu Level ▶
▶ IDE Primary Master	Press Enter None	Change the Day, month, Year and century
▶ IDE Primary Slave	Press Enter None	
▶ IDE Secondary Master	Press Enter None	
▶ IDE Secondary Slave	Press Enter None	
Drive A	1.44M, 3.5 in.	
Drive B	None	
Floppy 3 Mode Support	Disabled	
Video	EGA / VGA	
Halt On	All Errors	
Base Memory	640K	
Extended Memory	129024K	
Total Memory	130048K	

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

Figure 4.2: Standard CMOS Features Menu

- Date

The date format is <day>, <month> <date> <year>.

day	The day, from Sun to Sat, determined by the BIOS and is display-only
month	The month, Jan. Through Dec.
date	The date, from 1 to 31 (or the maximum allowed in the month)
year	The year, from 1994 through 2079

- Time

The times format in <hour> <minute> <second>. The time is calculated base on the 24-hour military-time clock. For example, 1 p.m. is 13:00:00.

- IDE Primary Master, Slave / Secondary Master, Slave

The category identifies the types of hard disk from drive C to F that has been installed in the computer. There are two types: auto type, and user definable type. User type is user-definable; Auto type which will automatically detect HDD type.

Note that the specifications of your drive must match with the drive table. The hard disk will not work properly if you enter improper information for this category.

If you select User Type, related information will be asked to enter to the following items. Enter the information directly from the keyboard and press <Enter>. Such information should be provided in the documentation form your hard disk vendor or the system manufacturer.

CYLS.	Number of cylinders
HEADS	number of heads
PRECOMP	write precomp
LANDZONE	Landing zone
SECTORS	number of sectors

If a hard disk has not been installed select NONE and press <Enter>.

- Drive A type / Drive B type

The category identifies the types of floppy disk drive A or drive B that has been installed in the computer.

None	No floppy drive installed
360K, 5.25 in.	5.25 inch PC-type standard drive; 360K byte capacity.
1.2M, 5.25 in.	5.25 inch AT-type high-density drive; 1.2M byte capacity (3.5 inch when 3 Mode is Enabled).
720K, 3.5 in.	3.5 inch double-sided drive; 720K byte capacity
1.44M, 3.5 in.	3.5 inch double-sided drive; 1.44M byte capacity.
2.88M, 3.5 in.	3.5 inch double-sided drive; 2.88M byte capacity.

- Floppy 3 Mode Support (for Japan Area)

Disabled	Normal Floppy Drive.
Drive A	Drive A is 3 mode Floppy Drive.
Drive B	Drive B is 3 mode Floppy Drive.
Both	Drive A & B are 3 mode Floppy Drives.

- Video

The category detects the type of adapter used for the primary system monitor that must match your video display card and monitor. Although secondary monitors are supported, you do not have to select the type in setup.

EGA/VGA	Enhanced Graphics Adapter/Video Graphics Array. For EGA, VGA, SVGA, or PGA monitor adapters
CGA 40	Color Graphics Adapter, power up in 40 column mode
CGA 80	Color Graphics Adapter, power up in 80 column mode
MONO	Monochrome adapter, includes high resolution monochrome adapters

- Halt on

The category determines whether the computer will stop if an error is detected during power up.

NO Errors	The system boot will not stop for any error that may be detected and you will be prompted
All Errors	Whenever the BIOS detects a non-fatal error the system will be stopped
All, But Keyboard	The system boot will not stop for a keyboard error; it will stop for all other errors
All, But Diskette	The system boot will not stop for a disk error; it will stop for all other errors
All, But Disk/Key	The system boot will not stop for a keyboard or disk error; it will stop for all other errors

- Memory

The category is display-only which is determined by POST (Power On Self Test) of the BIOS.

**Base Memory**

The POST of the BIOS will determine the amount of base (or conventional) memory installed in the system.

The value of the base memory is typically 512 K for systems with 512 K memory installed on the motherboard, or 640 K for systems with 640 K or more memory installed on the motherboard.

**Extended Memory**

The BIOS determines how much extended memory is present during the POST.

This is the amount of memory located above 1 MB in the CPU's memory address map.



**4.6. Advanced BIOS Features**

CMOS Setup Utility-Copyright( C ) 1984-1999 Award Software Advanced BIOS Features		
Virus Warning	Disabled	Item Help
CPU cache	Enabled	
CPU L2 Cache ECC Checking	Disabled	Menu Level ▶
Processor Number Feature	Enabled	Allows you to
Quick Power On Self Test	Enabled	choose the VIRUS
First Boot Device	Floppy	Warning feature
Second Boot Device	HDD-0	For IDE Hard disk
Third Boot Device	LS/ZIP	Boot sector
Boot Other Device	Enabled	Protection. If this
Swap Floppy Drive	Disabled	Function is enable
Boot Up Floppy Seek	Enabled	And someone
Boot Up NumLock Status	On	Attempt to write
Gate A20 Option	Fast	Data into this area
Typematic Rate Setting	Disabled	, BIOS will show
Typematic Rate (Chars/Sec)	6	A warning
Typematic Delay (Msec)	250	Message on
Security Option	Setup	Screen and alarm
OS Select For DRAM >64MB	Non-OS2	beep
HDD S.M.A.R.T. Capability	Disabled	
Report No FDD For WIN 95	No	

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

Figure 4.3: Advanced BIOS Features Setup

\* System will detect automatically and show up when you install the Pentium III processor.

- Virus Warning

If it is set to enable, the category will flash on the screen when there is any attempt to write to the boot sector or partition table of the hard disk drive. The system will halt and the following error message will appear in the mean time. You can run anti-virus program to locate the problem.

Default value is Disabled.

Enabled	Activate automatically when the system boots up causing a warning message to appear when anything attempts to access the boot sector or hard disk partition table
Disabled	No warning message to appear when anything attempts to access the boot sector or hard disk partition table

- CPU cache

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

Enabled	Enable cache
Disabled	Disable cache

- CPU L2 Cache ECC Checking

The default value is Disabled.

Enabled	Enable CPU L2 Cache ECC Checking
Disabled	Disable CPU L2 Cache ECC Checking

- Processor Number Feature

This item will show up when you install the Pentium III processor.

The default value is Enabled.

Enabled	Pentium III Processor Number Feature.
Disabled	Disable this function

- Quick Power On Self Test

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

The default value is Enabled.

Enabled	Enable quick POST
Disabled	Normal POST

- First / Second / Third Boot device

The default value is Floppy / HDD-0 / LS/ZIP.

Floppy	Select your boot device priority by Floppy
LS/ZIP	Select your boot device priority by LS/ZIP
HDD-0~3	Select your boot device priority by HDD-0~3
SCSI	Select your boot device priority by SCSI
CDROM	Select your boot device priority by CDROM
Disable	Disable this function
LAN	Select your boot device priority by LAN

- Boot other device

The default value is Enabled

Enabled	Enabled select your boot device priority function
Disabled	Disabled this function

- Swap Floppy Drive

The default value is Disabled.

Enabled	Floppy A & B will be swapped under DOS.
Disabled	Floppy A & B will be normal definition.

- Boot Up Floppy Seek

During POST, BIOS will determine the floppy disk drive installed is 40 or 80 tracks. 360 K type is 40 tracks 720 K, 1.2 M and 1.44 M are all 80 tracks. The default value is Enabled.

Enabled	BIOS searches for floppy disk drive to determine it is 40 or 80 tracks. Note that BIOS can not tell from 720 K, 1.2 M or 1.44 M drive type as they are all 80 tracks
Disabled	BIOS will not search for the type of floppy disk drive by track number. Note that there will not be any warning message if the drive installed is 360 K

- Boot Up NumLock Status

The default value is On.

On	Keypad is number keys.
Off	Keypad is arrow keys.

- Gate A20 Option

The default value is Fast.

Normal	Set Gate A20 Option is Normal.
Fast	Set Gate A20 Option is Fast.

- Typematic Rate Setting

The default value is Disabled.

Enabled	Enable Keyboard Typematic rate setting.
Disabled	Disable Keyboard Typematic rate setting.

- Typematic Rate (Chars / Sec.)

The default value is 6.

6-30	Set the maximum Typematic rate from 6 chars. Per second to 30 characters. Per second.
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- Typematic Delay (Msec.)

The default value is 250.

250-1000	Set the time delay from first key to repeat the same key in to computer.
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- Security Option

This category allows you to limit access to the system and Setup, or just to Setup. The default value is Setup.

System	The system can not boot and can not access to Setup page will be denied if the correct password is not entered at the prompt
Setup	The system will boot, but access to Setup will be denied if the correct password is not entered at the prompt

- OS Select For DRAM>64MB

The default value is Non-OS2.

Non-OS2	Using non-OS2 operating system.
OS2	Using OS2 operating system and DRAM>64MB.

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

The default value is Disable.

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

- Report No FDD For WIN 95

The default value is No.

No	Assign IRQ6 For FDD.
Yes	FDD Detect IRQ6 Automatically.

#### 4.7. Advanced Chipset Features

CMOS Setup Utility-Copyright( C ) 1984-1999 Award Software  
Advanced Chipset Features

SDRAM CAS Latency Time	2	Item Help
SDRAM Cycle Time Tras/Trc	5/7	
SDRAM RAS-to-CAS Delay	2	Menu Level ▶
SDRAM RAS Precharge Time	2	
DRAM Page Closing Policy	Precharge Bank	
System BIOS Cacheable	Enabled	
Video BIOS Cacheable	Enabled	
Delayed Transaction	Disabled	
On-Chip Video Window Size	64MB	
* Onboard Display Cache Setting *		
Initial Display Cache	Enabled	
Display Cache Timing	Fast	

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

Figure 4.4: Advanced Chipset Features Setup

- SDRAM CAS latency Time

The default value is 2

3	For 67 / 83 MHz SDRAM DIMM module.
2	For 100 MHz SDRAM DIMM module.

- SDRAM Cycle Time Tras/Trc

The default value is 5/7

6/8	Set DRAM Tras/Trc Cycle time is 6/8 SCLKs.
5/7	Set DRAM Tras/Trc Cycle time is 5/7 SCLKs.

- SDRAM RAS# to CAS# delay

The default value is 2

3	Set SDRAM RAS# to CAS# delay 3 SCLKs.
2	Set SDRAM RAS# to CAS# delay 2 SCLKs.

- SDRAM RAS# Precharge

The default value is 2.

3	Set SDRAM RAS# Precharge is 3.
2	Set SDRAM RAS# Precharge is 2.

- DRAM Page Closing Policy

The default value is Precharge Bank .

Precharge Bank	Closing Policy Precharge Bank.
Precharge All	Closing Policy Precharge All.

- System BIOS Cacheable

The default value is Enabled.

Enabled	Enable System BIOS Cacheable.
Disabled	Disable System BIOS Cacheable.

- Video BIOS Cacheable

The default value is Enabled.

Enabled	Enable video BIOS Cacheable.
Disabled	Disable video BIOS Cacheable.

- Delayed Transaction

The default value is Disabled.

Disabled	Normal operation.
Enabled	For slow speed ISA device in system.

- On-Chip Video Window Size

The default value is 64MB.

32MB	Set Graphics Aperture Size to 32MB.
64MB	Set Graphics Aperture Size to 64MB.
Disabled	Disabled this function.

- Initial Display Cache

The default value is Enabled.

Disabled	Disabled Initial Display Cache.
Enabled	Enabled Initial Display Cache.

- Display Cache Timing

The default value is Fast.

Fast	Set Display Cache speed to Fast.
Normal	Set Display Cache speed to Normal.

## 4.8. Integrated Peripherals

CMOS Setup Utility-Copyright( C ) 1984-1999 Award Software Integrated Peripherals		
		Item Help
On-Chip Primary PCI IDE	Enabled	
On-Chip Secondary PCI IDE	Enabled	
IDE Primary Master PIO	Auto	Menu Level ▶
IDE Primary Slave PIO	Auto	
IDE Secondary Master PIO	Auto	
IDE Secondary Slave PIO	Auto	
IDE Primary Master UDMA	Auto	
IDE Primary Slave UDMA	Auto	
IDE Secondary Master UDMA	Auto	
IDE Secondary Slave UDMA	Auto	
USB Controller	Enabled	
USB Keyboard Support	Disabled	
Init Display First	PCI Slot	
AC97 Audio	Auto	
AC97 Modem	Auto	
IDE HDD Block Mode	Enabled	
POWER ON Function	BUTTON ONLY	
*KB Power ON Password	Enter	
Onboard FDC Controller	Enabled	
Onboard Serial Port 1	Auto	
Onboard Serial Port 2	Auto	
UART Mode Select	Normal	
*UR2 Duplex Mode	Half	
Onboard Parallel Port	378/IRQ7	
Parallel Port Mode	SPP	
*ECP Mode Use DMA	3	
Game Port Address	Disabled	
Midi Port Address	Disabled	
Midi Port IRQ	5	
CIR Port Address	Disabled	
*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

Figure 4.5: Integrated Peripherals



- On-Chip Primary PCI IDE

The default value is Enabled.

Enabled	Enable onboard 1st channel IDE port.
Disabled	Disable onboard 1st channel IDE port.

- On-Chip Secondary PCI IDE

The default value is Enabled.

Enabled	Enable onboard 2nd channel IDE port.
Disabled	Disable onboard 2nd channel IDE port.

- IDE Primary Master PIO (for onboard IDE 1st channel).

The default value is Auto.

Auto	BIOS will automatically detect the IDE HDD Accessing mode.
Mode0~4	Manually set the IDE Accessing mode.

- IDE Primary Slave PIO (for onboard IDE 1st channel).

The default value is Auto.

Auto	BIOS will automatically detect the IDE HDD Accessing mode.
Mode0~4	Manually set the IDE Accessing mode.

- IDE Secondary Master PIO (for onboard IDE 2nd channel).

The default value is Auto.

Auto	BIOS will automatically detect the IDE HDD Accessing mode.
Mode0~4	Manually set the IDE Accessing mode.

- IDE Secondary Slave PIO (for onboard IDE 2nd channel).

The default value is Auto.

Auto	BIOS will automatically detect the IDE HDD Accessing mode.
Mode0~4	Manually set the IDE Accessing mode.

- IDE Primary Master UDMA.

The default value is Auto.

Auto	BIOS will automatically detect the IDE HDD Accessing mode.
Disabled	Disable UDMA function.

- IDE Primary Slave UDMA.

The default value is Auto.

Auto	BIOS will automatically detect the IDE HDD Accessing mode.
Disabled	Disable UDMA function.

- IDE Secondary Master UDMA.

The default value is Auto.

Auto	BIOS will automatically detect the IDE HDD Accessing mode.
Disabled	Disable UDMA function.

- IDE Secondary Slave UDMA.

The default value is Auto.

Auto	BIOS will automatically detect the IDE HDD Accessing mode.
Disabled	Disable UDMA function.

- USB Controller

The default value is Enabled.

Enabled	Enable USB Controller.
Disabled	Disable USB Controller.

- USB Keyboard Support

The default value is Disabled.

Enabled	Enable USB Keyboard Support.
Disabled	Disable USB Keyboard Support.

- Init Display First

The default value is PCI Slot.

PCI Slot	Set Init Display First to PCI Slot.
Onboard	Set Init Display First to onboard AGP.

- AC' 97 Audio

The default value is Auto.

Enabled	Enabled AC' 97 Audio.
Disabled	Disabled AC' 97 Audio.
Auto	Set AC' 97 Audio to Auto.

- AC' 97 Modem

The default value is Auto.

Enabled	Enabled AC' 97 Modem.
Disabled	Disabled AC' 97 Modem.
Auto	Set AC' 97 Modem to Auto.

- IDE HDD Block Mode

The default value is Enabled.

Enabled	Enable IDE HDD Block Mode
Disabled	Disable IDE HDD Block Mode

- POWER ON Function

The default value is BUTTON ONLY.

Password	Enter from 1 to 5 characters to set the Keyboard Power On Password.
Mouse Move	Move the PS/2 mouse.
Mouse Click	Double click twice on PS/2 mouse.
BUTTON ONLY	If your keyboard have "POWER Key" button, you can press the key to power on your system.
Keyboard 98	Windows 98 keyboard "Power" key.

- Onboard FDC Controller

The default value is Enabled.

Enabled	Enable onboard FDC port.
Disabled	Disable onboard FDC port.

- Onboard Serial Port 1

The default value is Auto.

Auto	BIOS will automatically setup the port 1 address.
3F8/IRQ4	Enable onboard Serial port 1 and address is 3F8.
2F8/IRQ3	Enable onboard Serial port 1 and address is 2F8.
3E8/IRQ4	Enable onboard Serial port 1 and address is 3E8.
2E8/IRQ3	Enable onboard Serial port 1 and address is 2E8.
Disabled	Disable onboard Serial port 1.

- Onboard Serial Port 2

The default value is Auto.

Auto	BIOS will automatically setup the port 2 address.
3F8/IRQ4	Enable onboard Serial port 2 and address is 3F8.
2F8/IRQ3	Enable onboard Serial port 2 and address is 2F8.
3E8/IRQ4	Enable onboard Serial port 2 and address is 3E8.
2E8/IRQ3	Enable onboard Serial port 2 and address is 2E8.
Disabled	Disable onboard Serial port 2.

- UART Mode Select

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

The default value is Normal

ASKIR	Onboard I/O chip supports ASKIR.
IrDA	Onboard I/O chip supports IrDA.
Normal	Onboard I/O chip supports Normal.
SCR	Onboard I/O chip supports SCR.

- Onboard Parallel port

The default value is 378/IRQ7.

378/IRQ7	Enable onboard LPT port and address is 378/IRQ7.
278/IRQ5	Enable onboard LPT port and address is 278/IRQ5.
Disabled	Disable onboard LPT port.
3BC/IRQ7	Enable onboard LPT port and address is 3BC/IRQ7.

- Parallel Port Mode

The default value is SPP.

SPP	Using Parallel port as Standard Printer Port.
EPP	Using Parallel port as Enhanced Parallel Port.
ECP	Using Parallel port as Extended Capabilities Port.
ECP+EPP	Using Parallel port as ECP & EPP mode.

- ECP Mode Use DMA

The default value is 3.

1	Set ECP Mode Use DMA is 1.
3	Set ECP Mode Use DMA is 3.

- Game Port Address

The default value is Disabled.

Disabled	Disabled On Board IDE
201	Set onboard game port is 201.
209	Set onboard game port is 209.

- Midi Port Address

The default value is Disabled.

Disabled	Disabled On Board Midi Port.
300	Set On Board Midi Port is 300.
330	Set On Board Midi Port is 330.

- Midi Port IRQ

The default value is 5.

5	Set 5 for Midi Port IRQ
10	Set 10 for Midi Port IRQ

- CIR Port Address

The default value is Disabled.

Disabled	Disabled CIR function.
310	Set CIR Port Address to 310.
320	Set CIR Port Address to 320.

**4.9. POWER MANAGEMENT SETUP**

CMOS Setup Utility-Copyright( C ) 1984-1999 Award Software Power Management Setup			
ACPI Suspend Type	S1(PowerOnSuspend)	Item Help	
Power Management	User Define	Menu Level ▶	
Video Off Method	DPMS		
Video Off In Suspend	Yes		
Suspend Type	Stop Grant		
MODEM Use IRQ	4		
Suspend Mode	Disabled		
HDD Power Down	Disabled		
Soft-Off by PWR-BTTN	Instant-off		
Power LED in Suspend	Blinking		
AC BACK Function	Memory		
Wake-Up by PCI card	Enabled		
ModemRingOn/WakeOnLan	Enabled		
USB KB Wake-Up from S3	Disabled		
FAN Off In Suspend	Enabled		
CPU Thermal-Throttling	50%		
Resume by Alarm	Disabled		
* Date(of Month) Alarm	0		
* Time(hh:mm:ss) Alarm	0 0 0		
** Reload Global Timer Events **			
Primary IDE 0	Disabled		
Primary IDE 1	Disabled		
Secondary IDE 0	Disabled		
Secondary IDE 1	Disabled		
FDD,COM,LPT Port	Enabled		
PCI PIRQ[A-D]#	Enabled		

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

Figure 4.6: Power Management Setup

- **ACPI Suspend Type**

The default value is S1 (PowerOn Suspend).

S1(PowerOn Suspend)	Set ACPI Suspend type is S1.
S3(Suspend to RAM)	Set ACPI Suspend type is S3.

- Power Management

The default value is User Define.

User Define	For configuring our own power management features.
Min Saving	Enable Green function.
Max Saving	Disable Green function.

- Video off Method

The default value is DPMS.

V/H SYNC+Blank	BIOS will turn off V/H-SYNC when gets into Green mode for Green monitor power saving.
Blank Screen	BIOS will only black monitor when gets into Green mode.
DPMS	BIOS will use DPMS Standard to control VGA card. (The Green type VGA card will turn off V/H-SYNC automatically.)

- Video Off In Suspend

The default value is Yes.

Yes	Enabled video off in suspend.
No	Disabled video off in suspend.

- Suspend Type

The default value is Stop Grant.

Stop Grant	Set Suspend type is stop grant.
PwrOn Suspend	Set Suspend type is Power on suspend.

- MODEM Use IRQ

The default value is 4.

NA	Set MODEM Use IRQ to NA.
3	Set MODEM Use IRQ to 3.
4	Set MODEM Use IRQ to 4.
5	Set MODEM Use IRQ to 5.
7	Set MODEM Use IRQ to 7.
9	Set MODEM Use IRQ to 9.
10	Set MODEM Use IRQ to 10.
11	Set MODEM Use IRQ to 11.



- Suspend Mode

The default value is Disable.

Disabled	Disable Suspend Mode.
1 min - 1 Hour	Setup the timer to enter Suspend Mode.

- HDD Power Down

The default value is Disable.

Disable	Disable HDD Power Down mode function.
1-15 mins.	Enable HDD Power Down mode between 1 to 15 mins.

- Soft-off by PWR-BTTN

The default value is Instant-off.

Instant-off	Soft switch ON/OFF for POWER ON/OFF
Delay 4 Sec.	Soft switch ON 4sec. for POWER OFF.

- Power LED in Suspend

The default value is BLINKING.

BLINKING	Set Power LED in Suspend at BLINKING mode.
ON	Set Power LED in Suspend at ON mode.
OFF/DUAL	Set Power LED in Suspend at OFF/DUAL color mode.

- AC Back Function

The default value is Memory.

Memory	This function depends on computer status
Soft-Off	Set System Soft-Off Status.
Full-On	Set System Full-On Status.

- Wake-Up by PCI card

The default value is Enabled.

Disabled	Disabled this function.
Enabled	Enabled wake-up by PCI card.

- ModemRingOn / WakeOnLan

The default value is Enabled.

Disabled	Disable these functions.
Enabled	Enable these functions.

- USB Mouse Wake From S3

The default value is Disabled.

Disabled	Disable USB Mouse Wake From S3.
Enabled	Enable USB Mouse Wake From S3.

- FAN Off In Suspend

The default value is Enabled.

Disabled	Disable this function.
Enabled	Stop CPU FAN when entering Suspend mode.

- CPU Thermal-Throttling

The default value is 50%.

87.5%	Monitor CPU Temp. will cause system slow down CPU Duty Cycle to 87.5%.
75.0%	Monitor CPU Temp. will cause system slow down CPU Duty Cycle to 75.0%.
62.5%	Monitor CPU Temp. will cause system slow down CPU Duty Cycle to 62.5%.
50.0%	Monitor CPU Temp. will cause system slow down CPU Duty Cycle to 50.0%.
37.5%	Monitor CPU Temp. will cause system slow down CPU Duty Cycle to 37.5%.
25.0%	Monitor CPU Temp. will cause system slow down CPU Duty Cycle to 25.0%.
12.5%	Monitor CPU Temp. will cause system slow down CPU Duty Cycle to 12.5%.

- Resume by Alarm

The default value is Disabled.

Disabled	Disable this function.
Enabled	Enable alarm function to POWER ON system.

If the default value is Enabled.

Date ( of Month) Alarm :	0~31
Time ( hh: mm: ss) Alarm :	(0~23) : (0~59) : (0~59)

- Primary IDE 0/1

The default value is Disabled.

Disabled	Disable this function.
Enabled	Enable monitor Primary IDE 0/1 for Green event.

- Secondary IDE 0/1

The default value is Disabled.

Disabled	Disable this function.
Enabled	Enable monitor Secondary IDE 0/1 for Green event.

- FDC/COM/LPT Port

The default value is Enabled.

Disabled	Disable this function.
Enabled	Enable monitor FDC/COM/LPT for Green event.

- PCI PIRQ[A-D] #

The default value is Enabled.

Enabled	Monitor PCI PIRQ[A-D] IRQ Active.
Disabled	Ignore PCI PIRQ[A-D] IRQ Active.

### 4.10. PnP/PCI Configurations

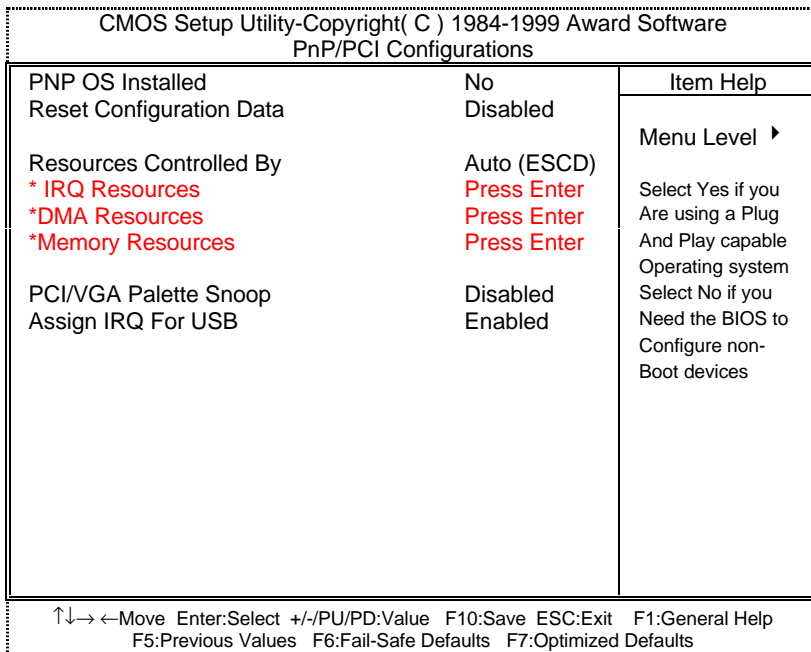


Figure 4.7: PCI Slot Configuration

- PNP OS Installed

The default value is No.

Yes	Enable PNP OS Installed function.
No	Disable PNP OS Installed function.

- Reset Configuration Data

The default value is Disabled.

Disabled	Disable this function.
Enabled	Enable clear PnP information in ESCD.

- Resources Controlled by

The default value is Auto (ESCD)

Manual	User can set the PnP resource (I/O Address, IRQ & DMA channels) used by legacy ISA DEVICE.
Auto	BIOS automatically use these PnP rescuers.

- IRQ (3,4,5,7,9, 10,11,12,14,15),DMA(0,1,3,5,6,7) assigned to

The default value is "Legacy ISA" or "PCI/ISA PnP".

Legacy ISA	The resource is used by Legacy ISA device.
PCI/ISA PnP	The resource is used by PCI/ISA PnP device (PCI or ISA).

- Reserved Memory Base

The default value is N/A.

N/A	Disable the MEM. block using.
C800 ~ DC00	Select the MEM. block starting address.

- PCI/VGA Palette Snoop

The default value is Disabled.

Enabled	For having Video Card on ISA Bus and VGA Card on PCI Bus.
Disabled	For VGA Card only.

- Assign IRQ For USB

The default value is Enabled.

Enabled	Assign IRQ For USB
Disabled	Not assign IRQ For USB

#### 4.11. PC Health Status

CMOS Setup Utility-Copyright( C ) 1984-1999 Award Software		
PC Health Status		
		Item Help
Reset Case Open Status	Disabled	
Case Opened	Yes	
VCORE	2.01 V	Menu Level ▶
VGTL	1.48 V	
VCC3	3.45 V	
+ 5V	5.02 V	
+12V	12.16 V	
- 12V	-11.70 V	
- 5V	- 5.09 V	
5VSB	4.97 V	
VBAT	3.00 V	
Current CPU Temperature	34°C	
CPU FAN Speed	5443 RPM	
Power FAN Speed	0 RPM	
System FAN Speed	0 RPM	
CPU Temperature Select	75°C/167°F	
CPU FAN Fail Alarm	Disabled	
Power FAN Fail Alarm	Disabled	
System FAN Fail Alarm	Disabled	

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

Figure 4.8: PC Health Status

- Reset Case Open Status
- Case Opened  
 If the case is closed, "Case Opened" will show "No".  
 If the case have been opened, "Case Opened" will show "Yes" .  
 If you want to reset "Case Opened" value, set "Reset Case Open Status" to "Yes" and save CMOS, your computer will restart.
- Current Voltage (V) VCORE / VGTL/ VCC3 / ±12V / ±5V /VBAT /5VSB  
 Detect system' s voltage status automatically.
- CPU FAN / Power FAN / System FAN Speed (RPM)  
 Detect Fan speed status automatically.

- CPU Temperature Select (°C / °F)

The default value is 75°C / 167°F

65°C / 149°F	Monitor CPU Temp. at 65°C / 149°F
70°C / 158°F	Monitor CPU Temp. at 70°C / 158°F
75°C / 167°F	Monitor CPU Temp. at 75°C / 167°F
Disabled	Disabled this function.

- Fan Fail Alarm

CPU / POWER / SYSTEM

Disabled	Fan Fail Alarm Function Disabled.
Enabled	Fan Fail Alarm Function Enabled.

### 4.12. Frequency/Voltage Control

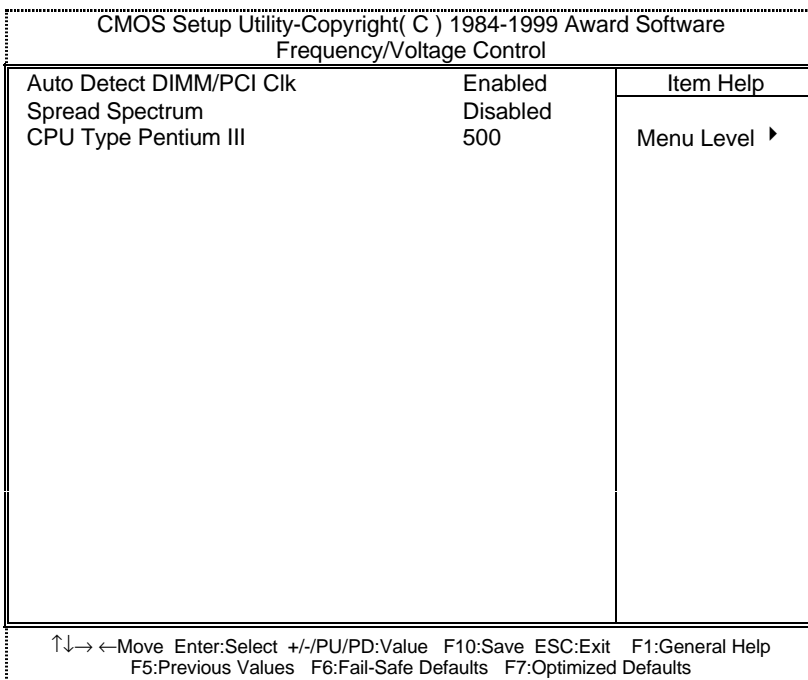


Figure 4.9: Frequency/Voltage Control

- Auto Detect DIMM/PCI Clk

The default value is Enabled.

Disabled	Disabled Auto Detect DIMM/PCI Clk
Enabled	Enabled Auto Detect DIMM/PCI Clk

- Spread Spectrum

The default value is Disabled.

Disabled	Disabled this function
0.25% (Cntr)	Set Spread Spectrum to 0.25%(Center spread)
0.5%(Down)	Set Spread Spectrum to 0.5%(Down spread)



- CPU Type Pentium III (CPU type is depend on your CPU)

1. System Bus Speed :66MHz

200 / 233 / 266 / 300 / 333 / 366 / 400 / 433 / 466 / 500 / 533

2. System Bus Speed : 100MHz

300 / 350 / 400 / 450 / 500 / 550 / 600 / 650 / 700 / 750 / 800

3. System Bus Speed : 133MHz

400 / 466 / 533 / 600 / 666 / 733 / 800 / 866 / 933 / 1000 / 1066

### 4.13. Load Fail-Safe Defaults

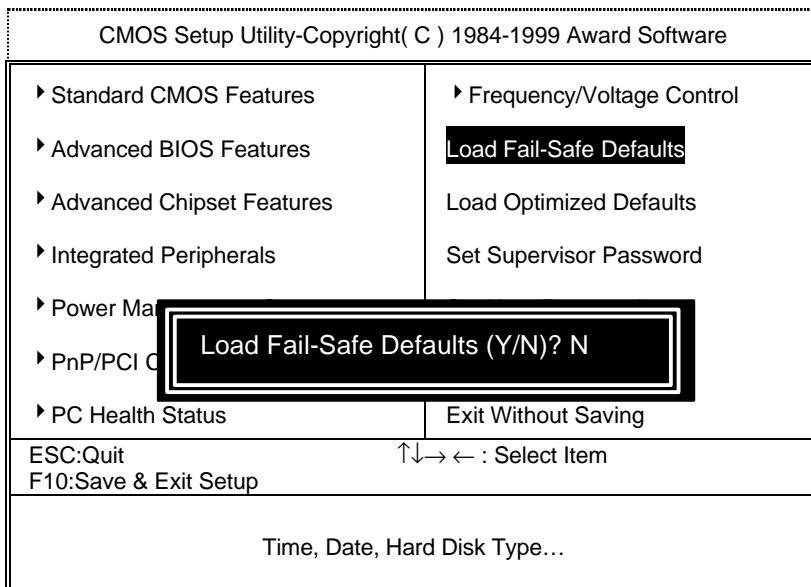


Figure 4.10: Load Fail-Safe Defaults

- Load Fail-Safe Defaults

Fail-Safe defaults contain the most appropriate values of the system parameters that allow minimum system performance.

#### 4.14. Load Optimized Defaults

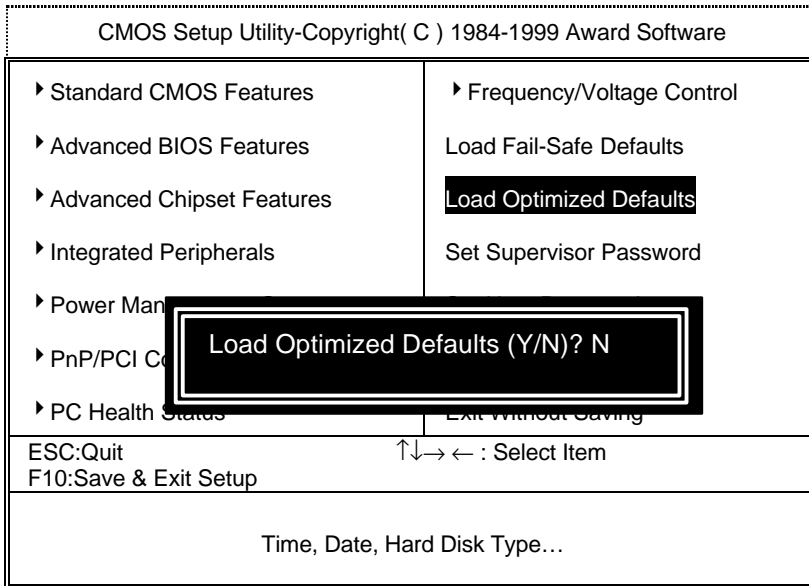


Figure 4.11: Load Optimized Defaults

- Load Optimized Defaults

Selecting this field loads the factory defaults for BIOS and Chipset Features which the system automatically detects.

#### 4.15. Set Supervisor / User Password

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

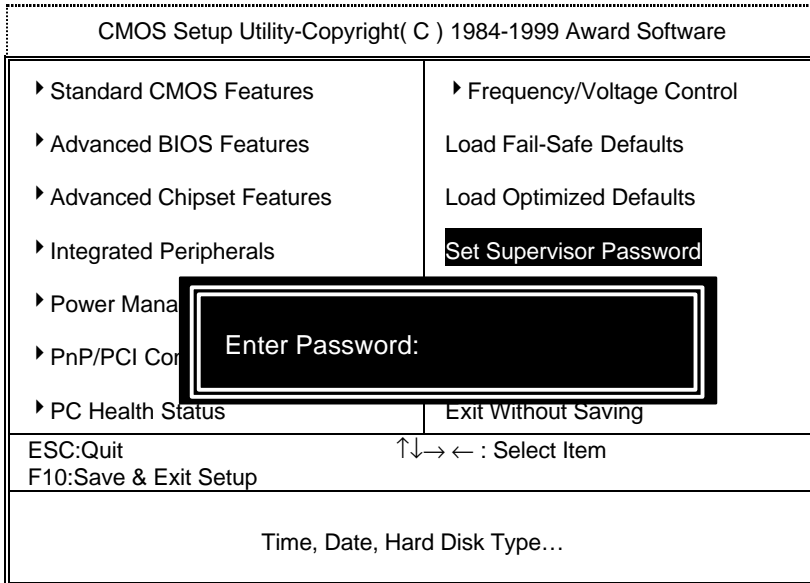


Figure 4.12: Password Setting

Type the password, up to eight characters, and press <Enter>. The password typed now will clear the 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 password, just press <Enter> when you are prompted to enter password. A message "PASSWORD DISABLED" will appear to confirm the password being disabled. Once the password is disabled, the system will boot and you can enter Setup freely.

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

### 4.16. Save & Exit Setup

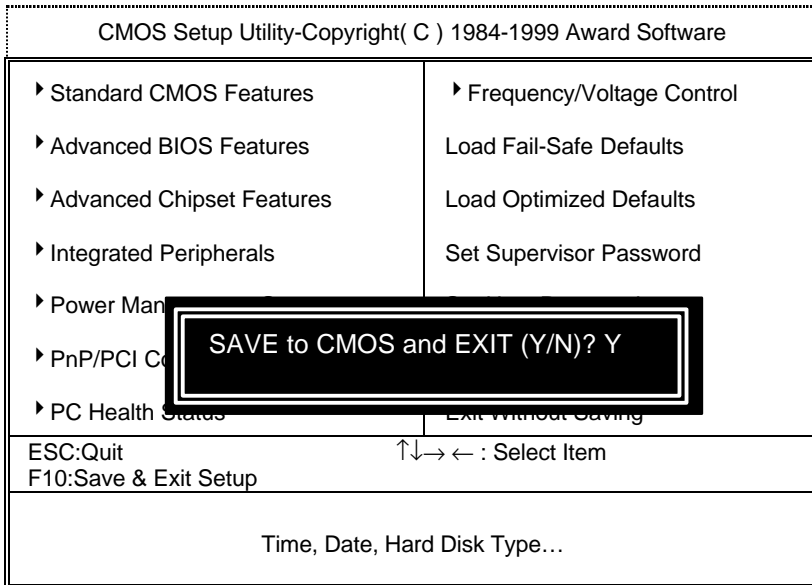


Figure 4.13: Save & Exit Setup

Type "Y" will quit the Setup Utility and save the user setup value to RTC CMOS SRAM.

Type "N" will return to Setup Utility.

### 4.17. Exit Without Saving

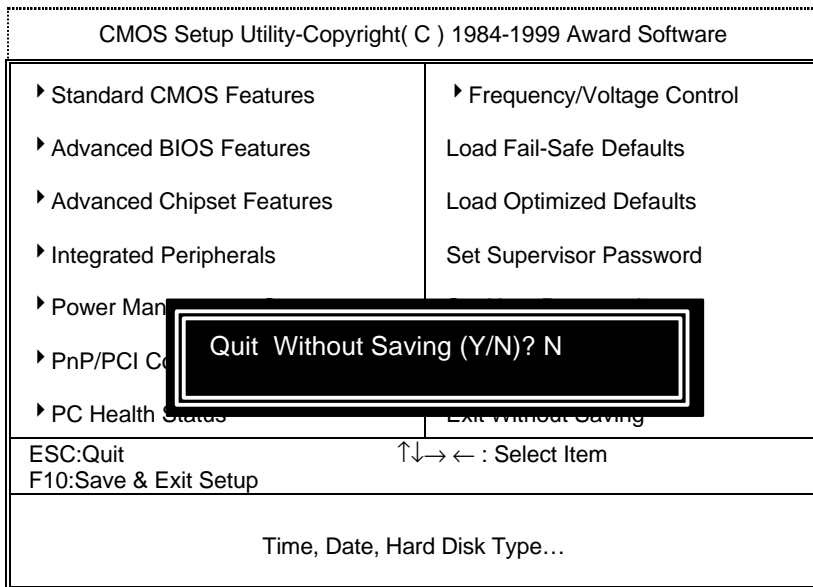


Figure 4.14: Exit Without Saving

Type "Y" will quit the Setup Utility without saving to RTC CMOS SRAM.

Type "N" will return to Setup Utility.

<p align="center"><b>DECLARATION OF CONFORMITY</b> Per FCC Part 15, Section 15.107(a)</p> <p align="center"><b>FC</b></p> <p>Responsible Party Name: G.B.T. INC. Address: 18365 Valley Blvd., Suite A LA Puente, CA 91744 Phone/Fax No: (818) 854-9338 (818) 854-9339</p> <p>hereby declares that the product Product Name: Mother Board Model Number: GA-6WXM</p> <p>Conforms to the following specifications: FCC Part 15, Subpart B, Section 15.107(a) and Section 15.109(a), Class B Digital Device</p> <p><b>Supplementary Information:</b> This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.</p> <p>Representative Person's Name: <u>ERIC LIU</u> Signature: <u>Eric Liu</u> Date: <u>Aug. 4, 1999</u></p>
--

**FCC Compliance Statement:**

This equipment has been tested and found to comply with limits for a Class B digital device , pursuant to Part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference in residential installations. This equipment generates, uses, and can radiate radio frequency energy, and if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause

interference to radio or television equipment reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna
- Move the equipment away from the receiver
- Plug the equipment into an outlet on a circuit different from that to which the receiver is connected
- Consult the dealer or an experienced radio/television technician for additional suggestions

You are cautioned that any change or modifications to the equipment not expressly approve by the party responsible for compliance could void Your authority to operate such equipment.

This device complies with Part 15 of the FCC Rules. Operation is subjected to the following two conditions 1) this device may not cause harmful interference and 2) this device must accept any interference received, including interference that may cause undesired operation.

## Declaration of Conformity

We, Manufacturer/Importer  
(full address)

**G.B.T. Technology Trädng GmbH**  
**Ausschlager Weg 41, 1F, 20537 Hamburg, Germany**

declare that the product  
(description of the apparatus, system, installation to which it refers)

**Mother Board**  
GA-6WXM

is in conformity with  
(reference to the specification under which conformity is declared)  
in accordance with 89/336 EEC-EMC Directive

- |   |  |  |   |
|---|--|--|---|
| <input type="checkbox"/> EN 55011                     | Limits and methods of measurement of radio disturbance characteristics of industrial, scientific and medical (ISM high frequency equipment                 | <input type="checkbox"/> EN 61000-3-2*           | Disturbances in supply systems caused by household appliances and similar electrical equipment "Harmonics"            |
| <input type="checkbox"/> EN55013                      | Limits and methods of measurement of radio disturbance characteristics of broadcast receivers and associated equipment                                     | <input checked="" type="checkbox"/> EN60555-2    |   |
| <input type="checkbox"/> EN 55014                     | Limits and methods of measurement of radio disturbance characteristics of household electrical appliances, portable tools and similar electrical apparatus | <input checked="" type="checkbox"/> EN61000-3-3* | Disturbances in supply systems caused by household appliances and similar electrical equipment "Voltage fluctuations" |
| <input type="checkbox"/> EN 55015                     | Limits and methods of measurement of radio disturbance characteristics of fluorescent lamps and luminaires   | <input checked="" type="checkbox"/> EN 50081-1   | Generic emission standard Part 1: Residual, commercial and light industry   |
| <input type="checkbox"/> EN 55020                     | Immunity from radio interference of broadcast receivers and associated equipment   | <input checked="" type="checkbox"/> EN 50082-1   | Generic immunity standard Part 1: Residual, commercial and light industry   |
| <input type="checkbox"/> EN 55022                     | Limits and methods of measurement of radio disturbance characteristics of information technology equipment   | <input type="checkbox"/> EN 55081-2              | Generic emission standard Part 2: Industrial environment  |
| <input type="checkbox"/> DIN VDE 0855 part 10 part 12 | Cabled distribution systems; Equipment for receiving and/or distribution from sound and television signals   | <input type="checkbox"/> EN 55082-2              | Generic immunity standard Part 2: Industrial environment  |
| <input checked="" type="checkbox"/> CE marking        |  | <input type="checkbox"/> ENV 55104               | Immunity requirements for household appliances tools and similar apparatus  |
|   |  | <input type="checkbox"/> EN 50091- 2             | EMC requirements for uninterruptible power systems (UPS)  |



(EC conformity marking)

**The manufacturer also declares the conformity of above mentioned product with the actual required safety standards in accordance with LVD 73/23 EEC**

- |                                   |   |                                     |   |
|-----------------------------------|---|-------------------------------------|---|
| <input type="checkbox"/> EN 60065 | Safety requirements for mains operated electronic and related apparatus for household and similar general use | <input type="checkbox"/> EN 60950   | Safety for information technology equipment including electrical business equipment |
| <input type="checkbox"/> EN 60335 | Safety of household and similar electrical appliances   | <input type="checkbox"/> EN 50091-1 | General and Safety requirements for uninterruptible power systems (UPS)             |

Manufacturer/Importer

(Stamp)

Date : Aug. 4, 1999

Signature : Rex Lin  
Name : Rex Lin



