# 6WXM

# USER'S MANUAL

1. **System power on by PS/2 Mouse: First, enable this function in CMOS Setup, then you can power on the system by double clicking the right or left button of your PS/2 Mouse.**

2. **System power on by Keyboard: If your ATX power supply supports larger than 300 mA 5V Stand-By current (depends on the specification of keyboards), you can power on your system by entering password from the Keyboard after setting the "Keyboard power on" jumper and password in CMOS Setup.**

3. **Support 3 steps ACPI LED selectable.**

4. **Support Modem Ring-On (Include internal Modem and external modem on COM A and COM B).**

5. **Support Wake-up On LAN (Your ATX power supply must support larger than 720 mA 5V Stand-By current).**

**Pentium â II / III / Celeron Processor MAINBOARD**
**REV. 1.3 First Edition**

R-13-01-090827

The author assumes no responsibility for any errors or omissions that may appear in this document nor does it make a commitment to update the information contained herein.

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August 27, 1999 Taipei, Taiwan

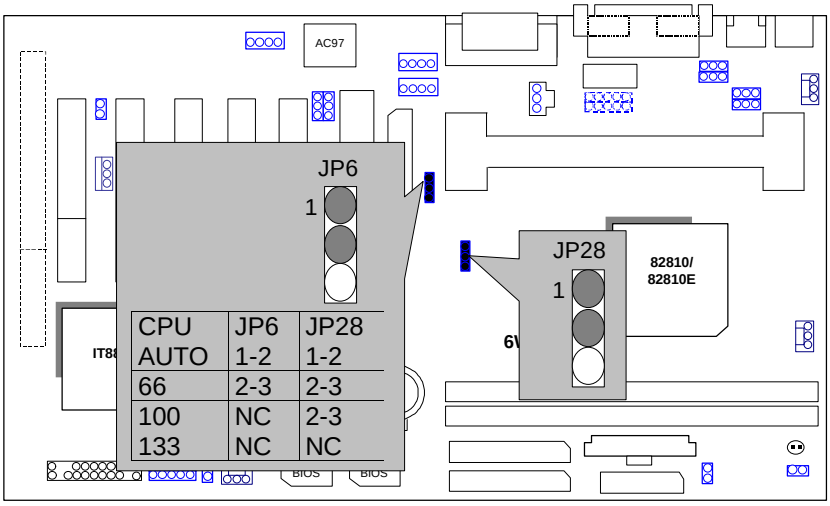
# I. Quick Installation Guide :

## CPU SPEED SETUP

The system bus frequency can be switched between 66 ¡ ¢00MHz and by adjusting JP6 & JP28 (See Figure-1). The CPU Frequency is control by BIOS.

**The CPU speed must match with the frequency RATIO. It will cause system hanging up if the frequency RATIO is higher than that of CPU.**

JP6 / JP28: System Bus Speed




| CPU | JP6 | JP28 |
|---|---|---|
| AUTO | 1-2 | 1-2 |
| 66 | 2-3 | 2-3 |
| 100 | NC | 2-3 |
| 133 | NC | NC |

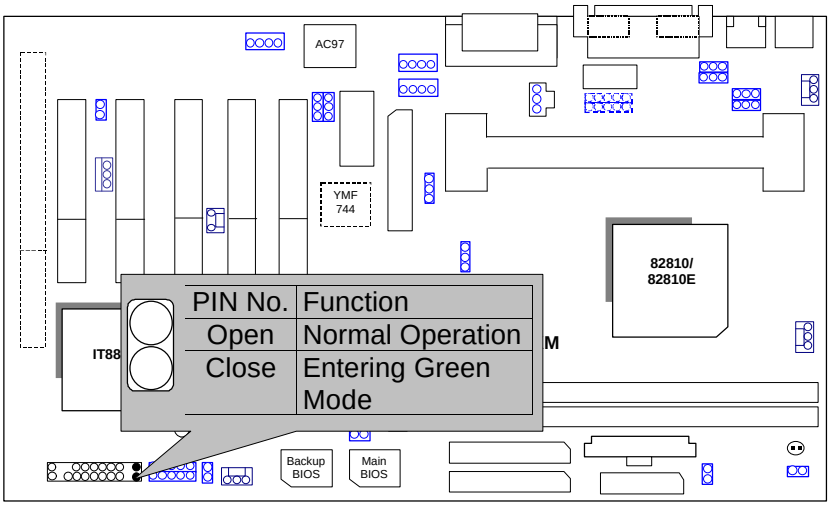
Figure-1

★ **Note: Please set the CPU host frequency in accordance with your processor' s specifications. We don' t recommend you to set the system bus frequency over the CPU' s specification because these specific bus frequencies are not the standard specifications for CPU, chipset and most of the peripherals. Whether your system can run under these specific bus frequencies properly will depend on your hardware configurations, including CPU, Chipsets, SDRAM, Cards..etc.**

★ **Note: JP28 is only available when the motherboard use 82810E Chipset.**

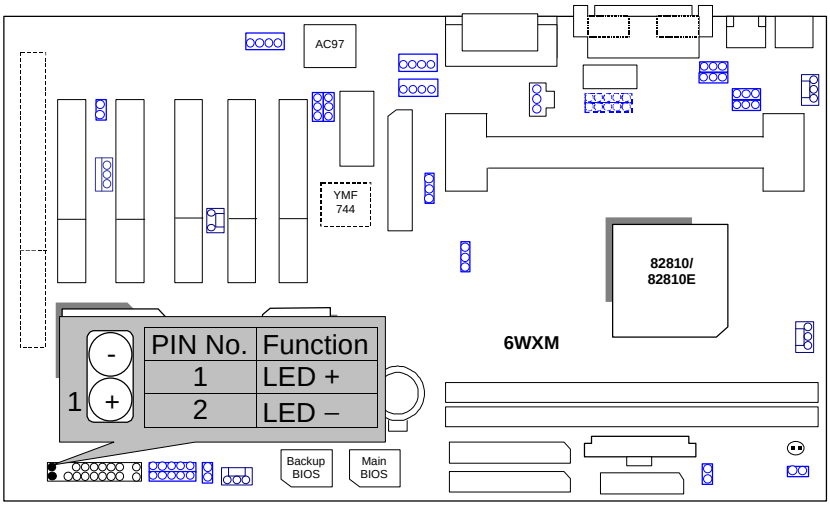
## II. Jumper setting :

GN : Green Function Switch



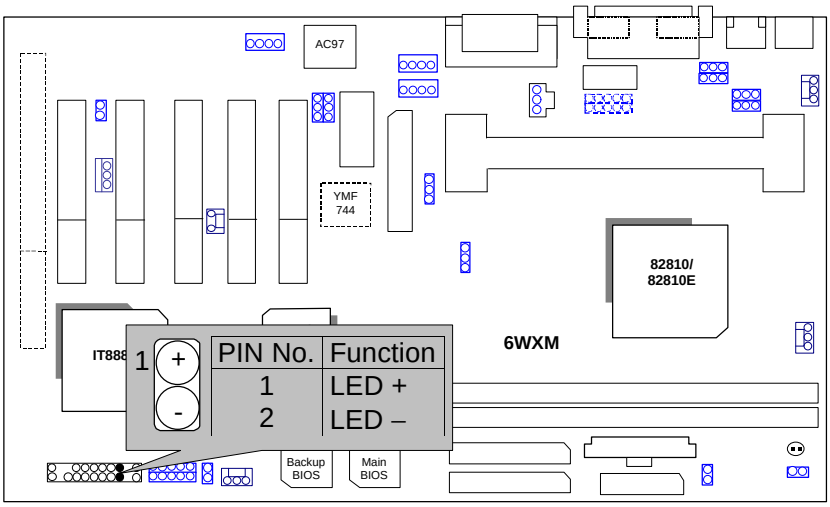

| PIN No. | Function |
|---|---|
| Open | Normal Operation |
| Close | Entering Green Mode |

GD : Green Function LED

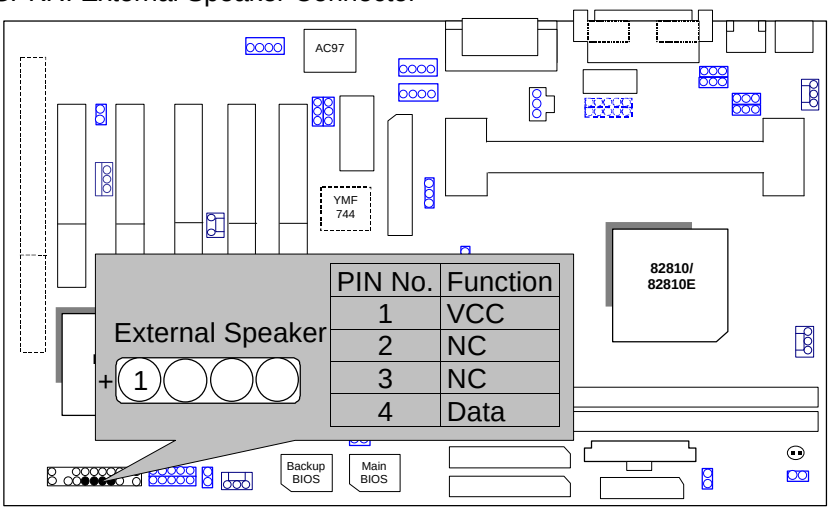



| PIN No. | Function |
|---|---|
| 1 | LED + |
| 2 | LED – |

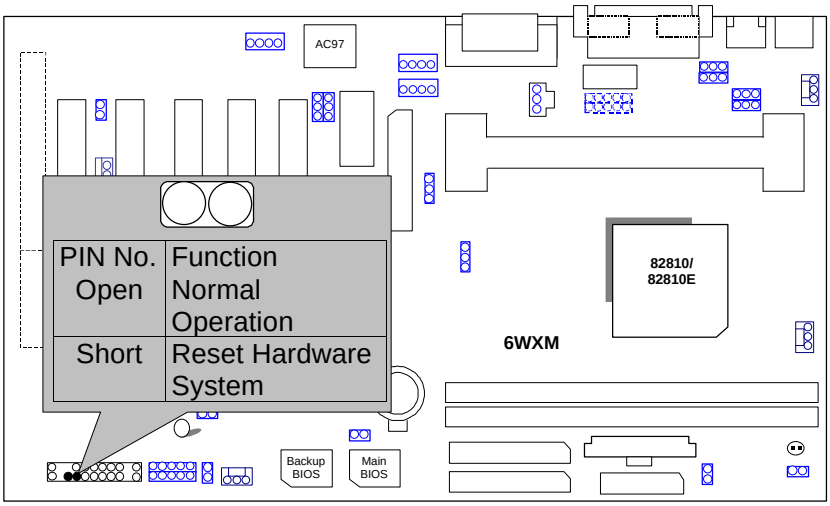
HD : IDE Hard Disk Active LED



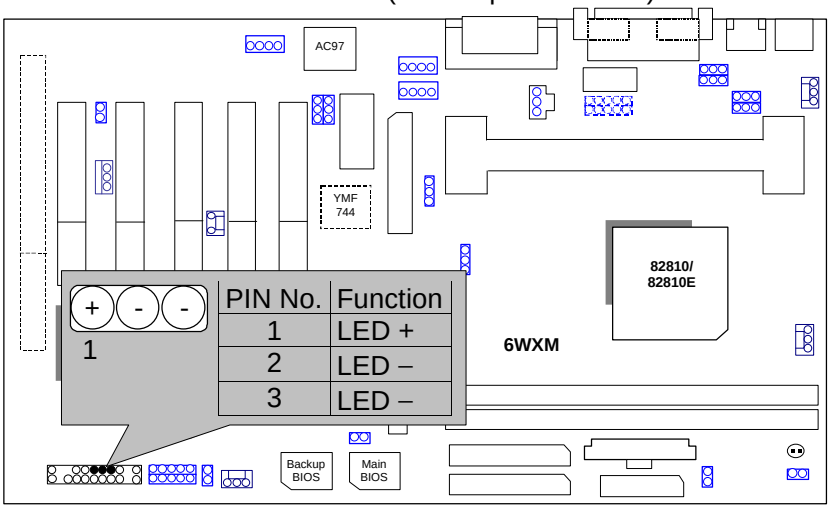

SPKR: External Speaker Connector



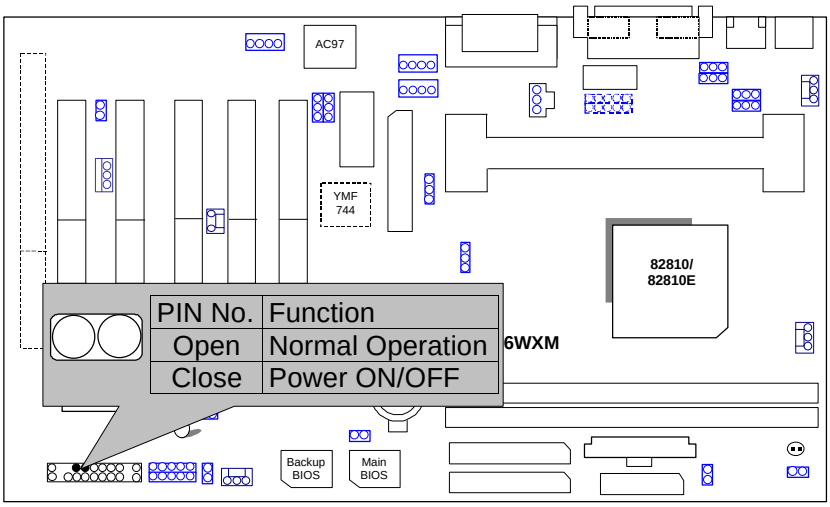
RES : Reset Switch



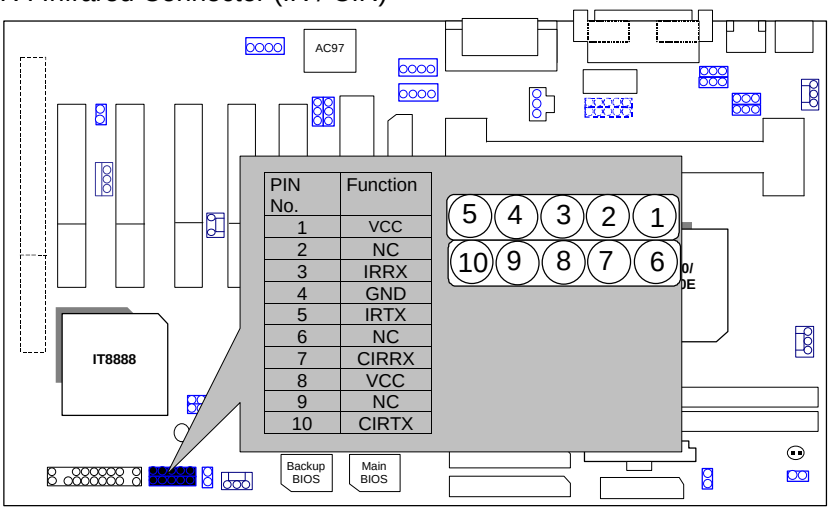

P+P–P– : Power LED Connector (as 3 steps ACPI LED)



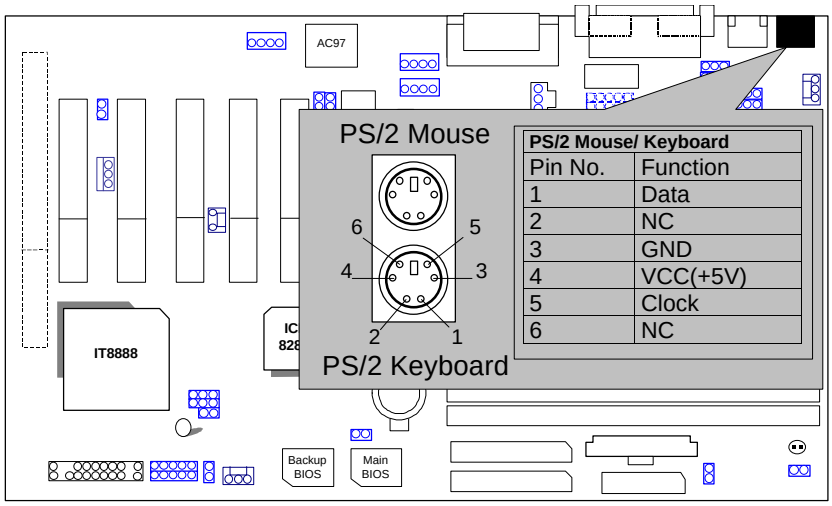
PW: Soft Power Connector




IR : Infrared Connector (IR / CIR)

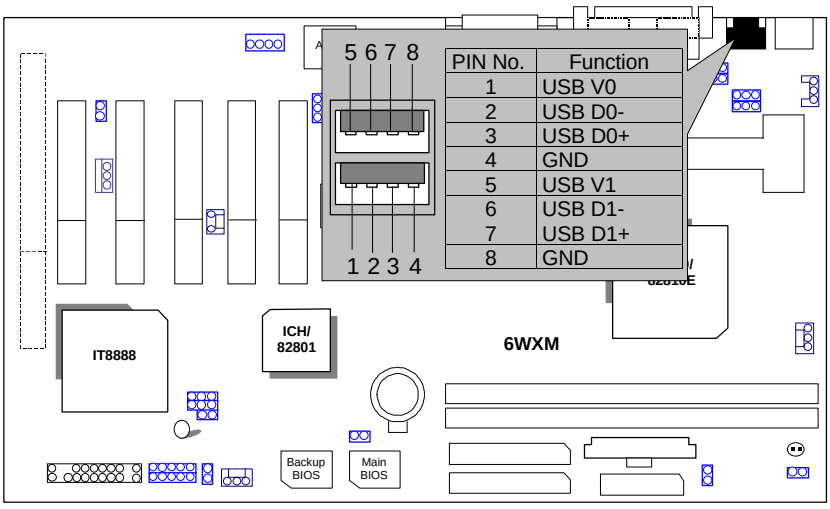


PS/2 Mouse / Keyboard Connector



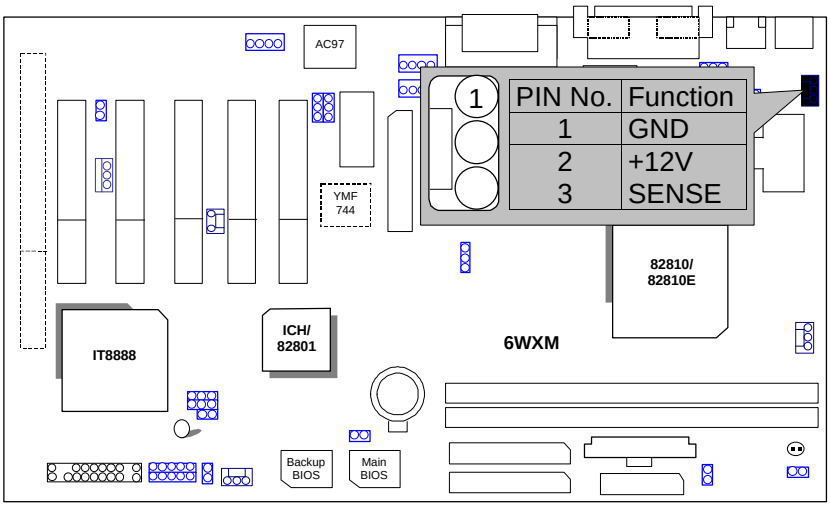

| PS/2 Mouse/ Keyboard | |
|---|---|
| Pin No. | Function |
| 1 | Data |
| 2 | NC |
| 3 | GND |
| 4 | VCC(+5V) |
| 5 | Clock |
| 6 | NC |

USB : USB Port

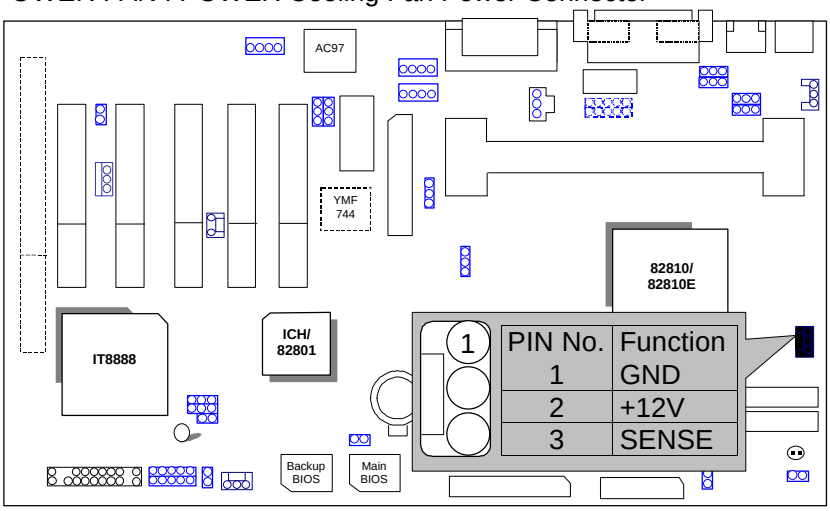



| PIN No. | Function |
|---|---|
| 1 | USB V0 |
| 2 | USB D0- |
| 3 | USB D0+ |
| 4 | GND |
| 5 | USB V1 |
| 6 | USB D1- |
| 7 | USB D1+ |
| 8 | GND |

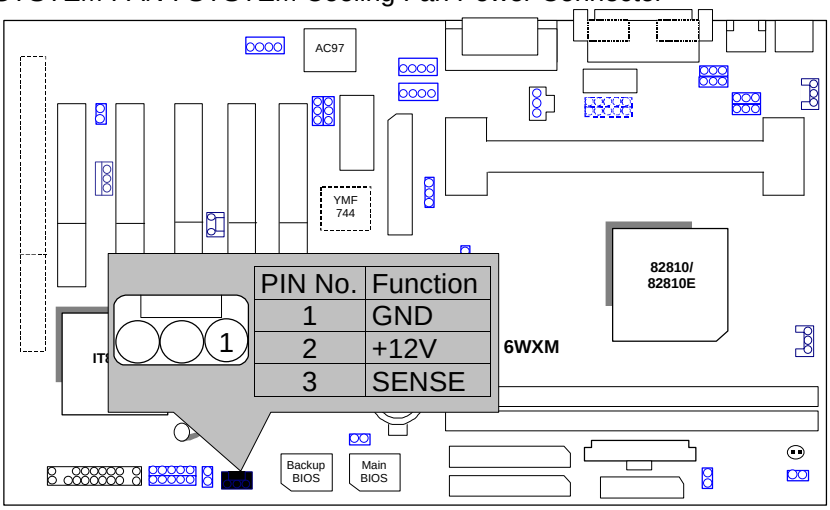
CPU FAN : CPU Cooling Fan Power Connector




POWER FAN : POWER Cooling Fan Power Connector

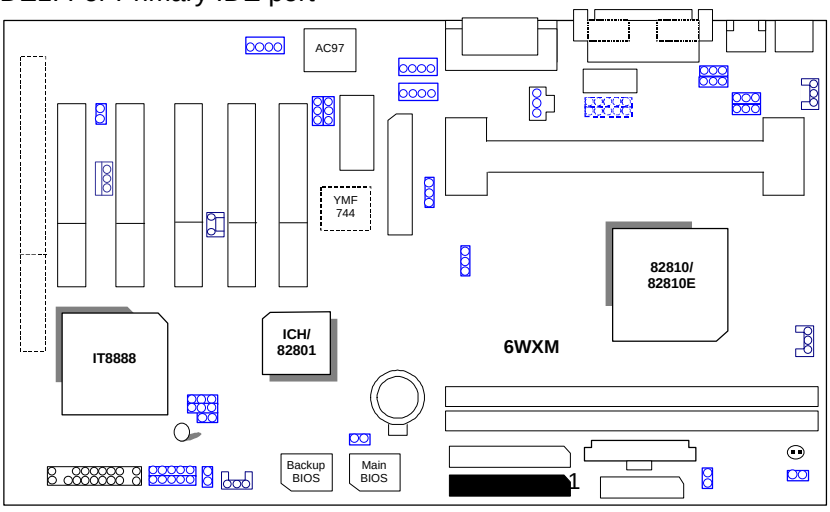


SYSTEM FAN : SYSTEM Cooling Fan Power Connector

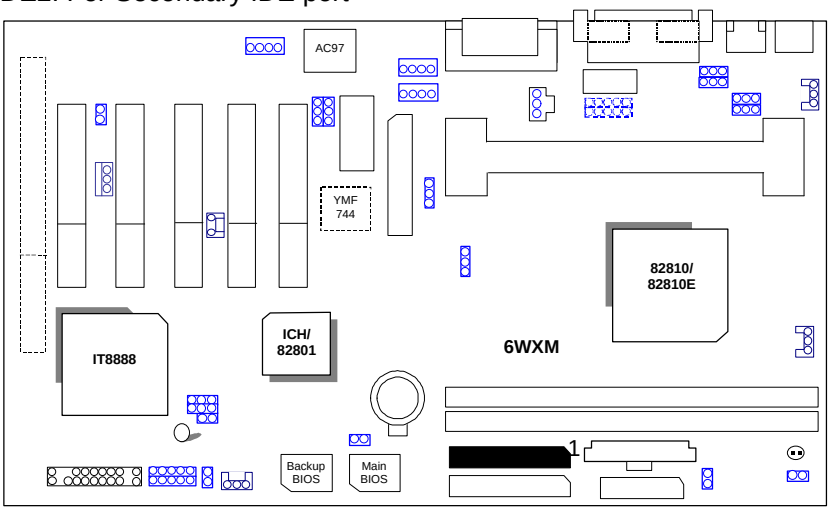



| PIN No. | Function |
|---|---|
| 1 | GND |
| 2 | +12V |
| 3 | SENSE |

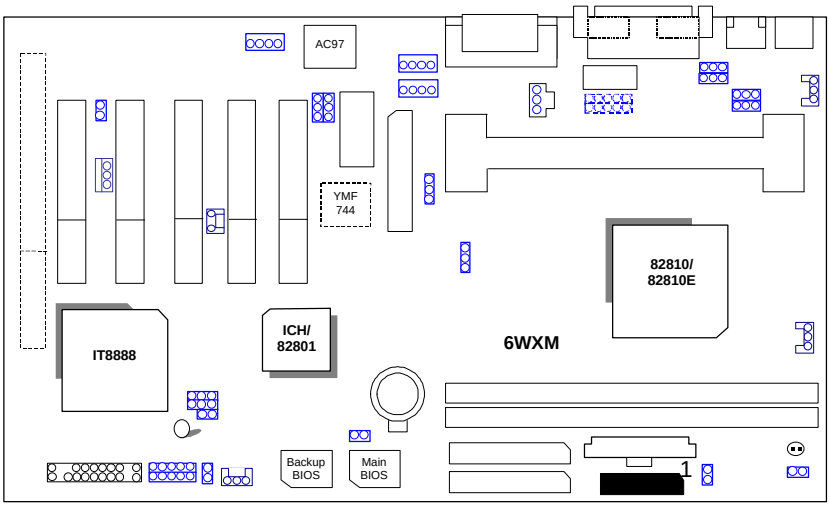
IDE1: For Primary IDE port



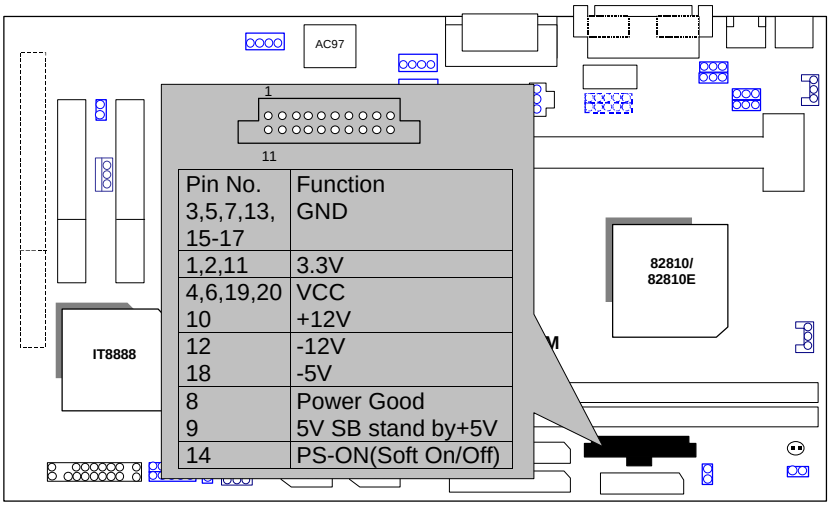
IDE2: For Secondary IDE port




FLOPPY : FLOPPY Port

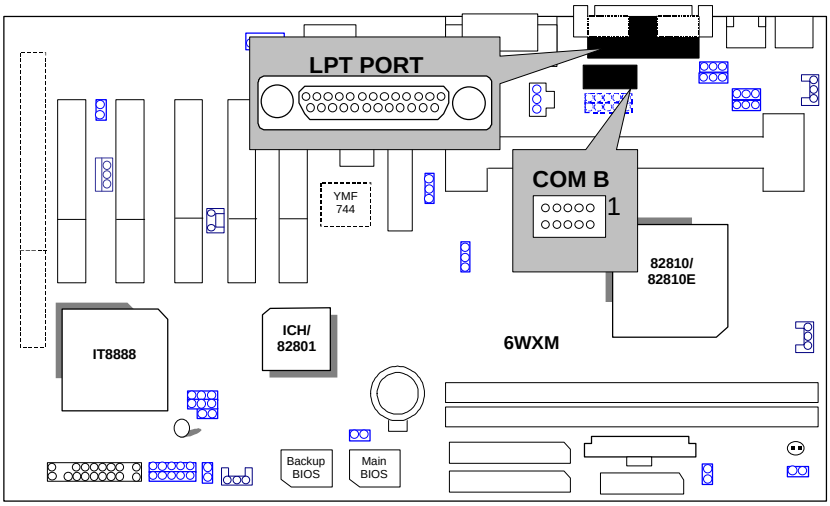


ATX POWER : ATX POWER Connector

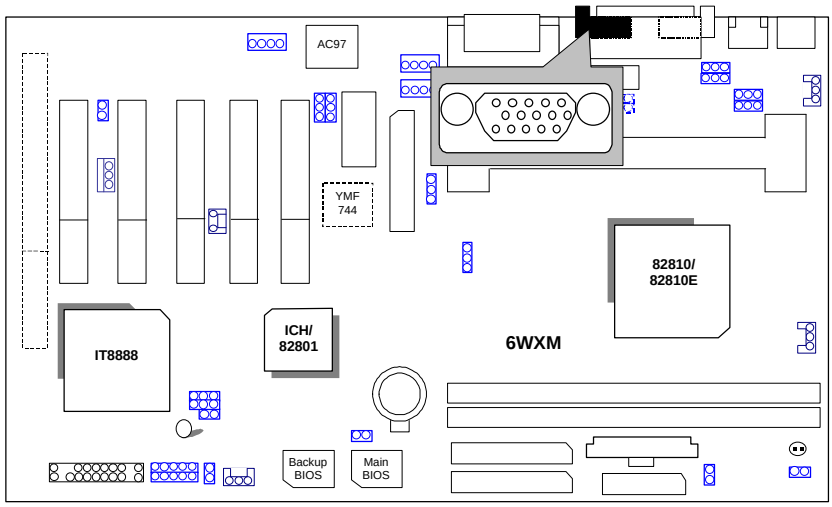



| Pin No. | Function |
|---|---|
| 3,5,7,13, 15-17 | GND |
| 1,2,11 | 3.3V |
| 4,6,19,20 | VCC |
| 10 | +12V |
| 12 | -12V |
| 18 | -5V |
| 8 | Power Good |
| 9 | 5V SB stand by+5V |
| 14 | PS-ON(Soft On/Off) |

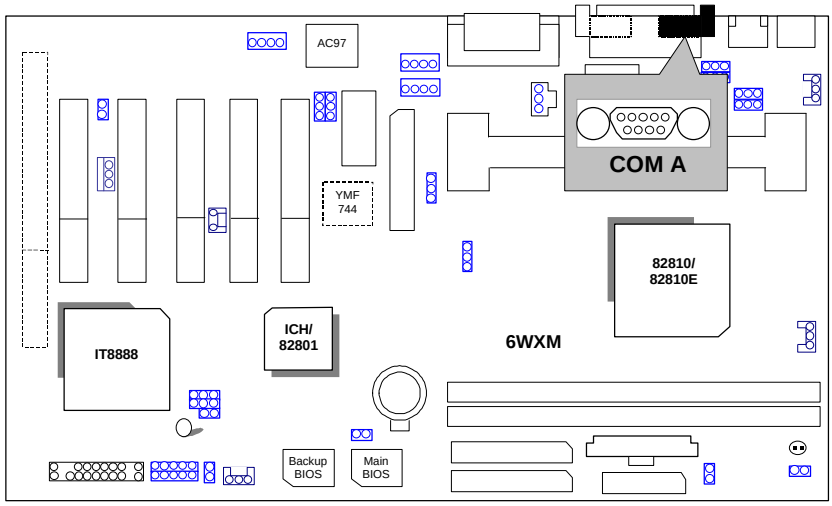
COM B / LPT Port



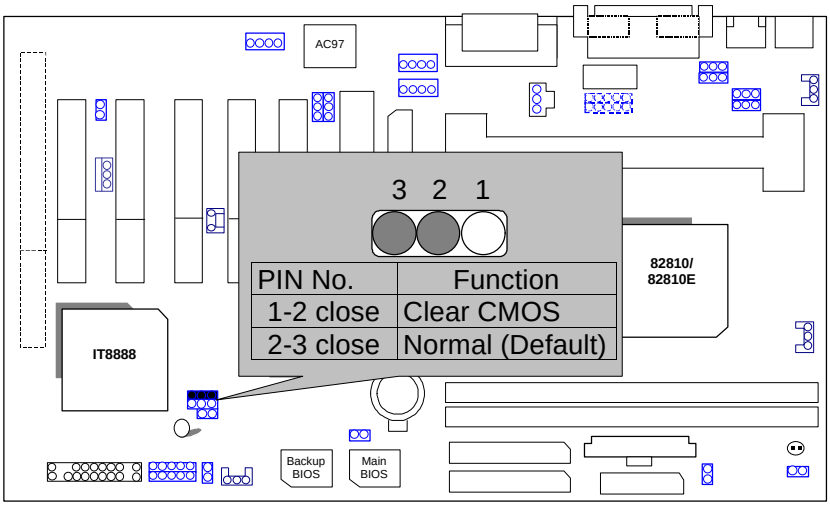
VGA : VGA Port



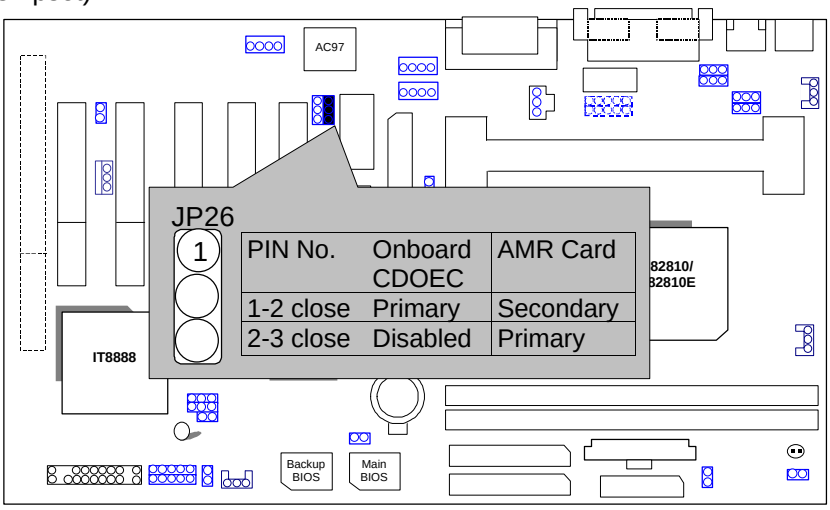

COM A : COM A Port



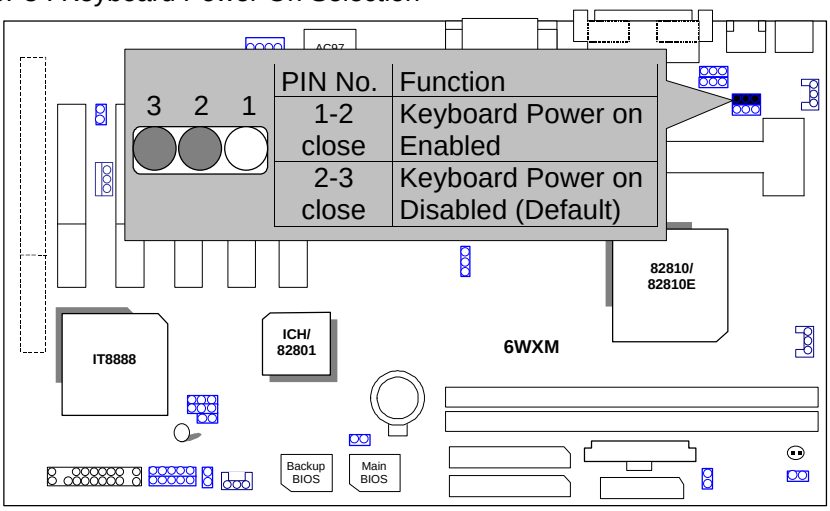
JP13:CLEAR CMOS Function



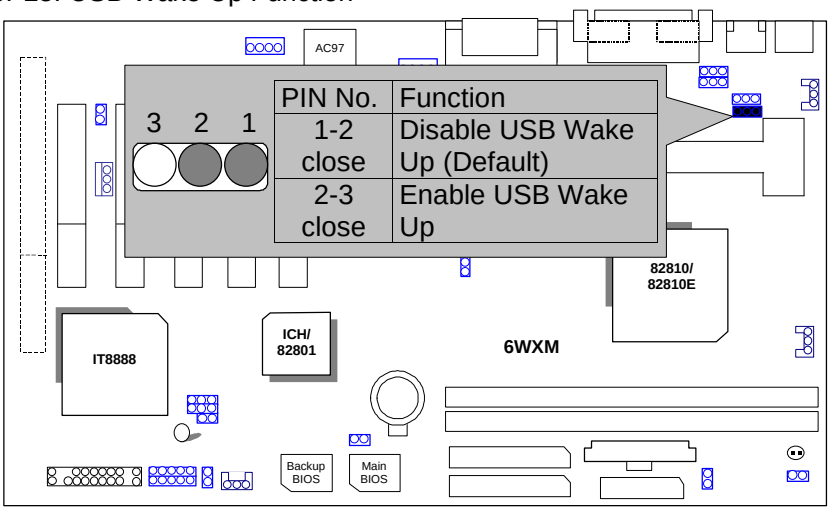

JP26 : AMR
(JP26 is available when the motherboard use YAMAHA YMF744 Chipset)



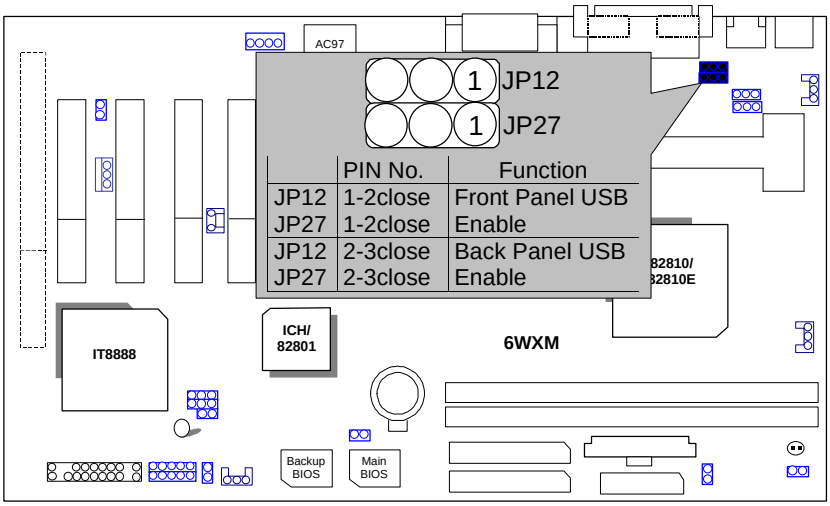
JP3 : Keyboard Power On Selection



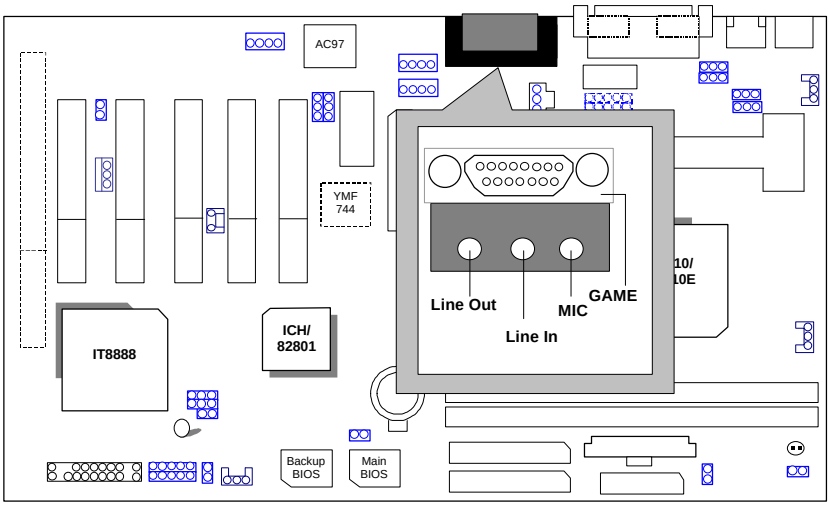

JP25: USB Wake Up Function



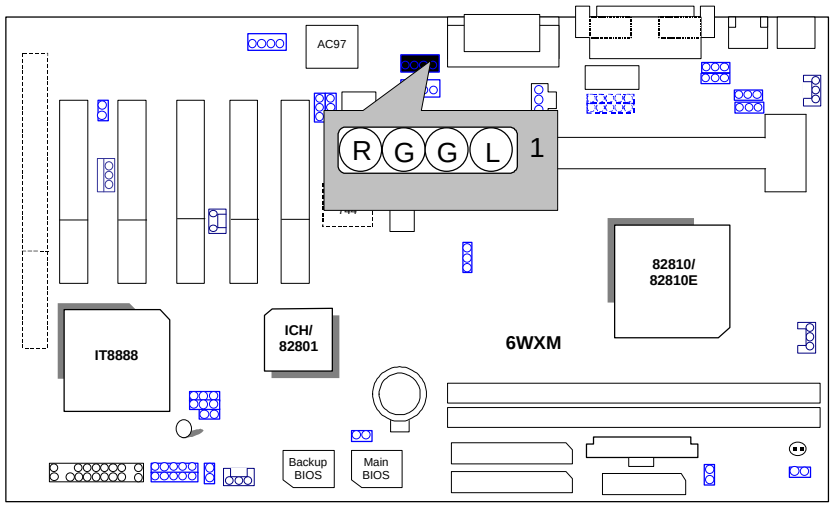
JP12/JP27 : USB Port Selection



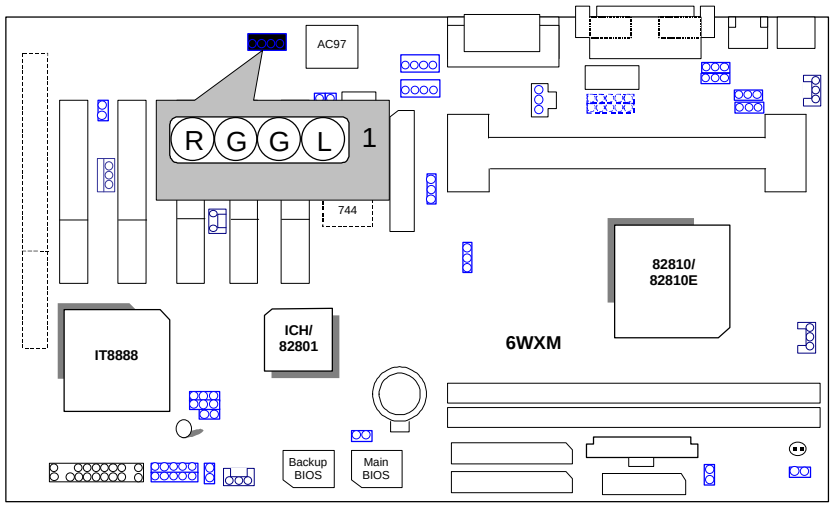

GAME & AUDIO Port



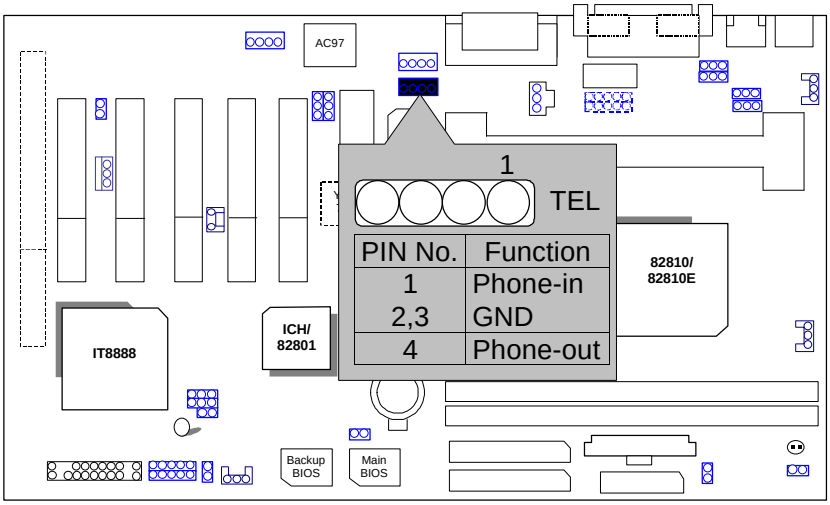
J8: CD Audio Line In



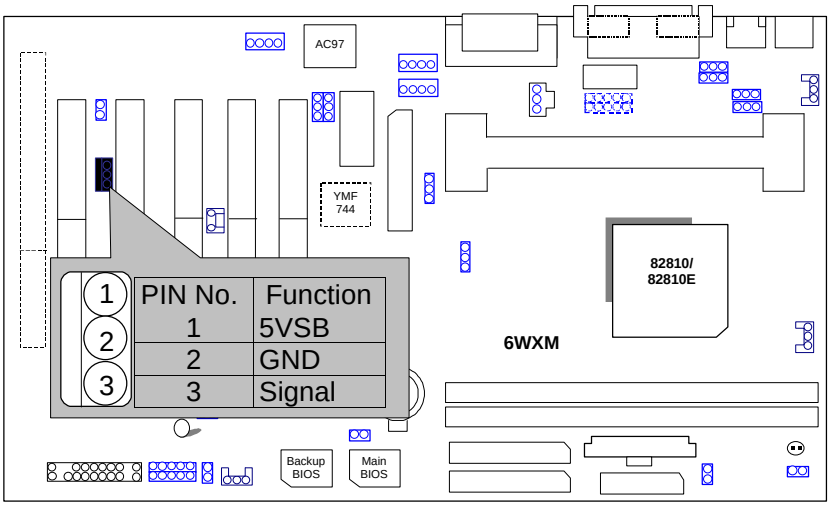

JP17:AUX_IN



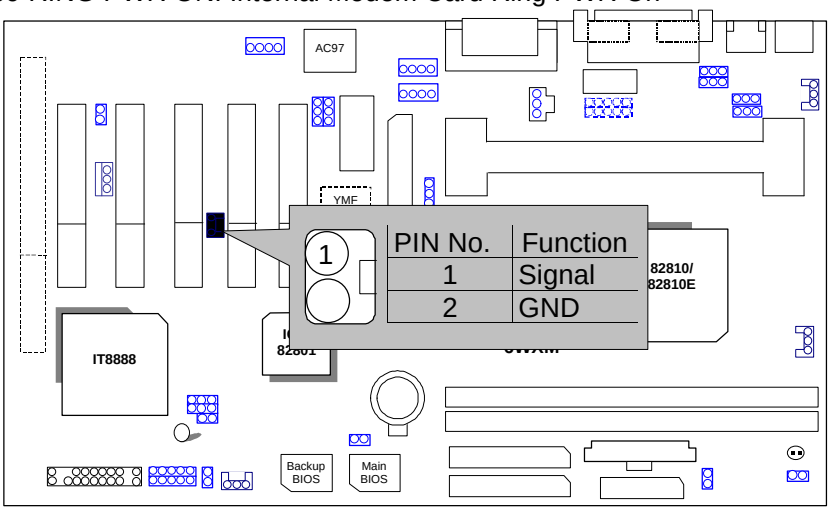
JP5 TEL :The connector is for Modem with internal voice connector.




J14: Wake on LAN

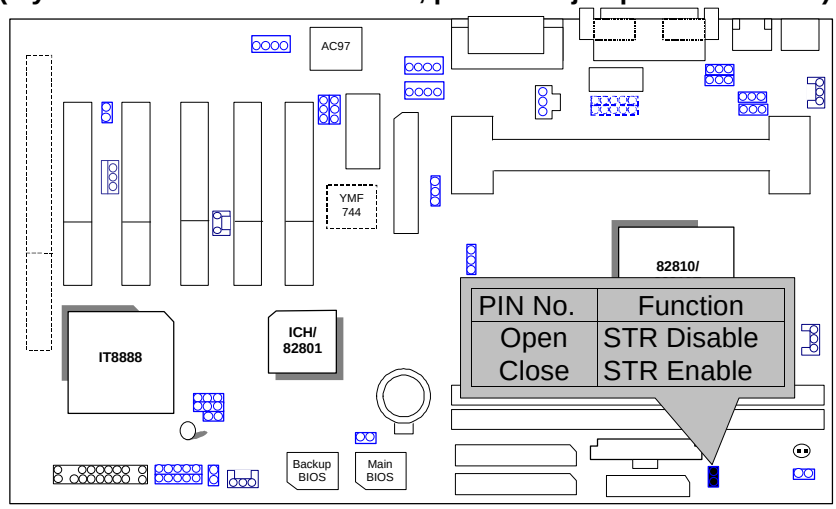


J9 RING PWR ON: Internal Modem Card Ring PWR On

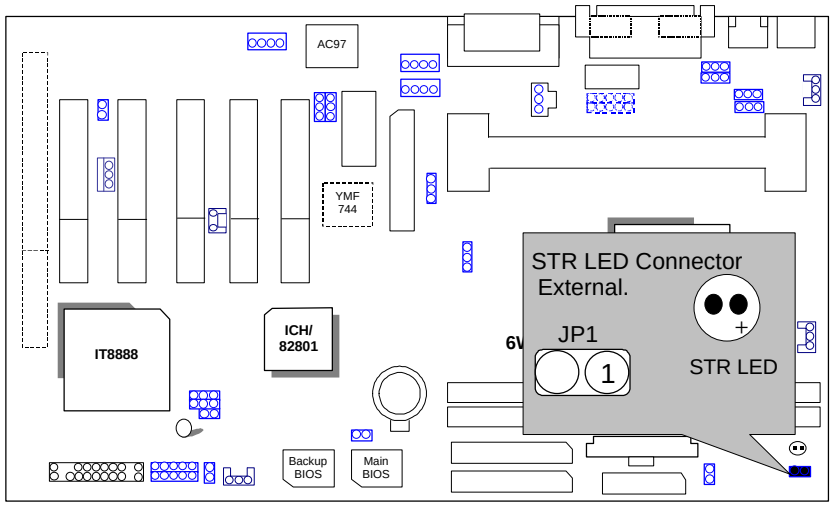



JP4 :Close Function Selection

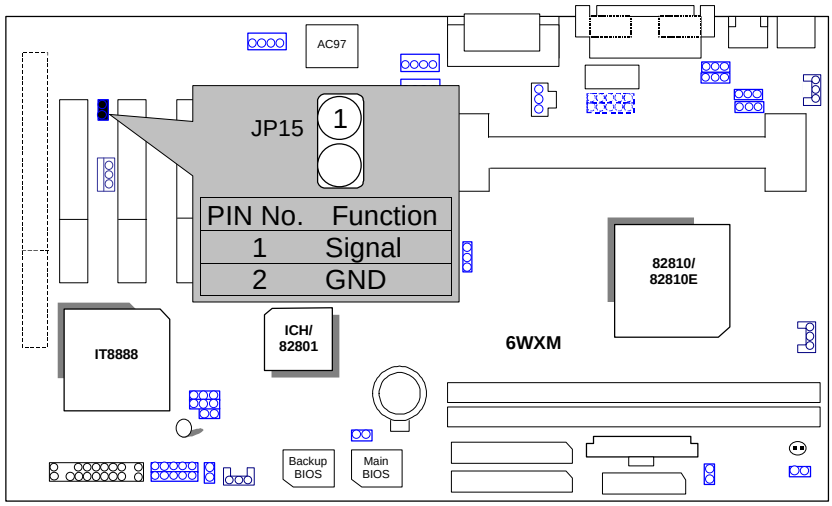
**(If you want to use STR Function, please set jumper JP4 Closed.)**



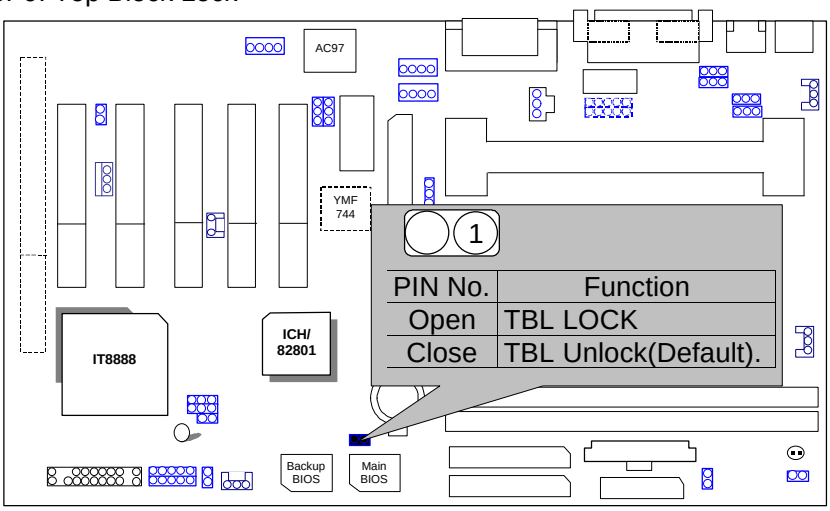
JP1 : STR LED Connector



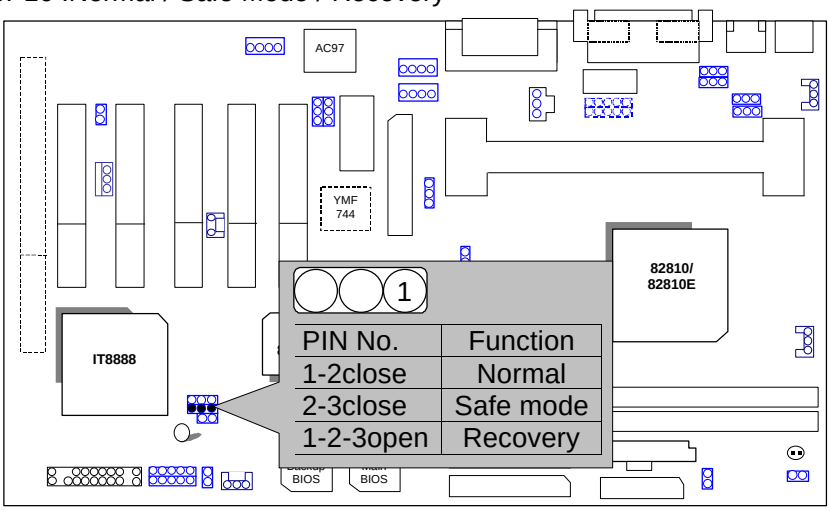

JP15 : CASE OPEN



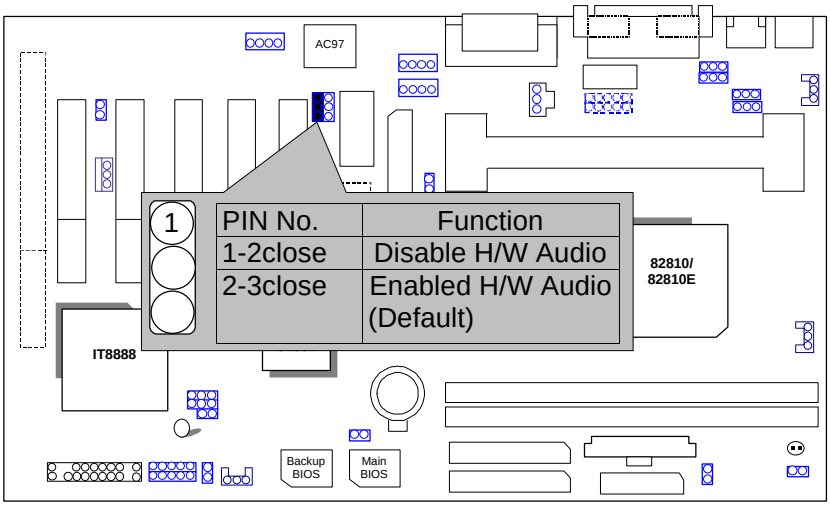
JP9: Top Block Lock



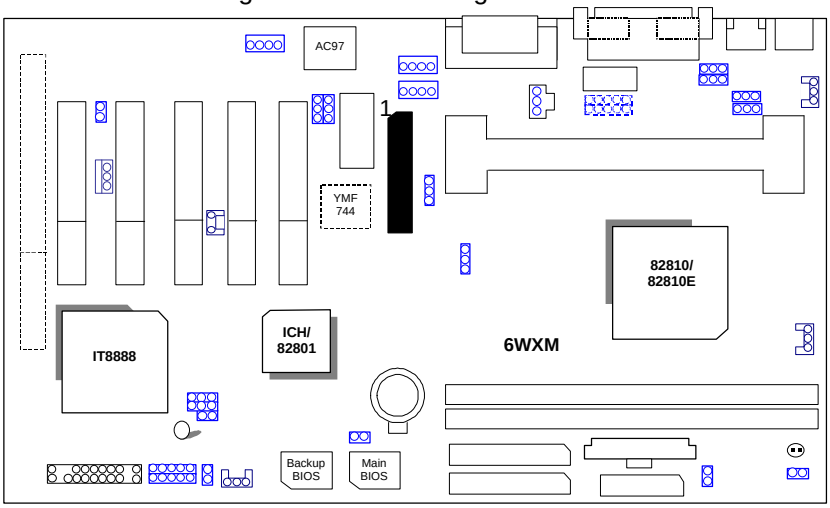

JP16 :Normal / Safe Mode / Recovery



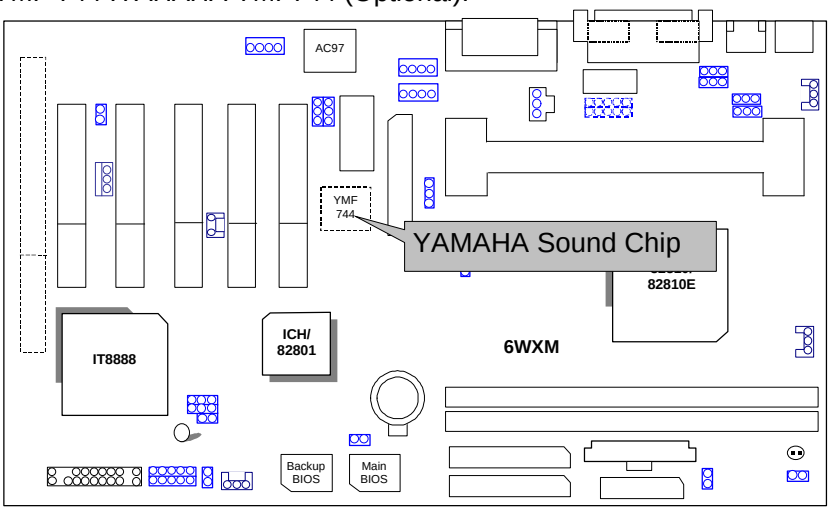
JP7: Onboard H/W Audio Function.



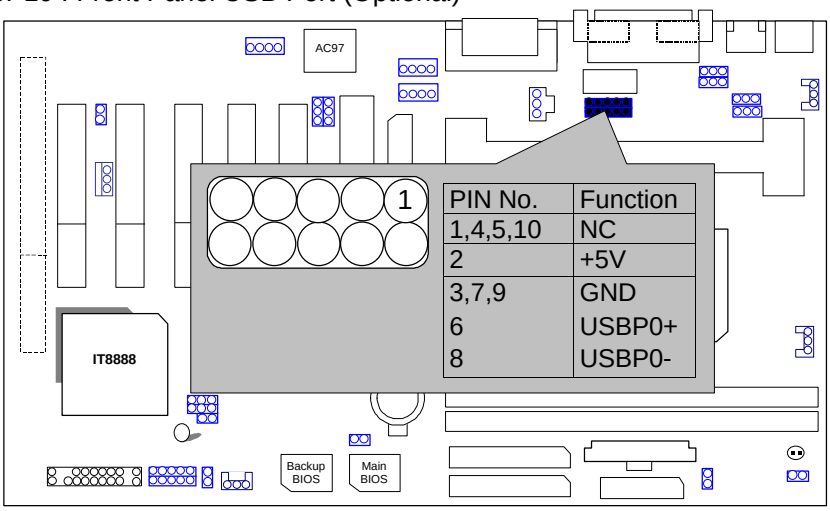

TV/DFP :TV-Out / Digital Flat Panel Daughter card connector.



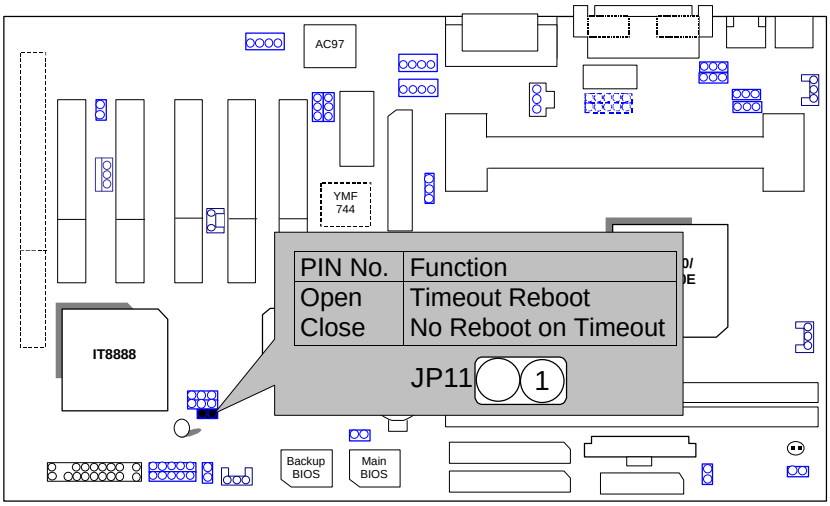
YMF 744 :YAHAHA YMF744 (Optional).



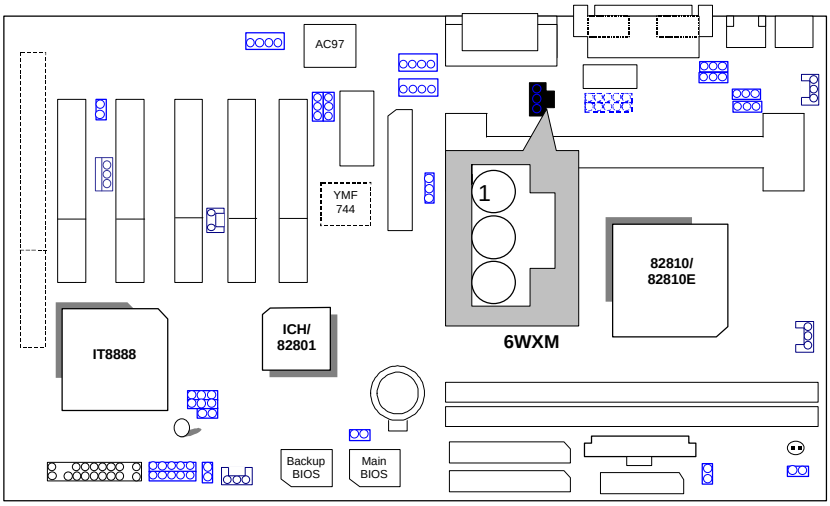

JP10 : Front Panel USB Port (Optional)



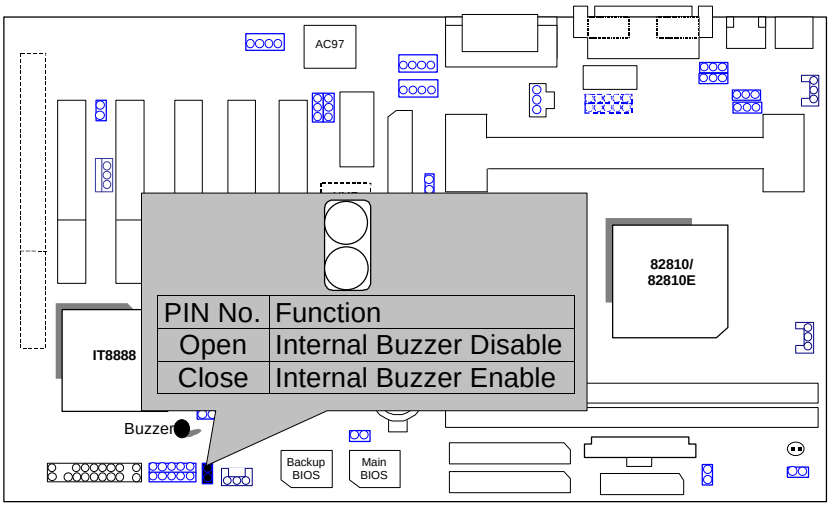
JP11 : Timeout Reboot Function



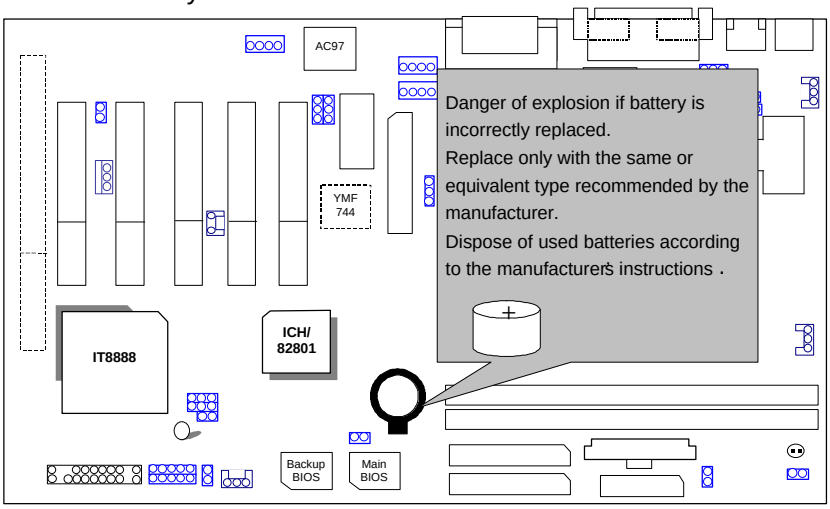

JP24: SPDIF（The SPDIF output is capable of providing digital audio to external speakers or compressed AC3 data to an external Dobly Digital decoder.)



JP14: Buzzer Enable (Optional)




BAT1:For Battery



## III. Top Performance Test Setting:

The following performance data list is the testing results of some popular benchmark testing programs.

Users have to modify the value for each item in chipset features as follow For top performance setting.

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

| | | Item Help |
|---|---|---|
| SDRAM CAS Latency Time | 2 | |
| 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 | Enabled | |
| 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

*The above settings have to modify according to different kinds of CPU, SDRAM, and peripherals for your system to work properly.

These data are just referred by users, and there is no responsibility for different testing data values gotten by users. (The different Hardware & Software configuration will result in different benchmark testing results.)

- CPU — Intel® Pentium III 500MHz Processor
- DRAM — (128x 1) MB SDRAM (Winbond 902WB W986408BH-8H)
- CACHE SIZE — 512 KB included in CPU
- DISPLAY — Onboard i810 chipset
- STORAGE — Onboard IDE (IBM DJNA-371800)
- O.S. — Windows NT™4.0 SPK4
- DRIVER — Display Driver at 1024 x 768 x 16bits colors x 75Hz.

| Processor | Intel Pentium® III 500MHz (100x5) |
|---|---|
| **Winbench99** | |
| CPU mark99 | 36.8 |
| FPU Winmark | 2560 |
| Business Graphics | 154 |
| Business Disk | 3700 |
| Hi-End Disk | 6300 |
| Hi-End Graphics | 345 |
| **Winstone99** | |
| Business | 29.9 |
| Hi-End | 24.4 |

## IV. Suspend to RAM Installation

### A.1 Introduce STR function:

Suspend-to-RAM (STR) is a Windows 98 ACPI sleep mode function. When
recovering from STR (S3) sleep mode, the system is able, in just a few seconds, to retrieve the last "state" of the system before it went to sleep and
recover to that state. The "state" is stored in memory (RAM) before the system goes to sleep. During STR sleep mode, your system uses only enough energy to maintain critical information and system functions, primarily the system state and the ability to recognize various "wake up" triggers or signals, respectively.

### A.2 STR function Installation

Please use the following steps to complete the STR function installation.

**Step-By-Step Setup**

**Step 1:**

To utilize the STR function, the system must be in Windows 98 ACPI mode.

Putting Windows 98 into ACPI mode is fairly easy.

**Setup with Windows 98 CD:**

A. Insert the Windows 98 CD into your CD-ROM drive, select Start, and then Run.

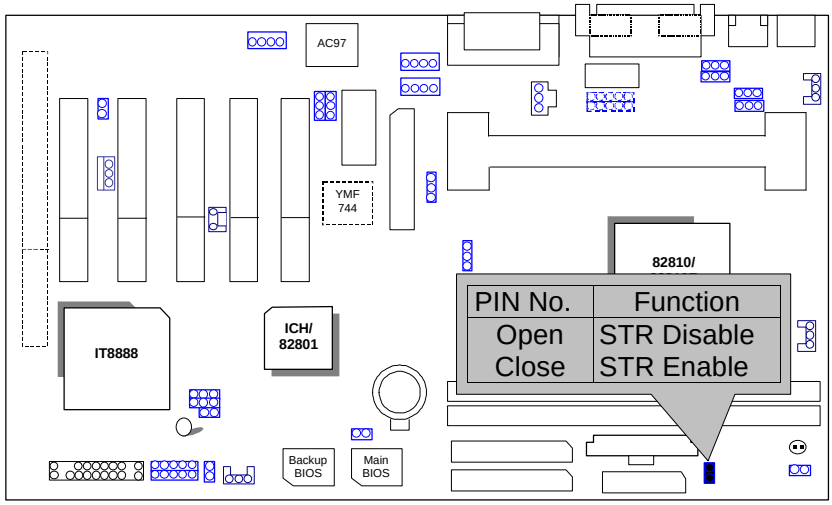
B. Type (without quotes) **"D:\setup /p j"** in the window provided. Hit the enter key or click OK.

C. After setup completes, remove the CD, and reboot your system

(This manual assumes that your CD-ROM device drive letter is D:).

**Step 2:**

**(If you want to use STR Function, please set jumper JP4 (Closed.)**




**Step 3:**

Power on the computer and as soon as memory counting starts, press <Del>. You will enter BIOS Setup. Select the item **"POWER MANAGEMENT SETUP",** then select **"ACPI Suspend Type: S3 (Suspend to RAM)"**. Remember to save the settings by pressing "ESC" and choose the **"SAVE & EXIT SETUP"** option.

Congratulation! You have completed the installation and now can use the STR function.

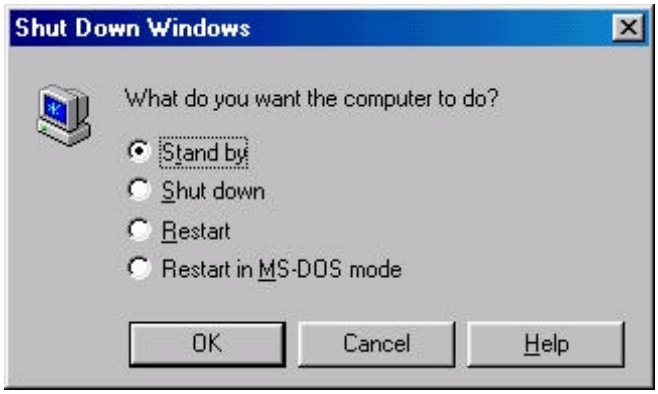
### A.3 How to put your system into STR mode?

There are two ways to accomplish this:

1. Choose the "Stand by" item in the "Shut Down Windows" area.

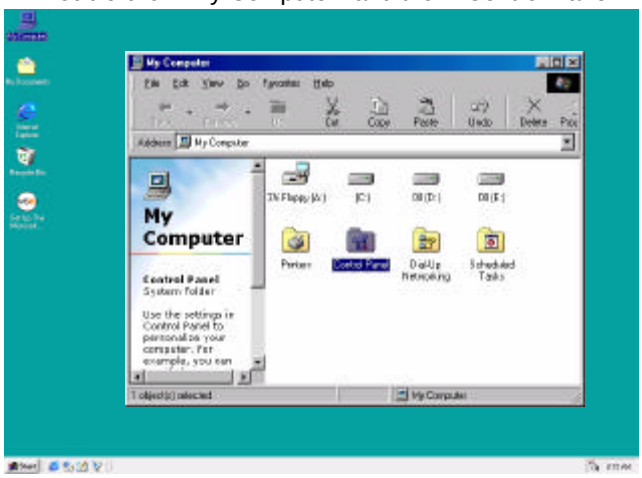
   A. Press the "Start" button and then select "Shut Down"

   B. Choose the "Stand by" item and press "OK"

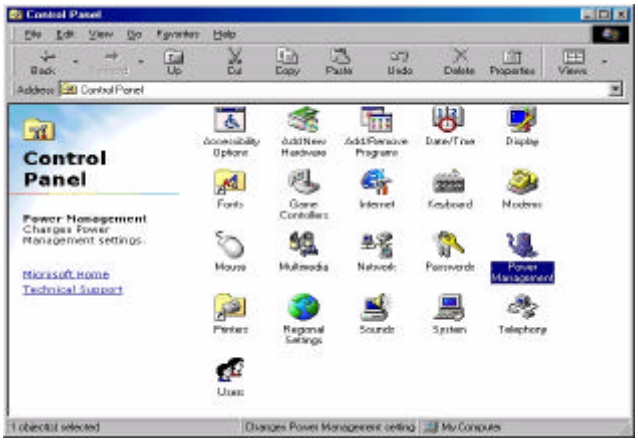


2. Define the system ”power on” button to initiate STR sleep mode:

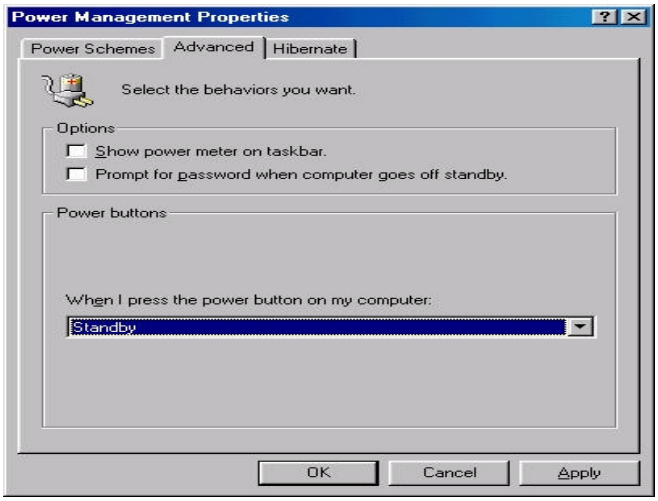
A. Double click “My Computer” and then “Control Panel”




B. Double click the “ Power Management” item.



C. Select the "Advanced" tab and "Standby" mode in Power Buttons.




**Step 4:**

Restart your computer to complete setup.

Now when you want to enter STR sleep mode, just momentarily press the "Power on" button..

### A.4 How to recover from the STR sleep mode?

There are six ways to "wake up" the system:

1. Press the "Power On" button.
2. Use the "Keyboard Power On" function.
3. Use the "Mouse Power On" function.
4. Use the "Resume by Alarm" function.
5. Use the "Modem Ring On" function.
6. Use the "Wake On LAN" function.

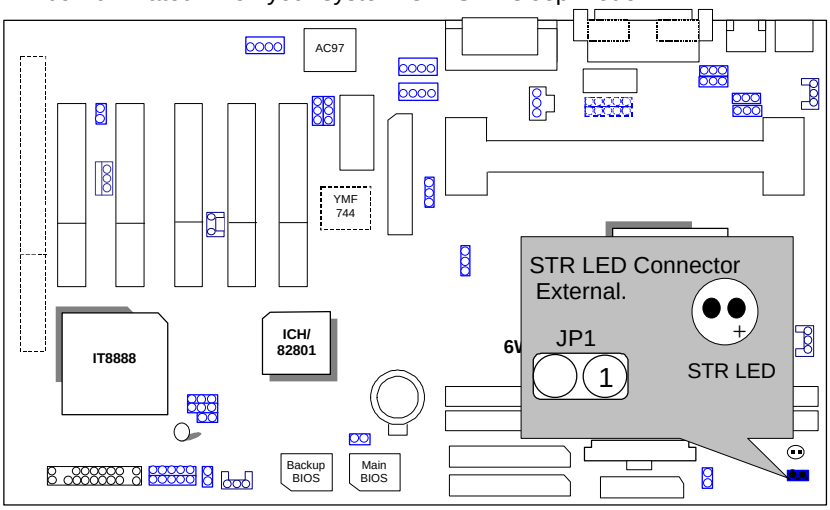
## A.5 Notices :

1. In order for STR to function properly, several hardware and software requirements must be satisfied:

   A. Your ATX power supply must comply with the ATX 2.01 specification (provide more than 720 mA 5V Stand-By current).

   B. Your SDRAM must be PC-100 compliant.

2. Jumper JP1 is provided to connect to the STR LED in your system chassis. [Your chassis may not provide this feature.] The STR LED will be illuminated when your system is in STR sleep mode.



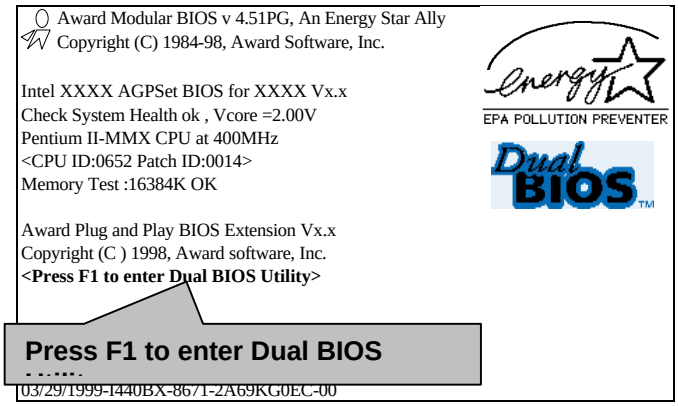
## V. Introduce Dual BIOS (Optional)

### A. What is Dual BIOS Technology?

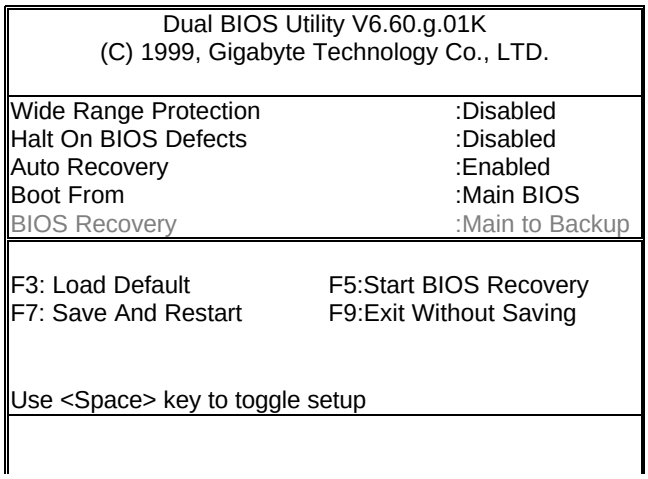
Dual BIOS means that there are two system BIOS (ROM) on the motherboard, one is the Main BIOS and the other is Backup BIOS. Under the normal circumstances, the system works on the Main BIOS. If the Main BIOS is corrupted or damaged, the Backup BIOS can take over while the system is powered on. This means that your PC will still be able to run stably as if nothing has happened in your BIOS.

### B. How to use Dual BIOS?

a. Boot Screen



b. Dual BIOS Utility




c. Dual BIOS Item explanation:

**Wide Range Protection: Disabled(Default), Enabled**

*Status 1:*

If any failure (ex. Update ESCD failure, checksum error or reset.). occurs in the Main BIOS , just before the Operating System is loaded and after the power is on, and that the Wide Range Protection is set to "Enable", the PC will boot from Backup BIOS automatically.

*Status 2:*

If the ROM BIOS on peripherals cards(ex. SCSI Cards, LAN Cards,..) emits signals to request restart of the system after the user make any alteration on it, the boot up BIOS will not be changed to the Backup BIOS.

**Halt On BIOS Defects : Disabled(Default), Enabled**

If the BIOS occurs a checksum error or the Main BIOS occurs a WIDE RANGE PROTECTION error and Halt On BIOS Defects set to Enable, the PC will show messages on the boot screen, and the system will pause and wait for the user' s instruction.

If Auto Recovery :**Disabled**, it will show ***<or the other key to continue.>***

If Auto Recovery :**Enabled**, it will show ***<or the other key to Auto Recover.>***

**Auto Recovery : Enabled(Default), Disabled**

When one of the Main BIOS or Backup BIOS occurs checksum failure, the working BIOS will automatically recover the BIOS of checksum failure.

(In the Power Management Setup of the BIOS Setting, if ACPI Suspend Type is set to Suspend to RAM, the Auto Recovery will be set to Enable automatically.)

(If you want to enter the BIOS setting, please press **"Del"** key when the boot screen appears.)

**Boot From : Main BIOS(Default), Backup BIOS**

*Status 1:*

The user can set to boot from main BIOS or Backup BIOS.

*Status 2:*

If one of the main BIOS or the Backup BIOS fails, this item *"Boot From : Main BIOS(Default)"* will become gray and will not be changed by user.

**BIOS Recovery : Main to Backup**

Auto recovery message:

***BIOS Recovery: Main to Backup***

The means that the Main BIOS works normally and could automatically recover the Backup BIOS.

***BIOS Recovery: Backup to Main***

The means that the Backup BIOS works normally and could automatically recover the Main BIOS.

(This auto recovery utility is set by system automatically and can' t be changed by user.)


## DualBIOS™ Technology FAQ

GIGABYTE Technology is pleased to introduce DualBIOS technology, a hot spare for your system BIOS. This newest "Value-added" feature, in a long series of innovations from GIGABYTE, is available on GA-6WXM motherboard. Future GIGABYTE motherboards will also incorporate this innovation.

### What' s DualBIOS™?

On GIGABYTE motherboards with DualBIOS there are physically two BIOS chips. For simplicity we' ll call one your "Main BIOS" and the other we' ll call your "Backup" BIOS (your "hot spare"). If your Main BIOS fails, the Backup BIOS almost automatically takes over on your next system boot. Almost automatically and with virtually zero down time! Whether the problem is a failure in flashing your BIOS or a virus or a catastrophic failure of the Main BIOS chip, the result is the same - the Backup BIOS backs you up, almost automatically.

**I. Q: What is DualBIOS™ technology?**
**Answer:**
DualBIOS technology is a patented technology from Giga-Byte Technology. The concept of this technology is based on the redundancy and fault tolerance theory. DualBIOS™ technology simply means there are two system BIOSes (ROM) integrated onto the motherboard. One is a main BIOS, and the other is a backup BIOS. The mainboard will operate normally with the main BIOS, however, if the main BIOS is corrupt or damaged for various reasons, the backup BIOS will be automatically used when the system powered-On. Your PC will operate as before the main BIOS was damaged, and is completely transparent to the user.

**II. Q: Why does anyone need a motherboard with DualBIOS™ technology?**
**Answer:**
In today' s systems there are more and more BIOS failures. The most common reasons are virus attacks, BIOS upgrade failures, and/or deterioration of the BIOS (ROM) chip itself.

1. New computer viruses are being found that attack and destroy the system BIOS. They may corrupt your BIOS code, causing your PC to be unstable or even not boot normally.
2. BIOS data will be corrupted if a power loss/surge occurs, or if a user resets the system, or if the power button is pressed during the process of performing a system BIOS upgrade.
3. If a user mistakenly updates their mainboard with the incorrect BIOS file, then the system may not be able to boot correctly. This may cause the PC system hang in operation or during boot.
4. A flash ROM's life cycle is limited according to electronic characteristics. The modern PC utilizes the Plug and Play BIOS, and is updated regularly. If a user changes peripherals often, there is a slight chance of damage to the flash ROM.

With Giga-Byte Technology' s patented DualBIOS™ technology you can reduce the possibility of hangs during system boot up, and/or loss BIOS data

due to above reasons. This new technology will eliminate valuable system down time and costly repair bills cause by BIOS failures.

### III. Q: How does DualBIOS™ technology work?
**Answer:**

1. DualBIOS™ technology provides a wide range of protection during the boot up procedure. It protects your BIOS during system POST, ESCD update, and even all the way to PNP detection/assignment.
2. DualBIOS™ provides automatic recovery for the BIOS. When the first BIOS used during boot up does not complete or if a BIOS checksum error occurs, boot-up is still possible. In the DualBIOS™ utility, the "Auto Recovery" option will guarantee that if either the main BIOS or backup BIOS is corrupted, the DualBIOS™ technology will use the good BIOS and correct the wrong BIOS automatically.
3. DualBIOS™ provides manual recovery for the BIOS. DualBIOS™ technology contains a built-in flash utility, which can flash your system BIOS from backup to main and/or visa versa. There is no need for an OS-dependent flash utility program.
4. DualBIOS™ contains a one-way flash utility. The built-in one-way flash utility will ensure that the corrupt BIOS is not mistaken as the good BIOS during recovery and that the correct BIOS (main vs. backup) will be flashed. This will prevent the good BIOS from being flashed.

### IV. Q: Who Needs DualBIOS™ technology?
**Answer:**

1. Every user should have DualBIOS™ technology due to the advancement of computer viruses.
   Everyday, there are new BIOS-type viruses discovered that will destroy your system BIOS. Most commercial products on the market do not have solutions to guard against this type of virus intrusion. The DualBIOS™ technology will provide a state-of-the-art solution to protect your PC:
   Case I.) Vicious computer viruses may wipe out your entire system BIOS. With a conventional single system BIOS PC, the PC will not be functional until it is sent for repairs.
   Case II.) If the "Auto Recovery" option is enabled in the DualBIOS™ utility, and if a virus corrupts your system BIOS, the backup BIOS will automatically reboot the system and correct the main BIOS.
   Case III.) A user may override booting from the main system BIOS. The

DualBIOS™ utility may be entered to manually change the boot sequence to boot from the backup BIOS.

2. During or after a BIOS upgrade, if DualBIOS™ detects that the main BIOS is corrupt, the backup BIOS will take over the boot-up process automatically. Moreover, it will verify the main and backup BIOS checksums when booting-up. DualBIOS™ technology examines the checksum of the main and backup BIOS while the system is powered on to guarantee your BIOS operates properly.
3. Power Users will have the advantage of having two BIOS versions on their mainboard. The benefit is being able to select either version BIOS to suit the performance system needs.
4. Flexibility for high-end desktop PCs and workstation/servers. In the DualBIOS™ utility, the option can be set, "Halt On When BIOS Defects," to be enabled to halt your system with a warning message that the main BIOS has been corrupted. Most workstation/servers require constant operation to guarantee services have not been interrupted. In this situation, the "Halt On When BIOS Defects" message may be disabled to avoid system pauses during normal booting. Another advantage you gain from Giga-Byte' s DualBIOS™ technology is the ability to upgrade from dual 2 Mbit BIOS to dual 4 Mbit BIOS in the future if extra BIOS storage is need.

# TABLE OF CONTENTS

# 1. INTRODUCTION

## 1.1. PREFACE

Welcome to use the **6WXM** motherboard. It is a Pentium® II / III / Celeron Processor based PC / AT compatible system with PCI / ISA Bus, and has been designed to be the fastest PC / AT system. There are some new features allow you to operate the system with just the performance you want.

This manual also explains how to install the motherboard for operation, and how to set up your CMOS CONFIGURATION with BIOS SETUP program.

## 1.2. KEY FEATURES

- Intel Pentium® II / III / Celeron Processor based PC / AT compatible main board.
- Slot 1 supports Pentium® II / III / Celeron processor.
- Built-in AC 97-Link software audio .
- YAMAHA YMF744 Hardware audio is optional.
- INTEL FW82810/82810E chipset, Supports AGP / SDRAM / Ultra DMA/66 IDE / Keyboard and PS/2 Mouse Power On / ACPI features.
- Supports 2xDIMMs using 3.3V SDRAM DIMM module.
- Supports external Modem Ring-On on COMA & COMB and internal Modem Ring-On.
- Supports PC100 SDRAM 16MB~512MB memory on board.
- Supports Wake-up on LAN.
- 5xPCI Bus slots, 1xISA Bus slots(Optional).
- Supports 2 channels Ultra DMA/66 IDE ports for 4 IDE Devices.
- Supports 1x Line in, 1x Line Out, 1x Mic in, 1x CD Line in,1x GAME Port 1 x TEL, 1x AUX_IN, 1X SPDIF.
- Supports 2xCOM (16550), 1xLPT (EPP / ECP/ SPP), 1x1.44MB Floppy port.
- Supports 2 x USB port & PS/2 Mouse/ Keyboard port.
- Licensed AWARD BIOS, 4M bits FLASH RAM.
- Support Dual BIOS (Optional)

- 30.3 cm x 19.0 cm ATX SIZE form factor, 4 layers PCB.

## 1.3. PERFORMANCE LIST

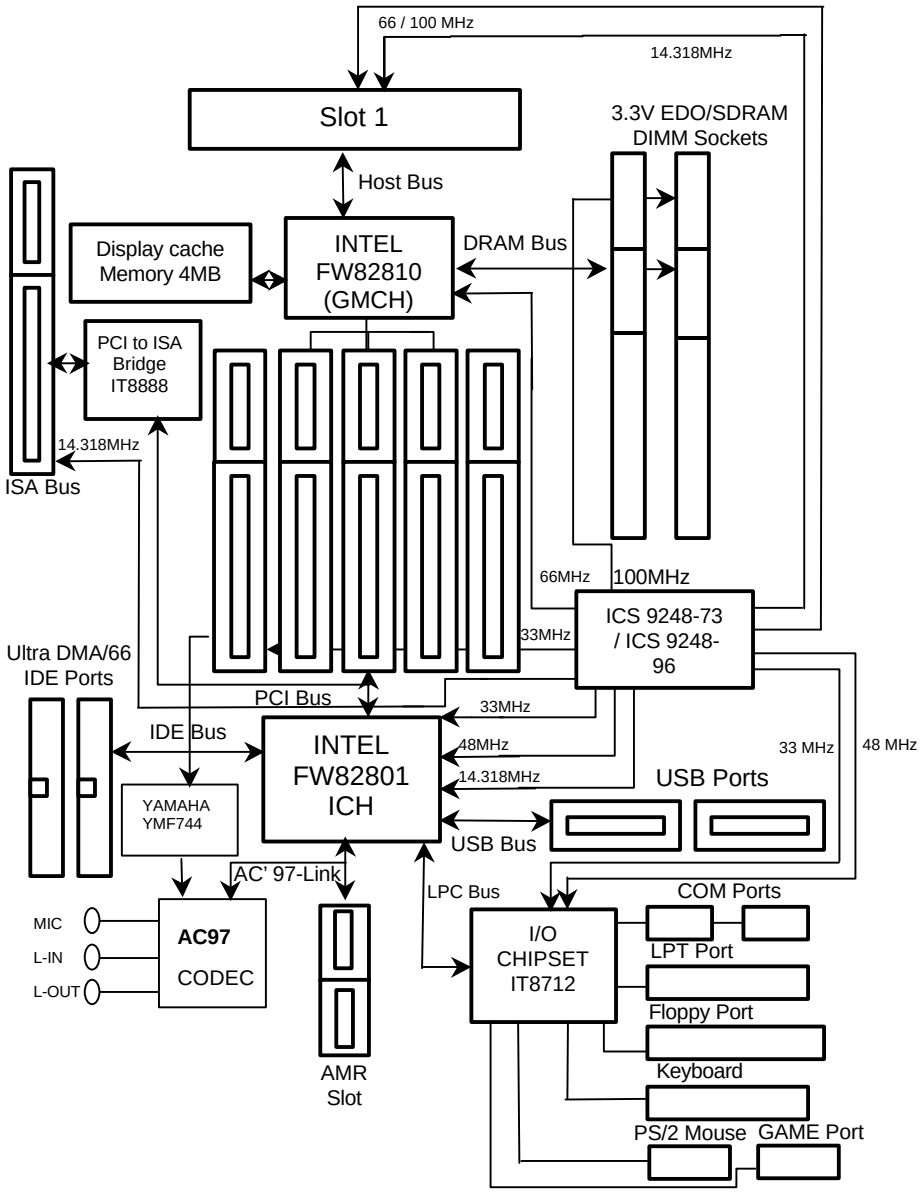
The following performance data list is the testing results of some popular benchmark testing programs.

These data are just referred by users, and there is no responsibility for different testing data values gotten by users. (The different Hardware & Software configuration will result in different benchmark testing results.)

- CPU — Intel® Pentium III 500MHz Processor
- DRAM — (128x 1) MB SDRAM (Winbond 902WB W986408BH-8H)
- CACHE SIZE — 512 KB included in CPU
- DISPLAY — Onboard i810 chipset
- STORAGE — Onboard IDE (IBM DJNA-371800)
- O.S. — Windows NT™4.0 SPK4
- DRIVER — Display Driver at 1024 x 768 x 16bits colors x 75Hz.

| Processor | Intel Pentium® III 500MHz (100x5) |
|---|---|
| **Winbench99** | |
| CPU mark99 | 36.8 |
| FPU Winmark | 2560 |
| Business Graphics | 154 |
| Business Disk | 3700 |
| Hi-End Disk | 6300 |
| Hi-End Graphics | 345 |
| **Winstone99** | |
| Business | 29.9 |
| Hi-End | 24.4 |

## 1.4. BLOCK DIAGRAM



## 1.5. INTRODUCE THE Pentium â II / III Processors

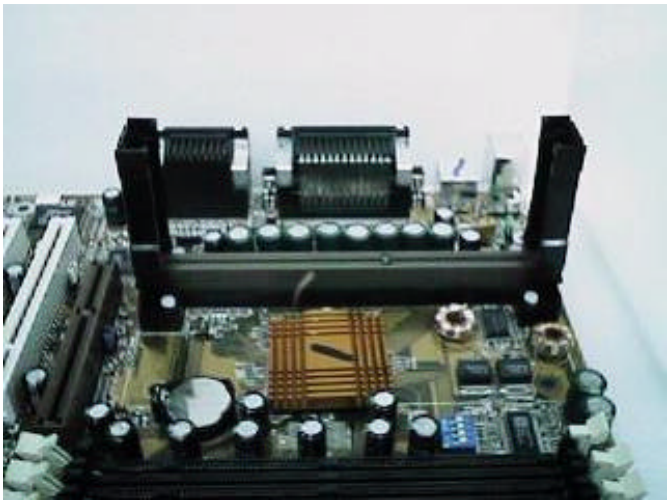


Figure 1: Universal Retention Mechanism & attach Mount


Figure 2:OEM Pentium® II Processor

Figure 3: OEM Pentium® III Processor

## 1.6 INTRODUCE AMR

The Audio Modem Riser (AMR) is a new port that supports both audio and modem. The main purpose of the AMR port is to provide lower cost and higher levels of integration at all levels of the PC platform.
The backbone of the AMR interface is on AC' 97 compliant AC-Link with support for codes. Motherboard support for an AMR interface are not only capable of achieving the lowest possible cost for basic PC audio and modem, but have also introduced increased motherboard flexibility enabling robust, cost effective scalability.
The AMR is done through software and controlled by the motherboard' s I/O Controller Hub (ICH). There are two types of AMR, one defined as primary and another defined as secondary. If the motherboard with onboard sound YAMAHA 744, the AMR must be used primary.

# 2. SPECIFICATION

## 2.1. HARDWARE

- CPU
  - Pentium® II/III/Celeron processor.
  - 242 pins 66 / 100 MHz slot1 on board.
- PROTECTION
  - Speaker Alarm when detect "CPU FAN Failure" or "CPU Overheat".
  - Automatically slow down CPU speed when "CPU Overheat".
  - H/W monitor power status (±5V, ±12V, VGTL,5VSB, CPU voltage & CMOS battery voltage).(Optional)
- SPEED
  - 66/100 MHz system speed.
  - 33 MHz PCI-Bus speed.
  - 8 MHz AT bus speed.
- DRAM MEMORY
  - 2 banks 168 pins DIMM module sockets on board.
  - Use 16 / 32 / 64 / 128 / 256MB DIMM module DRAM.
  - Supports PC-100 SDRAM 16MB~512MB.
- CACHE MEMORY
  - 32 KB 1st cache memory included in CPU.
  - 512KB L2 cache memory included in CPU.
  - Supports DIB speed mode for L2 Cache.
  - Supports Suspend To RAM Function.
- I/O BUS SLOTS
  - 5 33MHz Master PCI-BUS.
  - 1 8MHz 16 bits ISA BUS (Optional)
  - 1 24.576MHz AMR bus.
- IDE PORTS
  - 2 Ultra DMA/66 Bus Master IDE channels on board.(Using IRQ14,15)
  - Supports Mode 3,4 IDE & ATAPI CD – ROM.

- I/O PORTS
  - Supports 2 16550 COM ports.
  - Supports 1 EPP/ECP LPT port.
  - Supports 1 1.44/2.88 MB Floppy port.
  - Supports 2 USB ports.
  - Supports PS/2 Mouse & Keyboard.
- Audio Ports
  - 1x Line in
  - 1x Line out
  - 1x Mic in
  - 1x Game Port
  - 1x CD Line in
  - 1x TEL
  - 1x AUX_IN
  - 1x SPDIF
- GREEN FUNCTION
  - Suspend mode support.
  - Green switch & ACPI LED support.
  - IDE & Display power down support.
  - Monitors all IRQ / DMA / Display / I/O events.
- BIOS
  - Support **Dual BIOS**.(Optional)
  - Supports Plug & Play, DMI Function.
- DIMENSION
  - ATX Form Factor, 4 layers PCB.

## 2.2. SOFTWARE

- DRIVER
  - IUCD (Bus Master + Sound Driver + LDCM + Utility)
  - INTEL 82810 Driver.
- BIOS
  - Licensed AWARD BIOS.
  - AT CMOS Setup, BIOS / Chipset Setup, Green Setup, Hard Disk Utility included.
- O.S.
  - Operation with MS-DOS®, Windows®95, Windows®98, WINDOWS™ NT, OS/2, NOVELL and SCO UNIX.

## 2.3. ENVIRONMENT

- Ambient Temp.
  - 0°C to +50°C (Operating).
- Relative Hum.
  - 0 to +85% (Operating).
- Altitude
  - 0 to 10,000 feet (Operating).
- Vibration
  - 0 to 1,000 Hz.

- Electricity – 4.75 V to 5.25 V. (Max. 20A current at 5V.)

# 3. HARDWARE INSTALLATION

## 3.1. UNPACKING

The main board package should contain the following:

- The **6WXM** main board.
- USER'S MANUAL for main board.
- Cable set for IDE, Floppy devices, COM Ports.(COMB Cable-optional)
- CD for main board Utility. [IUCD (Bus Master + Sound Driver + LDCM + Utility), INTEL 82810/82810E Driver.]

The main board contains sensitive electric components, which can be easily damaged by static electricity, so the main board should be left in its original packing until it is installed.

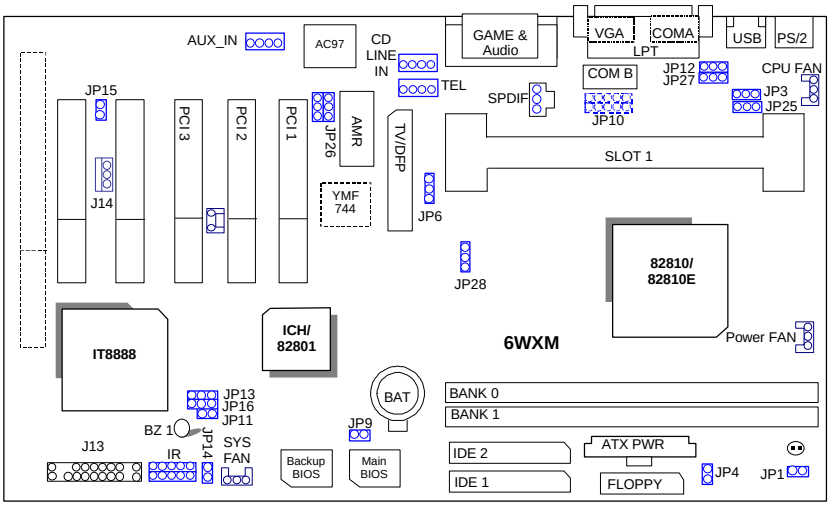
Unpacking and installation should be done on a grounded anti-static mat. The operator should be wearing an anti static wristband, grounded at the same point as the anti-static mat.

Inspect the main board carton for obvious damage. Shipping and handling may cause damage to your board. Be sure there are no shipping and handling damages on the board before proceeding.

After opening the main board carton, extract the system board and place it only on a grounded anti-static surface component side up. Again inspect the board for damage. Press down on all of the socket IC's to make sure that they are properly seated. Do this only on with the board placed on a firm flat surface.

**DO NOT APPLY POWER TO THE BOARD IF IT HAS BEEN DAMAGED.**

## 3.2. MAIN BOARD LAYOUT




≺Figure 3.1≻

## 3.3. QUICK REFERENCE FOR JUMPERS & CONNECTORS

| ♦ I/O Ports Connector | |
|---|---|
| USB | USB port. |
| IDE1 | For Primary IDE port. |
| IDE2 | For Secondary IDE port. |
| PS/2 | For PS/2 Mouse & Keyboard port. |
| FLOPPY | For Floppy port. |
| COMB | For Serial port2 (COM B){Support Modem Ring On}. |
| COMA | For Serial port1 (COM A){Support Modem Ring On}. |
| LPT | For LPT port. |
| VGA | For VGA Port. |
| ATX Power | For ATX Power Connector. |
| GAME & Audio | For GAME & MIC LINE-IN, LINE-OUT,TEL Port |

| ♦ Slot 1 |
|---|
| For Pentium® II / III / Celeron Processor installed |

| ♦ IR : INFRARED Connector (IR / CIR) | |
|---|---|
| Pin No. | Function |
| 1 | VCC |
| 2 | NC |
| 3 | IRRX |
| 4 | GND |
| 5 | IRTX |
| 6 | NC |
| 7 | CIRRX |
| 8 | VCC |
| 9 | NC |
| 10 | CIRTX |

| ♦ CPU FAN : CPU cooling FAN Power Connector | |
|---|---|
| Pin No. | Function |
| 1 | GND. |
| 2 | +12V |
| 3 | SENSE |

| ♦ PWR FAN: Power FAN Connector | |
|---|---|
| Pin No. | Function |
| 1 | GND. |
| 2 | +12V |
| 3 | SENSE |

| ♦ SYS FAN: System FAN Connector | |
|---|---|
| Pin No. | Function |
| 1 | GND. |
| 2 | +12V |
| 3 | SENSE |

| ♦ JP14:Buzzer Enable (Optional) | |
|---|---|
| Pin No. | Function |
| Open | Internal Buzzer Disable |
| Close | Internal Buzzer Enable |

| ♦ J9 RING PWR ON :Internal Modem Card Ring PWR On | |
|---|---|
| Pin No. | Function |
| 1 | Signal |
| 2 | GND |

| ♦ JP3 : Keyboard Power On Selection | |
|---|---|
| Pin No. | Function |
| 1-2 Close | Enabled Keyboard power on. |
| 2-3 Close | Disabled Keyboard power on(Default). |

| ♦ JP25 : USB Wake Up Function | |
|---|---|
| Pin No. | Function |
| 1-2 Close | Disable USB Wake Up (Default) |
| 2-3 Close | Enable USB Wake Up |

| ♦ JP13 : CLEAR CMOS | |
|---|---|
| Pin No. | Function |
| 1-2 Close | Clear CMOS |
| 2-3 Close | Normal operation (Default). |

| ♦ JP12/JP27 :USB Port Selection | |
|---|---|
| Pin No. | Function |
| 1-2 Close | JP12/JP27 Front Panel USB Enable |
| 2-3 Close | JP12/JP27 Back Panel USB Enable |

| ♦ J8: CD Audio Line in | |
|---|---|
| Pin No. | Function |
| 1 | Left |
| 2 | GND |
| 3 | GND |
| 4 | Right |

| ♦ JP17: AUX_IN | |
|---|---|
| Pin No. | Function |
| 1 | Left |
| 2 | GND |
| 3 | GND |
| 4 | Right |

| ♦ J14:Wake on LAN | |
|---|---|
| Pin No. | Function |
| 1 | 5VSB |
| 2 | GND |
| 3 | Signal |

| ♦ TEL : The connector for Modem with internal voice connector. | |
|---|---|
| Pin No. | Function |
| 1 | Phone-in |
| 2,3 | GND |
| 4 | Phone-out |

| ♦ JP4:STR Enable | |
|---|---|
| Pin No. | Function |
| Open | STR Disable |
| Close | STR Enable |

| ♦ JP15 : Case Open | |
|---|---|
| Pin No. | Function |
| 1 | Signal |
| 2 | GND |

| ♦ JP9: Top Block Lock | |
|---|---|
| Pin No. | Function |
| Open | TBL LOCK |
| Close | TBL Unlock (Default) |

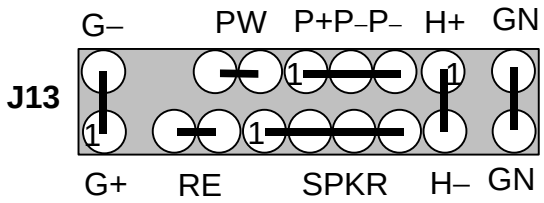
| ♦ JP16 : System Boot Option | |
|---|---|
| Pin No. | Function |
| 1-2 Close | Normal |
| 2-3 Close | Safe mode (Frequency ratio always set to x3) |
| 1-2-3 Open | Recovery |

| ♦ JP7 : Onboard H/W Audio Function | |
|---|---|
| Pin No. | Function |
| 1-2 Close | Disable H/W Audio |
| 2-3 Close | Enable H/W Audio (Default) |

| ♦ JP10 : Front Panel USB Port | |
|---|---|
| Pin No. | Function |
| 1,4,5,10 | NC |
| 2 | +5V |
| 3,7,9 | GND |
| 6 | USBP0+ |
| 8 | USBP0- |

| ♦ JP11 :Timeout Reboot Function | |
|---|---|
| Pin No. | Function |
| Open | Timeout Reboot |
| Close | No Reboot on Timeout |

**J13 : For 2X11 PINs Jumper**



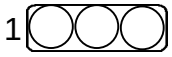

**Soft PWR: Soft Power Connector**

Open: Normal Operation
Short: Power On/Off

**RES: Reset Switch**

Open: Normal Operation
Short: For Hardware Reset System

**P+P- P- : Power LED**




PIN 1 : LED anode (+)
PIN 2 : LED cathode (–)
PIN 3 : LED cathode (–)

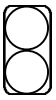
**SPKR: Speaker Connector**


PIN 1 : VCC (+)
PIN 2 : NC
PIN 3 : NC
PIN 4 : Data (–)

**HD: IDE Hard Disk Active LED**


PIN 1: LED anode (+)
PIN 2: LED cathode (-)

**GN: Green Function Switch**



Open : Normal operation
Short : Entering Green Mode

**GD: Green LED**


PIN 1 : LED anode (+)
PIN 2 : LED cathode (-)

### 3.4. DRAM INSTALLATION

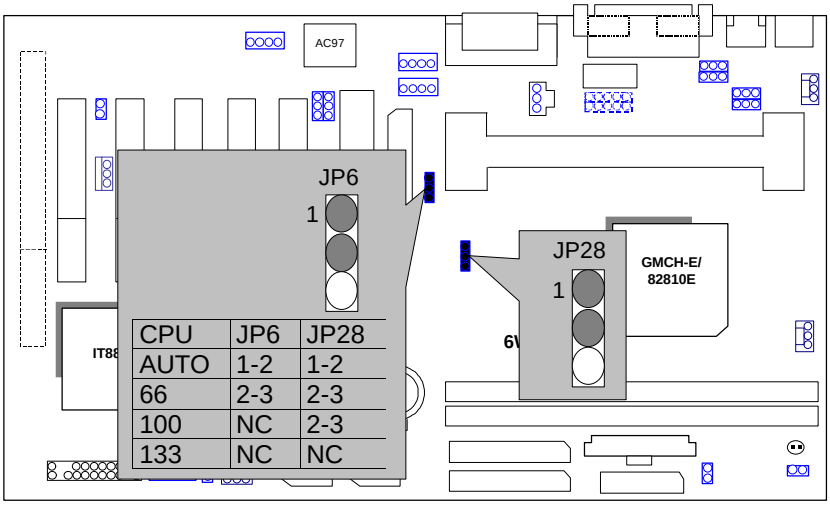
The main board can be installed with 16 / 32 / 64 / 128 / 256 MB 168 pins DIMM module DRAM, and the DRAM speed must 100 MHz for SDRAM when system bus speed is set to 66MHz or 100MHz, the DRAM memory system on main board consists of bank 0 and bank 1.

Since 168 pins DIMM module is 64 bits width, therefore 1 piece of DIMM module may match a 64 bits system. The total memory size is 16 MB ~ 512MB SDRAM . The DRAM installation position refer to Figure 3.1, and notice the Pin 1 of DIMM module must match with the Pin 1 of DIMM socket. Insert the DIMM module into the DIMM socket at Vertical angle. If there is a wrong direction of Pin 1, the SDRAM DIMM module could not be inserted into socket completely.

## 3.5. CPU SPEED SETUP

The system bus frequency can be switched between 66, 100 MHz by adjusting JP6 & JP28 (See Figure-1). The CPU Frequency is control by BIOS.

JP6 / JP28: System Bus Speed




| CPU | JP6 | JP28 |
|---|---|---|
| AUTO | 1-2 | 1-2 |
| 66 | 2-3 | 2-3 |
| 100 | NC | 2-3 |
| 133 | NC | NC |

Figure-1

**★ Note: Please set the CPU host frequency in accordance with your processor' s specifications. We don' t recommend you to set the system bus frequency over the CPU' s specification because these specific bus frequencies are not the standard specifications for CPU, chipset and most of the peripherals. Whether your system can run under these specific bus frequencies properly will depend on your hardware configurations, including CPU, Chipsets, SDRAM, Cards..etc.**

## 3.6. CMOS RTC & ISA CFG CMOS RAM

There're RTC & CMOS RAM on board; they have a power supply from external battery to keep the DATA inviolate & effective. The RTC is a REAL-TIME CLOCK device, which provides the DATE & TIME to system. The CMOS RAM is used for keeping the information of system configuration, so the system can automatically boot OS every time. Since the lifetime of

internal battery is 5 years, the user can change a new Battery to replace old one after it cannot work.

- Danger of explosion if battery is incorrectly replaced.
- Replace only with the same or equivalent type recommended by the manufacturer.
- Dispose of used batteries according to the manufacturer' s instructions.

### 3.7. SPEAKER CONNECTOR INSTALLATION

There is a speaker in AT system for sound purpose. The 4 - Pins connector **SPKR** is used to connect speaker.

### 3.8. HARDWARE RESET SWITCH CONNECTOR INSTALLATION

The RESET switch on panel provides users with HARDWARE RESET function. The system will do a cold start after the RESET switch is pushed and released by user. The RESET switch is a 2 PIN connector and should be installed to **RST** on main board.

### 3.9. POWER LED CONNECTOR INSTALLATION

System has power LED lamp on the panel of chassis. The power LED will light on off or flash to indicate which step on the system. The connector should be connected to **P+P-P-** of main board in a correct direction.

### 3.10. IDE & ATAPI DEVICE INSTALLATION

There are two-Enhanced PCI IDE ports (**IDE1, IDE2**) on board, which following ATAPI standard SPEC. Each IDE port can connected to two ATAPI devices (IDE Hard Disk, CD-ROM or Tape Driver), so total four ATAPI devices can exist in a system. The **HD** is the active LED port for ATAPI devices.

### 3.11. PERIPHERAL DEVICE INSTALLATION

After the I/O device installation and jumpers setup, the main board can be mounted into the chassis and fixed by screw. To complete the main board installation, the peripheral device could be installed now. The basic system needs a display interface card. If the PCI - Bus device is to be installed in the system, any one of three PCI - Bus slots can be used.

### 3.12. KEYBOARD & PS/2 MOUSE INSTALLATION

The main board supports PS/2 Mouse. The BIOS will auto detect whether the PS/2 Mouse is installed or not & assign IRQ12 for PS/2 Mouse port if it is installed. After installing the peripheral device, the user should check

everything again, and ready power-on the system.

# 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.

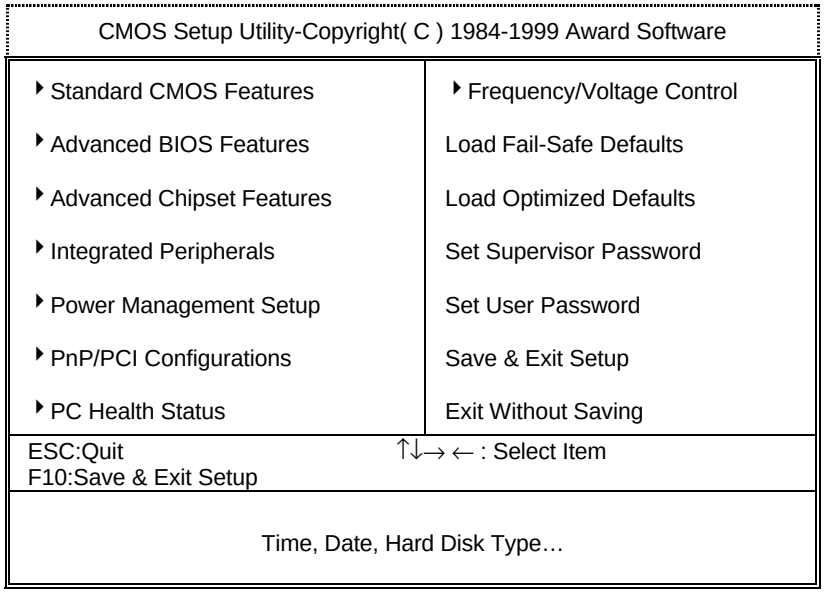



Figure 4.1: Main Menu

- 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.

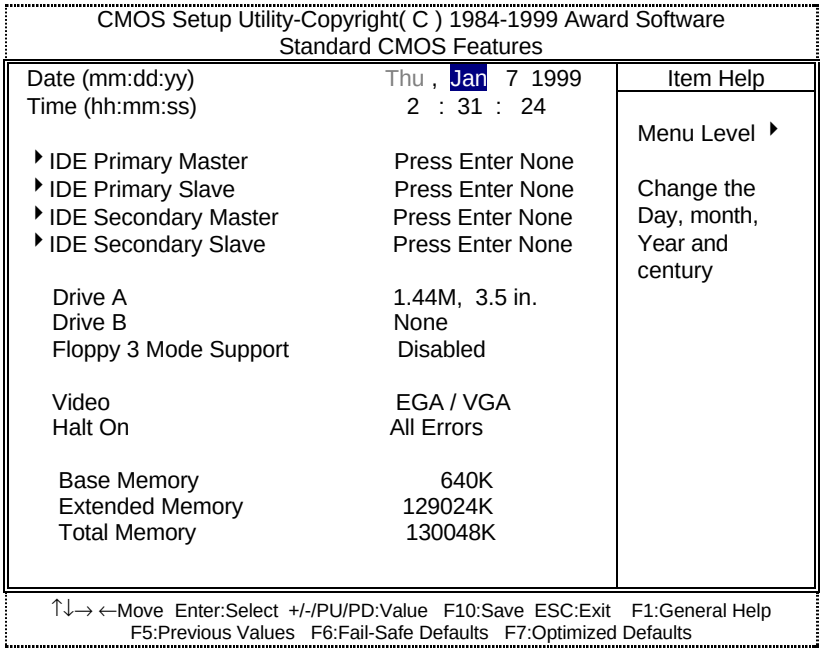



Figure 4.2: Standard CMOS Features Menu

- 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

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Advanced BIOS Features

| | | Item Help |
|---|---|---|
| Virus Warning | Disabled | |
| CPU cache | Enabled | |
| CPU L2 Cache ECC Checking | Disabled | Menu Level ▸ |
| Processor Number Feature | Enabled | Allows you to choose the VIRUS Warning feature For IDE Hard disk Boot sector Protection. If this Function is enable And someone Attempt to write Data into this area , BIOS will show A warning Message on Screen and alarm beep |
| Quick Power On Self Test | Enabled | |
| First Boot Device | Floppy | |
| Second Boot Device | HDD-0 | |
| Third Boot Device | LS/ZIP | |
| Boot Other Device | Enabled | |
| Swap Floppy Drive | Disabled | |
| Boot Up Floppy Seek | Enabled | |
| Boot Up NumLock Status | On | |
| Gate A20 Option | Fast | |
| Typematic Rate Setting | Disabled | |
| Typematic Rate (Chars/Sec) | 6 | |
| Typematic Delay (Msec) | 250 | |
| Security Option | Setup | |
| OS Select For DRAM >64MB | Non-OS2 | |
| 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. |

- 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. |

- 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

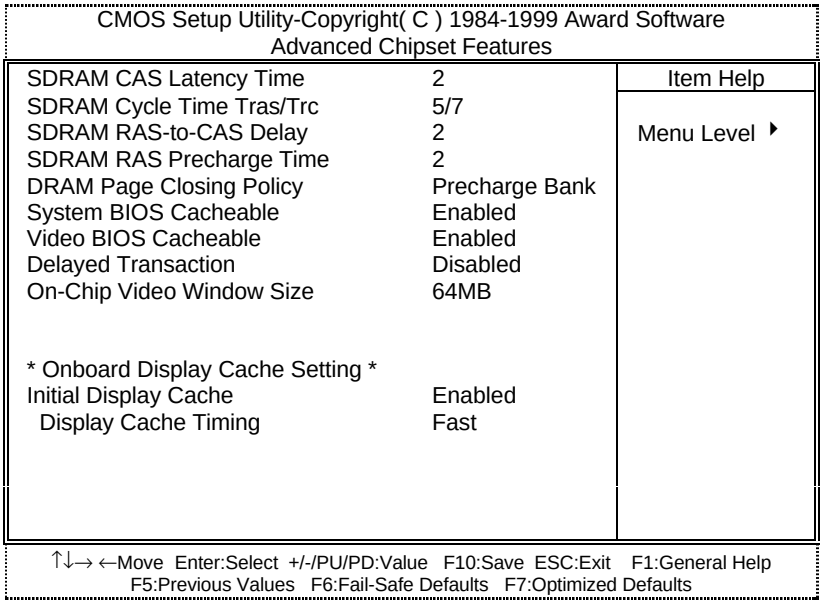


Figure 4.4: Advanced Chipset Features Setup

- 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

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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

| | | Item Help |
|---|---|---|
| ACPI Suspend Type | S1(PowerOnSuspend) | |
| Power Management | User Define | |
| Video Off Method | DPMS | Menu Level ▸ |
| 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

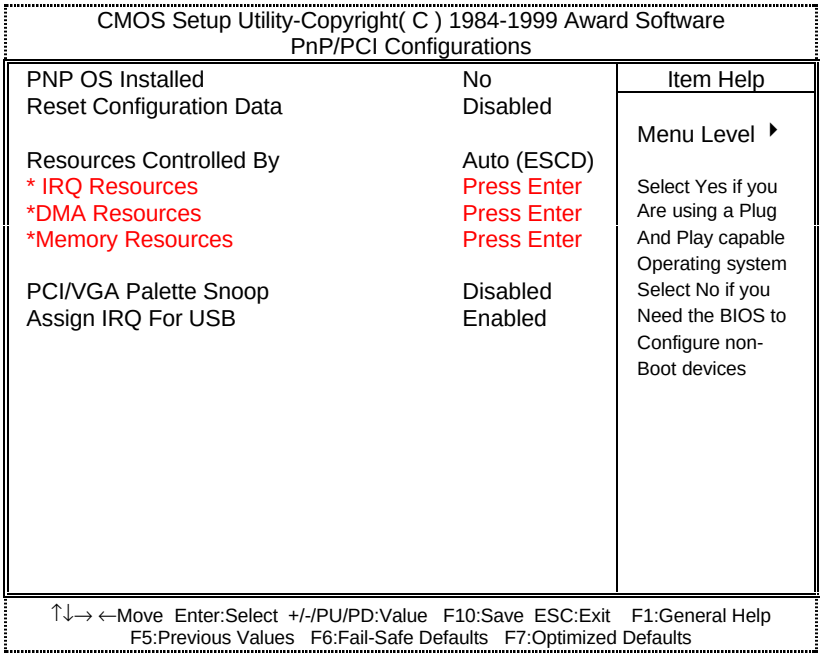


Figure 4.7: PCI Slot Configuration

- 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

| | | |
|---|---|---|
| Reset Case Open Status | Disabled | Item Help |
| 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

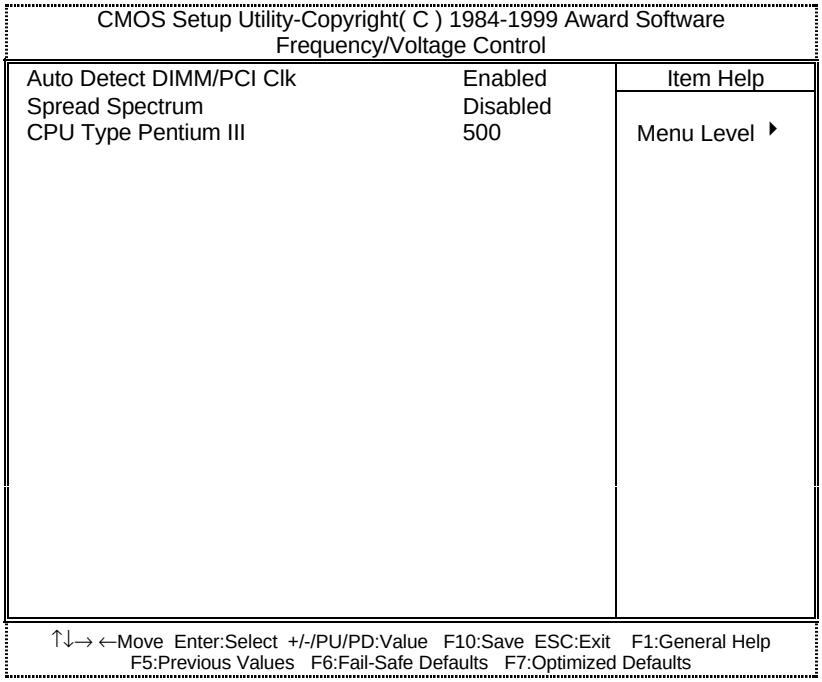


Figure 4.9: Frequency/Voltage Control

- 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 |
|---|

| |
|---|

## 4.13. Load Fail-Safe Defaults

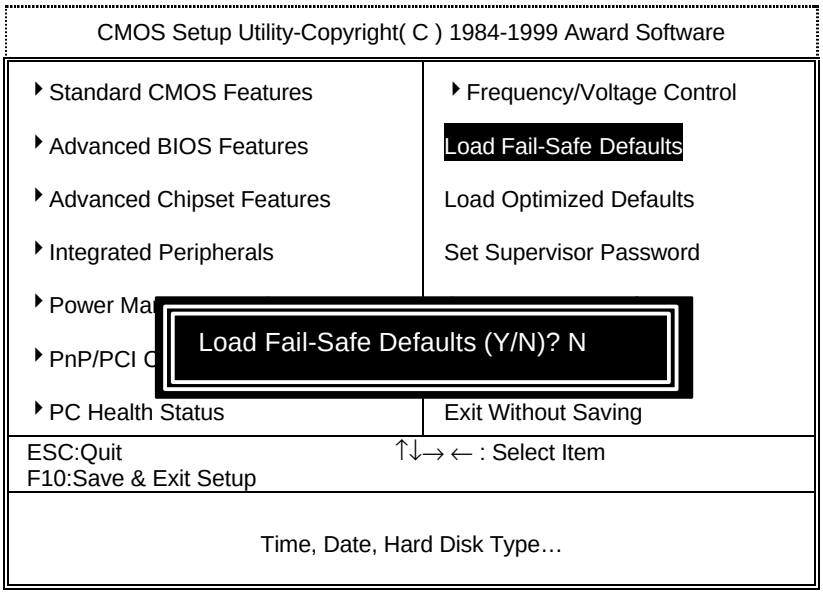


Figure 4.10: Load Fail-Safe Defaults

- 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

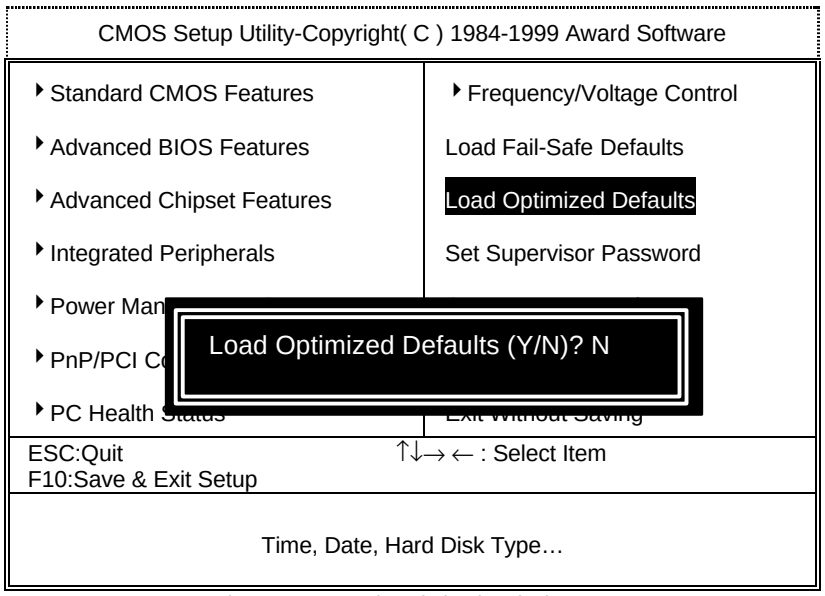


Figure 4.11: Load Optimized Defaults

- 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.

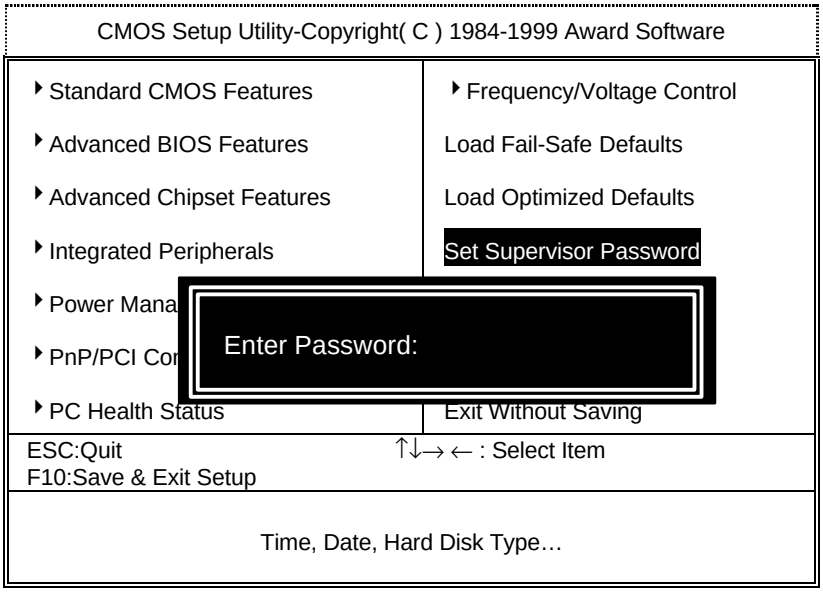


Figure 4.12: Password Setting

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

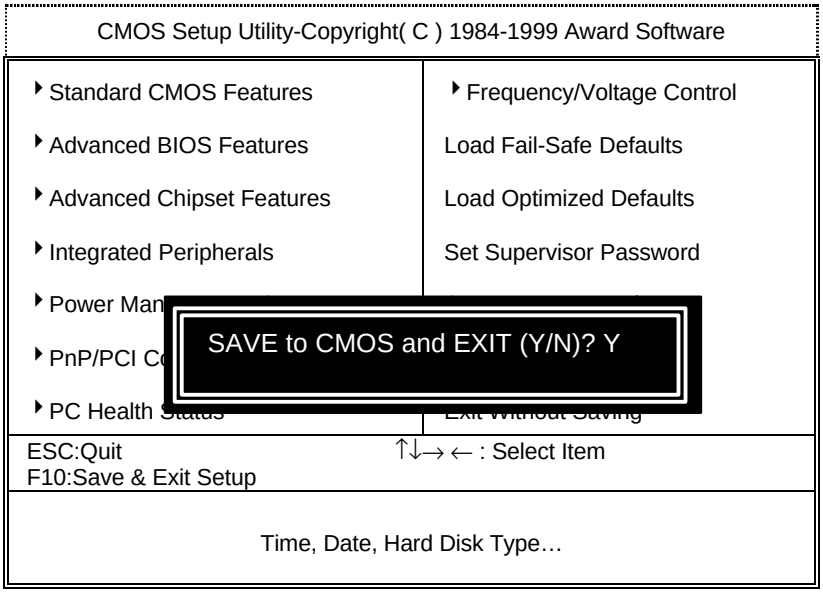


Figure 4.13: Save & Exit Setup

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

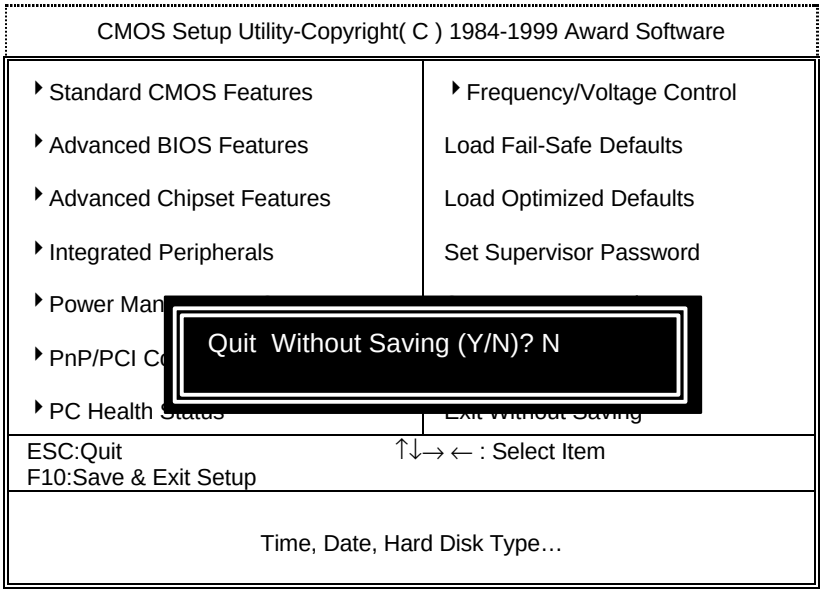


Figure 4.14: Exit Without Saving

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

Type "N" will return to Setup Utility.

**DECLARATION OF CONFORMITY**
Per FCC Part 2 Section 2. 1077(a)

**Responsible Party Name: G.B.T. INC.**

**Address: 18305 Valley Blvd., Suite#A**
**LA Puent, CA 91744**

**Phone/Fax No: (818) 854-9338/ (818) 854-9339**

hereby declares that the product

**Product Name:** Mother Board

**Model Number:** GA-6WXM

Conforms to the following specifications:

FCC Part 15, Subpart B, Section 15.107(a) and Section 15.109(a), Class B Digital Device

**Supplementary Information:**

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 inference received, including interference that may cause undesired operation.

Representative Person's Name: ERIC LU

Signature: Eric Lu

Date: Aug. 4, 1999

**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 Träding 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

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

| | | | |
|---|---|---|---|
| ☐ **EN 60065** | Safety requirements for mains operated electronic and related apparatus for household and similar general use | ☐ **EN 60950** | Safety for information technology equipment including electrical business equipment |
| ☐ **EN 60335** | Safety of household and similar electrical appliances | ☐ **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