# 7KMA

# **User's Manual Version 1.0**

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# **Table of Contents**

# Introduction

# 1. Motherboard Description

| 1.1 Features                               |      |
|--|------|
| 1.1.1 Hardware                             | 2    |
| 1.1.2 Software                             | 4    |
| 1.1.3 Attachments                          | 4    |
| 1.2 Motherboard Installation               |      |
| 1.2.1 Layout of Motherboard                | 5    |
| 1.3 Motherboard Connectors                 |      |
| 1.3.1 Front Panel Connectors(J1)           | 7    |
| 1.3.2 Floppy Disk Connector(FDD1)          | 8    |
| 1.3.3 Hard Disk Connectors(IDE1/IDE2)      | 8    |
| 1.3.4 ATX 20-pin Power Connector(PW1)      | 9    |
| 1.4 Back Panel Connectors                  |      |
| 1.4.1 PS/2 Mouse/Keyboard CONN.            | 10   |
| 1.4.2 USB Connectors (RJ45+USB)            | 10   |
| 1.4.3 VGA Interface Connector(VGA1)        | 11   |
| 1.5 Serial and Parallel Interface ports    | 12   |
| 1.6 CPU Installation                       |      |
| 1.6.1 CPU Installation Product(Socket 462) | ) 14 |
| 1.6.2 CPU Clock Setting(SW1)               | 15   |
| 1.7 Jumper Setting                         |      |
| 1.7.1 CPU Fan Connector(FAN1/2/3)          | 16   |
| 1.7.2 Wake-On-Modem Header(WOM1)           | 17   |
| 1.7.3 Wake-On-LAN Header(WOL1)             | 17   |
| 1.7.4 AMR Code Select(JP1)                 | 18   |
| 1.7.5 CMOS Function Selection(JP2)         | 18   |
| 1.8 DRAM Installation                      |      |
| 1.8.1 DIMM                                 | 19   |
| 1.8.2 How to install a DIMM Module         | 19   |
| 1.9 Audio Subsystem                        |      |
| 1.9.1 CD-Audio-IN Connectors(CDIN1/CDIN2)  | 20   |

# **Table of Contents**

# 2. BIOS Setup

| 2.1 Main Menu                     | 24 |
|-----------------------------------|----|
| 2.2 Standard CMOS Features        | 27 |
| 2.3 Advanced BIOS Features        | 30 |
| 2.4 Advanced Chipset Features     | 34 |
| 2.5 Integrated Peripherals        | 38 |
| 2.6 Power Management Setup        | 43 |
| 2.7 PnP/PCI Configurations        | 48 |
| 2.8 PC Health Status              | 52 |
| 2.9 Frequency/Voltage Control     | 53 |
| 2.10 Load Fail-Safe Defaults      | 54 |
| 2.11 Load Optimized Defaults      | 55 |
| 2.12 Set Supervisor/user Password | 56 |
| 2.13 Save & Exit Setup            | 58 |
| 2.14 Exit Without Saving          | 59 |

### Introduction

# System @rview

This amual was written to help you start using this product as quickly and snothly as possbile. Inside you will find adequate explanations to solve not problem. In order for this reference atterial to be of greatest use, refer to the "expanded table of contents" to find relevant topics. This board incorporates the systemoard, I/O, and PCI IDE into one board that provides a total PC solution. The ainboard, AMD Athlon and Duron processor based PC ATX system upport single processors with ISA Bus, PCI Local Bus, and AGP Bus to support upgrades to your system perforance. It is ideal for inti-tasking and fully supports MS-DOS, Windows, Windows NT, Windows 2000, Windows ME, Novell, OS/2, Windows 95/98, UNIX, SCO UNIX etc.

This **am**ual also explains how to install the **ai**nboard for operation, and how to setup your CMOS configuration with the BIOS setup program

# 1.Motherboard Description

### 1.1 Features

### 1.1.1 Hardare

### CPU

- -Single AMD Socket 462 Athlon/Duron.
- -200MHz SysterInterface speed.

### Speed

- -Supports 33MHZ PCI Bus speed.
- -Supports 2X/4X AGP Bus.

### **DRAM Memory**

- -Supports 8/16/32/64....MB DIMM ordule socket.
- -Supports Synchronous DRAM(3.3V)
- -Supports a aximum size of 1.536GB with SDRAM.

#### Shadow RAM

-A mary controller provide shadow RAM and supports
 8-bit ROM BIOS.

#### Gen Function

- -Support power amageent operation via BIOS.
- -Power down tien from to 15 ins.
- -Wakes from ower saving sleep onde at the press of any key or any onuse activity.

### **Bus Slots**

- -Provide one AGP slot and one AMR.
- -Five 32-bit PCI bus and one 16-bit ISA.

#### Universal Serial Bus

-Supports two back Universal Serial Bus(USB)Ports and two front Universal Serial Bus(USB)Ports.

#### Hdware Monitor Function

- -CPU Fan Speed Monitor.
- -System (Optional) and CPU Teperature Monitor.
- -System Voltage Monitor.

# 2 / Chapter 1 Motherboard Description

### Flash Memory

- -Support flash **corr**y.
- -support ESCD Function.

#### IDE Bulit-in @Board

- -Supports four IDE hard disk drives.
- -Supports PIO Mode 4, Master Mode, high perforance hard disk drives.
- -Support Ultra DMA 33,66 Bus Master Mode.
- -Supports IDE interface with CD-ROM.
- -Supports high capacity hard disk drives.
- -Support LBA ode.

PCI-Based AC 97 Digital Audio Processor(Optional)

- -AC 97 2.1 interface.
- -16 channels of high-quality same rate conversion.
- -16x8 channel digital iner.
- -Stereo 10 band graphic equalizer.
- -Sound Blaster and Sound Blaster Pro enlation.
- -S/PDIF output (allows standard interface to consume electronics).
- -64-voice wavetable.

#### I/Bulit-in @Board

- -Supports one niti-nde Parallel Port.
- (1)Standard & idirection Parallel Port
- (2)Enhanced Parallel Port(EPP)
- (3)Extended Capabilities Port
- -Supports two serial ports,16550 UART.
- -Supports one Infrared transission(IR).
- -Supports PS/2 **m**use and PS/2 Keyboard.
- -Supports 360KB, 720KB, 1.2MB, 1.44MB, and 2.88MB floppy disk drivers.

### 1.1.2 Softwre

### BIO

- -AWARD legal BIOS.
- -Supports APM 1.2.
- -Supports USB Function.
- -Supports ACPI

## **Deration System**

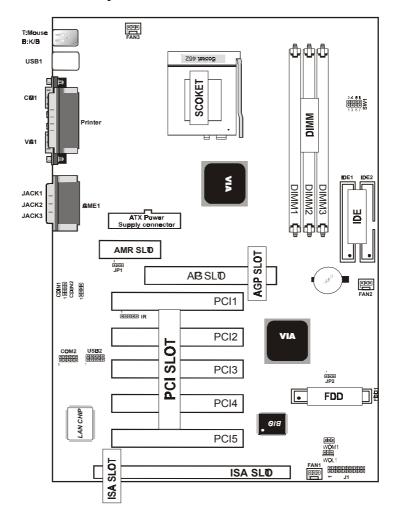
-Offers the highest perfor**an**ce forMS-DOS,Windows, Windows NT , Windows 2000, Windows ME , Novell, OS/2, Windows95/98, UNIX, SCO UNIX etc.

### 1.1.3 Attachments

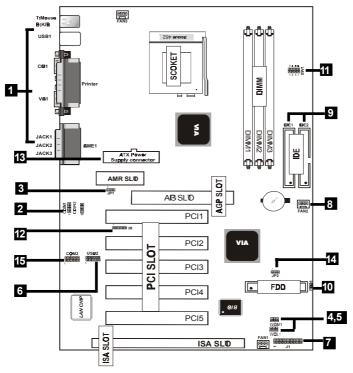
- -HDD UDMA66 Cable.
- -FDD Cable.
- -Flash Meory Written for BIOS Update.
- -USB2 Cable (Optional).
- -COM2 Cable.
- -Fully Setup Driver CD build in Utility(Ghost, Anitivirus, Adobe Acrobat. . .).

# 1.2 Motherboard Installation

# 1.2.1 Layout of Motherboard



# 1.3 Motherboard Connectors



4. Wake-On MODEM Connector

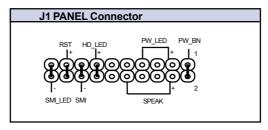
6. Front Two USB Connector

10.Floppy Connector

8.Fan connectors(Fan1/2/3)

- 1.Back Pannel I/O Connectors 2.CD Audio-In Connector
- 3.AMR CODEC Fuction(JP1)
  5.Wake-On-LAN Connector
- 7. Front Panel Connector
- 7. Front Panel Connector
- 9.IDE Connectors
- 11.CPU Clock Selection(SW1) 12.IR Connector
- 13.ATX Power Connector
- 14.CMOS Function Selection(JP2)
- 15. Front Two COM Connector

### 1.3.1 Front Panel Connector(J1)



## **Speaker Connector (SPEAKR)**

An offboard speaker can be installed onto the otherboard as a amufacturing option. An offboard speaker can be connected to the otherboard at the front pannel connector. The speaker (onboard or offboard) provides error beep code information during the Power Self-Test when the coputer cannot use the vedio interface. The speaker is not connected to the audio subsystem and does not receive output fronthe audio subsystem

## Hrd Drive LED Connector (H LED)

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

## SMI Suspend Switch Lead (SMI)

This allows the user to amually place the system to a suspend orde or Green orde where system ic activity will be instantly decreased to save electricity and expand the life of certain components when the systems not in use. This 2-pin connector (see the figure below) connects to the case-munted suspend switch. If you do not have a switch for the connector, you any use the Turbo Switch" instead since it does not have a function. SMI is activated when it detects a short to open orant and therefore leaving it shorted will not cause any problem It any require one or two pushes depending on the position of the switch. Wake-up can be controlled by settings in the BIOS but the keyboard will always allow wake-up (the SMI lead cannot wake-up the system If you want to use this connector, "Suspend Switch" in the Power Manageum Setup of the BIOS SOFT-WARE section should be on the default setting of Enable.

Chapter 1 Motherboard Description /7

## ATX Power Switch (PW\_BN)

The systemower is controlled by a mentary switch connected to this lead. Pushing the button once will switch the systemon. The systemower LED lights when the system power is on .

# Power LED Lead (PW LED)

The systemower LED lights when the systemower is on.

### SMI LED Lead (SMI LED)

The system IMI LED lights when the system uspend is on.

# Reset Switch Lead (RST)

The connector can be connected to a **num**tary SPST type switch that is normally open. When the switch is closed, the **ntherboard** resets and runs the POST.

# 1.3.2 Floppy Disk Connector(FDD1)

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

# 1.3.3 Hard Disk Connectors(IDE1/IDE2)

These connectors support the provided IDE hard disk ribbon cable. After connecting the single end to the board, connect the two plugs at the other end to your hard disk .

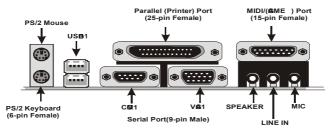
If you install two hard disks, you ust configure the second drive to Slave orde by setting its juper settings. BIOS now supports SCSI device or IDE CD-ROM boot up (see "HDD Sequence SCSI/IDE First" &Boot Sequence" in the BIOS Features Setup of the BIOS SOFTWARE) (Pin 20 is remved to prevent inserting in the wrong orientation when using rib bon cables with pin 20 plugged).

# 1.3.4 ATX 20-pin Powr Connector(PW1)

This connector supports the power button on-board. Using the ATX power supply, functions such as ModerRing Wake-Up and Soft Power Off are supported on this ntherboard. This power connector supports instant power-on functionality, which mans that the systemvill boot up instantly when the power connector is inserted on the board.

| Pin | Signal      | Pin | Signal        |
|-----|-------------|-----|---------------|
| 1   | 3.3V        | 2   | 3.3V          |
| 3   | <b>IS</b> D | 4   | 5V            |
| 5   | <b>IS</b> D | 6   | 5V            |
| 7   | <b>IS</b> D | 8   | PW-Ø          |
| 9   | 5VSB        | 10  | 12V           |
| 11  | 3.3V        | 12  | -12V          |
| 13  | <b>IS</b> D | 14  | PS- <b>10</b> |
| 15  | <b>IS</b> D | 16  | <b>IS</b> D   |
| 17  | <b>IS</b> D | 18  | -5V           |
| 19  | 5V          | 20  | 5V            |

### 1.4 Back Pannel Connectors



# 1.4.1 PS/2 Mouse /Keyboard CON.

The otherboard provides a standard PS/2 ouse / Keyboard ini DIN connector for attaching a PS/2 ouse. You can plug a PS/2 ouse / Keyboard directly into this connector.

# 1.4.2 USB Connectors: USB1(RJ45+USB)

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



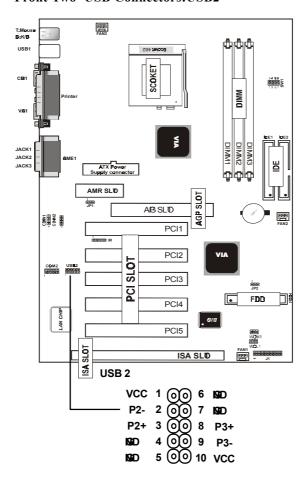
| Pin | Signal         |
|-----|----------------|
| 1   | +5v            |
| 2   | USBP0-(USBP1-) |
| 3   | USBP0+(USBP1+) |
| 4   | <b>S</b> D     |

**RJ-45** 



| Pin  | Signal                    |
|------|---------------------------|
| 1    | +5v                       |
| 2    | USBP0-(USBP1-)            |
| 3    | USBP0+(USBP1+)            |
| 4    | <b>⊗</b> D                |
| RJ45 | 10/100M LAN Port (option) |

### Front Two USB Connectors: USB2



# 1.4.3 V& Interface Connector: V&1(15 Pin)

This connector is for output to VGA-copatible device.



## 1.5 Serial and Parallel Interface Ports

This systemons equipped with two serial ports and one parpllel port. Both types of interface ports will be explained in this chapter.

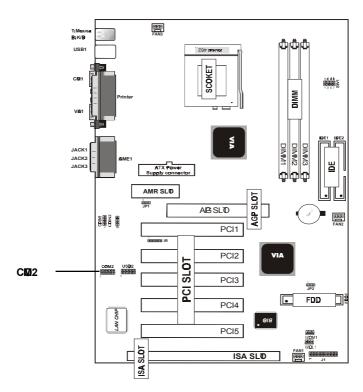
### The Serial Interfaces: CM1/CM2

The serial interface port is somties referred to as an RS-232 port or an asynchronous commication port. Mice, printers, ordes and other peripheral devices can be connected to a serial port. The serial port can also be used to connect your coputer system If you wish to transfer the contents of your hard disk to another system t can be accoplished by using each archine's serial port.



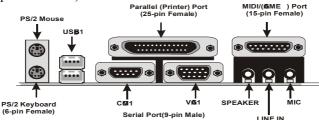
The serial port on this systemate one 9-pin connector. Somolder coputer systemand peripherals used to be equipped with only 25-pin connector. Should you need to connect your 9-pin serial port to an older 25-pin serial port, you can purchase a 9-to-25 pin adapter.

| Signal | DB9 Pin | DB25 Pin |
|--------|---------|----------|
| DCD    | 1       | 8        |
| RX     | 2       | 3        |
| TX     | 3       | 2        |
| DTR    | 4       | 20       |
| ØD     | 5       | 7        |
| DSR    | 6       | 6        |
| RTS    | 7       | 4        |
| CTS    | 8       | 5        |
| RI     | 9       | 22       |



### **Parallel Interface Port**

Unlike the serial ports, parallel interface port has been standardized and should not present any difficulty interfacing peripherals to your systemSoutions called Centronics port, the parallel port is aloust exclusively used with printers. The parallel port on your systemas a 25-pin, DB 25 connector(see picture below).

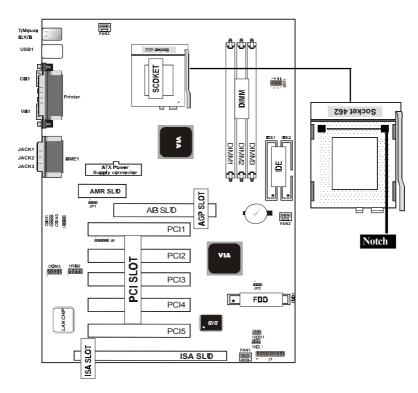


Chapter 1 Motherboard Description /13

# 1.6 CPU Installation

### 1.6.1 CPU Installation Procedure: Socket 462

- 1.Pull the lever sideways away fronthe socket then raise the lever to a 90-degree angle.
- 2.Locate Pin 1 in the socket and look for the white dot or cut edge in the CPU. Match Pin 1 with the white dot/cut edge then insert the CPU.
- 3. Press the lever down to coplete the installation.
- 4. Make sure the spec of heatsink is good enough.



# 14 / Chapter 1 Motherboard Description

# 1.6.2 CPU Clock Selection:SW1

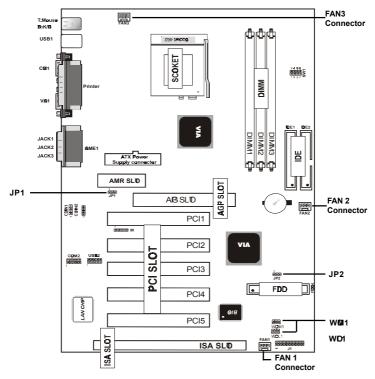
| B:H<br>US<br>CE | Printer                | FANS | DLC STORYS | WING BHAM CHA |     | 3 -1     | 25       |
|-----------------|------------------------|------|------------|---------------|-----|----------|----------|
| JA              | SW1                    | 1-2  | 3-4        | 5-6           | 7-8 | CPU(MHZ) | PCI(MHZ) |
|                 | 8 <b>8</b> 88<br>13 57 | 1    | 0          | 1             | 1   | 100      | 33.33    |
|                 | 1357                   | 0    | 0          | 0             | 1   | 101      | 33.67    |
|                 | 1357                   | 0    | 0          | 1             | 1   | 102      | 34.00    |
|                 | 1357                   | 1    | 0          | 1             | 0   | 103      | 34.33    |
|                 | 1357                   | 1    | 0          | 0             | 1   | 105      | 35.00    |
|                 | 1357                   | 0    | 1          | 0             | 0   | 107      | 35.67    |
|                 | 1357                   | 0    | 1          | 1             | 0   | 109      | 36.33    |
|                 | 1357                   | 0    | 1          | 0             | 1   | 110      | 36.67    |
|                 | 1357                   | 0    | 1          | 1             | 1   | 111      | 37.00    |
|                 | 1357                   | 1    | 1          | 0             | 0   | 113      | 37.67    |
|                 | 1357                   | 1    | 1          | 1             | 0   | 115      | 38.33    |
|                 | 1357                   | 1    | 1          | 0             | 1   | 117      | 39.00    |
|                 | 888<br>1357            | 1    | 1          | 1             | 1   | 133.3    | 33.33    |

0:0N (Close) 1:0FF (Open)

NOES:CPU clock speed over 100MHZ is not recommended.

# 1.7 Jumper Setting

A juper has two or ore pins that can be covered by a plastic juper cap, allowing you to select different system options.



# 1.7.1 CPU/System Fan Connector:Fan1/3

| Pin   | Assignment |
|-------|------------|
| 0 1   | Ground     |
| 0 2 2 | +12VDC     |
| 0 3 3 | Signal     |

# 1.7.1 CPU/System Fan Connector:Fan2

| Pin   | Assignment |
|-------|------------|
| 0 1   | Ground     |
| 0 2 2 | +12VDC     |
| 0 3 3 | Ground     |

# 1.7.2 Wake-@ Modem Header:WM1

| Pin          | Assignment |
|--------------|------------|
| <b>ြ</b> ₁ 1 | 5VSB       |
| <b>0</b> 2   | Ground     |
| <b>⊙</b> ³ 3 | Signal     |

# 1.7.3 Wake-@LAN Header:WD1

| Pin          | Assignment |
|--------------|------------|
| <b>1</b> 1   | 5VSB       |
| <b> </b>     | Ground     |
| <b>©</b> ³ 3 | Signal     |

### 1.7.4 AMR Code Function: JP1

| Pin   | Assignment        |
|-------|-------------------|
| 1 - 2 | On board CODEC    |
| 2 - 3 | AMR Primary CODEC |

### 1.7.5 CMO Function Selection: JP2

| Pin   | Assignment       |  |  |
|-------|------------------|--|--|
| 1 - 2 | Normal (Default) |  |  |
| 2 - 3 | Clear CMOS       |  |  |

### NOE:

# (Please followhe procedure as below clear CMS data.)

(1)Remove AC power line.(2)JP2(2-3)Closed.(3)Wait five seconds.(4)JP2(1-2) Closed.(5)AC Power on.(6)Reset your desired password or clear CMO data.

# 1.8 DRAM Installation

### 1.8.1 DIMM

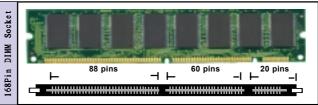
DRAM Access Tim3.3V Unbuffered SDRAM/ PC66/ PC100 and PC133 Type required.

DRAM Type:8MB,16MB,32MB,64MB,128MB,256MB ,512MB DIMM Module.(168 pin)

| Bank         | Memory module                            |
|--------------|--|
| DIMM 1       | 16MB,32MB,64MB,128MB,256MB,512MB         |
| ( Bank 0-1)  | 168 pin,3.3v SDRAM                       |
| DIMM 2       | 16MB,32MB,64MB,128MB,256MB,512MB         |
| ( Bank 2-3 ) | 168 pin 3.3v,SDRAM                       |
| DIMM 3       | 16MB,32MB,64MB,128MB,256MB,512MB         |
| ( Bank 4-5 ) | 168 pin 3.3v,SDRAM                       |
|              | Total System Memory(Max 1.536 <b>B</b> ) |

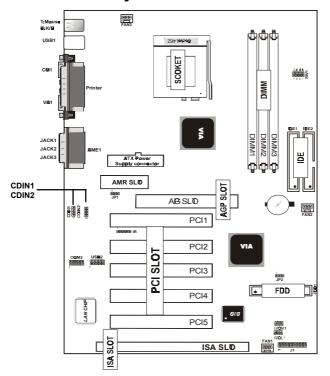
### 1.8.2 How install a DIMM Module

- 1. The DIMM socket has a "Plastic Safety Tab" and the DIMM mory ordule has an asymptrical notch", so the DIMM mory ordule can only fit into the slot in one direction.
- 2.Push the tabs out. Insert the DIMM **emry ord**ules into the socket at a 90-degree angle then push down vertically so that it will fit into place.
- 3. The Mounting Holes and plastic tabs should fit over the edge and hold the DIMM **nory** ordules in place.



Chapter 1 Motherboard Description /19

# 1.9 Audio Subsystem



# 1.9.1 CD Audio-In Connectors:CDIN1/CDIN2

| Pin CDIN1 | Assignment |
|-----------|------------|
| 1         | CD-R       |
| 2         | NSD        |
| 3         | NSD        |
| 4         | CD-L       |

| Pin CDIN2 | Assignment  |
|-----------|-------------|
| 1         | CD-R        |
| 2         | <b>IS</b> D |
| 3         | CD-L        |
| 4         | <b>IS</b> D |

# 2. BIO Setup

#### Introduction

This anual discussed Award Setup programult into the ROM BIOS. The Setup programlows user to ordify the basic systemonfiguration. This special information is then stored in battery-backed RAM so that it retains the setup information when the power is turned off.

The Award BIOS installed in your coputer system ROM (Read Only Meory) is a customersion of an industry standard BIOS. This mans that it supports AMD-Athlon / Duron processors input/output system The BIOS provides critical low-level support for standard devices such as disk drives and serial and parallel ports.

The rest of this **am**ual is intended to guide you through the process of configuring your systemsing Setup.

# Plug and Play Support

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

## EPA Gen PC Support

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

### **APM Support**

These AWARD BIOS supports Version 1.1&2 of the Advanced Power Manageant (APM) specification. Power amageant features are inhemated via the System Manageant Interrupt (SMI). Sleep and Suspend power amageant ordes are supported. Power to the hard disk drives and video omitors can be amaged by this AWARD BIOS.

## **PCI Bus Support**

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

## **DRAM Support**

SDRAM (Synchronous DRAM) are supported.

# **Support CPU**

This AWARD BIOS supports the AMD Athlon/Duron CPU.

## **Using Setup**

In general, you use the arrow keys to highlight itempress <Enter>to select, use the <PgUp>and <PgDn>keys to change entries, press<F1>for help and press <Esc>to quit. The following table provides me detail about how to navigate in the Setup programy using the keyboard.

| Kystroke    | Function  |  |
|-------------|---|--|
| Up arrow    | Move to previous item                                     |  |
| Down arrow  | Move to next item   |  |
| Left arrow  | Move to the itemn the left(mu bar)                        |  |
| Right arrow | Move to the item the right(mu bar)                        |  |
| Esc         | Main Menu:Quit without saving changes                     |  |
|             | Subemus:Exit Current page to the next higher              |  |
|             | level <b>e</b> mu   |  |
| Move Enter  | Move to itemou desired                                    |  |
| PgUp key    | Increase the nueric value or aske changes                 |  |
| PgDn key    | Decrease the nu <b>er</b> ic value or <b>ak</b> e changes |  |
| +Key        | Increase the nueric value or rake changes                 |  |
| -Key        | Decrease the nueric value or ake changes                  |  |
| Esc Key     | Main emu-Quit and not save changes into                   |  |
|             | CMOS  |  |
|             | Status Page Setup Menu and option Page Setup              |  |
|             | Menu -Exit Current page and return to Main                |  |
|             | Menu  |  |
| F1 Key      | General help on Setup navigation keys.                    |  |
| F5 Key      | Load previous values from MOS                             |  |
| F6 Key      | Load the fail-safe defaults from IOS default              |  |
|             | table   |  |
| F7 Key      | Load the optimed defaults                                 |  |
| F10 Key     | Save all the CMOS changes and exit                        |  |

### 2.1 Main Menu

Once you enter AWARD BIOS CMOS Set up Utility, the Main Menu will appear on the screen. The Main Menu allows you to select from everal setup function. Use the arrow keys to select arms the item and press < Enter > to accept and enter the sub-enu.

# "WARNING"

The information about BIOS defaults on manual (Figure 1,2,3,4,5,6,7,8,9,10,11,12,13,14) is just for reference, please refer to the BIOS installed on the board for update information.

# **◎** Figure 1. Main Menu

CMOS Setup Utility-Copyright(C) 1984-2000 Award Software

| STANDARD CM9 FEATURES FREQUENCY/VDTAG CNTRD |                        |  |  |
|---|------------------------|--|--|
| ADVANCED BIO FEATURES                       | LOD FAIL-SAFE DEFAULTS |  |  |
| ADVANCED CHIPSET FEATURES                   | LOO OTIMIZED DEFAULTS  |  |  |
| INTE <b>G</b> ATED PERIPHERALS              | SET SUPERVIS® PASSW®D  |  |  |
| PWER MANAGMENT SETUP                        | SET USER PASSWRD       |  |  |
| PNP/PCI CNIFICIRATINIS S                    | AVE & EXIT SETUP       |  |  |
| PC HEALTH STATUS EXIT WITHOT SAVING         |                        |  |  |
| Esc: Quit F9: Menu in BIS ←→↑↓: Select Item |                        |  |  |
| F10 : Save & Exit Setup                     |                        |  |  |
| Time , Date , Hard Disk Type                |                        |  |  |

### Standard CM®Features

This setup page includes all the item standard copatible BIOS

# 24 / Chapter 2 BIOS Setup

### Advanced BIOFeatures

This setup page includes all the itemf BIOS special enchanced features.

## **Advanced Chipset Features**

This setup page includes all the itemf Chipset special enchanced features.

# **Integrated Peripherals**

This selection page includes all the itemf IDE hard drive and Programd Input/Output features.

# **Power Management Setup**

This setup page includes all the itemf power amageent features.

# PnP/PCI Configuration

This setup page includes IRQ Setting by user define or default.

### PC Halth Status

This page shows the hardware Monitor information of the system

# Frequency / Voltage Control

This setup page is control CPU's clock and frequency ratio.

### Load Fail-Safed Defaults

Use this emu to load the BIOS default values for the iniml/stable performace for your systems operate.

# Load Otimized Defaults

These settings are **pre** likely to configure a workable coputer when so**ething** is wrong. If you cannot boot the coputer seccessfully, select the BIOS Setup options and try to diagnose the problemafter the coputer boots. These settings do not provide optional perforance.

## Set Supervisor Password

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

### Set User Password

You can specify both a User and a Supervisor password. When you select either password option, you are propted for a 1-6 character password. Enter the password and then retype the password when propted.

## Save & Exit Setup

Save CMOS value changes to CMOS and exit setup.

## **Exit Without Saving**

Abandon all CMOS value changes and exit setup.

# 2.2 Standard CM®Features

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

# **◎** Figure 2. Standard CM**®** Features

CMOS Setup Utility-Copyright(C) 1984-2000 Award Software Standard CMOS Features

| Date(mm:dd:yy)   | Tue,Jun 6 2000   | Item Help                  |
|--|--|----------------------------|
| Time (hh:mm:ss)  IDE Primary Master IDE Primary Slave IDE Secondary Master | 11:26:10  Press Enter None Press Enter None Press Enter None | Menu Level Change the day, |
| IDE Secondary Master   | Press Enter None   | and century.               |
| Drive A<br>Drive B   | 1.44M,3.5 in<br>None   |                            |
| Video<br>Halt 🛈  | E <b>ß</b> /V <b>ß</b><br>All,But Keyboard                   |                            |
| Base Memory Extended Memory  | xxxx<br>xxxx   |                            |
| Total  | XXXX   |                            |

<sup>←→↑↓:</sup> Move Enter:Select +/-/PU/PD:Value F10:Save ESC:Exit F1:@neral Help F5:Previous Values F6:Fail-Safe Defaults F7:ptimized Defaults

# **Main Menu Selections**

This table shows the selections that you can **ak**e on the Main Menu.

| Item                  | Otions                 | Description                                |  |
|-----------------------|------------------------|--|--|
| Date                  | Month DD YYYY          | Set the systemate.note that the            |  |
|                       |                        | 'Day' autoanically changes                 |  |
|                       |                        | when you set the data.                     |  |
| IDE Pri <b>an</b> y O | ptions are in its sub  | Press <enter> to enter the sub emu</enter> |  |
| Master                | <b>em</b> u.           | of detailed.                               |  |
| IDE Pri <b>an</b> y O | ptions are in its sub  | Press <enter> to enter the sub emu</enter> |  |
| Slave                 | emu.                   | of detailed.                               |  |
| IDE Secondary         | Options are in its sub | Press <enter> to enter the sub emu</enter> |  |
| Master                | emu.                   | of detailed.                               |  |
| IDE Secondary         | Options are in its sub | Press <enter> to enter the sub emu</enter> |  |
| Slave                 | <b>em</b> u.           | of detailed.                               |  |
| Drive A               | None                   | Select the type of floppy disk drive       |  |
| Drive B               | 360K,5.25in            | installed in your system                   |  |
|                       | 1.2M,5.25in            |  |  |
|                       | 720K,3.5in             |  |  |
|                       | 1.44M,3.5in            |  |  |
|                       | 2.88M,3.5in            |  |  |
| Video                 | EGA/VGA                | Select the default video device.           |  |
|                       | CGA 40                 |  |  |
|                       | CGA 80                 |  |  |
|                       | MONO                   |  |  |
|                       |                        |  |  |

| Item           | <b>O</b> tions   | Description                        |  |
|----------------|------------------|------------------------------------|--|
| Halt On        | All Errors       | Select the situation in which you  |  |
|                | No Errors        | want the BIOS to stop the POST     |  |
|                | All,but Keyboard | process and notify.                |  |
|                | All,but Diskette |                                    |  |
|                | All,but Disk/Key |                                    |  |
| Base Memry N   | /A               | Displays the amunt of conventional |  |
|                |                  | emry detected during boot up.      |  |
| Extended       | N/A              | Displays the anunt of conventional |  |
| Memry          |                  | emry detected during boot up.      |  |
| Total          | N/A              | Displays the total <b>cor</b> y    |  |
| Me <b>or</b> y |                  | available in the system            |  |

# 2.3 Advanced BIOFeatures

# **◎** Figure 3. Advanced BI**⊗** Features

CMOS Setup Utility-Copyright(C) 1984-2000 Award Software Advanced BIOS Features

| Virus Warning  | Disabled   | Item Help   |
|--|--|---|
| CPU Internal Cache External Cache CPU L2 Cache ECC Checking @ck Power @ Self Test First Boot Device Second Boot Device Third Boot Device Boot @er Device Swap Floppy Drive Boot Up Floppy Seek | Enabled Enabled Enabled Enabled Floopy HDD-0 CD-RM Enabled Disabled Disabled | Menu Level  Allows you to choose the VIRUS warning feature for IDE Hard Disk boot sector protection. If this function |
| Boot Up NumLock Status & A20 (Ation Typematic Rate Setting Typematic Rate (Chars/Sec) Typematic Delay (Msec) Security (Ation O Select For DRAM Video BIO Shadow                                | Past Disabled 6 250 Setup Non-62 Enabled                                     | is enabled and someone attempt to write data into this area,BIO will show a warning message on screen and alarm beep  |

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

# Virus Warning

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

The Choices:Disabled(default), Enabled.

### **CPU Internal Cache**

These two categories speed up **enr**y access. However, it depends on CPU/chipset design.

**Enabled(default)** Enabled cache. **Disabled** Disabled cache.

### **External Cache**

This fields allow you to Enable or Disable the CPU'S "Level 2" secondary cache. Caching allows better perforance.

**Enabled(default)** Enabled cache. **Disabled** Disabled cache.

# CPU L2 Cache ECC Checking

The iterallows you to enable/disable CPU L2 Cache ECC Checking.

The Choices: Enabled (default), Disabled.

### Qick Power OSelf Test

This category seeds up Power on Self-Test(POST) after you power up the comuter. If it is set to Enable, BIOS will shorten or skip somcheck itemduring POST.

Enabled(default) Enabled quick POST.

**Disabled** Norad POST.

## First/Secondary/Third/Boot ther Device

These BIOS attents to load the operating systerfrom the devices in the sequence selected in these item **The Choices:**Floppy, LS120, HDD-0, HDD-1, HDD-2, HDD-3, SCSI, CDROM, Enabled, ZIP, LAN, Disabled.

# **Swap Floppy Drive**

If the system as two floppy drives, you can swap the logical drive namassignents.

The Choices: Disabled, Enabled (default).

## **Boot Up Floppy Seek**

Seek disk drives during boot up. Disabled speeds boot-up. **The Choices:Disabled**(default), Enabled.

### **Boot Up NumLock Status**

Select power on state for Nulnck.

**O**(default) Nupad is nuber keys. **D** Nupad is arrow keys.

### Lete A20 Otion

Select if chipset or keyboard controller should control

Gate A20.

**Normal** A pin in the keyboard

controller controls Gate A20.

**Fast(default)** Lets chipset control Gate A20.

## Security Otion

This category allows you to limaccess to the system and

Setup, or just to Setup.

**System** The systemill not boot and

access to Setup will be defined if the correct password is not

entered in propt.

**Setup(default)** The systemill boot,but

access to Setup will be defined if the correct password is not

entered in propt.

### **O**Select For DRAM

Select the operating systemat is running with greater

than 64MB of RAM on the system The Choices:Non-82(default), 82

### Video BIOShadow

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

**Enabled(default)** Optional ROM is enabled. **Disabled** Optional ROM is disabled.

C8000-CFFFF Shadow / D0000-DFFFF Shadow

Determes whether video BIOS will be copied to RAM

for faster execution.

**Enabled** Optional ROM is Shadowed.

**Disabled(default)** Optional ROM is not

Shadowed.

**Note:**For C8000-DFFFF option-ROM on PCI BIOS,BIOS will automatically enable the shadow RAM.User does not have to select the item

# 2.4 Advanced Chipset Features

This section allows you to configure the system ased on the specific features of the installed chipset. This chipset mages bus speeds and access to system resources, such as DRAM and external cache. It also coordinates commications the PCI bus. It must be stated that these item should never need to be altered. The default settings have been chosen because they provide the best operating conditions for your system. The only timyou ight consider anking any changes would be if you discovered that data was lost while using your system.

## **◎** Figure 4. Advanced Chipset Features

CMOS Setup Utility-Copyright(C) 1984-2000 Award Software Advanced Chipset Features

| DRAM Timary By SPD<br>DRAM Clock<br>SDRAM Cycle Length | Disabled<br>100<br>3  | Item Help  |
|--|---|------------|
|  | 3 Disabled Disabled Disabled Disabled Disabled Disabled Disabled Disabled Disabled Auto Auto Auto Finabled Auto Auto Finabled Enabled Enabled Enabled Enabled Enabled Disabled Auto Auto Finabled Enabled | Menu Level |
| AB Master 1WS Read                                     | Disabled  |            |

<sup>←→</sup> $\uparrow$ ↓: Move Enter:Select +/-/PU/PD:Value F10:Save ESC:Exit F1:eneral Help F5:Previous Values F6:Fail-Safe Defaults F7:ptimized Defaults

### **DRAM Timary by SPD**

The Choices: Disabled (default), Enabled

### **SDRAM Cycle Length**

When synchronous DRAM is installed, the nuber of clock cycle of CAS latency depends on the DRAM timg. Do not reset this field from default value specified by the systemesigner.

The Choices:3(default),2,Auto.

#### DRAM Clock

This itendeterines DRAM Clock following the CPU host clock.or.

The Choices:100(default),133.

### P2C/C2P Concurrency

The iterallows you to enable/disable the PCI to CPU to PCI concurrency.

The Choices: Disabled (default), Enabled.

#### Fast R-W Turn Around

The itemontrols the DRAM timg. It allows you to enable/disable the fast read/write turn around.

The Choices: Disabled (default), Enabled.

#### Frame Buffer Size

The itemorchip VGA share **emry** size.

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

#### AP Mode

The Choices:2X(default),1X,4X.

## Ochip Sound

The default setting of this itemnilizes an onboard sound chip for audio output. There is no need to buy and insert a sound card. If sound card is installed, disable this item

The Choices: Auto (default), Disabled

### Ochip Modem

The itemllows you to control the onboard MC97 Modemontroller.

The Choices: Auto(default), Disabled.

### Ochip USB/USB2

This should be enabled if your system as a USB installed on the system and you whish to use it. Even when so equipped, if you add a higher perforance controller, you will need to disable this feature.

The Choices: Enabled (default), Disabled.

## USB Kyboard Support

Select Enabled if your systemontains a Universal Serial Bus(USB) controller and you have a USB keyboard.

The Choices:Disabled(default), Enabled.

### AB Aperture Size

Select the size of the Accelerated Graphic Port(AGP) aperture. The aperture is a portion of the PCI entry address range dedicated for graphics entry address space. Host cycle that hit the aperture range are forwarded to the AGP without any translation.

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

## **A& Driving Control**

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

The Choices: Auto (default), Manual.

## **PCI Delay Transaction**

The Choices: Disabled (default), Enabled.

#### **AB** Master 1WS Write

When Enabled,write to the AGP (Accelerated Graphic Port) are executed with one wait states.

The Choices: Disabled (default), Enabled.

### AB Master 1WS Read

When Enabled, read to the AGP (Accelerated Graphic Port) are executed with one wait states.

The Choices: Disabled (default), Enabled.

# 2.5 Integrated Peripherals

# **◎** Figure 5. Integrated Peripherals

CMOS Setup Utility-Copyright(C) 1984-2000 Award Software Integrated Peripherals

| O-Chip IDE Channel 0   | Enabled         | Item Help  |
|------------------------|-----------------|------------|
| 6-Chip IDE Channel 1   | Enabled         | · ·        |
| IDE Prefetch Mode      | Enabled         | Menu Level |
| Primary Master PIO     | Auto            |            |
| Primary Slave PIO      | Auto            |            |
| Secondary Master PIO   | Auto            |            |
| Secondary Slave PIO    | Auto            |            |
| Primary Master UDMA    | Auto            |            |
| Primary Slave UDMA     | Auto            |            |
| Secondary Master UDMA  | Auto            |            |
| Secondary Slave UDMA   | Auto            |            |
| Init Display First     | PCI Solt        |            |
| IDE HDD Block Mode     | Enabled         |            |
| 60board FDC Controller | Enabled         |            |
| 60board Serial Port 1  | Auto            |            |
| 60board Serial Port 2  | Auto            |            |
| UART 2 Mode            | Standard        |            |
| IR Function Duplex     | Half            |            |
| RxD,TxD Active         | No,Yes          |            |
| 60board Parallel Port  | 378/IR <b>©</b> |            |
| Parallel Oboard Mode   | ECP/EPP         |            |
| ECP Mode Use DMA       | 3               |            |
| EPP Mode Type          | EPP1.9          |            |
| 6board Legacy Audio    | Enabled         |            |
| Sound Blaster          | Disabled        |            |
| SB I/OBase Address     | 220H            |            |
| SB IROSelect           | IRO5            |            |
| SB DMA Select          | DMA1            |            |
| MPU - 401              | Disabled        |            |
| MPU - 401 I/OAddress   | 330-333H        |            |
| @me Port (200-270H)    | Enabled         |            |
|                        |                 |            |

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

**O**-Chip IDE Channel 0

**Enabled(default)** Enabled onboard 1st channel

IDE port.

**Disabled** Disabled onboard 1st channel

IDE port.

**6**-Chip IDE Channel 1

Enabled(default) Enabled onboard 2nd channel

IDE port.

**Disabled** Disabled onboard 2nd channel

IDE port.

#### **IDE Prefetch Mode**

The onboard IDE drive interface supports IDE prefetching, for faster drive access. If you install a pri**ar**y and or secondary add-in IDE interface, set this field to Disabled if the interface does not support prefetching. **The Choices:Enabled(default)**, Disabled.

## Primary Master PI(For onboard IDE 1st channel)

Auto(default) BIOS will autoatically detect

the IDE HDD Accessing ode.

**Mode 0~4** Manually set the IDE

Accessing ode.

## Primary Slave PI(for onboard IDE 2nd channel)

Auto(default) BIOS will automically detect

the IDE HDD Accessing ode.

Mode 0~4 Manually set the IDE

Accessing **m**de.

## Secondary Master PI(for onboard IDE 1st channel)

Auto(default) BIOS will automatically detect

the IDE HDD Accessing mde.

Mode 0~4 Manually set the IDE

Accessing mde.

Secondary Slave PI(for onboard IDE 2nd channel)

Auto(default) BIOS will automatically detect

the IDE HDD Accessing ode.

Mode 0~4 Manually set the IDE

Accessing ode.

**Primary Master UDMA** 

Auto(default) BIOS will automatically detect

the IDE HDD Accessing ode.

**Disabled** Disabled.

**Primary Slave UDMA** 

Auto(default) BIOS will automically detect

the IDE HDD Accessing ode.

**Disabled** Disabled.

**Secondary Master UDMA** 

Auto(default) BIOS will autoatically detect

the IDE HDD Accessing ode.

**Disabled** Disabled.

**Secondary Slave UDMA** 

Auto(default) BIOS will automically detect

the IDE HDD Accessing ode.

**Disabled** Disabled.

**USB** Controller

**Enabled(default)** Enabled. **Disabled** Disabled.

USB Kyboard Support

**Enabled(default)** Enabled. **Disabled** Disabled.

**Init Display First** 

**PCI Slot(default)** Set Init Display First to PCI

Slot.

**Oboard AB** Set Init Display First to

onboard AGP.

**IDE HD Block Mode** 

**Enabled(default)** Enabled. **Disabled** Disabled.

**Oboard FDC Controller** 

**Enabled(default)** Enabled. **Disabled** Disabled.

### **Oboard Serial Port1/Port2**

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

The Choices: Auto(default), (3F8/IRQ4), (2F8/IRQ3), (3E8/IRQ4), (2E8/IRQ3).

#### **UART 2 Mode**

This itemallows you decide which Infra Red(IR) function of the onboard I/O chip, you wish to use.

The Choices:Standard (default), SCR, ASKIR.

## **IR Function Duplex**

This itemallows you decide which Infra Red(IR) function of the onboard I/O chip.

The Choices: H (default), Full.

### Parallel Port Mode

**SPP** Using Parallel port as Standard

Parallel Port.

**EPP** Using Parallel port as Ex-

hancedParallel Port.

**ECP** Using Parallel port as Ex-

tended Capabilites Port.

ECP+EPP(default) Using Parallel port as

ECP+EPP ode.

### **Oboard Parallel Port**

This itemllows you decide access onboard parallel port controller with which I/O address.

The Choices:378/IRQ

## **Oboard Legacy Audio**

The Choices: Enabled (default), Disabled.

### **Sound Blaster**

The Choices: Disabled (default), Enabled.

### MPU -401

The Choices: Disabled (default), Enabled.

## MPU -401 I/OAddress(330-333H

Change the SoundBlaster Pro MPU-401 I/O address.

## 6me Port (200-270H

Change the joystick connect address.

 $\label{thm:choices:Enabled} The \ Choices: Enabled (default), Disabled.$ 

# 2.6 Power Management Setup

The Power Managemt Setup allows you to configure your system out effectively save energy while operating in a number consistent with your own style of coputer use.

# **◎** Figure 6. Power Management Setup

CMOS Setup Utility-Copyright(C) 1984-2000 Award Software Power Manage**en**t Setup

| ACPI Function   | Enabled   | Item Help  |
|---|---|------------|
| Power Management ACPI Suspend Type PM Control by APM Video & Otion Video Method Modem Use IRQ Soft-Ø by PWRBTN State After Power Failure Wake Up Events | Press Enter S1(P6) Yes Suspend->f0 V/H SYNC+Blank 3 Instant-f0 f) Press Enter | Menu Level |

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

#### ACPI Function

This itendisplay status of the Advanced Configuration and Power Manageent (ACPI).

## **Power Management**

This category allows you to select the type (or degree) of power saving and is directly related to the following mles

- 1 HDD Power Down
- 2.Doze Mode.
- 3. Suspend Mode.

If you highlight the literal "Press Enter" next to the "Power Manageunt" label and then press the enter key, it will take you a subunu with the following options:

## **Power Management**

This option allows you to set each orde individually. When not disabled, each of the ranges are from in. to 1 hr. except for HDD Power Down which ranges from in. to 15 in. and disable.

**The Choices: User Define** (default), Min Saving, Max Saving.

#### **HD** Power Down

By default, this is "Disabled", maning that no matter the orde the rest of system the hard drive will remain ready. Otherwise, you have a range of choices from to 15 imutes or Suspend. This mans that you can select to have your hard disk drive be turned off after a selected number of imutes or when the rest or the system oes into a suspend orde.

Disabled(default).

### Doze Mode/Suspend Mode

The **Doze Mode**, and **Suspend Mode** fields set the Period of timafter each of these **odes** actives. At Max Saving, these **odes** activate sequentially (in the given order) after one **inute**; at Min Saving after one hour.

# **ACPI Suspend Type**

The itemallows you to select the suspend type under ACPI

operating system

S1(PS) (default) Power on Suspend. S3(STR) Suspend to RAM.

PM Control by APM

No SystemBIOS will ignore APM

when Power Manageent is

on.

Yes(default) SystemBIOS will wait for

APM'S propt before it enters

any PM orde.

## Video & Otion

This field determes when to activate the vedio off feature for **m**itor power **m**age**m**t.

#### Video 6 Method

This deterines the anner in which the omitor is blanked

V/SYNC+Blank This selection will cause the (default) system turn off the vertical

and horizontal.

Synchronization ports and write blanks to the video

buffer.

Blank Screen This option only writes blanks

to the video buffer.

**DPMS Support** Initial display power

amageent signaling.

## Modem Use IRQ

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

3(default)

4/5/7/9/10/11/NA

# Soft-**6** by PWRBTN

Pressing the power button for **ore** than 4 seconds forces the system enter the Soft-Off state when the system s"hung".

**The Choices:Instant-6** (default), Delay 4 Sec.

### **State After Power Failure**

The allows you to set whether you want your system reboot after the power has been interrupted. [Off] leaves your systemff and [On] reboots your system[Auto] returns your coputer back to the state it was in before the power failure.

The Choices: 6 (default), On, Auto.

## Wake Up Events

If you highlight the literal "Press Enter" next to the "Wake Up Events" label and then press the enter key, it will take you a subemu with the following options:

#### VA

When set to On, any event occurring at a VGA port will awaken a system hich has been powered down.

#### LPT & CM

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

#### HD & FDD

When set to On(default), any event occurring at a hard or floppy drive will awaken a system hich has been powered down.

## **PCI Master**

When set to On, any event occurring at a PCI port will awaken a system hich has been powered down.

# **Modem Ring Resume**

To use this function, you need a LAN add-on card which support power on function. It should also support the wake-up on LAN jup The Choices:Disabled(default).

#### RTC Alarm Resume

When "Enabled", you can set the date and timat which the RTC (real-timelock) alarmwakens the systerfrom Suspend orde.

### **Primary INTR**

When set to On(default), any event occurring at Priary INTR will awaken a system hich has been powered down

The following is a list of IRQ, Interrupt ReQuests, which can be exepted nich as the COM ports and LPT ports above can. When an I/O device wants to gain the attention of the operating systems signals this by causing an IRQ to occur. When the operating systems ready to respond to the request, it interrupt itself and perform the service. As above, the choices are On and Off.Off is the default. When set On, activity will neither prevent the system going into a power amagement orde nor awaken it.

| IRQ3  | (COM1)        |
|-------|---------------|
| IRQ4  | (COM2)        |
| IRQ5  | (LPT2)        |
| IRQ6  | (Floppy Disk) |
| IRQ7  | (LPT1)        |
| IRQ8  | (RTC Aları)n  |
| IRQ9  | (IRQ2 Redir)  |
| IRQ10 | (Reserved)    |
| IRQ11 | (Reserved)    |
| IRQ12 | (PS/2 Mouse)  |
| IRQ13 | (Coprocessor) |
| IRQ14 | (Hard Disk)   |
| IRQ15 | (Reserved)    |

# 2.7 PnP/PCI Configurations

This section describes configuring the PCI bus systemPCI or Personal Coputer Interconnect, is a system hich allows I/O devices to operate at speeds nearing the speed of the CPU itself uses when commicating with its own special coponents. This section covers somewry technical item and it is strongly recommed that only experienced user should ake any changes to the default settings.

# **◎** Figure 7. PnP/PCI Configurations

CMOS Setup Utility-Copyright(C) 1984-2000 Award Software PnP/PCI Configurations

| PNP 6 Installed<br>Reset Configuration Data                 | No<br>Disabled                           | Item Help<br>Menu Level   |
|---|--|---|
| Resources Controlled By<br>IRŒsesources<br>DMA Resources    | Auto(ESCD)<br>Press Enter<br>Press Enter | Select Yes if<br>you are using a<br>Plug and Play<br>capable                              |
| PCI/VS Palette Snoop<br>Assign IR@or VS<br>Assign IR@or USB | Disabled<br>Enabled<br>Enabled           | operating system<br>select No if you<br>need the BIO<br>to configure non-<br>boot devices |

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

### PNP @Installed

When set to YES,BIOS will only initialize the PnP cards used for booting (VGA,IDE,SCSI). The rest of the cards will be initialized by the PnP operating systemike Windows 95. When set to No, BIOS will initialize all the PnP cards. Therefore for non-PnP operating system System Netware), this option ust set to No.

### **Reset Configuration Data**

The systerBIOS supports the PnP feature so the system needs to record which resource is assigned and proceeds resources fromonflict. Every peripheral device has a node, which is called ESCD. This node records which resources are assigned to it. The systemeeds to record and update ESCD to the corry locations. These locations (4K) are reserved at the systerBIOS. If Disabled (Default) is chosen, the systerBIOS. If Disabled (Default) is chosen, the syster ESCD will update only when the new configuration varies frorthe last one. If Enabled is chosen, the systems forced to update ESCDs and then is automatically set to the "Disabled" rode

| IRQ3  | assigned to:PCI/ISA PnP |
|-------|-------------------------|
| IRQ4  | assigned to:PCI/ISA PnP |
| IRQ5  | assigned to:PCI/ISA PnP |
| IRQ6  | assigned to:PCI/ISA PnP |
| IRQ7  | assigned to:PCI/ISA PnP |
| IRQ8  | assigned to:PCI/ISA PnP |
| IRQ9  | assigned to:PCI/ISA PnP |
| IRQ10 | assigned to:PCI/ISA PnP |
| IRQ11 | assigned to:PCI/ISA PnP |
| IRQ12 | assigned to:PCI/ISA PnP |
| IRQ13 | assigned to:PCI/ISA PnP |
| IRQ14 | assigned to:PCI/ISA PnP |
| IRQ15 | assigned to:PCI/ISA PnP |
| DMA-0 | assigned to:PCI/ISA PnP |
| DMA-1 | assigned to:PCI/ISA PnP |
| DMA-2 | assigned to:PCI/ISA PnP |
| DMA-3 | assigned to:PCI/ISA PnP |
| DMA-4 | assigned to:PCI/ISA PnP |
| DMA-5 | assigned to:PCI/ISA PnP |
| DMA-6 | assigned to:PCI/ISA PnP |
| DMA-7 | assigned to:PCI/ISA PnP |
|       |                         |

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

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

### **Resources Controlled By**

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

### IR (Resources

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

### **DMA Resources**

When resources are controlled **am**ually, assign each DMA channel a type, depending on the type of device using the DMA channel.

## PCI / V& Palette Snoop

Choose Disabled or Enabled. Somgraphic controllers which are not VGA copatible take the output from VGA controller and app it to their display as a way to provide boot information and VGA copatibility.

However, the color inforation coing frorthe VGA controller is drawn frorthe palette table inside the VGA controller to generate the proper colors, and the graphic controller needs to know what is in the palette of the VGA controller. To do this, the non-VGA graphic controller watches for the write access to the VGA palette and registers the snoop data. In PCI based system where the bus, the Write Access to the palette will not show up on the ISA bus if the PCI VGA controller responds to the Write.

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

**Disabled**(default) Disabled the function. **Enabled** Enabled the function.

## Assign IR For V&

Lets the user choose which IRQ to assign for the VGA.

## Assign IR For USB

Lets the user choose which IRQ to assign for the USB.

### 2.8 PC Halth Status

## **◎** Figure 8. PC Halth Status

CMOS Setup Utility-Copyright(C) 1984-2000 Award Software PC Health Status

| Current CPU Temp.   | Item Help  |
|---|------------|
| Current System Temp. Current CPU Fan Speed Current Sys Fan Speed Vcore VDDQ +3.3V +5.0V | Menu Level |
| +12.0V  |            |

←→↑↓: Move Enter:Select +/-/PU/PD:Value F10:Save ESC:Exit F1:@neral Help F5:Previous Values F6:Fail-Safe Defaults F7:0timized Defaults

## Current CPU Temp.

This field displays the current CPU teperature, if you coputer contain a mitoring system

## **Current System Temp.**

This field displays the current systemerature, if you coputer contain a mitoring system

# **Current CPU Fan Speed**

These field displays the current speed of up to CPU Fans, if you coputer contain a mitoring system

# **Current System Fan Speed**

These field displays the current speed of up to System Fans, if you coputer contain a mitoring system

# Current CPU Vcore VccSRAM,3.3V,5V,12V

Detect system voltage status automically.

# 2.9 Frequency / Voltage Control

# **◎** Figure 9. Frequency / Voltage Control

CMOS Setup Utility-Copyright(C) 1984-2000 Award Software Frequency / Voltage Control

| Auto Detect DIMM / PCI CLK<br>Spread Spectrum Modulated | Disabled<br>Disabled | Item Help  |
|---|----------------------|------------|
| Clock By Slight Adjust                                  | Default              | Menu Level |
|   |                      |            |
|   |                      |            |
|   |                      |            |
|   |                      |            |

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

### Auto Detect DIMM / PCI CLK

This itemllows you to enable/disable auto detect DIMM / PCI CLOCK.

The Choices: Disabled (default), Enabled.

# Clock By Slight Adjust 100

This itemallows you to select CPU Clock.

#### NOTE:

If unfortunately,the system frequency that you are selected is not functioning,there are two whods od booting-up the system

Method1:Clear the COMS data by setting the JP2((2-3) closed) as "On" status.All the COMS data will be loaded as default setting.

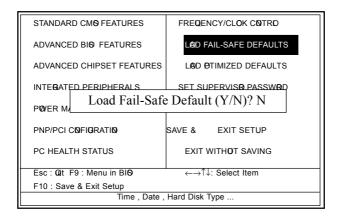
Method2:Press the<Insert>key and Power button simtaneously, after that keep-on pressing the<Insert>key until the Power-on screen showed. This action will boot-up the systemaccording to FSB of the processor.

## 2.10 Load Fail-Safe Defaults

When you press <Enter> on this itemou get a confirmation dialog box with a passage sighar to:

## **◎** Figure 10. Load Fail-Safe Defaults

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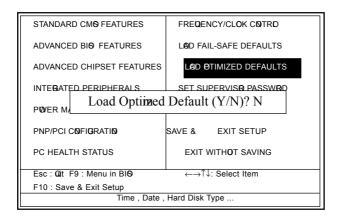
Pressing 'Y' loads the default values that are factory settings for optim performace systemperations.

# 2.11 Load Otimized Defaults

When you press <Enter> on this itemou get a confirmation dialog box with a passage sight to:

## **⊘** Figure 11. Load **⊘**timized Defaults

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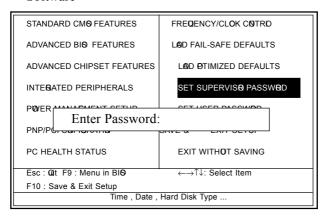


Pressing 'Y' loads the default values that are factory settings for optim perforance system perations.

# 2.12 Set Supervisor / User Password

# **◎** Figure 12. Set Supervisor / User Password

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

#### Enter Password

Type the password, up to eight characters, and press <Enter>. The password you type now will clear any previously entered password from MOS emry. You will be asked to comm the password. Type the password again and press <Enter>. You may also press <ESC> to about the selection and not enter a password. To disable password, just press <Enter> when you are propried to enter password. A massage will commentate you wish to disable the password. Once the password is disabled, the system ill boot and you can enter setup freely.

## 56 / Chapter 2 BIOS Setup

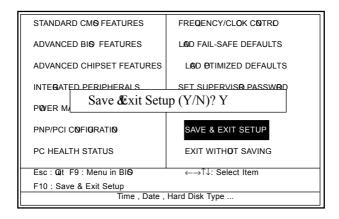
### Password Disabled

If you select "Systemat the Security Option of BIOS Features Setup Menu, you willbe propted for the password every timewhen the systems rebooted, or any timewhen you try to enter Setup. If you select "Setup" at Security Option of BIOS Features Setup Menu, you willbe propted only when you try to enter Setup.

# 2.13 Save & Exit Setup

# **◎** Figure 13. Save & Exit Setup

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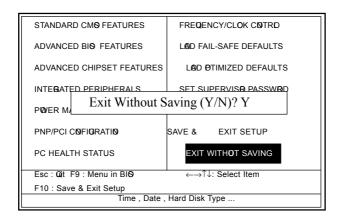
Type "Y" will quit the Setup Unility and save the user setup value to RTC CMOS RAM.

Type "N" will return Setup Unility.

# 2.14 Exit Without Saving

# **◎** Figure 14. Exit Without Saving

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Type "Y" will quit the Setup Unility without saving to RTC CMOS RAM.

Type "N" will return Setup Unility.

Date : / / Warranty Card/Technical Fault Report M/B Model No.:\_\_\_\_\_ Vender Serial No. Date of Purchasing: Hardare Configuration Used: CPU RAM (Brand, MB) Video Card Hard Drive ther Card Diagnostic Softare Used: **Fault Description:** 

# The 7KMA Mainboard layout

