7KT266A

User's Manual Version 1.0

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1. Motherboard Description

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Introduction

System Overview

This manual was written to help you start using this product as quickly and smoothly as possbile. Inside, you will find the answers to solve most of the problems. In order for this reference material to be of greatest use, refer to the "expanded table of contents" to find relevant topics.

This board provides a total PC solution by incorporating the System , I/O , and PCI IDE. The mainboard is designed for AMD Athlon and Duron processors base PC ATX system, support single processors with PCI Local Bus, ACR Bus, and AGP Bus to support upgrades to your system performance. It is ideal for multi-tasking and fully supports MS-DOS, Windows, Windows NT , Windows ME, Windows 2000, Novell, OS/2, Windows95/98, Windows 98SE, Windows XP, UNIX, SCO UNIX etc.

This manual also explains how to install the mainboard for operation, and how to setup your CMOS configuration with the BIOS setup program.

1.Motherboard Description

1.1 Features

1.1.1 Hardware

CPU

-Support AMD Athlon 700MHz~Athlon XP 1600+ processor.

-Support AMD Duron 600MHz~1.1GHz processor.

-Support 200MHz/266MHz (Double Data Rate) Front Side Bus frequency processors.

-Reserves support for future AMD Athlon/Duron processors.

Chipset

-VIA KT266A North Bridge.

-VIA VT8233 South Bridge.

DDR DRAM Memory

-3*184 pin DDR socket.

-Supports 200/266MHz Double Date Rate(DDR) DRAM(2.5V)

-Supports a maximum memory size of 3GB with DDR DRAM.

PCI/AGP Speed

-Supports 33MHz PCI Bus speed.

-Supports 4X AGP Bus.

Bus Slots

-Provide one AGP slot and one ACR slot.

-Five 32-bit PCI bus.

Universal Serial Bus

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

Hardware Monitor Function

-CPU Fan Speed Monitor.

-CPU Temperature Monitor.

-System Voltage Monitor.

Green Function

-Support power management operation VIA BIOS.

-Wakes from power saving sleep mode at the press of any key or any mouse activity.

Flash Memory

-Support 2MB flash memory.

-Support ESCD Function.

IDE Built-in On Board

-Supports four IDE devices.

-Supports PIO Mode 5,Master Mode, high performance hard disk drives.

-Support Ultra DMA 33/66/100 Bus Master Mode.

-Supports IDE interface with CD-ROM.

-Supports high capacity hard disk drives.

-Support LBA mode.

Audio

-AC 97 2.1 interface.

-Sound Blaster and Sound Blaster Pro emulation.

WOL/WOM (Wake On LAN & Wake On Modem)

Supports system power up from LAN/Modem ring up .

Smart Panel

Supports BIOS Port 80H POST Code output to debug LED.

I/O Built-in On Board

-Supports one multi-mode Parallel Port.

(1)Standard & Bidirection Parallel Port

(2)Enhanced Parallel Port(EPP)

(3)Extended Capabilities Port

-Supports two serial ports, 16550 UART.

-Supports one Infrared transmission(IR/CIR).

-Supports PS/2 mouse and PS/2 Keyboard.

-Supports 360KB, 720KB, 1.2MB, 1.44MB, and 2.88MB floppy disk drivers.

1.1.2 Software

BIOS

-AWARD legal BIOS.

-Supports APM 1.2.

-Supports USB Function.

-Supports ACPI

Operation System

-Offers the highest performance forMS-DOS,Windows, Windows NT, Windows 2000, Windows ME, Novell, OS/2, Windows 95/98, Windows 98 SE, Windows XP, UNIX, SCO UNIX etc.

1.1.3 Attachments

-HDD UDMA66/100 Cable.

-FDD Cable.

-Flash Memory Written for BIOS Update.

-USB2/USB3 Cable (Optional).

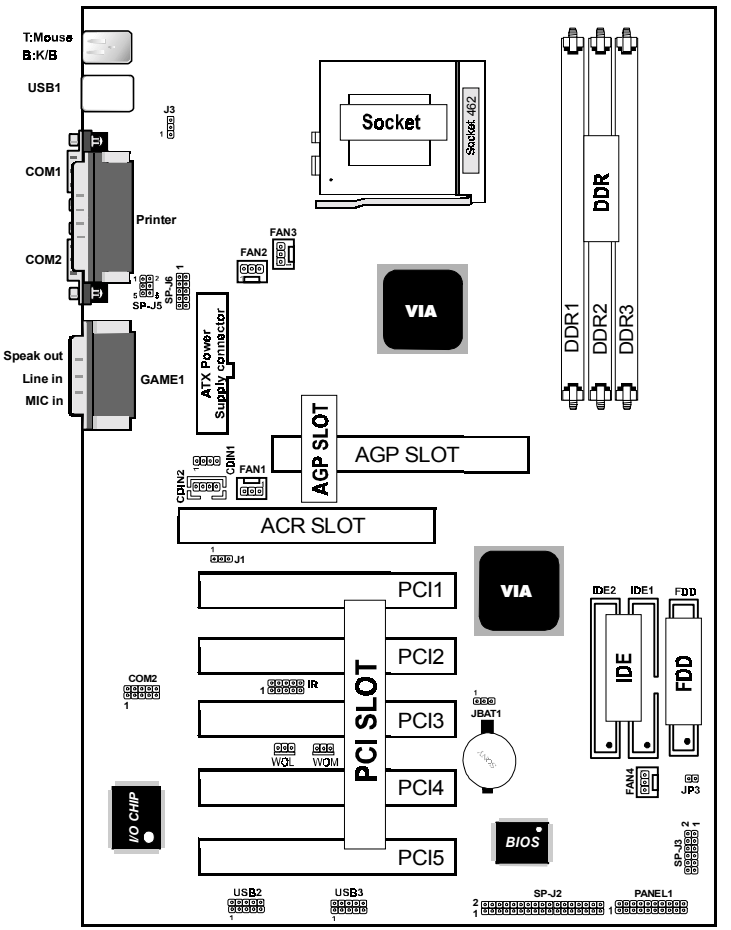
-Fully Setup CD Driver built in Utility(Ghost, Anitivirus, Adobe Acrobat).

-This Manual.

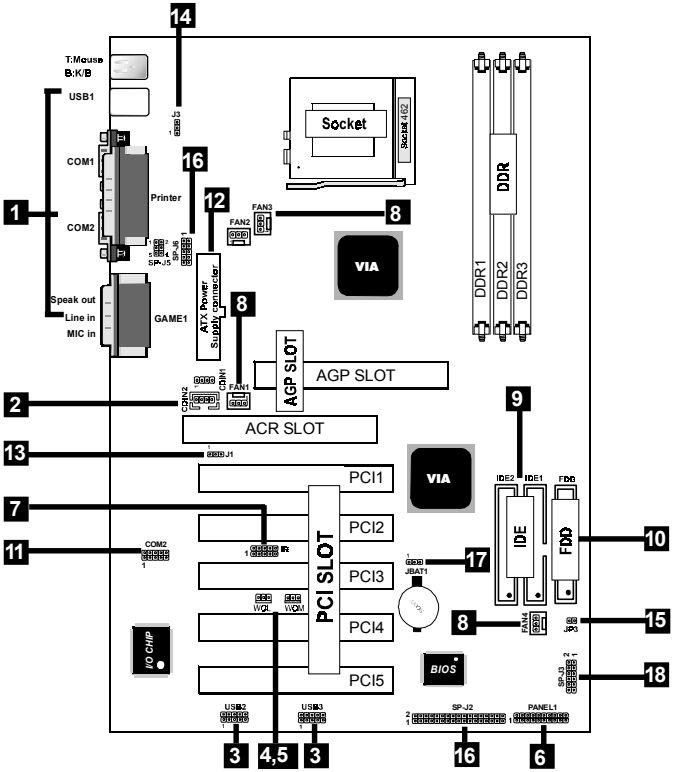
1.2 Motherboard Installation

1.2.1 Motherboard Map

1.2.2 Motherboard Layout

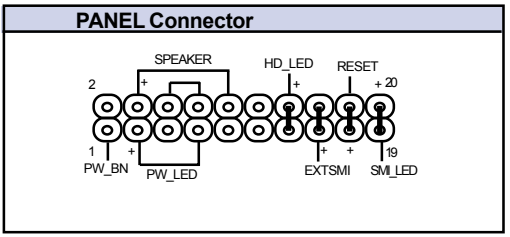


1.3 Motherboard Connectors



1.Back Panel I/O Connectors
2.CD Audio-In Connector
3.Front USB2/3 Connectors
4.Wake-On Modem Connector
5.Wake-On-LAN Connector
6.Front Panel Connector
7.IR Connector
8.Fan Connectors(Fan1/2/3/4)
9.IDE Connectors
10.Floppy Connector
11.Front COM2 Connector
12.ATX Power Connector
13.ACR CODEC Selection(J1)
14.Keyboard Wake up Setting(J3)
15.CPU Clock Frequency Setting(JP3)
16.Smart Panel Function(SP-J2/SP-J5/SP-J6)(optional)
17.CMOS Function Selection(JABT1)

1.3.1 Front Panel Connector (PANEL1)



ATX Power Switch (PW_BN)

The system power is controlled by a momentary switch connected to this lead. Pushing the button once will switch the system ON. The system power LED lights when the system's power is on .

Power LED Lead (PW_LED)

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

Speaker Connector (SPEAKER)

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

Hard Drive LED Connector (HD_LED)

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

Reset Switch Lead (RESET)

The connector can be connected to a momentary SPST type switch that is normally open. When the switch is closed, the motherboard resets and runs the POST.

SMI_LED Lead (SMI_LED)

The system SMI_LED lights when the system suspend is on.

SMI Suspend Switch Lead (EXTSMI)

This allows the user to manually place the system into a suspend mode of Green mode. System activity will be instantly decreased to save electricity and expand the life of certain components when the system is not in use. This 2-pin connector (see the figure) connects to the case-mounted suspend switch. If you do not have a switch for the connector, you may use the "Turbo Switch" instead since it does not have a function. SMI is activated when it detects a short. It may 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 Suspend Switch Lead cannot wake-up the system). If you want to use this connector, the "Suspend Switch" in the Power Management Setup of the BIOS SOFTWARE section should be on the default setting of Enable.

1.3.2 Floppy Disk Connector (FDD)

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

1.3.3 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 must configure the second drive to Slave mode by setting its jumper settings. BIOS now supports SCSI device or IDE CD-ROM boot up (see "HDD Sequence SCSI/IDE First" & "Boot Sequence" in the BIOS Features Setup of the BIOS SOFTWARE) (Pin 20 is removed to prevent inserting in the wrong orientation when using ribbon cables with pin 20 plugged) .

1.3.4 ATX 20-pin Power Connector (ATX)

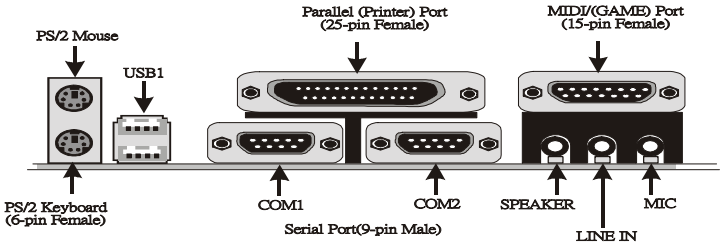
This connector supports the power button on-board. Using the ATX power supply, functions such as Modem Ring Wake-Up and Soft Power Off are supported on this motherboard . This power connector supports instant power-on functionality, which means that the system will boot up instantly when the power connector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

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

1.3.5 Infrared Connector (IR)

After the IrDA interface is configured, files can be transferred from or to portable devices such as laptops, PDAs, and printers using application software.

1.4 Back Panel Connectors



1.4.1 PS/2 Mouse /Keyboard CONN.

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

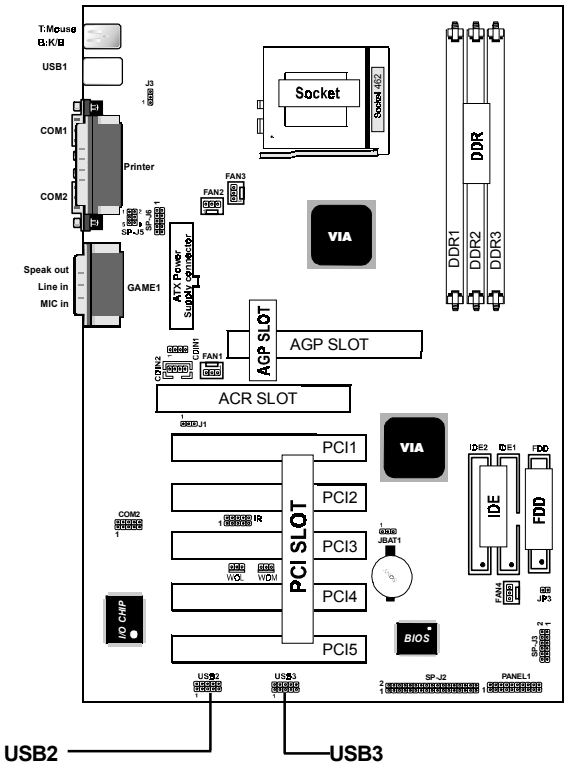
1.4.2 USB Connectors: USB1 & USB2 & USB3

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

USB1

Pin	Signal
1	+5V_SB
2	USBP0-(USBP1-)
3	USBP0+(USBP1+)
4	GND

Front USB2 Connectors: USB2/USB3



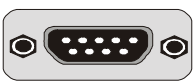
VCC	1	2	GND	VCC	1	2	GND
P2-	3	4	GND	P4-	3	4	GND
P2+	5	6	P3+	P4+	5	6	P5+
GND	7	8	P3-	GND	7	8	P5-
GND	9	10	VCC	GND	9	10	VCC

1.5 Serial and Parallel Interface Ports

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

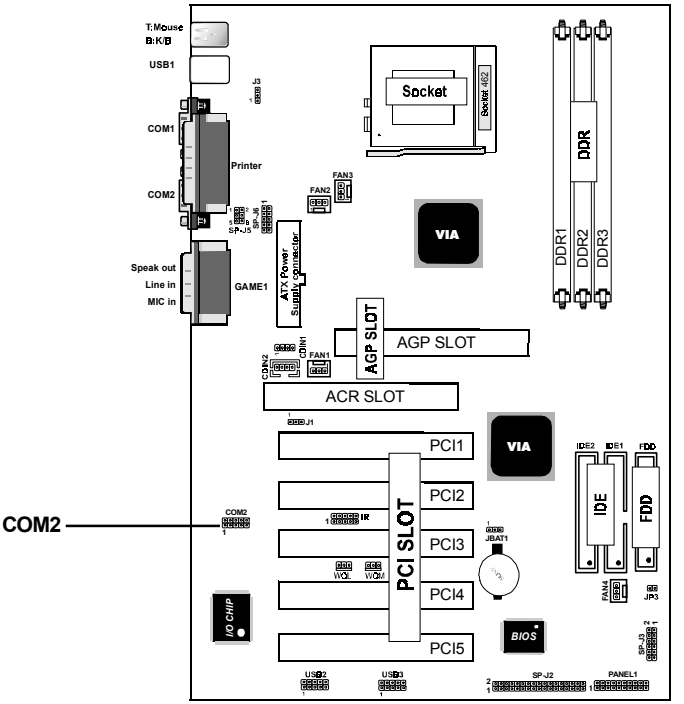
The Serial Interfaces: COM1/COM2

The serial interface port is sometimes refered to as an RS-232 port or an asynchronous communication port. Mice, printers, modems and other peripheral devices can be connected to a serial port. The serial port can also be used to connect your computer system. If you wish to transfer the contents of your hard disk to another system it can be accomplished by using each machine's serial port.

COM1/COM2  COM2 

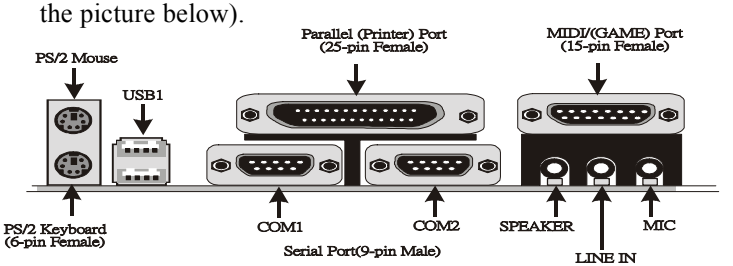
The serial port on this system has one 9-pin connector. Some older computer systems and peripherals used to be equipped with only a 25-pin connector. Should you need to connect your 9-pin serial port to an older 25-pin serial port, you can purchase a 9-to-25 pin adapter.

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



Parallel Interface Port

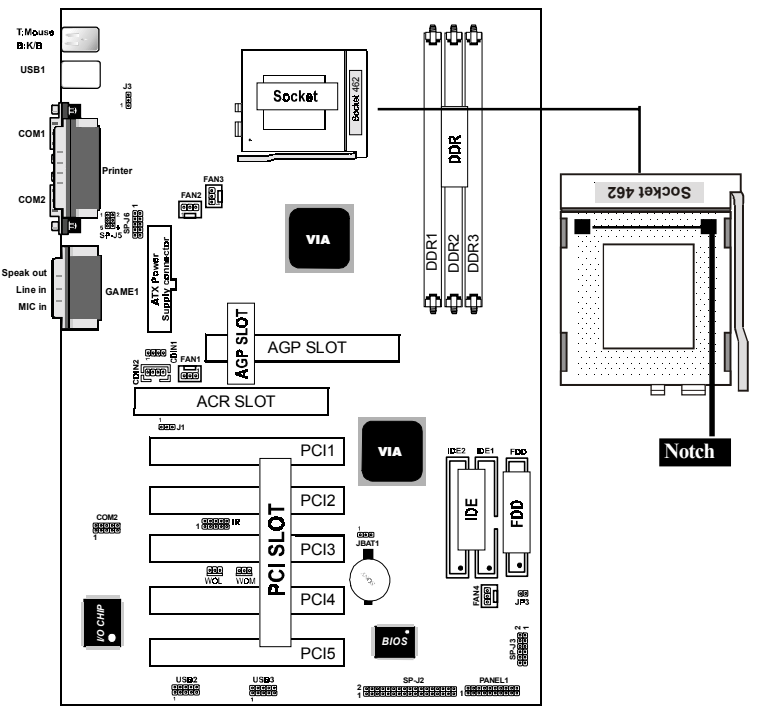
Unlike serial ports, parallel interface ports have been standardized and should not present any difficulty interfacing peripherals to your system. Sometimes called a Centronics port, the parallel port is almost exclusively used with printers. The parallel port on your system has a 25-pin, DB 25 connector(see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



1.6 CPU Installation

1.6.1 CPU Installation Procedure: Socket 462

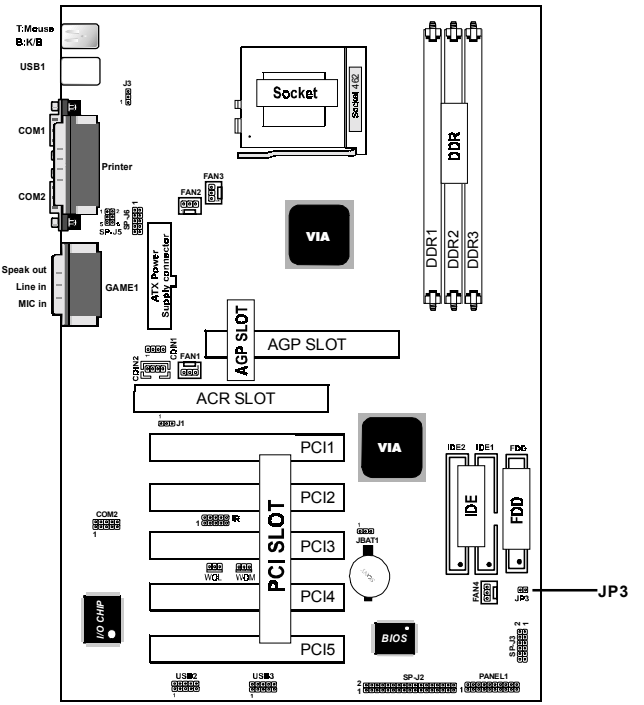
1. Pull the lever sideways away from the socket then raise the lever to a 90-degree angle.
2. Locate Pin 1 in the socket and look for the white dot or cut edge in the CPU. Match Pin 1 with the white dot/cut edge then insert the CPU.
3. Press the lever down to complete the installation.
4. **Make sure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



1.6.2 CPU Clock Frequency Setting: JP3

Overclocking is operating a CPU/Processor beyond its specified frequency. JP3 jumper is used for the CPU Front Side Bus Frequencies from 100MHz to 133MHz.

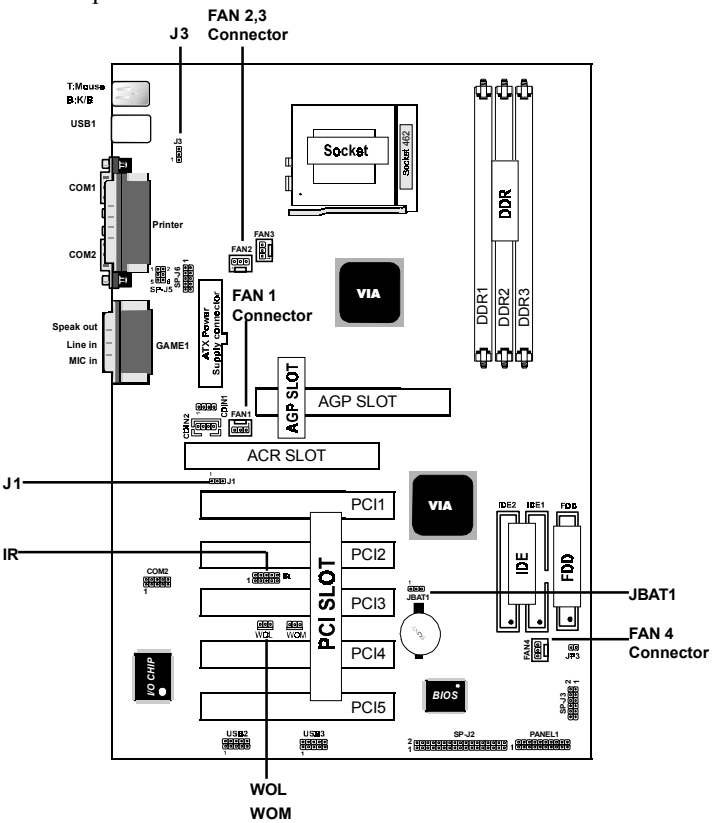
Note: We don't recommend you overlocking, since it will make the CPU life short and get the risk of CPU damage.



Pin JP3	Assignment
On	CPU FSB=100MHz (Default)
Off	CPU FSB=133MHz

1.7 Jumper Setting

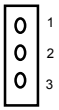
A jumper has two or more pins that can be covered by a plastic jumper cap, allowing you to select different system options.



1.7.1 CPU/System Fan Connector: Fan1/4

Pin	Assignment
1	NA
2	+12VDC
3	Ground

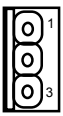
1.7.1 CPU/System Fan Connector: Fan2/3

Pin	Assignment
 1	1 Signal
2	2 +12VDC
3	3 Ground

1.7.2 Wake-On Modem Header: WOM

Pin	Assignment
 1	1 5V_SB
2	2 Ground
3	3 Signal

1.7.3 Wake-On LAN Header: WOL

Pin	Assignment
 1	1 5V_SB
2	2 Ground
3	3 Signal

1.7.4 CMOS Function Selection:JBAT1

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

NOTE:

(Please follow the procedure below to clear CMOS data.)

(1)Remove the AC power line.
(2)JBAT1(2-3)Closed.
(3)Wait five seconds.
(4)JBAT1(1-2) Closed.
(5)AC Power on.
(6)Reset your desired password or clear CMOS data.

1.7.5 ACR CODEC Selection: J1

Pin	Assignment
1-2	On board CODEC is used (Default)
2-3	ACR Slot is used

1.7.6 Keyboard Wake up Setting: J3

The J3 Jumper is for setting keyboard power.This function is provided by keyboard wake-up function.

Pin	Assignment
1-2	Keyboard power on disabled (Default)
2-3	Keyboard power on enabled

1.7.7 IrDA Connector: IR

Pin	Assignment	Pin	Assignment
1	+5V	2	
3		4	CIRRX
5	IRRX1	6	5VSB
7	GND	8	
9	IRTX	10	

1.8 DDR DRAM Installation

1.8.1 DDR

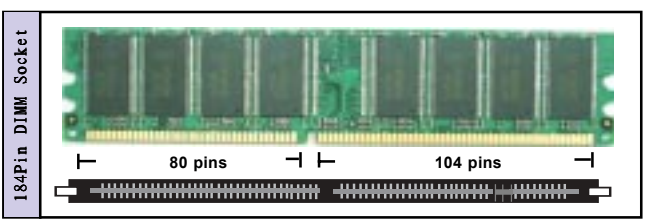
DDR DRAM Access Time: 2.5V Unbuffered PC1600/ PC2100 Type required.

DDR DRAM Type: 64MB, 128MB, 256MB, 512MB, 1GB DDR Module. (184 pin)

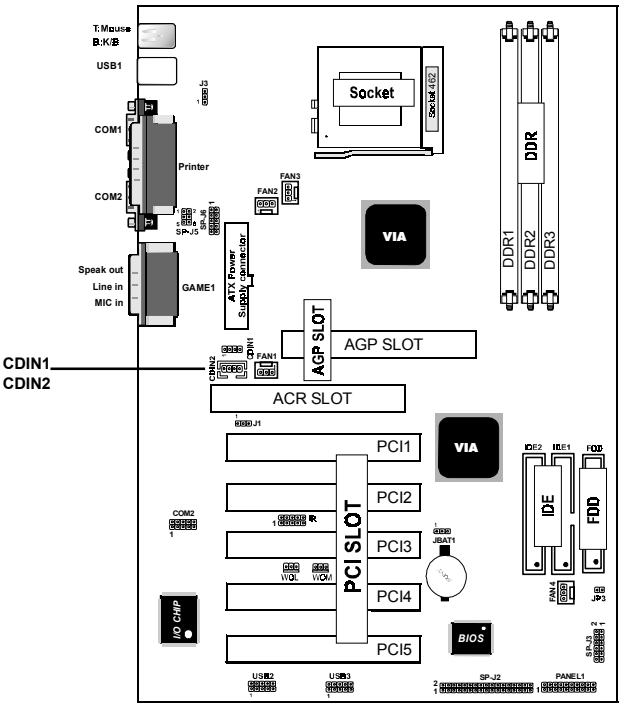
Bank	Memory module
DDR 1	64MB, 128MB, 256MB, 512MB, 1GB
(Bank 0-1)	184 pin, 2.5V DDR DRAM
DDR 2	64MB, 128MB, 256MB, 512MB, 1GB
(Bank 2-3)	184 pin , 2.5V DDR DRAM
DDR 3	64MB, 128MB, 256MB, 512MB, 1GB
(Bank 4-5)	184 pin, 2.5V DDR DRAM
	Total System Memory (Max 3GB)

1.8.2 How to install a DDR Module

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



1.9 Audio Subsystem

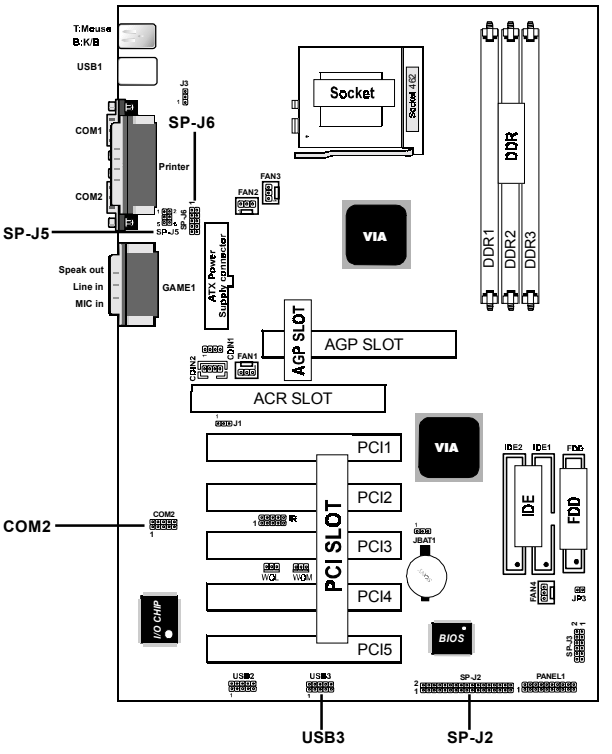


1.9.1 CD Audio-in Connectors: CDIN1/CDIN2

Pin CDIN1	Assignment
1	CD-L
2	GND
3	GND
4	CD-R

Pin CDIN2	Assignment
1	GND
2	CD-L
3	GND
4	CD-R

1.10 Smart Panel Onboard Connector



Note:

The motherboard provides the pin leads for Smart Panel. If you want POST Error Code or Smart Panel function, please refer to Smart Panel (SPKT266A) manual.

1.10.1 Port 80 Debug Function: SP-J6

For Smart Panel connector(SP-J6) to M/B (SP-J6).

Pin SP-J6	Assignment	Pin SP-J6	Assignment
1	ERD4	2	ERD0
3	ERD5	4	ERD1
5	ERD6	6	ERD2
7	ERD7	8	ERD3
9	GND	10	NC

1.10.2 Second BIOS Connector: SP-J2

For Smart Panel connector(SP-J2) to M/B (SP-J2).

Pin BIOS	Assignment	Pin BIOS	Assignment
1	XDD0	2	+5V
3	XDD1	4	XAA0
5	XDD2	6	XAA1
7	XDD3	8	XAA2
9	XDD4	10	XAA3
11	XDD5	12	XAA4
13	XDD6	14	XAA5
15	XDD7	16	XAA6
17	NC	18	DISABLE
19	ROMCS-	20	XAA7
21	MEMR-	22	XAA8
23	MEMW-	24	XAA9
25	SA18J	26	XAA10
27	XAA17	28	XAA11
29	XAA16	30	XAA12
31	XAA15	32	XAA13
33	NC	34	XAA14

1.10.3 AUX Line Connector: SP-J5

For Smart Panel connector(SP-J5) to M/B (SP-J5).

Pin SP-J5	Assignment	Pin SP-J5	Assignment
1	LINE_OUT_L	2	LINE_OUT_R
3	LINE_IN_L	4	LINE_IN_R
5	MIC_IN_L	6	NC

1.10.4 Front COM2 Header Conn.: SP-J7(COM2)

For Smart Panel connector(SP-J7) to M/B (COM2).

Pin SP-J7	Assignment	Pin SP-J7	Assignment
1	DCD	2	RX
3	TX	4	DTR
5	GND	6	DSR
7	RTS	8	CTS
9	RI		

1.10.5 Front USB3,4 Header Conn.: SP-J8(USB3)

For Smart Panel connector(SP-J8) to M/B (USB3).

Pin SP-J8	Assignment	Pin SP-J8	Assignment
1	VCC	2	GND
3	P4-	4	GND
5	P4+	6	P5+
7	GND	8	P5-
9	GND	10	VCC

2. BIOS Setup

Introduction

This manual discussed the Award Setup program built into the ROM BIOS. The Setup program allows the user to modify the basic system configuration. This special information is then stored in battery-backed RAM so that it retains the setup information when the power is turned off.

The Award BIOS installed in your computer system's ROM (Read Only Memory)is a custom version of an industry standard BIOS. This means that it supports AMD Athlon and 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 manual is intended to guide you through the process of configuring your system using Setup.

Plug and Play Support

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

EPA Green PC Support

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

APM Support

This AWARD BIOS supports Version 1.1&1.2 of the Advanced Power Management(APM) specification.Power management features are implemented via the System Management Interrupt(SMI). Sleep and Suspend power management modes are supported. Power to the hard disk drives and video monitors can be managed by this AWARD BIOS.

PCI Bus Support

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

Support CPU

This AWARD BIOS supports the AMD Athlon and Duron CPU processor.

Using Setup

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

Note:

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

Keystroke	Function
Up arrow	Move to previous item
Down arrow	Move to next item
Left arrow	Move to the item on the left(menu bar)
Right arrow	Move to the item on the right(menu bar)
Esc	Main Menu: Quit without saving changes Submenus: Exit Current page to the next higher level menu
Move Enter	Move to item you desired
PgUp key	Increase the numeric value or make changes
PgDn key	Decrease the numeric value or make changes
+Key	Increase the numeric value or make changes
-Key	Decrease the numeric value or make changes
Esc Key	Main menu-Quit and not save changes into CMOS Status Page Setup Menu and option Page Setup Menu-Exit Current page and return to Main Menu
F1 Key	General help on Setup navigation keys.
F5 Key	Load previous values from CMOS
F6 Key	Load the fail-safe defaults from BIOS default table
F7 Key	Load the optimized defaults
F10 Key	Save all the CMOS changes and exit

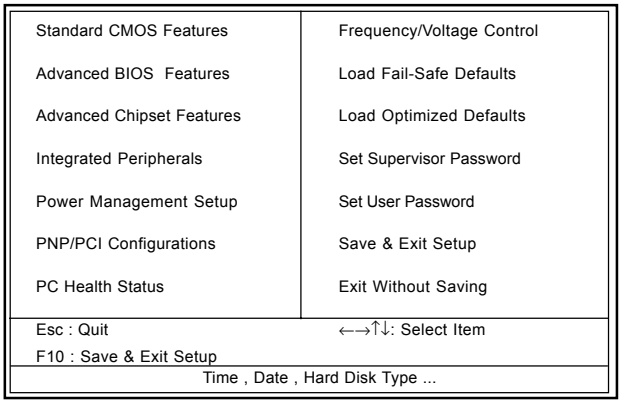
2.1 Main Menu

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

"WARNING"

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

¡ · Figure 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 the BIOS special enchanced features.

Advanced Chipset Features

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

Integrated Peripherals

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

Power Management Setup

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

PnP/PCI Configurations

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

PC Health Status

This page shows the hardware Monitor information of the system.

Frequency / Voltage Control

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

Load Fail-Safe Defaults

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

Load Optimized Defaults

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

Set Supervisor Password

Change, set, or, disable password.It allows you to limit 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 prompted for a 1-6 character password. Enter the password and then retype the password when prompted.

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 CMOS Features

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

¡ · Figure 2. Standard CMOS Features

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Standard CMOS Features

Date(mm:dd:yy)	Tue,Jun 6 2000	Item Help
Time (hh:mm:ss)	11:26:10	Menu Level
IDE Primary Master	None	
IDE Primary Slave		Change the day,
IDE Secondary Master		month,year
IDE Secondary Master	None	and century.
Drive A	1.44M,3.5 in	
Drive B	None	
Video	EGA/VGA	
Halt On	All,But Keyboard	
Base Memory	640K	
Extended Memory	65472K	
Total	1024K	

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

Main Menu Selections

This table shows the selections that you can make on the Main Menu.

Item	Options	Description
Date	Month DD YYYY	Set the system,date. Note that the 'Day' automatically changes when you set the data.
IDE Primary Master	Options are in its sub menu.	Press<Enter> to enter the sub menu of detailed.
IDE Primary Slave	Options are in its sub menu.	Press<Enter> to enter the sub menu of detailed.
IDE Secondary Master	Options are in its sub menu.	Press<Enter> to enter the sub menu of detailed.
IDE Secondary Slave	Options are in its sub menu.	Press<Enter> to enter the sub menu of detailed.
Drive A Drive B	None 360K, 5.25in 1.2M, 5.25in 720K, 3.5in 1.44M, 3.5in 2.88M, 3.5in	Select the type of floppy disk drive installed in your system.
Video	EGA/VGA CGA 40 CGA 80 MONO	Select the default video device.

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

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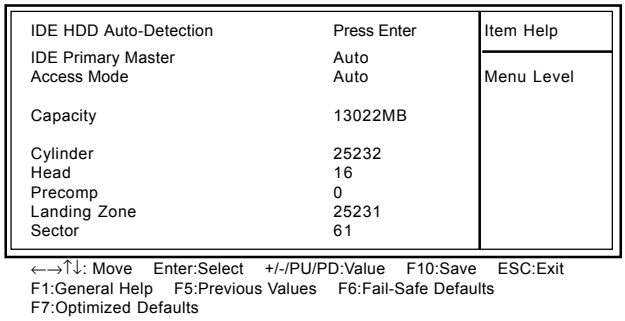
IDE Primary Master



2.3 Advanced BIOS Features

¡ · Figure 3. Advanced BIOS Features

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Advanced BIOS Features

Virus Warning	Disabled	Item Help
CPU Internal Cache	Enabled	
External Cache	Enabled	Menu Level
CPU L2 Cache ECC Checking	Enabled	
Processor Number Feature	Enabled	Allows you to
Quick Power On Self Test	Enabled	choose the
First Boot Device	Floopy	VIRUS warning
Second Boot Device	HDD-0	feature for IDE
Third Boot Device	LS120	Hard Disk boot
Boot Other Device	Enabled	sector protection.
Swap Floppy Drive	Disabled	If this function
Boot Up Floppy Seek	Disabled	is enabled and
Boot Up NumLock Status	On	someone attempts
Gate A20 Option	Fast	to write data into
Typematic Rate Setting	Disabled	this area,BIOS
Typematic Rate (Chars/Sec)	6	will show a
Typematic Delay (Msec)	250	warning message
Security Option	Setup	on screen and
OS Select For DRAM	Non-OS2	alarm beep
Video BIOS Shadow	Enabled	
EPA / (H/W Monitor) Show	H/W Monitor	

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

Virus Warning

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

The Choices: Disabled(default), Enabled.

CPU Internal Cache

These two categories speed up memory 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 performance.

Enabled (default)	Enabled cache.
Disabled	Disabled cache.

CPU L2 Cache ECC Checking

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

The Choices: Enabled(default), Disabled.

Processor Number Feature

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

Enabled (default)	Pentium Processor Number Feature.
Disabled	Disabled.

Quick Power On Self Test

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

Enabled (default)	Enabled quick POST.
Disabled	Normal POST.

First/Secondary/Third Boot Device

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

The Choices: Floppy, LS120, HDD-0, SCSI, CDROM, HDD-1, HDD-2, HDD-3, ZIP100, USB-FDD, USB-ZIP, USB-CDROM, USB-HDD, LAN, Disabled.

Boot Other Device

The Choices: Enabled(default), Disabled.

Swap Floppy Drive

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

The Choices: Disabled(default), Enabled.

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 Numlock.

On (default)	Numpad is number keys.
Off	Numpad is arrow keys.

Gate A20 Option

Select if chipset or keyboard controller should control Gate A20.

Normal	A pin in the keyboard controller controls Gate A20.
Fast (default)	Lets chipset control Gate A20.

Typematic Rate Setting

Enabled	Enabled this option to adjust the keystroke repeat rate.
Disabled (default)	Disabled.

Typematic Rate (Char/Sec)

Range between 6**(default)** and 30 characters per second. This option controls the speed of repeating keystrokes.

Typematic Delay (Msec)

This option sets the time interval for displaying the first and the second characters.

The Choices: 250(default), 500, 750, 1000.

Security Option

This category allows you to limit access to the system and Setup, or just to Setup.

System	The system will not boot and access to Setup will be denied if the correct password is not entered in prompt.
Setup (default)	The system will boot, but access to Setup will be denied if the correct password is not entered in prompt.

OS Select For DRAM

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

The Choices: Non-OS2(default), OS2.

Video BIOS Shadow

Determines 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

Determines 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.

EPA / (H/W Monitor) Show

The Choices: H/W Monitor(default), EPA LOGO.

2.4 Advanced Chipset Features

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

¡ · Figure 4. Advanced Chipset Features

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Advanced Chipset Features

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

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

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DRAM Clock / Drive Control

Current FSB Frequency		Item Help
Current DRAM Frequency		
DRAM Clock	By SPD	Menu Level
DRAM Timing	By SPD	
*SDRAM CAS Latency	2.5	
*Bank Interleave	Disabled	
*Precharge to Active(Trp)	3T	
*Active to Precharge(Tras)	6T	
*Active to CMD(Trcd)	3T	
*DRAM Queue Depth	4 Level	
DRAM Command Rate	2T Command	

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

DRAM Clock

This item determines DRAM Clock following the CPU host clock.

The Choices: By SPD(default), 100, 133.

DRAM Timing

The DRAM timing is controlled by the DRAM Timing Registers. The Timings programmed into this register are dependent on the system design.

The Choices: By SPD(default), Manual.

SDRAM CAS Latency

2.5 (default)	Set SDRAM latency Time to 2.5.
3	Set SDRAM latency Time to 3.

Bank Interleave

The Choices: Disabled(default), Enabled.

Active to Precharge

7T	Set DRAM Precharge in 7.
6T (default)	Set DRAM Precharge in 6.
5T	Set DRAM Precharge in 5.

DRAM Command Rate

The Choices: 2T Command(default), 1T Command.

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AGP & P2P Bridge Control

AGP Aperture Size	128M	Item Help
AGP Mode	4X	
AGP Driving Control	Auto	Menu Level
AGP Driving Value	DA	
AGP Fast Write	Disabled	
AGP Master 1WS Write	Disabled	
AGP Master 1WS Read	Disabled	

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

AGP Aperture Size

Select the size of the Accelerated Graphic Port(AGP) aperture. The aperture is a portion of the PCI memory address range dedicated for graphics memory address space. Host cycle that hit the aperture range are forwarded to the AGP without any translation.
The Choices: 128M(default), 64M, 32M, 16M, 8M, 4M.

AGP Mode

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

AGP Driving Control

By choosing "Auto" the system BIOS will enable the AGP output Buffer Drive strength that were defined by AGP Card. By choosing "Manual", it allows user to set AGP output Buffer Drive strength by manual.
The Choices: Auto(default), Manual.

AGP Fast Write

The Choices: Disabled(default), Enabled.

AGP Master 1WS Write

When Enabled, write data to the AGP (Accelerated Graphic Port) that will be executed with one wait states.
The Choices: Disabled(default), Enabled.

AGP Master 1WS Read

When Enabled, read data to the AGP (Accelerated Graphic Port) that will be executed with one wait states.
The Choices: Disabled(default), Enabled.

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CPU & PCI Bus Control

PCI 1 Master 0 WS Write	Enabled	Item Help
PCI 2 Master 0 WS Write	Enabled	
PCI 1 Port Write	Enabled	Menu Level
PCI 2 Port Write	Enabled	
PCI Delay Transaction	Disabled	

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

PCI 1 Master 0 WS Write

When this field is Enabled, write data to the PCI bus are executed with zero wait states.

The Choices: Enabled(default), Disabled.

PCI 2 Master 0 WS Write

When this field is Enabled, write data to the PCI bus are executed with zero wait states.

The Choices: Enabled(default), Disabled.

PCI Delay Transaction

The Choices: Disabled(default), Enabled.

Memory Hole

In order to improve performace, certain space in memory can be reserved for ISA cards. This memory must be mapped into the memory's space below 16MB.

The Choices: Diasbled(default), 15M-16M.

System BIOS Cacheable

When enabled, the access to the system BIOS ROM address at F0000H-FFFFFFH is cached.

The Choices: Disabled(default), Enabled.

Video RAM Cacheable

Enabled	Enabled Video RAM Cacheable.
Disabled (default)	Disabled Video RAM Cacheable.

2.5 Integrated Peripherals

¡ · Figure 5. Integrated Peripherals

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Integrated Peripherals

VIA Onchip IDE Device	Press Enter	Item Help
VIA Onchip PCI Device	Press Enter	
Super IO Device	Press Enter	Menu Level
Init Display First	PCI Slot	
Onchip USB Connetor	All Enabled	
USB Keyboard Support	Disabled	
IDE HDD Block Mode	Enabled	

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

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VIA Onchip IDE Device

IDE DMA Transfer Access	Disabled	Item Help
On-Chip IDE Channel 1	Enabled	
On-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	

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

On-Chip IDE Channel 0

Enabled (default) Enabled onboard 1st channel IDE port.

Disabled Disabled onboard 1st channel IDE port.

On-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 primary 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 PIO(for onboard IDE 1st channel)

Auto (default)	BIOS will automatically detect the IDE HDD Accessing mode.
Mode 0~4	Manually set the IDE Accessing mode.

Primary Slave PIO(for onboard IDE 2nd channel)

Auto (default)	BIOS will automatically detect the IDE HDD Accessing mode.
Mode 0~4	Manually set the IDE Accessing mode.

Secondary Master PIO(for onboard IDE 1st channel)

Auto (default)	BIOS will automatically detect the IDE HDD Accessing mode.
Mode 0~4	Manually set the IDE Accessing mode.

Secondary Slave PIO(for onboard IDE 2nd channel)

Auto (default)	BIOS will automatically detect the IDE HDD Accessing mode.
Mode 0~4	Manually set the IDE Accessing mode.

Primary Master UDMA

Auto (default)	BIOS will automatically detect the IDE HDD Accessing mode.
Disabled	Disabled.

Primary Slave UDMA

Auto (default)	BIOS will automatically detect the IDE HDD Accessing mode.
Disabled	Disabled.

Secondary Master UDMA

Auto (default)	BIOS will automatically detect the IDE HDD Accessing mode.
Disabled	Disabled.

Secondary Slave UDMA

Auto (default)	BIOS will automatically detect the IDE HDD Accessing mode.
Disabled	Disabled.

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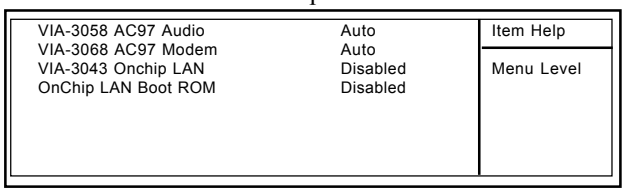
VIA Onchip PCI Device



VIA-3058 AC97 Audio

The default setting of this item utilizes an onboard sound chip for audio output. There is no need to buy and insert a sound card. If a sound card is installed, disable this item.
The Choices: Auto(default), Disabled

VIA-3068 AC97 Modem

The item allows you to control the onboard MC97 Modem controller.
The Choices: Auto(default), Disabled.

VIA-3043 Onchip LAN

The Choices: Disabled(default), Enabled.

OnChip LAN Boot ROM

The Choices: Disabled(default), Enabled.

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Super IO Device

Onboard FDC Controller	Enabled	Item Help
Onboard Serial Port 1	Auto	
Onboard Serial Port 2	Auto	Menu Level
UART Mode Select	Normal	
RxD,TxD Active	Hi,Lo	
IR Transmission Delay	Enabled	
UR2 Duplex Mode	Half	
Use IR Pins	IR/Rx2Tx2	
Onboard Parallel Port	378/IRQ7	
Parallel Port Mode	SPP	
EPP Mode Type	EPP1.7	
ECP Mode Use DMA	3	
Game Port Address	201	
Midi Port Adress	330	
Midi Port IRQ	10	

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

Onboard FDC Controller

Enabled (default)	Enabled onboard FDC Controller.
Disabled	Disabled onboard FDC Controller.

Onboard Serial Port1

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

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

Onboard Serial Port 2

Auto (default)	BIOS will automatically setup the Serial Port 2 address.
3F8/IRQ4	Enabled onboard Serial Port 2 and address is 3F8.
2F8/IRQ3	Enabled onboard Serial Port 2 and address is 2F8.

3E8/IRQ4	Enabled onboard Serial Port2 and address is 3E8.
2E8/IRQ3	Enabled onboard Serial Port2 and address is 2E8.
Disabled	Disabled.

UART Mode Select

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

UR2 Duplex Mode

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

Onboard Parallel Port

This item allows you to select the I/O address with which to access the onboard parallel port controller.
Disabled.
378/IRQ7. (default)
278/IRQ5.
3BC/IRQ7.

Parallel Port Mode

SPP (default)	Using Parallel port as Standard Parallel Port.
EPP	Using Parallel port as Enhanced Parallel Port.
ECP	Using Parallel port as Extended Capabilites Port.
ECP/EPP	Using Parallel port as ECP/EPP mode.

Game Port Address

201 (default)	Set onboard game port to 201.
209	Set onboard game port to 209.
Disabled	Disabled.

Midi Port Address

300	Set Midi Port address to 300.
330 (default)	Set Midi Port address to 330.
290	Set Midi Port address to 290.
Disabled	Disabled.

Midi Port IRQ

10 (default)	Set Midi Port IRQ to 10.
5	Set Midi Port IRQ to 5.

Init Display First

PCI Slot (default)	Set Init Display First to PCI Slot.
AGP	Set Init Display First to onboard AGP.

Onchip USB Connector

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

The Choices: All Enabled(default), All Disabled, 1&2 USB Port, 2&3 USB Port, 1&3 USB Port, 1 USB Port, 2 USB Port, 3 USB Port.

USB Keyboard Support

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

The Choices: Disabled(default), Enabled.

IDE HDD Block Mode

Enabled (default)	Enabled.
Disabled	Disabled.

2.6 Power Management Setup

The Power Management Setup allows you to configure your system to most effectively save energy while operating in a manner consistent with your own style of computer use.

¡ · Figure 6. Power Management Setup

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Power Management Setup

ACPI Function	Enabled	Item Help
ACPI Suspend Type	S1(POS)	
Power Management Option	User Define	Menu Level
HDD Power Down	Disabled	
Suspend Mode	Disabled	
Video Off Option	Suspend->Off	
Video Off Method	V/H SYNC+Blank	
Modem Use IRQ	3	
Soft-Off by PWRBTN	Instant-Off	
PWRON After PWR-Fail	Off	
IRQ / Event Activity Detect	Press Enter	

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

ACPI Function

This item display status of the Advanced Configuration and Power Management (ACPI).

ACPI Suspend Type

The item allows you to select the suspend type under ACPI operating system.

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

Power Management Option

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

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

HDD Power Down

By default, this is "Disabled", meaning that no matter the mode of the rest of the system, the hard drive will remain ready. Otherwise, you have a range of choices from 1 to 15 minutes or Suspend. This means that you can select to have your hard disk drive be turned off after a selected number of minutes or when the rest or the system goes into a suspend mode.
The Choices: Disabled(default).

Suspend Mode

The **Suspend Mode** fields set the Period of time after each of these modes activates. At Max Saving, these modes activate sequentially (in the given order) after one minute; at Min Saving after one hour.
The Choices: Disabled(default).

Video Off Option

This field determines when to activate the video off feature for monitor power management.
The Choices: Suspend->off(default), Always on.

Video Off Method

This determines the manner in which the monitor is blanked.

V/H SYNC+Blank (default)	This selection will cause the system to turn off the vertical and horizontal synchronization ports and write blanks to the video buffer.
Blank Screen	This option only writes blanks to the video buffer.
DPMS Support	Initial display power management signaling.

Modem Use IRQ

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

3(default)

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

Soft-Off by PWRBTN

Pressing the power button for more than 4 seconds forces the system to enter the Soft-Off state when the system has "hung".

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

PWRON After PWR-Fail

This option will determine how the system will power on after a power failure.

The Choices: Off(default), On, Former-Sts.

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IRQ / Event Activity Detect

PS2KB Wakeup Select	Hot Key	Item Help
PS2KB Wakeup From S3/S4/S5	Disabled	
VGA	OFF	Menu Level
LPT & COM	LPT/COM	
HDD & FDD	ON	
PCI Master	OFF	
PowerOn by PCI Card	Disabled	
Modem Ring Resume	Disabled	
RTC Alarm Resume	Disabled	
Date (of Month)	0	
Resume Time (hh:mm:ss)	0 0 0	
IRQs Activity Monitoring	Press Enter	

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

IRQ / Event Activity Monitoring

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

VGA

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

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

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

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

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

RTC Alarm Resume
When "Enabled", you can set the date and time at which the RTC (real-time clock) alarm awakens the system from Suspend mode.

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IRQs Activity Monitoring

Primary INTR	ON	Item Help
IRQ 3 (COM2)	Enabled	
IRQ 4 (COM1)	Enabled	Menu Level
IRQ 5 (LPT2)	Enabled	
IRQ 6 (Flppy Disk)	Enabled	
IRQ 7 (LPT1)	Enabled	
IRQ 8 (RTC Alarm)	Disabled	
IRQ 9 (IRQ2 Redir)	Disabled	
IRQ 10 (Reserved)	Disabled	
IRQ 11 (Reserved)	Disabled	
IRQ 12 (PS2/Mouse)	Enabled	
IRQ 13 (Coprocessor)	Enabled	
IRQ 14 (Hard Disk)	Enabled	
IRQ 15 (Reserved)	Disabled	

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

IRQs Activity Monitoring

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

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

IRQ3	(COM1)
IRQ4	(COM2)
IRQ5	(LPT2)
IRQ6	(Floppy Disk)
IRQ7	(LPT1)
IRQ8	(RTC Alarm)
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 system. PCI or Personal Computer Interconnect,is a system which allows I/O devices to operate at speeds nearing the speed of the CPU itself uses when communicating with its own special components. This section covers some very technical items and it is strongly recommended that only experienced uses should make any changes to the default settings.

¡ · Figure 7. PnP/PCI Configurations

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PnP/PCI Configurations

PNP OS Installed	No	Item Help
Reset Configuration Data	Disabled	Menu Level
Resources Controlled By	Auto(ESCD)	Select Yes if you are using a Plug and Play capable operating system select No if you need the BIOS to configure non-boot devices
IRQ Resources	Press Enter	
PCI/VGA Palette Snoop	Disabled	
Assign IRQ For VGA	Enabled	
Assign IRQ For USB	Enabled	

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

PNP OS 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 system like Windows 95. When set to No, BIOS will initialize all the PnP cards. Therefore for non-PnP operating systems (DOS, Netware), this option must be set to No.

Reset Configuration Data

The system BIOS supports the PnP feature so the system needs to record which resource is assigned and proceeds resources from conflict. Every peripheral device has a node, which is called ESCD. This node records which resources are assigned to it. The system needs to record and update ESCD to the memory locations. These locations (4K) are reserved at the system BIOS.
If Disabled (Default)is chosen, the system's ESCD will update only when the new configuration varies from the last one. If Enabled is chosen, the system is forced to update ESCDs and then is automatically set to the "Disabled" mode.

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 term which 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 BIOS will detect the system resources and automatically assign the relative IRQ and DMA channel for each peripheral. By Choosing "Manual" the user will need to assign IRQ & DMA for add-on cards. Be sure that there are no IRQ/DMA and I/O port conflicts.

IRQ Resources

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

PCI / VGA Palette Snoop

Choose Disabled or Enabled. Some graphic controllers which are not VGA compatible take the output from a VGA controller and map it to their display as a way to provide boot information and VGA compatibility.

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

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

Disabled (default)	Function Disabled.
Enabled	Function Enabled.

Assign IRQ For VGA

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

Assign IRQ For USB

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

2.8 PC Health Status

¡ · Figure 8. PC Health Status

CMOS Setup Utility-Copyright (C) 1984-2001 Award Software

PC Health Status

CPU Warning Temperature	Disabled	Item Help
Current CPU Temp.		
Current System Temperature		Menu Level
Current CPU Fan Speed		
Current System Fan Speed		
Vcore		
+3.3V		
+5V		
+12V		
-12V		
VBAT(V)		
5VSB(V)		
Shut down Temperature	Disabled	

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

Current Voltage(V) Vcore +12V / -12V / +5V / +3.3V / 5VSB / VBAT

Detect system's voltage status automatically.

Current CPU / System Temperature(¢J/¢K)

This field displays the current CPU temperature,if your computer contains a monitoring system.

Current CPU Fan / System Fan Speed

These field displays the current speed of up to System Fans,if your computer contains a monitoring system.

CPU Warning Temperature(¢J)

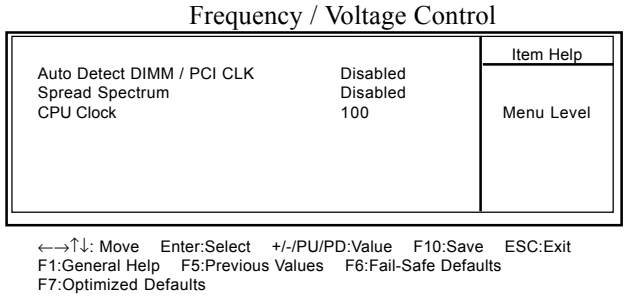
Disabled (default)	Disabled.
50¢J/122¢K	Monitor CPU Temp.at 50¢J/122¢K
53¢J/127¢K	Monitor CPU Temp.at 53¢J/127¢K
56¢J/133¢K	Monitor CPU Temp.at 56¢J/133¢K
63¢J/145¢K	Monitor CPU Temp.at 63¢J/145¢K
66¢J/151¢K	Monitor CPU Temp.at 66¢J/151¢K
70¢J/158¢K	Monitor CPU Temp.at 70¢J/158¢K

Shutdown Temperature(¢J/¢K)

Disabled(default)	Disabled.
60¢J/140¢K	Monitor CPU Temp.at 60¢J/140¢K, if Temp.>60¢J/140¢K system will automatically power off.
65¢J/149¢K	Monitor CPU Temp.at 65¢J/149¢K, if Temp.>65¢J/149¢K system will automatically power off.
70¢J/158¢K	Monitor CPU Temp.at 70¢J/158¢K, if Temp.>70¢J/158¢K system will automatically power off.
75¢J/167¢K	Monitor CPU Temp.at 75¢J/167¢K, if Temp.>75¢J/167¢K system will automatically power off.

2.9 Frequency / Voltage Control

¡ ·Figure 9. Frequency / Voltage Control



Auto Detect DIMM / PCI CLK

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

The Choices: Disabled(default), Enabled.

Spread Spectrum

This function is designed to EMI test only.

The Choices: Disabled(default), Enabled.

CPU Clock

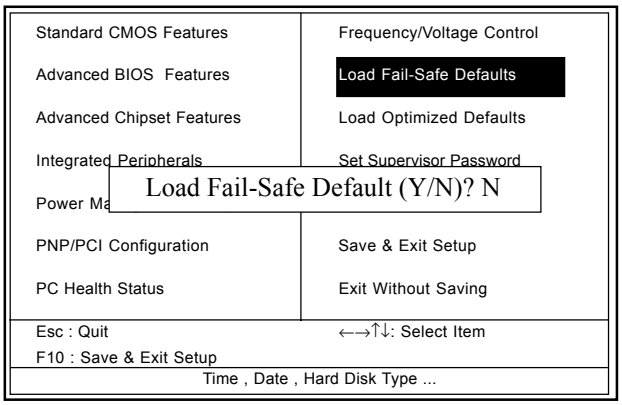
This item allows you to select the CPU clock from 133MHz to 166MHz, 100MHz to 133MHz depending on the CPU Host Clock .

The Choices: 100(default), Min.100~Max.133.

2.10 Load Fail-Safe Defaults

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

¡ · Figure 10. Load Fail-Safe Defaults



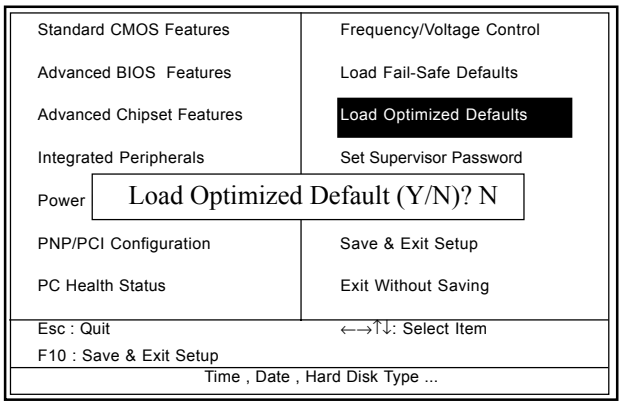
Pressing 'Y' loads the default values that are factory settings for optimal performance of system operations.

2.11 Load Optimized Defaults

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

¡ · Figure 11. Load Optimized Defaults

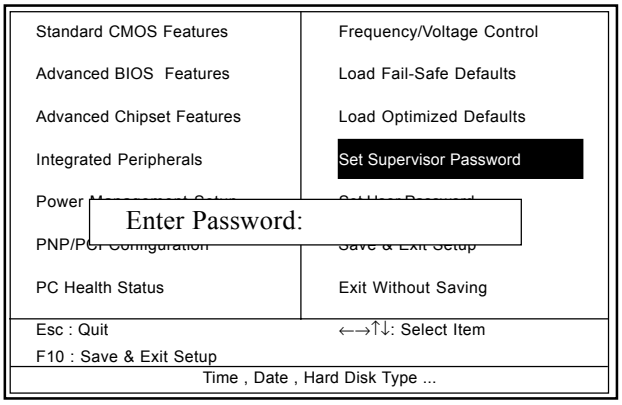
CMOS Setup Utility-Copyright (C) 1984-2001 Award Software



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

2.12 Set Supervisor / User Password

¡ · Figure 12. 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.

Enter Password

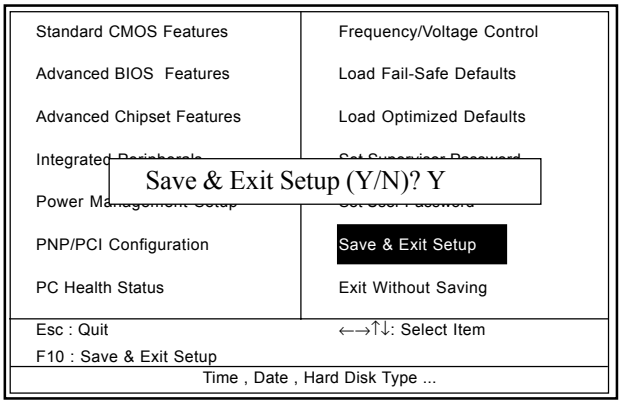
Type a password, up to eight characters, and press <Enter>. The password you type now will clear any previously entered password from CMOS memory. You will be asked to confirm the password. Type the password again and press <Enter>. You may also press <ESC> to abort the selection and not enter a password. To disable the password, just press <Enter> when you are prompted to enter a password. A message will confirm that you wish to disable the password. Once the password is disabled, the system will boot and you can enter setup freely.

Password Disabled

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

2.13 Save & Exit Setup

¡ · Figure 13. Save & Exit Setup

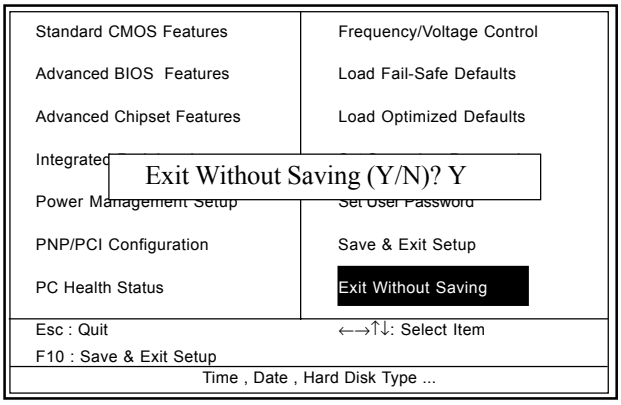


Typing “Y” will quit the Setup Utility and save the user setup value to RTC CMOS RAM.

Typing “N” will return to the Setup Utility.

2.14 Exit Without Saving

¡ · Figure 14. Exit Without Saving



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

Typing “N” will return to the Setup Utility.

3. Driver Installation

Introduction

There are motherboard drivers and utilities included in ACORP Bonus CD disc. You don't need to install all of them in order to boot your system. But after you finish the hardware installation, you have to install your operation system first (such as windows 98) before you can install any drivers or utilities. Please refer to your operation system installation guide.

***Note**:Please follow recommended procedure* to install suitable drivers after Windows ME or Windows 98 were installed.

3.1 Auto-run Menu

You can use the auto-run menu of Bonus CD disc. Choose the utility or driver and select model name.

3.2 Installing VIA 4 in 1 Driver

You can install the VIA 4 in 1 driver (IDE Bus master (For Windows NT use), VIA ATAPI Vendor Support Driver, VIA AGP, IRQ Routing Driver (For Windows 98 use), VIA Registry (INF) Driver) from the Bonus Pack CD disc auto-run menu.

(1)
Click
"Driver" Item.

(2)
Click
"Chipset" Item.

(3)
Click
"VIA Service Pack" Item.

(4)
Click "Next".

3.3 Installing Audio Driver

This motherboard comes with an AC97 CODEC and the sound controller is in VIA South Bridge chipset. You can find the audio driver from the Bonus Pack CD disc auto-run menu.

(1)
Click
"Driver" Item.

(2)
Click
"Audio" Item.

(3)
Click
"VT8233" Item.

(4)
For Win NT
, Win 2000, WinXP
&Win 9X_ME system.
Select your O.S. system.

(5)
Click "Next".

7KT266A System Compatibility Test Report

** **Note:**
This test report is for your reference, we would like to suggest you to use these devises that we had apporoved.

A. CPU & Memory Compatibility Test Pass

CPU / MEMORY	Athlon 1333/133	Athlon XP 1600+	Athlon 1200/133	Athlon 1200/100	Morgan 1000/100
HYUNDAI PC266	256MB	256MB	256MB	256MB	256MB
HY5DU28822T-H(115A)	D2 Pass	D1,2,3 Pass	D1,2 Pass	D2,3 Pass	D3 Pass
HYUNDAI PC266	128MB	128MB	128MB	128MB	128MB
HY5DU28822T-H(128A)	D1,2 Pass	D2,3 Pass	D1,2,3 Pass	D2 Pass	D1,3 Pass
SAMSUNG PC266	128MB	128MB	128MB	128MB	128MB
K4H280838B-TCB0(130)	D3 Pass	D1,2,3 Pass	D1,3 Pass	D2,3 Pass	D2 Pass
NANYA PC266	256MB	256MB	256MB	256MB	256MB
NT5DS16M8AT-7K	D1,2 Pass	D1 Pass	D1,2,3 Pass	D2 Pass	D2,3 Pass

CPU / MEMORY	Athlon 1133/133	Athlon 900/100	Duron 850/100	Athlon XP 1500+	Athlon 1600+
SAMSUNG PC266	256MB	256MB	256MB	256MB	256MB
K4H280838B-TCB0(133)	D1,2,3 Pass	D2,3 Pass	D1,3 Pass	D1 Pass	D1,2 Pass
SAMSUNG PC266	128MB	128MB	128MB	128MB	128MB
K4H280838B-TCB0(118)	D2,3 Pass	D2 Pass	D1,2 Pass	D1,2,3 Pass	D1,3 Pass
HYUNDAI PC266	256MB	256MB	256MB	256MB	256MB
HY5DU39933AT-H(124A)	D1,2 Pass	D2,3 Pass	D1,3 Pass	D1,2,3 Pass	D2 Pass
NANYA PC266	128MB	128MB	128MB	128MB	128MB
NT5DS16M8AT-7K	D2 Pass	D1,2,3 Pass	D1,3 Pass	D1,2,3 Pass	D1,2 Pass

CPU / MEMORY	Athlon 1100/100	Duron 650/100	Athlon 1400/133	Athlon XP 1600+	Athlon 1333/133
NANYA PC266	128MB	128MB	128MB	128MB	128MB
NT5DS16M8AT-7K(0049)	D2 Pass	D1,2,3 Pass	D1,3 Pass	D2,3 Pass	D1,2 Pass
SAMSUNG PC266	256MB	256MB	256MB	256MB	256MB
K4H280838B-TCB0(112)	D1,3 Pass	D2 Pass	D2,3 Pass	D1,2,3 Pass	D3 Pass
SAMSUNG PC266	128MB	128MB	128MB	128MB	128MB
K4H280838B-TCB0(130)	D2 Pass	D1,2,3 Pass	D3 Pass	D2,3 Pass	D1,2,3 Pass
HYUNDAI PC266	128MB	128MB	128MB	128MB	128MB
HY5DU28822T-H(114A)	D1,2 Pass	D1,2,3 Pass	D2,3 Pass	D3 Pass	D2,3 Pass

CPU / MEMORY	Athlon XP 1600+	Duron 750/100	Athlon 1000/100	Athlon 1000/133	Duron 950/100
SAMSUNG PC266	256MB	256MB	256MB	256MB	256MB
K4H280838B-TCB0(103)	D1,2 Pass	D1,2,3 Pass	D3 Pass	D2,3 Pass	D2 Pass
SAMSUNG PC266	256MB	256MB	256MB	256MB	256MB
K4H280838B-TCB0(118)	D2,3 Pass	D1,3 Pass	D1,2,3 Pass	D2 Pass	D1,3 Pass
Infineon PC266	256MB	256MB	256MB	256MB	256MB
HYB250256800AT-7(0126)	D1,2 Pass	D1,2,3 Pass	D2,3 Pass	D3 Pass	D1,3 Pass
HYUNDAI PC266	128MB	128MB	128MB	128MB	128MB
HY5DU28822T-H(114A)	D2 Pass	D2,3 Pass	D3 Pass	D1,2,3 Pass	D1,2 Pass

7KT266A System Compatibility Test Report

CPU / MEMORY	Athlon 1200/100	Athlon 1200/133	Athlon XP 1500+	Duron 950	Athlon 850/100
SAMSUNG PC266	256MB	256MB	256MB	256MB	256MB
K4H280838B-TCB0(118)	D1,2,3 Pass	D2 Pass	D2,3 Pass	D3 Pass	D1,3 Pass
NANYA PC266	128MB	128MB	128MB	128MB	128MB
NT6DS16M8AT-7K(0047)	D2,3 Pass	D1,3 Pass	D1,2 Pass	D1,2,3 Pass	D2,3 Pass
HYUNDAI PC266	256MB	256MB	256MB	256MB	256MB
HY5DU28822T-H(115A)	D2 Pass	D1,2 Pass	D1,2,3 Pass	D2,3 Pass	D2 Pass
SAMSUNG PC266	128MB	128MB	128MB	128MB	128MB
K4H280838B-TCB0(049)	D1,2 Pass	D2,3 Pass	D3 Pass	D1,2,3 Pass	D1,3 Pass

CPU / MEMORY	Athlon 950/100	Athlon 1100/100	Athlon 1333/133	Morgan 1000/100	Athlon 1000/133
SAMSUNG PC266	256MB	256MB	256MB	256MB	256MB
K4H280838B-TVB0(133)	D2,3 Pass	D1,2,3 Pass	D1,2 Pass	D1 Pass	D2,3 Pass
Infineon PC266	256MB	256MB	256MB	256MB	256MB
HYB25D256800AT-7(0126)	D1,2,3 Pass	D3 Pass	D1,2,3 Pass	D2,3 Pass	D2 Pass
HYUNDAI PC266	256MB	256MB	256MB	256MB	256MB
HY50U28822AT-H(124A)	D1,3 Pass	D2 Pass	D1,2 Pass	D1,2,3 Pass	D2,3 Pass
NANYA PC266	128MB	128MB	128MB	128MB	128MB
NT5D16M8AT-7K(0049)	D2 Pass	D2,3 Pass	D1,2,3 Pass	D3 Pass	D3 Pass

B. AGP Display Compatibility Test

Win98 SE 1024 x 768 x 32 bit

AGP Model	Vendor	AGP Mode	Dirver Version	3D MARK 2001 Bench Mode	Quake III Demo 001		
					frames	seconds	fps
GeForce 2 GTS Ultra 4X	CREATIVE	4X	4.13.01.1241	4205	1346	7.9	169.4
Voodoo	3dfx	2X	4.12.01.0543	2346	1346	11.4	118
rage 128 pro	ATI	4X	4.13.7078	766	1346	42.3	31.9
G450	MAXTOR	4X	4.12.01.1630	1268	1346	21.5	62.5
GA-GF1280RT	GIGABYTE	4X	4.13.01.1241	2391	1346	9.8	137.6
GeForce 2 MX64	WinFast	4X	4.13.01.1241	1160	1346	19.4	69.4
XPERT 2000	ATI	2X	4.11.6249	642	1346	40.6	33.2
Voodoo 2000	3dfx	2X	4.12.01.1225	2028	1346	16.1	83.4
GB0010 GeForce 2 GTS	CREATIVE	4X	4.13.01.1241	3408	1346	8.2	164.6
Voodoo 3000	3dfx	2X	4.12.01.1225	2222	1346	13.7	98

Win2000 1024 x 768 x 32 bit

AGP Model	Vendor	AGP Mode	Dirver Version	3D MARK 2001 Bench Mode	Quake III Demo 001		
					frames	seconds	fps
GLADIAC 511 TWIN	ELSA	4X	5.13.01.1241	2039	1346	10.5	127.7
GeForce 2 MX MAX	WinFast	4X	5.13.01.1241	2044	1346	11.4	118.4
Voodoo 3000	3dfx	2X	1.0.0.0734	1747	1346	14.9	90.3
MS8806	MSI	4X	5.13.01.1241	DW	1346	19	70.7
AGP-V7700	ASUS	4X	5.13.01.1241	2645	1346	10.7	125.9

7KT266A System Compatibility Test Report

Win2000 1024 x 768 x 32 bit

AGP Model	Vendor	AGP Mode	Dirver Version	3D MARK 2000 Bench Mode	Quake III Demo 001		
					frames	seconds	fps
GLADIAC 920	ELSA	4X	5.13.01.1241	6997	1346	10.9	123
RADEON	ATI	4X	5.13.01.3102	4484	1346	11.9	113.1
Voodoo 2000	3dfx	2X	1.0.0.0734	2795	1346	15.8	85.1
GV-GF1280RT	GIGABYTE	2X	5.13.01.1241	4529	1346	11.5	117.5
G450	MAXTOR	4X	5.12.01.1130	2380	1346	22.2	60.6

Win98 SE 800 x 600 x 16 bit

AGP Model	Vendor	AGP Mode	Dirver Version	3D MARK 2000 Bench Mode	Quake III Demo 001		
					frames	seconds	fps
Voodoo 4 4500	3dfx	1X	4.12.01.0666	3509	1346	13.6	99.1
GA-660	GIGABYTE	4X	4.13.01.1241	3576	1346	18.6	72.2
GeForce 3	WinFast	4X	4.13.01.1241	9434	1346	8.1	166.7
MS-8817	MSI	4X	4.13.01.1241	4924	1346	10.5	128.4
XPERT 2000 PRO	ATI	4X	4.13.7078	1843	1346	36.1	37.3

C. PCI/ISA Device Compatibility Test

Win98 SE

Device Model	BUS	Vendor Model	Driver Version	Result
All PCI/ISA Device Card	PCI 1	KOUWELL KW-582V2	4.10.2222	PASS
	PCI 2	ESS ES1839S	4.12.01.7135	PASS
	PCI 3	AHA-2940UW	V2.21A	PASS
	PCI 4	ESS ES2838S	Version 4.43.022	PASS
	PCI 5	BT878	Version 4.1.8.8	PASS

Win2000

Device Model	BUS	Vendor Model	Driver Version	Result
All PCI/ISA Device Card	PCI 1	DC-395U Tekram	3.02	PASS
	PCI 2	IOI-1394TTO	5.00.2135.1	PASS
	PCI 3	C-Media CM18738	5.00.2195.3	PASS
	PCI 4	3Com 3C905C	1.56.50.0013	PASS
	PCI 5	ESS ES2838S	V4.43NT022	PASS

D. System Reliability Test

O.S. Environment	Test Software	Version	Loop times	Result
Win98 SE	WinStone 2001 Business Test	1.3	8 Hours	Pass
	3D MARK 2001 DEMO Mode Test	1. 0	8 Hours	Pass
Win ME	Quake III DEMO Mode Test	1 .0	8 Hours	Pass
Win NT 4.0	WinStone 99 All Test	1.3	8 Hours	45 Hours
	HCT System stress Test	9.5	8 Hours	Pass
Win 2000	Content Creation Winstone 2001	1. 0	8 Hours	Pass
	SysMark 2001	1. 0	1 Time	Pass

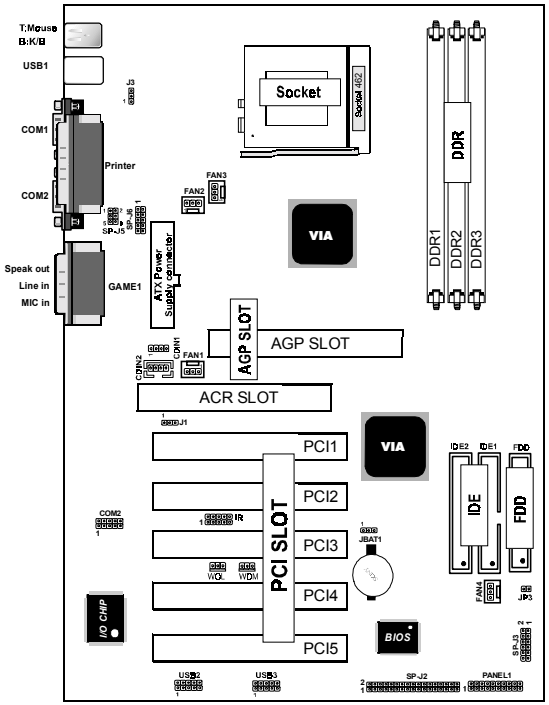
E. Other Peripherals Compatibility Test

Device Model	Vendor Model	Result
USB Mouse	Microsoft PIN X04-91789	Pass
	GENUINE MOUSE	Pass
USB Keyboard	Genuine Media Keyboard	Pass
USB Modem	ACORP USB Fax Modem	Pass
USB Print	EPSON Stylus 740	Pass
USB ZIP	IOMEGA Z100	Pass
USB SCANNER	UMAX Astra 3400	Pass
USB Joystick	Microsoft SideWinder P&P Game Pad	Pass
USB Digital COMERA	FinePix 2400Zoom	Pass
Mouse	Micrsoft PN X03-53717	Pass
Modem	LEMEL Network Dreamer	Pass
Print	Epson Stylus COLOR 740	Pass
PS/2 Mouse	Micrsoft PN X05-51692	Pass
PS/2 Keyboard	MiTAC KB-90000AG	Pass

F. BIOS Function Test

ITEM	Description	Result
BIOS Type Test	CPU Type	Pass
	MEMORY Type	Pass
	H.D.D. Type	Pass
C-MOS Setup Item Test	Clean C-MOS , Check C-MOS default data	Pass
First Boot Device	Boot from A	Pass
	Boot from C	Pass
	Boot from D	Pass
	Boot from SCSI HDD	Pass
	Boot from CD-ROM	Pass
	Boot from ZIP	Pass
Init Display First	AGP	Pass
	PCI	Pass
Wake up Events	Resume by Alarm (BIOS)	Pass
	Power by Ring (MODEM)	Pass
	Wake Up - On LAN (LAN)	Pass
Quick Power On self Test	Memory Quick test	Pass
BIOS Password Test	Supervisor password	Pass
	User password	Pass
DRAM Test	DRAM CLK synchronous test	Pass
	DRAM CLK asynchronous test	Pass
PnP Function Test	Insert PCI , ISA PnP under Win98 SE/WinME/Win2000 Function	Pass

The 7KT266A Motherboard Layout



CPU Clock Frequency Setting: JP3

Pin JP3	Assignment
On	CPU FSB=100MHz (Default)
Off	CPU FSB=133MHz

Wake-On LAN Header: WOL

Pin	Assignment
1	5V_SB
2	Ground
3	Signal

Wake-On Modem Header: WOM

Pin	Assignment
1	5V_SB
2	Ground
3	Signal

CPU/System Fan Connector: Fan1/4

Pin	Assignment
1	NA
2	+12VDC
3	Ground

CPU/System Fan Connector: Fan2/3

Pin	Assignment
1	Signal
2	+12VDC
3	Ground

Keyboard Wake up Setting: J3

Pin	Assignment
1-2	Keyboard power on disabled (Default)
2-3	Keyboard power on enabled

CMOS Function Selection: JBAT1

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

ACR CODEC Selection: J1

Pin	Assignment
1-2	On board CODEC is used (Default)
2-3	ACR Slot is used (for ISA side)

CD Audio-In Connectors: CDIN1/CDIN2

Pin CDIN1	Assignment
1	CD-L
2	GND
3	GND
4	CD-R

Pin CDIN2	Assignment
1	GND
2	CD-L
3	GND
4	CD-R

PANEL Connector