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## Quick Installation

# **Item Checklist**

- [V] The Motherboard
- [V] Operation manual
- [V] ATA 100/66 IDE cable
- [V] Floppy cable
- [V] Power Installer CD
- [V] 6-Channel Audio (Bracket)

### **Optional**

IWILL SuperAudio (for SPDIF) USB riser kit Thermal Sensor for System Infrared port cable

### **Before Installation**

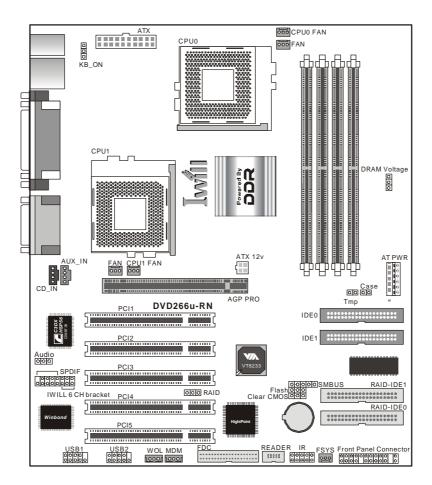


Users must follow these guidelines to ensure the motherboard is protected during installation.

- 1. Make sure your computer is powered-off.
- 2. The motherboard, like all other electronic equipment, is sensitive to static. Please take the proper precautions when handling it. If possible, ground yourself by touching a metal table or desk. keep the board in its conductive wrapping until it is configured and ready to be installed in your system.
- 3.Keep all magnets away from both your hard and floppy disk drives, especially magnetic screwdrivers. Keep both floppy and hard disks apart if disassembed.
- 4. Keep water and liquids away from your computer and its components.

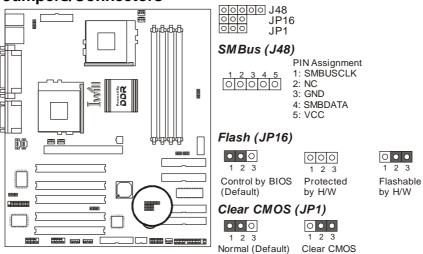
3

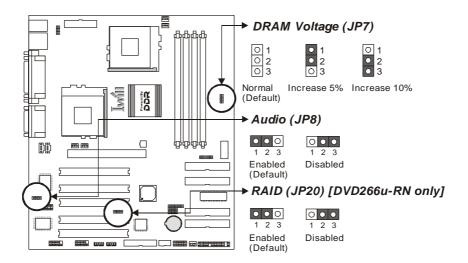
# Layout

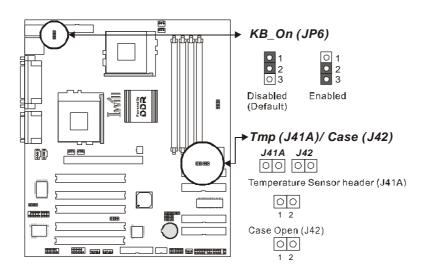


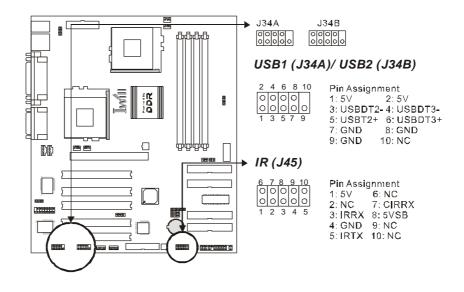
| Connectors/ Panel and Jumper Definition |
|-----------------------------------------|
| JP1 (Clear CMOS Jumper)                 |
| JP6 (Keyboard Power On)                 |
| JP7 (DRAM Voltage)                      |
| JP8 (Audio Jumper)                      |
| JP16 (Flash Protect Jumper)             |
| JP20 (IDE RAID Jumper)                  |
| J34A/ J34B (Internal USB1&2 connector)  |
| J37 (ATX Power connector)               |
| J37A (ATX 12V connector)                |
| J37B (AT-PWR connector)                 |
| J40 (CPU1 FAN)                          |
| J41 (System FAN)                        |
| J41A (Temperature Sensor header)        |
| J42 (Case Open)                         |
| J43 (Front panel connector)             |
| J45 (Infrared connector)                |
| J46 (Wake-ON-LAN header)                |
| J47 (Wake-ON-Modem)                     |
| J48 (SMBus connector)                   |
| J53 (AUX_IN connector)                  |
| J54 (CD_IN connector)                   |
| J64 (SPDIF & 6CH bracket [Optional])    |
| J66 (FAN)                               |
| J67 (CPU0 FAN)                          |

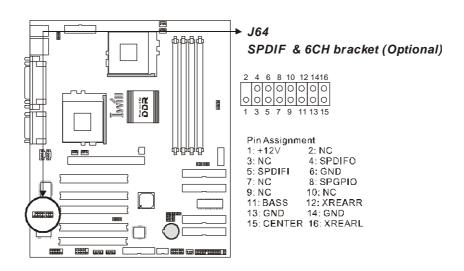
# **Jumpers/Connectors**

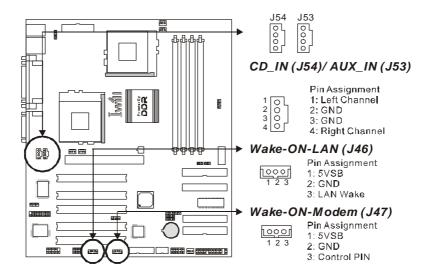


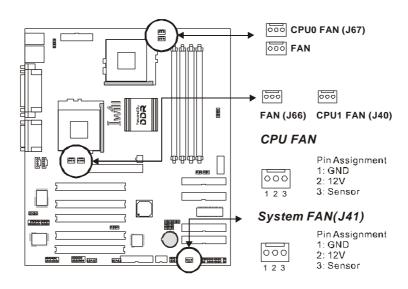


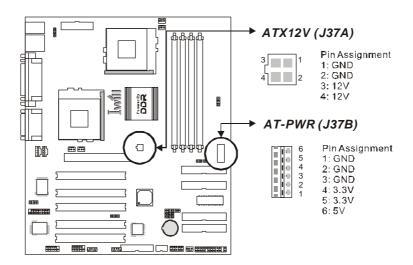




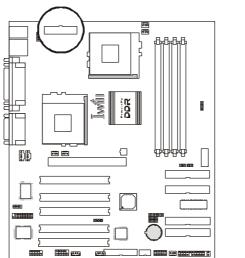








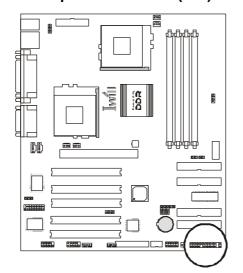
# ATX power connector (J37)





| PIN No. | Definition | PIN No | Definition      |
|---------|------------|--------|-----------------|
| 1       | +3.3V      | 11     | +3.3V           |
| 2       | +3.3V      | 12     | -12V            |
| 3       | Ground     | 13     | Ground          |
| 4       | +5V        | 14     | Power Supply On |
| 5       | Ground     | 15     | Ground          |
| 6       | +5V        | 16     | Ground          |
| 7       | Ground     | 17     | Ground          |
| 8       | Power Good | 18     | -5V             |
| 9       | +5V        | 19     | +5V             |
| 10      | +12V       | 20     | +5V             |

# Front panel connector (J43)

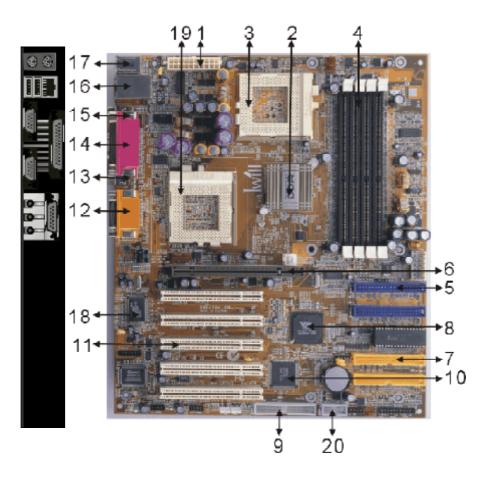


| 24 |   |   |   |   |   |   |   |   |   | 13 |
|----|---|---|---|---|---|---|---|---|---|----|
| 0  | 0 | ٥ | 0 | 0 | 0 | 0 | 0 | 0 | Φ | 0  |
| 0  | 0 | 0 | 0 |   | 0 | 0 | 0 | 0 | 0 | 0  |
| 12 |   |   |   |   |   |   |   |   |   | 1  |

| Function                   | PIN NO.     | Definition                                                     |
|----------------------------|-------------|----------------------------------------------------------------|
| PWR_ON<br>(Power/Soft_Off) | 1,13        |                                                                |
| ACPI(ACPI LED)             | 3,4         | PIN 3: Anode<br>PIN 4: Cathode                                 |
| ALED(IDE LED)              | 7,8         | PIN 7: Anode<br>PIN 8: Cathode                                 |
| RST(RESET)                 | 11,12       | PIN 11:RST<br>PIN 12:GND                                       |
| PLED<br>(System PowerLED)  | 15,16,17    | PIN 15:VCC<br>PIN 16:NC<br>PIN 17:GND                          |
| KL<br>(Keyboard Lock)      | 18,19       | PIN 18:KL<br>PIN 19:GND                                        |
| SPKR(Speaker)              | 21,22,23,24 | PIN 21:VCC<br>PIN 22:NC<br>PIN 23:NC<br>PIN 24:SPEAK<br>(BUZZ) |

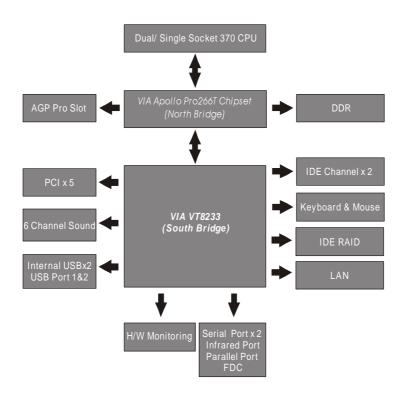
# **Features**

# **Motherboard Components Placement**



| NO. | Description                               |
|-----|-------------------------------------------|
| 1   | ATX Power connector                       |
| 2   | VIA Apollo Pro266T                        |
| 3   | CPU 0 Socket                              |
| 4   | System Memory Socket (DDR)                |
| 5   | On board IDE Channels                     |
| 6   | AGP Pro slot                              |
| 7   | DE RAID Channels ( DVD266u-RN only)       |
| 8   | VIA VT8233                                |
| 9   | FDC connector                             |
| 10  | HighPoint IDE RAID Chip (DVD266u-RN only) |
| 11  | 5 x PCI slots                             |
| 12  | Joystick, Midi Line In / Out, Mic In      |
| 13  | COM2                                      |
| 14  | Parallel connector                        |
| 15  | COM1                                      |
| 16  | USB ports/ LAN                            |
| 17  | PS2 Mouse / Keyboard                      |
| 18  | CMI 6 Channel Sound Chip                  |
| 19  | CPU 1 Socket                              |
| 20  | SmartCard Reader                          |

# **Block Diagram**



# **Specifications**

# Processor/Socket 370

Supports Socket 370 processors Supports 133/100/66MHz FSB Supports Dual FC-PGA2 (Tualatin) Pentium III CPU with 512k/256k cache Supports Dual Pentium III (Cu-256, FC-PGA) CPU from 500MHz to 1.3GHz and higher

# **CPU Frequency / Voltage Selection**

Supports Vcore selection from BIOS Supports CPU Multiplier selection by BIOS (from 2X to 12X) Supports CPU External Frequency selection by BIOS

### Memory

Supports DDR memory Supports PC2100/1600 DDR (DDR266/200) SDRAM Maximum System Memory up to 4GB

### **Graphics**

Supports AGP Pro Mode

### **General I/O**

PCI 2.2 compliance Supports 32-bit/33MHz PCI interface Supports UDMA 100/66/33 Supports LPC interface Supports Floppy interface Supports 16550A UART interface Supports ECP/EPP interface Supports PS2 interface Supports SIR/CIR interface Supports USB interface

### RAID Support (DVD266u-RN only)

Supports ATA/100/66/33 IDE channels Supports RAID Level 0/1/0+1 Supports "SPARE" feature Supports Win9X/WinNT/Win2k/Linx

# **Sound Support**

Supports 6 Channel Speakers

# **Management**

Supports Voltage monitoring
Supports Fan control signal
Supports Temperature sensor
Supports Chassis Intrusion
Supports Power on by LAN/ Modem/ PS2 Keyboard, Mouse/ RTC/ PME
Supports resume by LAN/ Modem/ PS2 Keyboard, Mouse/ RTC/ PME
Supports BIOS ROM Flash Control
Supports Manually Assign PCI IRQ

# **Expansion Slot**

Four DDR sockets One AGP slot Five 32bit/ 33MHz Bus Master PCI slots Two IDE connectors Two IDE RAID connectors One FDC connector

## **Others**

ATX Form Factor 305mmx260mm

# Hardware Setup

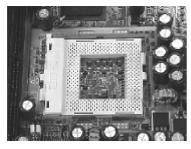
# **Install the Processor**

The CPU should have a fan attached to prevent overheating. If this is not the case, then purchase a fan before you turn on your system.

Be sure that there is sufficient air circulation across the processors heatsink by regularly checking that your CPU fan is working. Without sufficient circulation, the processor could overheat and damage both the processor and the motherboard. You may install an auxiliary fan, if necessary.

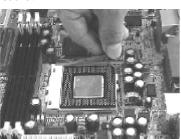
### Step1:

Pull the lever sideways away from the socket. Lever it into a 90degree angle.



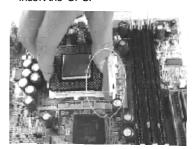
# Step3:

Press the lever down to close the scoket.



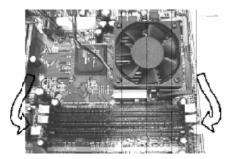
## Step2:

Locate Pin 1 in the socket and Match it with the white dot. Please insert the CPU.



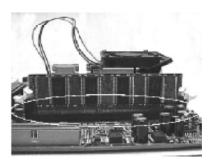
# **Install Memory Modules**

# Step1:



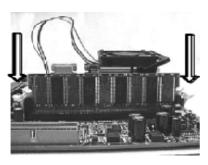
Open latches of DIMM socket.

# Step2:



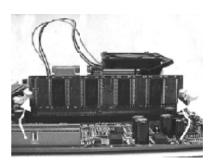
Proofread the DIMM slot to have 2 Notches, so it can fit in one direction.

## Step3:



Please Insert the DIMM memory module into the DIMM slot.

# Step4:



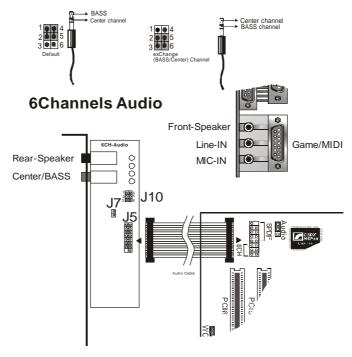
The clip at the side of the DIMM slot will close.

# **IWILL 6Channels Audio/ SuperAudio (Optional)**

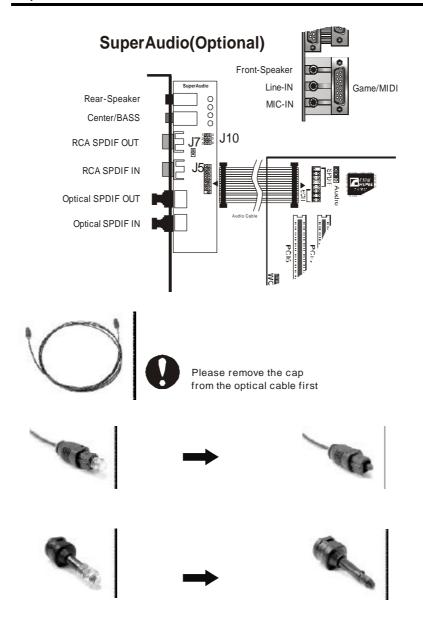
# **Connectors and Jumpers**

| JP5                  | Audio Extension (Digital I/O) Connector                                                        |
|----------------------|------------------------------------------------------------------------------------------------|
| JP7                  | CD-SPDIF IN                                                                                    |
| JP10                 | BASS/Center Select                                                                             |
| Line-IN              | LINE-IN Connect to the audio output port of stereo                                             |
| Mic-IN               | Connect to the Microphone (Mono)                                                               |
| Front- Speaker       | Output to speakers with the amplifier or earphones or AUDIO-IN of home stereo                  |
| Rear-Speaker         | Connect to the rear speakers while four/six channel speakers mode is enabled                   |
| Center/BASS          | Connect to the center speaker and BASS while six channel speakers mode is enabled              |
| GAME/MIDI            | Connect to Joystick or devices using MIDI interface                                            |
| RCA SPDIF IN/OUT     | Connects to digital audio devices such as DAT and MiniDisc recorders, via RCA input/output     |
| Optical SPDIF IN/OUT | Connects to digital audio devices such as DAT and MiniDisc recorders, via optical input/output |

### JP10 function



Chapter 3 Hardware Setup



**IWILL 6Channels Audio** 

IWILL SuperAudio (Optional)





# **ATX Power Supply Connector**

# Power on procedures

| STEP | Description                                                                                                             |
|------|-------------------------------------------------------------------------------------------------------------------------|
| 1    | After all connections are made, close the system case over.                                                             |
| 2    | Be sure that all switches are off.                                                                                      |
| 3    | Connect the power cord into the power suppply located on the back of your system case.                                  |
| 4    | Connect the power cord a power outlet that is equipped with a surge protector.                                          |
| 5    | Many of the power supply support 110V/220V by a switch setting. Switch your power supply to the correct supply voltage. |
| 6    | Turn on your system in the following order a. The monitor b. The external devices. c. The computer system.              |



The power LED on the front panel of the chassis will light. After few seconds, the system will then run power-on tests. Some additional messages will appear on the screen during the test. If you do not see anything within 30 seconds from the time you turn on the power, the system may have failed a power-on test. Recheck the jumper settings and connections or call your retailer for assistance.

# **Back Panel**

| Function                            | color    | Description                                                                                                                                                                                                                                                                                                                                                                                                                |
|-------------------------------------|----------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| PS2/Mouse                           | Green    | This connector can be used to support a PS/2 mouse                                                                                                                                                                                                                                                                                                                                                                         |
| PS2/<br>keyboard                    | Purple   | This connector can be used to support a PS/2 keyboard.                                                                                                                                                                                                                                                                                                                                                                     |
| Universal<br>Serial Bus             | Black    | This motherboard has two USB ports, any USB-compatible peripherals and/or hub can be connected into either USB port.                                                                                                                                                                                                                                                                                                       |
| LAN                                 | Black    | VIA VT6103 10/100 mbp LAN controller                                                                                                                                                                                                                                                                                                                                                                                       |
| Serial port                         | Teal     | One serial port is ready for a modem or other serial devices                                                                                                                                                                                                                                                                                                                                                               |
| Parallel port                       | Burgundy | This connector is used for printers, or other parallel devices.                                                                                                                                                                                                                                                                                                                                                            |
| Joystick,<br>Midi and<br>Audio Port | Gold     | You may connect joysticks or game pads to this connector for playing games, or connect MIDI devices for playing / editing professional audio. Line Out (Lime color) can be connected to headphones or powered speakers. Line In (Light Blue color) allows audio sources to be recorded by your computer or played through the Line Out connector. Mic (Pink color) allows microphones to be connected for inputting voice. |

# **BIOS Setup**

# BIOS Setup Upgrade BIOS

The BIOS can be upgraded from a diskette with the Award Flash utility — AWDFLASH.EXE. The BIOS image file, and update utility are available from IWILL's WEB site: **support.iwill.net** 

### **Enter BIOS setup program**

Power-on the system by either pressing the Power-On button, or by using any of the power-on features provided by the motherboard. Then, press the <Del> key after the Power-On Self Test (POST), and before the scanning of IDE devices. Simply look for the message "Press DEL to enter SETUP" displayed at the bottom of the screen during the boot up process. If the message disappears before you've had a chance to respond, you can restart the system by turning off the system power then turn it on again, or Pressing the "RESET" button on the system case, or

Pressing <Ctrl>, <Alt> and <Del> keys simultaneously.



Generally, the BIOS default settings have been carefully chosen by IWILL's Engineers provide the absolute maximum performance and reliability. It is very dangerous to change any setting without full understanding. We strongly recommend that you. DO NOT update BIOS if the system works perfectly. DO NOT change any setting unless you fully understand what it means.

# Using BIOS setup program

| ≝Up<br>≝Down<br>≝Left<br>≝Right<br><esc></esc> | Move to the previous field Move to the next field Move to the field on the left hand side Move to the field on the right hand side Quit from setup program without saving changes,or Exit from current menu page and return to main menu page |
|------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <pgup> or &lt;+&gt;</pgup>                     | Select the previous value for a field                                                                                                                                                                                                         |
| <pgdn> or &lt;-&gt;</pgdn>                     | Select the next value for a field                                                                                                                                                                                                             |
| <f1></f1>                                      | General Help                                                                                                                                                                                                                                  |
| <f2></f2>                                      | Item Help                                                                                                                                                                                                                                     |
| <f5></f5>                                      | Previous Values                                                                                                                                                                                                                               |
| <f6></f6>                                      | Fail-Safe Defaults                                                                                                                                                                                                                            |
| <f7></f7>                                      | Optimized Defaults                                                                                                                                                                                                                            |
| <f10></f10>                                    | Save the current value and exit setup program                                                                                                                                                                                                 |

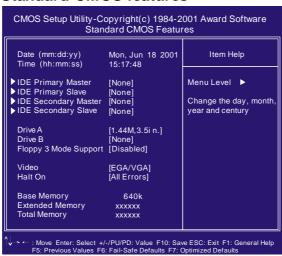
If the system is no longer able to boot after changing the settings, the only way to recover it is to clear the data stored in RTC CMOS. To reset the RTC CMOS data, take the JP1 jumper cap off pins 1-2, place onto pins 2-3, and then place back onto pins 1-2 again. This will return the RTC to the default setting. Then, get into the BIOS setup program , choose Load Fail-Safe Defaults ; Load Optimized Defaults, and select the original manufacturer default settings in your CMOS.

### Main Menu

The main menu allows you to select from several setup pages. Use the arrow keys to select among these pages and press <Enter> key to enter the sub-menu. A brief description of each highlighted selection appears at the bottom of the screen.



# **Standard CMOS features**



### **Date**

This field specifies the current date. The date format is <day>, <month>, <date>, and <year>.

### Time

This field specifies the current time. The time format is <hour>, <minute>, and <second>. The time is calculated based on the 24-hour (military-time) clock.

# IDE Primary Master / Primary Slave / Secondary Master / Secondary Slave

Press "Enter" to enter next page for detail hard drive setting.

### **IDE HDD Auto-Detection**

Auto-Detect the HDDs Capacity, and its parameters, ex: Cylinder, Head and Sector.

# IDE Primary Master / Primary Slave / Secondary Master / Secondary Slave

This field specifies type of drive that corresponds to the drive installed in your system. If you select User, please specify the correct number of Cylinders, Heads, and Sectors.

| Manual               | Selecting anual lets you set the remaining fields on this screen. Selects the type of fixed disk. |
|----------------------|---------------------------------------------------------------------------------------------------|
| Auto (Default Vaule) | BIOS automatically fills in the values for the cylinders, heads and sectors fields.               |
| None                 | Any Disk Drives are attached                                                                      |

Capacity Auto Display your disk drive size

### **Access MODE**

This field specifies the IDE translation mode.

| СНЅ                     | Specifies traditional CHS addressing mode.       |  |  |
|-------------------------|--------------------------------------------------|--|--|
| Large                   | Specifies extended CHS translation mode          |  |  |
| LBA                     | Specifies LBA translation mode.                  |  |  |
| Auto<br>(Default Vaule) | BIOS specifies translation method automatically. |  |  |

Cylinders

Set the number of cylinders for this hard disk.

Heads

Set the number of read/write heads

Precomp

Setting a value of 65535 means no hard disk

Sectors

Set the number of sectors per track

### Drive A / Drive B

This field specifies the traditional type of floppy drives.

| None<br>(*Drive B default)           | Any Floppy drive is connected           |
|--------------------------------------|-----------------------------------------|
| 360K, 5.25 in.                       | Specifies extended CHS translation mode |
| 1.2M, 5.25 in.                       | A 1.2M floppy drive is connected        |
| 720K, 3.5 in.                        | A 720K floppy drive is connected.       |
| 1.44M, 3.5 in.<br>(*Drive A default) | A 1.44M floppy drive is connected       |
| 2.88M, 3.5 in.                       | A 2.88M floppy drive is connected       |

# Floppy 3 Mode Support

3 Mode floppy drive is a type of 3.5-inch drive used by NEC PC98 computers. It supports both 1.2M and 1.44M formats using the same drive. This field specifies which drive supports 3 Mode. When a floppy drive is specified to support 3 Mode, the respective drive setting in "Drive A / Drive B" field will be invalid.

| Disabled (Default Value) | No 3 Mode drive is connectedd              |  |
|--------------------------|--------------------------------------------|--|
| Drive A                  | A 3 Mode drive is connected as drive A     |  |
| Drive B                  | A 3 Mode drive is connected as drive B     |  |
| Both                     | Both drive A and drive B are 3 Mode drives |  |

### Video

| EGA/VGA<br>(Default Value) | Specifies EGA or VGA adapterd             |  |
|----------------------------|-------------------------------------------|--|
| CGA 40                     | Specifies CGA adapter with 40 column mode |  |
| CGA 80                     | Specifies CGA adapter with 80 column mode |  |
| MONO                       | Specifies Monochrome adapter              |  |

# Halt On

| All Errors<br>(Default Value) | Each time the BIOS detects a non-fatal error, the system will stop and display an error message |  |
|-------------------------------|-------------------------------------------------------------------------------------------------|--|
| No Errors                     | The system will stop for any errors that are detected                                           |  |
| All, But Keyboard             | The system will stop for any errors excep keyboard error                                        |  |
| All, But Diskette             | The system will stop for any errors except diskette error                                       |  |
| All, But Disk/Key             | The system will stop for any errors except diskette and key board errors                        |  |

# **Base Memory**

The POST (Power-On Self Test) determines the amount of base (conventional) memory installed in the system. The value of the base memory is typically 640K. This field has no options.

# **Extended Memory**

The BIOS determines how much extended memory is present during the POST. This is the amount of memory located above 1MB in the processor's memory address map. This field has no options.

# **Total Memory**

Displays the total memory available in the system

### **Advanced BIOS Features**



## Virus Warning

When this function is enabled and any attempt to write data into this area is made, the BIOS monitor will display a warning message on screen and beep. If you want to run an anti-virus program, we recommend you that it will disable and appear the Virus Warning function beforehand.

[Enabled, Disabled (Default Value)]

### **CPU Internal Cache**

This field configures the CPU internal cache(L1 cache).

[Enabled(**Default Value**), Disabled]

### **External Cache**

This field configures the system's external cache(L2 cache).

[Enabled(Default Value), Disabled]

# CPU L2 Cache ECC Checking

This field specifies whether the CPU L2 cache supports ECC or not.

[Enable, Disabled(Default Value)]

### First / Second / Third / Boot Other Device

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

[Floppy, LS120, HDD-0, SCSI, CDROM, HDD-1, HDD-2, HDD-3, ZIP100, USB-ZIP, USB-CDROM, USB-HDD, LAN, Disabled]

### **Swap Floppy Drive**

When enabled, floppy drives A and B will be exchanged without the user physically changing the connection on the cable.

[Enable, Disabled(Default Value)]

### **Boot Up Floppy Seek**

Seeks disk drives during boot up. Disabling speeds boot up. [Enabled(**Default Value**), Disabled ]

### **Boot Up NumLock Status**

This field determines the configuration of the numeric keypad after system boot up. If On, the keypad uses numbers keys. If Off, the keypad uses arrow keys.

[ON(Default Value),Off]

# **Gate A20 Option**

This field configures how the gate A20 is handled. The gate A20 is a device used to address memory above 1 MB. At first, the gate A20 was handled from a pin on the keyboard. While some keyboards still provide this support, it is more common, and much faster, for modern system chipsets to provide support for gate A20.

[Fast(**Default Vaule**):GateA20 signal supported by core logic]

[Normal: GateA20 signal supported by keyboard controller].

### **Typematic Rate Setting**

This field determines if the typematic rate is to be used. When enabled, the BIOS will report (after a moment) that the key has been depressed repeatedly. When disabled, the BIOS will report only once if a key is held down continuously. This feature is used to accelerate cursor movements using the arrow keys.

[Enable, Disabled(Default Value)]

## Typematic Rate (Chars/Sec)

When Typematic Rate Setting enabled, this field specifies how many characters will be displayed in one second when a key is held down continuously.

[6(Default Value)8,10,12,15,20,24,30]]

# Typematic Delay (Msec)

When enabled, typematic delay allows you to select the time delay between when the key is first pressed and when the acceleration begins

[250msec(Default Value)500msec,750msec,1000msec]

### **Security Option**

This field configures how the system security is handled. It works conjunction with SETTING SUPERVISOR / USER PASSWORD page to control the security level of the system.

[Setup(**Default Value**):System needs a password to enter BIOS setup program.]

[System:System needs a password to boot.]

#### OS Select for DRAM >64MB

When enabled, this field allows you to access the memory that is over 64MB under OS/2.

[OS2, Non-OS2(Default Value)]

# **Report No FDD For WIN 95**

For a floppy diskless system that runs Windows 95, this field should be set tp Yes.

[YES, NO(Default Value)]

### Video BIOS Shadow

Setting to enabled, the video BIOS will be copied to the system memory and increase the video speed accordingly.

[Enabled(Default Value), Disabled]

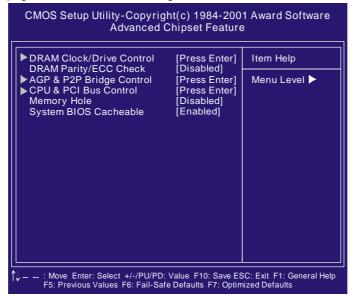
# C8000-CBFFF/CC000-CFFFF/D0000-D3FFF/D4000-D7FFF/D8000-DBFFF/DC000-DFFFF Shadow

Setting to enabled, the extended ROM data located at the respecitive address range will be copied to system memory.

[Enalbed, Disabled(Default Value)]

## **Advanced Chipset Features**

This setup page is used to specify advanced features available through the chipset. The default settings have been chosen carefully for most operating conditions. DO NOT change the value of any field in this setup page without full understanding.



### **DRAM Timing Select**

The first chipset settings deal with CPU access to dynamic random access memory (DRAM). The default timings have been carefully chosen and should only be altered if data is being lost. Such a scenario might well occur if your system had mixed speed DRAM chips installed. Longer delays might result, however this preserves the integrity of the data held in the slower memory chips.

### **DRAM Clock**

This field allows you to select the DRAM operating frequency to get better performance.

[By SPD (Default Value)]

[Host CLK: DRAM clock is the same speed as Front Side Bus.] [HCLK+33M: DRAM clock is set 33MHz more than the Front Side Bus]

### **DRAM Timing**

[By SPD(Default Value), Manual]

**DDR DRAM Cycle Length** 

DRAM timing is default to AUTO, when set to Manual, I can change DDR DRAM Cycle Length to 2 or 2.5.

[2.5(Default Value), 2]

Bank Interleave

Select numbers of Bank to realize fast and seamless data access mode among many different pages.

[Disabled(Default Value), 2 Bank, 4Bank]

DRAM Page-Mode

[Disabled(Default Value), Enabled]

**DRAM Parity/ ECC Check** 

This item allows you to enable/disable the DRAM Parity/ ECC Check.

[Enabled, Disabled(Default Value)]

AGP Aperture Size

This field specifies the size of system memory that can be used for AGP graphics aperture

[4M, 8M, 16M, 32M, 64M, 128(Default Value), 256M]

**AGP Mode** 

This item allows you to select the AGP Mode.

[1X, 2X, 4X(Default Value)]

AGP Driving Control

This item allows you to choose the AGP driving mode by Auto or manual. [Auto(Default Value), Manual]

AGP Fast Write

[Enabled, Disabled(Default Value)] AGP Master 1 WS Write

[Enabled, Disabled(Default Value)]

AGP Master 1 WS Read

[Enabled, Disabled(Default Value)]

**CPU IOQ Size** 

[1Level, 8Level(Default Value)] CPU to PCI Write Buffer

[Enabled(Default Value), Disabled]

PCI Master O WS Write

[Enabled(Default Value), Disabled]

PCI Delay Transaction
[Enabled, Disabled(Default Value)]

Memory Hole

In order to improve performance, certain space in memory is reserved for ISA cards. This memory must be mapped into the memory space below 16MB.

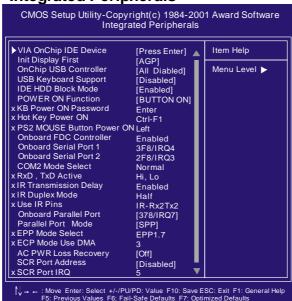
[15M-16M, Disabled(Default Value)]

System BIOS Cacheable

When enable accesses to the system BIOS will be cached.

[Enabled(Default Value), Disabled]





### VIA On Chip IDE Device

OnChip IDE Channel 0/1

This field enables or disables the onboard IDE controller. [Enabled(**Default Value**), Disabled]

Primary Master/Slave PIO Secondary Master/Slave PIO

These fields configure the PIO (Programmable Input Output) transfer mode for each IDE devices. The maximum transfer rates of each PIO mode are listing as follow:

| PIO Mode 0<br>PIO Mode 1<br>PIO Mode 2<br>PIO Mode 3<br>PIO Mode 4 | 5.2<br>8.3<br>11 | MB/sec MB/sec MB/sec MB/sec MB/sec                                                                                                                                                                                  |
|--------------------------------------------------------------------|------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Auto(Default Val<br>Mode 0<br>Mode 1<br>Mode 2<br>Mode 3<br>Mode 4 | ue)              | Negotiated with device automatically Use Mode 0 timing to access device Use Mode 1 timing to access device Use Mode 2 timing to access device Use Mode 3 timing to access device Use Mode 4 timing to access device |

## Primary Master/Slave UDM A Secondary Master/Slave UDM A

If you select Auto, the IDE controller uses Ultra DMA 33/66 Mode to access Ultra DMA-capable IDE devices. Depend on the resent of negociation with your HDD. The maximum transfer rate of Ultra DMA 66 Mode is 66.6 MB/sec.

[Auto(Default Value), Disabled]

#### **Init Display First**

This item allows you to decide which slot to activate first, either PCI slot or AGP slot.

[PCI Slot, AGP(Default Value)]

### OnChip USB Controller

This item allows you to decide how many ports that you want to

[All Disabled (Default Value), All Enabled, 1&2/1&3 USB Port, 1/2/3 USB Port]

# **USB Keyboard Support**

This item allows you to choose to support USB keyboard or not.

[Enabled, Disabled (Default Value)]

### **IDE HDD Block Mode**

Select enabled, the block mode will automatic detection of the optimal number of block read/ writes per sector the drive can support.

[Enabled(Default Value), Disabled]

# **POWER ON Function**

This field configures the Power-On mode of the system.

The Power-On button will not function in this mode.

[BUTTON ONLY (Default Value): Simply power-on your system by pressing the Power-On button on the system.]

[Password: You can assign a password string through KB Power-On Pass word field.]

[Hot Key: You can assign a hot key through the Hot Key Power-On field. Pressing this hot key will power-on our system.]

[Mouse/ Hot Key: Double-Clicking the PS/2 mouse Left/ Right button will power on the system.]

[**Keyboard 98:** Enables Keyboard 98 function. This founction is good only for users of Keyboard 98.]

# **KB Power ON Password**

If you wish to use this function, bring the cursor to the field written Enter, then press <Enter>. The computer will display the message," Enter Password". Type your password is displayed,retype your password. The KB Power-On function will be in effect after you save and exit setup.

To disable a password, bring the cursor to the Enter" field again, then press <Enter>. The computer will display the message, Enter Password Press <Enter>. A message will confirm that the password is disabled.

### **Hot Key Power ON**

This field specifies key selection for the Keyboard-Power-On hot key.

[Ctrl-F1,Ctrl-F2,Ctrl-F3,Ctrl-F4,Ctrl-F5,Ctrl-F6,Ctrl-F7,Ctrl-F8,Ctrl-F9,Ctrl-F10,Ctrl-F11,Ctrl-F12]

# **Onboard FDC Controller**

This field enables or disables the onboard floppy controller.

[Enabled(Default Value), Disabled]

### **Onboard Serial Port 1/2**

These fields configure the onboard serial ports. There are several port addresses and IRQ channels to select from.

| 3F8 / IRQ 4<br>(Default Vaule)        | Port address 3F8h, IRQ 4 |
|---------------------------------------|--------------------------|
| 2F8 / IRQ3<br>( <b>Default Vaule)</b> | Port address 2F8h, IRQ 3 |
| 3E8 / IRQ 4                           | Port address 3E8h, IRQ 4 |
| 2E8 / IRQ 3                           | Port address 2E8h, IRQ 3 |
| Disabled.                             | Disables serial port     |

# **COM2 Mode Select**

A second serial port is using a serial port bracket connected from the motherboard to an expansion slot opening. [IrDA, Normal(**Default Value**), ASKIR]

# RxD, TxD Active

When setting the field to either IrDA or ASKIR, you must select the active level of receiving and transmission signal.

[Hi ,Lo(Default Value) /Lo,Hi/Lo,Lo/Hi,Hi]

# **IR Transmission Delay**

When setting the field to either IrDA or ASKIR, you must select whether or not you require a delay between IR transmissions.

[Enabled(Default Value), Disabled]

#### **IR Duplex Mode**

[Full, Half (Default Value)]

#### **Use IR Pins**

[IR-Rx2Tx2(Default Value), RxD2, TxD2]

# **Onboard Parallel Port**

This field configures the onboard parallel port. There are several port addresses and IRQ channels to select from.

| r                              |                          |
|--------------------------------|--------------------------|
| 378 / IRQ 7<br>(Default Value) | Port address 378h, IRQ 7 |
| 278 / IRQ 5                    | Port address 278h, IRQ 5 |
| 3BC / IRQ 7                    | Port address 3BCh, IRQ 7 |
| Disabled                       | Disables parallel port   |

# **Parallel Port Mode**

This field configures the operating mode of an onboard parallel port. Ensure you know the specifications of your parallel port devices before selecting field.

[SPP(Default Value), EPP, ECP, ECP+EPP]

## **EPP Mode Select**

When the Parallel Port Mode field is configured as EPP, ECP+EPP mode, the EPP version needs to be specified. Please refer to your peripheral document before selecting field.

[EPP1.7(Default Value): Use EPP1.7 protocol]

[EPP1.9: Use EPP1.9 protocol]

# **ECP Mode Use DMA**

When the Parallel Port Mode field is configured as ECP, ECP+EPP mode, it needs a DMA channel for data transfer. This field specifies the DMA channel for ECP parallel port use.

[1:Use DMA channel 1]

[3(Default Value): Use DMA channel 1]

**AS PWR Loss Recovery** 

[Off(Default Value), Former-Sts]

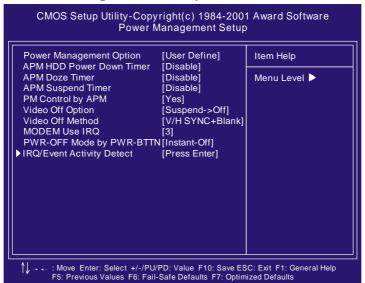
**SCR Port Address** 

[Disabled(Default Value), 3F8, 2F8, 3E8, 2E8]

**SCR Port IRQ** 

[5(Default Value), 3, 4, 11]

# **Power Management Setup**



Each power-saving mode has a respective timer. The value of the timer can be assigned or reloaded and it will count down to zero. When the timer equals to zero, the system will be forced into the related suspend or power-saving mode. If any signal or event is detected during the timer counting period, the timer restarts automatically.

## **Power Management**

This feature allows the user to select the default parameters for the power-saving mode.

Min Saving:

When idle for one hour, the system enters suspend mode.

Max Saving:

When idle for fifteen minutes, the system enters suspend mode. *User Define*(*Default Value*):

User can specify time the system enters suspend mode.

#### **APM HDD Power Down Timer**

This field specifies the time the system enters HDD power down. It is available only when the Power Management field is set to User Define

[1Min,2Min,3Min,4Min,5Min,6Min,7Min,8Min,9Min,10Min,11Min, 12Min,13Min,14Min,15Min, Disable(**Default Value**)]

#### **APM Doz Timer**

This field specifies the timer value of Doze Mode. It is available only when the Power Management field is set to User Define.

[1Min, 2Min, 4Min, 6Min, 8Min, 10Min, 20Min, 30Min, 40Min, 1Hour, Disable(**Default Value**)]

# **APM Suspend Timer**

This field specifies the time the system enters power-saving mode. It is available only when the Power Management field is set to User Define.

[1Min, 2Min, 4Min, 6Min, 8Min, 12Min, 20Min, 30Min, 40Min, 1Hour, Disable(**Default Value**)]

## **PM Control by APM**

When enabled, an Advanced Power Management (APM) protocol will be activated to handle the power-saving mode.

[No, Yes(Default Value)]

#### **Video Off Option**

This field specifies the method that video system used for power saving.

[Always ON: Monitor will remain on during power saving modes.] [Suspend Off(**Default Value**): Monitor blanked when the systems enter the Suspend modes.]

[All Mode Off: Monitor blanked when the system enters any power saving mode.]

## **Video Off Method**

[V/H SYNC+Blank(**Default Value**): Turn off the vertical and horizontal synchronization ports and write blanks to the video buffer.]

[Blank Screen: Writes blanks to the video buffer only.]
[DPMS Support: Initial display power management signaling with DPMS.]

# **IRQ/ Event Activity Detect**

These are I/O events whose can prevent the system from entering a power-saving mode, or can awaken the system from such a mode. In effect, the system remains alert for anything that occurs to a device configured and recognized by the system, even when the system is in a power down mode.

#### VGA

When ON, you can set the VGA to awaken the system.

[OFF(Default Value), ON]

#### LPT& COM

When ON, any activity from one of the listed system peripheral devices or IRQs wakes up the system.

[LPT/ COM(Default Value), COM, LPT, None]

# HDD&FDD

When ON, any activity from either hard disk drive or floppy disk drive wakes up the system.

[ON(Default Value), OFF]

#### **PCIMaster**

When ON, the system can be resumed from power saving mode by any PCI/ master activity signal.

[OFF(Default Value), ON]

### Wake up by PCIcard

When enabled, you can "wake-up" your system using a PCI rev.2. 2 card, such as a WOL card, connected in your PCI slot.

[Disabled(Default Value), Enabled]

# Wake Up by Ring/LAN

When enabled, the PC can power-on through an external modem connected to your PC. For example, you may send an e-mail message to your PC from another location, and this will power-on your PC.

[Enabled, Disabled (Default Value)]

# PWROn/Resume by Alarm

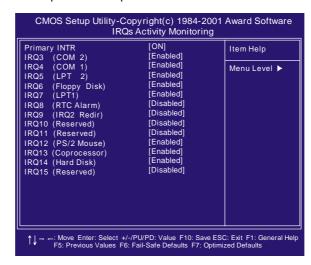
When enabled, you can set the date and time to automatically power-on your PC(similar to an alarm clock). The alarm from RTC (real-time clock) automatically turns on the system.

[Enabled: Sets Date (0-31) and Timer (hr, min, sec) to power-on the PC. When date is set to 0, the Timer is set for every day.]

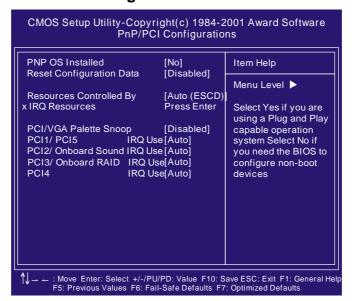
[Disabled(Default Value): Disables RTC alarm function.]

# **IRQs Activity Monitoring**

When On, any event that occurs will awaken the system after it has powered-down. The following is a list of IRQs, or 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.



# PnP/ PCI Configurations



# **PNP OS Installed**

The field specifies whether a Plug and Play operating system is installed.

[Yes,No(Default Value)]

#### **Reset Configuration Data**

Normally, you leave this field Disabled. Select Enabled to reset Extended System Configuration Data (ESCD) when you exit Setup if you have installed a new add-on and the system reconfiguration has caused such a serious conflict that the operating system can not boot.

[Enabled, Disabled(Default Value)]

## **Resources Controlled By**

The Award Plug and Play BIOS has the capacity to automatically configure all of the boot and Plug and Play compatible devices. However, this capability means absolutely nothing unless you are using a Plug and Play operating system such as Windows98/95/NT. If you set this field to "manual" choose specific resources by going into each of the sub menu that follows this field (a sub menu is preceded by a "Ø").

[Manual: Resources controlled by the user.]

[Auto(ESCD)(**Default Vaule**): Resources controlled by BIOS automatically]

#### **IRQ** Resources

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

IRQ3/4/5/7/9/10/11/12/14/15 assigned to

[PCI/Device (Default Value), Reserved]

# PCI / VGA Palette Snoop

This field controls the ability of a primary PCI graphics controller to share a common palette with an ISA/VESA video or MPEG card.

[Enabled:PCI VGA co-works with ISA MPEG card.]

[Disabled (Default Value): All cases except above.]

**Assign IRQ For PCI** 

PCI1/5 IRQ Use

PCI2/Onboard Sound IRQ Use

PCI3/Onboard RAID IRQ Use

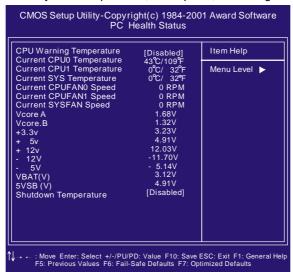
PCI4 IRQ Use

These fields set how IRQ use is determined for each PCI slot.. The default setting for each field is Auto, which uses auto-routing to determine IRQ use.

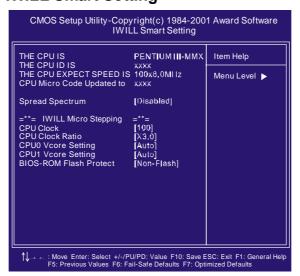
[Auto(Default Value), 3, 4, 5, 7, 9, 10, 11, 12, 14, 15]

# **PC Health Status**

This page is monitoring your status of computer. On the screen displays CPU/System temperature, FAN speed, and voltages.



# **IWILL Smart Setting**



# **Iwill MicroStepping**

# **MicroStepping**

Microstepping is Iwill's another step forward to provides users a fuss free CPU frequency set up procedure. It contains two main functions, Auto Detecting CPUs speed and Micro Adjustable CPU FSB speed.

#### **Auto Detecting CPU speed:**

IWILL MicroStepping will auto detect the CPU's factory multiplier setting and CPU FSB to the factory default. This function provides a "fuss free" CPU set up process for the general users.

#### Micro Adjustable CPU FSB speed:

IWILL provides a user friendly overclocking function that allows users to experience the fun of overclocking. This function allows user to adjust CPU FSB by 1MHz interval. This is particularly useful when user wants to extract the most out of the purchased CPU. For example: you select from 133, 134, 135, 136, 137, 138MHz and up to the maximum speed that the system can sustained.

In the time should overclocking failed, MicroStepping will auto detects the CPU's factory multiplier setting and set the CPU FSB to default 66MHz, to protect the CPU installed.

# **Spread Spectrum**

This item configures radiation emitted from the system. When enabled, system will release less radiation.

[Enabled,Disabled (Default Value)]

### CPU 0/1 Vcore Setting

This item display the current status of CPU voltages.

[Auto (Default Value), 1.050V, 1.075V, 1.100V, 1.125V, 1.150V, 1.175V, 1.200V,1.225V, 1.250V,1.275V,1.300V,1.325V,1.350V, 1.375V,1.400V,1.425V, 1.450V,1.475V, 1.525V,1.550V,1.575V, 1.600V,1.625V,1.650V,1.675V,1.700V,1.725V,1.750V,1.775V, 1.800V,1.825V]

# **BIOS-ROM Flash Protect**

When select "Non flash", the BIOS ROM chip will be protecte to prerent injuring by Virus "please don't select Flashable" until you have to upgrade the latest BIOS.

[Non-flash (Defult Value), Flashable]

# **Load Fail Safe Defaults**

When you press <Enter> on this item you get a confirmation dialog box with a message similar to: Pressing 'Y' loads the BIOS default values for the most stable, minimal-performance system operations.



# **Load Optimized Defaults**

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



# Set Supervisor/ User Password Setting



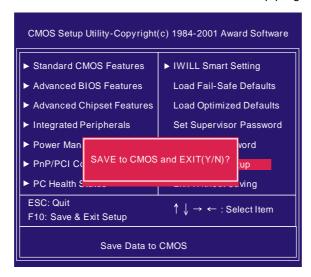
These setup pages are used for password setting. When a password has been enabled and the Security Option field is set as Setup, you will be required to enter the password every time you try to enter BIOS Setup program. This prevents an unauthorized person from changing any part of your system configuration. Additionally, if the Security Option field is set as Boot, the BIOS will request a password every time your system boot. This would prevent unauthorized use of your computer.

If you wish to use this function, bring the cursor to this field, then press <Enter>. The computer will display the message, "Enter Password". Type your password and press <Enter>. After the message on firm Password" is displayed, re-type your password. The Supervisor Password function will be in effect after you save and exit setup.

To disable a password, bring the cursor to this field, then press <Enter>. The computer will display the message, "Enter Password". Press <Enter>. A message will confirm that the password is disabled. Once the password is disabled, the system will boot and you can enter setup program freely.

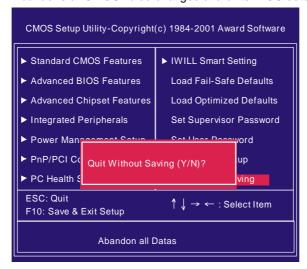
# Save & Exit Setup

Saves current CMOS value and exit BIOS setup program.



# **Exit Without Saving**

Abandons all CMOS value changes and exits BIOS setup program.



# On board Audio

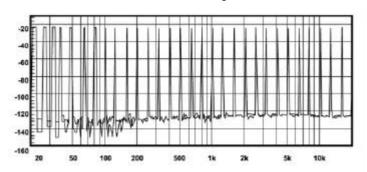
# **Audio Features**

# **Special Feature**

- 1. Full-duplex playback and recording. Built-in 16-bit CODEC.
- 2. HRTF 3D positional audio, supporting both DirectSound 3D&A3D interfaces. Also supports earphones, 2/4/6 channel speakers mode.
- 3. Support Windows 98/Windows 2000 and Windows NT 4.0.
- 4.Built-in 32 OHM Earphone buffer.
- 5. MPU-401 Game/Midi port and legacy audio SB Pro support.
- 6. Downloadable Wave Table Synthesizer, supporting Direct Music.

# **Digital Audio (SPDIF IN/OUT)**

- Up to 24-bit stereo 44KHz sampling rate; voice playback/ recording
- 2. Full-duplex playback and recording. 120dB audio quality measured.
- 3. Auto detectable SPDIF/IN signal level from 0.5V to 5V.



120 dB audio quality in playback, recording, and by pass modes.

# **Stereo Mixer**

- 1. Stereo analog mixing from CD-Audio and Line-in
- 2. Stereo digital mixing from Voice, FM/Wave-table, and Digital CD-Audio
- 3. Mono mixing from MIC. Software adjustable volume.

# **Game and Midi Interface**

Fully compatible with MPU-401 Midi UART and Sound Blaster Midi mode/Standard IBM PC joystick/game port

# **Driver Installation**

#### **DOS Installation**

Before beginning the installation, please make sure that your hard disk has sufficient space(min. 4MB). Insert the Power Installer CD into the CD-ROM Drive.

- Change directory to PCI audio DOS drivers folder (ex. D:\DOSDRV) at DOS prompt, and type: INSTALL[Enter]
- 2. Type the DOS utilities path you want to install the file in.
- 3. Program will expand the file to the path you've specified.
- 4. Install program will add initial drivers into AUTOEXEC.BAT file.

#### Win 95/98/ME/2000 Installation

- 1. Click "Start" at Windows bottom-left corner.
- 2. Select "Run"
- 3. Key in the drive path where the installation CD and installation program are in; for example, "D:\SETUP.EXE"
- 4. Click "OK" to start the applications installation procedure, and follow the on-screen instructions to complete the installation.
- When all the application software has been installed, please shut down Windows system, and reboot your system for new driver installation. System will install the device drivers automatically.

# Win 95/98/ME/2000 Un-Installation

- 1. Click "Start"
- 2. Select "Program."
- 3. Find "Uninstall device drivers and applications" program in PCI audio applications.
- 4. Run it
- 5. Follow the on-screen instructions to uninstall the device drivers or applications.

# Windows NT4.0 Installation

We recommend that you have Microsoft Windows NT intalled, and remove any exsisting sound drivers from your current system, before you install this PCI sound device driver.

- 1. Click "Start", move the highlight bar to "Setting", and select the "Control Panel".
- 2. Double-click "Multimedia."
- 3. Select "Devices", and press "Add"
- 4. Select "Unlisted or Updated Driver" in List of Drivers."
- 5. Specify the drive path where NT drivers are in (such as D:\NT40\DRV).
- 6. Select "C-Media CM8738," and press "OK".
- 7. Select proper I/O value.
- 8. Press "OK."
- 9. Restart the system when being asked.
- 10. Now, you have already installed the PCI Audio Adapter under Microsoft Windows NT 4.0 successfully. If you want to install the Windows applications, continue the following steps.
- 11. Click "Start"
- 12. Select "Run"
- 13. Key in drive path where the Windows NT application installation program are in;
  - for example, "D:\NT40\APP\SETUP.EXE
- 14. Click "OK" to start the installation procedure, and follow the onscreen instructions to complete the installation. When all of application software has been installed, shut down the Windows NT system, then reboot your system.

# The Audio Rack

#### Introduction

By means of a user-friendly interface (as easy as operating your home stereo system), this PCI audio rack provides you with the control over your PC's audio functions, including the advantage of six speakers mode enable/ disable, and perfect digital sound ( SPDIF version ONLY) input / output. control.



**About Audio Rack**The Audio Rack is consisted of several major components.

# **Control Center**

Controls the display of the PCI Audio Rack's components.



#### **MIDI Player**

MIDI Player can play MIDI files, \*.mid/\*.rmi, and allow you to create your own playlist.

# MP3/Wave Player

Records and plays digital audio (mp3/wave) files. Allows you to create wave file playlists, and playback the wave files.

# **CD Player**

Plays standard audio CDs. Allows you to create your favorite song playlists.

Controls the volume level of your audio inputs and outputs

### **Mixer**

#### **Volume Control**



For each output signal, the control slider regulates the loudness whereas a horizontal slider the balance between the two speakers. The mute button can temporarily stop the output without changing slider positions. A button with a lit LED means the output is available, and vice versa. Several output signals can usually be enabled at once.

**Volume:** This is the master control over all outputs. The power of an outputRe signal is determined by both of the volume slider and the slider for the individual output. To modify all the outputs, adjust the volume slider. To change individual output(s), adjust its(their) slider(s).

CD: Regulates the CD drive audio input level.

MIC: Regulates the input level of microphone.

WAVE: Regulates wave (voice) playback levels.

MIDI: Regulates the MIDI music play level.

AUX IN: Regulates the Auxiliary input play level.

MONO IN: Regulates the Mono input level.

LINE IN: Regulates the Line-In levels.

Advanced: Regulates the advanced settings.

## **Recording Control**



For each input signal, a control slider regulates the loudness whereas a horizontal slider the balance between the two channels. The se lect button can temporarily select input signal without changing slider positions. A button with a lit LED means it is available, and vice versa.

**CD:** Regulates the CD drive audio input level. **MIC:** Regulates the input level of microphone. **WAVE:** Regulates wave (voice) playback level. **FM:** Regulates the FM music play level.

AUX IN: Regulates the Auxiliary input play level.

AUX IV. Regulates the Auxiliary input play le

LINE IN: Regulates the Line-In level.

**SPDIF IN:** Enables the recording from SPDIF in. SPDIF-in is mutually exclusive with other input signals.

Advanced: Regulates the advanced settings.