Motherboard

EMAXX-MCP61D3-iCafe

Socket AM3 Processor Mainboard

User's Manual

Rev: 1.00, Aug 2010

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Chapter 1 Introduction

1.1 Package Checklist

Thank you for choosing our product.
Please check the following packing and accessories, if there is any broken or part missing, please contact with your franchiser.

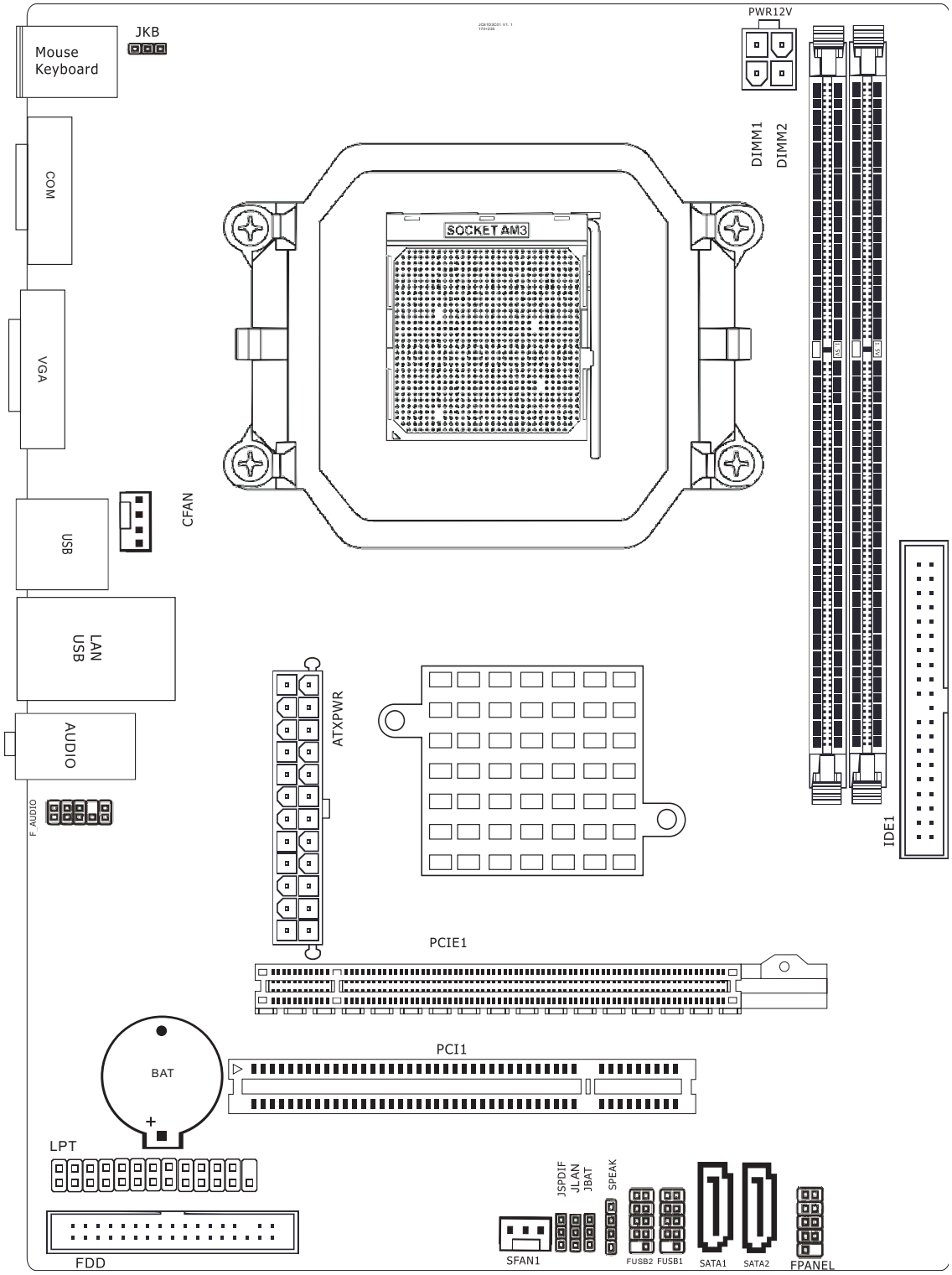
- Serial ATA Signal Cable X 1
- Rear I/O Panel X 1
- User's Manual X 1
- Driver/Utility CD X 1
- FDD Cable X 1 (Optional)
- Serial ATA Power Cable X 1 (Optional)
- IDE Cable X 1(Optional)

The items listed above are for reference only, and are subject to change without notice.

1.2 Specifications

CPU	- Support AMD(R) Socket AM3 processors - AMD Phenom™ II x4/ Phenom™ II x3/ Phenom™ II x2/ Athlon™ II x4/ Athlon™ II x3/Athlon™ II x2/ Sempron™ 1xx processors - Support AMD Cool'n'Quiet!™ Technology - Supports Hyper Transport
Chipset	- Based on nVIDIA MCP61P chipset
Graphics	- Integrated nVIDIA Geforce 6150SE
Main Memory	- Dual Channel DDR3 1333/1066/800 support - Max capacity: 8GB DDR3 - DIMM slots: 2 x DDR3
BIOS	- AMI BIOS,8 Mbit flash ROM - Supports Dual channel memory architecture - Supports Advanced Power Management ACPI - CPU temperature, Fan speed, System Voltage monitoring
Rear Panel I/O	- 1 x PS/2 Keyboard port - 1 x PS/2 Mouse port - 1 x VGA port - 1 x COM port - 1 x RJ45 port - 4 x USB 2.0 ports, USB 1.1 is compliant - 3 x Audio ports (Line In / Line Out / MIC In)
Internal I/O Connectors	- 1 x 24-pin ATX main power connector - 1 x 4-pin ATX 12V power connector - 2 x SATA 3Gb/s connectors (supporting RAID 0,1) - 1 x CPU fan header - 1 x System fan headers - 1 x Front panel header - 1 x LPT header - 1 x Front panel audio header - 1 x S/PDIF Out header - 1 x SPEAKER header - 2 x USB 2.0 headers for additional 4 USB 2.0 ports (by cables) - 1 x IDE connector, 2 x IDE devices could be connected, support ATA 66/100/133 - 1 x Floppy Drive, supports 360K/720K/1.2M/1.44M/2.88M floppy disk
Sound	- Onboard 6-channel HD Audio Codec - Front Panel Jumper, provides stereo MIC port on front panel
Onboard LAN	- Onboard 10/100/1000Mb compatible LAN (Optional)
Expansion Slots	- 1 x PCI Express x16 slot - 1 x PCI slot - Support PCI Bus interface v2.2 compliant
Form Factor	- Micro-ATX (170*235MM)

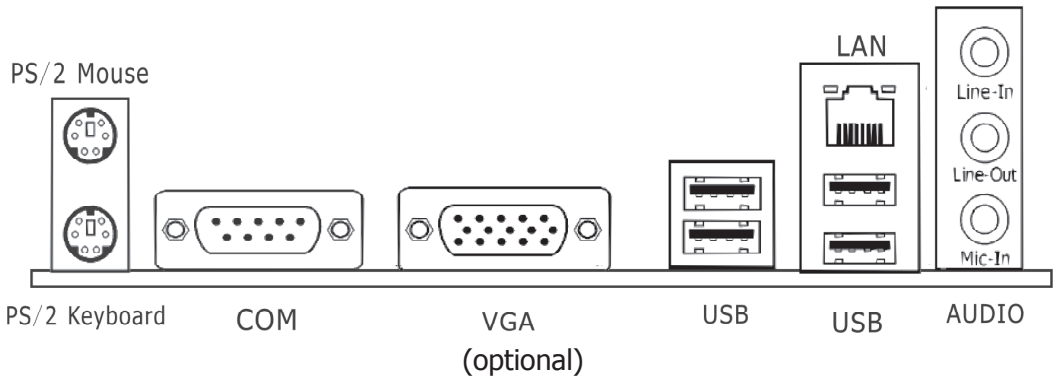
1.3 Mainboard Layout



(This picture is only for reference)

1.4 Connecting Rear Panel I/O Devices

The rear I/O part of this mainboard provides the following I/O ports:



- **PS/2 Mouse:** Connects to a PS/2 mouse.
- **PS/2 Keyboard:** Connects to a PS/2 keyboard.
- **VGA:** Connects to a monitor's VGA input.
- **COM:** Connect to external modem.mouse or other devices that support this communication portocol.
- **LAN:** The LAN port allows the motherboard to connect to a local area network by means of a network hub.
- **USB:** The USB ports are used to connect USB 2.0/1.1 devices such as scanner, speakers, keyboard, mouse, hub, digital camera, joystick, etc.
- **AUDIO (Rear Panel Audio):**

  Line-in (Light Blue): This jack is used to connect to the line out from any external audio sources such as MP3 player, CD player, AM/FM radio tuner, etc.

  Line-out (Front Left/Right Jack, Lime): This jack is used to connect to the front left and right channel speakers of the audio system.

  Mic-in (Pink): This jack is used to connect an external microphone.

Chapter 2 Hardware Setup

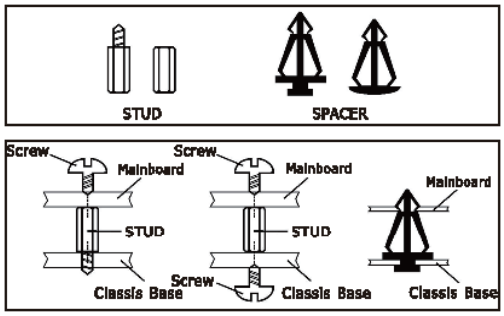
2.1 Choosing a Computer Chassis

The mainboard and its component layouts illustrated in this chapter were based mainly on model "nVIDIA MCP61", unless specifically stated.

- Choose a chassis big enough to install this mainboard.
- As some features for this mainboard are implemented by cabling connectors on the mainboard to indicators and switches or buttons on the chassis, make sure your chassis supports all the features required.
- If there is possibility of adopting some more hard drives, make sure your chassis has sufficient power and space for them.
- Most chassis have alternatives for I/O shield located at the rear panel. Make sure the I/O shield of the chassis matches the I/O port configuration of this mainboard. You can find an I/O shield specifically designed for this mainboard in its package.

2.2 Installing Mainboard

Most computer chassis have a base with many mounting holes to allow the mainboard to be securely attached, and at the same time, prevent the system from short circuits. There are two ways to attach the mainboard to the chassis base: (1) with studs, or (2) with spacers. Basically, the best way to attach the board is with studs. Only if you are unable to do this should you attach the board with spacers. Line up the holes on the board with the mounting holes on the chassis. If the holes line up and there are screw holes, you can attach the board with studs. If the holes line up and there are only slots, you can only attach with spacers. Take the tip of the spacers and insert them into the slots. After doing this to all the slots, you can slide the board into position aligned with slots. After the board has been positioned, check to make sure everything is OK before putting the chassis back on.



Always power off the computer and unplug the AC power cord before adding or removing any peripheral or component. Failing to do so may cause severe damage to your mainboard and/or peripherals. Plug in the AC power cord only after you have carefully checked everything.

To install this mainboard:

1. Locate all the screw holes on the mainboard and the chassis base.
2. Place all the studs or spacers needed on the chassis base and have them tightened.
3. Face the mainboard's I/O ports toward the chassis's rear panel.
4. Line up all the mainboard's screw holes with those studs or spacers on the chassis.
5. Install the mainboard with screws and have them tightened.

To prevent shorting the PCB circuit, please REMOVE the metal studs or spacers if they are already fastened on the chassis base and are without mounting-holes on the mainboard to align with.

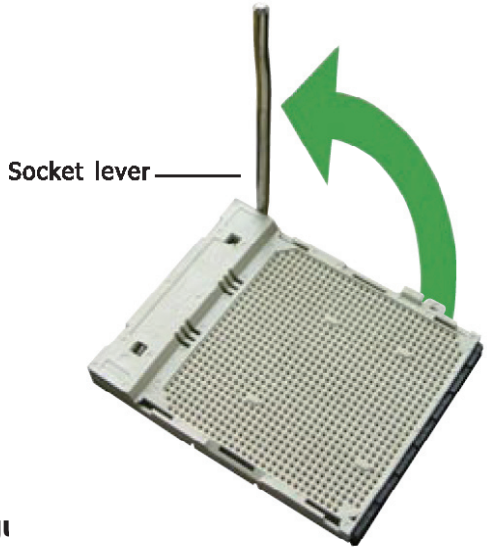
2.3 Installation of the CPU and CPU Cooler

Before installing the CPU, please comply with the following conditions:

1. Please make sure that the mainboard supports the CPU.
2. Please take note of the one indented corner of the CPU. If you install the CPU in the wrong direction, the CPU will not insert properly. If this occurs, please change the insert direction of the CPU.
3. Please add an even layer of heat sink paste between the CPU and CPU cooler.
4. Please make sure the CPU cooler is installed on the CPU prior to system use, otherwise overheating and permanent damage of the CPU may occur.
5. Please set the CPU host frequency in accordance with the processor specifications. It is not recommended that the system bus frequency be set beyond hardware specifications since it does not meet the required standards for the peripherals. If you wish to set the frequency beyond the proper specifications, please do so according to your hardware specifications including the CPU, graphics card, memory, hard drive, etc.

2.3.1 Installation of the CPU

1. Unlock the socket by pressing the lever sideways, then lift it up to a 90°.



Figu

4. When the CPU is in place, push down the socket lever to secure the CPU. The lever clicks on the side tab to indicate that it is locked.

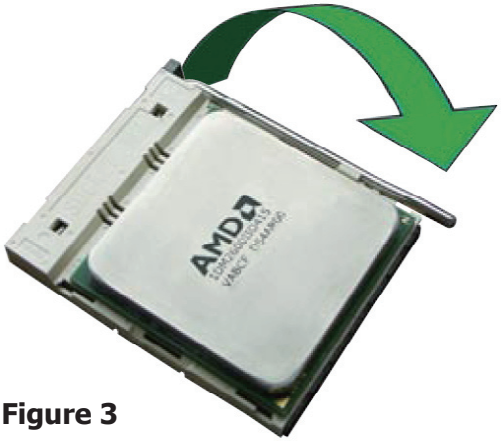


Figure 3

2. Position the CPU above the socket such that the CPU corner with the gold triangle matches the socket corner with a small triangle.
3. Carefully insert the CPU into the socket until it fits place.

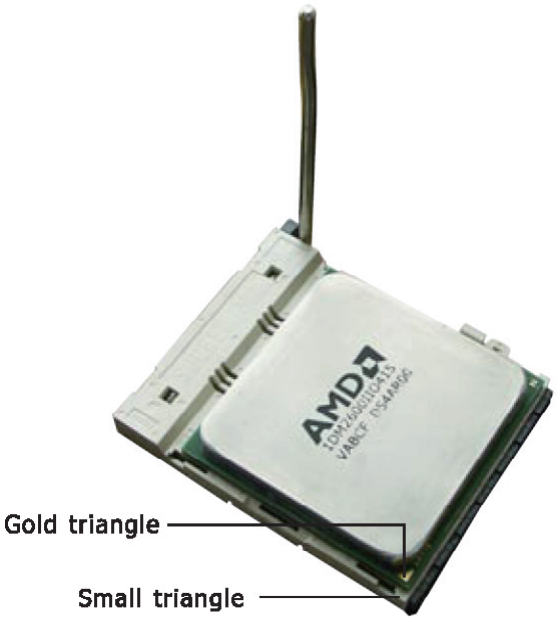


Figure 2

2.3.2 Installation of the CPU Cooler

For proper installation, please kindly refer to the instruction manuals of your CPU Cooler.

2.4 Installation of Memory Modules

This mainboard provides two 1.5v DDR3 DIMM slots, which supports dual channel memory technology. To activate the dual channel configuration, you need to install two identical (same brand, speed, size and chip-type) memory modules into these DIMM slots. Otherwise the memory will only operate at single channel mode.

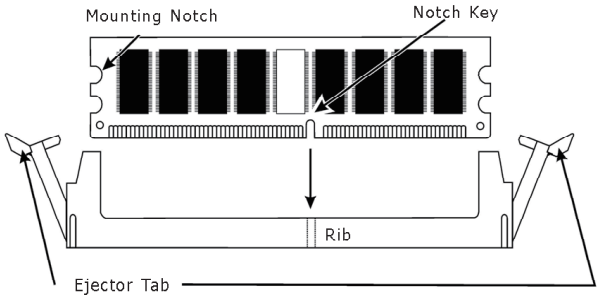
For dual channel DDR3 installation:

Populate two DDR3 DIMM modules of the same type and size into slots [DIMM1] + [DIMM2].

⚠ Static electricity can damage the electronic components of the computer or optional boards. Before starting these procedures, ensure that you are discharged of static electricity by touching a grounded metal object briefly.

To install system memory:

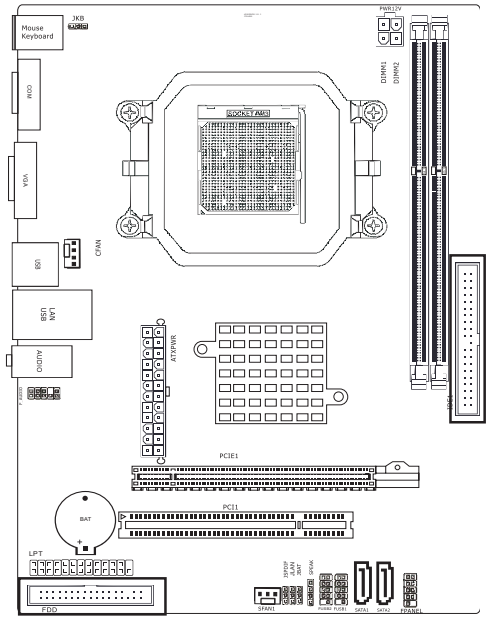
1. Power off the computer and unplug the AC power cord before installing or removing memory modules.
2. Locate the DIMM slot on the board.
3. Hold two edges of the DIMM module carefully, keep away from touching its connectors.
4. Align the notch key on the module with the rib on the slot.



5. Firmly press the module into the slots until the ejector tabs at both sides of the slot automatically snap into the mounting notch. Do not force the DIMM module in with extra force as the DIMM module only fits in one direction.
6. To remove the DIMM modules, push the two ejector tabs on the slot outward simultaneously, and then pull out the DIMM module.

2.5 Connecting Peripheral Devices

2.5.1 Floppy and IDE Disk Drive Connectors



Each of the IDE port connects up to two IDE drives at Ultra ATA 66/100/133 mode by one 40-pin, 80-conductor,and 3-connector Ultra ATA/66 ribbon cables. Connect the single end (blue connector) at the longer length of ribbon cable to the IDE port of this board, the other two ends (gray and black connector) at the shorter length of the ribbon cable to the connectors of your hard drives.

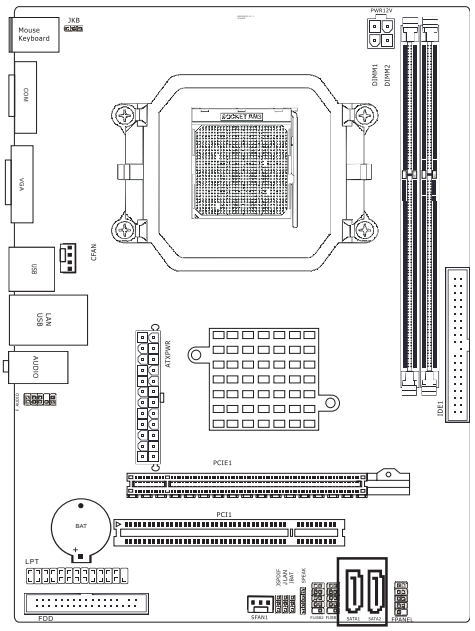
Make sure to configure the "Master" and "Slave" relation before connecting two drives by one single ribbon cable. The red line on the ribbon cable must be aligned with pin-1 on both the IDE port and the hard-drive connector.

The FDD connector connects up to two floppy drives with a 34-wire, 2-connector floppy cable.Connect the single end at the longer length of ribbon cable to the FDD on the board, the two connectors on the other end to the floppy disk drives connector. Generally you need only one floppy disk drive in your system.

The red line on the ribbon cable must be aligned with pin-1 on both the FDD port and the floppy connector.

2.5.2 Serial ATA Connectors

The Serial ATA (SATA) connectors are used to connect Serial ATA drives. Connect one end of the Serial ATA cable to a Serial ATA connector and the other end to your Serial ATA device.



2.5.3 PCI and PCI Express slots

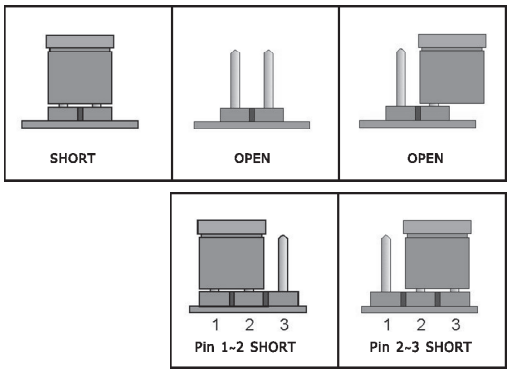
Install PCI Express X16 graphics card into slot "PCIE1".
Install PCI card into slot "PCI1" .

Chapter 3 Jumpers & Headers Setup

3.1 Checking Jumper Settings

- For a 2-pin jumper, plug the jumper cap on both pins will make it CLOSE (SHORT). Remove the jumper cap, or plug it on either pin (reserved for future use) will leave it at OPEN position.

- For 3-pin jumper, pin 1~2 or pin 2~3 can be shorted by plugging the jumper cap in.



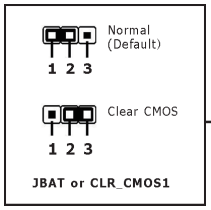
How to identify the PIN1 jumpers?
Please check the mainboard carefully, the PIN1 is marked by "1" or white thick line.

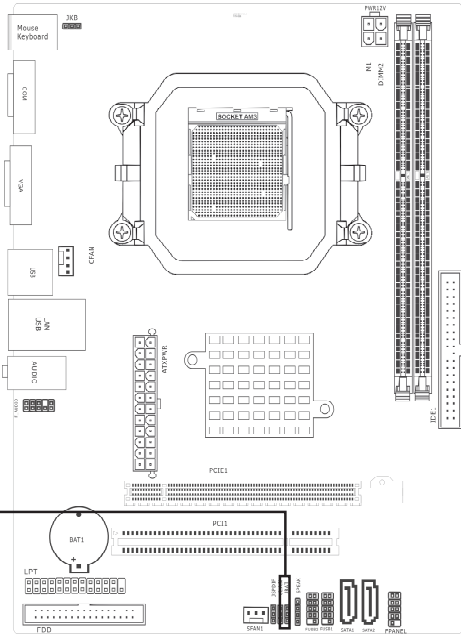
3.2 CMOS Memory Clearing Header

The time to clear the CMOS memory occurs when (a) the CMOS data becomes corrupted, (b) you forgot the supervisor or user password preset in the BIOS menu, (c) you are unable to boot-up the system because the CPU ratio/clock was incorrectly set in the BIOS menu, or (d) whenever there is modification on the CPU or memory modules.

This header uses a jumper cap to clear the CMOS memory and have it reconfigured to the default values stored in BIOS.

- Pins 1 and 2 shorted (Default): Normal operation.
- Pins 2 and 3 shorted: Clear CMOS memory.



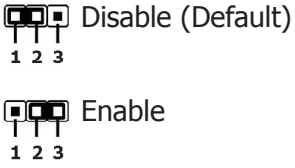


To clear the CMOS memory and load in the default values:

1. Power-off the system then unplug the power cord.
2. Set pin 2 and pin 3 shorted by the jumper cap. Wait for a few seconds. Set the jumper cap back to its default settings --- pin 1 and pin 2 shorted.
3. Plug the power cord then power-on the system.
4. For incorrect CPU ratio/clock settings in the BIOS, press <Del> key to enter the BIOS setup menu right after powering on system.
5. Set the CPU operating speed back to its default or an appropriate value.
6. Save and exit the BIOS setup menu.

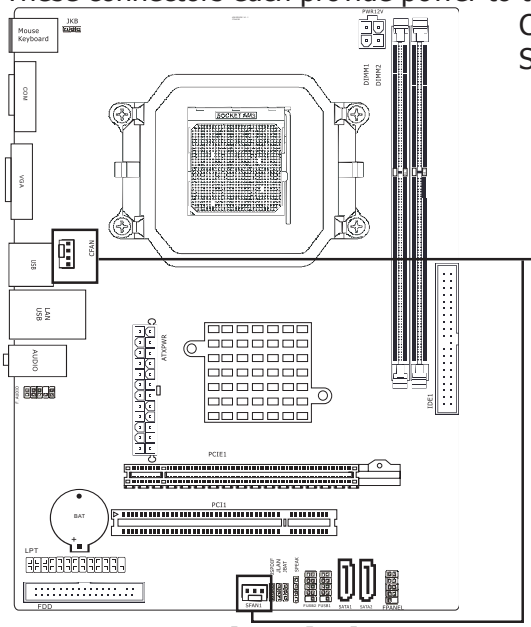
3.3 Keyboard Power Function

Pin 1-2 short: Disabled power on by keyboard
Pin 2-3 short: Support power on by keyboard

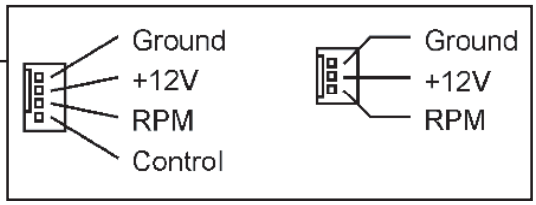


3.4 FAN Power Connectors

These connectors each provide power to the cooling fans installed in your system.

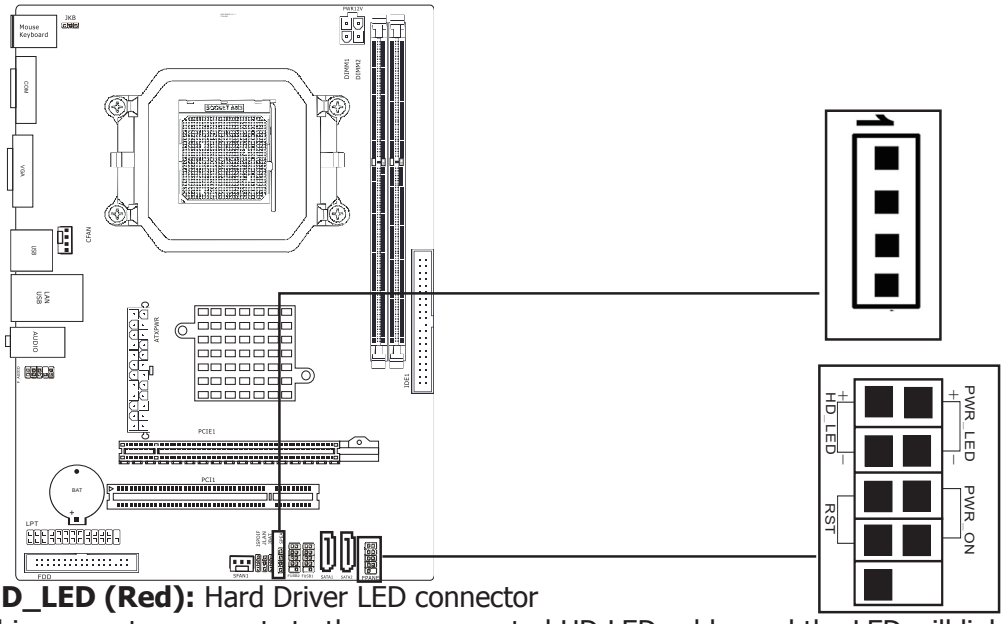


CFAN: CPU Fan Power Connector
SFAN1: System Fan Power Connector



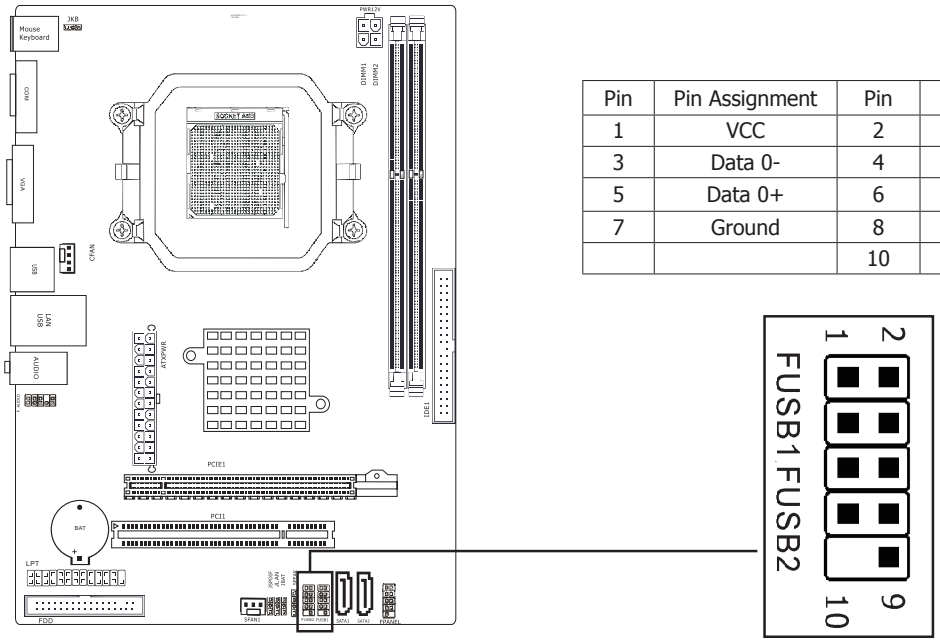
These fan connectors are not jumpers. DO NOT place jumper caps on these connectors.

3.5 Front Panel Switches & SPEAKER Headers



HD_LED (Red): Hard Driver LED connector
This connector connects to the case-mounted HD LED cable, and the LED will light when the hard drive(s) is/are being accessed.
RST (Blue): Reset Switch
This connector connects to the case-mounted reset switch which allows you to reboot without having to power-off the system and thus prolonging the life of the power supply or system.
PWR_ON (Black): Power Switch
Depending on the setting in the BIOS setup, this switch serves two functions which will allow you to power-on/off the system or to enter the suspend mode.
PWR_LED (Green): Power/Standby LED
When the system's power is on, this LED will light. When the system is in the S1 (POS - Power on Suspend) or S3 (STR - Suspend to RAM, optional) state, it will blink every second.
SPEAKER (Yellow or Black): Speaker Connector
This 4-pin connector connects to the case-mounted speaker.

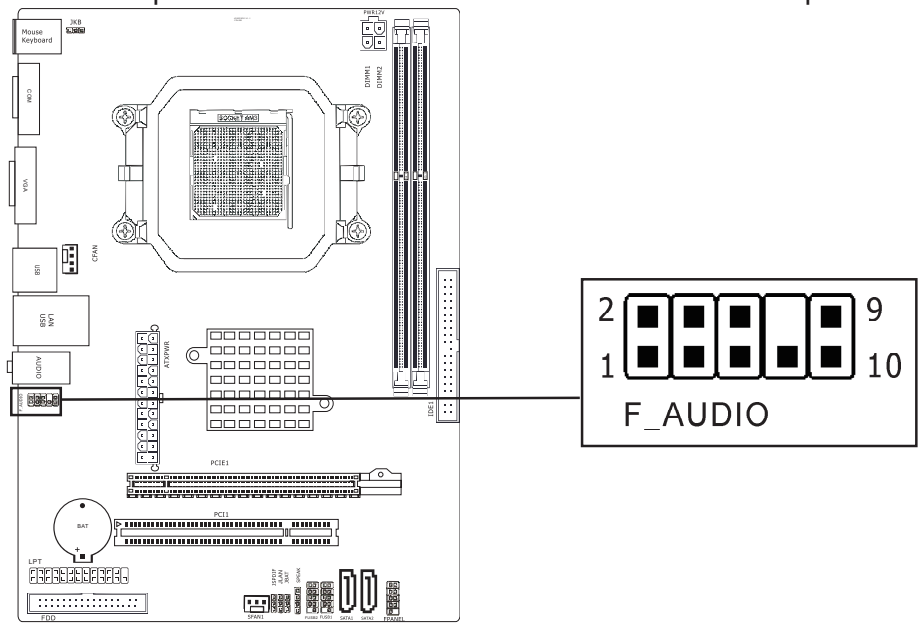
3.6 Additional USB Port Headers



Pin	Pin Assignment	Pin	Pin Assignment
1	VCC	2	VCC
3	Data 0-	4	Data 1-
5	Data 0+	6	Data 1+
7	Ground	8	Ground
		10	NC

3.7 Front Panel Audio Connection Header

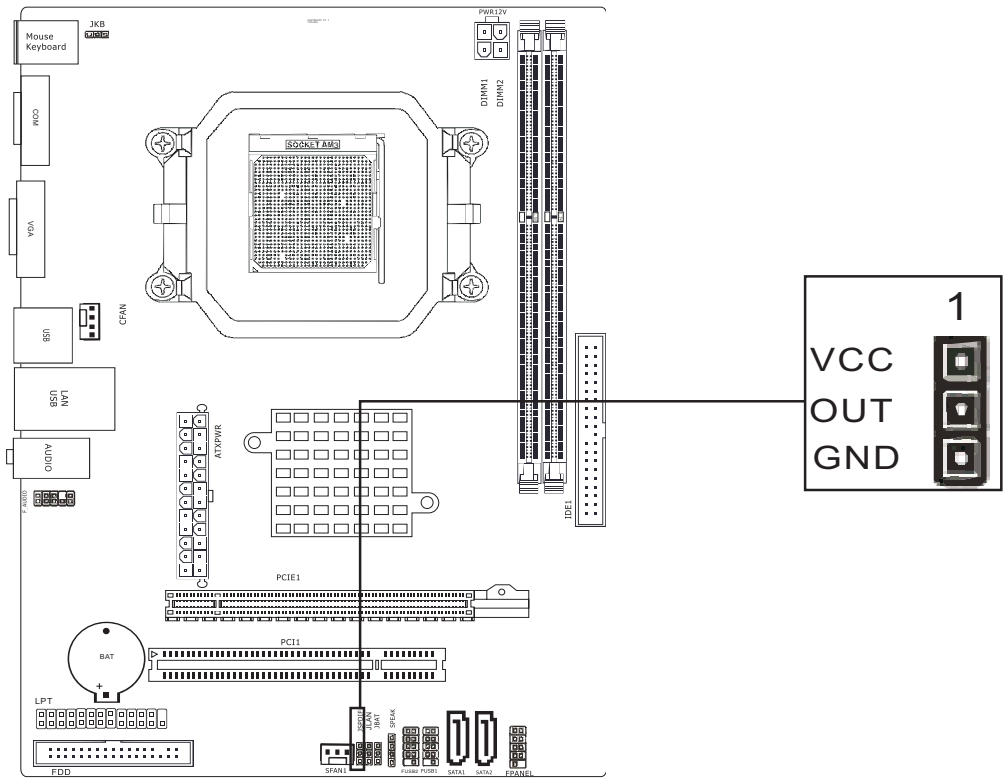
This header provides the connection to audio connector at front panel.



Pin No.	Header	HD Audio Definition	AC97 Audio Definition
1	PORT1L	Microphone_Left	Microphone
2	AGND	Ground	Ground
3	PORT1R	Microphone_Right	MIC Power
4	PRESENCE#	-ACZ_DET	N/A
5	PORT2R	Line2_Right	Line out (R)
6	SENSE1_RETURN	AuD_R_Return	N/A
7	SENSE_SEND	FAUDIO_JD	N/A
8	No Pin	N/A	N/A
9	PORT2L	Line2_Left	Line Out(L)
10	SENSE2_RETURN	AuD_L_Return	N/A

3.8 S/PDIF Output Connection Header

S/PDIF (Sony/Philips Digital Interface) is a standard audio transfer file format. It is usually found on digital audio equipment such as a DAT (Digital Audio Tape) machine or audio processing device. It allows the transfer of audio from one file to another without the conversion to and from an analog format, which could degrade the signal quality.



3.9 Power Connectors

ATXPWR (ATX Power) connector

We recommend to use our motherboard with a power supply that complies with the ATX12V Power Supply Design Guide Version 1.1. Every ATX12V power supply unit has a standard 24-pin ATX main power connector that must be plugged into this connector. If you would like to use an old power supply with only a 20-pin ATX main power connector, then please plug the 20-pin ATX main power connector along with pin 1 and pin 13.

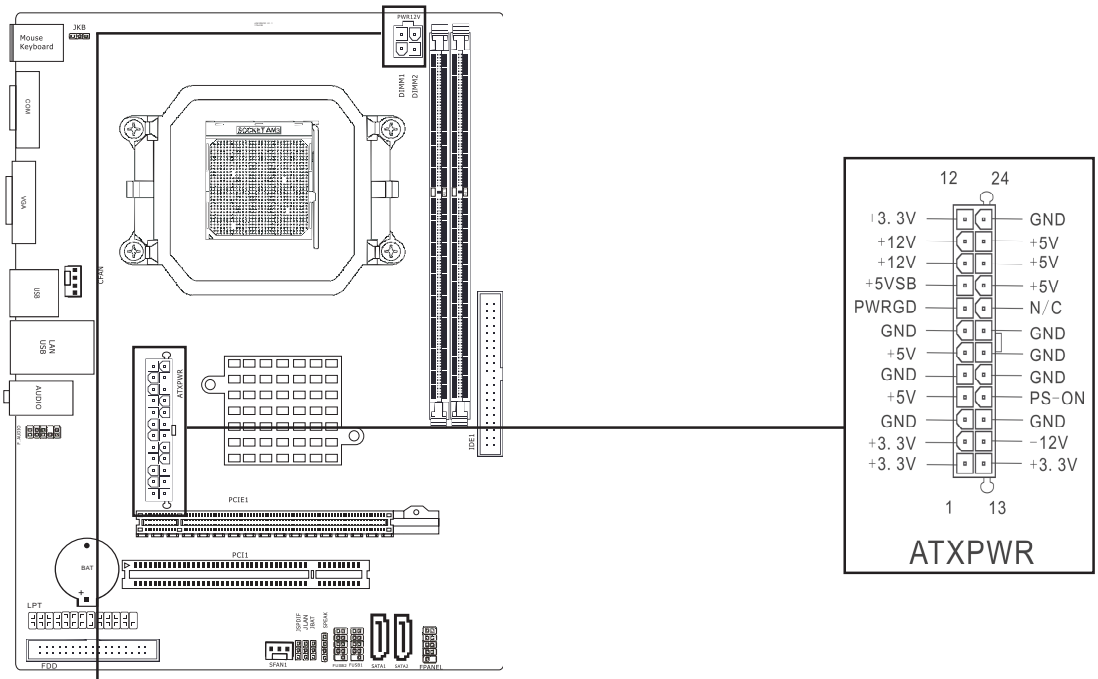


Figure 2: Reference for 4 pin PWR12V.

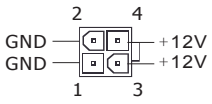
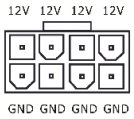


Figure 2: Reference for 8 pin PWR12V.



PWR12V (+12V Power) connector

Your power supply unit may come with a 4-pin or 8-pin +12V power connector. The +12V power enables the delivery of more +12VDC current to the CPU's Voltage Regulator Module (VRM). If available, please use the 8-pin power; otherwise please connect the 4-pin power to this connector.

Chapter 4 BIOS Setup Utility

BIOS stands for Basic Input and Output System. It was once called ROM BIOS when it was stored in a Read-Only Memory (ROM) chip. Now manufacturers would like to store BIOS in EEPROM which means Electrically Erasable Programmable Memory. BIOS used in this series of mainboard is stored in EEPROM, and is the first program to run when you turn on your computer.

BIOS performs the following functions:
1. Initializing and testing hardware in your computer (a process called "POST", for Power On Self Test).
2. Loading and running your operating system.
3. Helping your operating system and application programs manage your PC hardware by means of a set of routines called BIOS Run-Time Service.

4.1 About BIOS Setup

BIOS Setup is an interactive BIOS program that you need to run when:
1. Changing the hardware of your system. (For example: installing a new Hard Disk etc.)
2. Modifying the behavior of your computer. (For example: changing the system time or date, or turning special features on or off etc.)
3. Enhancing your computer's behavior. (For example: speeding up performance by turning on shadowing or cache)

4.2 To Run BIOS Setup

First access BIOS setup menu by pressing <F1> key after “POST” is complete (before OS is loaded). After the first BIOS be setupped(or loaded default values) and save, the <DEL> key will be pressed if you will enter BIOS setup menu.

4.3 About CMOS

CMOS is the memory maintained by a battery. CMOS is used to store the BIOS settings you have selected in BIOS Setup. CMOS also maintains the internal clock. Every time you turn on your computer, the BIOS Looks into CMOS for the settings you have selected and configures your computer accordingly. If the battery runs out of power, the CMOS data will be lost and POST will issue a “CMOS invalid” or “CMOS checksum invalid” message. If this happens, you have to replace the battery and check and configure the BIOS Setup for the new start.

4.4 The POST (Power On Self Test)

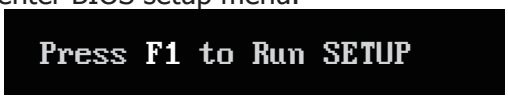
POST is an acronym for Power On Self Test. This program will test all things the BIOS does before the operating system is started. Each of POST routines is assigned a POST code, a unique number which is sent to I/O port 080h before the routine is executed.

4.5 BIOS Setup — CMOS Setup Utility

- *In order to increase system stability and performance, our engineering staff is constantly improving the BIOS menu. The BIOS setup screens and descriptions illustrated in this manual are for your reference only, and may not completely match with what you see on your screen.*
- *Do not change the BIOS parameters unless you fully understand its function.*

4.5.1 CMOS Setup Utility

After powering up the system, the BIOS message appears on the screen,when the first time or when CMOS setting wrong, there is following message appears on the screen , but if the first BIOS be setuped(or loaded default values) and save, the <DEL> key will be pressed if you will enter BIOS setup menu.



If this message disappears before you respond, restart the system by pressing <Ctrl> + <Alt>+ <Del> keys, or by pressing the reset button on computer chassis. Only when these two methods should be fail that you restart the system by powering it off and then back on. After pressing <F1> or <Del> key, the main menu appears.

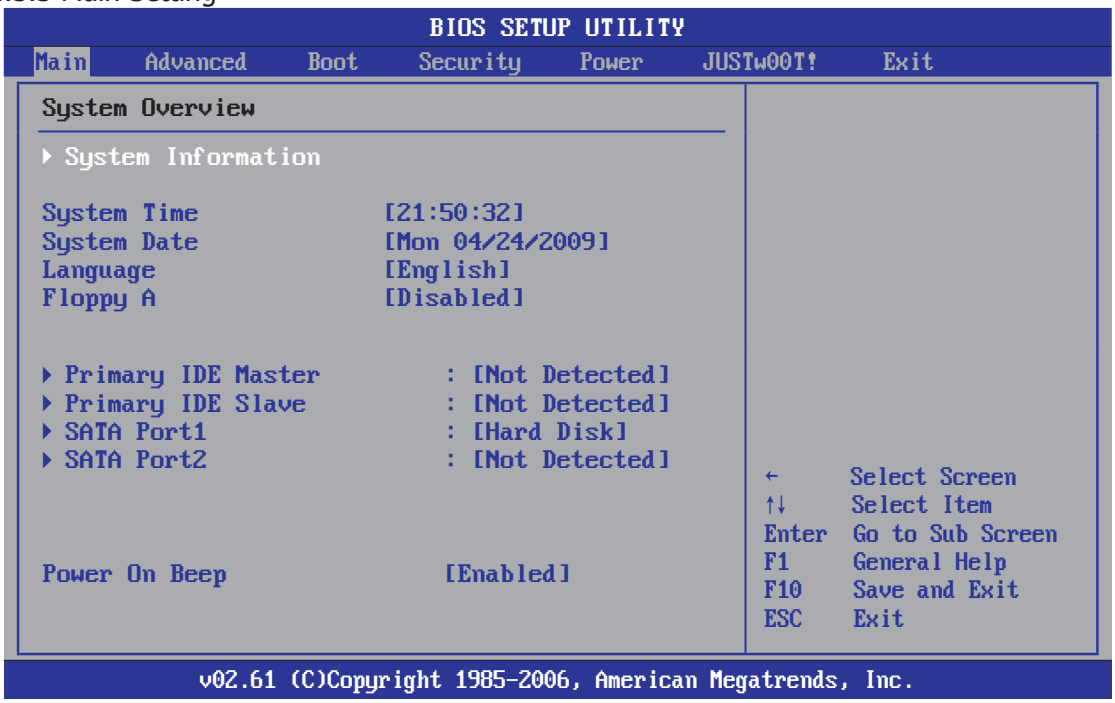
4.5.2 Control Keys

Press F1 to pop up a small help window that describes the appropriate keys to use and the possible selections for the highlighted item.

Please check the following table for the function description of each control key.

Control Key(s)	Function Description
← / →	Move cursor left or right to select Screens
↑ / ↓	Move cursor up or down to select items
+/ -/PU/PD	To Change option for the selected items
<Enter>	To bring up the selected screen
<ESC>	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>	General help
<F2/F3>	Change Colors
<F5>	Restore the previous CMOS value from CMOS, only for Option Page Setup Menu
<F7>	Discard Changes
<F8>	Load Failsafe Defaults
<F9>	Load Optimal Defaults
<F10>	Save configuration changes and exit setup

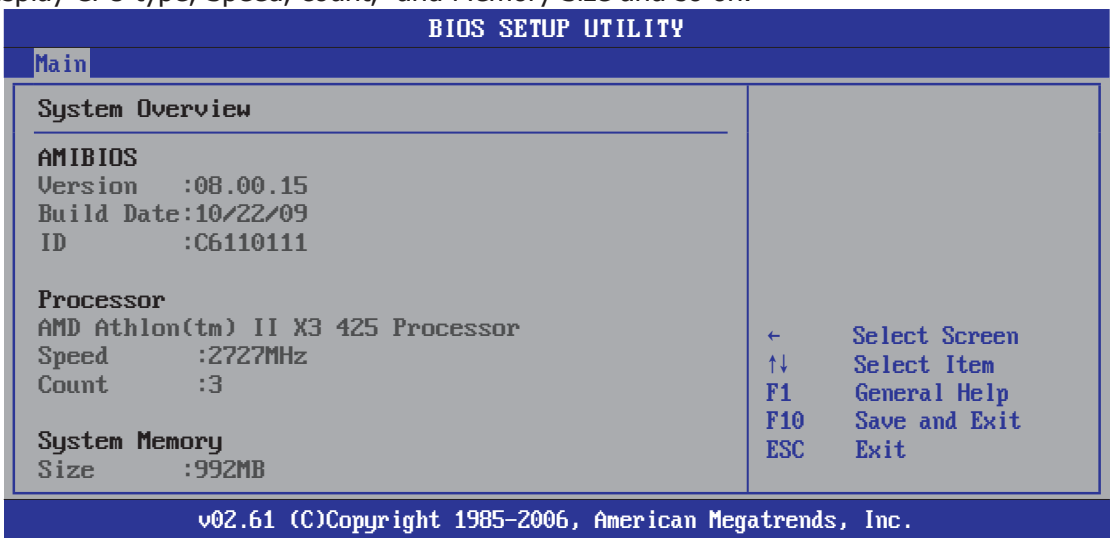
4.5.3 Main Setting



This is the System Overview, The System Time, System Date, Primary IDE information, SATA port information and USB Device.

- **System Information**

Please Enter this submenu, this will be display BIOS verison, build date, ID number, also will display CPU type, Speed, count, and Memory Size and so on.



- **AMIBIOS** Displays the auto-detected BIOS information.
- **Processor** Displays the auto-detected CPU specification.
- **System Memory** Displays the auto-detected system memory.
  - Press <**Esc**> key to return to "**Main**" menu.
- **System time**

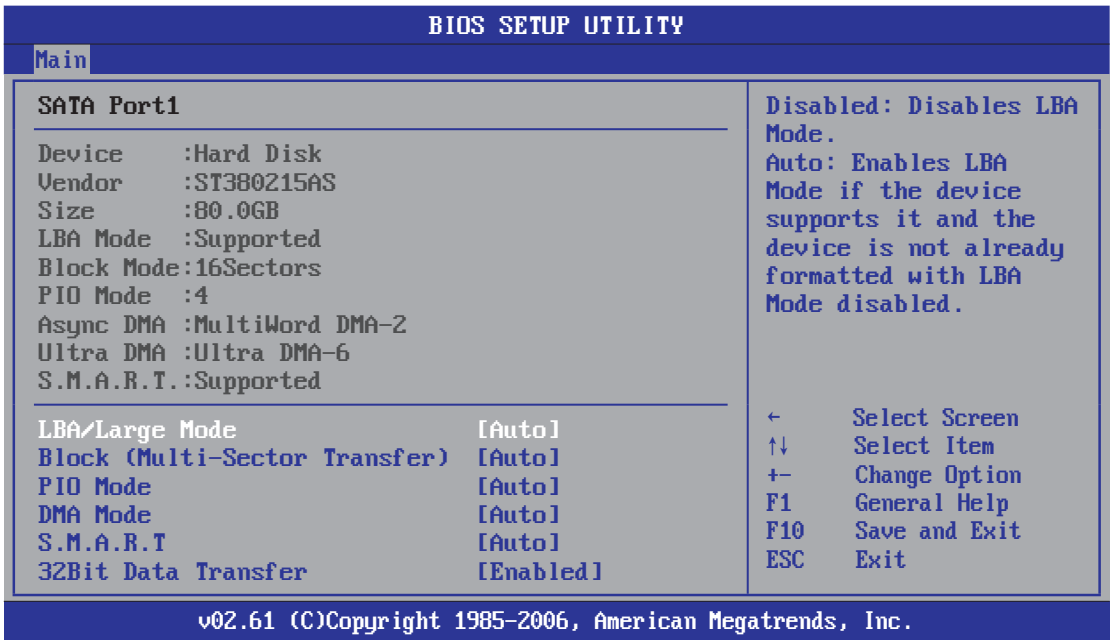
This item sets the time you specify(usually the current time)in the format of [Hour],[Minute]and [Second].

- **System date**

This item sets the date you specify(usually the current date0in the format of [Month],[Date], and [Year].

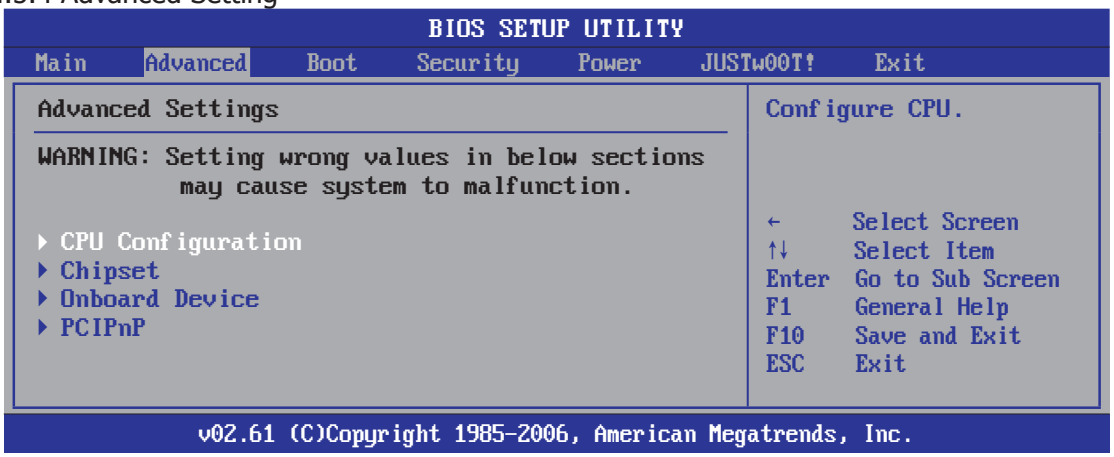
- **Language**
  Allows you to selects the current default language used by the BIOS.
- **Floppy A**
  Allows you to selects the type of floppy disk drive installed in your system. If you do not install a floppy disk drive, set this item to None. Options are: None, 360K/5.25", 1.2M/5.25", 720K/3.5",1.44M/3.5", 2.88M/3.5".

▸ **IDE Master/Slave; SATA Port 1 /2**
This item sets the status of auto detection of SATA/IDE devices while enterting setup, and BIOS will auto detects the presence of SATA/IDE devices. Press "Enter" Key to enter the submenu.



- **LBA/Large Mode**
  Enables or disables the LBA mode. Setting to [Auto] enables the LBA mode if the device supports this mode, and if the device was not previously formatted with LBA mode disabled.
- **Block (Multi-Sector Transfer)**
  Enables or disables data multi-sectors transfers. When set to [Auto] , the data transfer from and to the device occurs multiple sectors at a time if the device supports multi-sector transfer frature. When set to [Disabled] , the data transfer from and to the device occurs one sector at a time.
- **PIO Mode**
  Allows you to select the data transfer mode.
- **DMA Mode**
  Selects the DMA mode.
- **S.M.A.R.T**
  Set the Smart Monitoring, Analysis, and Reporting Technology.
- **32Bit Data Transfer**
  Enables or disables 32-bit data transfer.
  - Press <**Esc**> key to return to "**Main**" menu.
- **Power On Beep**
  A beep on post.

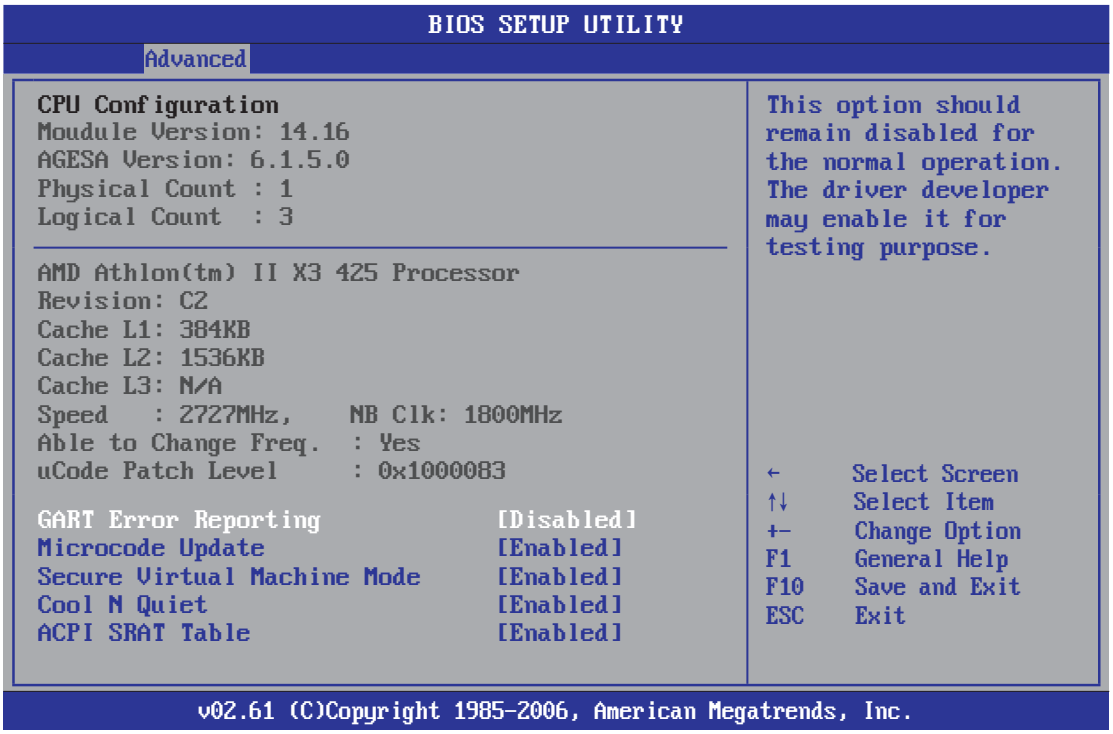
4.5.4 Advanced Setting



This submenu including these configurations, such as CPU, Chipset Configuration, Onboard Device, only CPU Configuration submenu dispay diallog box as follwoing.

- **CPU Configuration**

Click <Enter> key to enter its submenu, it will be display configureted CPU information, including Module Version, Manufacturer , CPU type, Frequency, FSB Speed, Cache L1 , Cache L2 and so on.



This is CPU related parameter and CPU setting.

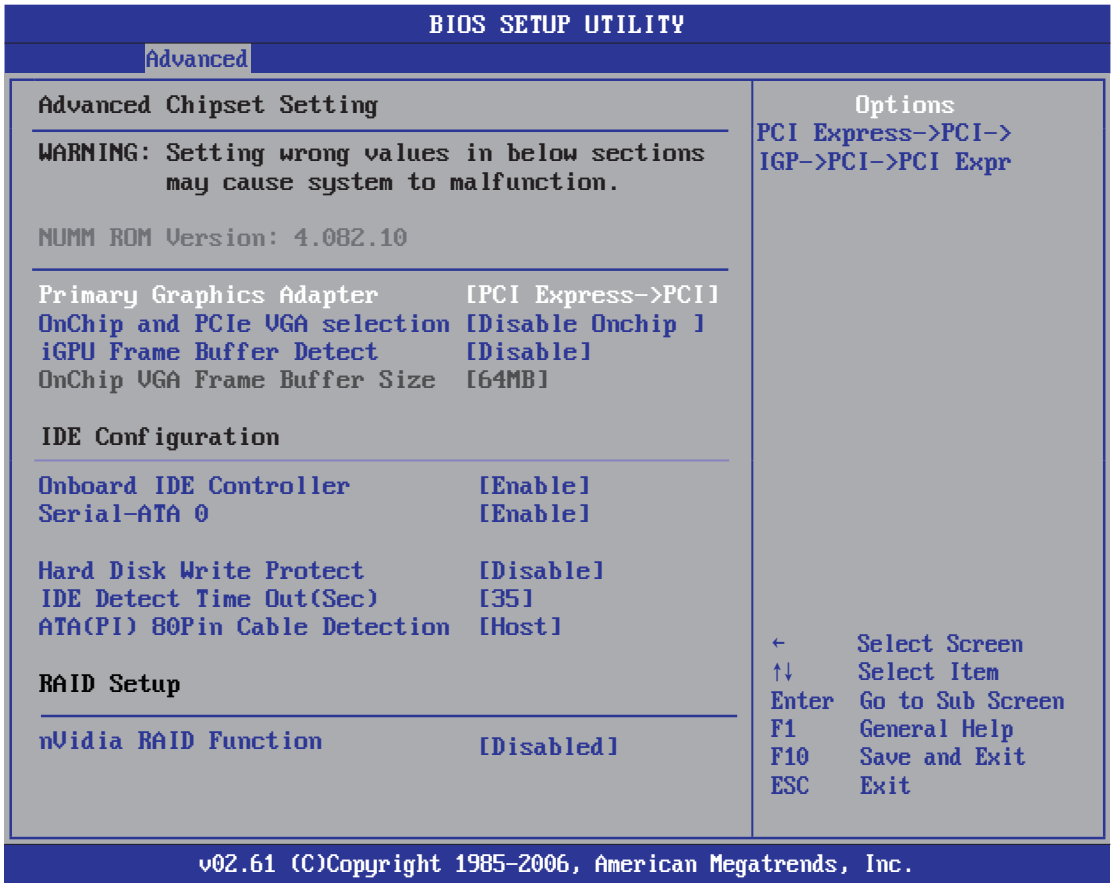
- **Cool N Quiet**

Enabled :Lets the AMD Cool'n'Quiet driver dynamically adjust the CPU clock and VIA to reduce heat output from your computer and its power consumption.

Disabled: Disables this function(Default)

- Press <**Esc**> key to return to "**Advanced**" menu.

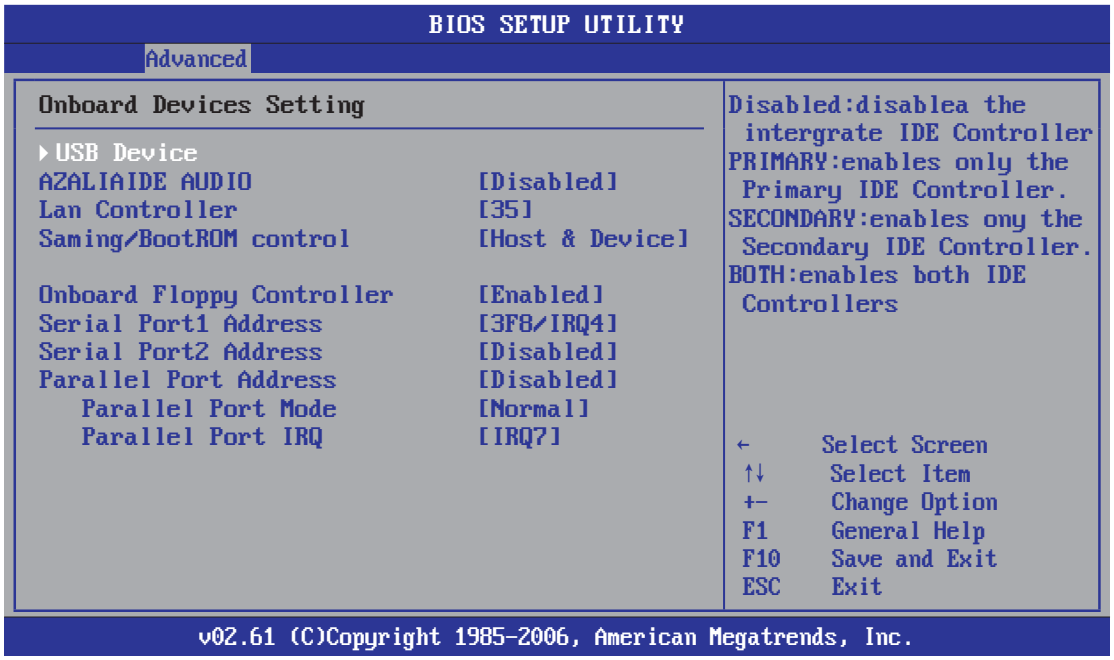
- **Chipset**
  Click <Enter> key to enter its submenu.



- **Primary Graphics Adapter**
  Options:PCI Express ->PCI->IGP,IGP->PCI->PCI Express
- **OnChip and PCIe VGA selection**
  Select OnChip or PCIe VGA to diaplay
- **iGPU Frame Buffer Detect**
  iGPU Frame Buffer Size Auto Detect
- **OnChip VGA Frame Buffer Size**
  iGPU Frame Buffer size.
- **Onboard IDE Controller**
  Allows BIOS to Enable or Disable IDE Controller
- **Serial-ATA 0**
  Options:Enabled,Disabled.
- **Hard disk write protect**
  Disable/enable device write protection.this will be effictive only if device is accessed through BIOS
- **IDE Detect Time Out**
  Select the time out value for detecting ATA/ATAPI device(s)
- **ATA(PI) 80Pin Cable Detection**
  Select the mechanism for detecting 88pin ATA(PI) Cable.
- **nVidia RAID Function**
  Options:Enabled,Disabled.

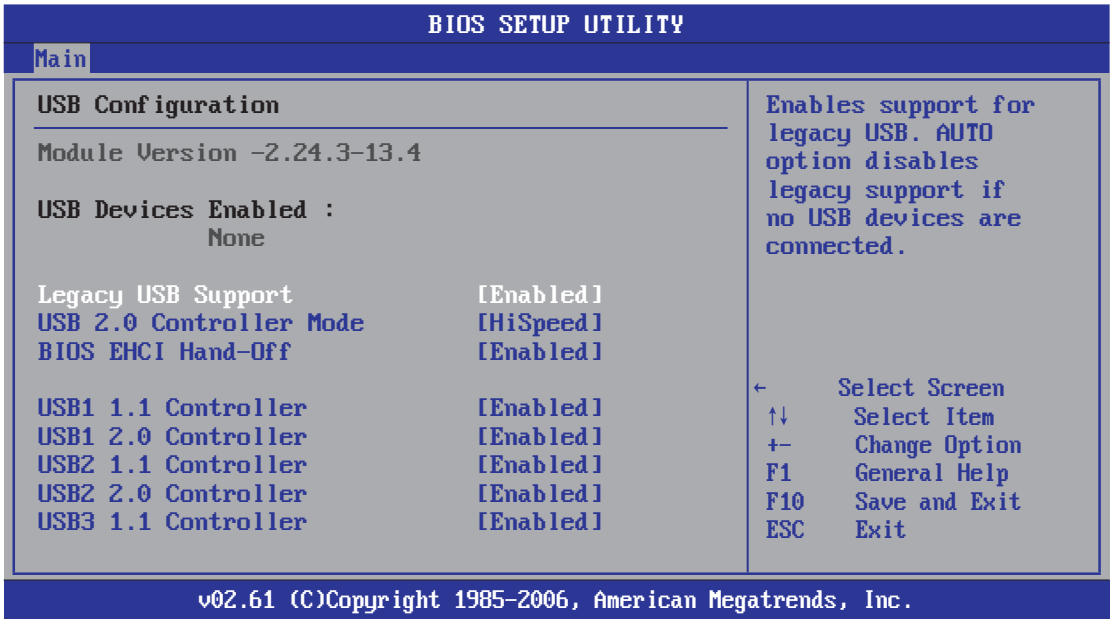
Onboard Device Configuration

Click <Enter> key to enter its submenu.



USB Device

The items in this menu allows you to change the USB-related features.



- **Legacy USB Support**
  Enabled or Disabled Legacy USB option, and Auto option disables legacy support if no USB devices are connected.
- **USB 2.0 Controller Mode**
  Allow you to selects the HiSpeed(480Mbps) or FullSpeed(12Mbps).
- **BIOS EHCI Hand-Off**
  This is a workaround for OSes without EHCI hand-off support. The EHCI ownership change should claim by EHCI driver.

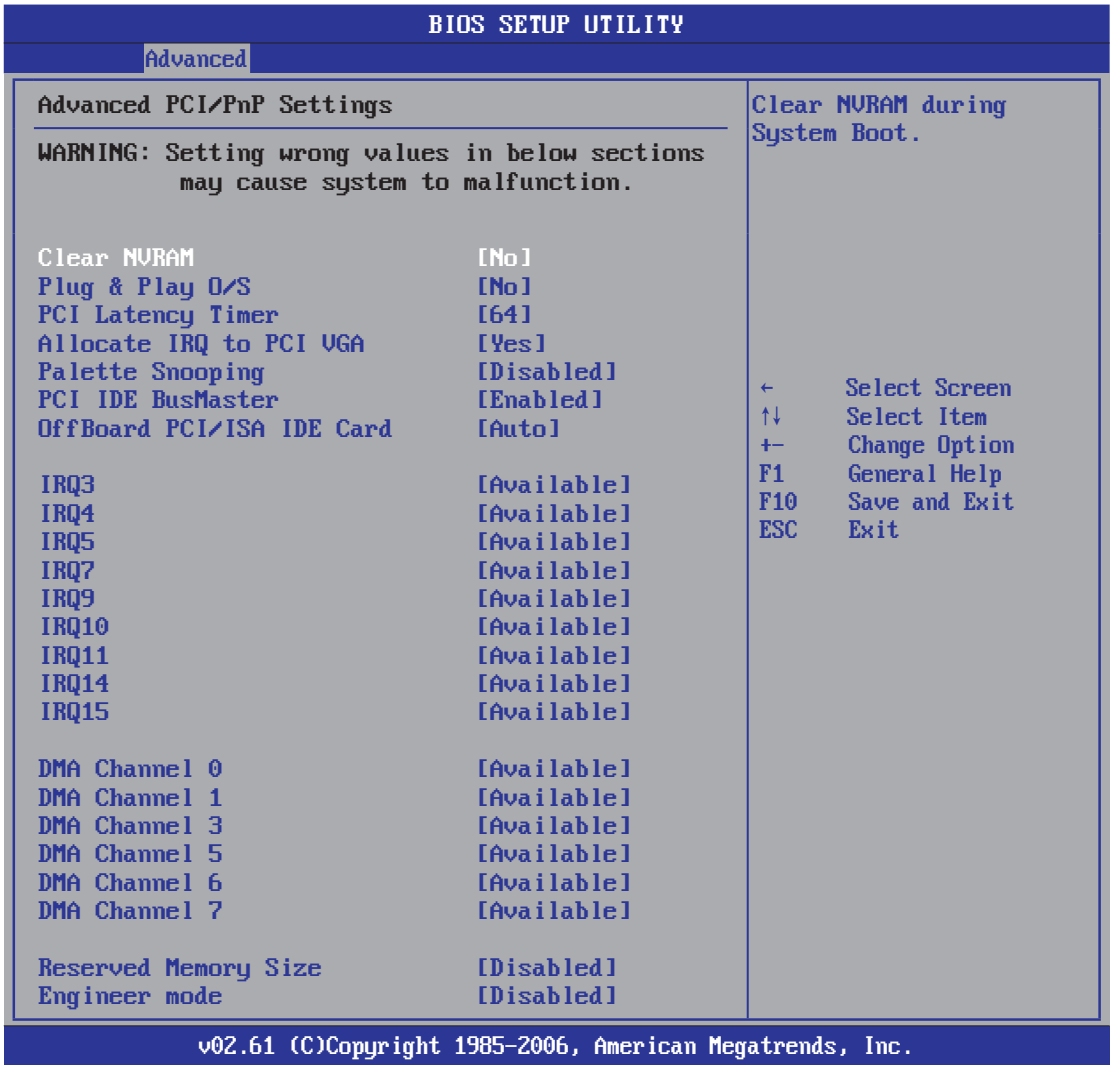
• Press <**Esc**> key to return to "**Onboard Device Configuration**" menu.

These options allow you to Enabled/Disabled for Floppy Controller, onboard LAN Control set the addresses for Serial Port1& Port2.

- **AZALIA AUDIO**
  Options:Auto,Disabled
- **Lan Controlle**r
  Options:Auto,Disabled
- **Saming/BootRom Control**
  MAC LAN rom boot Set
- **Onboard Floppy Controller**
  Allows BIOS to Enable or Disable FLOPPY Controller
- **Serial Port1 Address**
  Allows BIOS to Select Serial Port1 base Addresses.
- **Serial Port2 Address**
  Allows BIOS to Select Serial Port2 base Addresses.
- **Parallel Port Address**
  Allows BIOS to Parallel Port base Addresses.
- **Parallel Port Mode**
  Allows BIOS to Select Parallel Port mode.
- **Parallel Port IRQ**
  Allows BIOS to Select Parallel Port IRQ.

• Press <**Esc**> key to return to "**Advanced**" menu.

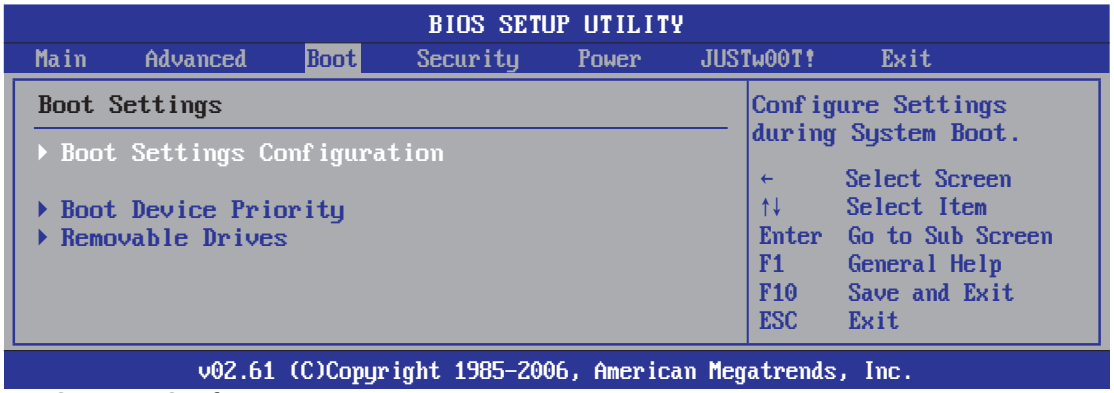
▸ **PCIPnP**
Click <Enter> key to enter its submenu.



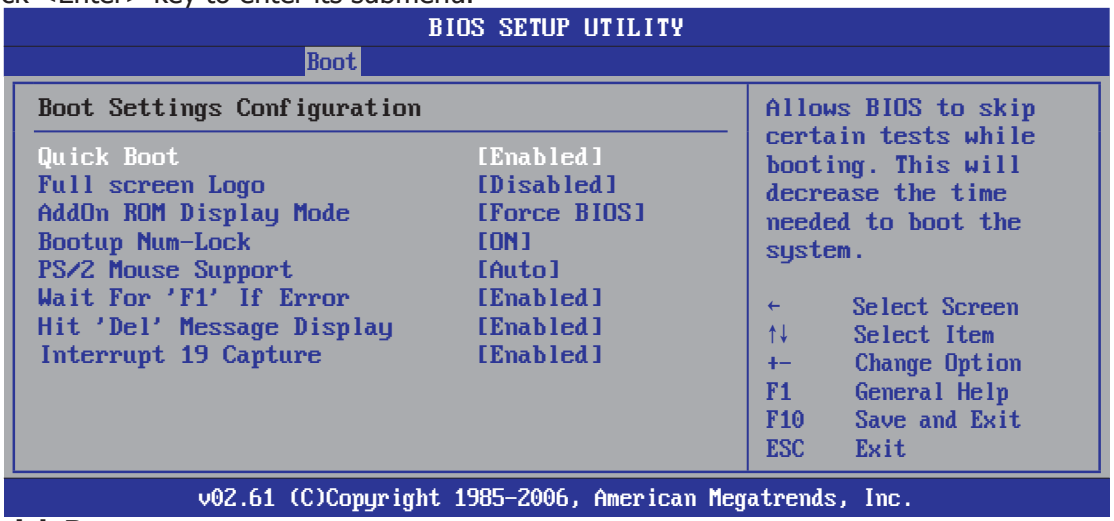
- **Clear NVRAM**
  This item for clearing NVRAM during system boot.
  Optional:Yes,No
- **Plug & Play O/S**
  This item lets the BIOS configure all the devices in the system or lets the operating system configure plug and play (PnP) devices not required for boot if your system has a Plug and Play operating system.
  Optional:Yes,No
- **PCI Latency Timer**
  This item sets value in units of PCI clocks for PCI device latency timer register.
  Optional:32,64,96,128,160,192,224,248
- **Allocate IRQ to PCI VGA**
  This item assigns IRQ to PCI VGA card if card requests IRQ or doesn't assign IRQ to PCI VGA card even if card requests an IRQ.
  Optional:Yes,No
- **Palette Snooping**
  This item informs the PCI devices that an ISA graphics device is installed in the system so the card will function correctly.
  Optional:Disabled,Enabled
- **PCI IDE BusMaster**
  This item uses PCI busmastering for BIOS reading / writing to IDE derives.
  Optional:Disabled,Enabled

- **OffBoard PCI/ISA IDE Card**
  This item works for most PCI IDE cards, some PCI IDE cards may require this to be set to the PCI slot number that is holding the card.
  Optional:Auto,PCI Slot1~6

4.5.5 Boot Setting

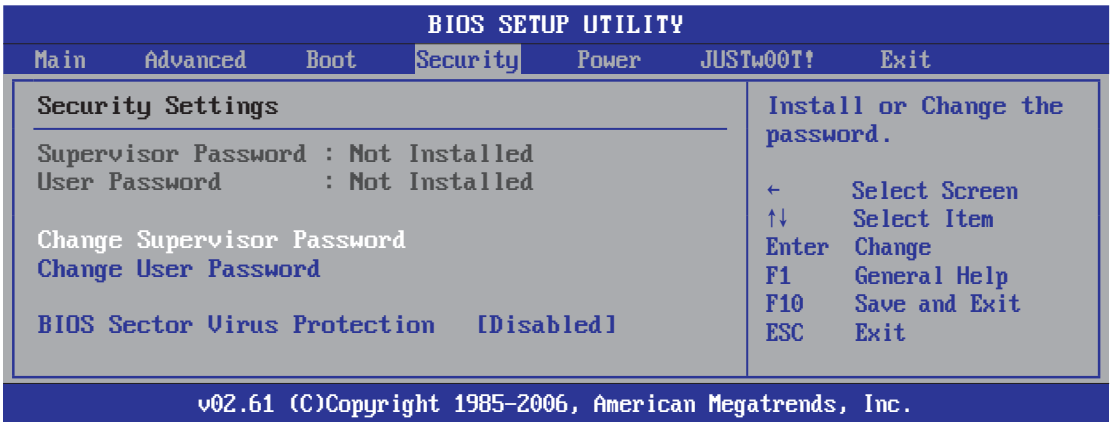


▸ Boot Settings Configuration
Click <Enter> key to enter its submenu.



- **Quick Boot**
  This item allows you to speed up Power On Self Test (POST) after you power on the computer. If this is set to [Enabled], BIOS will shorten or skip some check items during POST.
- **Full Screen Logo**
  This item determines to show the full screen logo when booting.
- **AddOn ROM Display Mode**
  Sets the display mode for option ROM.
- **Bootup Num-Lock**
  Allows you to select the power-on state for the NumLock.
- **PS/2 Mouse Support**
  Allows you to enable or disable suport for PS/2 mouse.
- **Wait For 'F1' If Error**
  When set to Enabled,the system waits for the F1 key t be pressed when error occurs.
- **Hit 'Del' Message Display**
  When set to Enabled,the system displays the message "Press DEL to run Setup" durning POST.
- **Interrupt 19 Capture**
  When set to Enabled, this function allows the option ROMs to trap Interrupt 19.

4.5.6 Security Setting



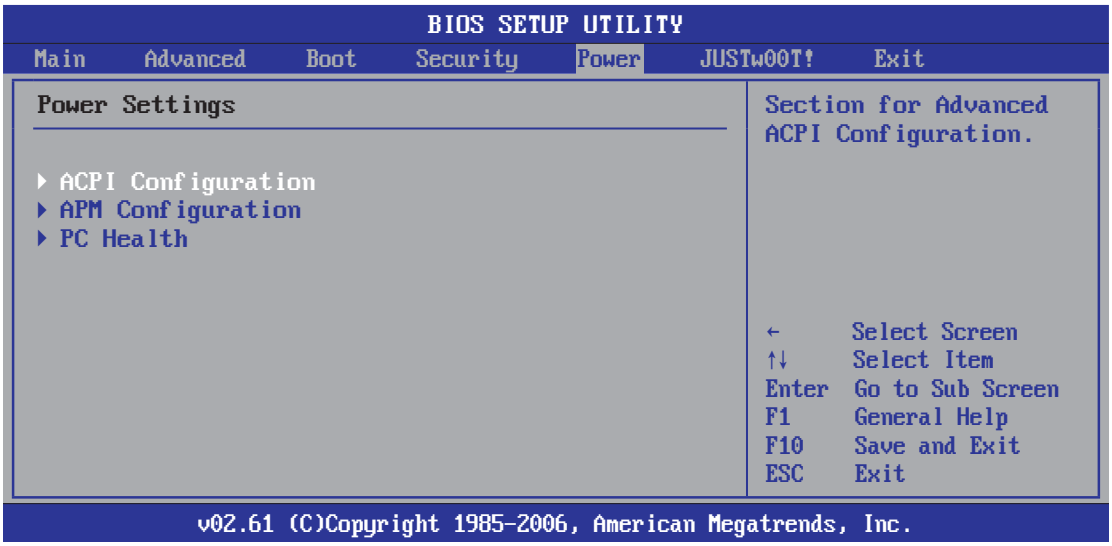
This item allows you to Chage Supervisor/User Password, Type the password, up to eight characters, and press <Enter>. The password typed now will clear any previously entered password from CMOS memory. You will be asked toconfirm the password. Type the password again and press <Enter>.

***Note**: Don't forget your password. If you forget the password, you will have to open the computer case and clear all information in the CMOS before you can start up the system. But by doing this, you will have to reset all previously set options.*

- **Boot Sector Virus Protection**

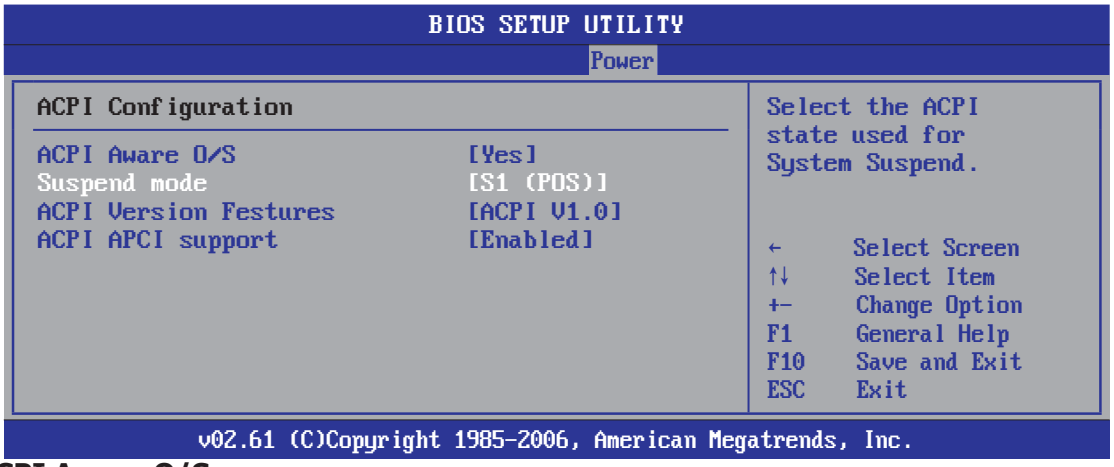
  Uses this option, may prevent the change hard disk boot-sector (district table), thus prevents the infection computer virus.

4.5.7 Power Setting



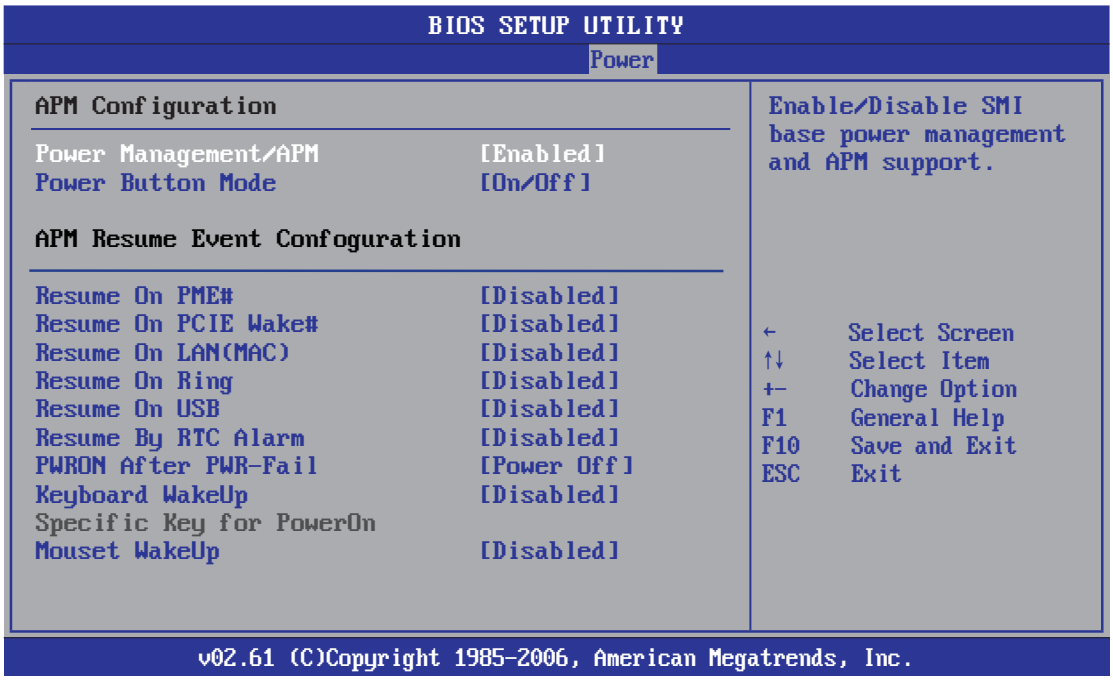
- **ACPI Configuration**

  Click <Enter> key to enter its submenu.



- **ACPI Aware O/S**
  Enable/Disable ACPI support for Operating system
- **Suspend Mode**
  Allows you to select the Advanced Configuration and Power Interface (ACPI) state to be used for system suspend.
- **ACPI Version Features**
  Enable RSDP pointers to 64-bit Fixed system Description tables
- **ACPI APCI support**
  Include ACPI APCI table Pointer to RADT pointer list.
  - Press <**Esc**> key to return to "**Power**" menu.

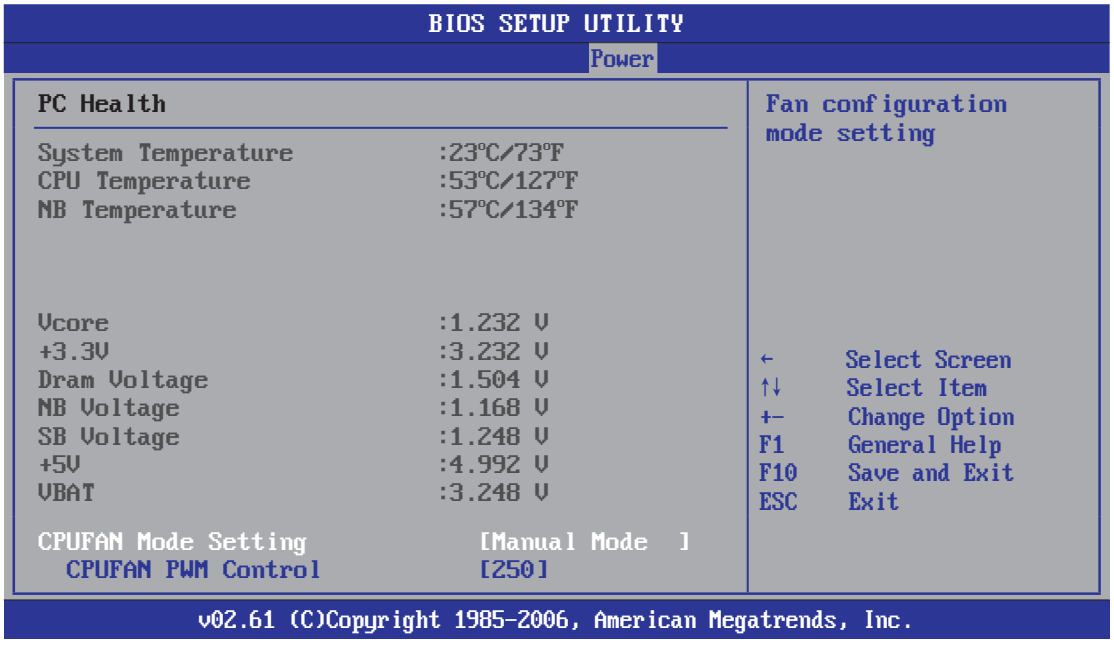
▸ **APM Configuration**
Click <Enter> key to enter its submenu, APM Configuration Template Manager allows you to manage Power Managerment default or custom configuration templates.



- **Power Management/APM**
  Enable or disable APM.
- **Power Button Mode**
  Select Power button functionality.
- **Resume On PME#**
  Disable/Enable PME to generate a wake event.

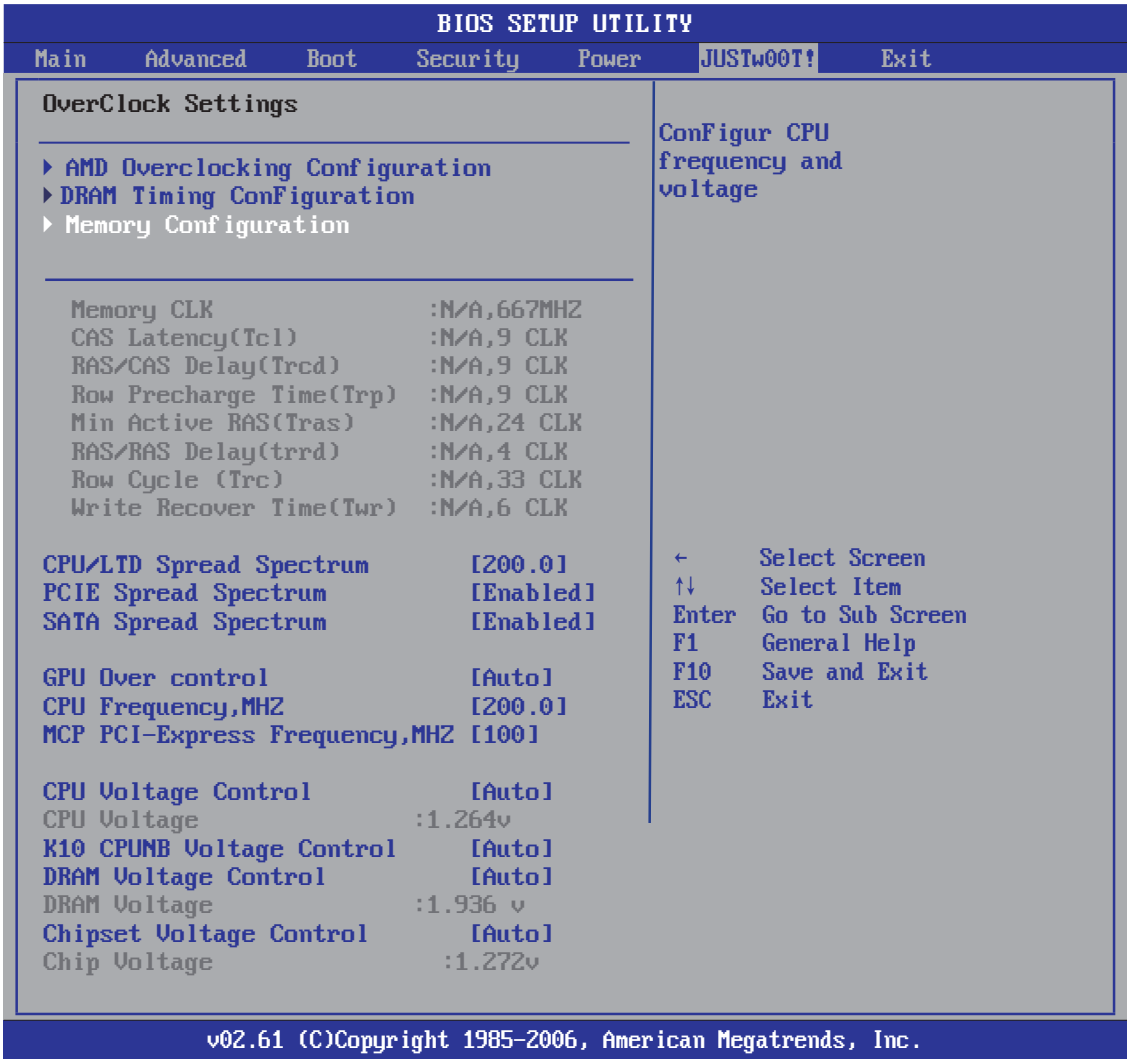
- **Resume On PCIE Wake#**
  Disable/Enable PCIE PME to generate a wake event.
- **Resume On LAN(MAC)**
  Disable/Enable LAN(MAC) to generate a wake event.
- **Resume On Ring**
  Disable/Enable RI to generate a wake event.
- **Resume On USB**
  options:Disabled,Enabled
- **Resume By RTC Alarm**
  When set to [Enabled], you can set the date and time you would like the Soft-Off PC to power-on in the "RTC Alarm Date (Days)" and "System Time" items. However, if the system is being accessed by incoming calls or the network (Resume On Ring/LAN) prior to the date and time set in these items, the system will give priority to the incoming calls or network instead.
- **PWRON After PWR-Fail**
  This item selects the system action after an AC power failure.
  [Off]: When power returns after an AC power failure, the system's power remains off. You must press the Power button to power-on the system.
  [On]: When power returns after an AC power failure, the system's power will be powered on automatically.
  [Former-Sts]: When power returns after an AC power failure, the system will return to the state where you left off before power failure occurred. If the system's power is off when AC power failure occurs, it will remain off when power returns. If the system's power is on when AC power failure occurs, the system will power-on when power returns.
- **Keyboard WakeUp**
  Any key:Support "On/OFF" and "Suspend" for Power Button Mode.
- **Specific Key for PowerOn**
  When the Power On function is set to Password, use this item to set the password.
- **Mouse WakeUp**
  Optional:Disabled,Enabled.
- Press <**Esc**> key to return to "**Power**" menu.

▸ **PC Health**
Click <Enter> key to enter its submenu, it will be display hardware health configuration, including System temperature, CPU temperature, FAN speed and all kinds of voltages.

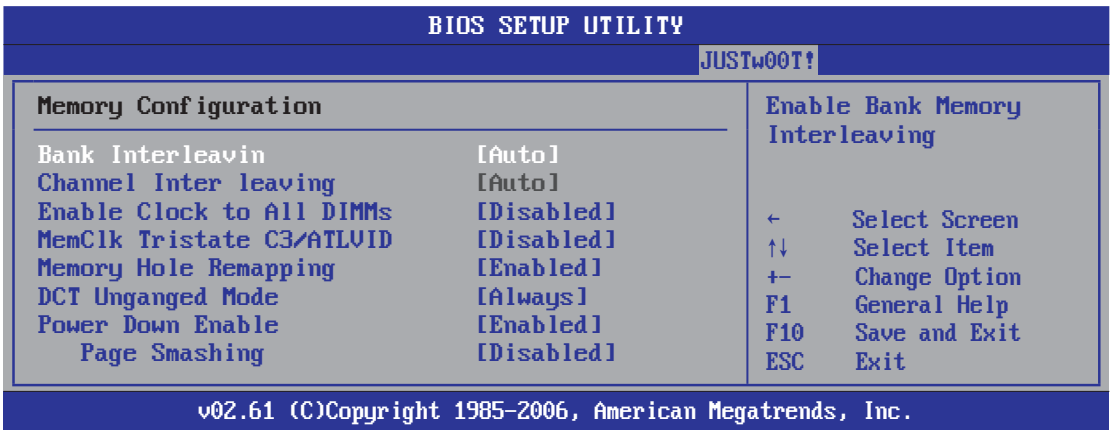


- **CPUFAN Mode Setting**
  Available options: Manual Mode, Thermal Cruise Mode， Speed Cruise Mode
- **CPUFAN PWM Control**
  According to PWM out configuration adjustable CPU Fan speed.

4.5.8 JUSTw00t! Setting(OverClock Settings)

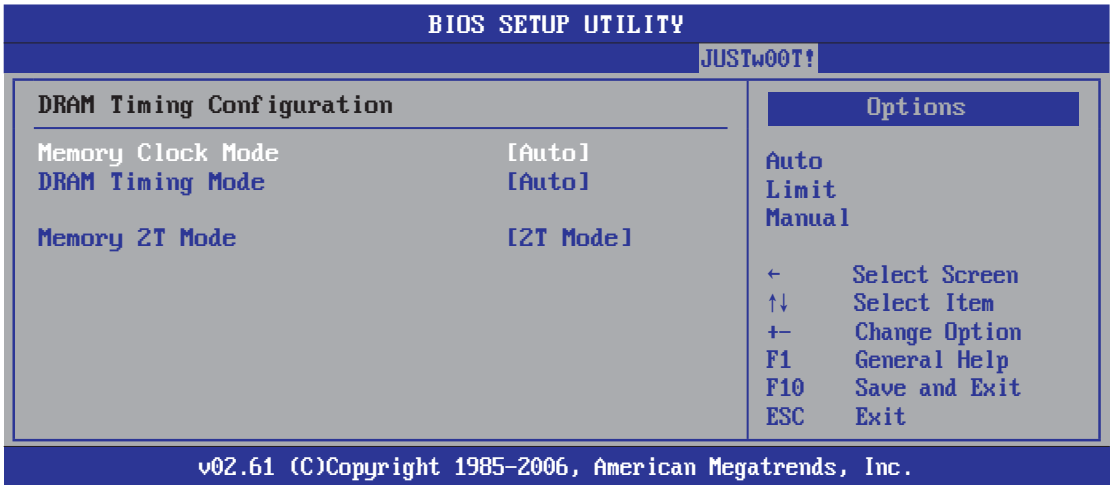


- **Memory Configuration**
  Click <Enter> key to enter its submenu.



- **Bank Interleaving**
  Sets the bank interleaving feature.
- Channel Interleaving
  Enable Channel Memory Interleaving.
- **Enable Clock to All DIMMs**
  This item is to enable or disable the unused clocks to DIMMs even the memory slots are not populated.
- **MemClk Tristate C3/ATLVID**
  Enables or disables the MemClk Tri-Stating during C3 and Alt VID.
- **Memory Hole Remapping**
  Enables or disables the memory remapping around the memory hole.
- **DCT Unganged Mode**
  This item allows the selection of the unganged DRAM mode (64-bit width).
- **Power Down Enable**
  This item is to enable or disable the DDR power down mode.
- **Power Down Mode**
  Available options: Channel, Chip Select

▸ **DRAM Timing Configuration**
Click <Enter> key to enter its submenu.

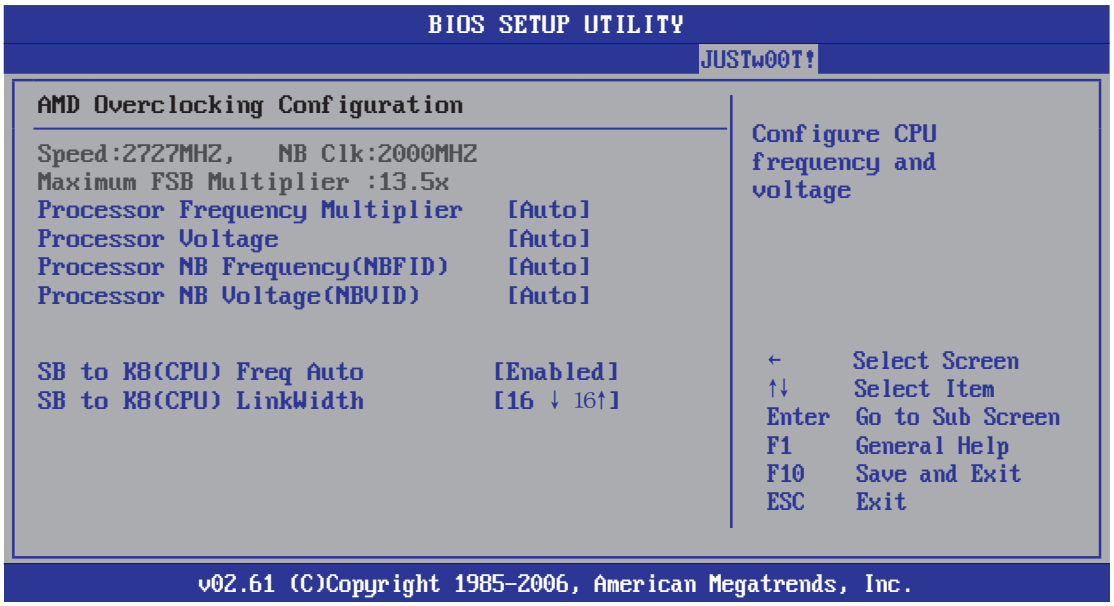


- **Memory Clock Mode**
  This item is to select the memory clock mode.
- **DRAM Timing Mode**
  This item is to select the DRAM Timing mode.
- **Memory 2T Mode**
  Options:Auto, 1T Mode,2T Mode.

• Press <**Esc**> key to return to "**JUSTw00T!**" menu.

AMD Overclocking Configuration

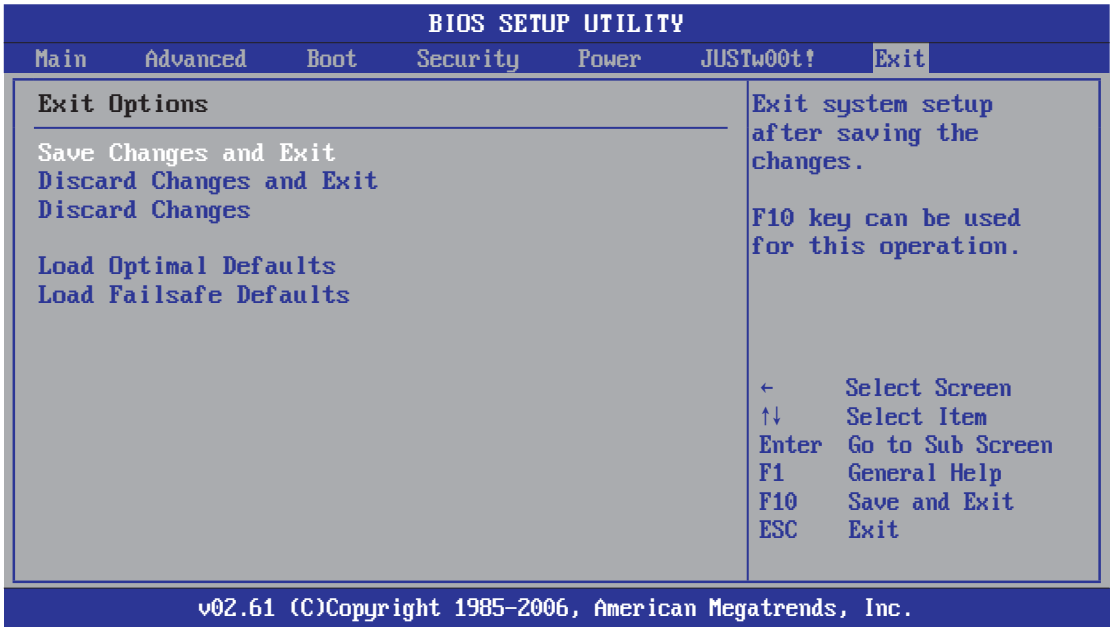
Click <Enter> key to enter its submenu.



- **Processor Frequency Multiplier**
  options:Auto,X4.0 800 MHZ,X4.5 900MHZ,X5.0 1000MHZ,X5.5 1100MHZ,X6.0 1200MHZ,X6.5 1300MHZ, X7.0 1400MHZ ,X7.5 1500MHZ
- **Processor Voltage**
  Options:Auto,1.425V,1.412V,1.400V,1.387V,1.375V,1.362V,1.350V,1.337V
- **Processor NB Frequency (NBFID)**
  Options:Auto,X4 800MHZ,X5 1000MHZ,X6 1200MHZ,X7 1400MHZ,X8 1600MHZ,X9 1800MHZ, X10 2000MHZ,X11 2200MHZ.
- **Processor NB Voltage(NBVID)**
  Options:Auto,1.425V,1.412V,1.400V,1.387V,1.375V,1.362V,1.350V,1.337V
- **SB to K8(CPU) Freq Auto**
  SB to K8(CPU) frequency selection by CPU capability.
- **SB to K8(CPU)LinkWidth**
  SB to K8(CPU) LinkWidth selection

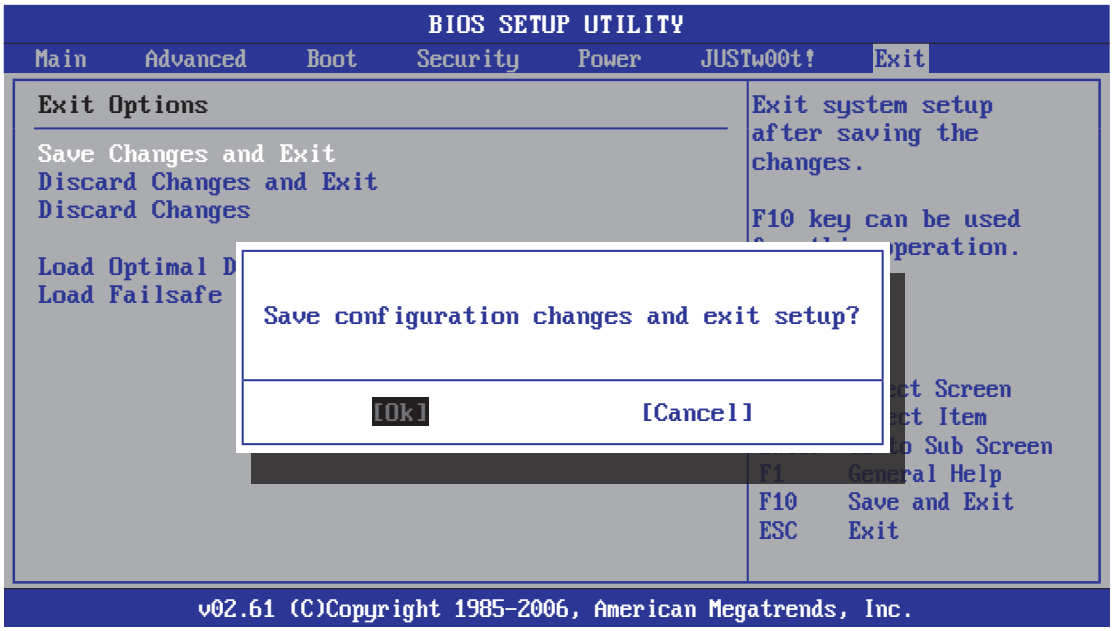
- Press <**Esc**> key to return to "**JUSTw00T!**" menu.

4.5.9 Exit Options



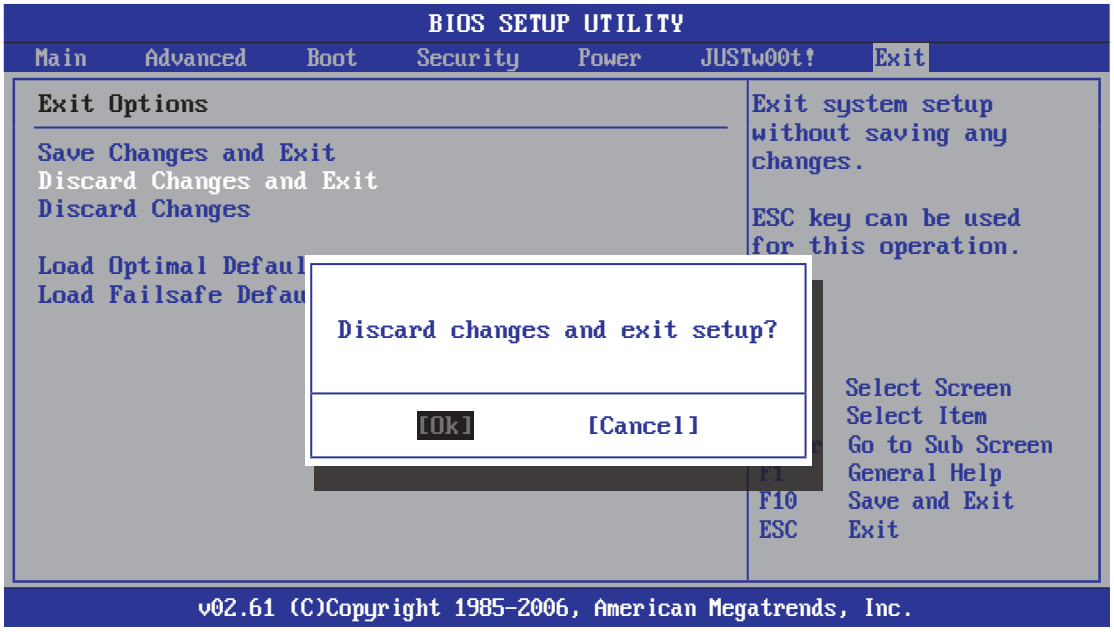
Save Changes and Exit

Highlight this item and select <Ok>,then press <Enter> to save the changes that you have made in the Setup Utility and exit the Setup Utility. Or press <Cancel> to return to the main menu.



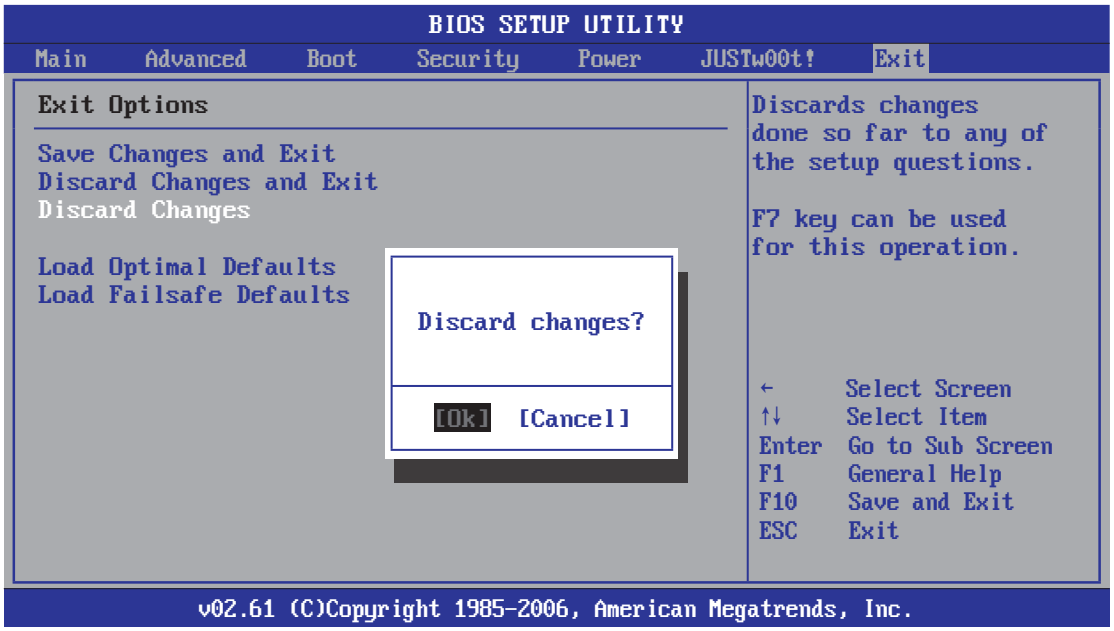
Discard Changes and Exit

Highlight this item and select <Ok>,then press <Enter> to discard any changes that you have made in the Setup Utility and exit the Setup Utility. Or press <Cancel> to return to the main menu.



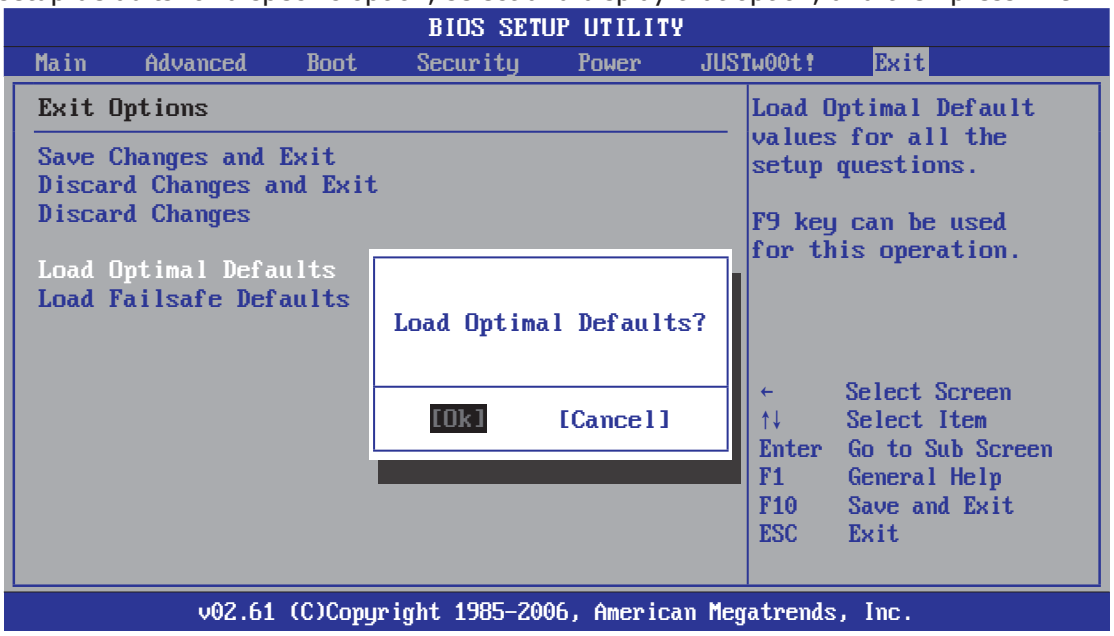
Discard Changes

Sleect <Ok>and press <Enter> to discard changes and exit, or press <Cancel> to return to the main menu.



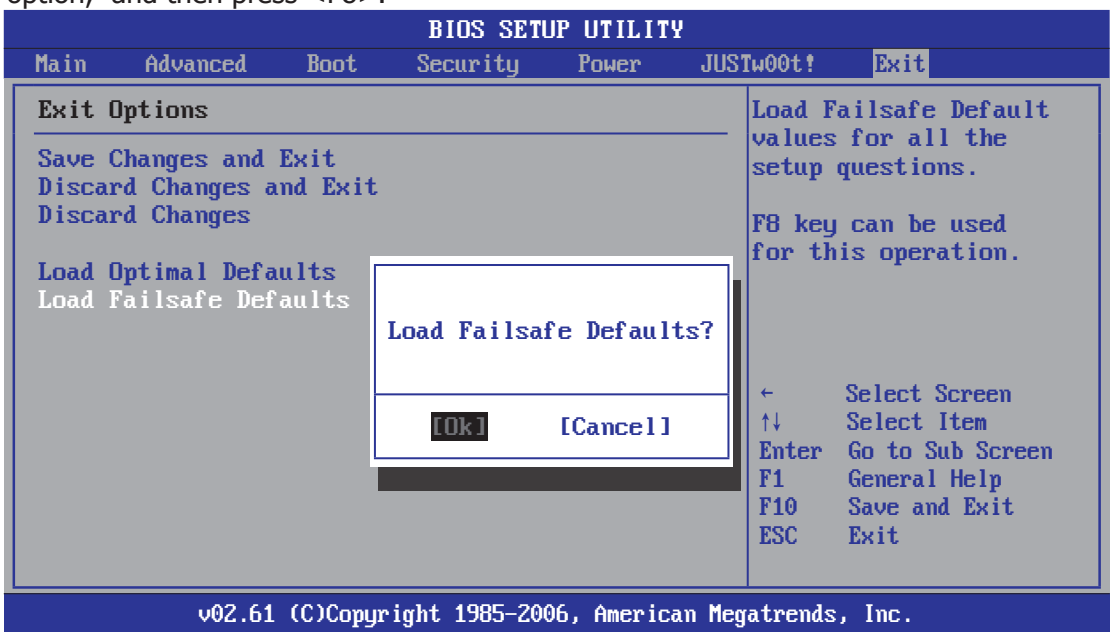
Load Optimized Defaults

This option opens a dialog box that let you install optimized defaults for all appropriate items in the Setup Utility. Select <OK> and then <Enter> to install the defaults. select <Cancel> and then <Enter> to not install the defaults. The optimized defaults place demand on the system that may be greater than the performance level of the components, such as the CPU and the memory. You can cause fatal errors or instability if you install the optimized defaults when your hardware does not support them. If you only want to install setup defaults for a specific option, select and display that option, and then press <F9>.



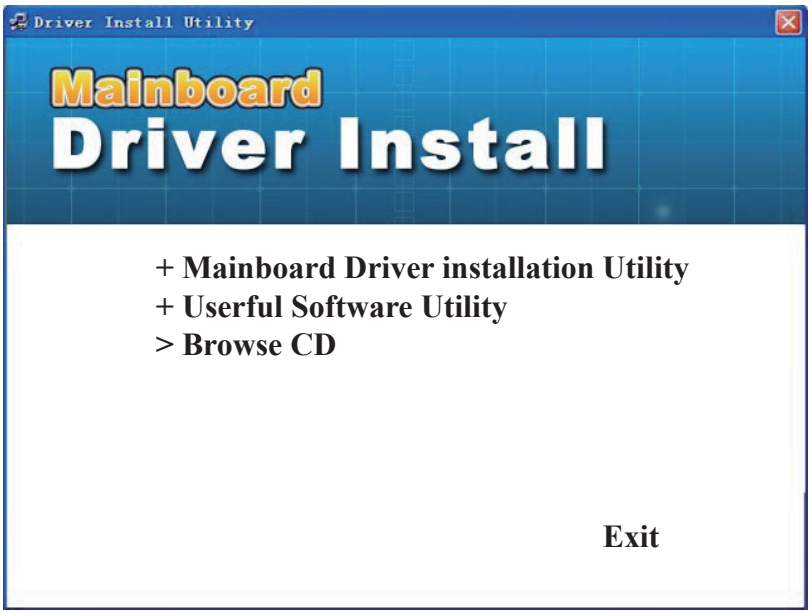
Load Failsafe Defaults

This option opens a dialog box that lets you install fail-safe defaults for all appropriate items in the Setup Utility: Select <Ok> and the <Enter> to install the defaults. Select<Canel> and then <Enter> to not install the defaults. The fail-safe defaults place no great demand on the system and are generally stable. If your system is not functioning correctly, try installing the fail-safe defaults as a first step in getting your system working properly again. If you only want to install fail-safe defaults for a specific option, select and display that option, and then press <F8>.



Chapter 5 Driver Installation

Check your package and there is Driver CD included. This CD consists of all drivers you need. In addition, this CD also include an auto detect software which can tell you which hardware is installed, and which drivers needed so that your system can function properly.
Insert CD into your CD-ROM drive and the menu should appear as below. If the menu does not appear, double-click My Computer / double-click CD-ROM drive or click Start / click Run / type X:\AUTORUN.EXE (assuming X is your CD-ROM drive).

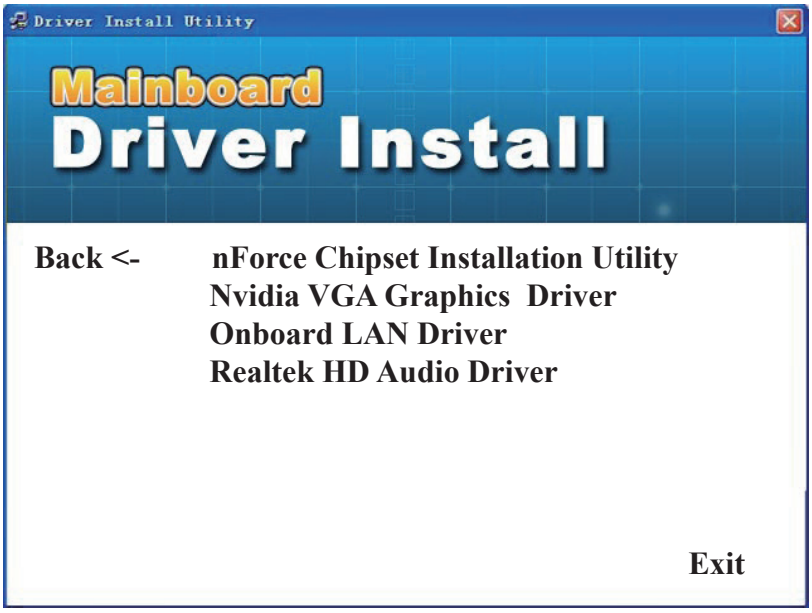


(This picture is only for reference)

From the Main MENU you may make 4 selections:

1. **+Mainboard Driver installation Utility:** Click to enter the driver installation menu.
2. **+Useful Software Utility:** Click to enter the utilities installation menu.
3. **>Browse CD:** Click to browse the contents of this "Driver & Utility CD".
4. **Exit:** Click to exit this installation menu.

When you choose **Mainboard Driver installation Utility**, the drivers menu should appear as below:



(This picture is only for reference)

From the Drivers MENU you may make 5 selections:

1. **nForce Chipset Installation Utility**
2. **Nvidia VGA Graphics Driver**
3. **Onboard LAN Driver**
4. **Realtek HD Audio Driver**
5. **Exit:** Click to exit this installation menu.