User's Manual

Sapphire EDGE-HD Mini PC

1. Product Specifications

Item	Description
CPU	AMD APU E450
Chipset	AMD® Hudson-M1 (A50M) Chip
RAM	4GB – DDR3
Storage	2.5'' SATA 250GB / 320GB / 500GB HDD
Graphics	AMD Radeon™ HD6320
LAN	Built-in Ethernet supporting 10/100/1000 Mbps
WIFI	Built-in WIFI supporting IEEE 802.11 b/g/n
I/O	VGA x1, HDMI x1, RJ45x 1, USB 3.0 Ports x2, USB 2.0 Ports x2, Audio-In x1, Line Out x1
Power	AC 100~240V 50/60Hz,19v~3.42A 65W
Monitor	Supplied separately
Keyboard/Mouse	Supplied separately
Dimensions	19.3(L) X 14.8(W) X 2.2(H) cm
Weight	530g
Operating System	Pre-installed with FREE DOS; Supports Win7/Vista

Important information for your safety and comfort

Please read these instructions carefully before using the product and save for future reference.

Ensure that the Mini-PC is turned off and disconnected from the mains supply before cleaning

Do not use liquid or aerosol cleaners, a damp cloth should suffice

Insert the power connector into the Mini PC before plugging the mains cable into the AC power outlet.

When you need to disconnect power to the equipment, unplug the power cord from the AC power outlet before removing the power connector from the Mini PC.
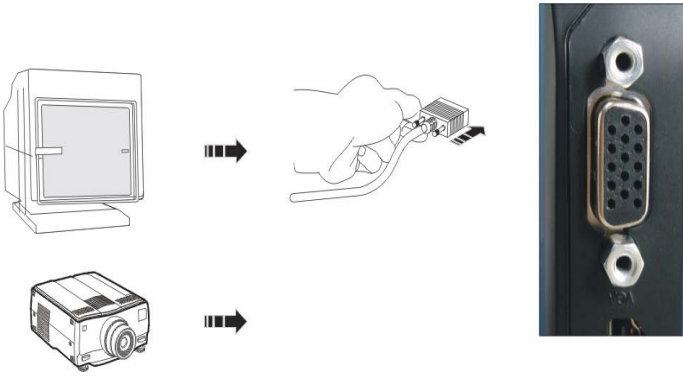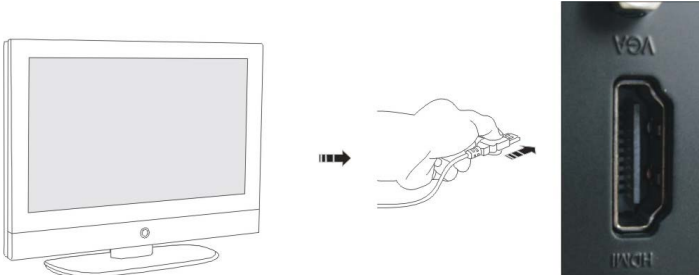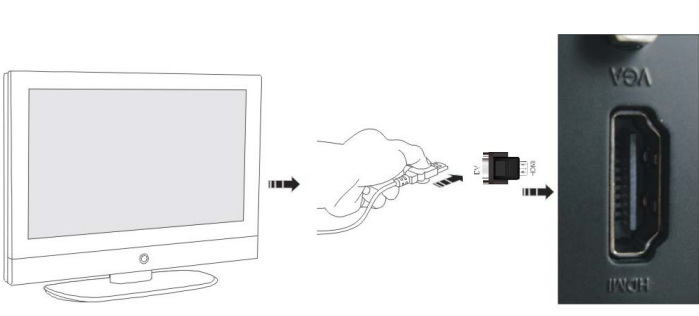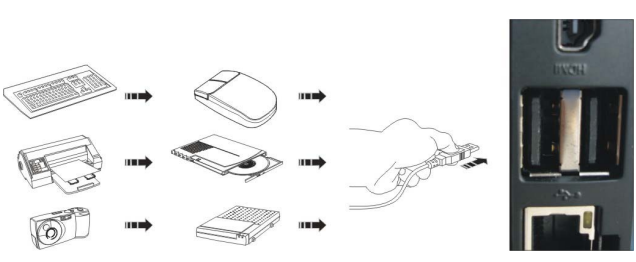
2. Product Overview
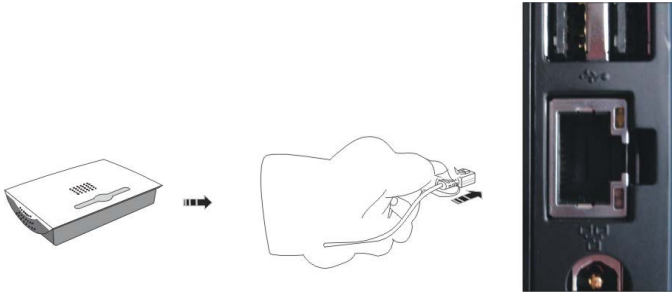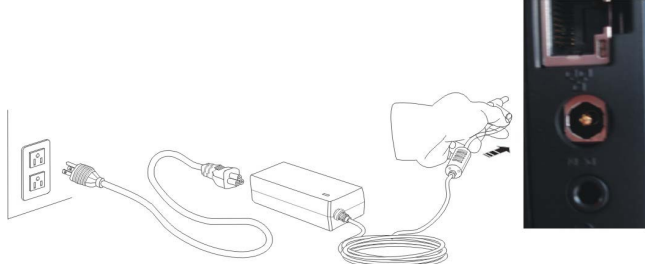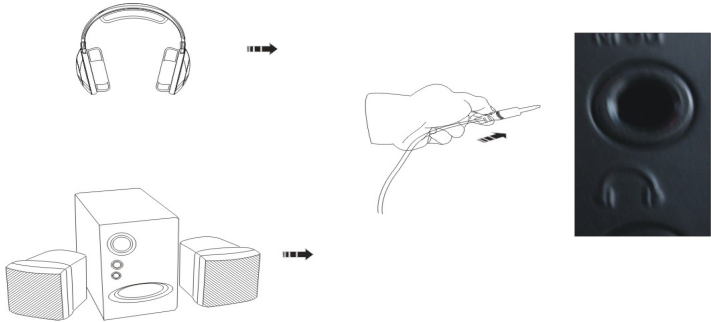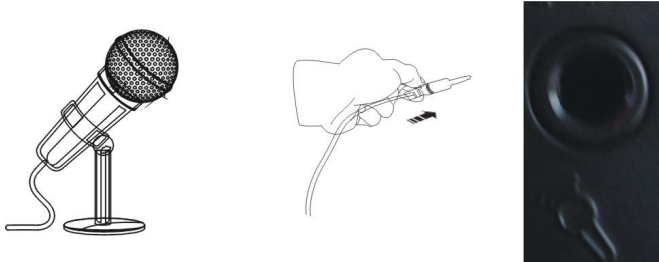
Features

No.	Item	Description
1	Power Switch and Power Indication light	The power switch allows you to switch the Mini PC ON or OFF. The light will glow when the power is on
2	HDD Activity Indicator	Light will glow when the hard disk is in use
3	VGA port	To connect to a VGA monitor
4	HDMI port	To connect to an HDMI monitor
5	Rear USB 2.0 Ports	To connect to USB devices
6	LAN Port	To connect to an Ethernet LAN cable
7	DC Input	To connect the power supply
8	Audio out jack	To connect to headphones or speakers
9	Microphone in jack	To connect to a microphone or other audio source
10	Front USB3.0 Ports (remove cover)	To connect to USB devices.

3. Sapphire Mini PC Setup and Connections

To attach the Desktop Stand (1). Feed the thumb screw provided through the hole in the base of the stand (2). Align stand with the base of the Mini PC (3). Hand tighten the screw	
To connect to a VGA display Connect the VGA monitor or other display device to the 15 pin D-Sub connector found on the rear of the unit.	
To connect to an HDMI display / TV Connect the HDMI monitor or other display device to the HDMI connector found on the rear of the unit.	
To connect to a DVI display (1). Connect the HDMI to DVI adapter included with the Mini PC to the HDMI port found at the rear of the unit. (2). Connect the DVI monitor to the female DVI port on the adapter.	
To connect USB devices Connect USB devices to the USB ports found both at the rear of the unit and under the cover on the front of the unit.	

To connect to the network Connect the Ethernet cable from your network switch / router to the RJ45 LAN connector found at the back of the unit.	
To connect the power adapter Connect the power connector from the supplied power supply to the DC – In connector found on the rear of the unit BEFORE attaching the mains power cable to an AC outlet.	
To connect speakers or headphones Connect the 3.5mm audio cable to the Audio Out jack found at the rear of the unit.	
To connect a microphone or other audio source Connect the 3.5mm audio cable to the Line In jack found at the rear of the unit.	

Note:

This Mini PC provides one standard RJ-45 jack for connecting to a Local Area Network (LAN). Two LEDs are built into the RJ-45 LAN connector. These LEDs indicate the status of the LAN.
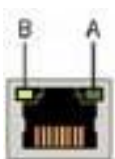
LED	LED Color	LED state	Indicates
A	Green	Off	LAN link is not established
		On	LAN link is established
		Blinking	LAN activity is occurring
B	N/A	Off	10 Mb/s data rate
	Green	On	100 Mb/s data rate
	Yellow	On	1000 Mb/s data rate

4. Configuring the BIOS

This chapter provides information on the BIOS Setup program and allows you to configure the system for optimum use.

4-1 Enter BIOS Setup

The BIOS is the communication bridge between hardware and software. Correctly setting the BIOS parameters is critical to maintain optimal system performance.

Use the following procedure to change BIOS settings.

1. Power on the computer.
2. Press the **Del** key when the following message briefly shows upon the bottom of the display during Power On Self Test (POST).

   Press F1 to continue, DEL to enter Setup.

   Pressing Del takes you to the BIOS Aptio Setup Utility.

⚡Note1: It is strongly recommended that you do not change the default BIOS settings. Changing some settings could damage your computer.

⚡Note2: The BIOS options in this manual are for reference only. BIOS screens in manuals are usually the first BIOS version when the board is released and may be different from your purchased motherboard. Users are welcome to download the latest BIOS version from our official website

ControlKeys

Please check the following table for the function description of each Controlkey.

Control Key(s)	Function Description
← / →	Moves cursor left or right to select Screens
↑ / ↓	Moves cursor up or down to select items
+ / -	To change option for the selected items
<Enter>	To bring up the selected screen
<F1>	To display the General Help Screen
<F2>	To load previous values for all the settings
<F3>	To load optimal default values for all the settings
<F4>	To save changes and exit the SETUP UTILITY
<ESC>	To jump to the Exit Screen or exit the current screen

4-2 Main Menu

When entering the Aptio Setup Utility, the main menu screen appears. This main menu includes the system overview and displays the basic system configuration, such as BIOS information, memory size and system date/time.

```
           Aptio Setup Utility - Copyright (C) 2010 American Megatrends, Inc.
    Main      Advanced      Chipset      Boot      Security      Save & Exit

    BIOS Information                                        Set the Date. Use Tab to
    BIOS Vendor          American Megatrends                switch between Data
    Core Version         4.6.4.0                            elements.
    Compliancy           UEFI 2.1
    Project Version      1A0VU 0.41 x64
    Build Date and Time  10/14/2011 15: 12 : 34

    Memory Information                                      →←:  Select Screen
    Total Memory         2032 MB (DDR3)                     ↑↓:  Select Item
                                                            Enter: Select
    System Date          [Wed 10/19/2011]                   +/-:  Change Opt.
    System Time          [13:55:02]                         F1:   General Help
                                                            F2:   Previous Values
    Access Level         Administrator                      F3:   Optimized Defaults
                                                            F4:   Save and Exit
                                                            ESC:  Exit

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```

BIOS Information

This field displays the current BIOS version, build date and ID information etc..

Memory Information

Displays current system memory size.

System Date

Allows you to set the system date. The format is <Day><Month><Date><Year>.

   [Day] Weekday from Sun. to Sat., this is automatically displayed by BIOS.

   [Month]   The month from 1 to 12.

   [Date]   The date from 1 to 31 can be keyed by numeric function keys.

   [Year]   The year can be adjusted by users.

System Time

Allows you to set the system time. The time format is <hour>:<minute>:<second>.

4-3 Advanced Menu

The Advanced menu items allow you to change the settings for the CPU, USB and other system devices. Press <Enter> to display the configuration options.

```
           Aptio Setup Utility - Copyright (C) 2010 American Megatrends, Inc.
    Main    Advanced    Chipset        Boot        Security       Save & Exit

                                                          Enables or disable Boot
   Legacy OpROM Support                                   option for legacy network
   Launch PXE OpROM              [Disabled]               devices

   ▶ PCI Subsystem Settings
   ▶ ACPI Settings
   ▶ S5 RTC Wake Settings                                 →←:   Select Screen
   ▶ CPU Configuration                                    ↑↓:   Select Item
   ▶ USB Configuration                                    Enter: Select
   ▶ Super IO Configuration                               +/-:  Change Opt.
   ▶ H/W Monitor                                          F1:   General Help
   ▶ Onboard Device                                       F2:   Previous Values
                                                          F3:   Optimized Defaults
                                                          F4:   Save and Exit
                                                          ESC:  Exit

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```

Launch PXE OpROM
Enables the Boot option for legacy network devices.
Options: Enabled, Disabled.

▶ **PCI Subsystem Settings**

```
           Aptio Setup Utility - Copyright (C) 2010 American Megatrends, Inc.
         Advanced

   PCI Bus Driver Version        V 2.03.00                Enables or Disables PCI Express
                                                          Device Relaxed ordering.
   PCI Express Device Settings
   Relaxed Ordering              [Disabled]
   Extended Tag                  [Disabled]
   No Snoop                      [Enabled]
   Maximum Payload               [Auto]
   Maximum Read Request          [Auto]                   →←:   Select Screen
                                                          ↑↓:   Select Item
   PCI Express Link Settings                              Enter: Select
   ASPM Support                  [Disabled]               +/-:  Change Opt.
   WARNING: Enabling ASPM may cause some                  F1:   General Help
            PCI-E devices to fail                         F2:   Previous Values
   Extended Synch                [Disabled]               F3:   Optimized Defaults
                                                          F4:   Save and Exit
                                                          ESC:  Exit

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```

Relaxed Ordering
Enables the PCI Express device Relaxed Ordering.
Options: Enabled, Disabled.

Extended Tag
Allows device to use 8-bit TAG field as a requester.
Options: Enabled, Disabled

No Snoop
Enables the No Snoop function of PCI Express device.
Options: Enabled, Disabled.

Maximum Payload

Sets the Maximum Payload size of PCI Express Device or allows the System BIOS to select the value.

Options: Auto, 128 Bytes, 256 Bytes, 512 Bytes, 1024 Bytes, 2048 Bytes, 4096 Bytes.

Maximum Read Request

Sets the Maximum Read Request of PCI Express Device or allows the System BIOS to select the value.

Options: Auto, 128 Bytes, 256 Bytes, 512 Bytes, 1024 Bytes, 2048 Bytes, 4096 Bytes.

ASPM Support

Sets the ASPM level, select "Force L0" can force all links to L0 state.

Options: Disabled, Auto, Force L0.

Extended Synch

If select "Enabled", allows generation of Extended Synchronization patterns.

Options: Enabled, Disabled.

▶ ACPI Settings

```
              Aptio Setup Utility - Copyright (C) 2010 American Megatrends, Inc.
        Advanced

  Enable ACPI Auto Configuration      [Disabled]         Enables or Disables BIOS
                                                         ACPI Auto Configuration.
  Enable Hibernation                  [Enabled]
  ACPI Sleep State                    [S3 (Suspend to RAM)]
  Lock Legacy Resources               [Disabled]

                                                         →←:  Select Screen
                                                         ↑↓:   Select Item
                                                         Enter: Select
                                                         +/-:  Change Opt.
                                                         F1:   General Help
                                                         F2:   Previous Values
                                                         F3:   Optimized Defaults
                                                         F4:   Save and Exit
                                                         ESC:  Exit

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```

Enable ACPI Auto Configuration

Enables the BIOS ACPI auto configuration.

Options: Enabled, Disabled.

Enable Hibernation

Enables system ability to Hibernate (OS/S4 Sleep Sate). This option may be not effective with some OS.

Options: Enabled, Disabled.

ACPI Sleep State

Selects the ACPI state used to suspend system.

Options: Suspend Disabled, S3 (Suspend to RAM).

Lock Legacy Resources

When enabled (locked), this option prevents the operating system from modifying assignments for legacy resources.

Options: Enabled, Disabled.

▶ S5 RTC Wake Settings

```
          Aptio Setup Utility - Copyright (C) 2010 American Megatrends, Inc.
    Advanced

 Wake system with Fixed Time        [Disabled]

 Wake system with Dynamic Time      [Disabled]


                                              →←:   Select Screen
                                              ↑↓:   Select Item
                                              Enter: Select
                                              +/-:  Change Opt.
                                              F1:   General Help
                                              F2:   Previous Values
                                              F3:   Optimized Defaults
                                              F4:   Save and Exit
                                              ESC:  Exit

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```

Wake system with Fixed Time
Enable or disable system wake on alarm event. When enabled, system will wake on the hr:min:sec specified.
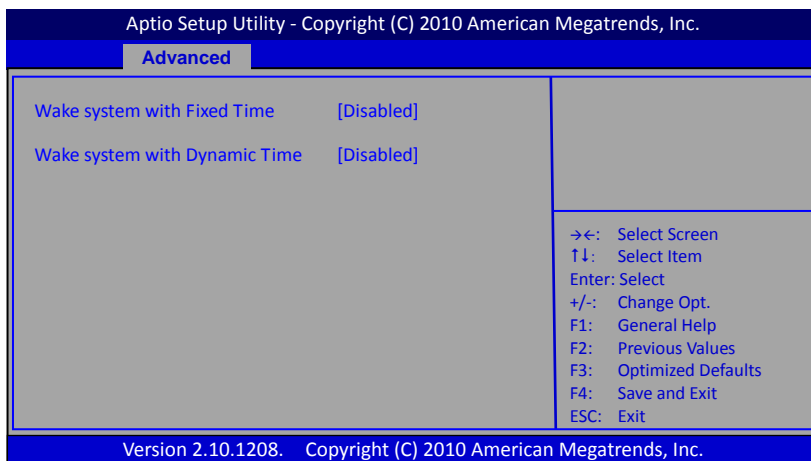Options: Enabled, Disabled.

Wake system with Dynamic Time
Enable or disable system wake on alarm event. When enabled, system will wake on the current time + Increase minutes(s).
Options: Enabled, Disabled.

▶ CPU Configuration

```
          Aptio Setup Utility - Copyright (C) 2010 American Megatrends, Inc.
    Advanced

 CPU Configuration                               Disabled for Windows XP.

 Limit CPUID Maximum        [Disabled]
 PSS Support                [Enabled]
 PSTATE Adjustment          [PState 0]
 PPC Adjustment             [PState 0]
 NX Mode                    [Enabled]
 SVM Mode                   [Enabled]          →←:   Select Screen
 C6 Mode                    [Enabled]          ↑↓:   Select Item
 Cpb Mode                   [Auto]             Enter: Select
 ▶Node 0 Information                           +/-:  Change Opt.
                                               F1:   General Help
                                               F2:   Previous Values
                                               F3:   Optimized Defaults
                                               F4:   Save and Exit
                                               ESC:  Exit

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```

Max CPUID Value Limit
We recommend leaving it disabled, unless you are using a very old OS or experiencing problems related to CPU identification/compatibility.
Options: Enabled, Disabled.

PSS Support
Enables the generation of ACPI_PCC,_PSS, and _PCT object.
Options: Enabled, Disabled.

PSTATE Adjustment

This item allows you to adjust startup P-State level.

Options: PState 0 ~7.

PPC Adjustment

This item allows you to adjust _PPC object.

Options: PState 0 ~2

NX Mode

Enables the No-execute page protection function.

Options: Enabled, Disabled.

SVM Mode

Enables the CPU SVM(Secure Virtual Machine) function.

Options: Enabled, Disabled.

C6 Mode

This item allows you to select C6 State for Nehalem processor.
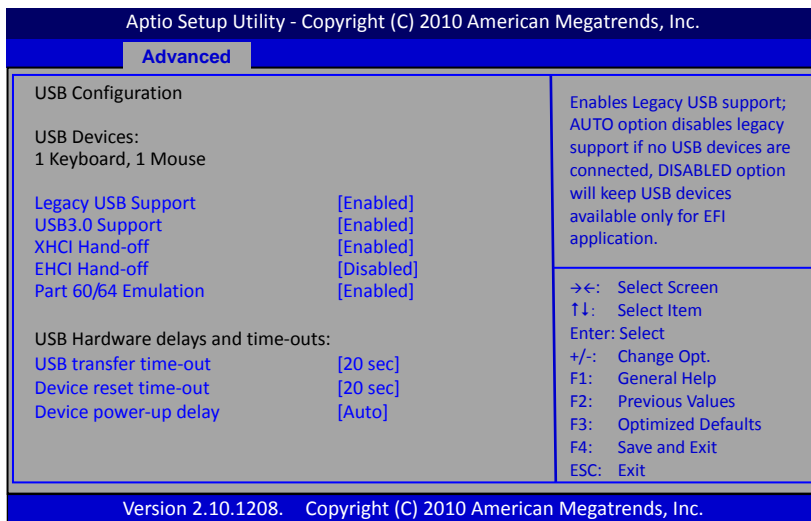
Options: Enabled, Disabled.

Cpb Mode

This item allows you to disable turbo mode Core Performance Boost.

Options: Auto, Disabled.

Node 0 Information

This field displays the CPU information related to Node 0.

▶ USB Configuration

```
           Aptio Setup Utility - Copyright (C) 2010 American Megatrends, Inc.
              Advanced

  USB Configuration                                      Enables Legacy USB support;
                                                         AUTO option disables legacy
  USB Devices:                                           support if no USB devices are
  1 Keyboard, 1 Mouse                                    connected, DISABLED option
                                                         will keep USB devices
  Legacy USB Support              [Enabled]              available only for EFI
  USB3.0 Support                  [Enabled]              application.
  XHCI Hand-off                   [Enabled]
  EHCI Hand-off                   [Disabled]
  Part 60/64 Emulation            [Enabled]              →←:   Select Screen
                                                         ↑↓:   Select Item
  USB Hardware delays and time-outs:                     Enter: Select
  USB transfer time-out           [20 sec]               +/-:  Change Opt.
  Device reset time-out           [20 sec]               F1:   General Help
  Device power-up delay           [Auto]                 F2:   Previous Values
                                                         F3:   Optimized Defaults
                                                         F4:   Save and Exit
                                                         ESC:  Exit

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```

Legacy USB Support

Allows you select legacy support for USB devices.

Enabled: Enables Legacy USB support.

Disabled: Keep USB devices available only for EFI application.

Auto: Disables legacy support if no USB devices are connected.

USB3.0 Support

Enables USB3,0 (XHCI) controller support.

Options: Enabled, Disabled.

XHCI Hand-off

This is a workaround for OSes without XHCI hand-off support. The XHCI ownership change should be claimed by XHCI driver.

Options: Enabled, Disabled.

EHCI Hand-off

This is a workaround for OSes without EHCI hand-off support. The EHCI ownership change should be claimed by EHCI driver.

Options: Enabled, Disabled.

Part 60/64 Emulation

Enables I/O port 60h/64h emulation support. This should be enabled for the complete USB keyboard legacy support for non-USB aware OSes.

Options: Enabled, Disabled.

USB transfer time-out

The time-out value for control, bulk, and interrupt transfers.

Options: 1 sec, 5 sec, 10 sec, 20 sec.

Device reset time-out

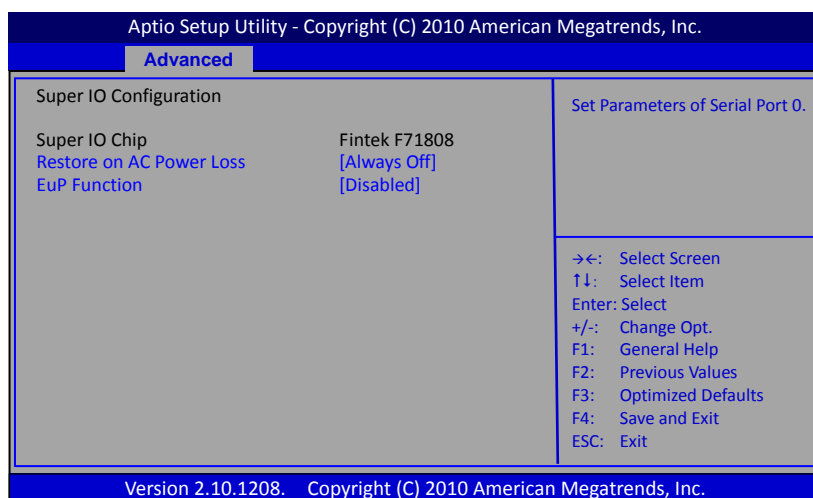Sets USB mass storage devices start unit command time-out.

Options: 10 sec, 20 sec, 30 sec, 40 sec.

Device power-up delay

Maximum time the device will take before it properly reports itself to the Host controller. 'Auto' uses default values; for a Root port it is 100ms, for a Hub port the delay is taken from Hub descriptor.

Options: Auto, Manual.

▶ Super IO Configuration

```
         Aptio Setup Utility - Copyright (C) 2010 American Megatrends, Inc.
  ┌──────────┐
  │ Advanced │
  └──────────┘
  Super IO Configuration                              Set Parameters of Serial Port 0.

  Super IO Chip            Fintek F71808
  Restore on AC Power Loss [Always Off]
  EuP Function             [Disabled]


                                            →←:   Select Screen
                                            ↑↓:   Select Item
                                            Enter: Select
                                            +/-:   Change Opt.
                                            F1:   General Help
                                            F2:   Previous Values
                                            F3:   Optimized Defaults
                                            F4:   Save and Exit
                                            ESC:  Exit

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```

Restore on AC Power Loss

Enables your computer to automatically restart or return to its last operating status after power returns from a power failure.
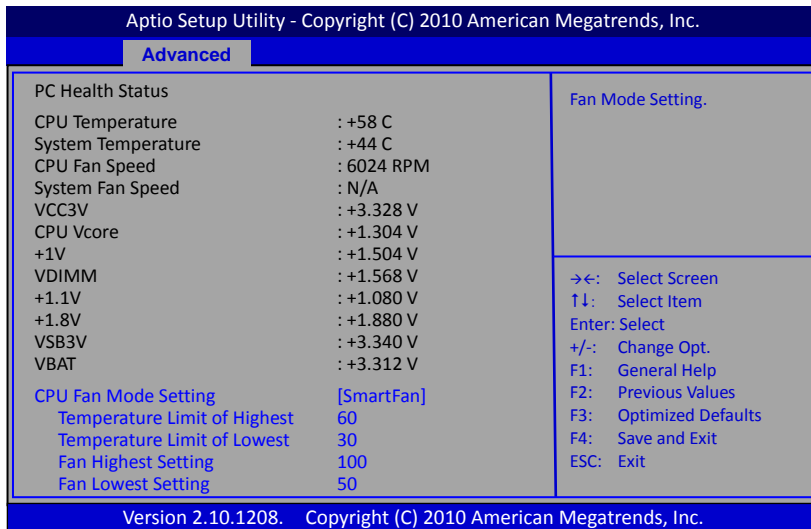
Options: Always off, Always on, Last State.

EuP Function

Enables the EuP (Energy Using Products) function, allows BIOS to switch off some power at S5 state to get system ready for the EuP requirement to reduce power consumption. Options: Enabled, Disabled.

▶ **H/W Monitor**

```
          Aptio Setup Utility - Copyright (C) 2010 American Megatrends, Inc.
          Advanced

  PC Health Status                                    Fan Mode Setting.
  CPU Temperature              : +58 C
  System Temperature           : +44 C
  CPU Fan Speed                : 6024 RPM
  System Fan Speed             : N/A
  VCC3V                        : +3.328 V
  CPU Vcore                    : +1.304 V
  +1V                          : +1.504 V
  VDIMM                        : +1.568 V          →←:   Select Screen
  +1.1V                        : +1.080 V          ↑↓:   Select Item
  +1.8V                        : +1.880 V          Enter: Select
  VSB3V                        : +3.340 V          +/-:   Change Opt.
  VBAT                         : +3.312 V          F1:   General Help
                                                   F2:   Previous Values
  CPU Fan Mode Setting         [SmartFan]          F3:   Optimized Defaults
    Temperature Limit of Highest    60             F4:   Save and Exit
    Temperature Limit of Lowest     30             ESC:  Exit
    Fan Highest Setting             100
    Fan Lowest Setting              50

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```

CPU / System Temperature

Displays the current CPU and system temperature.

CPU /System Fan Speed

Displays the current CPU and System Speed

VCC3V/CPU Vcore/+1V/VDIMM/+1.1V/+1.8V/VSB3V/VBAT

The current voltages are automatically detected and displayed by the system.
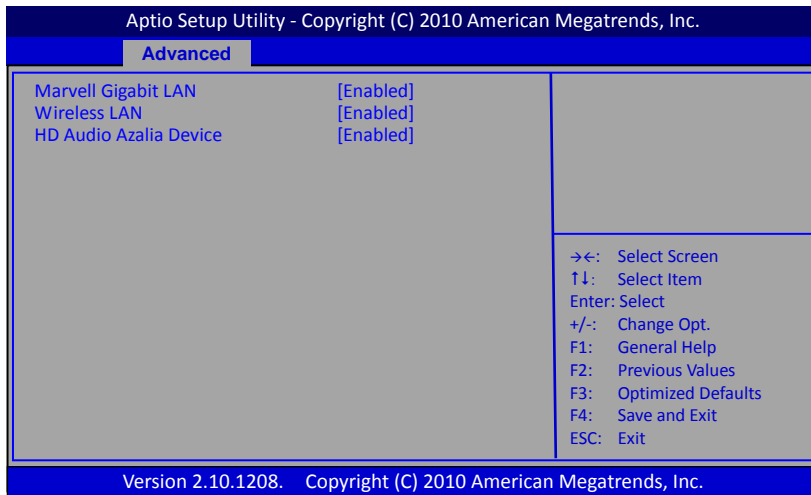
CPU Fan Mode Setting

This item controls the speed of the various fans on the motherboard.

SmartFan: When you want the speed of the fans automatically controlled based on temperature.

Manual Mode 1: To set the fan speed to a constant rate, the speed from 0% to 100%.

Manual Mode 2: This item can manual RPM count setting.

▶ **Onboard Device**

```
          Aptio Setup Utility - Copyright (C) 2010 American Megatrends, Inc.
    Advanced

 Marvell Gigabit LAN          [Enabled]
 Wireless LAN                 [Enabled]
 HD Audio Azalia Device       [Enabled]

                                           →←:   Select Screen
                                           ↑↓:   Select Item
                                           Enter: Select
                                           +/-:  Change Opt.
                                           F1:   General Help
                                           F2:   Previous Values
                                           F3:   Optimized Defaults
                                           F4:   Save and Exit
                                           ESC:  Exit

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```

Marvell Gigabit Lan

Enables the onboard Marvell GigaLan function for LAN.

Options: Auto, Enabled, Disabled

Wireless LAN

Enables onboard Wireless function.
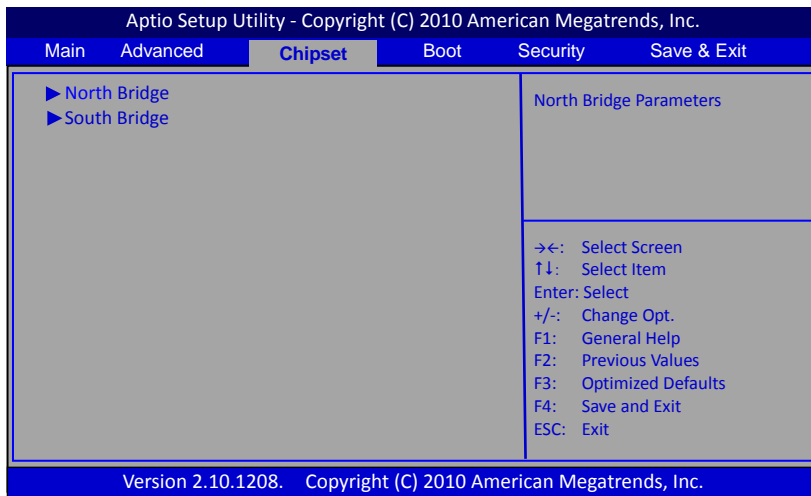
Options: Enabled, Disabled.

HD Audio Azalia Device

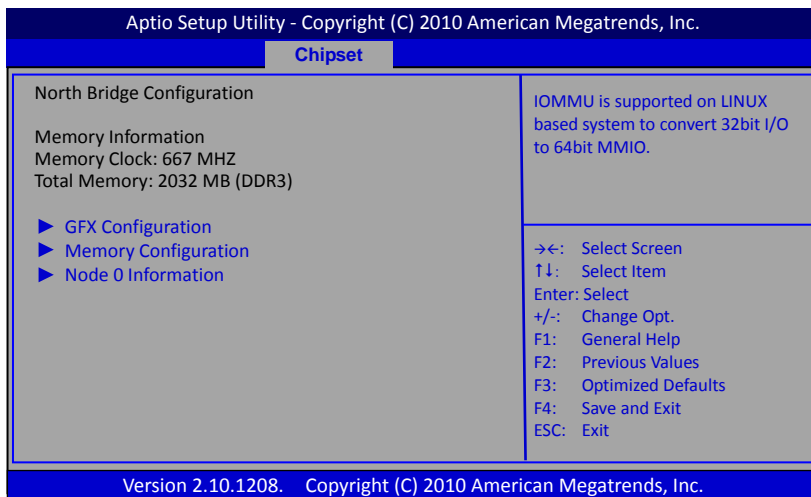Enables the onboard High Definition Audio controller.

Options: Auto, Enabled, Disabled.

4-4 Chipset Menu

The chipset menu items allow you to change the advanced chipset settings. Press <Enter> to display the sub-menu.

```
                    Aptio Setup Utility - Copyright (C) 2010 American Megatrends, Inc.
    Main      Advanced        Chipset        Boot        Security        Save & Exit

  ▶ North Bridge                                     North Bridge Parameters
  ▶ South Bridge


                                                    →←:   Select Screen
                                                    ↑↓:   Select Item
                                                    Enter: Select
                                                    +/-:   Change Opt.
                                                    F1:    General Help
                                                    F2:    Previous Values
                                                    F3:    Optimized Defaults
                                                    F4:    Save and Exit
                                                    ESC:   Exit

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```

▶ North Bridge

```
                    Aptio Setup Utility - Copyright (C) 2010 American Megatrends, Inc.
                                       Chipset

  North Bridge Configuration                        IOMMU is supported on LINUX
                                                    based system to convert 32bit I/O
  Memory Information                                to 64bit MMIO.
  Memory Clock: 667 MHZ
  Total Memory: 2032 MB (DDR3)

  ▶  GFX Configuration
  ▶  Memory Configuration                           →←:   Select Screen
  ▶  Node 0 Information                              ↑↓:   Select Item
                                                    Enter: Select
                                                    +/-:   Change Opt.
                                                    F1:    General Help
                                                    F2:    Previous Values
                                                    F3:    Optimized Defaults
                                                    F4:    Save and Exit
                                                    ESC:   Exit

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```

▶ GFX Configuration

PSPP Policy
Allows you to select PCIE speed power policy.
Options: Disabled, Performance, Balanced-High, Balanced-Low, Power Saving.

▶ Memory Configuration

Integrated Graphics
Enables integrated graphics controller.
Options: Disabled, Auto, Force.

UMA Frame buffer Size
This item will only appear when "Integrated Graphics" item is set to "Force" option. It controls the amount of system memory that is allocated to the integrated graphics processor.
Options: 32M, 64M, 128M, 256M, 384M, 512M.

Bank Interleaving

Bank Interleaving is an important parameter for improving overclocking capability of memory. It allows system to access multiple banks simultaneously.
Options: Enabled, Disabled.

IOMMU Mode

IOMMU is supported on LINUX based system to convert 32bit I/O to 64bit MMIO.
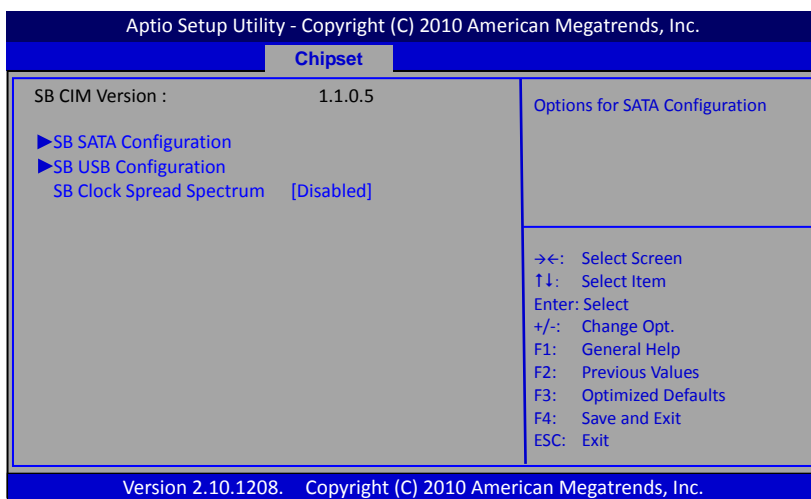Options: Disabled, 32MB, 64MB, 128MB, 256MB, 512MB, 1GB, 2GB.

Memory Clock

Allows you to select different memory clock. The default value is 400MHz.
Options: Auto, DDR-800 (400MHz), DDR-1066 (533MHz), DDR-1333 (667MHz).

▶ **Node 0 Information**

This filed displays the memory information related to Node 0.

▶ **South Bridge**

```
              Aptio Setup Utility - Copyright (C) 2010 American Megatrends, Inc.
                              Chipset

  SB CIM Version :              1.1.0.5          Options for SATA Configuration

  ▶SB SATA Configuration
  ▶SB USB Configuration
   SB Clock Spread Spectrum    [Disabled]


                                                →←:  Select Screen
                                                ↑↓:  Select Item
                                                Enter: Select
                                                +/-:  Change Opt.
                                                F1:   General Help
                                                F2:   Previous Values
                                                F3:   Optimized Defaults
                                                F4:   Save and Exit
                                                ESC:  Exit

              Version 2.10.1208.   Copyright (C) 2010 American Megatrends, Inc.
```

▶ **SB ATA Configuration**

OnChip SATA Channel

Enables onboard SATA Channel.
Options: Enabled, Disabled.

OnChip SATA Type

Allows you to set the onboard Serial SATA type.
Options: AHCI, Legacy IDE.

▶ **SB USB Configuration**

USB Device Wakeup From S3 or S4

Allows a USB keyboard device to wake-up the system from S3 or S4 state.
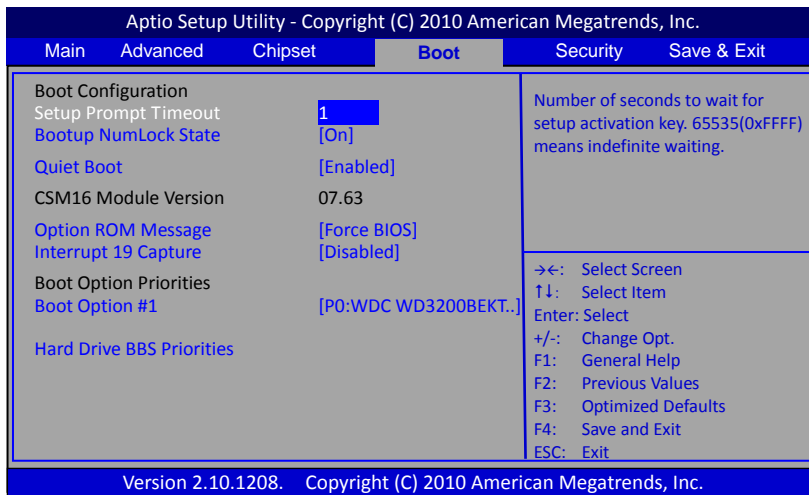Options: Enabled, Disabled.

SB Clock Spread Spectrum

This setting is for Electromagnetic Compatibility (EMC) purposes. It reduces EMI radiations by slightly staggering normally synchronous clocks.
Options: Enabled, Disabled.

4-5 Boot Menu

The Boot menu is used to configure the boot settings and the boot priority.

```
        Aptio Setup Utility - Copyright (C) 2010 American Megatrends, Inc.
    Main    Advanced    Chipset       Boot      Security    Save & Exit

  Boot Configuration                              Number of seconds to wait for
  Setup Prompt Timeout        1                   setup activation key. 65535(0xFFFF)
  Bootup NumLock State        [On]                means indefinite waiting.
  Quiet Boot                  [Enabled]
  CSM16 Module Version        07.63
  Option ROM Message          [Force BIOS]
  Interrupt 19 Capture        [Disabled]          →←:   Select Screen
  Boot Option Priorities                          ↑↓:   Select Item
  Boot Option #1              [P0:WDC WD3200BEKT..]Enter: Select
                                                  +/-:  Change Opt.
  Hard Drive BBS Priorities                       F1:   General Help
                                                  F2:   Previous Values
                                                  F3:   Optimized Defaults
                                                  F4:   Save and Exit
                                                  ESC:  Exit

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```

Setup Prompt Timeout

This is used to set an additional time the POST should wait for the operator to press the key to enter setup. The time is entered in seconds.

Bootup NumLock State

Selects the state of the keyboard's numlock function after POST.
Options: On, Off.

Quiet Boot

Displays normal POST message. Select disable to display Logo instead of POST message.
Options: Enabled, Disabled.

Option ROM Message

Sets display mode for Option ROM.
Force BIOS: To force to a BIOS-compatible output. This will show the option ROM messages.
Keep Current: To keep the current video mode. This will suppress option ROM messages.
Option ROMs requiring interactive inputs may not work properly in this mode.

Interrupt 19 Capture

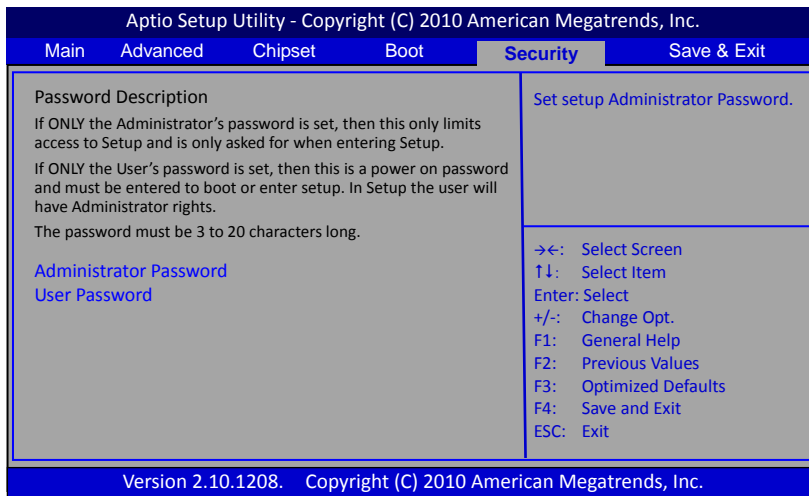Allows specify if legacy PCI option ROMs are allowed to capture software interrupt 19h.
Options: Enabled, Disabled.

Boot Option #1

These options are used to form the boot order and are dynamically generated.

4-6 Security Menu

The Security menu allows you to change the system security settings.

```
          Aptio Setup Utility - Copyright (C) 2010 American Megatrends, Inc.
   Main    Advanced    Chipset     Boot     Security       Save & Exit

   Password Description                          Set setup Administrator Password.
   If ONLY the Administrator's password is set, then this only limits
   access to Setup and is only asked for when entering Setup.
   If ONLY the User's password is set, then this is a power on password
   and must be entered to boot or enter setup. In Setup the user will
   have Administrator rights.
   The password must be 3 to 20 characters long.
                                                 →←:   Select Screen
   Administrator Password                        ↑↓:   Select Item
   User Password                                 Enter: Select
                                                 +/-:  Change Opt.
                                                 F1:   General Help
                                                 F2:   Previous Values
                                                 F3:   Optimized Defaults
                                                 F4:   Save and Exit
                                                 ESC:  Exit

          Version 2.10.1208.   Copyright (C) 2010 American Megatrends, Inc.
```
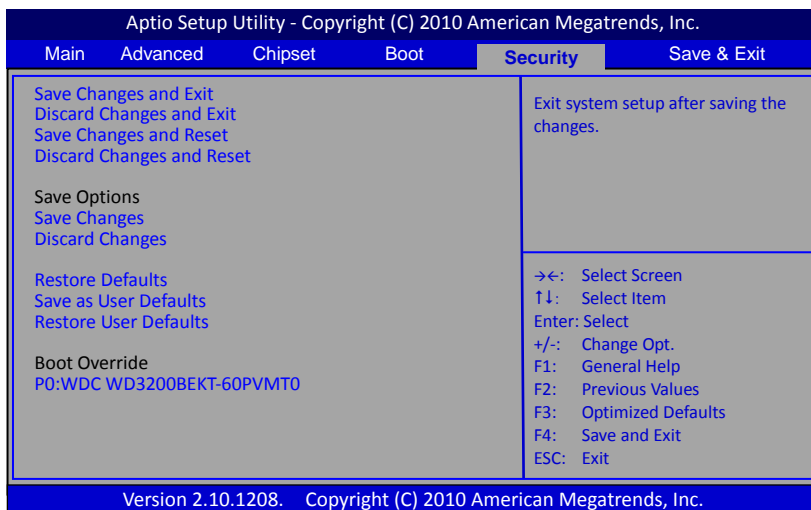
Administrator Password

If ONLY the Administrator's password is set, then this only limits access to Setup and is only asked for when entering Setup. The password must be 3 to 20 characters long.

User Password

If ONLY the User's password is set, then this is a power on password and must be entered to boot or enter setup. In Setup the user will have Administrator rights. The password must be 3 to 20 characters long.

4-7 Save & Exit Menu

The Save & Exit menu allows you to load the optimal default values for BIOS, and save or discard your changes to the BIOS items.

```
                Aptio Setup Utility - Copyright (C) 2010 American Megatrends, Inc.
    Main      Advanced      Chipset      Boot      Security          Save & Exit

    Save Changes and Exit                         Exit system setup after saving the
    Discard Changes and Exit                      changes.
    Save Changes and Reset
    Discard Changes and Reset

    Save Options
    Save Changes
    Discard Changes

    Restore Defaults                              →←:  Select Screen
    Save as User Defaults                         ↑↓:  Select Item
    Restore User Defaults                         Enter: Select
                                                  +/-:  Change Opt.
    Boot Override                                 F1:   General Help
    P0:WDC WD3200BEKT-60PVMT0                      F2:   Previous Values
                                                  F3:   Optimized Defaults
                                                  F4:   Save and Exit
                                                  ESC:  Exit

                Version 2.10.1208.    Copyright (C) 2010 American Megatrends, Inc.
```

Save Changes and Exit

This saves the changes to the CMOS RAM and exits the BIOS Setup program.

Discard Changes and Exit

This exits the BIOS Setup without saving the changes made in BIOS Setup to the CMOS.

Save Changes and Reset

This resets system after saving the changes.

Discard Changes and Reset

This resets system without saving the changes.

Save Option

Allows you to save the options you made to the CMOS RAM.

Save Change

Allows you to save the changes you made to the CMOS RAM.

Discard Changes

Allows you to discard the selections you made.

Restore Defaults

The restore defaults are the factory settings of this motherboard.

Save as User Defaults

This is used to save all current settings as user default. The current setup state can later be restored using Restore User Defaults.

Restore User Defaults

This is used to restore all tokens to settings previously stored by Save as User Defaults.

Boot Override

This group of functions includes a list, each of them corresponding to one device within the boot order. Select a drive to immediately boot that device regardless of the current boot order.

Note:

Some older Operating Systems do not support AHCI mode. If the Operating System you try to install does not see the HDD as a valid destination, please go to the <Advanced> page in the BIOS Setup Utility, choose "SATA Configuration" page and set "SATA Controller Mode" to "SATA Mode".
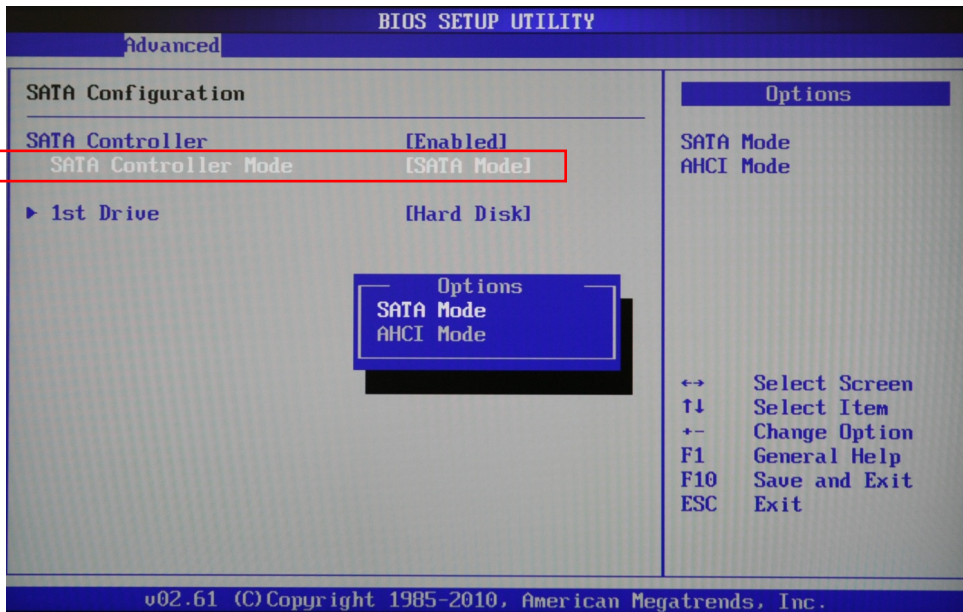
Warnings

- Do not use this product near water or a heat source such as a radiator.
- Do not place this product on an unstable stand or surface. If the product falls, it could be seriously damaged.
- The ventilator on the enclosure is used for air convection and to prevent the equipment from overheating. Do not cover the ventilator
- Never push objects of any kind into this product through cabinet slots as they may touch dangerous voltage points or short-out parts that could result in a fire or electric shock.
- Never spill liquid of any kind onto or into the product.
- To avoid damage of internal components and to prevent battery leakage, do not place the product on a vibrating surface.
- Keep this equipment away from humidity and high temperature
- Do not leave the equipment in an unconditioned environment with a storage temperature above 60^OC (140^OF) or below 0^OC (32^OF), which may damage the equipment.
- Danger of explosion if battery is incorrectly replaced. Replace only with the same or equivalent type recommended by the manufacturer.
- Route the power cord in a way that people are unlikely to step on it. Do not place anything on top of the power cord.
- Keep any strong magnetic or electrical objects away from the equipment.
- Your device and its accessories may contain small parts. Keep them out of the reach of small children.

REACH

Complying with the REACH (Registration, Evaluation, Authorization, and Restriction of Chemicals) regulatory framework

Lithium-Ion Battery Warning

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

CE Mark Warning

This is a Class B product, in a domestic environment, this product may cause radio interference, in which
case the user may be required to take adequate measures.

CE marking for devices without wireless LAN/Bluetooth

The shipped version of this device complies with the requirements of the EEC directives 2004/108/EC
"Electromagnetic compatibility" and 2006/95/EC "Low voltage directive".
R&TTE Directive 1999/5/EC as attested by conformity with the following harmonized standard:
•Article Safety
•EN60950
•Article EMC
•EN301 489-1/-17
•Article Spectrum Usages
•EN300 328

WEEE Statement

Under the European Union ("EU") Directive on Waste Electrical and Electronic Equipment, Directive 2002/96/EC, effective from August 13, 2005, states products of "electrical and electronic equipment" no longer may be discarded as municipal waste. Please refer to your original point of purchase for instruction on the correct procedure of discarding as municipal waste. It is the sole responsibility/obligation of the local authorized reseller/distributor of such covered electronic equipment to take back such products at the end of their useful life.

For better environmental protection, waste batteries should be collected separately for recycling or special disposal.

HDMI™
HIGH-DEFINITION MULTIMEDIA INTERFACE

FCC Statement This device complies with Part 15 of the FCC Rules.

Operation is subject to the following two conditions:

(1) This device may not cause harmful interference, and

(2) This device must accept any interference received, including interference that may cause undesired operation.

Note:

The manufacturer is not responsible for ANY interference, for example RADIO or TV interference, caused by unauthorized modifications to this equipment. Such modifications could void the user' authority to operate the equipment.