
XPC Bios User Guide

For the : SX79R5

Shuttle®

XPC Installation Guide

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2. This device must withstand any background interference including those that may cause undesired operation.

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CAUTION

Incorrectly replacing the battery may damage this computer. Replace only with the same or equivalent as recommended by Shuttle. Disposal of used batteries according to the manufacturer's instructions.

Laser compliance statement

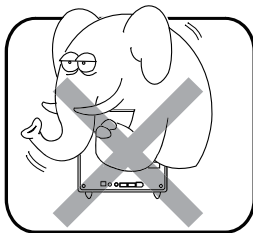
The optical disc drive in this server is a laser product. The drive's classification label is located on the drive.

CLASS 1 LASER PRODUCT

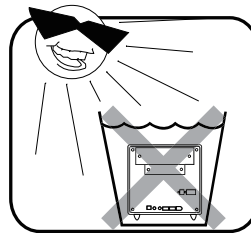
CAUTION : INVISIBLE LASER RADIATION WHEN OPEN.
AVOID EXPOSURE TO BEAM.

Installation Notices

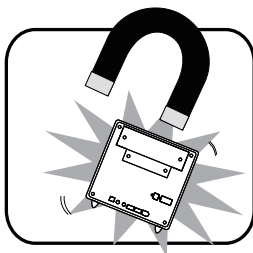
Do not place this device underneath heavy loads or in an unstable position.



Do not expose this device to high levels of direct sunlight, high-humidity or wet conditions.



Do not use or expose this device around magnetic fields as magnetic interference may affect the performance of the device.



Do not block the air vents to this device or impede the airflow in any way.

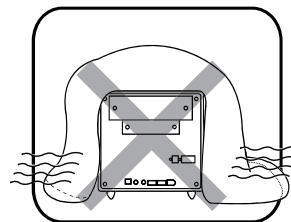


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Driver and Software Installation

■ Motherboard Driver CD



The CD contents attached in SX79R5 Series motherboard are subject to change without notice.

The Motherboard Driver CD contains all the motherboard drivers necessary to optimize the performance of this Shuttle Xvision in a Windows® OS. Install these drivers after installing Microsoft® Windows®.

Insert the attached CD into your CD-ROM drive. The CD AutoRun screen should appear. If the AutoRun screen does not appear, double click on Autorun icon in My Computer to bring up Shuttle Mainboard Software Setup screen.

Navigation Bar Description :

- ☞ Auto Install Driver/ Utility.
- ☞ Install USB Charger for Mobile Device.
- ☞ User Manuals - Motherboard Manual, Quick Guide.
- ☞ Link to Shuttle Website - Link to shuttle website homepage.
- ☞ Browse this CD - Allows you to see contents of this CD.



■ User Manuals

- ☞ Motherboard Manual
- ☞ Quick Guide



Starting BIOS

AMIBIOS has been integrated into many motherboards for over a decade. In the past, people often referred to the AMIBIOS setup menu as BIOS, BIOS setup, or CMOS setup.

American Megatrends refers to this setup as BIOS. Specifically, it is the name of the AMIBIOS8 BIOS setup utility. This chapter describes the basic navigation of the BIOS setup screens.

Enter the BIOS

To enter the BIOS setup screens, follow the steps below:

Step1. Power on the motherboard.

Step2. Press the <Delete> key on your keyboard when you see the following text prompt: **Press DEL to run Setup.**

Step3. After you press the <Delete> key, the main BIOS setup menu displays. You can access the other setup screens from the main BIOS setup menu, such as the Chipset and Power menus.



This manual describes the standard look of the BIOS setup screen. The motherboard manufacturer has the ability to change any and all of the settings described in this manual. This means that some of the options described in this manual do not exist in your motherboard's AMIBIOS.



In most cases, the <Delete> key is used to invoke the BIOS setup screen. There are a few cases that other keys are used, such as <F1>, <F2>, and so on.

BIOS Setup Menu

The main BIOS setup menu is the first screen that you can navigate. Each main BIOS setup menu option is described in this user's guide.

The Main BIOS setup menu screen has two main frames. The left frame displays all the options that can be configured. "Grayed-out" options cannot be configured. Options in blue can be.

The right frame displays the key legend. Above the key legend is an area reserved for a text message. When an option is selected in the left frame, it is highlighted in white.

Often a text message will accompany it.



AMIBIOS8 has default text messages built into it. The motherboard manufacture retains the option to include, leave out, or change any of these text messages. They can also add their own text messages. Because of this, many screen shots in this manual are different from your BIOS setup screen.

The BIOS setup/utility uses a key-based navigation system called hot keys. Most of the BIOS setup utility hot keys can be used at any time during the setup navigation process. These keys include <F1>, <F10>, <Enter>, <ESC>, <Arrow> keys, and so on.



There is a hot key legend located in the right frame on most BIOS setup screens.

Hot Key	Description
→ Left ← Right	The Left and Right <Arrow> keys allow you to select a BIOS setup screen. For example: Main screen, Advanced screen, Chipset screen, and so on.
↑ Up ↓ Down	The Up and Down <Arrow> keys allow you to select an BIOS setup item or sub-screen.
+/- Plus/Minus	The Plus and Minus <Arrow> keys allow you to change the field value of a particular setup item. For example: Date and Time.
Tab	The <Tab> key allows you to select BIOS setup fields.
F1	The <F1> key allows you to display the General Help screen. Press the <F1> key to open the General Help screen.
F10	The <F10> key allows you to save any changes you have made and exit BIOS Setup. Press the <F10> key to save your changes. Press the <Enter> key to save the configuration and exit. You can also use the <Arrow> key to select Cancel and then press the <Enter> key to abort this function and return to the previous screen.
ESC	The <Esc> key allows you to discard any changes you have made and exit the BIOS Setup. Press the <Esc> key to exit the BIOS setup without saving your changes. Press the <Enter> key to discard changes and exit. You can also use the <Arrow> key to select Cancel and then press the <Enter> key to abort this function and return to the previous screen.
Enter	The <Enter> key allows you to display or change the setup option listed for a particular setup item. The <Enter> key can also allow you to display the setup sub-screens.



The <F8> key on your keyboard is the Fail-Safe key. It is not displayed on the BIOS key legend by default. To set the Fail-Safe settings of the BIOS, press the <F8> key on your keyboard. It is located on the upper row of a standard 101 keyboard. The Fail-Safe settings allow the motherboard to boot up with the least amount of options set. This can lessen the probability of conflicting settings.

Main Setup

When you first enter the BIOS Setup Utility, you will enter the Main setup screen.

You can always return to the Main setup screen by selecting the Main tab. There are two Main Setup options. They are described in this section. The Main BIOS Setup screen is shown below.



System Time/System Date

Use this option to change the system time and date. Highlight System Time or System Date using the <Arrow> keys. Enter new values through the keyboard. Press the <Tab> key or the <Arrow> keys to move between fields. The date must be entered in MM/DD/YY format. The time is entered in HH:MM:SS format.



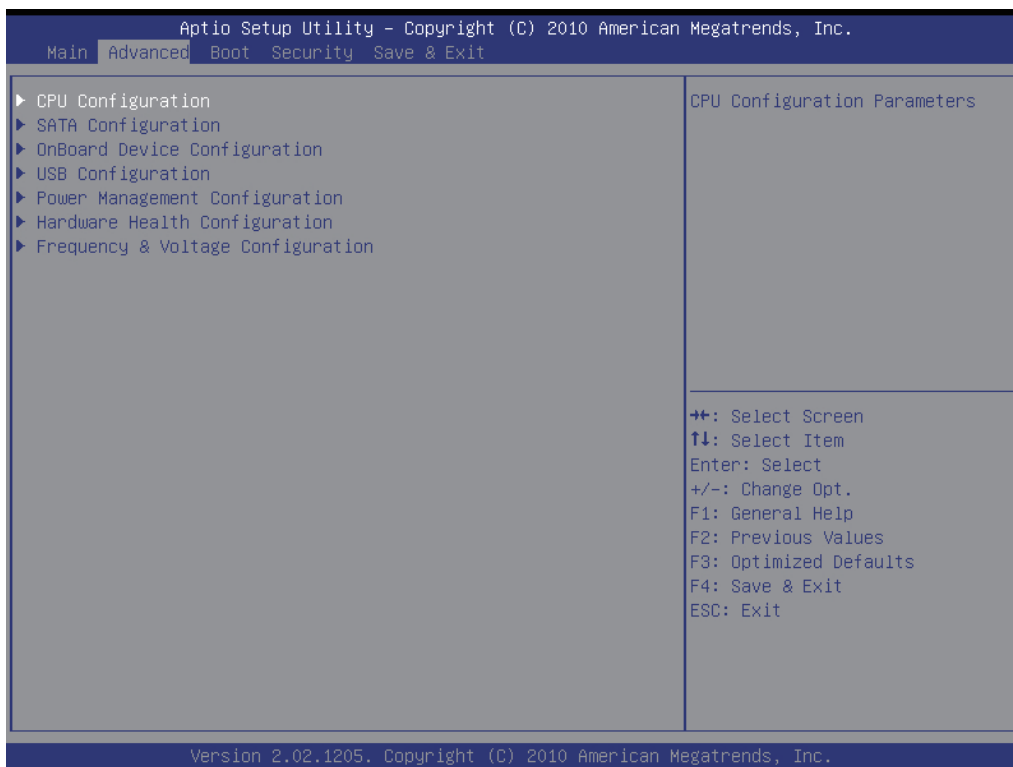
The time is in 24-hour format. For example, 5:30 A.M. appears as 05:30:00, and 5:30 P.M. as 17:30:00.

Advanced

Select the Advanced tab from the BIOS setup screen to enter the Advanced BIOS Setup screen. You can select any of the items in the left frame of the screen, such as CPU Configuration, to go to the sub menu for that item.

You can display an Advanced BIOS Setup option by highlighting it using the <Arrow> keys. All Advanced BIOS Setup options are described in this section.

The Advanced BIOS Setup screen is shown below. The sub menus are described on the following pages.



➤ Power Management Configuration



ACPI Sleep State

Select the highest ACPI Sleep state the system will enter when the SUSPEND button is pressed.

- The choice: S1 (CPU Stop Clock) , S3(Suspend to RAM).

EuP Control Function

Enable or disable system EuP function in S4/S5.

- The choice: Enabled , Disabled.

PWR-On After PWR-Fail

Enable or disable system power on automatically after AC power restored.

- The choice: Enabled , Disabled , Former-Sts.

Resume by RTC Alarm

When enabled, System will wake on the hr::min::sec specified.

- The choice: Enabled , Disabled.

Wake On Onboard LAN

Enable or disable system wake on by onboard LAN chip.

- The choice: Enabled , Disabled.

Wake Up By Ring

Enable or disable system wake up by Ring.

- The choice: Enabled , Disabled.

Wake Up By USB3.0 Port

Enable or disable system wake up by USB3.0 Port.

- The choice: Enabled , Disabled.

➤ CPU Configuration

You can use this screen to select options for the CPU Configuration Settings. Use the up and down <Arrow> keys to select an item. Use the <Plus> and <Minus> keys to change the value of the selected option. A description of the selected item appears on the right side of the screen. The settings are described on the following pages. An example of the CPU Configuration screen is shown below.



The CPU Configuration setup screen varies depending on the installed processor.

```

Aptio Setup Utility - Copyright (C) 2010 American Megatrends, Inc.
Advanced
CPU Configuration
Intel(R) Core(TM) i7-2600 CPU @ 3.40GHz
Processor Stepping      206a7
Microcode Revision      14
Max Processor Speed     3400 MHz
Min Processor Speed     1600 MHz
Processor Speed         3400 MHz
Processor Cores         4
Intel HT Technology     Supported
EMT64                  Supported

Hyper-threading        [Enabled]
Active Processor Cores [All]
Limit CPUID Maximum    [Disabled]
Execute Disable Bit    [Enabled]
Intel Virtualization T [Enabled]
EIST                   [Enabled]
Turbo Mode             [Enabled]

Enabled for Windows XP and
Linux (OS optimized for
Hyper-Threading Technology)
and Disabled for other OS (OS
not optimized for
Hyper-Threading Technology).
When Disabled only one thread
per enabled core is enabled.

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

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```

Hyper-threading

Enabled for Windows XP and Linux (OS optimized for Hyper-Threading Technology) and Disabled for other OS (OS not optimized for Hyper-Threading Technology). When Disabled only one thread per enabled core is enabled.

- The choice: Enabled , Disabled.

Active Processor Cores

Number of cores to enable in each processor package.

- The choice: ALL,1,2,3.

Limit CPUID Maximum

Disabled for Windows XP and later OSes.

- The choice: Enabled , Disabled.

Execute Disable Bit

XD can prevent certain classes of malicious buffer overflow attacks when combined with a supporting OS (Windows Server 2003 SP1, Windows XP SP2, SuSE Linux 9.2, RedHat Enterprise 3 Update 3.)

Intel Virtualization Technology

When enable, a VMM can utilize the additional hardware capabilities provided by vanderpool Technology.

- The choice: Enabled , Disabled.

EIST

Enable or disable Enhanced Intel SpeedStep® Technology.

- The choice: Enabled , Disabled.

Turbo Mode

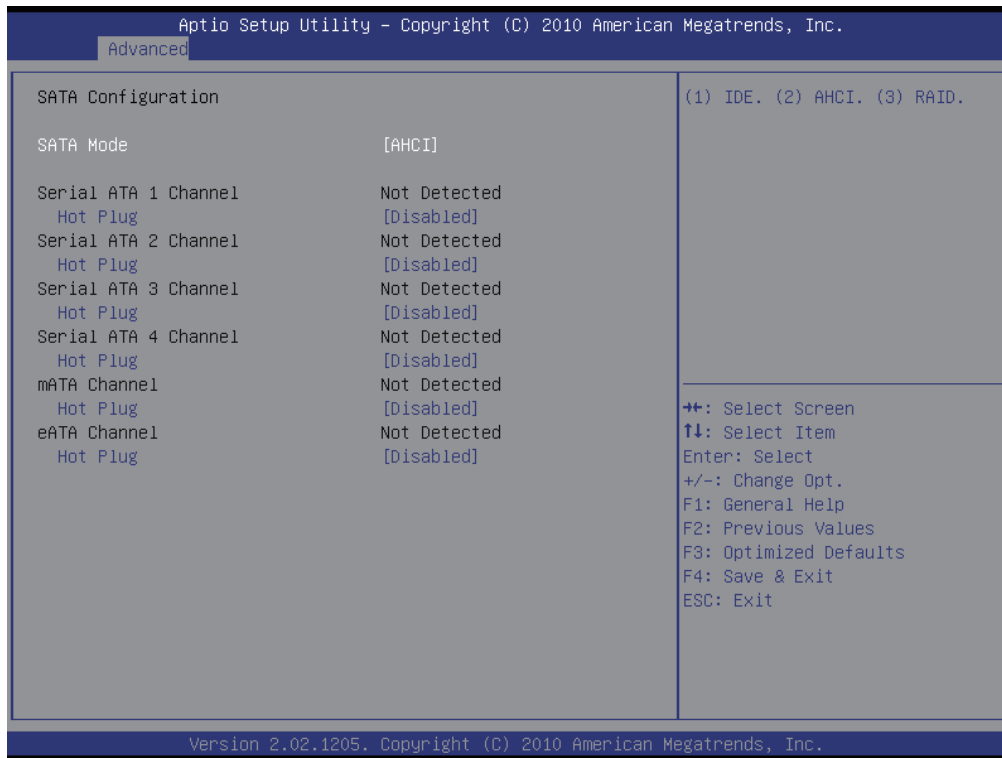
Enable or disable Intel® Turbo Boost Technology.

- The choice: Enabled , Disabled.



The CPU Configuration setup screen varies depending on the installed processor.

➤ SATA Configuration



SATA Mode

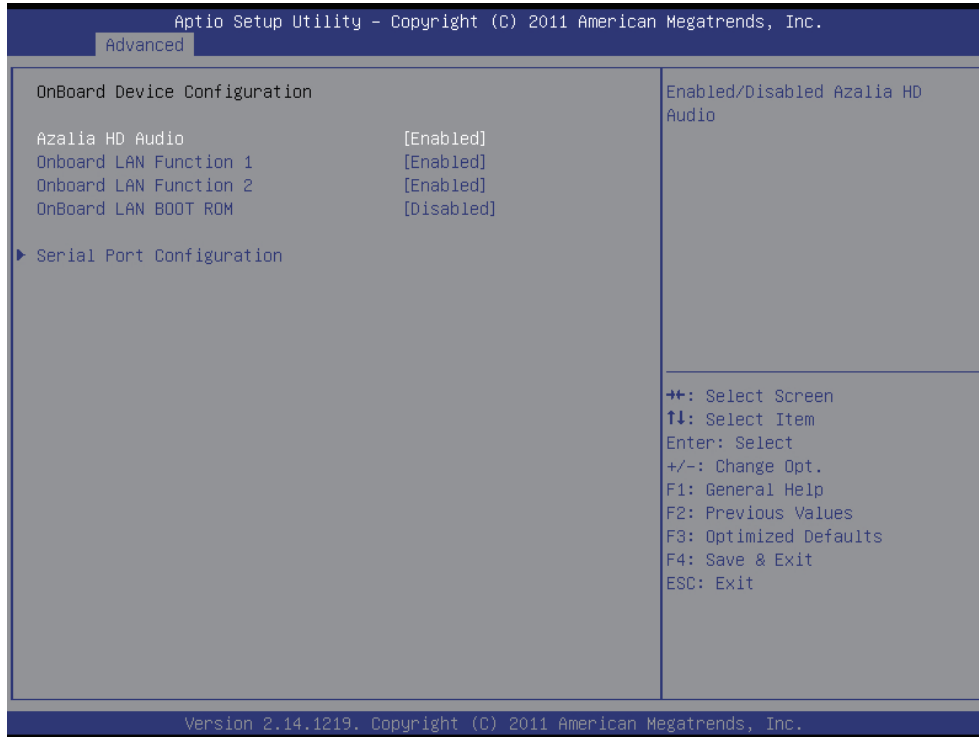
(1) IDE Mode. (2) AHCI Mode. (3)RAID

Hot Plug

Enable or disable Hot Plug capability.

➤ The choice: Enabled , Disabled.

➤ Onboard Device Configuration



High Definition Audio

Enable or disable system High Definition Audio.

- The choice: Enabled , Disabled.

Onboard LAN Function

Enable or disable Onboard LAN Function.

- The choice: Enabled , Disabled.

Onboard LAN BOOT ROM

Enabled/Disabled Onboard LAN BOOT ROM.

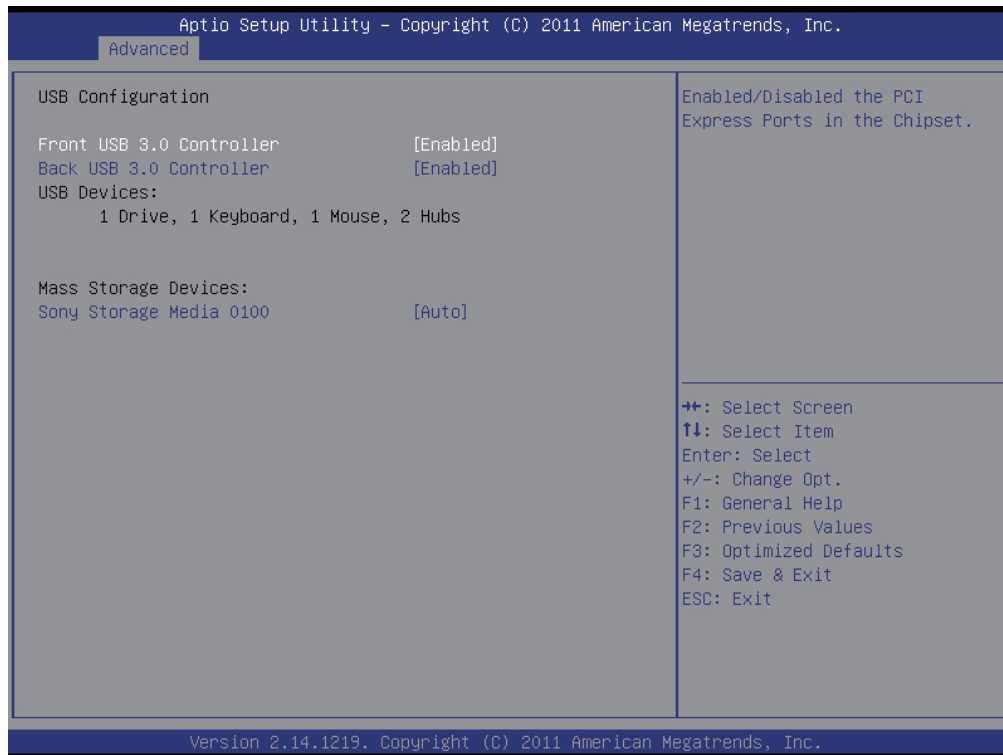
- The choice: Enabled , Disabled.

Serial Port Configuration Controller

Enable or disable Serial Port Configuration Controller.

- The choice: Enabled , Disabled.

➤ USB Configuration



Front USB 3.0 Controller

Enabled/Disabled Front USB 3.0 Controller.

- The choice: Enabled , Disabled.

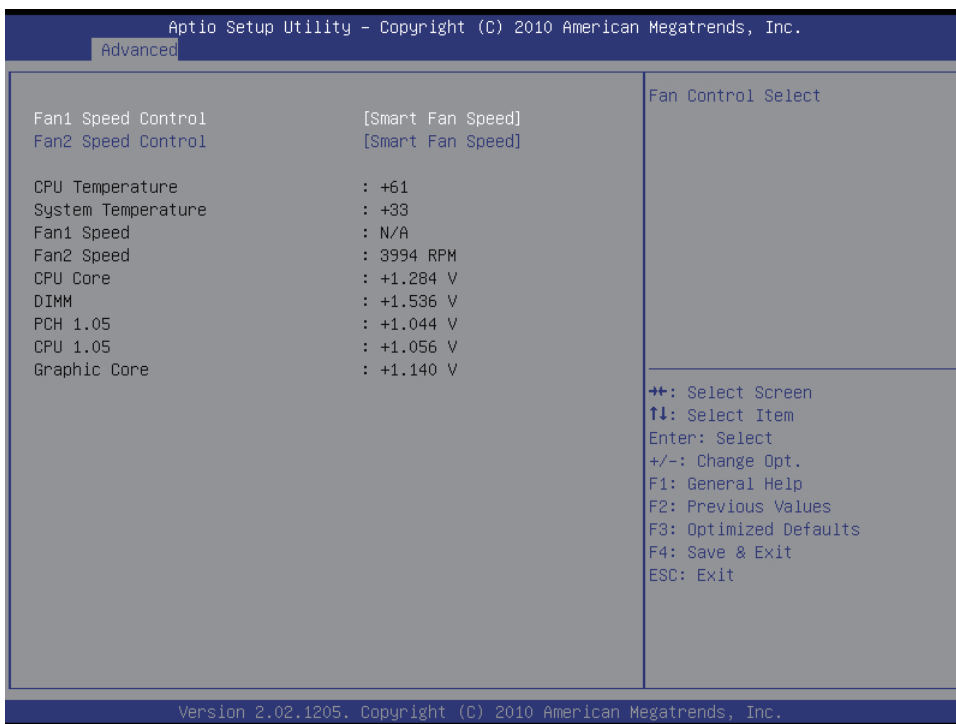
Back USB 3.0 Controller

Enabled/Disabled Back USB 3.0 Controller.

- The choice: Enabled , Disabled.

➤ **Hardware Health Configuration**

PC Health Status



Fan1 Speed Control

Fan1 Speed Control function.

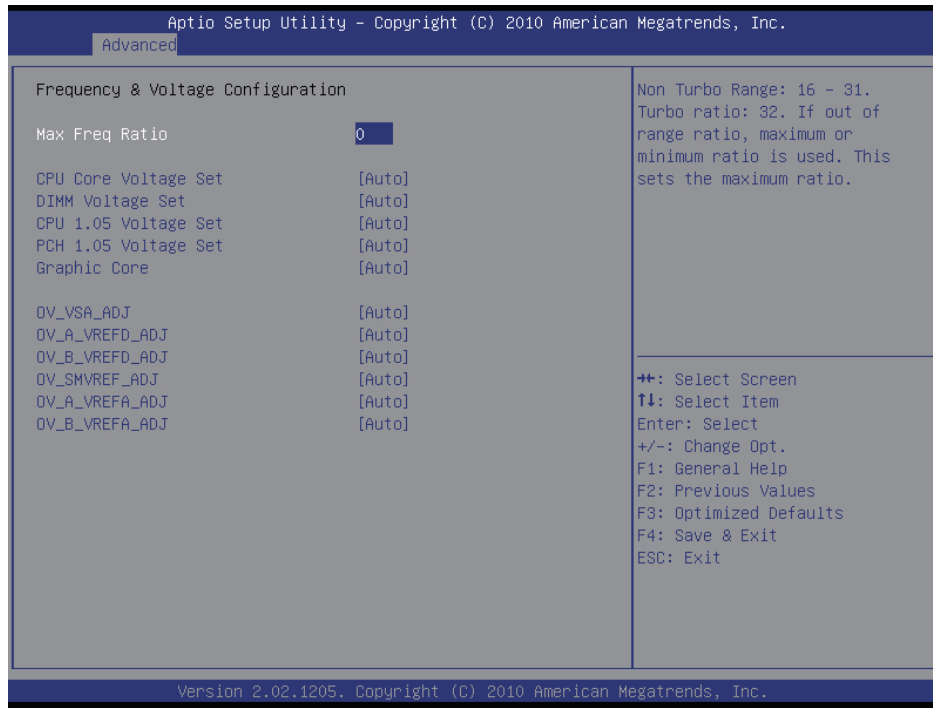
- The choice: Smart Fan Speed , Ultra-Low Mode, Low Mode , Mid Mode , Full Mode.

Fan2 Speed Control

Fan2 Speed Control function.

- The choice: Smart Fan Speed , Ultra-Low Mode, Low Mode , Mid Mode , Full Mode.

➤ Frequency & Voltage Configuration



Max Freq Ratio

Non Turbo Range. If out of range ratio, maximum or minimum is used. This sets the maximum ratio.

CPU Core Voltage Set

CPU Core Voltage Set Parameter

➤ The choice: Auto , +50mv , +100mv , +150mv , +200mv , +250mv , +300mv

DIMM Voltage Set

DIMM Voltage Set Parameter

➤ The choice: Auto , +50mv , +100mv , +150mv , +200mv , +250mv , +300mv

CPU 1.05 Voltage Set

CPU 1.05 Voltage Set Parameter

➤ The choice: Auto , +50mv , +100mv , +150mv , +200mv , +250mv , +300mv

PCH 1.05 Voltage Set

PCH 1.05 Voltage Set Parameter

- The choice: Auto , +50mv , +100mv , +150mv, +200mv, +250mv, +300mv

Graphic Core

Graphic Core Parameter

- The choice: Auto , +50mv , +100mv , +150mv, +200mv, +250mv, +300mv

OV_VSA_ADJ

OV_VSA_ADJ Parameter

- The choice: Auto , +50mv , +100mv

OV_A_VREFD_ADJ

OV_A_VREFD_ADJ Parameter

- The choice: Auto , +50mv , +100mv , +150mv, +200mv, +250mv, +300mv

OV_B_VREFD_ADJ

OV_B_VREFD_ADJ Parameter

- The choice: Auto , +50mv , +100mv , +150mv, +200mv, +250mv, +300mv

OV_SMVREF_ADJ

OV_SMVREF_ADJ

- The choice: Auto , +50mv , +100mv , +150mv, +200mv, +250mv, +300mv

OV_A_VREFA_ADJ

OV_A_VREFA_ADJ

- The choice: Auto , +50mv , +100mv , +150mv, +200mv, +250mv, +300mv

OV_B_VREFA_ADJ

OV_B_VREFA_ADJ

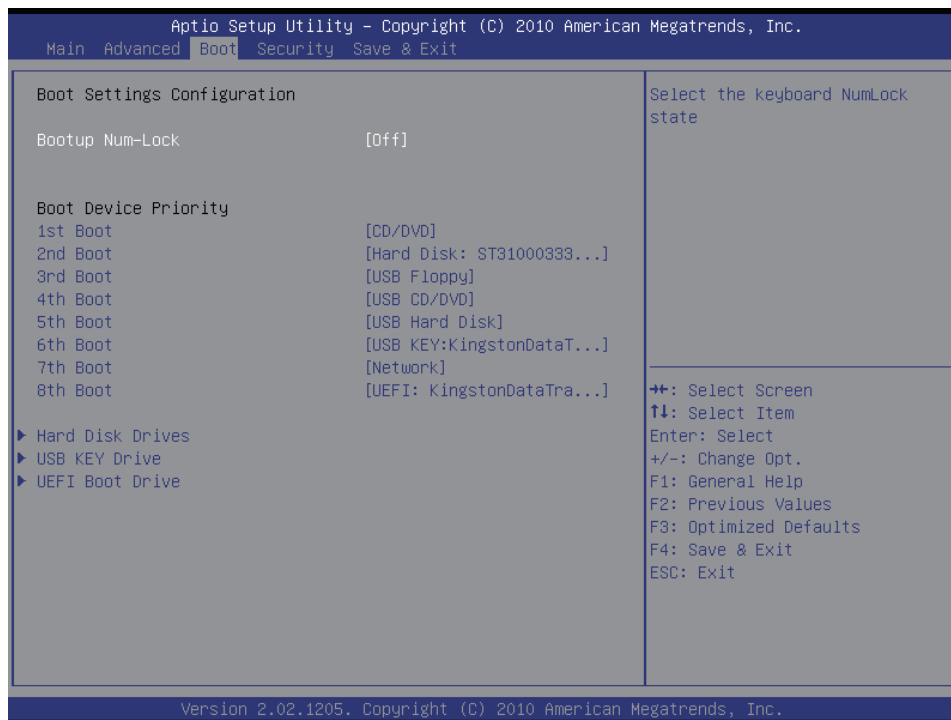
- The choice: Auto , +50mv , +100mv , +150mv, +200mv, +250mv, +300mv

Boot

Select the Boot tab from the BIOS setup screen to enter the Boot BIOS Setup screen. You can select any of the items in the left frame of the screen, such as Boot Settings Configuration, to go to the sub menu for that item.

You can display an Boot BIOS Setup option by highlighting it using the <Arrow> keys. All Boot BIOS Setup options are described in this section.

The Boot BIOS Setup screen is shown below. The sub menus are described on the following pages.



Bootup NumLock State

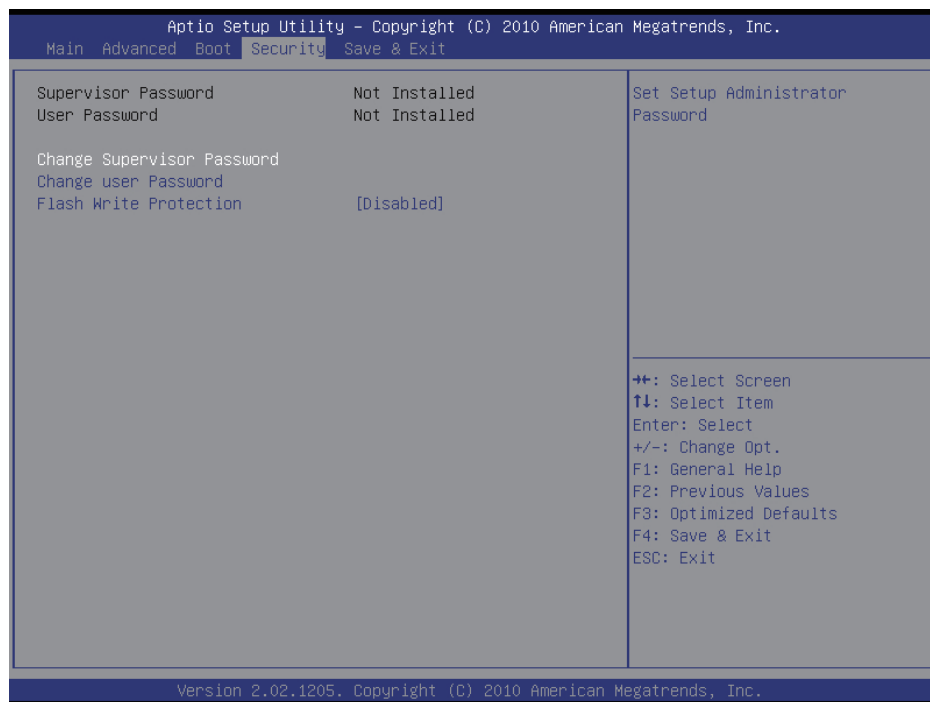
Select NumLock state after system bootup.

- The choice: On,off.

Security

Select the Security tab from the BIOS setup screen to enter the Security BIOS Setup screen. You can display an Security BIOS Setup option by highlighting it using the <Arrow> keys. All Security BIOS Setup options are described in this section.

The Security Setup screen is shown below. The sub menus are documented on the following pages.



- Change Supervisor Password
When this item is selected, a message box shall appear on the screen as below:

Flash Write Protection

Enables/Disables Flash Write Protection control function.

- The choice: Enabled , Disabled.

Enter New Password

Type a maximum of 6-digit password and press [Enter]. The password typed now will replace any previously set password from CMOS memory. You may also press [ESC] to abandon new password setting.

When the Supervisor Password is set, new items Change User Password and Password Check will be added in the menu.

Select Change User Password to give or to abandon password setting same as Change Supervisor Password item above.

Note that Supervisor Password field allows users to enter and change the settings of the BIOS SETUP UTILITY, while User Password field only allows users to enter the BIOS SETUP UTILITY without having the authorization to make any change.

The Password Check item is used to specify the type of BIOS password protection that is implemented. Settings are described below:

Setup	The password is required only when users try to access to BIOS SETUP UTILITY.
Always	The password is required every time when the Notebook is powered on or when users try to access to BIOS SETUP UTILITY.

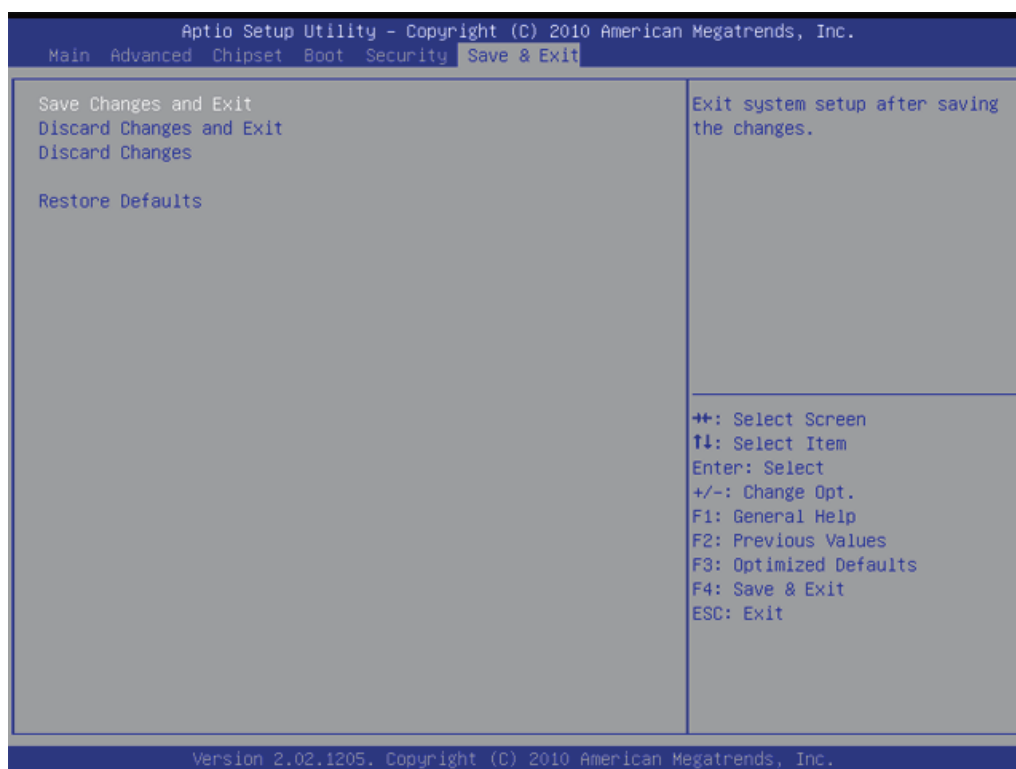
To clear a set Supervisor Password/ User Password, just press [Enter] under Change Supervisor Password/ Change User Password field when you are prompted to enter the password. Please note that when Supervisor Password has been cleared, User Password will be cleared as well. A message box will pop up confirming password will be disabled. Once the password is disabled, the system will boot and user can enter setup without entering password.

Save & Exit

Select the Exit tab from the BIOS setup screen to enter the Exit BIOS Setup screen.

You can display an Exit BIOS Setup option by highlighting it using the <Arrow> keys. All Exit BIOS Setup options are described in this section.

The Exit BIOS Setup screen is shown below.



Save Changes and Exit

When you have completed the system configuration changes, select this option to leave BIOS Setup and reboot the computer so the new system configuration parameters can take effect.

Select "Save Changes and Exit" from the Exit menu and press <Enter>.

Save Configuration Changes and Exit Now?

[Ok] [Cancel]

appears in the window. Select Ok to save changes and exit.

Discard Changes and Exit

Exit system setup without saving any changes.

Discard Changes

Discards changes done so far to any of the setup questions.

Destore Defaults

Load Optimal Default values for all the setup questions.