
XPC BIOS User Guide

For the : SZ270R9

Shuttle®

XPC Installation Guide

Copyright

©2017 by Shuttle® Inc. All Rights Reserved.

No part of this publication may be reproduced, transcribed, stored in a retrieval system, translated into any language, or transmitted in any form or by any means such as electronic, mechanical, magnetic, optical, chemical, photocopy, manual, or otherwise, without prior written permission from Shuttle® Inc.

Other brands and product names used herein are for identification purposes only and may be trademarks of their respective owners.

Disclaimer

Shuttle® Inc. shall not be liable for any incidental or consequential damages resulting from the performance or use of this product.

Shuttle® Inc. makes no representation or warranty regarding the contents of this manual. Information in this manual had been carefully checked for accuracy; however, no guarantee is given as to the correctness of the contents. For continuing product improvement, Shuttle® Inc. reserves the right to revise the manual or make changes to the specifications of this product at any time without notice and obligation to any person or entity regarding such change. The information contained in this manual is provided for general use by customers.

This device complies to Part 15 of the FCC Rules. Operation is subject to the following two conditions:

1. This device may not cause harmful interference.
2. This device must withstand any background interference including those that may cause undesired operation.

Trademarks

Shuttle is a registered trademark of Shuttle Inc.

Intel and Pentium are registered trademarks of Intel Corporation.

PS/2 is a registered trademark of IBM Corporation.

AWARD is a registered trademark of Award Software Inc.

Microsoft and Windows are registered trademarks of Microsoft Corporation.

General Notice

Other brand and product names used herein are for identification purposes only and may be trademarks of their respective owners.

Safety Information

Read the following precautions before setting up a Shuttle XPC.

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

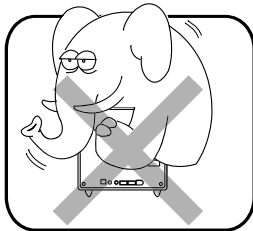
The optical disc drive in this server is a laser product. The drive's classification label is located on the drive.

CLASS 1 LASER PRODUCT

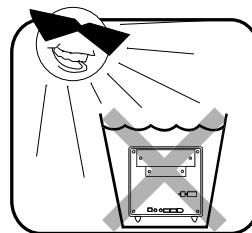
CAUTION : INVISIBLE LASER RADIATION WHEN OPEN.
AVOID EXPOSURE TO BEAM.

Installation Notices

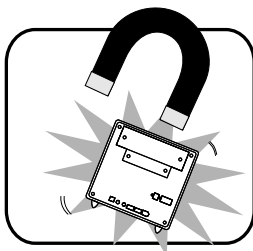
Do not place this device underneath heavy loads or in an unstable position.



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.

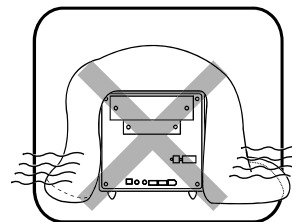


TABLE OF CONTENTS

Driver and Software Installation.....	1
■ Motherboard Driver DVD.....	1
■ User Manuals	2
Appendix.....	3
Starting BIOS.....	3
BIOS Setup Menu.....	3
✎ Main Setup	5
✎ Advanced.....	6
➤ TPM Configuration	7
➤ Hardware Health Configuration.....	8
➤ CPU Configuration	9
➤ SATA Configuration	11
➤ USB Configuration	12
➤ Onboard Device Configuration.....	13
➤ Power Management Configuration.....	15
✎ Shuttle Tuning	17
✎ Security.....	20
✎ Boot	22
✎ Save & Exit	23

Driver and Software Installation

■ Motherboard Driver DVD



The DVD contents attached in SZ270R9 Series motherboard are subject to change without notice.

The Motherboard Driver DVD 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 DVD into your DVD-ROM drive. The DVD 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 Intel Rapid Storage Tech. Driver
- ☞ User Manuals - Motherboard Manual, Quick Guide.
- ☞ Link To Shuttle Website - Link to shuttle website homepage.
- ☞ Browse This DVD - Allows you to see contents of this DVD.



■ User Manuals

- ☞ [Install Adobe Reader 9.5](#)
- ☞ [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 AMIBIOS 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.



AMIBIOS 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>, <F4>, <Enter>, <ESC>, <Arrow> keys, and so on.



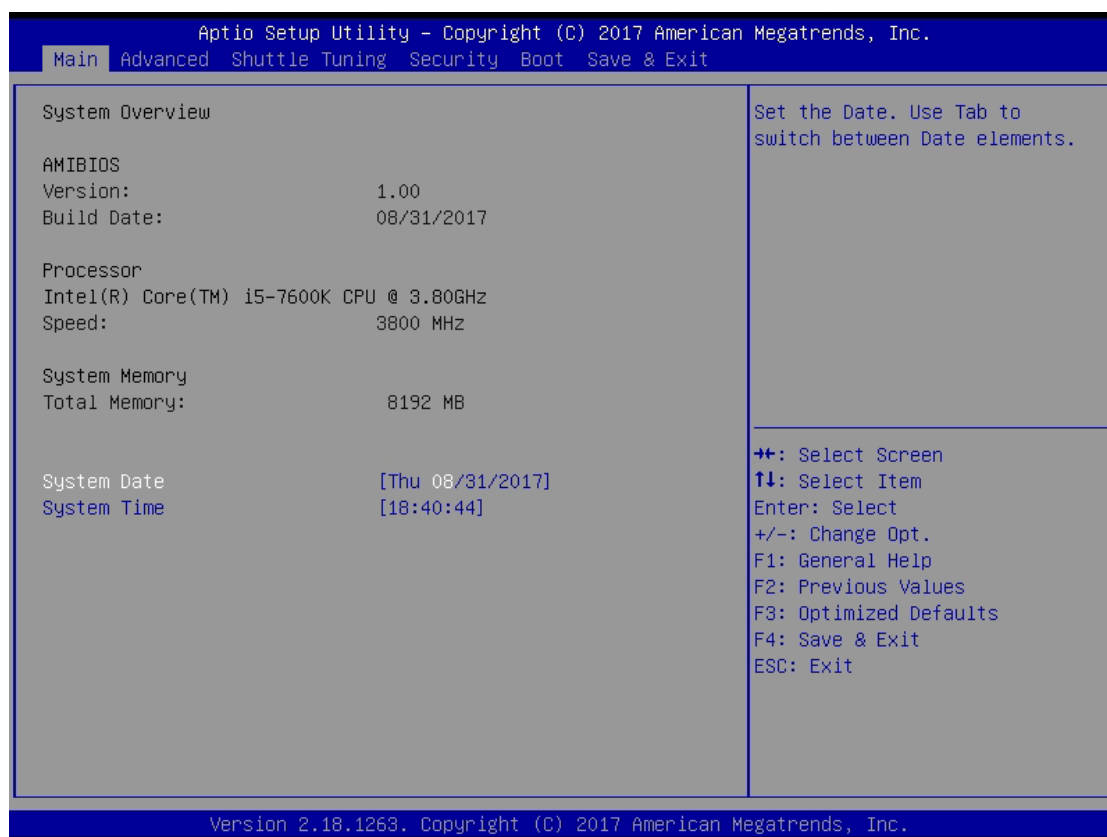
There is a hot key legend located in the right frame on most BIOS setup screens.

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.
F4	The <F4> key allows you to save any changes you have made and exit BIOS Setup. Press the <F4> 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.

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.

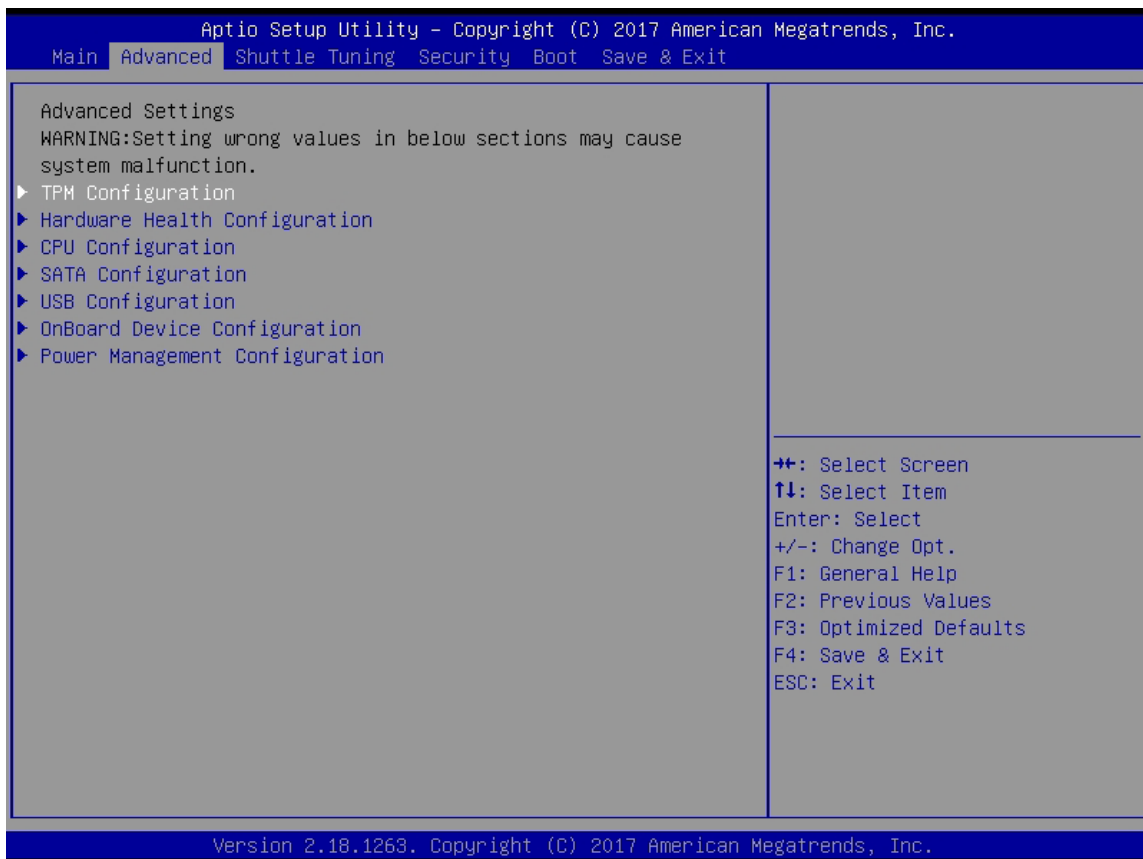


Advanced

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.



➤ **TPM Configuration**

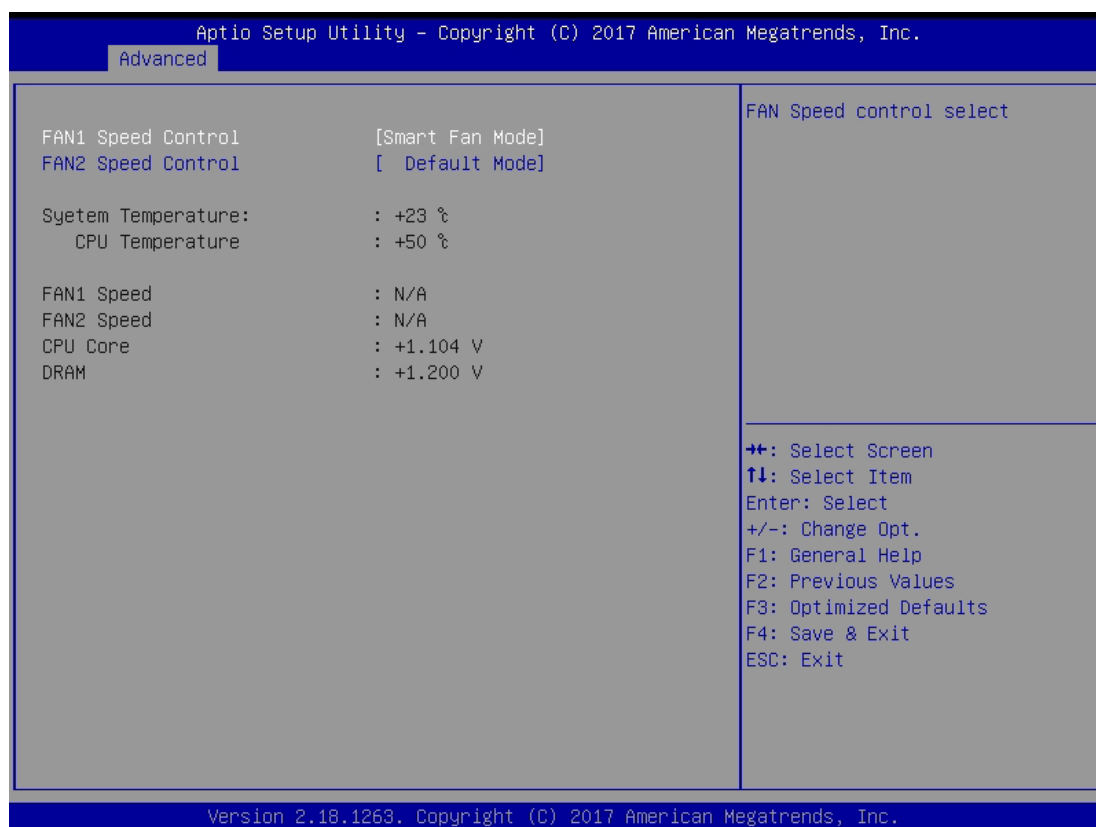


Security Device Support

This item allows you to enable or disable TPM function.

- The choice: Enabled , Disabled.

➤ Hardware Health Configuration



FAN1 Speed Control

This item allows you to set FAN1 Speed.

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

FAN2 Speed Control

This item allows you to set FAN2 Speed

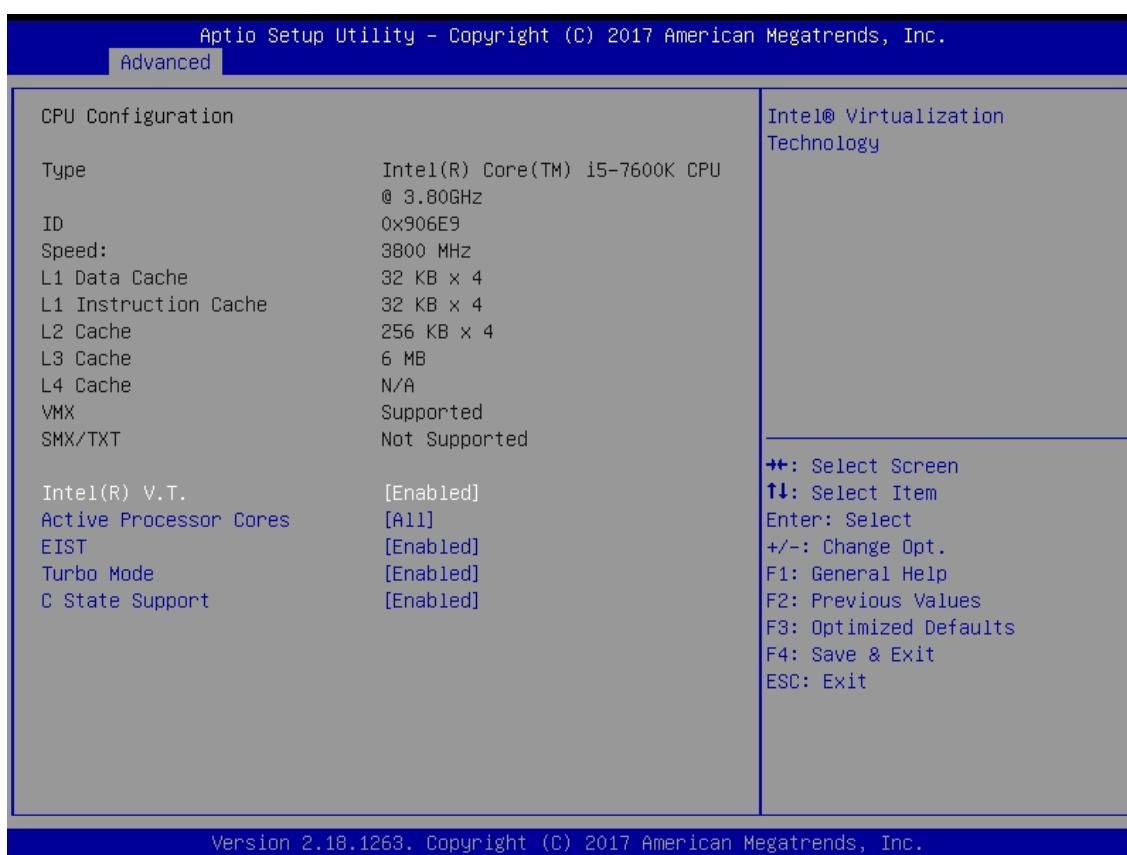
- The choice: Default Mode, Smart Fan Mode, Ultra-Low Speed, Low Speed, Mid Speed, Full Speed.

➤ 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.



Intel(R) V. T.

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

- The choice: Enabled , Disabled.



CPU support, item appear.

Active Processor Cores

This item allows you to determine how many cores to be enabled.

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

EIST

This item allows you to enable or disable Enhanced Intel SpeedStep® Technology.

- The choice: Enabled , Disabled.

Turbo Mode

This item allows you to enable or disable Intel® Turbo Boost Technology.

- The choice: Enabled , Disabled.



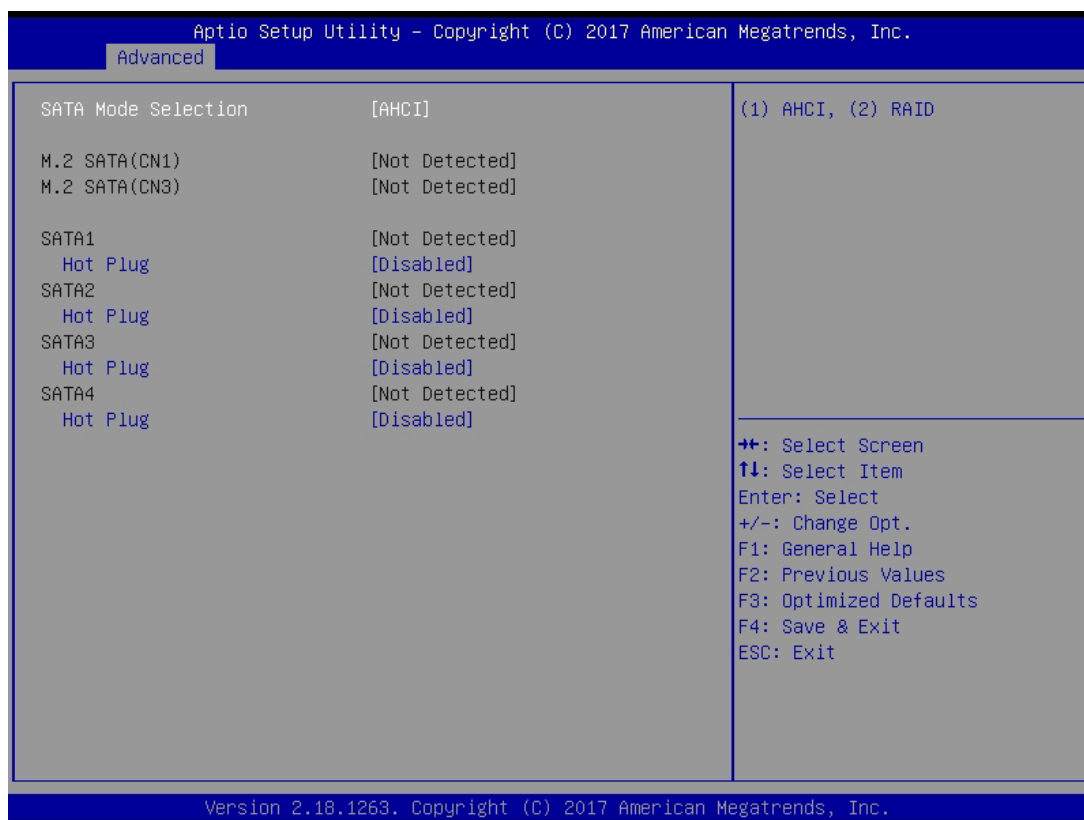
The CPU Configuration setup screen varies depending on the installed processor.

C State Support

This item allows you to enable or disable CPU C State.

- The choice: Enabled , Disabled.

➤ SATA Configuration



SATA Mode Selection

This item allows you to set the SATA Mode.

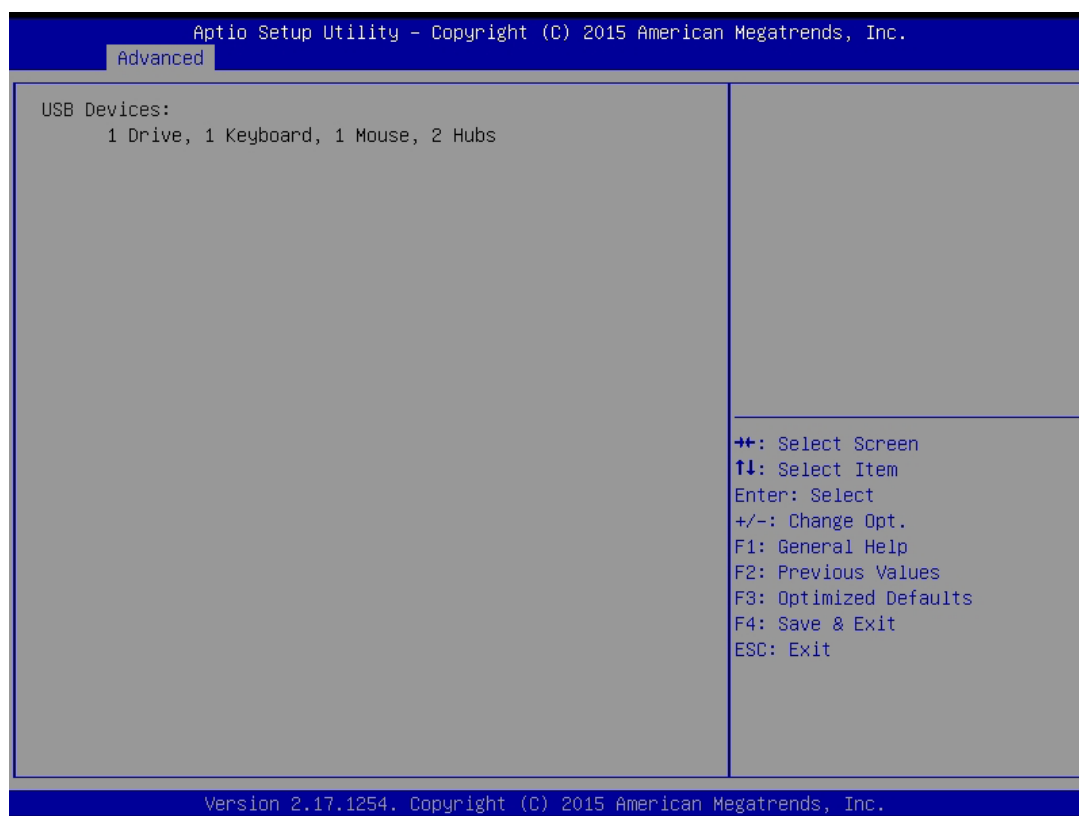
- The choice: AHCI or RAID.

Hot Plug

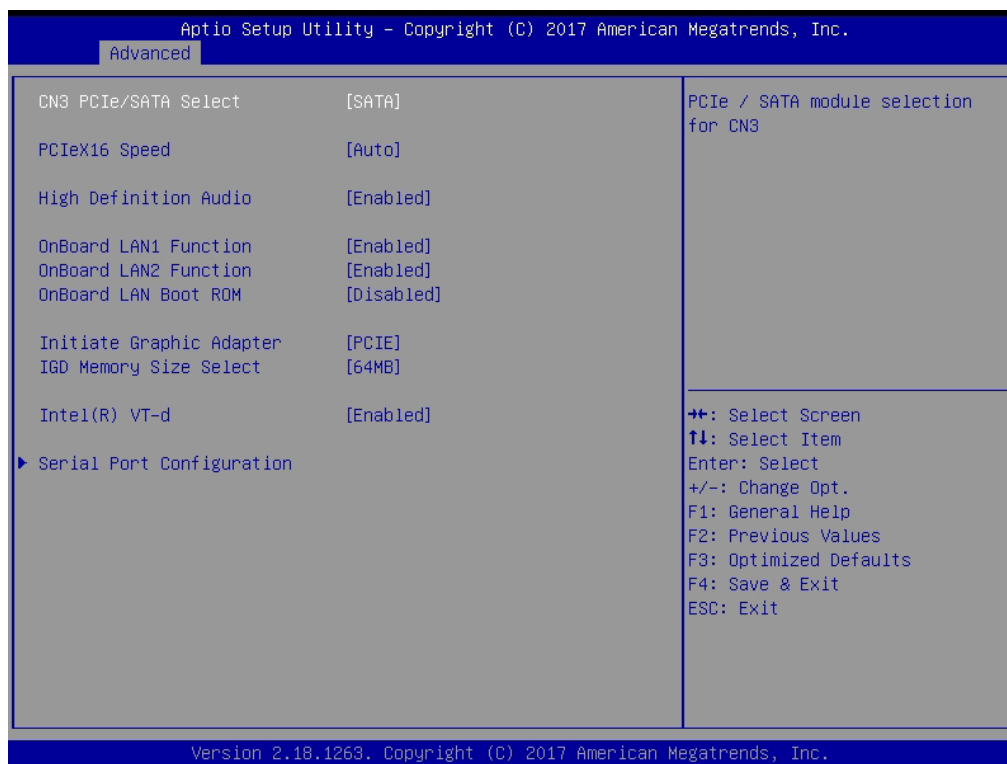
This item allows you to enable or disable Hot Plug capability.

- The choice: Enabled , Disabled.

➤ **USB Configuration**



➤ **Onboard Device Configuration**



CN3 PCIe/SATA Select

This item allows you to select PCIe/SATA interface for M.2 slot(CN3).

- The choice: PCIe, SATA.

PCIeX16 Speed

This item allows user to select PCIeX16 Speed.

- The choice: Auto, Gen1, Gen2, Gen3.

High Definition Audio

This item allows you to enable or disable system High Definition Audio.

- The choice: Enabled , Disabled.

OnBoard LAN1/2 Function

This item allows you to enable or disable LAN Function.

- The choice: Enabled , Disabled.

Onboard LAN BOOT ROM

This item allows you to enable or disable Onboard LAN BOOT ROM.

- The choice: Enabled , Disabled.

Initiate Graphic Adapter

Select which graphics controller to use as the primary boot device.

Set Initiate Graphic Adapter to "Switchable" and enable Multi-Monitor feature.

➤ The choice: PCIE, onboard, Switchable.

IGD Memory Size Select

Allows you to select the size of system memory used by the internal graphics device.

➤ The choice: 64MB, 128MB, 256MB, 512MB.

Intel(R) VT-d

This item allows you to enable or disable Intel(R) VT-d.

➤ The choice: Enabled , Disabled.

Serial Port Configuration

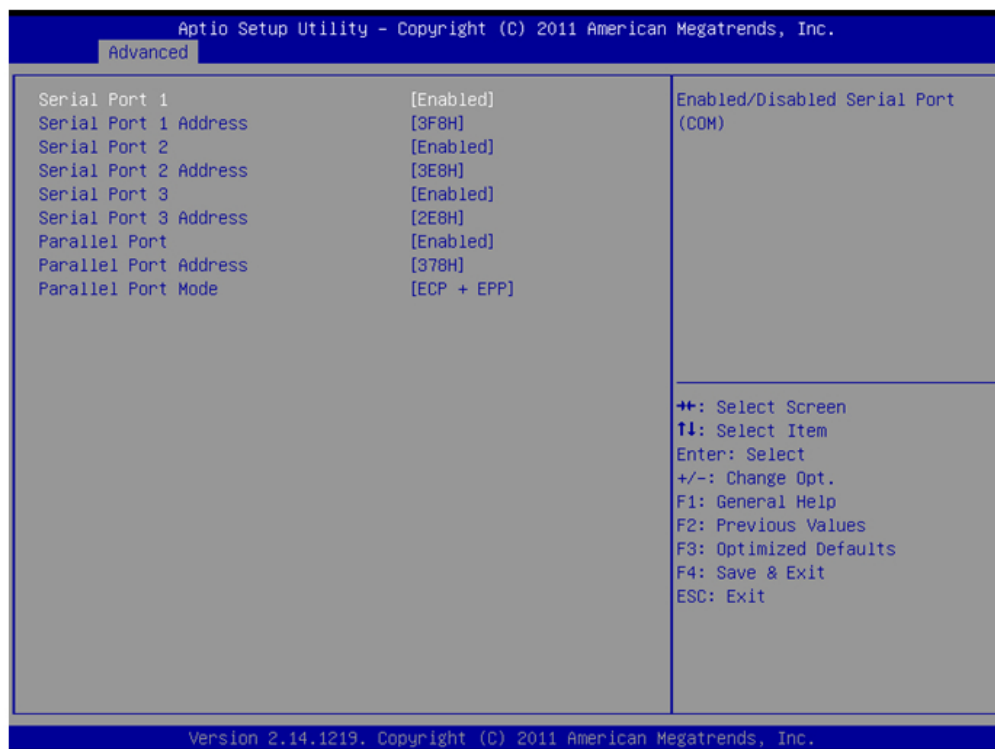
Option are in its sub-menu.

Press<Enter>to enter the sub-menu of detailed options.

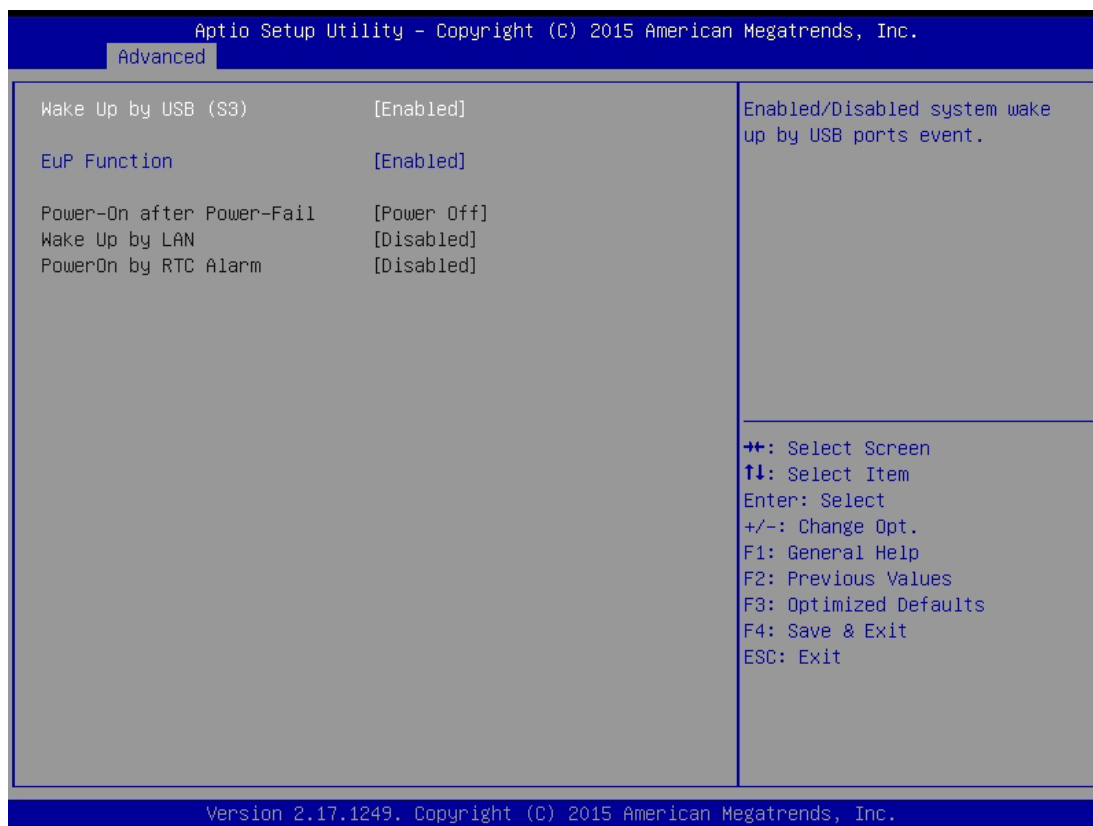
Serial Port 1

This item allows you to enable or disable Serial Port.

➤ The choice: Enabled, Disabled.



➤ **Power Management Configuration**



Wake Up by USB (S3)

This item allows you to enable or disable system wake up by USB (S3).

- The choice: Enabled , Disabled.

EuP Function

This item allows you to enable or disable system EuP function in S4/S5.

- The choice: Enabled , Disabled.

Power-On after Power-Fail

This item allows you to set system power on automatically after AC power restored.

- The choice: Power On, Former-sts, Power Off, Power On by LAN, Power On by RTC.

Wake Up by LAN

This item allows you to enable or disable system wake on by onboard LAN chip.

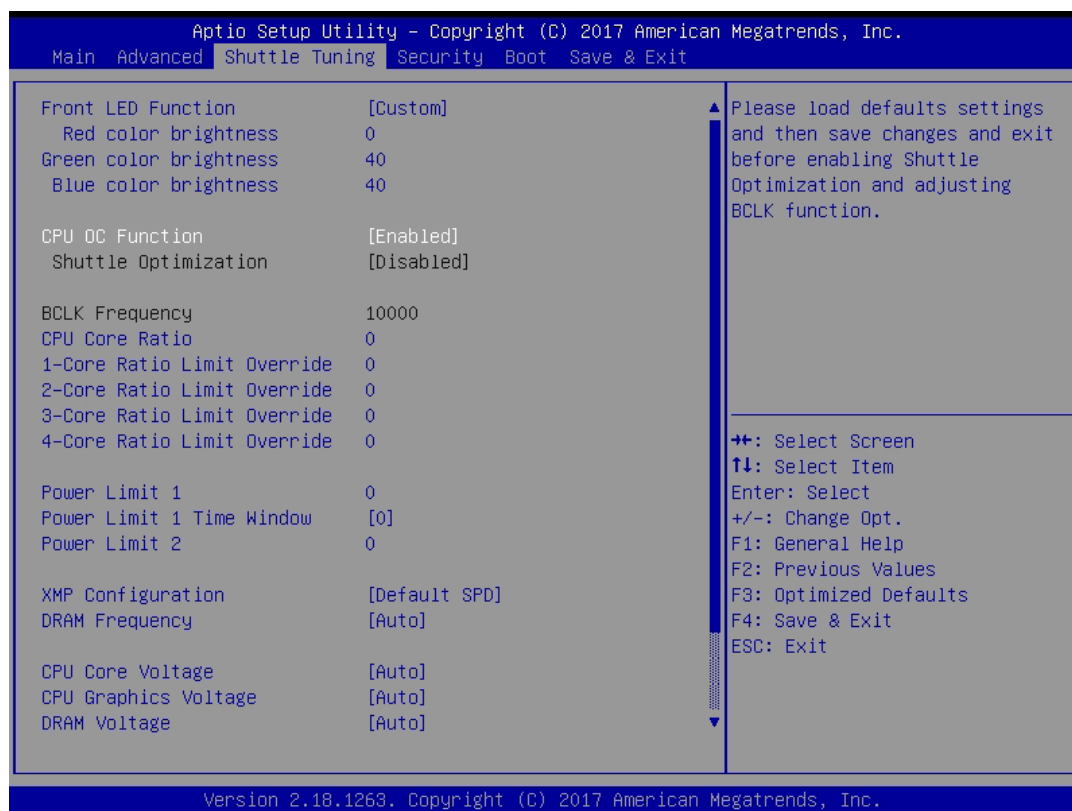
➤ The choice: Enabled , Disabled.

PowerOn by RTC Alarm

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

➤ The choice: Enabled , Disabled.

Shuttle Tuning



Front LED Function

This item allows you to adjust Front LED.

- The choice: Disabled , Default and Custom.

Red color brightness

This item allows you to adjust Red color brightness.

- The choice: 0~60.

Green color brightness

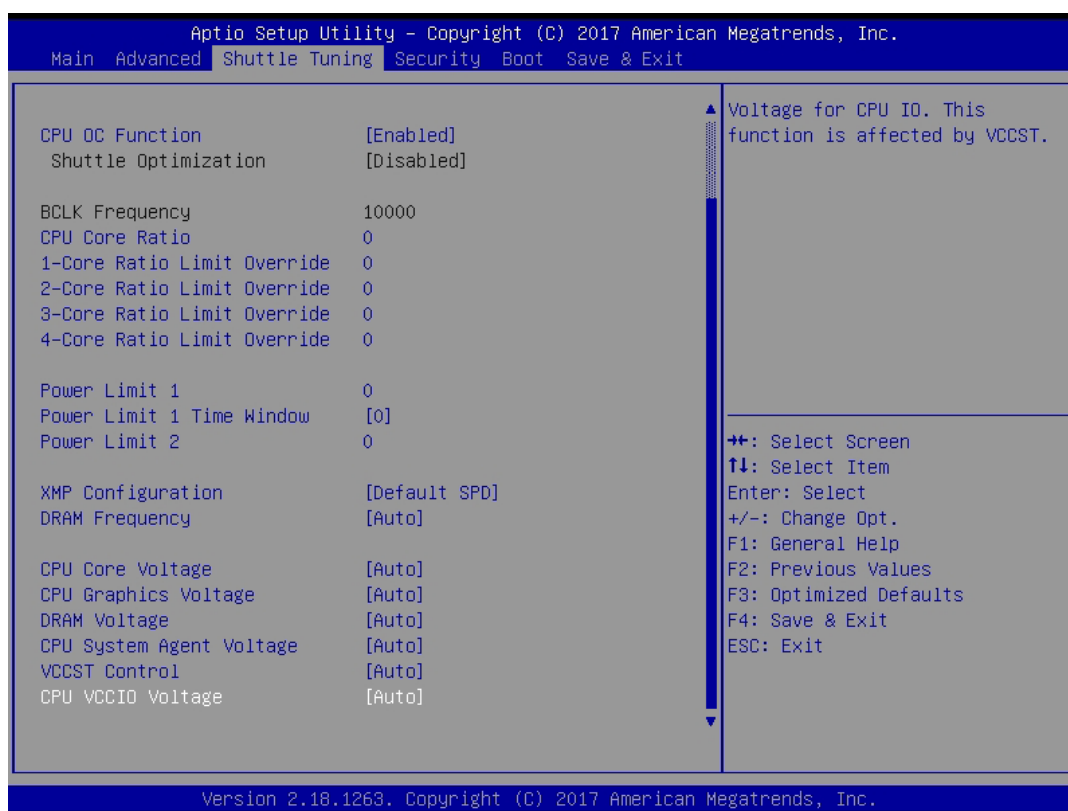
This item allows you to adjust Green color brightness.

- The choice: 0~60.

Blue color brightness

This item allows you to adjust Blue color brightness.

- The choice: 0~60.



CPU OC Function

This item allows you to enable or disable CPU OC function. This item appears with overclockable CPU.

- The choice: Enabled , Disabled.

BCLK Frequency

This item allows you to adjust BCLK frequency. 10000 means 100MHz.

- The choice: 0 ~ 65535.

CPU Core Ratio

This item allows you to adjust MAX CPU OC ratio.

- The choice: 0 ~ 83.

1-Core/2-Core/3-Core/4-Core Ratio Limit Override

This item allows you to limit the CPU ratio for working simultaneously.

- The choice: 0 ~ 83.

Power Limit 1

This item allows you to limit the long duration power limit. 100000 means 100W.

➤ The choice: 0 ~ 4095875.

Power Limit 1 Time Window

This item allows you to select the MAX time for overriding the long duration power limit. 0 means auto. The unit is second.

➤ The choice: 0, 1, 2, 3, 4, 5, 6, 7, 8, 10, 12, 14, 16, 20, 24, 28, 32, 40, 48, 56, 64, 80, 96, 112, and 128.

Power Limit 2

This item allows you to limit the MAX power limit. 100000 means 100W.

➤ The choice: 0 ~ 4095875.

XMP Configuration

This item allows you to select the DRAM timing parameters.

➤ The choice: Default SPD, Custom profile, XMP profile 1, and XMP profile 2.

DRAM Frequency

This item allows user to adjust DRAM Frequency.

➤ The choice: Auto, 1867, 2133.

CPU Core Voltage / CPU Graphics Voltage / DRAM Voltage / CPU System Agent Voltage / VCCST Control / CPU VCCIO Voltage

These items allow you to adjust voltage setting for components.

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.



Supervisor Password

Indicates whether a supervisor password has been set. If the password has been installed, Installed displays. If not, Not Installed displays.

User Password

Indicates whether a user password has been set. If the password has been installed, Installed displays. If not, Not Installed displays.

Change Supervisor Password

Select Change Supervisor Password from the Security Setup menu and press <Enter>.

Enter New Password:

appears. Type the password and press <Enter>. The screen does not display the characters entered. Retype the password as prompted and press <Enter>. If the password confirmation is incorrect, an error message appears. The password is stored in NVRAM after BIOS completes.

Change User Password

Select Change User Password from the Security Setup menu and press <Enter>.

Enter New Password:

appears. Type the password and press <Enter>. The screen does not display the characters entered. Retype the password as prompted and press <Enter>. If the password confirmation is incorrect, an error message appears. The password is stored in NVRAM after BIOS completes.

Password Login control

Password Mode select.

- The choice: Boot, Setup, Both

Flash Write Protection

Choose [Enabled] to avoid virus destroy BIOS. If you want to flash BIOS, you must set it [Disabled].

- The choice: Enabled or Disabled.

Secure Boot

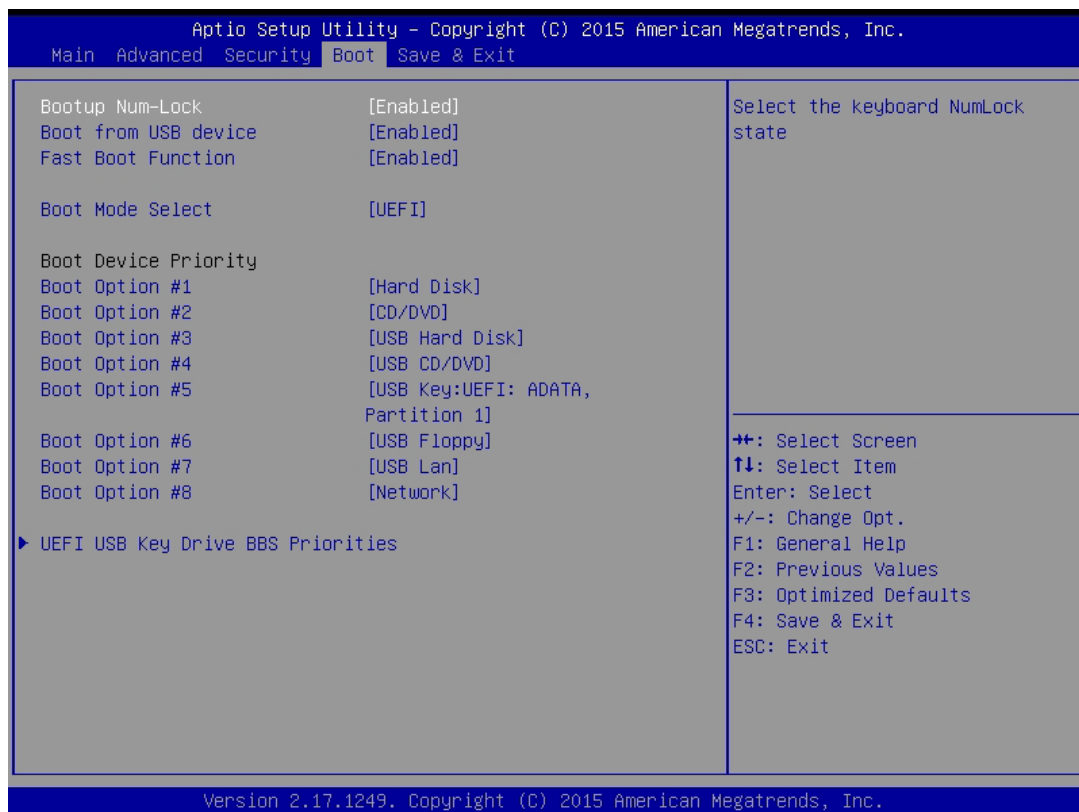
This item allows user to enable/disable Secure Boot function.

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 Num-Lock

This item allows you to enable or disable keyboard Num-Lock state.

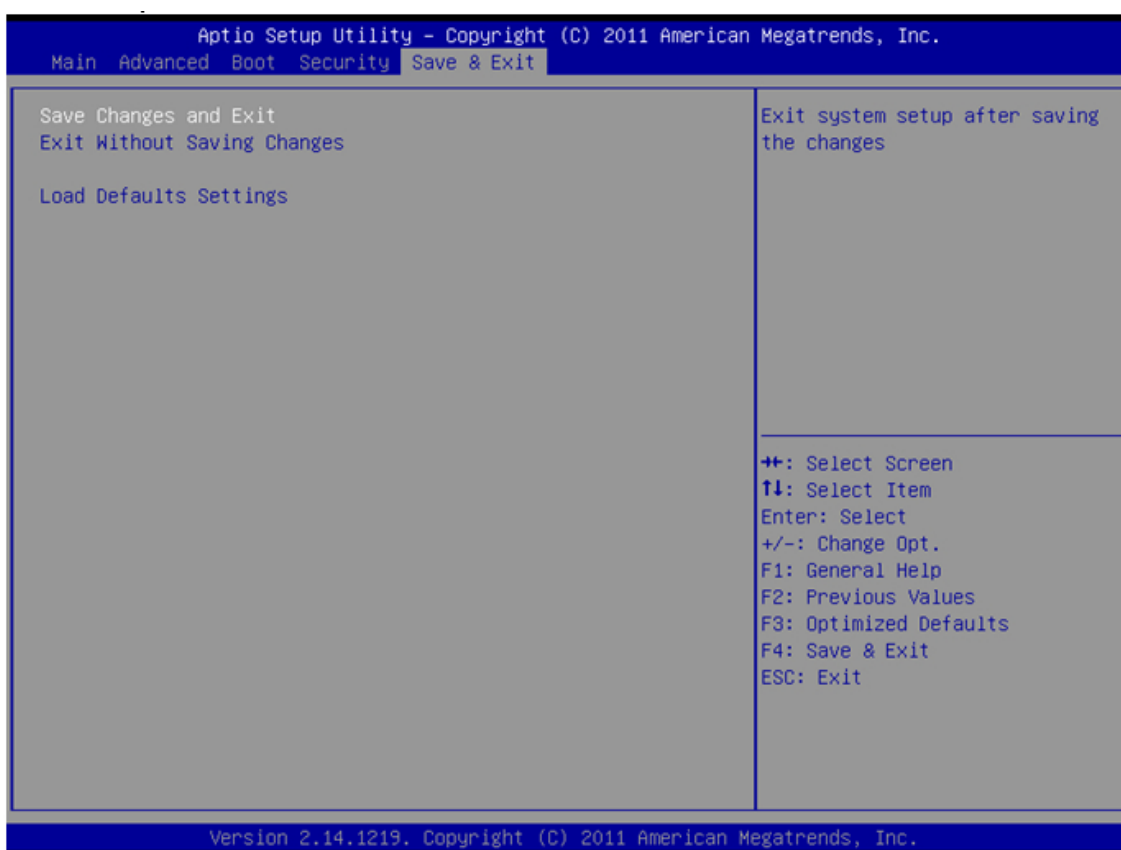
➤ The choice: Enabled, Disabled.

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.

Exit Without Saving Changes

Select "Exit without Saving Changes" from the Exit menu and press <Enter>.

Select Ok to discard changes and Exit.

Load Defaults Settings

BIOS automatically sets all BIOS Setup options to a complete set of default settings when you Select this option. The Optimal settings are designed for maximum system performance, but may not work best for all computer applications. In particular, do not use the Optimal BIOS Setup options if your computer is experiencing system configuration problems.

Select Load Optimal Defaults from the Exit menu and press <Enter>.

Select Ok to load optimal defaults.