

# RenderCube Rack BIOS Manual

# 3.1 Starting up for the first time

- 1. After making all the connections, replace the system case cover.
- 2. Be sure that all switches are off.
- 3. Connect the power cord to the power connector at the back of the system chassis.
- 4. Connect the power cord to a power outlet that is equipped with a surge protector.
- 5. Turn on the devices in the following order:
  - a. Monitor
  - b. External storage devices (starting with the last device on the chain)
  - c. System power
- 6. After applying power, the system power LED on the system front panel case lights up. For systems with ATX power supplies, the system LED lights up when you press the ATX power button. If your monitor complies with "green" standards or if it has a "power standby" feature, the monitor LED may light up or switch between orange and green after the system LED turns on.

The system then runs the power-on self-test or POST. While the tests are running, the BIOS beeps or additional messages appear on the screen. If you do not see anything within 30 seconds from the time you turned on the power, the system may have failed a power-on test. Check the jumper settings and connections or call your retailer for assistance.

BIOS Beep codes		
Веер	Error condition	
1 short	Power supply surges detected during the previous power on.	
1 short	No Keyboard Detected.	
1 short, 2 short	No DIMM Detected.	
1 short, 8 short	No VGA Detected.	
2 long	Chassis Intrusion.	
2 long	BIOS-image Crash Detected.	

The following shows the possible beep codes and its corresponding error condition

 At power on, hold down the <Del> key to enter the BIOS Setup. Follow the instructions in Chapter 4.

# 3.2 Powering off the computer

# 3.2.1 Using the OS shut down function

#### Using Windows<sup>®</sup> Server 2008 R2:

- 1. Click the Start button, move the cursor to the triangle on the right of Log off, then click Shut Down.
- 2. From the Shutdown Event Tracker, select the option that best describes why you want to shut down the computer.
- 3. Ensure that the Planned check box is checked.
- 4. If necessary, key in comments.
- 5. Click OK.

#### Using Windows<sup>®</sup> Server 2012:

- 1. Press <Ctrl>+<Alt>+<Del>.
- 2. Click on the Power icon on the lower right side of the screen.
- 3. Select Shut down.
- In the Shutdown Event Tracker, select the Other (Planned) option in the selection lists. Otherwise, select the option that best describes why you want to shut down the computer.
- 5. Click Continue.

# 3.2.2 Using the dual function power switch

While the system is ON, press the power switch for less than four seconds to put the system to sleep mode or to soft-off mode, depending on the BIOS setting.



Pressing the power switch for more than four seconds lets the system enter the soft-off mode regardless of the BIOS setting.

# 4

# **BIOS setup**

This chapter tells how to change the system settings through the BIOS Setup menus. Detailed descriptions of the BIOS parameters are also provided.

# 4.1 Managing and updating your BIOS

The following utilities allow you to manage and update the motherboard Basic Input/Output System (BIOS) setup:

#### 1. CrashFree BIOS 3

To recover the BIOS using a bootable USB flash disk drive when the BIOS file fails or gets corrupted.

#### 2. EzFlash

Updates the BIOS using a USB flash disk.

#### 3. BUPDATER

Updates the BIOS in DOS mode using a bootable USB flash disk drive.

Refer to the corresponding sections for details on these utilities.



Save a copy of the original motherboard BIOS file to a bootable USB flash disk drive in case you need to restore the BIOS in the future. Copy the original motherboard BIOS using the BUPDATER utility.

# 4.1.1 CrashFree BIOS 3 utility

The CrashFree BIOS 3 is an auto recovery tool that allows you to restore the BIOS file when it fails or gets corrupted during the updating process. You can update a corrupted BIOS file using a USB flash drive that contains the updated BIOS file.



Prepare a USB flash drive containing the updated motherboard BIOS before using this utility.

## Recovering the BIOS from a USB flash drive

To recover the BIOS from a USB flash drive:

- 1. Insert the USB flash drive with the original or updated BIOS file to one USB port on the system.
- 2. The utility will automatically recover the BIOS. It resets the system when the BIOS recovery finished.



DO NOT shut down or reset the system while recovering the BIOS! Doing so would cause system boot failure!

# 4.1.2 EZ Flash Utility

The EZ Flash Utility feature allows you to update the BIOS without having to use a DOSbased utility.



To update the BIOS using EZ Flash Utility:

- 1. Insert the USB flash disk that contains the latest BIOS file into the USB port.
- 2. Enter the BIOS setup program. Go to the **Tool** menu then select **EZ Flash Utility**. Press <Enter>.

Tek. EzFlash Utility		
Current PlatformNew PlatformPlatform : RenderCubePlatform : RenderCubeRack Version : 0020Rack Version : 0022Build Date :04/25/2014Build Date :05/05/2014		
FSO	Date :04/25/2014     Build Date :05/05/2014       System Volume Information <dir>       RenderCube Rack BIOS     <dir>       Windows     <dir></dir></dir></dir>	
[Up/Down/Left/Right]:Switch [Enter]:Choose [q]:Exit		

- 3. Press <Tab> to switch to the **Drive** field.
- 4. Press the Up/Down arrow keys to find the USB flash disk that contains the latest BIOS, then press <Enter>.
- 5. Press <Tab> to switch to the Folder Info field.
- 6. Press the Up/Down arrow keys to find the BIOS file, and then press <Enter> to perform the BIOS update process. Reboot the system when the update process is done.



- This function can support devices such as a USB flash disk with FAT 32/16 format and single partition only.
- DO NOT shut down or reset the system while updating the BIOS to prevent system boot failure!



Ensure to load the BIOS default settings to ensure system compatibility and stability. Press <F5> and select **Yes** to load the BIOS default settings.

# 4.1.3 BUPDATER utility



The succeeding BIOS screens are for reference only. The actual BIOS screen displays may not be the same as shown.

The BUPDATER utility allows you to update the BIOS file in the DOS environment using a bootable USB flash disk drive with the updated BIOS file.

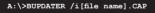
#### Updating the BIOS file

To update the BIOS file using the BUPDATER utility:

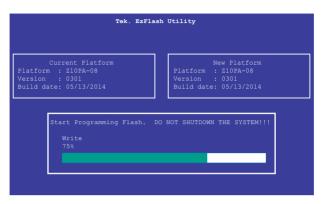
- 1. Visit the website at www..com and download the latest BIOS file for the motherboard. Save the BIOS file to a bootable USB flash disk drive.
- Copy the BUPDATER utility (BUPDATER.exe) from the support website at support.com to the bootable USB flash disk drive you created earlier.
- 3. Boot the system in DOS mode, then at the prompt, type:

#### BUPDATER /i[filename].CAP

where [filename] is the latest or the original BIOS file on the bootable USB flash disk drive, then press <Enter>.



4. The utility verifies the file, then starts updating the BIOS file.





DO NOT shut down or reset the system while updating the BIOS to prevent system boot failure!

5. The utility returns to the DOS prompt after the BIOS update process is completed. Reboot the system from the hard disk drive.



# 4.2 BIOS setup program

This motherboard supports a programmable firmware chip that you can update using the provided utility described in section **5.1 Managing and updating your BIOS**.

Use the BIOS Setup program when you are installing a motherboard, reconfiguring your system, or prompted to "Run Setup." This section explains how to configure your system using this utility.

Even if you are not prompted to use the Setup program, you can change the configuration of your computer in the future. For example, you can enable the security password feature or change the power management settings. This requires you to reconfigure your system using the BIOS Setup program so that the computer can recognize these changes and record them in the CMOS RAM of the firmware chip.

The firmware chip on the motherboard stores the Setup utility. When you start up the computer, the system provides you with the opportunity to run this program. Press <Del> during the Power-On Self-Test (POST) to enter the Setup utility; otherwise, POST continues with its test routines.

If you wish to enter Setup after POST, restart the system by pressing <Ctrl+Alt+Delete>, or by pressing the reset button on the system chassis. You can also restart by turning the system off and then back on. Do this last option only if the first two failed.

The Setup program is designed to make it as easy to use as possible. Being a menu-driven program, it lets you scroll through the various sub-menus and make your selections from the available options using the navigation keys.

- The default BIOS settings for this motherboard apply for most conditions to ensure optimum performance. If the system becomes unstable after changing any BIOS settings, load the default settings to ensure system compatibility and stability. Press <F5> and select Yes to load the BIOS default settings.
- The BIOS setup screens shown in this section are for reference purposes only, and may not exactly match what you see on your screen.

# 4.2.1 BIOS menu screen

Menu items	Menu bar	Configuration	n fields	Genera	l help
Aptio Setup Main Advanced IntelRCSe	Utility – Copyrigh etup Server Mgmt				
BIOS Information BIOS Vendor Core Version Compliancy BIOS Version Build Date Memory Information Total Memory System Language	5.009 UEFT 2. 0302 x4 04/30/2 8192 ME [Englis	014 } ;h]		ose the syste guage	m default
System Date System Time Access Level	(Wednes [18:54: Adminis		t↓: Enti +/- F1: F2: F5: F10	Select Scree Select Item er: Select : Change Opt. General Help Previous Val Optimized De : Save Change : Exit	) .ues :faults
Version 2.16.1243. Copyright (C) 2013 American Megatrends, Inc. B4					

Navigation keys

# 4.2.2 Menu bar

The menu bar on top of the screen has the following main items:

Main	For changing the basic system configuration
Advanced	For changing the advanced system settings
IntelRCSetup	For changing the Intel RC settings
Server Mgmt	For changing the Server Mgmt settings
Event Logs	For changing the event log settings
Monitor	For displaying the system temperature, power status, and changing the fan settings
Security	For changing the security settings
Boot	For changing the system boot configuration
Tool	For configuring options for special functions
Exit	For selecting the exit options

To select an item on the menu bar, press the right or left arrow key on the keyboard until the desired item is highlighted.

# 4.2.3 Menu items

The highlighted item on the menu bar displays the specific items for that menu. For example, selecting **Main** shows the Main menu items.

The other items (Event Logs, Advanced, Monitor, Boot, Tool, and Exit) on the menu bar have their respective menu items.

# 4.2.4 Submenu items

A solid triangle before each item on any menu screen means that the item has a submenu. To display the submenu, select the item then press <Enter>.

# 4.2.5 Navigation keys

At the bottom right corner of a menu screen are the navigation keys for the BIOS setup program. Use the navigation keys to select items in the menu and change the settings.

# 4.2.6 General help

At the top right corner of the menu screen is a brief description of the selected item.

# 4.2.7 Configuration fields

These fields show the values for the menu items. If an item is user-configurable, you can change the value of the field opposite the item. You cannot select an item that is not user-configurable.

A configurable field is enclosed in brackets, and is highlighted when selected. To change the value of a field, select it and press <Enter> to display a list of options.

# 4.2.8 Pop-up window

Select a menu item and press <Enter> to display a pop-up window with the configuration options for that item.

# 4.2.9 Scroll bar

A scroll bar appears on the right side of a menu screen when there are items that do not fit on the screen. Press the Up/Down arrow keys or <Page Up> /<Page Down> keys to display the other items on the screen.

# 4.3 Main menu

When you enter the BIOS Setup program, the Main menu screen appears. The Main menu provides you an overview of the basic system information, and allows you to set the system date, time, language, and security settings.

	<mark>ity – Copyright (C) 2013 America</mark> Server Mgmt Event Logs Monito	
BIOS Information BIOS Vendor Core Version Compliancy BIOS Version Build Date	American Megatrends 5.009 UEFI 2.3; PI 1.2 0302 x64 04/30/2014	Choose the system default language
Memory Information Total Memory	8192 MB	
System Language	[English]	
System Date System Time	[Wednesday 05/07/2014] [18:54:03]	++: Select Screen 11: Select Item
Access Level	Administrator	Enter: Select +/-: Change Opt. F1: General Help F2: Previous Values F5: Optimized Defaults F10: Save Changes & Reset ESC: Exit
Version 2.16.12	43. Copyright (C) 2013 American	Megatrends, Inc. B4

# 4.3.1 System Date [Day xx/xx/xxxx]

Allows you to set the system date.

# 4.3.2 System Time [xx:xx:xx]

Allows you to set the system time.

# 4.4 Advanced menu

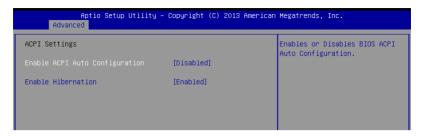
The Advanced menu items allow you to change the settings for the CPU and other system devices.



Take caution when changing the settings of the Advanced menu items. Incorrect field values can cause the system to malfunction.

Aptio Setup Utility – Copyright (C Main Advanced IntelRCSetup Server Mgmt Even	
<ul> <li>ACPI Settings</li> <li>SMART Settings</li> <li>NCT6779D Super IO Configuration</li> <li>Intel LAN I210 Configuration</li> <li>Serial Port Console Redirection</li> <li>APM</li> <li>PCI Subsystem Settings</li> <li>Network Stack Configuration</li> </ul>	System ACPI Parameters.
<ul> <li>CSM Configuration</li> <li>Trusted Computing</li> <li>USB Configuration</li> </ul>	
▶ iSCSI Configuration	++: Select Screen 11: Select Item Enter: Select +/-: Change Opt, F1: General Help F2: Previous Values F5: Optimized Defaults
	F10: Save Changes & Reset

# 4.4.1 ACPI Settings



## Enable ACPI Auto Configuration [Disabled]

Allows you to enable or disable the BIOS ACPI Auto Configuration. Configuration options: [Disabled] [Enabled]

#### Enable Hibernation [Enabled]

Allows you to enable or disable the ability of the system to hibernate (OS/Sleep State). Configuration options: [Disabled] [Enabled]



This option may be not effective with some OS.

# 4.4.2 Smart Settings

Aptio Setup Advanced	) Utility – Copyright (C) 2013 Ame	erican Megatrends, Inc.
SMART Settings		Run SMART Self Test on all HDDs during POST.
SMART Self Test	[Disabled]	

## SMART Self Test [Disabled]

Allows you to run SMART Self Test on all HDDs during POST. Configuration options: [Disabled] [Enabled]

# 4.4.3 NCT6779D Super IO Configuration



## Serial Port 1 / Serial Port 2 Configuration

Allows you to set the parameters of Serial Port 1/ Serial Port 2.

## Serial Port [Enabled]

Allows you to enable or disable Serial Port. Configuration options: [Disabled] [Enabled]

# Change Settings [Auto]

Allows you to choose the setting for Super IO device.

Configuration options: [Auto] [IO=3F8h; IRQ=4;] [IO=3F8h; IRQ=3, 4, 5, 6, 7, 9, 10, 11, 12;] [IO=2F8h; IRQ=3, 4, 5, 6, 7, 9, 10, 11, 12;] [IO=3E8h; IRQ=3, 4, 5, 6, 7, 9, 10, 11, 12;] [IO=2E8h; IRQ=3, 4, 5, 6, 7, 9, 10, 11, 12;]

# 4.4.4 Intel LAN I210 IO Configuration

Aptio Setup Utili Advanced	ty – Copyright (C) 2013 Amer	ican Megatrends, Inc.
Intel LAN I210 Configuration INTEL I210 LAN1 MAC: INTEL I210 LAN2 MAC: Intel I210 LAN1 Enable Intel LAN ROM Type Intel LAN ROM Type	00:E0:18:02:21:16 00:E0:18:02:21:17 [Enabled] [Enabled] [Enabled] [PXE]	Intel LAN Enable/Disable

#### Intel LAN Support [Enabled]

Allows you to enable or disable the Intel LAN. Configuration options: [Disabled] [Enabled]

#### Intel LAN ROM Type [PXE]

Allows you to select the Intel LAN ROM type. Configuration options: [PXE] [iSCSI]

## Intel LAN I210 LAN1 / LAN2 Enable [Enabled]

Allows you to enable or disable the Intel LAN.

Configuration options: [Disabled] [Enabled]



The following items appear only when Intel LAN I210 LAN1 / LAN2 Enable is set to [Enabled].

#### LAN1/ LAN2 Option ROM Support [Enabled]

Allows you to load the Intel LAN ROM. Configuration options: [Disabled] [Enabled]

# 4.4.5 Serial Port Console Redirection



## COM1/COM2

## **Console Redirection [Enabled]**

Allows you to enable or disable the console redirection feature.

Configuration options: [Disabled] [Enabled]

The following item appears only when you set Console Redirection to [Enabled].

## **Console Redirection Settings**

This item becomes configurable only when you enable the **Console Redirection** item. The settings specify how the host computer and the remote computer (which the user is using) will exchange data. Both computers should have the same or compatible settings.

Aptio Setup Utility – Copyright (C) 2013 American Megatrends, Inc. Advanced			
COM2 Console Redirection Settings Terminal Type Bits per second Data Bits Parity Stop Bits Flow Control VT-UTFB Combo Key Support Recorder Mode Legacy OS Redirection Resolution	[VT-UTF8] [57600] [8] [1] [Hardware RTS/CTS] [Enabled] [Disabled] [80x24]	Emulation: ANSI: Extended ASCII char set. V1100: ASCII char set. V1100: Extends V1100 to support color, function keys, etc. VT-UTF8: Uses UTF8 encoding to map Unicode chars onto 1 or more bytes.	
Putty KeyPad Redirection After BIOS POST	[VT100] [Always Enable]	++: Select Screen 14: Select Item Enter: Select +/-: Change Opt. F1: General Help F2: Previous Values F5: Optimized Defaults F10: Save Changes & Reset F00: Suit	

#### Terminal Type [VT-UTF8]

Allows you to set the terminal type.

[VT100]	ASCII char set.
[VT100+]	Extends VT100 to support color, function keys, et.
[VT-UTF8]	Uses UTF8 encoding to map Unicode chars onto 1 or more bytes
[ANSI]	Extended ASCII char set

#### Bits per second [57600]

Selects serial port transmission speed. The speed must be matched on the other side. Long or noisy lines may require lower speeds. Configuration options: [9600] [19200] [38400] [57600] [115200]

#### Data Bits [8]

Configuration options: [7] [8]

#### Parity [None]

A parity bit can be sent with the data bits to detect some transmission errors. [Mark] and [Space] parity do not allow for error detection.

[None]	None
[Even]	parity bit is 0 if the num of 1's in the data bits is even
[Odd]	parity bit is 0 if num of 1's in the data bits is odd
[Mark]	parity bit is always 1
[Space]	parity bit is always 0

#### Stop Bits [1]

Stop bits indicate the end of a serial data packet. (A start bit indicates the beginning.) The standard setting is 1 stop bit. Communication with slow devices may require more than 1 stop bit. Configuration options: [1] [2]

#### Flow Control [Hardware RTS/CTS]

Flow control can prevent data loss from buffer overflow. When sending data, if the receiving buffers are full, a "stop" signal can be sent to stop the data flow. Once the buffers are empty, a "start" signal can be sent to re-start the flow. Hardware flow control uses two wires to send start/stop signals.

Configuration options: [None] [Hardware RTS/CTS]

#### VT -UTF8 Combo Key Support [Enabled]

This allows you to enable the VT -UTF8 Combination Key Support for ANSI/VT100 terminals. Configuration options: [Disabled] [Enabled]

#### Recorder Mode [Disabled]

With this mode enabled only text will be sent. This is to capture Terminal data. Configuration options: [Disabled] [Enabled]

#### Legacy OS Redirection Resolution [80x24]

This allows you to set the number of rows and columns supported on the Legacy OS. Configuration options: [80x24] [80x25]

#### Putty Keypad [VT100]

This allows you to select the FunctionKey and Keypad on Putty. Configuration options: [VT100] [LINUX] [XTERMR6] [SCO] [ESCN] [VT400]

#### Redirection After BIOS POST [Bootloader]

This setting allows you to specify if Bootloader is selected than Legacy console redirection. Configuration options: [Always Enable] [Bootloader]

#### Serial Port for Out-of-Band Management/

#### Windows Emergency Management Services (EMS)

#### **Console Redirection [Disabled]**

Allows you to enable or disable the console redirection feature. Configuration options: [Disabled] [Enabled]



The following item appears only when you set Console Redirection to [Enabled].

## **Console Redirection Settings**

#### Out-of-Band Mgmt Port [COM1]

Microsoft Windows Emergency Management Services (EMS) allow for remote management of a Windows Server OS through a serial port. Configuration options: [COM1] [COM2]

#### Terminal Type [VT-UTF8]

Microsoft Windows Emergency Management Services (EMS) allow for remote management of a Windows Server OS through a serial port. Configuration options: [VT100] [VT100+] [VT-UTF8] [ANSI]

#### Bits per second [115200]

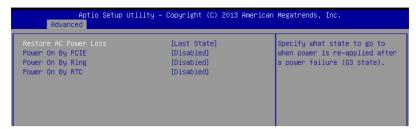
Microsoft Windows Emergency Management Services (EMS) allow for remote management of a Windows Server OS through a serial port. Configuration options: [9600] [19200] [57600] [115200]

#### Flow Control [None]

Microsoft Windows Emergency Management Services (EMS) allow for remote management of a Windows Server OS through a serial port. Configuration options: [None] [Hardware RTS/CTS] [Software Xon/Xoff]

# 4.4.6 APM

Allows you to configure the Advance Power Management (APM) settings.



## Restore AC Power Loss [Last State]

When set to [Power Off], the system goes into off state after an AC power loss. When set to [Power On], the system will reboot after an AC power loss. When set to [Last State], the system goes into either off or on state, whatever the system state was before the AC power loss.

Configuration options: [Power Off] [Power On] [Last State]

#### Power On By PCIE [Disabled]

[Disabled] Disables the PCIE devices to generate a wake event.

[Enabled] Enables the PCIE devices to generate a wake event.

#### Power On By Ring [Disabled]

[Disabled] Disables the PCIE devices to generate a wake event.

[Enabled] Enables the PCIE devices to generate a wake event.

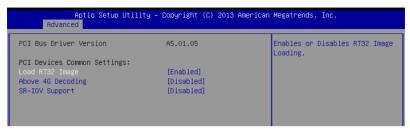
#### Power On By RTC [Disabled]

[Disabled] Disables RTC to generate a wake event.

[Enabled] When set to [Enabled], the items RTC Alarm Date (Days) and Hour/ Minute/Second will become user-configurable with set values.

# 4.4.7 PCI Subsystem Settings

Allows you to configure PCI, PCI-X, and PCI Express Settings.



## Load RT32 Image [Enabled]

Allows you to enable or disable RT32 Image Loading.

Configuration options: [Disabled] [Enabled]

# Above 4G Decoding [Disabled]

Allows you to enable or disable 64-bit capable devices to be decoded in above 4G address space. It only works if the system supports 64-bit PCI decoding. Configuration options: [Disabled] [Enabled]

# SR-IOV Support [Disabled]

This option enables or disables Single Root IO Virtualization Support if the system has SR-IOV capable PCIe devices.

Configuration options: [Disabled] [Enabled]

# 4.4.8 Network Stack Configuration

Aptio Setup Utility – Copyright (C) 2013 American Megatrends, Inc. Advanced		
Network Stack	[Disabled]	Enable∕Disable UEFI Network Stack

## Network stack [Disabled]

Enables or disables the network stack feature. Configuration options: [Disable] [Enable]



## Ipv4 PXE Support [Enabled]

Enables or disables the Ipv4 PXE Boot Support. If disabled, Ipv4 PXE boot option will not be created. Configuration options: [Disabled] [Enabled].

#### Ipv6 PXE Support [Enabled]

Enables or disables the Ipv6 PXE Boot Support. If disabled, Ipv6 PXE boot option will not be created. Configuration options: [Disabled] [Enabled].

#### PXE boot wait time [0]

Wait time to press ESC key to abort the PXE boot.

#### Media detect time [0]

Wait time (in seconds) to detect media.

# 4.4.9 CSM Configuration

Aptio Setup Ut: Advanced	ility – Copyright (C) 2013 Am	erican Megatrends, Inc.
Compatibility Support Module	Configuration	Enable/Disable CSM Support.
	[Enabled]	
CSM16 Module Version	07.71	
GateA20 Active Option ROM Messages	[Upon Request] [Force BIOS]	
Boot option filter	[Legacy only]	
Option ROM execution		
Network	[Legacy]	↔: Select Screen
Storage	[Legacy]	↑↓: Select Item
Video	[Legacy]	Enter: Select
Other PCI devices	[Legacy]	+∕-: Change Opt.
		F1: General Help
		F2: Previous Values

## CSM Support [Enabled]

This option allows you to enable or disable CSM Support. Configuration options: [Disabled] [Enabled]

## GateA20 Active [Upon Request]

This allows you to set the GA20 option. Configuration options: [Upon Request] [Always]

# **Option ROM Messages [Force BIOS]**

This allows you to set the display mode for option ROM. Configuration options: [Force BIOS] [Keep Current]

## Boot Option filter [Legacy only]

This option allows you to control the Legacy/UEFI ROMs priority. Configuration options: [UEFI and Legacy] [Legacy only] [UEFI only]

## Network / Storage / Video [Legacy]

This option allows you to control the execution of UEFI and Legacy PXE/ Storage/ Video  $\ensuremath{\mathsf{OpROM}}$  .

Configuration options: [UEFI ] [Legacy]

## Other PCI devices [Legacy]

This item determines the OpROM execution policy for devices other than Network, Storage, or Video.

Configuration options: [UEFI ] [Legacy]

# 4.4.10 Trusted Computing

Aptio Setup Utility – Copyright (C) 2013 American Megatrends, Inc. Advanced		
Configuration Security Device Support	[Disabled]	Enables or Disables BIOS support for security device. O.S. will not show Security Device. TCG EFI protocol and
Current Status Information NO Security Device Found		INT1A interface will not be available.

# Configuration

## Security Device Support [Disabled]

Allows you to enable or disable the BIOS support for security device.

Configuration options: [Disabled] [Enabled]

# 4.4.11 USB Configuration

Aptio Setup Utility - Advanced	Copyright (C) 2013 American	Megatrends, Inc.
USB Configuration		Enables Legacy USB support. AUTO option disables legacy
USB Module Version	8.11.01	support if no USB devices are connected. DISABLE option will
USB Devices:		keep USB devices available
1 Drive, 1 Keyboard, 1 Mouse,	2 Hubs	only for EFI applications.
Legacy USB Support	[Enabled]	
XHCI Hand-off	[Enabled]	
EHCI Hand-off	[Disabled]	
USB Mass Storage Driver Support	[Enabled]	
Port 60/64 Emulation	[Enabled]	
USB hardware delays and time-outs:		↔: Select Screen
USB transfer time-out	[20 sec]	†↓: Select Item
Device reset time-out	[20 sec]	Enter: Select
Device power-up delay	[Auto]	+/−: Change Opt.
		F1: General Help
Mass Storage Devices:		F2: Previous Values
Generic 8.07	[Auto]	F5: Optimized Defaults

# Legacy USB Support [Enabled]

Allows you to enable or disable Legacy USB device support.

Configuration options: [Enabled] [Disabled] [Auto]

## XHCI Hand-off [Enabled]

This is a workaround for 0Ses without XHCI hand-off support. The XHCI ownership change should be claimed by XHCI driver.

Configuration options: [Disabled] [Enabled]

## EHCI Hand-off [Disabled]

This is a workaround for 0Ses without EHCI hand-off support. The EHCI ownership change should be claimed by EHCI driver.

Configuration options: [Disabled] [Enabled]

## USB Mass Storage Driver Support [Enabled]

Allows you to enable or disable the USB Mass Storage drvier support.

Configuration options: [Disabled] [Enabled]

## Port 60/64 Emulation [Enabled]

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

Configuration options: [Disabled] [Enabled]

#### USB hardware delays and time-outs

#### USB transfer time-out [20 sec]

The time-out value for control, bulk, and interrupt transfer. Configuration options: [1 sec] [5 sec] [10 sec] [20 sec]

## Device reset time-out [20 sec]

USB mass storage device start unit command time-out. Configuration options: [10 sec] [20 sec] [30 sec] [40 sec]

## Device power-up delay [Auto]

This is the maximum time the device will take before it properly reports itself to the host controller.

Configuration options: [Auto] [Manual]

## **Mass Storage Devices**

## Generic 8.07 [Auto]

Allows you to select the mass storage device emulation type. Configuration options: [Auto] [Floppy] [Forced FDD] [Hard Disk] [CD-ROM]

# 4.4.12 iSCSI Configuration

Allows you to configure the iSCSi parameters.



# 4.5 IntelRCSetup menu

The IntelRCSetup menu items allow you to change the processor and chipset settings.

Aptio Setup Utility – Copyright (C) 2013 American Main Advanced <mark>IntelRCSetup</mark> Server Mgmt Event Logs Monitor	
<ul> <li>Processor Configuration</li> <li>Advanced Power Management Configuration</li> <li>Common RefCode Configuration</li> <li>QPI Configuration</li> <li>Hemory Configuration</li> <li>IIO Configuration</li> <li>PCH Configuration</li> <li>Miscellaneous Configuration</li> <li>Server ME Configuration</li> <li>Runtime Error Logging</li> </ul>	Displays and provides option to change the Processor Settings
Setup Warning: Setting items on this Screen to incorrect values may cause system to malfunction!	<pre>++: Select Screen 14: Select Item Enter: Select +-: Change Opt. F1: General Help F2: Previous Values F5: Optimized Defaults F10: Save Changes &amp; Reset ESC: Exit</pre>
Version 2.16.1243. Copyright (C) 2013 American Me	egatrends, Inc.

# 4.5.1 Processor Configuration

Processor Configuration <ul> <li>Per-Socket Configuration</li> <li>Processor Socket</li> <li>Socket 1</li> <li>Socket 2</li> <li>N/A 5</li> <li>Processor TP equency</li> <li>Processor Max Ratio</li> <li>TH</li> <li>N/A 5</li> <li>Processor Min Ratio</li> <li>OO00001D</li> <li>N/A 5</li> <li>Processor Min Ratio</li> <li>OO00001D</li> <li>N/A 5</li> <li>Processor Min Ratio</li> <li>O000001D</li> <li>N/A 5</li> <li>Processor Min Ratio</li> <li>O000001D</li> <li>N/A 5</li> <li>L1 Cache RAM</li> <li>BS40KB</li> <li>N/A 5</li> <li>L2 Cache RAM</li> <li>S5840KB</li> <li>N/A 5</li> <li>Processor 1 Version</li> <li>Intel(R) Xeon(R) CPU E5</li> <li>-2635 V3 @ 2.30GHz</li> <li>Processor 2 Version</li> <li>Not Present</li> <li>Hyper-Threading [Enabled]</li> <li>Execute Disable Bit [Enabled]</li> <li>Enable Intel TXT Support [Disabled]</li> <li>Fi: General Help</li> <li>F2: Optimized Defaults</li> <li>F10: Save Changes &amp; Reset</li> <li>ESC: Exit</li> </ul>	Aptio Setup Utility IntelRCSetup	– Copyright (C) 2013 Americ	can Megatrends, Inc.
Processor SocketSocket 1Socket 2Processor ID000306F2  N/A 5Processor Frequency2.300GH2  N/A 5Processor Max Ratio17HN/A 5Processor Max Ratio00H  N/A 5Microcode Revision000001D  N/A 5L1 Cache RAM96KB  N/A 5L2 Cache RAM3584KB  N/A 5L3 Cache RAM3584KB  N/A 5Processor 1 VersionIntel(R) Xeon(R) CPU E5-2695 v3 @ 2.30GH2+*: Select ScreenProcessor 2 VersionNot PresentHyper-Threading[Enabled]Execute Disable Bit[Enabled]Enable Intel TXT Support[Disabled]VMX[Enabled]Fi: Save Changes & ResetEnable SMX[Disabled]Hadware Prefetcher[Enabled]Hadware Prefetcher[Enabled]<	Processor Configuration		Change Per-Socket Settings
-2695 v3 @ 2.30GHz Processor 2 Version Nut Present Hyper-Threading Execute Disable Bit Enable Intel TXT Support WMX Enable SMX Enable SMX Hadware Prefetcher Adjacent Cache Prefetch Enabled] Hadware State Enabled] Hadware Prefetcher Hadware Prefetcher Hadware State Hadware Prefetcher Hadware State Hadware Prefetcher Hadware State Hadware Prefetcher Hadware State Hadware Prefetcher Hadware State Hadware Prefetcher Hadware Prefetcher Hadw	Processor Socket Processor ID Processor Frequency Processor Max Ratio Processor Min Ratio Microcode Revision L1 Cache RAM L2 Cache RAM L3 Cache RAM	000306F2   N/A 5 2.300GHz   N/A 5 0CH   N/A 5 000001D   N/A 5 000001D   N/A 5 896KB   N/A 5 3584KB   N/A 5	
Hyper-Threading     [Enabled]     F1: General Help       Execute Disable Bit     [Enabled]     F2: Previous Values       Enable Intel TXT Support     [Disabled]     F5: Optimized Defaults       VMX     [Enabled]     F10: Save Changes & Reset       Enable SMX     [Disabled]     ESC: Exit       Hardware Prefetcher     [Enabled]     ESC: Exit		-2695 v3 @ 2.30GHz	↑↓: Select Item Enter: Select
	Execute Disable Bit Enable Intel TXT Support VMX Enable SMX Hardware Prefetcher	[Enabled] [Disabled] [Enabled] [Disabled] [Enabled]	F1: General Help F2: Previous Values F5: Optimized Defaults F10: Save Changes & Reset

## Per Socket Configuration

Allows you to set the number of cores to enable. 0 means all cores. Total of 14 cores available.

## Hyper Threading [Enabled]

Allows you to enable or disable the Intel® Hyper-Threading Technology function. When disabled, only one thread per activated core is enabled. Configuration options: [Disabled] [Enabled]

#### Execute Disable Bit [Enabled]

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). Configuration options: [Disabled] [Enabled]

#### Enable Intel TXT Support [Disabled]

Forces the XD feature log to always return 0 when disabled.

Configuration options: [Disabled] [Enabled]

#### VMX [Enabled]

Enables the Vanderpool Technology. Takes effect after reboot.

Configuration options: [Disabled] [Enabled]

# Enable SMX [Disabled]

Enables the Safer Mode Extensions Configuration options: [Disabled] [Enabled]

## Hardware Prefetcher [Enabled]

This Item allows you to turn on/off the mid level cache(L2) streamer prefetcher. Configuration options: [Disabled] [Enabled]

## Adjacent Cache Prefetch [Enabled]

This Item allows you to turn on/off prefetching of adjacent cache lines. Configuration options: [Disabled] [Enabled]

# DCU Streamer Prefetcher [Enabled]

This Item allows you to enable or disable prefetcher of next L1 data line. Configuration options: [Disabled] [Enabled]

# DCU IP Prefetcher [Enabled]

This Item allows you to enable or disable prefetch of next L1 line based upon sequential load history.

Configuration options: [Disabled] [Enabled]

# DCU Mode [32K 8Way Without ECC]

Configuration options: [32K 8Way Without ECC] [16K 4Way With ECC]

## Direct Cache Access (DCA) [Auto]

This Item allows you to enable or disable Direct Cache Access.

Configuration options: [Auto] [Disabled] [Enabled]

# DCA Prefetch Delay [32]

This Item allows you to set the time for the DCA Prefetch delay Help. Configuration options: [Disabled] [8] [16] [24] [32] [40] [48] [56] [64] [72] [80] [88] [96] [104] [112]

# X2APIC [Disabled]

This Item allows you to enable or disable the extended APIC support. Configuration options: [Disabled] [Enabled]

# AES-NI [Enabled]

This Item allows you to enable or disable the AES-NI support. Configuration options: [Disabled] [Enabled]

## Down Stream PECI [Disabled]

This Item allows you to enable the PCIe Down Stream PECI writer. Configuration options: [Disabled] [Enabled]

# 4.5.2 Advanced Power Management Configuration



#### Power Technology [Energy Efficient]

This item allows you to enable power management features. Configuration options: [Disabled] [Energy Efficient] [Custom]

#### Config TDP [Disabled]

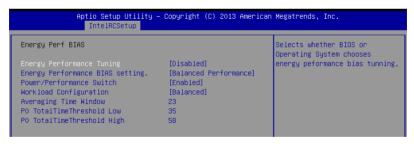
This item allows you to enable/disable the Config TDP.

Configuration options: [Disabled] [Enabled]

#### **CPU Advanced PM Turning**

This item allows you to set additional CPU Power Management settings.

#### **Energy Perf BIAS**



#### Energy Performance Tuning [Disabled]

Allows your system to select from BIOS or operating system to choose enable energy performance bias tuning.

Configuration options: [Disabled] [Enabled]

#### Energy Performance Bias setting [Balanced Performance]

Allows you to set the Energy Performance Bias which overrides the OS setting. Configuration options: [Performance] [Balanced Performance] [Balanced Power] [Power]

#### Power/Performance Switch [Enabled]

Allows you to switch between Power or performance. Configuration options: [Disabled] [Enabled]

#### Workload Configuration [Balanced]

Optimization for the workload characterization. Configuration options: [Balanced] [I/O sensitive]

#### Averaging Time Window [23]

This is used to control the effective window of the average for CO and PO time.

#### PO TotalTimeThreshold Low [35]

The HW switching mechanism disables the performance setting (0) when the total PO time is less than this threshold.

#### PO TotalTimeThreshold High [58]

The HW switching mechanism enables the performance setting (0) when the total PO time is greater than this threshold.

# 4.5.3 Common RefCode Configuration



## Numa [Enabled]

This item enables or disables the Non uniform Memory Access (NUMA).

Configuration options: [Disabled] [Enabled]

# 4.5.4 QPI Configuration

QPI General Configuration QPI Status Help		
QPI Status		
Link Speed Mode	[Fast]	
Link Frequency Select	[Auto]	
Link LOp Enable	[Enable]	
Link L1 Enable	[Enable]	

## **QPI** General Configuration

#### **QPI Status**

This item displays information about the QPI status.

## Link Speed Mode [Fast]

This item allows you to select the QPI link speed as either the fast mode or slow mode.

Configuration options: [Slow] [Fast]

#### Link Frequency Select [Auto]

This item allows you for selecting the QPI link frequency Configuration options: [Auto] [6.4 GT/s] [8.0 GT/s] [9.6 GT/s]

## QPI Link0p Enable [Enable]

Configuration options: [Disable] [Enable]

## QPI Link1 Enable [Enable]

Configuration options: [Disable] [Enable]

## **QPI** Status

Aptio Setup Utility – Copyright (C) 2013 American Megatrends, Inc. IntelRCSetup			
QPI Status			
Number of CPU	1		
Number of IIO	1		
Current QPI Link Speed	Slow		
Current QPI Link Frequency	Unknown GT/s		
QPI Global MMIO Low Base / Limit	90000000 / FBFFFFFF		
QPI Global MMIO High Base / Limit	00000000000 / 000FFFFFF		
OPI Pci-e Configuration Base / Siz	80000000 / 10000000		

# 4.5.5 Memory Configuration

Integrated Memory Controller (iM	:)	- 1	Enable to enforce POR restrictions for DDR4 frequency and voltage programming
Enforce PDR Memory Frequency Halt on mem Training Error ECC Support Enhanced Log Parsing Data Scrambling Enable ADR C/A Parity Enable	[Auto] [Auto] [Enabled] [Auto] [Disabled] [Auto] [Disabled] [Auto]		or ogr anmærig
<ul> <li>Memory Topology</li> <li>Memory Thermal</li> <li>Memory Map</li> <li>Memory RAS Configuration</li> </ul>		•	₩: Select Screen N: Select Item Enter: Select +/-: Change Opt. F1: General Help

# Enforce POR [Auto]

Allows you to enforce POR restrictions for DDR4 frequency adn voltage programming. Configuration options: [Auto] [Enforce POR] [Disabled] [Enforce Stretch Goals]

## Memory Frequency [Auto]

Allows you to select the memory frequency setting. Configuration options: [Auto] [1333] [1600] [1866] [2133]

# Halt on mem Training Error [Enabled]

Allows you to enable or disable halt on mem Training Error. Configuration options: [Disabled] [Enabled]

# ECC Support [Auto]

Allows you to enable or disable the ECC support. Configuration options: [Auto] [Disabled] [Enabled]

## Enhanced Log Parsing [Disabled]

Allows you to enable or disable the Enhanced Log Parsing. Configuration options: [Auto] [Disabled] [Enabled]

# Data Scrambling [Auto]

Allows you to enable/disable data scrambling. Configuration options: [Auto] [Disabled] [Enabled]

## Enable ADR [Disabled]

Allows you to set the detecting and enabling of ADR. Configuration options: [Disabled] [Enabled]

# C/A Parity Enable [Auto]

Allows you to enable or disable the DDR4's command address parity.



Configuration options: [Auto] [Disabled] [Enabled]

# Memory Topology



Displays memory topology with DIMM population information.

#### **Memory Thermal**

Allows you to configure thermal settings.

#### Set Throttling Mode [Disabled]

Configuration options: [Disabled] [OLTT] [CLTT]

#### OLLT Peak BW [xxx]

Allows you to set the peak allowed bandwidth for OLTT. This is in percentage and valid offset values is from 25-100.

#### DIMM Tem Stat [xx]

Allows you to select DIMMTEMPSTAT as temp\_mid or tem\_hi.

#### Memory Power Savings Mode [Auto]

Allows you to configure the CKE and other related Memory Power Savings features. Configuration options: [Auto] [Disabled] [APD On] [User Defined] [Reserve] [Reserved]

#### Memory Power Savings Advanced Options

CK in SR [Auto] Configuration options: [Auto] [Driven] [Tri-State] [Pulled Low] Pulled High]

#### MDLL Off [Auto]

Allows you to shutdown MDLL during SR when enabled. Configuration options: [Auto] [Disabled] [Enabled]

#### MEMHOT Throttling Mode [Input-only]

Allows you to shutdown MDLL during SR when enabled. Configuration options: [Disabled] [Input-only] [Output-only]

#### Mem Electrical Throttling [Disabled]

Aptio Setup Ut IntelRCSetu	ility – Copyright (C) 2013 p	American Megatrends, Inc.
Channel Interleaving Rank Interleaving	[Auto] [Auto]	Select Channel Interleaving setting

Allows you to configure Memory Electical throttling. Configuration options: [Disabled] [Enabled] [Auto]

#### Memory Map

#### **Channel Interleaving [Auto]**

Select different channel interleaving setting.

Configuration options: [Auto] [1-way Interleave] [2-way Interleave] [3-way Interleave] [4-way Interleave]

#### Rank Interleaving [Auto]

Select different rank interleaving setting.

Configuration options: [Auto] [1-way Interleave] [2-way Interleave] [4-way Interleave] [8-way Interleave]

#### Memory RAS Configuration



#### RAS Mode [Disabled]

Allows you to enable or disable RAS Modes. Enabling Sparing and Mirroring is not supported. In case enabled, Sparing will be selected. Configuration options: [Disabled] [Mirror] [Lockstep Mode]

#### Memory Rank Sparing [Disabled]

Allows you to enable or disable Memory Rank Sparing. Configuration options: [Disabled] [Enabled]

#### Correctable Error Threshold [32767]

Allows you to set the Correctable Error Threshold used for sparing, tagging, and leaky bucket. The range is from 1 to 32767.

#### Patrol Scrub [Enabled]

Allows you to enable or disable Patrol Scrub. Configuration options: [Disabled] [Enabled]

#### Demand Scrub [Enabled]

Allows you to enable or disable Demand Scrub. Configuration options: [Disabled] [Enabled]

# 4.5.6 IIO Configuration

Aptio Setup Utility – Copyright (C) 2013 American Megatrends, Inc. IntelRCSetup		
IIO Configuration EV DFX Features ▶ PCIE Slot Option Rom Configuration ▶ Intel VT for Directed I/O (VT-d)	[Disabled]	Set this option to allow DFX Lock Bits to remain clear
PCI Express Global Options TX EQ WA PCI-E ASPM Support (Global)	(Enabled) (L1 Only)	

#### EV DFX Features [Disabled]

Set this option to allow DFX Lock Bits to remain clear.

Configuration options: [Disabled] [Enabled]

#### **PCIE Slot Option ROM Configuration**

Apt	tio Setup Utility – Copyright IntelRCSetup	(C) 2013 American	Megatrends, Inc.
PCIE1 Option Rom PCIE2 Option Rom PCIE3 Option Rom PCIE4 Option Rom PCIE6 Option Rom	[Enabled] [Enabled] [Enabled]		Enabled/Disabled PCIE1 Option Rom

#### PCIE1/ PCIE2/ PCIE3/ PCIE4/ PCIE6 Option ROM [Disabled]

Allows you to enable or disable the PCIE1/ PCIE2/ PCIE3/ PCIE4/ PCIE6 Option ROM. Configuration options: [Disabled] [Enabled]

#### Intel VT for Directed I/O (VT-d)



#### Intel VT for Directed I/O (VT-d) [Enabled]

Allows you to enable or disable the Intel Virtualization Technology for Directed I/O. Configuration options: [Disabled] [Enabled]

#### **PCI Express Global Options**

#### TX EQ WA [Enabled]

Use special table for TX\_EQ and vendor specific cards. Configuration options: [Disabled] [Enabled]

#### PCI-E ASPM Support (Global) [L1 Only]

This option enables or disables the ASPM support for all downstream devices. Configuration options: [Disabled] [L1 Only]

# 4.5.7 PCH Configuration

Aptio Setup Utility – Copyright (C) 2013 American Megatrends, Inc. IntelRCSetup		
PCH Configuration	Enable/Disable Intel(R) IO Controller Hub devices	
PCI Express Configuration		
· PCH sSATA Configuration · PCH SATA Configuration		
· USB Configuration		
· Platform Thermal Configuration		

#### **PCH Devices**

Aptio Setup Utility – Copyright (C) 2013 American Megatrends, Inc. IntelRCSetup		
DeepSx Power Policies	[Disabled]	configure the DeepSx Mode configuration.

#### DeepSx Power Policies [Disabled]

Allows you to configure the DeepSx Mode configuration. Configuration options: [Disabled] [Enabled in S5] [Enabled in S4 and S5]

# **PCI Express Configuration**

Aptio Setup Utility – Copyright (C) 2013 American Megatrends, Inc. IntelRCSetup		
PCH DMI ASPM	[Enabled]	PCH DMI ASPM Setting
<ul> <li>PCI Express Root</li> </ul>	Port 2 Port 3 Port 4 Port 5 Port 6 Port 7	

#### PCH DMI ASPM [Enabled]

Allows you to configure the PCH DMI ASPM. Configuration options: [Disabled] [Enabled]

#### PCI Express Root Port 1 to Port 8

Allows you to configure the PCI Express Root port settings.

PCIE ASMP [Disable ASPM] Allows you to configure the PCH DMI ASPM. Configuration options: [Disable ASPM] [ASPM L0s] [ASPM L1] [ASPM L0sL1] [ASPM Auto]

## PCH sSATA Configuration

Aptio Setup Utility - IntelRCSetup	Copyright (C) 2013 Americar	) Megatrends, Inc.
PCH sSATA Configuration		Enable or Disable SATA Controller
sSATA Controller Configure sSATA as ▶ SATA Mode options Support Aggressive Link Power Mana	[Enabled] [AHCI] [Enabled]	
SATA Port 1 Port 1 SATA Port 2 Port 2 SATA Port 3 Port 3 SATA Port 4 Port 4	[Not Installed] [Enabled] [Not Installed] [Enabled] [Not Installed] [Not Installed] [Enabled]	++: Select Screen f1: Select Ttem Enter: Select +/-: Change Opt.

# sSATA Controller [Enabled]

Allows you to enable or disable the sSATA Controller. Configuration options: [Disabled] [Enabled]

#### Configure sSATA as [AHCI]

Allows you to identify the SATA port is connected to Solid State Drive or Hard Disk Drive. Configuration options: [IDE] [AHCI] [RAID]

#### SATA Mode options

#### SATA LED locate [Enabled]

If enabled, LED/SGPIO hardware is attached. Configuration options: [Disabled] [Enabled]

#### Support Aggressive Link Power Management [Enabled]

Allows you to enable or disable the Suport Aggressive Link Power (SALP) Management. Configuration options: [Disabled] [Enabled]

# SATA Port 1/ SATA Port 2/ SATA Port 3/ SATA Port 4

#### Port 1/ Port 2/ Port 3/ Port 4

Allows you to enable or disable the SATA port Configuration options: [Disabled] [Enabled]

# **PCH SATA Configuration**

Aptio Setup Utility – IntelRCSetup	Copyright (C) 2013 American	Megatrends, Inc.
PCH SATA Configuration		Enable or Disable SATA
SATA Controller	[Enabled]	Controller
Configure SATA as	[AHCI]	
Support Aggressive Link Power Mana		
00T0 Deat 4		
SATA Port 1	Hitachi HTS543 - 320.0 G	
Port 1 SATA Port 2	[Enabled] ASUS DRW-24 – ATAPI	
Port 2	[Enabled]	
SATA Port 3	[Not Installed]	
Port 3	[Enabled]	
SATA Port 4	[Not Installed]	
Port 4	[Enabled]	→+: Select Screen
SATA Port 5	[Not Installed]	14: Select Item
Port 5	[Enabled]	Enter: Select
SATA Port 6	[Not Installed]	+/-: Change Opt.
Port 6	[Enabled]	F1: General Help
		F2: Previous Values
		E5: Ontimized Defaults

# SATA Controller [Enabled]

Allows you to enable or disable the SATA Controller.

Configuration options: [Disabled] [Enabled]

# Configure SATA as [AHCI]

Allows you to identify the SATA port is connected to Solid State Drive or Hard Disk Drive. Configuration options: [IDE] [AHCI] [RAID]

# Support Aggressive Link Power Management [Enabled]

Allows you to enable or disable the Suport Aggressive Link Power (SALP) Management. Configuration options: [Disabled] [Enabled]

# SATA Port 1~6

#### Port 1/ Port 2/ Port 3/ Port 4/ Port 5/ Port 6 [Enabled]

Allows you to enable or disable the SATA port Configuration options: [Disabled] [Enabled]

# **USB Configuration**

# xHCI Mode [Auto]

Allows you to enable or disable the mode of operation of xHCl controller. Configuration options: [Auto] [Disabled] [Enabled]

# USB Ports Per-Port Disable Control [Disabled]

HCI Mode	[Auto]	Mode of operation of xHCI controller.
SB Ports Per-Port Disable Control	[Disabled]	controller.
		++: Select Screen
		14: Select Item
		Enter: Select
		+/-: Change Opt.
		F1: General Help F2: Previous Values
		E5: Ontimized Defaults

Allows you to control each of the USB ports 1 to 8 disabling.

Configuration options: [Disabled] [Enabled]



The following items appears only when the USB Ports Per-Port Disable Control is set to [Enabled].

# USB Port #1/ #2/ #3/ #4/ #5/ #6/ #7/ #8 [Enabled]

Configuration options: [Disabled] [Enabled]

# USB 3.0 Port #1/ #2/ #3/ #4 [Enabled]

Configuration options: [Disabled] [Enabled]

# **Platform Thermal Configuration**

#### PCH Thermal Device [Auto]

Allows you to enable or disable the PCH Thermal Device (D31:F6). Configuration options: [Auto] [Disabled] [Enabled]

# Alert Enable Lock [Disabled]

Allows you to lock all Alert Enable settings. Configuration options: [Disabled] [Enabled]

Aptio Setup Utility – Copyright (C) 2013 American Megatrends, Inc. IntelRCSetup			
PCH Thermal Device	[Auto]	Enable/Disable PCH Thermal	
Alert Enable Lock	[Disabled]	Device(D31:F6)	

# 4.5.8 Miscellaneous Configuration

Aptio Setup Utility – Copyright (C) 2013 American Megatrends, Inc. IntelRCSetup		
Miscellaneous Configuration Active Video	[Offboard Device]	Select active Video type

# Active Video [Offboard Device]

Allows you to select the video type.

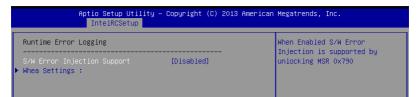
Configuration options: [Onboard Device] [Offboard Device]

# 4.5.9 Server ME Configuration

Displays the Server ME Technology parameters on your system.

	Loto miler real	Megatrends,	100.
3.0.5.402			
3.0.5.402			
SiEn			
0×000F0382			
0×10408008			
Recovery			
No Error			
	3.0.5.402 SiEn 0x000F0382 0x10408008 Recovery	3.0.5.402 SiEn 0x000F0382 0x10408008 Recovery	3.0.5.402 SIEn 0×000F0382 0×10408008 Recovery

# 4.5.10 Runtime Error Logging Support



# **Runtime Error Logging**

# Whea Support [Disabled]

This item allows you to enable or disable the WHEA support.

Configuration options: [Disabled] [Enabled]

# 4.6 Server Mgmt menu

The Server Management menu displays the server management status and allows you to change the settings.

	<mark>ity – Copyright (C) 2013 Am</mark> Server Mgmt <mark>, Event Logs</mark> , M	m <mark>erican Megatrends, Inc.</mark> Nonitor Security Boot Tool Exit
BMC Self Test Status BMC Device ID BMC Device Revision BMC Firmware Revision IPMI Version Current Time Zone OS Matchdog Timer OS Mtd Timer Timeout OS Mtd Timer Policy Serial Mux Sestem Event Log	PASSED 32 1 1.03 2.0 [Disabled] [10 minutes] [Reset] [Disabled]	If enabled, starts a BIOS timer which can only be shut off by Intel Management Software after the OS loads. Helps determine that the OS successfully loaded or follows the OS Boot Watchdog Timer policy.
<ul> <li>▶ BMC network configuration</li> <li>▶ View System Event Log</li> <li>▶ IPv6 BMC Network Configuration</li> </ul>		++: Select Screen 1: Select Item Enter: Select +/-: Change Opt. F1: General Help F2: Previous Values F5: Optimized Defaults F10: Save Changes & Reset ESC: Exit

# OS Watchdog Timer [Disabled]

This item allows you to start a BIOS timer which can only be shut off by Intel Management Software after the OS loads.

Configuration options: [Disabled] [Enabled]



The following items is configurable only when the OS Watchdog Timer is set to [Enabled].

# OS Wtd Timer Timeout [10 minutes]

Allows you to configure the length fo the OS Boot Watchdog Timer. Configuration options: [5 minutes] [10 minutes] [15 minutes] [20 minutes]

# **OS Wtd Timer Policy [Reset]**

This item allows you to configure the how the system should respond if the OS Boot Watch Timer expires.

Configuration options: [Do Nothing] [Reset] [Power Down]

# Serial Mux [Disabled]

This item allows you to enable or disable Serial Mux configuration.

Configuration options: [Disabled] [Enabled]

# System Event Log

Allows you to change the SEL event log configuration.

		Copyright (C) 2013 American r Mgmt	Megatrends, Inc.
ſ	Enabling/Disabling Options SEL Components	[Enabled]	Change this to enable or disable all features of System Event Logging during boot.
	Erasing Settings Erase SEL When SEL is Full	[No] [Do Nothing]	
	Custom EFI Logging Options Log EFI Status Codes	[Error code]	
	NOTE: All values changed here do not until computer is restarted.	take effect	

#### SEL Components [Enabled]

Allows you to enable or disable all features of system Event Logging during boot. Configuration options: [Disabled] [Enabled]



- The following items appears only when you set SEL Components to [Enabled].
- All values changed here do not take effect until computer is restarted.

#### Erase SEL [No]

Allows you to choose options for erasing SEL. Configuration options: [No] [Yes, On next reset] [Yes, On every reset]

#### When SEL is Full [Do Nothing]

Allows you to choose options for reactions to a full SEL. Configuration options: [Do Nothing] [Erase Immediately]

#### Log EFI Status Codes [Error code]

Disable the logging of EFI Status Codes, or log only error code, or only progress code or, both.

Configuration options: [Disabled] [Both] [Error code] [Progress code]

## **Bmc network configuration**

The sub-items in this configuration allow you to configure the BMC network parameters.

Aptio Setup Utility – Copyright (C) 2013 American Megatrends, Inc. Server Mgmt			
BMC network configuration		Select to configure LAN channel parameters statically	
DM_LAN1		or dynamically(by BIOS or BMC). Unspecified option will	
DM_LAN1 IP Address in BMC :	192.168.254.020	not modify any BMC network	
DM_LAN1 Subnet Mask in BMC :	255.255.255.000	parameters during BIOS phase	
DM_LAN1 Gateway Address in BMC :	000.000.000.000		
DM_LAN1 MAC Address in BMC :	00.E1.E2.3A.3B.3C		
DM_LAN1 Address Source in BMC :			
Configuration Address source	[Previous State]		
LAN1			
LAN1 IP Address in BMC :	000.000.000.000	++: Select Screen	
LAN1 Subnet Mask in BMC :	000.000.000.000	↑↓: Select Item	
LAN1 Gateway Address in BMC :	000.000.000.000	Enter: Select	
LAN1 MAC Address in BMC :	00.E1.E2.4A.4B.4C	+/−: Change Opt.	
LAN1 Address Source in BMC :	DHCP Mode	F1: General Help	
Configuration Address source	[Previous State]	F2: Previous Values	
		F5: Optimized Defaults	

#### Configuration Address source DM\_LAN1/LAN1 [Previous State]

This item allows you to configure LAN channel parameters statistically or dynamically (by BIOS or BMC). Unspecified option will not modify any BMC network parameters during BIOS phase.

Configuration options: [Previous State] [Static] [DynamicBmcDhcp] [DynamicBmcNonDhcp]

#### View System Event Log

This item allows you to view the system event log records.

#### **IPv6 BMC Network Configuration**

This item allows you to configure the parameter settings of IPv6 BMC network.

#### IPv6 Display Full Field [Enable]

Displays the full or brief IPv6 Field. Configuration options: [Disable] [Enable]

#### IPv6 Display Full Formula [Enable]

Displays the full or brief IPv6 Formula. Configuration options: [Disable] [Enable]

#### IPv6 Display Letter Case [Upper Case]

Displays the uppercase or lowercase letters of the alphabet. Configuration options: [Lower Case] [Upper Case]

#### IPv6 BMC Lan Option [Enable]

This item allows you to enable or disable the IPv6 BMC LAN channel function. Disabling this item will not modify any BMC network during BIOS phase. Configuration options: [Disable] [Enable]

#### IPv6 BMC LAN IP Address source [Previous State]

Select to configure LAN channel parameters statically or dynamically(by BIOS or BMC).

Configuration options: [Previous State] [Static] [Dynamic-Obtained by BMC running DHCP]

IPv6 BMC Network Configuration		Display the Full or Brief IPv6 Field
	[Enable]	
IPv6 Display Full Formula	[Enable]	
IPv6 Display Letter Case	[Upper Case]	
IPv6 BMC DM_LAN1:		
IPv6 BMC Lan Option	[Enable]	
IPv6 BMC Lan IP Address Source	[Previous State]	
DM_LAN1 IP Address in BMC :		
-> 0:0:0:0:0:0:0:0		
DM_LAN1 Prefix Length in BMC :	0	
DM_LAN1 Gateway Address in BMC :		
-> 0:0:0:0:0:0:0:0		++: Select Screen
DM_LAN1 MAC Address in BMC :		↑↓: Select Item
DM_LAN1 Address Source in BMC :	DHCP Mode	Enter: Select
		+/-: Change Opt.
IPv6 BMC LAN1:		F1: General Help
	[Enable]	F2: Previous Values
IPv6 BMC Lan IP Address Source	[Previous State]	F5: Optimized Defaults
LAN1 IP Address in BMC :		F10: Save Changes & Reset
-> 0:0:0:0:0:0:0:0:0	0	ESC: Exit
LAN1 Prefix Length in BMC : LAN1 Gateway Address in BMC :	U	
LHNI Gateway Houress in BMC : -> 0:0:0:0:0:0:0:0:0		



The following items appear only when you set IP BMC Lan IP Address Source to [Static].

#### IPv6 BMC LAN IP Address

Allows you to input IPv6 BMC Lan IP address.

#### IPv6 BMC LAN IP Prefix Length

Allows you to input IPv6 BMC Lan IP Prefix Length.

#### IPv6 BMC LAN Default Gateway

Allows you to input IPv6 BMC Lan Default Gateway.

#### IPv6 BMC LAN DNS Settings

Allows you to enter IPv6 BMC LAN DNS Settings.

#### IPv6 BMC LAN Link IP Address

Allows you to enter IPv6 BMC LAN Link IP address.

#### IPv6 BMC LAN Link IP Prefix Length

Allows you to input IPv6 BMC Lan Link IP Prefix Length.

#### IPv6 BMC Lan Option [Enable]

This item allows you to enavle IPv6 BMC LAN channel function. Disabling this option will not modify any BMC network during BIOS phase.



The following item appears only when you set IP BMC Lan Option to [Enable].

#### IPv6 BMC LAN IP Address Source [Previous State]

Select to configure LAN channel parameters statically or dynamically(by BIOS or BMC).

Configuration options: [Previous State] [Static] [Dynamic-Obtained by BMC running DHCP]



The following items appear only when you set IP BMC Lan IP Address Source to [Static].

#### IPv6 BMC LAN IP Address

Allows you to input IPv6 BMC Lan IP address.

IPv6 BMC LAN IP Prefix Length Allows you to input IPv6 BMC Lan IP Prefix Length.

#### IPv6 BMC LAN Default Gateway

Allows you to input IPv6 BMC Lan Default Gateway.

IPv6 BMC LAN DNS Settings Allows you to enter IPv6 BMC LAN DNS Settings.

IPv6 BMC LAN Link IP Address Allows you to enter IPv6 BMC LAN Link IP address.

IPv6 BMC LAN Link IP Prefix Length Allows you to input IPv6 BMC Lan Link IP Prefix Length.

# 4.7 Event Logs menu

The Event Logs menu items allow you to change the event log settings and view the system event logs.

Aptio Setup Utility – Copyright (C) 2013 American Main Advanced IntelRCSetup Server Mgmt <mark>Event Logs</mark> Monitor	
	Press <enter> to change the Smbios Event Log configuration.</enter>

# 4.7.1 Change Smbios Event Log Settings

Press <Enter> to change the Smbios Event Log configuration.

Aptio Setup Utility – Copyright (C) 2013 American Megatrends, Inc. Event Logs		
Enabling/Disabling Options		Change this to enable or
Smbios Event Log	[Enabled]	disable all features of Smbios Event Logging during boot.
Erasing Settings		
Erase Event Log	[No]	
When Log is Full	[Do Nothing]	
Smbios Event Log Standard Settings		
Log System Boot Event	[Disabled]	
MECI	1	
МЕТИ	60	
Custom Options		
Log DEM Codes	[Enabled]	++: Select Screen
Convert OEM Codes	[Disabled]	↑↓: Select Item
		Enter: Select
NOTE: All values changed here do not	take effect	+/-: Change Opt.
until computer is restarted.		F1: General Help

All values changed here do not take effect until computer is restarted.

# **Enabling/Disabling Options**

#### Smbios Event Log [Enabled]

Change this to enable or disable all features of Smbios Event Logging during boot. Configuration options: [Disabled] [Enabled]

#### **Erasing Settings**

#### Erase Event Log [No]

Choose options for erasing Smbios Event Log. Erasing is done prior to any logging activation during reset. Configuration options: [No] [Yes, Next reset] [Yes, Every reset]

# When Log is Full [Do Nothing]

Allows you to choose options for reactions to a full Smbios Event Log. Configuration options: [Do Nothing] [Erase Immediately]

# **Smbios Event Log Standard Settings**

# Log System Boot Event [Disabled]

Allows you to choose options to enable/disable logging of System boot event. Configuration options: [Enabled] [Disabled]

# **MECI** [1]

Mutiple Event Count Increment (MECI). The number of occurrences of a duplicate event that must pass before the multiplt-event counter associated with the log entry is updated, specified as a numeric value in the range 1 to 255.

## **METW** [60]

Mutiple Event Time Windows (METW). The number of minutes which must pass between duplicate log entries which utilize a multiple-event counter. The value ranges from 0 to 99 minutes.

# **Custom Option**

## Log OEM Codes [Enabled]

Enable or disable the logging of EFI Status Codes as OEM Codes (if not already converted to legacy). Configuration options: [Disabled] [Enabled]

# Convert OEM Codes [Disabled]

Enable or disable the converting of EFI Status Codes to Standard Smbios Types (Not all may be translated).

Configuration options: [Disabled] [Enabled]

# 4.7.2 View Smbios Event Log

Press <Enter> to view all smbios event logs.

# 4.8 Monitor menu

The Monitor menu displays the system temperature/power status, and allows you to change the fan settings.

	<mark>Utility – Copyright (C) 2013 Ameri</mark> etup Server Mgmt Event Logs <mark>Moni</mark>	
	[ 63.5°C/146.3°F]	CPU1 Temperature
CPU2 Temperature	[ N/A ]	
CPU FAN1 Speed	[ 2700 RPM ]	
CPU FAN2 Speed	[ N/A ]	
FRNT FAN1 Speed	[ N/A ]	
FRNT FAN2 Speed	[ N/A ]	
FRNT FAN3 Speed	[ N/A ]	
FRNT FAN4 Speed	[ N/A ]	
FRNT FAN5 Speed	[ N/A ]	
REAR FAN1 Speed	[ N/A ]	
REAR FAN2 Speed	[ N/A ]	
+VCCI0	[ +1.076 V ]	
+VCORE1	[ +1.792 V ]	
+VCORE2	[ N/A ]	++: Select Screen



Scroll down to view the other items

# CPU1/2 Temperature [xxx°C/xxx°F]

The onboard hardware monitor automatically detects and displays the CPU temperatures.

# CPU FAN1/2 Speed; FRNT FAN1–5 Speed; REAR FAN1/2 Speed [xxxx RPM] or [N/A]

The onboard hardware monitor automatically detects and displays the speed of CPU fans, front fans, and rear fan in rotations per minute (RPM). If the fan is not connected to the motherboard, the field shows N/A.

## +VCCIO, VCORE1/2 Voltage, +VDDQ\_AB\_CPU1 Voltage, +VDDQ\_CD\_CPU1 Voltage, +VDDQ\_EF\_CPU2 Voltage, +VDDQ\_GH\_CPU2 Voltage, +5VSB Voltage, +5V Voltage, +12V Voltage, +3.3V Voltage, VBAT Voltage, +3.3VSB Voltage

The onboard hardware monitor automatically detects the voltage output through the onboard voltage regulators.

#### CPU FAN1&2 FRNT FAN1 mode [Generic Mode]

Allows you to configure the Smart Fan feature that smartly adjusts the fan speeds for more efficient system operation.

Configuration options: [Generic Mode] [High Speed Mode] [Full Speed Mode] [Manual Mode]

#### Duty % [50]

This item appears only when CPU FAN1&2 FRNT FAN1 mode is set to [Manual Mode]. This item allows you to configure the fan duty setting from 10% to 100%.

#### FRNT FAN2&3/4&5; REAR FAN1&2 mode [Generic Mode]

Allows you to configure the Smart Fan feature that smartly adjusts the fan speeds for more efficient system operation.

Configuration options: [Generic Mode] [High Speed Mode] [Full Speed Mode] [Manual Mode]

# 4.9 Security menu

This menu allows a new password to be created or a current password to be cchanged. The menu also enables or disables the Secure Boot state and lets the user configure the System Mode state.

	Utility – Copyright (C) 201 tup Server Mgmt Event Log	3 American Megatrends, Inc. s Monitor <mark>Security</mark> Boot Tool Exit
Password Description		To clear the administrator password,
If ONLY the Administrator'	s password is set,	key in the current password in
then this only limits acce	ss to Setup and is	the
only asked for when enteri		Enter Current Password box,
If ONLY the User's passwor		and then press <enter> when</enter>
is a power on password and		prompted to create/confirm the
boot or enter Setup. In Se	tup the User will	password.
have Administrator rights		
The password length must b	е	
in the following range: Minimum length	3	
Maximum length	20	
Haximan iengen	20	++: Select Screen
		14: Select Item
Administrator Password		Enter: Select
User Password		+/-: Change Opt.
Clear User Password		F1: General Help
		F2: Previous Values
		F5: Optimized Defaults
		F10: Save Changes & Reset
Secure Boot menu		ESC: Exit

#### **Administrator Password**

To set an administrator password:

- 1. Select the Administrator Password item and press <Enter>.
- 2. From the Create New Password box, key in a password, then press <Enter>.
- 3. Confirm the password when prompted.

To change an administrator password:

- 1. Select the Administrator Password item and press < Enter>.
- 2. From the Enter Current Password box, key in the current password, then press <Enter>.
- 3. From the Create New Password box, key in a new password, then press <Enter>.
- 4. Confirm the password when prompted.



To clear the administrator password, follow the same steps as in changing an administrator password, but press <Enter> when prompted to create/confirm the password.

## **User Password**

To set a user password:

- 1. Select the User Password item and press < Enter>.
- 2. From the Create New Password box, key in a password, then press <Enter>.
- 3. Confirm the password when prompted.

To change a user password:

- 1. Select the User Password item and press <Enter>.
- 2. From the Enter Current Password box, key in the current password, then press <Enter>.
- 3. From the Create New Password box, key in a new password, then press <Enter>.
- 4. Confirm the password when prompted.

To clear a user password:

- 1. Select the Clear User Password item and press < Enter>.
- 2. Select Yes from the Warning message window then press < Enter>.

#### Secure Boot Menu

This item allows you to customize the Secure Boot settings.

Aptio Setup Utility – Copyright (C) 2013 American Megatrends, Inc. Security			
System Mode Secure Boot	Disabled Not Active	Enables experienced users to modify Secure Boot variables	
Secure Boot Secure Boot Mode ▶ Key Management	[Disabled] [Custom]		

#### Secure Boot [Disabled]

Secure Boot can be enabled if the system is running in User mode with enrolled platform Key (EPK) or if the CSM function is disabled. Configuration options: [Disabled] [Enabled]

#### Secure Boot Mode [Custom]

Allows you to set the Secure Boot selector. Configuration options: [Custom] [Standard]

#### **Key Management**

This item only appears when the item Secure Boot Mode is set to [Custom]. The Key Management item allows you to modify Secure Boot variables and set Key Management page.

	[Disabled]	Install Factory default Secure
<ul> <li>Enroll All Factory Default Keys</li> <li>Save All Secure Boot Variables</li> </ul>		Boot Keys when System is in Setup Mode.
Platform Key ▶ Delete PK ▶ Set new PK	NOT INSTALLED	
Key Exchange Key ▶ Delete KEK ▶ Set new KEK ▶ Append KEK	NOT INSTALLED	
Authorized Signatures • Delete DB • Set new DB • Append DB	NOT INSTALLED	++: Select Screen †4: Select Item Enter: Select +/-: Change Opt.
Authorized TimeStamps • Delete DBT • Set new DBT • Append DBT	NOT INSTALLED	F1: General Help F2: Previous Values F5: Optimized Defaults F10: Save Changes & Reset
Forbidden Signatures • Delete DBX • Set new DBX • Append DBX	NOT INSTALLED	ESC: Exit

#### Default Key Provision [Disabled]

Configuration options: [Disabled] [Enabled]

#### **Enroll All Factory Default Keys**

This item will ask you if you want to Install Factory Default secure keys. Select Yes if you want to load the default secure keys, otherwise select No.

#### Save All Secure Boot Variables

This item will ask you if you want to save all secure boot variables. Select Yes if you want to save all secure boot variables, otherwise select No.

#### Platform Key (PK)/ Key Exchange Key (KEK)/ Authorized Signatures (DB)/ Authorized TimeStamps (DBT)/ Forbidden Signatures (DBX)

Configuration options: [Delete] [Set New] [Append]

# 4.10 Boot menu

The Boot menu items allow you to change the system boot options.

Aptio Setup Utility – Main Advanced IntelRCSetup Serve	Copyright (C) 2013 American er Mgmt Event Logs Monitor	
Boot Configuration Setup Prompt Timeout Bootup NumLock State	1 [0n]	Number of seconds to wait for setup activation key. 65535(OxFFFF) means indefinite waiting.
Boot Logo Display POST Report	[Auto] [5 sec]	
Chassis Intrusion Message Boot Option Priorities	[Warning]	
Boot Option #2 Boot Option #3	[UEFI: Generic 8.07] [Generic 8.07] [IBA XE Slot 0300 v2311]	
Network Device BBS Priorities Hard Drive BBS Priorities		<pre>++: Select Screen 14: Select Item Enter: Select +/-: Change Opt. F1: General Help F2: Previous Values F5: Optimized Defaults F10: Save Changes &amp; Reset ESC: Exit</pre>
Version 2.16.1243. Copyright (C) 2013 American Megatrends, Inc.		

#### Setup Prompt Timeout [xx]

Use the <+> and <-> keys to adjust the number of seconds to wait for setup activation key.

# Bootup NumLock State [On]

Allows you to select the power-on state for the NumLock. Configuration options: [Off] [On]

# Boot Logo Display [Auto]

Allows you to enable or disable the full screen logo display feature. Configuration options: [Auto] [Full Screen] [Disabled]

#### POST Report [5 sec]

Allows you to set the desired POST Report waiting time from 1 to 10 seconds. Configuration options:  $[1 \text{ sec}] \sim [10 \text{ sec}]$  [Until Press ESC]

#### **Chassis Intrusion [Warning]**

Allows you to set an action when chassis intrusion has occured. Configuration options: [Warning] [Halt]

#### **Boot Option Priorities**

These items specify the boot device priority sequence from the available devices. The number of device items that appears on the screen depends on the number of devices installed in the system.



- To select the boot device during system startup, press <F8> when Boot Logo appears.
- To access Windows OS in Safe Mode, please press <F8> after POST.

#### Set the booting order of network devices.

#### Boot Option #1/#2 [SATA P2: ...]

Configuration options: [SATA P2: ....] [SATA P3: WDC WD80...] [AMI Virtual Floppy...] [IBA GE Slot 0700 v...]

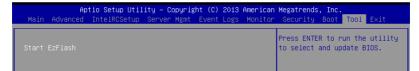
#### CD/DVD ROM Drive BBS Priorities

#### Hard Drive BBS Priorities / Network Device BBS Priorities

These items appear only when you connect SATA ODD or hard drive to the SATA ports and allow you to set the booting order of the SATA devices.

# 4.11 Tool menu

The Tool menu items allow you to configure options for special functions. Select an item then press <Enter> to display the submenu.



# EZ Flash

Allows you to run EZ Flash BIOS ROM Utility when you press <Enter>. Refer to the EZ Flash Utility section for details.

# 4.12 Exit menu

The Exit menu items allow you to save or discard your changes to the BIOS items.

Aptio Setup Utility – Copyright (C) 2013 American Main Advanced IntelRCSetup Server Mgmt Event Logs Monitor	
Save Changes & Exit Discard Changes & Exit Save Changes & Reset Discard Changes & Reset	Exit system setup after saving the changes.
Save Options Save Changes Discard Changes	
Restore Defaults Save as User Defaults Restore User Defaults	
Boot Overnide IBA XE Slot 0300 v2311 IBA XE Slot 0301 v2311	++: Select Screen †4: Select Item Enter: Select
IBA GE Slot 0400 v1543 IBA GE Slot 0401 v1543 UEFI: Generic 8.07 Generic 8.07	+/-: Change Opt. F1: General Help F2: Previous Values F5: Optimized Defaults

 $\label{eq:Pressing} Pressing < Esc> does not immediately exit this menu. Select one of the options from this menu or <F10> from the legend bar to exit.$ 

# Save Changes & Reset

Exit System setup after saving the changes.

# **Discard Changes & Exit**

Exit System setup without saving any changes.

#### Save Changes & Reset

Reset the system setup after saving the changes.

#### **Discard Changes & Reset**

Reset system setup without saving any changes.

#### **Save Options**

#### **Save Changes**

Save changes done so far to any of the setup options.

#### **Discard Changes**

Discard changes done so far to any of the setup options.

# **Restore Defaults**

Restore/load default values for all the setup options.

#### Save as User Defaults

Save the changes done so far as User Defaults.

#### **Restore User Defaults**

Restore the User Defaults to all the setup options.

## **Boot Override**

These items displays the available devices. The device items that appears on the screen depends on the number of devices installed in the system. Click an item to start booting from the selected device.

#### Launch EFI Shell from filesystem device

Attempts to launch EFI Shell application (shellx64.efi) from one of the available filesystem devices.