BIOS Setup

(for Cavium Platform)

User's Guide

Rev.1.0

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Chapter 1 BIOS Setup

BIOS (Basic Input and Output System) records hardware parameters of the system in the EFI on the motherboard. Its major functions include conducting the Power-On Self-Test (POST) during system startup, saving system parameters and loading operating system, etc. BIOS includes a BIOS Setup program that allows the user to modify basic system configuration settings or to activate certain system features. When the power is turned off, the battery on the motherboard supplies the necessary power to the CMOS to keep the configuration values in the CMOS.

To access the BIOS Setup program, press the key during the POST when the power is turned on.





- BIOS flashing is potentially risky, if you do not encounter problems of using the current BIOS version, it is recommended that you don't flash the BIOS. To flash the BIOS, do it with caution. Inadequate BIOS flashing may result in system malfunction.
- It is recommended that you not alter the default settings (unless you need to) to prevent system
 instability or other unexpected results. Inadequately altering the settings may result in system's
 failure to boot. If this occurs, try to clear the CMOS values and reset the board to default values.
 (Refer to the Exit section in this chapter or introductions of the battery/clearing CMOS jumper in
 Chapter 1 for how to clear the CMOS values.)

<←><→>	Move the selection bar to select the screen
<↑><↓>	Move the selection bar to select an item
<+>	Increase the numeric value or make changes
<->	Decrease the numeric value or make changes
<enter></enter>	Execute command or enter the submenu
<esc></esc>	Main Menu: Exit the BIOS Setup program
	Submenus: Exit current submenu
<f1></f1>	Show descriptions of general help
<f3></f3>	Restore the previous BIOS settings for the current submenus
<f9></f9>	Load the Optimized BIOS default settings for the current submenus
<f10></f10>	Save all the changes and exit the BIOS Setup program

BIOS Setup Program Function Keys

Main

This setup page includes all the items in standard compatible BIOS.

Advanced

This setup page includes all the items of AMI BIOS special enhanced features.

(ex: Auto detect fan and temperature status, automatically configure hard disk parameters.)

Security

Change, set, or disable supervisor and user password. Configuration supervisor password allows you to restrict access to the system and BIOS Setup.

A supervisor password allows you to make changes in BIOS Setup.

A user password only allows you to view the BIOS settings but not to make changes.

Boot

This setup page provides items for configuration of boot sequence.

Save & Exit

Save all the changes made in the BIOS Setup program to the CMOS and exit BIOS Setup. (Pressing <F10> can also carry out this task.)

Abandon all changes and the previous settings remain in effect. Pressing <Y> to the confirmation message will exit BIOS Setup. (Pressing <Esc> can also carry out this task.)

Server Management

Server additional features enabled/disabled setup menus.

1-1 The Main Menu

Once you enter the BIOS Setup program, the Main Menu (as shown below) appears on the screen. Use arrow keys to move among the items and press <Enter> to accept or enter other sub-menu.

Main Menu Help

The on-screen description of a highlighted setup option is displayed on the bottom line of the Main Menu.

Submenu Help

While in a submenu, press <F1> to display a help screen (General Help) of function keys available for the menu. Press <Esc> to exit the help screen. Help for each item is in the Item Help block on the right side of the submenu.



• When the system is not stable as usual, select the **Restore Defaults** item to set your system to its defaults.

The BIOS Setup menus described in this chapter are for reference only and may differ by BIOS version.

Aptio Setup Utility Main Advanced Secur	y – Copyright (C) 2016 ity Boot Save & Exit	American Megatrends, Inc. Server Mgmt
BIOS Information		▲ Memory Slot Information.
Access Level	Administrator	
Project Name	MT60-SC0	
Project Version	T26	
Build Date and Time	12/30/2016 17:19:28	
DUD To (accest/acc		
BMC Information		
BMC Firmware Version	07.69	88
SDR Version	00.04	
FRU Version	01.00	
		→+: Select Screen
CPLD Information		î∔: Select Item
MB CPLD Version	R08	Enter: Select
		+/-: Change Opt.
Processor Information	F1: General Help	
CPU 0 : CN8890-1900BG26	F3: Previous Values	
CPU 1 : CN8890-1900BG26	501-AAP-Y-G	F9: Optimized Defaults
Max CPU Speed	1900 MHz	▼ F10: Save & Exit
		ESC: Exit

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	Aptio Setup Utility Main Advanced Securit	– Copyright (C) 2016 Americ y Boot Save & Exit Serve	can Megatrends, Inc. er Mgmt
*	Memory Information Total Memory Memory Frequency Memory Slot Information Onboard LAN MAC Address SFP+ 1 SFP+ 2 SFP+ 3	32 GB 2100MHz Information 40.8D.5C.8A.A9.E4 40.8D.5C.8A.A9.E5 40.8D.5C.8A.A9.E5	Set the Date. Use Tab to switch between Date elements. Default Ranges: Year: 2005–2099 Months: 1–12 Days: dependent on month
	SFP+ 4 QSFP+ 1 QSFP+ 2 QSFP+ 3 System Language System Date	40.8D.5C.8A.A9.E7 40.8D.5C.8A.A9.E8 40.8D.5C.8A.A9.E9 40.8D.5C.8A.A9.EA [English] [Tue 01/03/2017]	<pre>++: Select Screen \$ +: Select Item Enter: Select +/-: Change Opt. F1: General Help F3: Previous Values F9: Optimized Defaults F10: Save & Exit ESC: Exit</pre>

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- ☞ BIOS Information
- ∽ Access Level

Display the privileges level information.

∽ Porject Name^(Note)

Display the project name information.

∽ Porject Version

Display version number of the BIOS setup utility.

☞ BIOS Build Date and Time

Displays the date and time when the BIOS setup utility was created.

- ☞ BMC Information
- ☞ BMC Firmware Version

Display BMC firmware version information.

\bigcirc SDR Version

Display the SDR version information.

☞ FRU Version

Display the FRU version information.

∽ CPLD Information

∽ MB CPLD Version

Display the CPLD version information.

(Note) This parameter will be variable depends on select models.

Processor Configuration

∽ CPU 0/1/MAX CPU Speed/ICPU Data Cache/CPU Instruction Cache

Displays the technical specifications for the installed processor.

- ∽ Memory Information
- Total Memory/Memory Frequency
 Displays the technical specifications for the installed memory.
 Onboard LAN MAC Address Information (Note)

Display onboard LAN device MAC address.

∽ System Language

Select preference language. Option available: English.

∽ System Date

Set the date following the weekday-month-day- year format.

∽ System Time

Set the system time following the hour-minute- second format.

(Note) This parameter will be variable depends on select models.

1-1-1 Memory Slot Information

	Aptio Setup Utility Main	– Copyright (C) 2016 Ameria	can Megatrends, Inc.
	Memory Slot Information	Â	
1	DIMM_PO_AO UDIMM 8GB	Innodisk 2100MHz	
	DIMM_PO_A1 OGB	Not Present	
	DIMM_PO_BO UDIMM 8GB	Innodisk 2100MHz	
	DIMM_PO_B1 OGB	Not Present	
	DIMM_PO_CO OGB	Not Present	
	DIMM_PO_C1 OGB	Not Present	↔+: Select Screen ↑↓: Select Item
	DIMM_PO_DO OGB	Not Present	Enter: Select +/-: Change Opt.
	DIMM_PO_D1 OGB	Not Present	F1: General Help F3: Previous Values
	DIMM_P1_EO UDIMM 8GB	Innodisk 2100MHz	F9: Optimized Defaults F10: Save & Exit ESC: Exit

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∽ Memory Slot Information

Display the installed memory technical specification.

1-2 Advanced Menu

The Advanced menu display submenu options for configuring the function of various hardware components. Select a submenu item, then press Enter to access the related submenu screen.

Aptio Setup Utility – Copyright (C) 2016 American Megatrends, Inc. Main <mark>Advanced</mark> Security Boot Save & Exit Server Mgmt				
 S5 RTC Wake Settings Serial Port Console Redirection Network Stack Configuration SATA Configuration Info Report Configuration NVME Configuration USB Configuration Chipset Configuration 	Enable system to wake from S5 using RTC alarm ++: Select Screen fl: Select Item Enter: Select +/-: Change Opt. F1: General Help F3: Previous Values F9: Optimized Defaults Edd: Core 0.5 Unit			
Version 2 18 1264 Conunight (P) 2016 Americ	ESC: Exit			

1-2-1 S5 RTC Wake Settings

Aptio Setup Uti: Advanced	lity – Copyright (C) 2016 A	merican Megatrends, Inc.
Wake system from S5 If the time setting the RTC wakeup funct For example, Current Time: 20 Wakeup time: 201 will not enable	[Enabled] is earlier than now, ion will not be enabled. 016/03/09, 09:00:00 16/03/09, 08:50:00 RTC wakeup.	Enable or disable System RTC wake on.
Wake up year Wake up month Wake up Date Wake up hour Wake up minute Wake up second	2016 1 1 9 0 0	<pre>++: Select Screen 14: Select Item Enter: Select +/-: Change Opt. F1: General Help F3: Previous Values F9: Optimized Defaults F10: Save & Exit ESC: Exit</pre>

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☞ Wake system from S5

Enable or disable System wake on alarm event. When enabled, System will wake on the hr:min:sec specified. Default setting is **Disabled**.

∽ Wake up year^(Note)

Press <+> and <-> to define the wake up year.

☞ Wake up month^(Note)

Press <+> and <-> to define the wake up month.

∽ Wake up Date^(Note)

Press <+> and <-> to define the wake up date.

∽ Wake up hour^(Note)

Press <+> and <-> to define the wake up hour.

☞ Wake up minute^(Note)

Press <+> and <-> to define the wake up minute.

∽ Wake up second^(Note)

Press <+> and <-> to define the wake up second.

1-2-2 Serial Port Console Redirection

Advanced	– Copyright (C) 2016 Amer.	ican Megatrends, Inc.
COM1 / SOL Console Redirection ► Console Redirection Set Serial Port for Out-of- Emergency Management Se ► Console Redirection Set POST Debug Message	Enabled tings Band Management/ rvices (EMS) tings [Enabled]	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. ++: Select Screen 11: Select Item Enter: Select +/-: Change Opt. F1: General Help F3: Previous Values F9: Optimized Defaults F10: Save & Exit ESC: Exit
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22103 WILLASSON 42		
Aptio Setup Utility Advanced	– Copyright (C) 2016 Amer	ican Megatrends, Inc.
Out-of-Band Mgmt Port Terminal Type Flow Control Data Bits	COM1 / SOL [VT-UTF8] [None]	VT-UTF8 is the preferred terminal type
Parity Stop Bits	8 None 1	for out-of-band management. The next best choice is VT100+ and then VT100. See above, in Console Redirection Settings →+: Select Screen 1↓: Select Item Enter: Select +/-: Change Opt. F1: General Help F3: Previous Values F9: Optimized Defaults

Dut-of-Band Mgmt Port Terminal TypeCOM1 / SDL [VT-UTF8]VT-UTF8 is the preferred terminal type for out-of-band management. The next best choice is VT100+ and then VT100. See above, in Console Redirection Settings++: Select Screen 11: Select Item Enter: Select +/-: Change Opt. F1: General Help F3: Previous Values F9: Optimized Defaults F10: Save & Exit ESC: Exit	Aptio Setup Utility – Copyright (C) 2016 American Megatrends, Inc. Advanced				
	Out-of-Band Mgmt Port Terminal Type Flow Control Data Bits Parity Stop Bits	COM1 / SOL [VT-UTF8] [None] 8 None 1	<pre>VT-UTF8 is the preferred terminal type for out-of-band management. The next best choice is VT100+ and then VT100. See above, in Console Redirection Settings **: Select Screen fl: Select Item Enter: Select +/-: Change Opt. F1: General Help F3: Previous Values F9: Optimized Defaults F10: Save & Exit ESC: Exit</pre>		

COM1/SOL/Serial Port for Out-of Band Management/Windows Emergency Management Service (EMS)

∽ Console Redirection ^(Note)

Select whether to enable console redirection for specified device. Console redirection enables users to manage the system from a remote location.

Options available: Enabled/Disabled. Default setting is **Disabled**.

∽ Console Redirection Settings

∽ Terminal Type

Select a terminal type to be used for console redirection. Options available: VT100/VT100+/ANSI /VT-UTF8.

☞ Flow Control

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. Options available: None/Hardware RTS/CTS.

☞ Bits per second

Select the baud rate for console redirection. Options available: 9600/19200/57600/115200.

⑦ Data Bits

Select the data bits for console redirection. Options available: 7/8.

(Note) Advanced items prompt when this item is defined.

Parity

A parity bit can be sent with the data bits to detect some transmission errors. Even: parity bit is 0 if the num of 1's in the data bits is even. Odd: parity bit is0if num of 1's the data bits is odd. Mark: parity bit is always 1. Space: Parity bit is always 0. Mark and Space Parity do not allow for error detection. Options available: None/Even/Odd/Mark/Space.

∽ Stop Bits

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.

1-2-3 Network Stack

Aptio Setup Utility – Copyright (C) 2016 Am Advanced	erican Megatrends, Inc.
Network Stack [Enabled] PXE Option [Enabled] Ipv4 PXE Support [Enabled] Ipv6 PXE Support [Disabled] PXE Retry [Disabled] PXE Retry Description	▲ Enable/Disable UEFI Network Stack
 When PXE Retry Disabled: PXE boot will not retry. When PXE Retry Enabled: (no matter Boot Option Priorities) 1. If system no exist bootable OS, BIOS do the endless loop for pxe boot. 2. If system have any bootable OS, BIOS will boot to OS directly, BIOS would not run PXE boot.	 **: Select Screen *1: Select Item Enter: Select */-: Change Opt. F1: General Help F3: Previous Values F9: Optimized Defaults * F10: Save & Exit ESC: Exit
Version 2.18.1264. Copyright (C) 2016 Amer	ican Megatrends, Inc.
Aptio Setup Utility – Copyright (C) 2016 Am Advanced	erican Megatrends, Inc.
PXE Option[Enabled]Ipv4 PXE Support[Enabled]Ipv6 PXE Support[Disabled]PXE Retry[Disabled]PXE Retry DescriptionWhen PXE Retry Disabled:PXE boot will not retry.	Enable PXE Retry to do the endless loop. If disabled ,PXE will not retry
 When PXE Retry Enabled: (no matter Boot Option Priorities) 1. If system no exist bootable OS, BIOS do the endless loop for pxe boot. 2. If system have any bootable OS, BIOS will boot to OS directly, BIOS would not run PXE boot. 	++: Select Screen 14: Select Item Enter: Select +/-: Change Opt. F1: General Help F3: Previous Values F9: Optimized Defaults F10: Save & Exit

∽ Network stack

Enable/Disable UEFI network stack.

Options available: Enabled/DIsabled. Default setting is **Enabled**.

∽ PXE Option

Enable/Disable PXE option. Options available: Enabled/DIsabled. Default setting is **Enabled**.

☞ Ipv4 PXE Support

Enable/Disable Ipv4 PXE feature. Options available: Enabled/DIsabled. Default setting is **Disabled**.

∽ Ipv6 PXE Support

Enable/Disable Ipv6 PXE feature. Options available: Enabled/Disabled. Default setting is **Disabled**.

∽ PXE Retry

Enable/Disable PXE Retry. Options available: Enabled/DIsabled. Default setting is **Disabled**.

1-2-4 SATA Configuration

Aptio Setup Utilit Advanced	y – Copyright (C) 2016 Amer	ican Megatrends, Inc.
SATA Configuration		
Total Sata HDD Devices	0	
Sata 0 : Not Present Sata 1 : Not Present Sata 2 : Not Present Sata 3 : Not Present Sata 4 : Not Present Sata 5 : Not Present Sata 6 : Not Present Sata 7 : Not Present Sata 8 : Not Present Sata 9 : Not Present Sata 10 : Not Present Sata 11 : Not Present		++: Select Screen 11: Select Item Enter: Select +/-: Change Opt. F1: General Help F3: Previous Values F9: Optimized Defaults F10: Save & Exit
		ESC: Exit

∽ SATA Configuration

The category shows Serial ATA of hard disk that are installed in the system. System will automatically detect HDD type.

1-2-5 Info Report Configuration

Aptio Setup Utility – Copyright (C) 2016 American Megatrends, Inc. Advanced				
Info Report Configurati	on	Post Report Support Enabled/Disabled		
Post Report				
Post Report Delay Time	[Enabled] [1]			
Error Message Report				
Info Error Message	[Enabled]	++: Select Screen 11: Select Item Enter: Select +/-: Change Opt.		
		F1: General Help F3: Previous Values F9: Optimized Defaults F10: Save & Exit ESC: Exit		

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☞ Info Report Configuration

∽ Post Report

Enable/Disable Post Report support.

Options available: Enabled/Disabled. Default setting is Enabled.

∽ Delay Time

Press <+> / <-> keys to increase or decrease the desired values.

☞ Error Message Report

∽ Info Error Message

Enable/Disable Info Error Message support. Options available: Enabled/Disabled. Default setting is **Enabled**.

1-2-6 NVME Configuration

USB Configuration USB Controllers: 4 XHCIs USB Devices: 2 Keyboards, 2 Mice, 3 Hubs	This is a workaround for OSes without XHCI hand-off support. The XHCI ownership change should be claimed by XHCI driver.
XHCI Hand-off [Enabled] USB Mass Storage [Enabled] Driver Support USB hardware delays and time-outs:	<pre>++: Select Screen 11: Select Item Enter: Select +/-: Change Opt. F1: General Help F3: Previous Values F9: Optimized Defaults F10: Save & Exit ESC: Exit</pre>

∽ NVME Configuration

This page shows NVMe device that are installed in the system. System will detect automatically. Functions are available on selected models.

1-2-7 USB Configuration

Aptio Setup Utility – Copyright (C) 2016 Advanced	6 American Megatrends, Inc.
USB Configuration USB Controllers: 4 XHCIs USB Devices: 2 Keyboards, 2 Mice, 3 Hubs	This is a workaround for OSes without XHCI hand-off support. The XHCI ownership change should be claimed by XHCI driver.
XHCI Hand-off [Enabled] USB Mass Storage [Enabled] Driver Support USB hardware delays and time-outs:	<pre>++: Select Screen fl: Select Item Enter: Select +/-: Change Opt. F1: General Help F3: Previous Values F9: Optimized Defaults F10: Save & Exit ESC: Exit</pre>

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☞ USB Configuration

∽ XHCI Hand-off

Enable/Disable XHCI (USB 3.0) Hand-off function. Options available: Enabled/Disabled. Default setting is **Enabled**.

\backsim USB Mass Storage Driver Support

Enable/Disable USB Mass Storage Drive. Options available: Enabled/Disabled. Default setting is **Enabled**.

1-2-8 Chipset Configuration

Aptio Setup Utility – Copyright (C) 2016 American Megatrends, Inc. Advanced		
Restore AC Power Loss [Last State] Last state : After normal shutdown 12 seconds. System will set Last state as off. Otherwise system will keep Last state as on.	Specify what state when power is re–applied after a power failure (G3 state).	
Current SATA port 12 SATA support number [Keep current]	<pre>++: Select Screen fl: Select Item Enter: Select +/-: Change Opt. F1: General Help F3: Previous Values F9: Optimized Defaults F10: Save & Exit ESC: Exit</pre>	

→ Restore on AC Power Loss (Note1)

Defines the power state to resume to after a system shutdown that is due to an interruption in AC power. When set to Last State, the system will return to the active power state prior to shutdown. When set to Stay Off, the system remains off after power shutdown.

Options available: Last State/Stay Off/Power On. The default setting depends on the BMC setting.

∽ SATA Support number ^(Note2)

Option available: Keep current/4 SATA/12 SATA/24 SATA/32 SATA.

(Note2) Functions are available on selected models.

⁽Note1) When the power policy is controlled by BMC, please wait for 17 seconds for BMC to save the last power state.

1-3 Security Menu

The Security menu allows you to safeguard and protect the system from unauthorized use by setting up access passwords.

Aptio Setup Utility – Copyright (C) 2016 American Megatrends, Inc. Main Advanced <mark>Security</mark> Boot Save & Exit Server Mgmt		
Password Description If ONLY the Administrate then this only limits a only asked for when ent If ONLY the User's pass is a power on password is boot or enter Setup. In have Administrator righ The password length mus in the following range: Minimum length Maximum length Administrator Password User Password	or's password is set, ccess to Setup and is ering Setup. word is set, then this and must be entered to Setup the User will ts. t be 3 20	Set Administrator Password ++: Select Screen 11: Select Item Enter: Select +/-: Change Opt. F1: General Help F3: Previous Values F9: Optimized Defaults F10: Save & Exit ESC: Exit

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There are two types of passwords that you can set:

- Administrator Password
 - Entering this password will allow the user to access and change all settings in the Setup Utility.
- User Password

Entering this password will restrict a user's access to the Setup menus. To enable or disable this field, a Administrator Password must first be set. A user can only access and modify the System Time, System Date, and Set User Password fields.

∽ Administrator Password

Press Enter to configure the Administrator password.

\times User Password

Press Enter to configure the user password.

1-4 Boot Menu

The Boot menu allows you to set the drive priority during system boot-up. BIOS setup will display an error message if the legacy drive(s) specified is not bootable.

Aptio Setup Utility Main Advanced Securi	– Copyright (C) 2016 Amer ty Boot Save & Exit Ser	rican Megatrends, Inc. rver Mgmt	
Boot Configuration Setup Prompt Timeout Bootup NumLock State Logo Display on POST	1 [On] [Enabled]	 Number of seconds to wait for setup activation key. 65535(0xFFFF) means indefinite waiting. 	
Boot Option Priorities Boot Option #1 Boot Option #2	[UEFI: (V4) SFP+ 1 : 40:8D:5C:BA:A9:E4] [UEFI: (V4) SFP+ 2		
Boot Option #3	: 40:8D:5C:BA:A9:E5] [UEFI: (V4) SFP+ 3 : 40:8D:5C:BA:A9:E6]	++: Select Screen †↓: Select Item	
Boot Option #4 Boot Option #5	[UEFI: (V4) SFP+ 4 : 40:8D:5C:BA:A9:E7] [UEFI: (V4) QSFP+ 1	Enter: Select +/-: Change Opt. F1: General Help	
Boot Option #6	: 40:8D:5C:BA:A9:E8] [UEFI: (V4) QSFP+ 2 : 40:8D:5C:BA:A9:E9]	 F3: Previous Values F9: Optimized Defaults ▼ F10: Save & Exit ESC: Exit 	
Version 2.18.1264. Copyright (C) 2016 American Megatrends, Inc.			
Aptio Setup Utility Main Advanced Securi	∣ – Copyright (C) 2016 Ame⊓ ty <mark>Boot</mark> Save & Exit Se⊓	r ican Megatrends, Inc. rver Mgmt	
Boot Option #3	[UEFI: (V4) SFP+ 3 : 40:8D:5C:BA:A9:E6]	 Enables or disables X540 LAN PXE option. 	
Boot Option #4	[UEFI: (V4) SFP+ 4 : 40:8D:5C:BA:A9:E7]		
Boot Option #5	[UEFI: (V4) QSFP+ 1 : 40:8D:5C:BA:A9:E8]		
Boot Option #6	[UEFI: (V4) QSFP+ 2 : 40:8D:5C:BA:A9:E9]		
Boot Option #7	[UEFI: (V4) QSFP+ 3 : 40:8D:5C:BA:A9:EA]		
Boot Option #8	[UEFI: Built-in EFI Shell]	++: Select Screen ↑↓: Select Item Enter: Select	
New Boot Option Policy	[Default]	+/-: Change Opt. F1: General Help	
Fast Boot X540 LAN PXE	[Enabled] [Disabled]	F3: Previous Values F9: Optimized Defaults ▼ F10: Save & Exit	

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☞ Boot Configuration

Setup Prompt Timeout

Number of seconds to wait for setup activation key. 65535(0xFFF) means indefinite waiting." Press the numberic keys to input the desired value.

☞ Bootup NumLock State

Enable or Disable Bootup NumLock function. Options available: On/Off. Default setting is **On**.

∽ Logo Display on POST

Enables or disables showing the logo during POST. Options available: Enabled/Disabled. Default setting is **Enabled**.

∽ Boot Priority Order

∽ Boot Option #1/#2/#3/#4/#5/#6#7/#8

Press Enter to configure the boot priority.

By default, the server searches for boot devices in the following secquence:

- 1. UEFI device.
- 2. Hard drive.
- 3. Removable device.
- 4. Hard drive.
- 5. Network device.
- 6. Built-in UEFI device
- 7. Built-in UEFI device
- 8. Built-in UEFI device

∽ New Boot Option Policy

Controls the placement of newly detected UEFI boot options.

Options available: Default/Place First/Place Last. Default setting is **Default**.

ా Fast Boot

Enable/Disable the Fast boot feature. Options available: Enabled/Disabled. Default setting is **Enabled**.

∽ X540 LAN PXE ^(Note)

Enable/Disable LAN PXE option.

Options available: Enabled/Disabled. Default setting is Disabled.

1-5 Exit Menu

The Exit menu displays the various options to quit from the BIOS setup. Highlight any of the exit options then press **Enter**.



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∽ SaveOptions

∽ Save Changes and Reset

Saves changes made and reset the system. Options available: Yes/No.

∽ Discard Changes and Reset

Discards changes made and reset the system. Options available: Yes/No.

∽ Default Options

∽ Restore Defaults

Loads the default settings for all BIOS setup parameters. Setup Defaults are quite demanding in terms of resources consumption. If you are using low-speed memory chips or other kinds of low-performance components and you choose to load these settings, the system might not function properly. Options available: Yes/No.

Boot Override

Allows you to select a device to boot immediately. Press <Enter> on the device you select and select Yes to confirm. Your system will restart automatically and boot from that device.

→ UEFI: Built-in in EFI Shell

Press <Enter> on this item to Launch EFI Shell from filesystem device.

1-6 Server Management Menu

Aptio Setup Utility – Copyright (C) 2016 American Megatrends, Inc. Main Advanced Security Boot Save & Exit <mark>Server Mgmt</mark>			
BMC Self Test Status BMC Device ID BMC Device Revision BMC Firmware Revision IPMI Version BMC Support	PASSED 32 1 7.69 2.0 [Enabled]	Enable/Disable interfaces to communicate with BMC	
 System Event Log Bmc self test log View FRU information BMC network configurati IPv6 BMC Network Config 	on uration	<pre>++: Select Screen 14: Select Item Enter: Select +/-: Change Opt. F1: General Help F3: Previous Values F9: Optimized Defaults F10: Save & Exit ESC: Exit</pre>	
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☞ BMC Self Test Status

Display BMC test status.

☞ BMC Device ID

Display BMC device ID information.

☞ BMC Device Reversion

Display the BMC device version information.

☞ BMC Firmware Reversion

Display BMC firmware version information.

\bigcirc IPMI Version

Display the IPMI version information.

☞ BMC Support

Enable/Disable interface to communicate with BMC

Options available: Enabled/Disabled. Default setting is Enabled.

∽ System Event Log

Press [Enter] for configuration of advanced items.

☞ BMC Self Test Log

Press [Enter] for configuration of advanced items.

∽ View FRU Information

Press [Enter] to view the advanced items.

☞ BMC network configuration

Press [Enter] for configuration of advanced items.

IPv6 BMC network configuration Press [Enter] for configuration of advanced items.

1-6-1 System Event Log

Aptio Setup Utili	ty – Copyright (C) 2016 	American Megatrends, Inc. Server Mgmt
Enabling/Disabling Op SEL Components Erasing Settings Erase SEL When SEL is Full	tions [Enabled] [No] [Do Nothing]	Change this to enable or disable all features of System Event Logging during boot.
Custom EFI Logging Op Log EFI Status Codes	tions [Error code]	
NOTE: All values chan effect until computer	ged here do not take is restarted.	++: Select Screen f1: Select Item Enter: Select +/-: Change Opt. F1: General Help F3: Previous Values F9: Optimized Defaults F10: Save & Exit ESC: Exit

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∽ Enabling/Disabling Options

∽ SEL Components

Change this to enable or disable all features of System Event Logging during boot. Options available: Enabled/Disabled. Default setting is **Enabled**.

∽ Erasing Settings

☞ Erasing SEL

Choose options for erasing SEL.

Options available: No/Yes, On next reset/Yes, On every reset. Default setting is No.

\hdots When SEL is Full

Choose options for reactions to a full SEL.

Options available: Do Nothing/Erase Immediately. Default setting is Do Nothing.

∽ Custom EFI Logging Options

∽ Log EFI Status Codes

Enable/Disable the logging of EFI Status Codes (if not already converted to legacy). Options available: Disabled/Both/Error code/Progress code. Default setting is **Error code**.

1-6-2 BMC Self Test Log

Aptio Setup Utility	– Copyright (C) 2016 Ame Se	erican Megatrends, Inc. erver Mgmt
Log area usage = 00 out	of 20 logs	Erase Log Options
Erase Log When log is full	[Yes, On every reset] [Clear Log]	
Log Empty		
		++: Select Screen 11: Select Item Enter: Select +/-: Change Ont
		F1: General Help F3: Previous Values F9: Optimized Defaults
		ESC: Exit

☞ Erase Log

Choose options for erasing log. Options available: No/Yes, On next reset/Yes, On every reset. Default setting is **No**.

∽ When Log is Full

Choose options for reactions to a full log. Options available: Do Nothing/Clear Log. Default setting is **Clear Log**.

1-6-3 View FRU Information

The FRU page is a simple display page for basic system ID information, as well as System product information. Items on this window are non-configurable.

Aptio Setup Utilit	y – Copyright (C) 2016 Amer Ser	rican Megatrends, Inc. Ever Mgmt
FRU Information System Manufacturer System Product Name System Version System Serial Number Board Manufacturer Board Product Name Board Version Board Serial Number Chassis Manufacturer Chassis Product Name Chassis Serial Number	GIGABYTE MT60-SC0 0100 01234567890123456789AB GIGABYTE MT60-SC0 01234567 S1635200045 GIGABYTE 01234567 01234567890123456789AB	<pre>++: Select Screen 14: Select Item Enter: Select +/-: Change Opt. F1: General Help F3: Previous Values F9: Optimized Defaults F10: Save & Exit CCC: Savit</pre>

1-6-4 BMC network configuration

Aptio Setup Utilii	y – Copyright (C) 2016 A	American Megatrends, Inc. Server Mgmt
BMC network configurat Lan channel 1 Configuration Address source Station IP address Subnet mask Router IP address Station MAC address Synchronize BMC V4 net	:ion [DynamicBmcDhcp] 10.1.6.11 255.255.255.0 10.1.6.253 40-8d-5c-ba-a9-ec :work parameter values	Server Mgmt Select to configure LAN channel parameters statically or dynamically(by BIOS or BMC). Unspecified option will not modify any BMC network parameters during BIOS ++: Select Screen 11: Select Item Enter: Select +/-: Change Opt. F1: General Help F3: Previous Values F9: Optimized Defaults
		F10: Save & Exit ESC: Exit

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☞ BMC network configuration

∽ Lan Channel 1

∽ Configuration Address source

Select to configure LAN channel parameters statically or dynamically (DHCP). Do nothing option willnot modify any BMC network parameters during BIOS phase.

Options available: Unspecified/Static/DynamicBmcDhcp. Default setting is DynamicBmcDhcp.

∽ Station IP Address

Display IP Address information.

Subnet mask

Display Subnet Mask information.

Please note that the IP address must be in three digitals, for example, 192.168.000.001.

∽ Station MAC Address

Display the MAC Address information.

∽ Router IP address

Display the Router IP Address information.

☞ Router MAC address

Display the Router MAC Address information.

∽ Synchronize BMC V4 network parameter values

Press [Enter] to start synchronization.

1-6-5 IPv6 BMC network configuration

Aptio Setup Utility – Copyright (C) 2016 A	American Megatrends, Inc. Server Mgmt
IPv6 BMC Network Configuration IPv6 BMC Lan Channel 1: IPv6 BMC Lan Option [Enable] IPv6 BMC Lan IP [Dynamic-Obtained by Address Source BMC running DHCP] IPv6 BMC Lan IP ::/0 Address/Prefix Length -> [::/0]	Enable/Disable IPv6 BMC LAN channel function. Disable option will not modify any BMC network during BIOS Phase
Synchronize BMC V6 network parameter values	++: Select Screen 11: Select Item Enter: Select +/-: Change Opt. F1: General Help F3: Previous Values F9: Optimized Defaults F10: Save & Exit ESC: Exit

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- ∽ IPv6 BMC network configuration
- ☞ IPv6 Lan Channel 1
- ☞ IPv6 BMC Lan Option

Option available: Unspecified/Enabled/Disabled. Default setting is **Enabled**.

∽ IPv6 BMC LAN IP Address Source

Select to configure IPv6 BMC LAN channel parameters statically or dynamically (DHCP). Options available: Unspecified/Static/Dynamic-Obtained by BMC running DHCP. Default setting is **Dynamic-Obtained by BMC running DHCP**.

IPv6 BMC Lan IP Address/Prefix Length DisplayIPv6 BMC Lan IP Address/Prefix Length information.

∽ Synchronize BMC V6 network parameter values

Press [Enter] to start synchronization.