User Manual

xQC7x

Notice

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The illustrations in this user’s manual are for reference only. Actual product specifications may vary with territories.

The information in this user’s manual is subject to change without notice.

TABLE OF CONTENTS

Notice 2

Preface 5

1.1 Regulations Information..... 6

1.2 Safety Instructions 10

1.3 Conventions for this Manual 11

1.4 Release History 12

Getting to know the basics 13

2.1 Product Specification..... 14

2.2 Preparing your Computer 18

2.3 Product Overview 19

Getting started 28

3.1 AC Adapter 29

3.2 Knowing the Keyboard 30

3.2.1 For keyboard users..... 31

3.3 Using the touchpad / clickpad..... 34

BIOS setup 35

4.1 About BIOS Setup 36

4.1.1 When to Use BIOS Setup ?..... 36

4.1.2 How to Run BIOS Setup ?..... 36

4.2 BIOS Setup Menu..... 37

4.2.1 Main Menu..... 38

4.2.2 Advanced Menu 40

4.2.3 Performance Menu..... 47

4.2.4 Security Menu..... 49

4.2.5 Power Menu 53

4.2.6 Boot Menu.....54

4.2.7 Save & Exit Menu.....57

Chapter 1

Preface

1.1 Regulations Information

¤ CE compliance

This device is classed as a technical information equipment (ITE) in class B and is intended for use in living room and office. The CE-mark approves the conformity by the EU-guidelines:

- EMC Directive 2014/30/EU,

- Low Voltage Directive 2014/35/EU(equals A2 : 2013) ,

- RF Directive 2014/53/EU

The unit can be operated at an ambient temperature of max. 35°C (95°F). Do not subject it to temperatures below 5°C (41°F) or above 35°C (95 °F).

CAUTION: RISK OF EXPLOSION IF BATTERY IS REPLACED BY AN INCORRECT TYPE DISPOSE OF USED BATTERIES ACCORDING TO THE INSTRUCTIONS.

PREVENTION OF HEARING LOSS

CAUTION: Listening to music at high volume levels and for extended durations can damage one's hearing. In order to reduce the risk of damage to hearing, one should lower the volume to a safe, comfortable level, and reduce the amount of time listening at high levels. Headsets should comply with EN 50332-2 requirements.

FCC Information

FEDERAL COMMUNICATIONS COMMISSION INTERFERENCE STATEMENT

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

-Reorient or relocate the receiving antenna.

-Increase the separation between the equipment and receiver.

-Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.

-Consult the dealer or an experienced radio/ TV technician for help.

RF Exposure Information(SAR)

This device meets the government's requirements for exposure to radio waves.

This device is designed and manufactured not to exceed the emission limits for exposure to radio frequency (RF)

energy set by the Federal Communications Commission of the U.S. Government.

The exposure standard employs a unit of measurement known as the Specific Absorption Rate, or SAR.

The SAR limit set by the FCC is 1.6 W/kg. Tests for SAR are conducted using standard operating positions accepted

by the FCC with the EUT transmitting at the specified power level in different channels.

The FCC has granted an Equipment Authorization for this device with all reported SAR levels evaluated as in compliance with the FCC RF exposure guidelines.

SAR information on this device is on file with the FCC and can be found under the Display Grant section of www.fcc.gov/eot/ea/fccid after searching on FCC ID: PD9AX200NG " and " Contains IC : 1000M-AX200NG "

This device is operation in 5.15 - 5.25GHz frequency range , then restricted in indoor use only , Outdoor operations in the 5150 ~ 5250MHz is prohibit.

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

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

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

CAUTION: Any changes or modifications not expressly approved by the grantee of this device could void the user's authority to operate the equipment.

Canada, Industry Canada (IC) Notices This Class B digital apparatus complies with Canadian ICES-003 and RSS-210. Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

Canada, avis d'Industry Canada (IC) Cet appareil numérique de classe B est conforme aux normes canadiennes ICES-003 et RSS-210. Son fonctionnement est soumis aux deux conditions suivantes : (1) cet appareil ne doit pas causer d'interférence et (2) cet appareil doit accepter toute interférence, notamment les interférences qui peuvent affecter son fonctionnement.

Radio Frequency (RF) Exposure Information The radiated output power of the Wireless Device is below the Industry Canada (IC) radio frequency exposure limits. The Wireless Device should be used in such a manner such that the potential for human contact during normal operation is minimized.

This device has been evaluated for and shown compliant with the IC Specific Absorption Rate (“SAR”) limits when operated in portable exposure conditions.

Informations concernant l'exposition aux fréquences radio (RF) La puissance de sortie émise par l’appareil de sans fil est inférieure à la limite d'exposition aux fréquences radio d'Industry Canada (IC). Utilisez l’appareil de sans fil de façon à minimiser les contacts humains lors du fonctionnement normal.

Ce dispositif a été évalué pour et démontré conforme à la Taux IC d'absorption spécifique ("SAR") des limites lorsqu'il est utilisé dans des conditions d'exposition portatifs.

1.2 Safety Instructions

1. Do not apply heavy pressure to the computer or subject it to any form of strong impact as this can damage the computer's components or otherwise cause it to malfunction.

2. Never cover or block the air vents including those located at the base of the computer. Never cover your computer or AC adapter with any object.

3. To keep your computer in prime operating condition, protect your work area from direct sunlight.

4. Do NOT expose to or use near liquid, rain, or moisture.
   Do NOT use the modem during electrical storms.

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

1.3 Conventions for this Manual

CAUTION : This message contains important information that must be followed for safe operation.

NOTE : This message contains information for special situations.

1.4 Release History

Version	Date	Revision
1.0	01/2019	Initial release

Chapter 2

Getting to know the basics

2.1 Product Specification

This User's Manual provides technical information of instructions and illustrations on how to operate this notebook for the customer. Please read this manual carefully before using this notebook.

· Physical Characteristic

■ Dimension

356.4 * 233.66 * 20.5 mm

Weight: 1.85kg +/- 5%

· CPU

■ Support Processor

Intel CFL-RH

· GPU

■ Support Processor

GK5CP6T: NVIDIA GTX 1660Ti

GK5CQ7T: NVIDIA RTX 2070 (Max-Q)

· Memory

■ RAM

DDR4 2666MHz

· I/O Port

DC-in	x 1
USB	USB 3.1 X 2 (Gen1)
	USB type C TBT3 X 1
	USB 3.1 X 1 (Gen2) (support BC 1.2)
RJ45	x 1
Card Reader	x 1 (2 in 1 Card reader-support SD/SDHC/SDXC card)
	(SD Card support up to UHS-I)
HDMI	x 1
Audio out & Mic in	x 2

· Audio

■ Audio Codec

Azalia standard support

■ Speaker/MIC

Build-in 2 speakers

Speaker : 2W/each

Digitial Microphone support

· Display

■ LCD

15.6" Narrow, FHD, 16:9, 144Hz

1920x1080

· Input

Keyboard

Silent mechanical switch with per key RGB backlight support

Pointing Device

Outline: 116.5 *72.5 mm +/- 0.15

Enable/Disable area: 10mmx10mm

Palm Rejection: Support

OFF(White)

· Communication Port

LAN

*Supports 10/100/1000 Mb/Sec
*PCI-E interface

Wireless LAN +BT

*M.2 2230

*IEEE802.11 a/b/g/n support ; AC and AX mode support.

· Webcam

Infrared capability for facial reconition camera

HD IR webcam with D-MIC * 2 supporting windows Hello

· Power

■ AC Adapter

Automatics voltage adjustment between 100 and 240V AC 50/60Hz,

230 Watts (19.5V/11.79A), 3 Pins

■ Battery

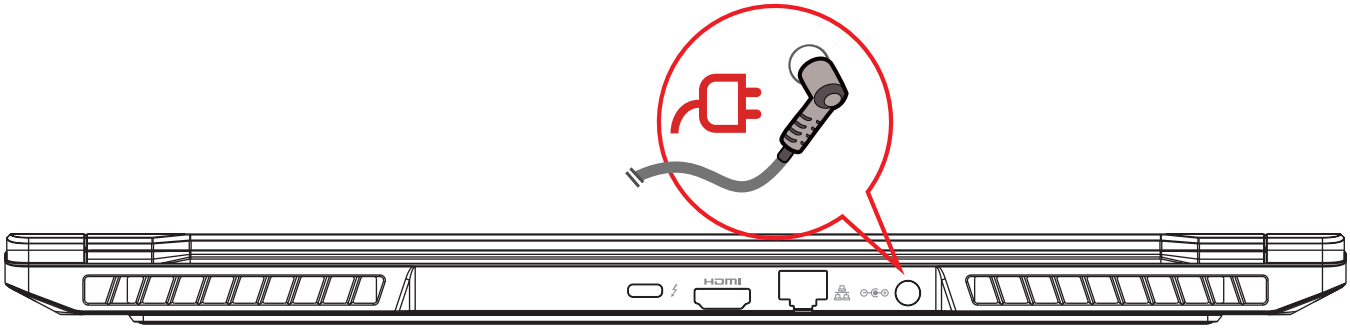
Li- polymer battery, soft pack,

6 cells (3S2P, 8200mAh) 93.48 Wh

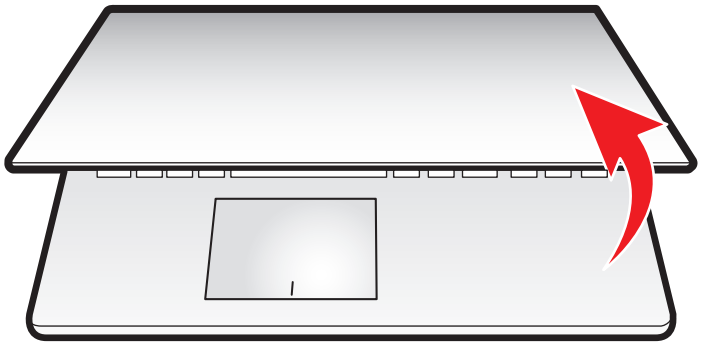
CAUTION: MODEL IS DESIGNED TO USE WITH THE DC INPUT:
230 Watts (19.5V/11.79A)

2.2 Preparing your Computer

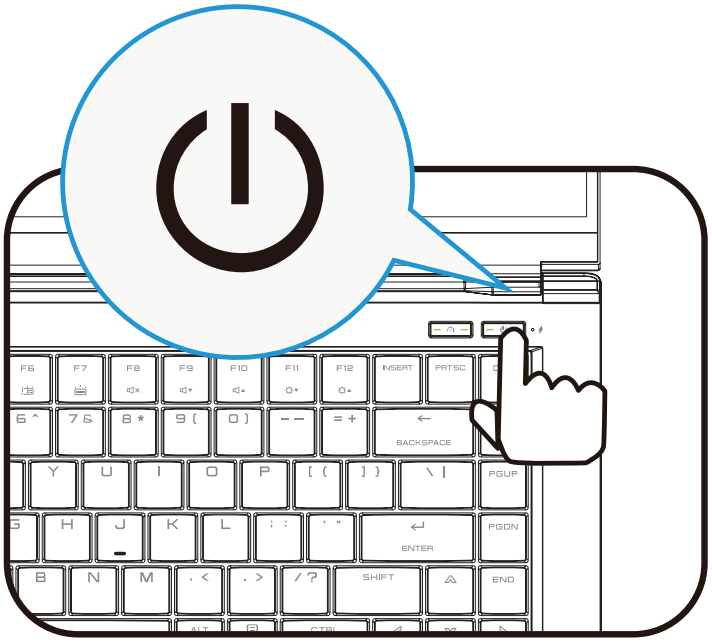
A Connect the AC adapter's DC output plug to the DC IN jack.



B The display panel can be opened to a wide range of angles for optimal viewing.



C Press the power button to turn on your notebook computer.

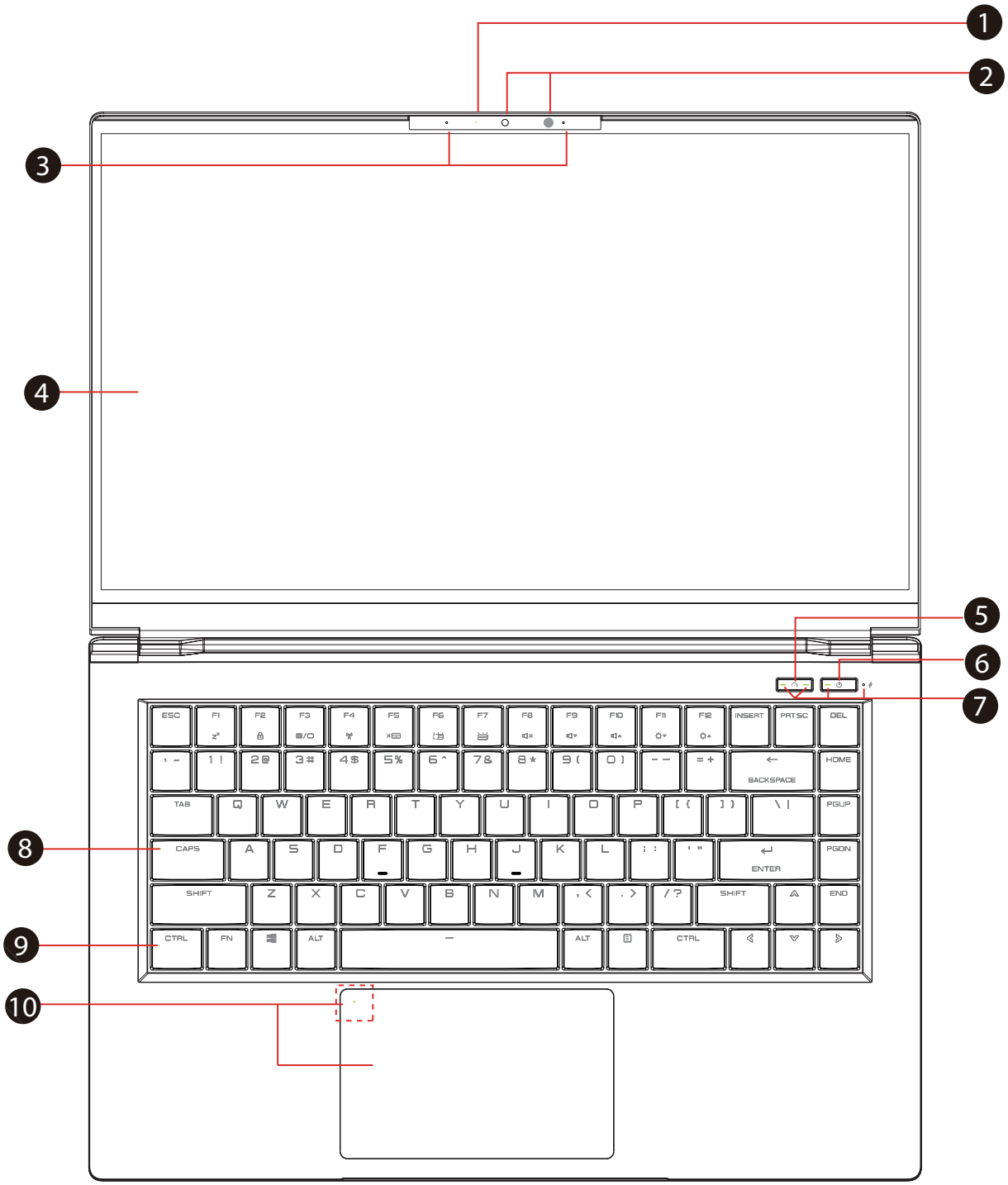


2.3 Product Overview

Please become familiar with each component before you operate the computer.

Top-Open View

NOTE: The product's color/ LED color, I/O port, indicator location, and specification will depend upon the actually shipping product.



1 **Camera Status LED**

The Camera Status LED shows the Camera status.

2 **Camera**

A device that allows you to record video or take photographs with your computer.

Infrared capability for facial reconition camera

can be used to identify and authenticate user to unlock notebook, conduct payment and other security functions.

3 **Microphone**

Built-in microphones.

4 **LCD screen**

Displays of your notebook computer.

5 **Performance/Balanced/Battery saver Mode Switch**

On screen display

Performance mode: Left=White/ Right= white

Balanced mode: Left=White/ Right= Off

Battery saver mode: Left=off/ Right =Off

CAUTION:When you are not using the computer, keep the LCD-screen closed to protect it from dust.

6 Power Button

Press this button to turn the computer's power on or off.

AC Power ON: White

Battery Power ON: White

Suspend: White , Slow / Smooth, Blinking White (3Sec/Cycle)

AC Power Off: OFF

Battery Power Off: OFF

7 Charging & Battery indicator

Charging(Power ON): Blinking White

Charging(Power Off): Blinking White

Battery Low (<6%): Amber

Lower power state AC: Off, Blinking White while charging

Lower power stat Battery: Off

Charging finish (w/AC): White, (w/o AC): Off

8 Caps Lock Status LED

Default: ON (White)

9 Keyboard

Mechanical keyboard

(The keyboard legend will depend on the spec / region)

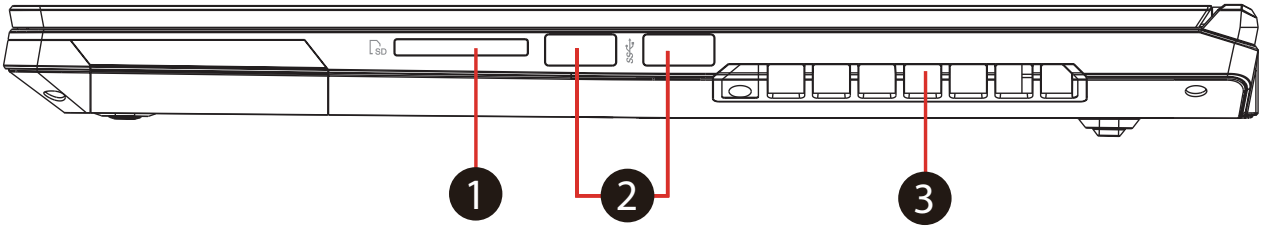
10 Touchpad/Click pad

Touch-sensitive pointing device which functions like the mouse.

Touchpad LED indicator/ Touchpad switch

(Please refer to P34)

Right Side View



1 **2 in 1 Card Reader**

Insert Memory Card.

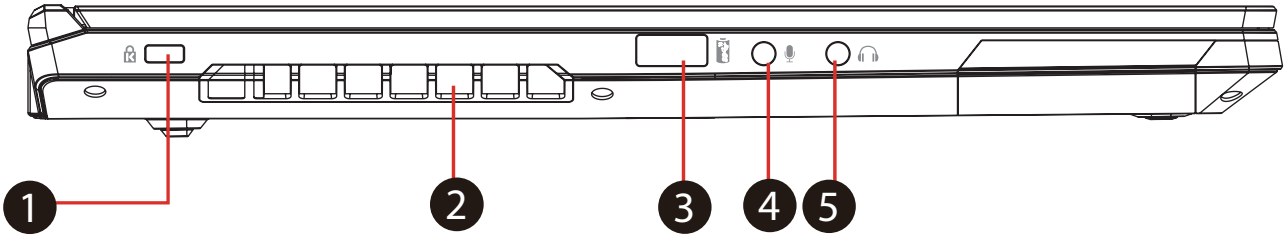
2 **USB Ports**

Connects an USB device.
(such as USB Zip drive, keyboard or mouse) into this jack.

3 **Vents**

The thermal vents are designed to cool the internal components and avoid overheating.

Left Side View



1 **Kensington® Lock Port**

To be secured using Kensington® Lock Port security products.

2 **Vents**

The thermal vents are designed to cool the internal components and avoid overheating.

3 **USB Ports**

Connects an USB device.
(such as USB Zip drive, keyboard or mouse) into this jack.

Shutdown state, continue to press the power button for about 6 seconds, Power USB is enabled; under-powered USB shutdown state, rst press the power button to cancel this function, press the power button is turned on.

4 **Mic In Jack**

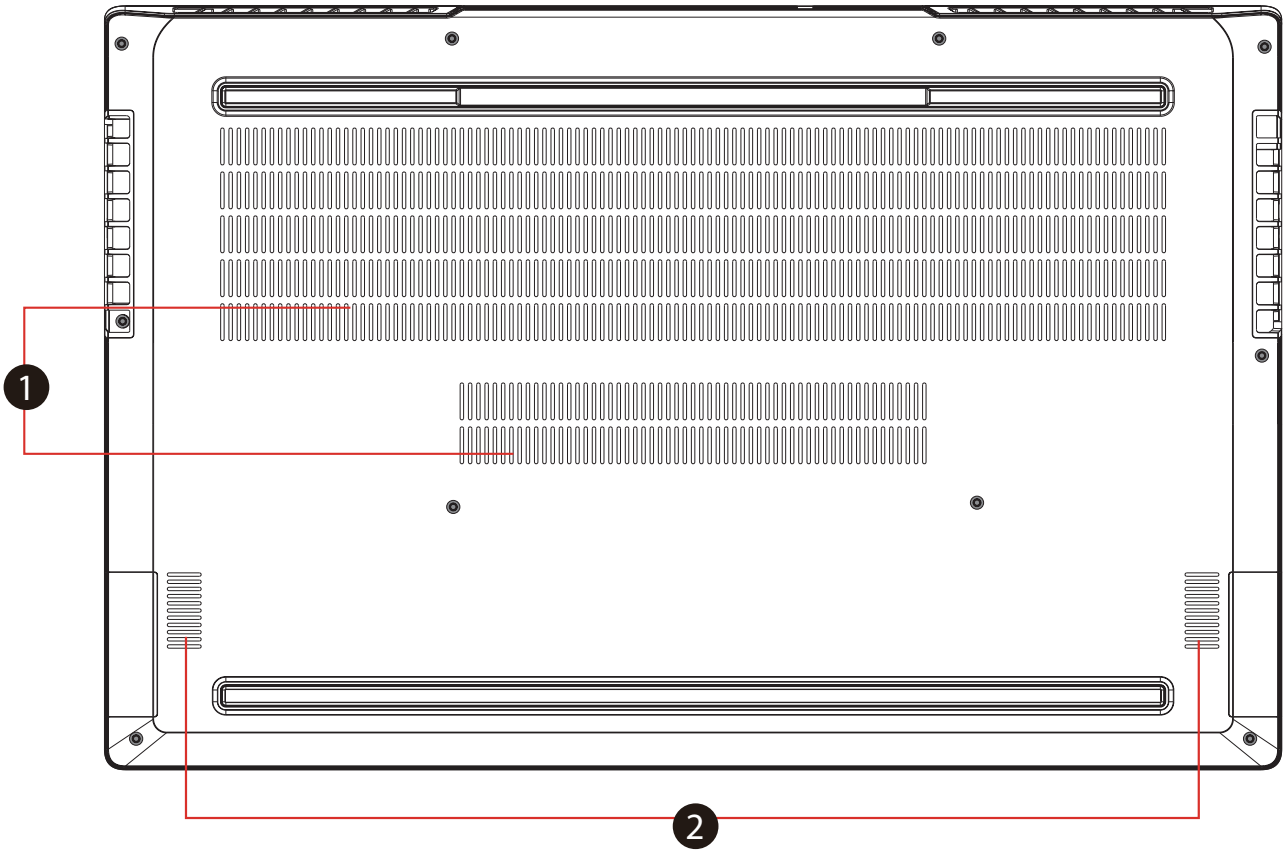
Connects amplified speakers, headphones or microphone into this jack.

5 **Audio Out Jack**

Connects amplified speakers, headphones or microphone into this jack.

Bottom Side View

NOTE : The product's thermal vent will depend upon the actually shipping product.

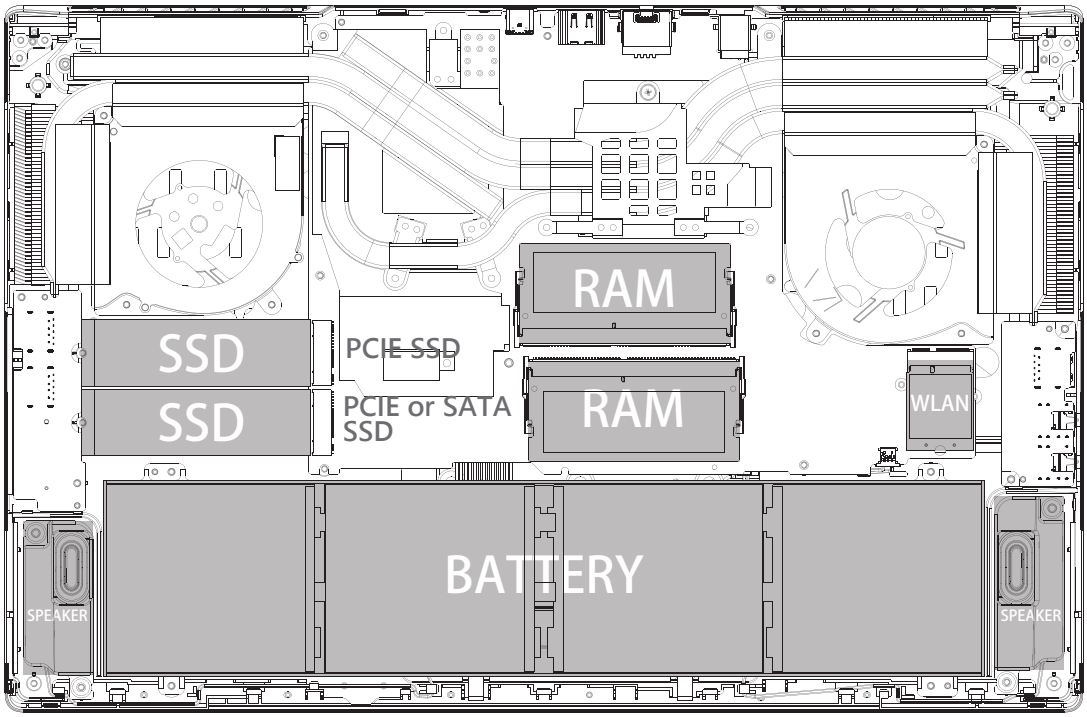


1 Vents

The thermal vents are designed to cool the internal components and avoid overheating.

2 Speaker

RAM / SSD / WLAN Compartment View

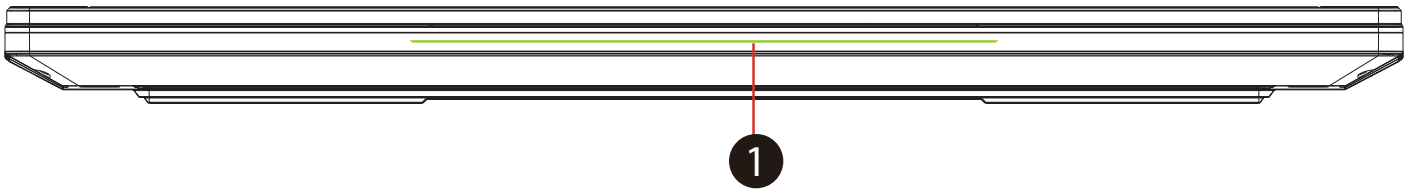


If need to upgrade SATA SSD to PCIE SSD,

Please contact technical support and after-sales service .

CAUTION: Do not put the computer on your LAP or other Parts of the body to avoid injury from the heat.

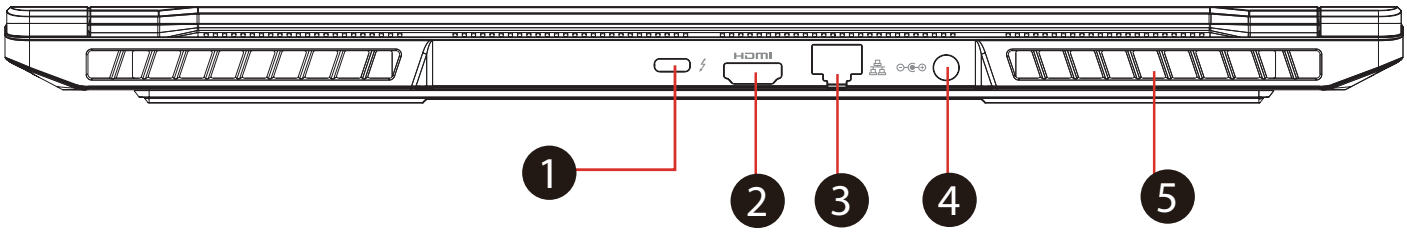
Front Side View



1 Light bar

Default: White
Power ON: ON (Welcome lighting, Optional by SW)
Power off: OFF

Back Side View



1 **Thunderbolt 3 (USB Type C 3.1)**

Thunderbolt™ 3 technology is 8x faster than USB 3.0 and provides 4x more video bandwidth than HDMI 1.41 helping you work and play more efficiently. It also enables a simple, single cable connection to displays, docks, and storage, while charging the system.

2 **HDMI port**

Connected to the screen, or home theater system.

3 **Network Jack**

This jack lets you connect to a LAN.

4 **Power Connector**

Connects the AC adapter into this connector.

5 **Vents**

The thermal vents are designed to cool the internal components and avoid overheating.

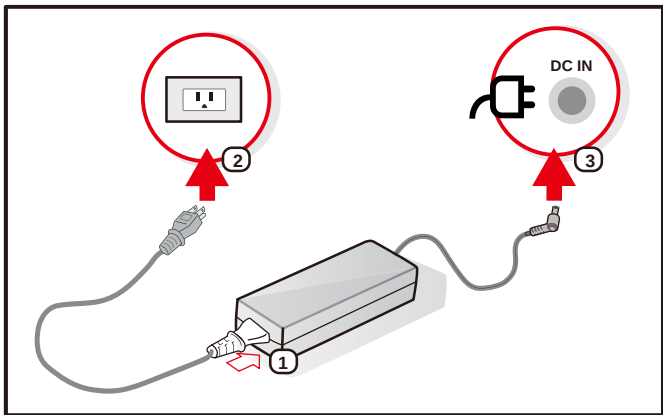
Chapter 3

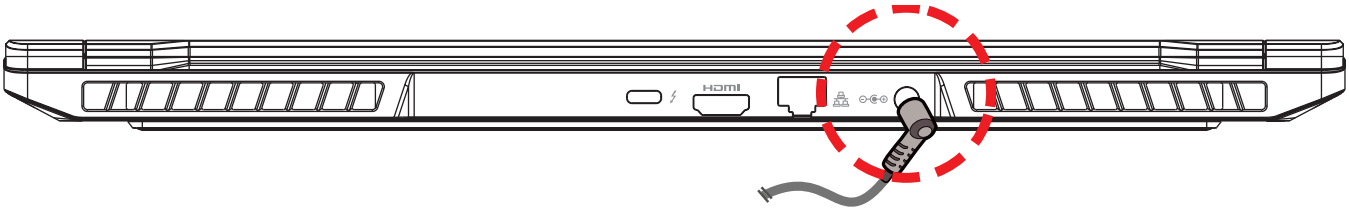
Getting started

3.1 AC Adapter

Please be noted that it is strongly recommended to connect the AC adapter and use the AC power while using this notebook for the first time. When the AC adapter is connected, the battery is being charged immediately. Attach the AC adapter when you need to charge the battery or you want to operate from AC power. It is also the fastest way to get started, because the battery pack will need to be charged before you can operate from battery power.

Note that the AC adapter included in the package is approved for your notebook; using other adapter model may damage either the notebook or other devices attached to it.





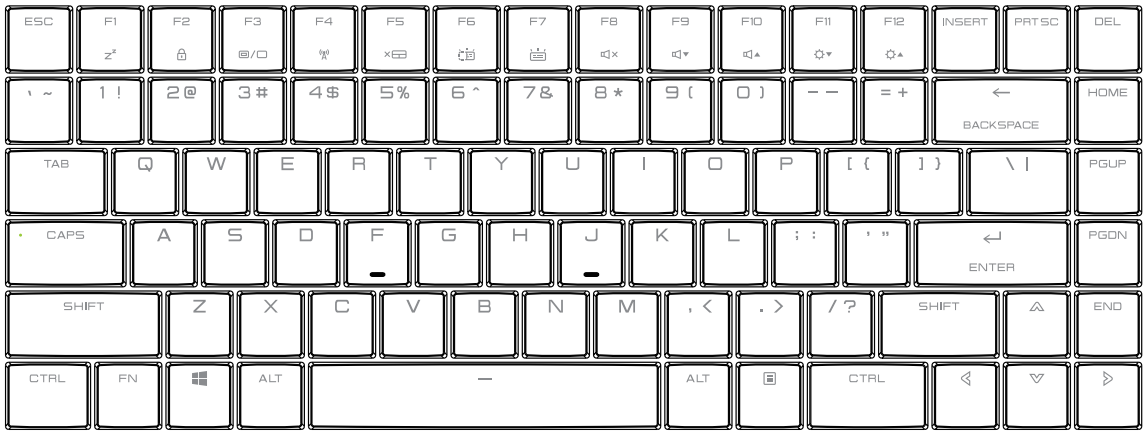
CAUTION: The use of inferior extension cords may result in damage to your notebook. Your notebook comes with its own authorized AC adapter. Use of a different AC adapter or cable extension which is not authorized for use will void warranty protection if damage to hardware is found in association to said adapter or extension cable.

NOTE: The power adapter can become hot when in use. Please be sure the AC adapter is not covered with any materials keep it away from exposed parts of your body. The AC adapter appearance may vary depending on your region.

3.2 Knowing the Keyboard

The following defines the colored hot keys on the Keyboard.

The colored commands can only be accessed by first pressing and holding the function key while pressing a key with a colored command.



NOTE: The number of keys available on your keyboard will depend on the country/region in which the keyboard was designed and built.

3.2.1 For keyboard users

To activate these functions, press the hot key associated with the desired function as below :

Function Keys

Keypad	Function Description
Fn + F1 Suspend:	Press this key combination (Fn+F1) to enter sleep mode.
Fn + F2 Windows Lock/On:	Press this key combination (Fn+F2) to turn Windows Lock/On .
Fn + F3 Display mode:	Press this key combination (Fn+F3) to enable Display Mode.
Fn + F4 RADIO On/Off:	Press this key combination (Fn+F4) to turn all radios on or off.
Fn + F5 Touch pad On/Off:	Press this key combination (Fn+F5) to On/Off Touch pad mode.

Function Keys

Keypad		Function Description
Fn + F6	Keyboard Brightness down:	Press this key combination (Fn+F6) to decrease brightness of Keyboard.
Fn + F7	Keyboard Brightness up:	Press this key combination (Fn+F7) to increase brightness of Keyboard.
Fn + F8	MUTE:	Press this key combination (Fn+F8) to enter MUTE mode.
Fn + F9	Volume down:	Press this key combination (Fn+F9) to enter Volume down mode.
Fn + F10	Volume up:	Press this key combination (Fn+F10) to enter Volume up mode.
Fn + F11	Brightness down:	Press this key combination (Fn+F11) to decrease brightness of LCD display.
Fn + F12	Brightness up:	Press this key combination (Fn+F12) to increase brightness of LCD display.

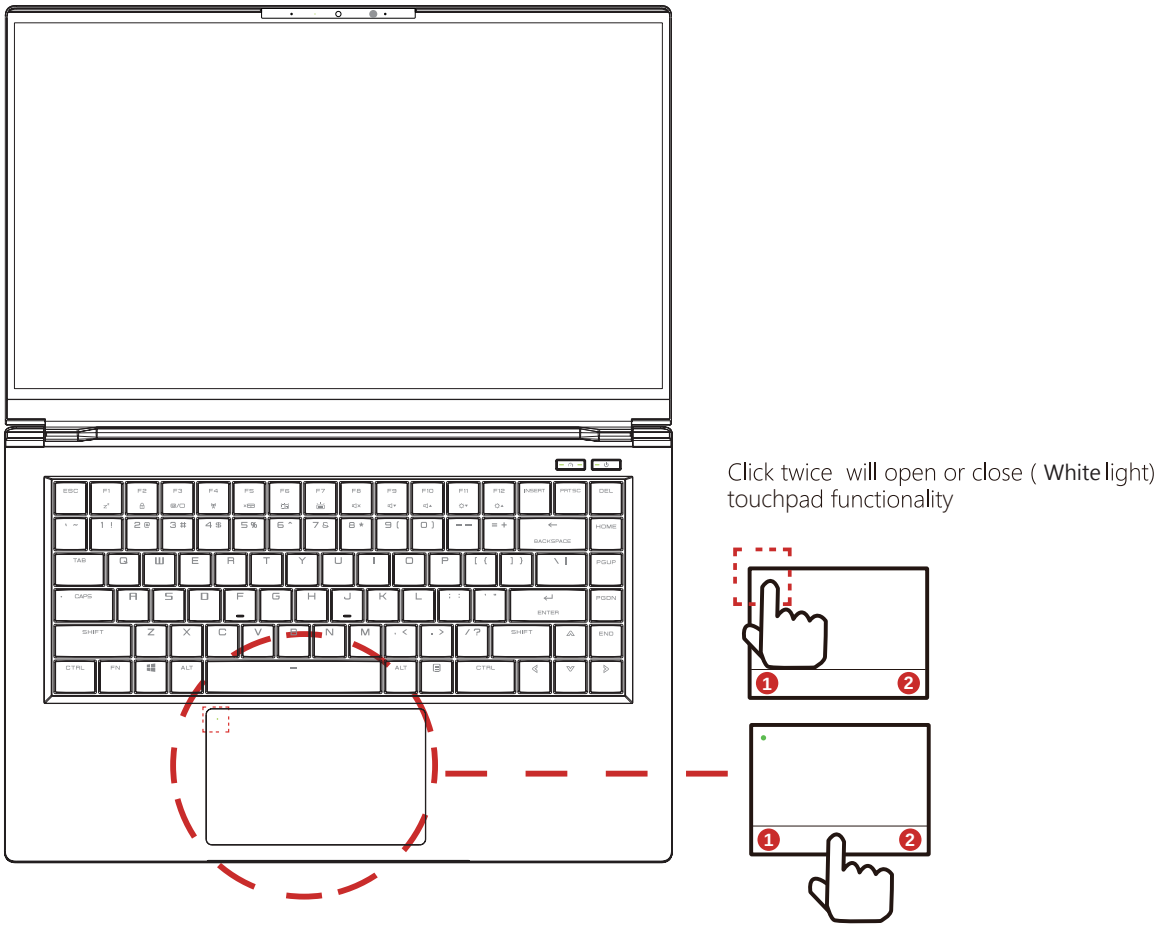
Function Keys

Keypad	Function Description
+ Q Search Charm : (Optional)	Press this key combination (Windows logo key+Q) to open the search charm and search apps.
+ I Settings Charm : (Optional)	Press this key combination (Windows logo key+I) to open the settings charm.
+ H Share Charm : (Optional)	Press this key combination (Windows logo key+H) to open the share charm.
+ K Devices Charm : (Optional)	Press this key combination (Windows logo key+K) to open the devices charm.

3.3 Using the touchpad / clickpad

The touchpad / clickpad is a rectangular electronic panel located just below your keyboard. Click twice left corner will open or close (White light) touchpad functionality.You can use the static-sensitive panel of the touchpad / clickpad and slide it to move the cursor. You can use the buttons below the touchpad as left and right mouse buttons.

Press the left ❶ and right ❷ buttons located on the edge of the touchpad / clickpad to make selections and run functions. These two buttons are similar to the left and right buttons on a mouse. Tapping on the touchpad / clickpad produces similar results.



Chapter 4

BIOS setup

4.1 About BIOS Setup

4.1.1 When to Use BIOS Setup ?

You may need to run the BIOS Setup when:

* An error message appears on the screen during the system booting up and is requested to run SETUP.

* You want to change the default settings for customized features.

*You want to reload the default BIOS settings.

4.1.2 How to Run BIOS Setup ?

To run the BIOS Setup Utility, turn on the notebook and press the [F2] key during the POST procedure.

If the message disappears before you respond and you still wish to enter Setup, either restart the system by turning it OFF and ON, or simultaneously pressing [Ctrl]+[Alt]+[Del] keys to restart.

Be noted that the screen snaps and setting options in this chapter are for your references only.The actual setting screens and options on your Notebook may be different because of BIOS update.

The setup function only can be invoked by pressing [F2] key during POST that provide a approach to change some setting and configuration the user prefer, and the changed values will save in the NVRAM and will take effect after the system rebooted. The setup uses a menu interface to allow the user to configure their system and the features are briefly listed as follow.

Press [F10] key for Boot Menu.

NOTE : The drivers, BIOS and utilities bundled in the support DVD may vary by models and are subject to change without notice.

4.2 BIOS Setup Menu

Once you enter the BIOS Setup Utility, the Main Menu will appear on the screen. Select the tags to enter the other menus.

Main Menu

Show system overview about memory size, main HDD or ODD and setting of system time and date.

Advanced Menu

To select the XD feature enable or disable XD feature only work with Intel platform + Windows.

Performance Menu

Show Processor overview about frequency, memory size and setting of processor.

Security Menu

Install or clear the password settings for supervisor and user. Setting security option.

Power Menu

Configure Settings wake on LAN.

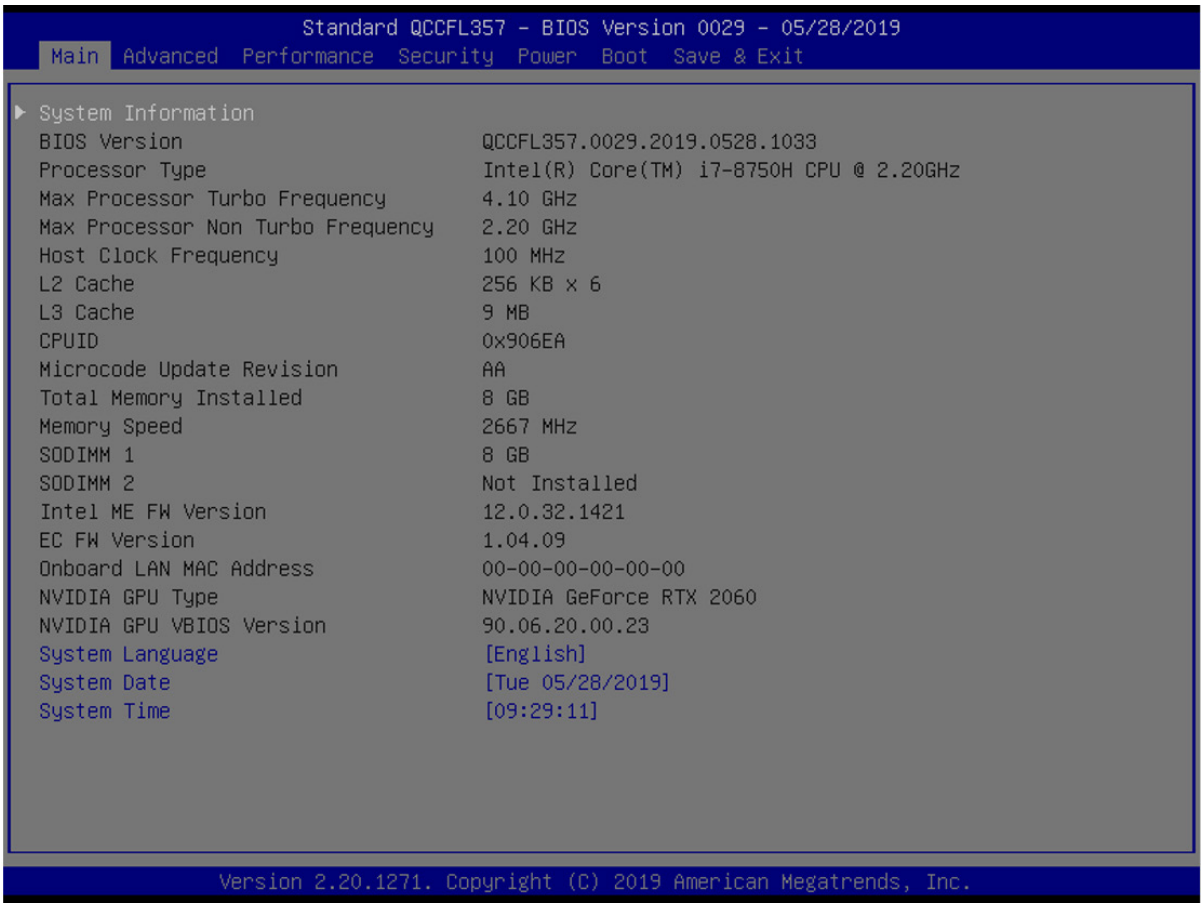
Boot Menu

Configure Settings during System Boot.

Save & Exit Menu

Save or discard the changes before leaving the BIOS Setup Menu.

4.2.1 Main Menu



*System Information

Show SMBIOS Type structure information

*System Language

Option in format of [English]

*System Date

This item allows you to set the system date. The date format is [day:month:date:year].

Use [ENTER], [TAB] or [SHIFT-TAB] to select a field.

*System Time

This item allows you to set the system time. There is a small internal (CMOS) battery which is designed to maintain your system clock. It is designed to maintain time even when the PC is powered down or in sleep mode. The time format is [hour:minute:second].

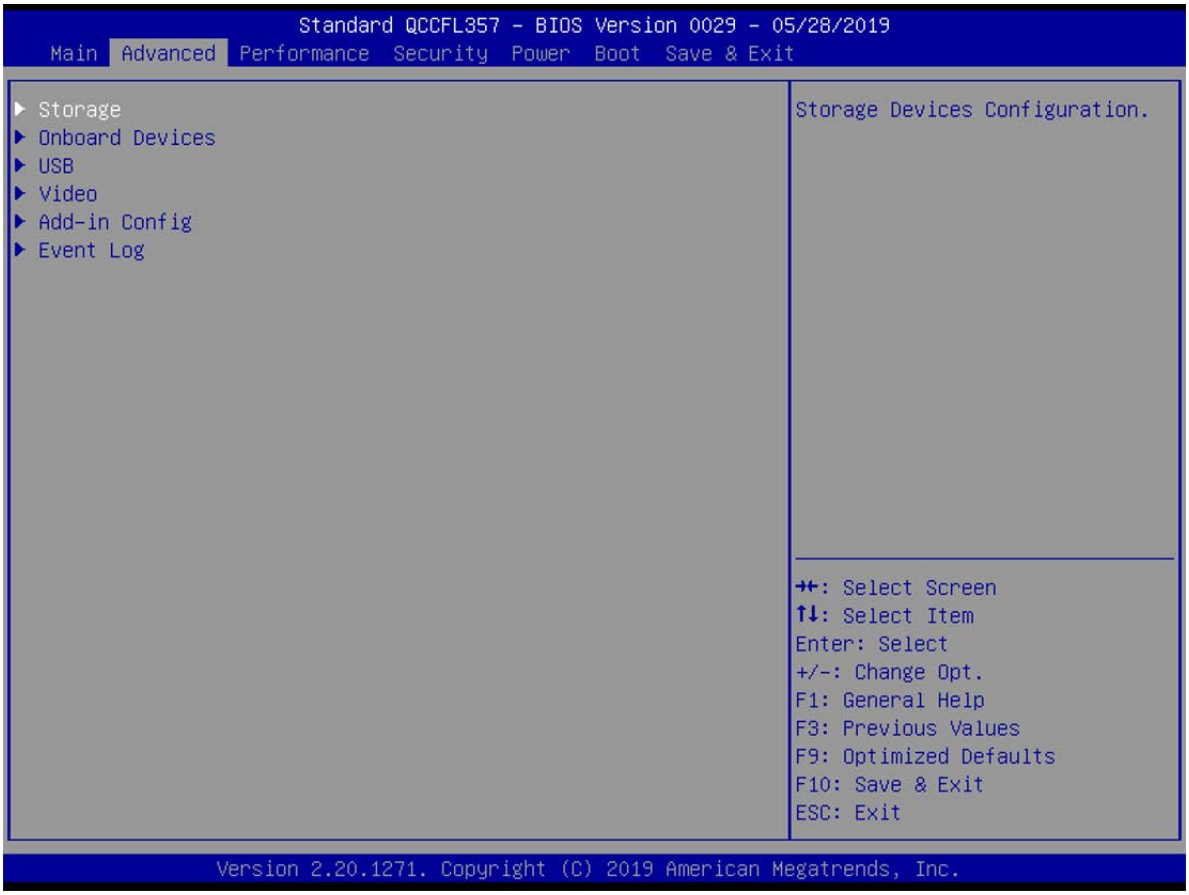
Use [+] or [-] to configure system Time.

Day	Day of the week, from Sun to Sat, which is determined by BIOS (read-only).
Month (Month)	The month from 01 (January) to 12 (December).
Date (Date)	The date from 01 to 31.
Year (Year)	The year can be adjusted by users.

*Total Memory Installed

This allows you to see the total amount of memory.

4.2.2 Advanced Menu



*Storage

Contains the SATA device information.

*Onboard Devices

Contains the onboard devices information.

*USB

Contains the USB information.

*Video

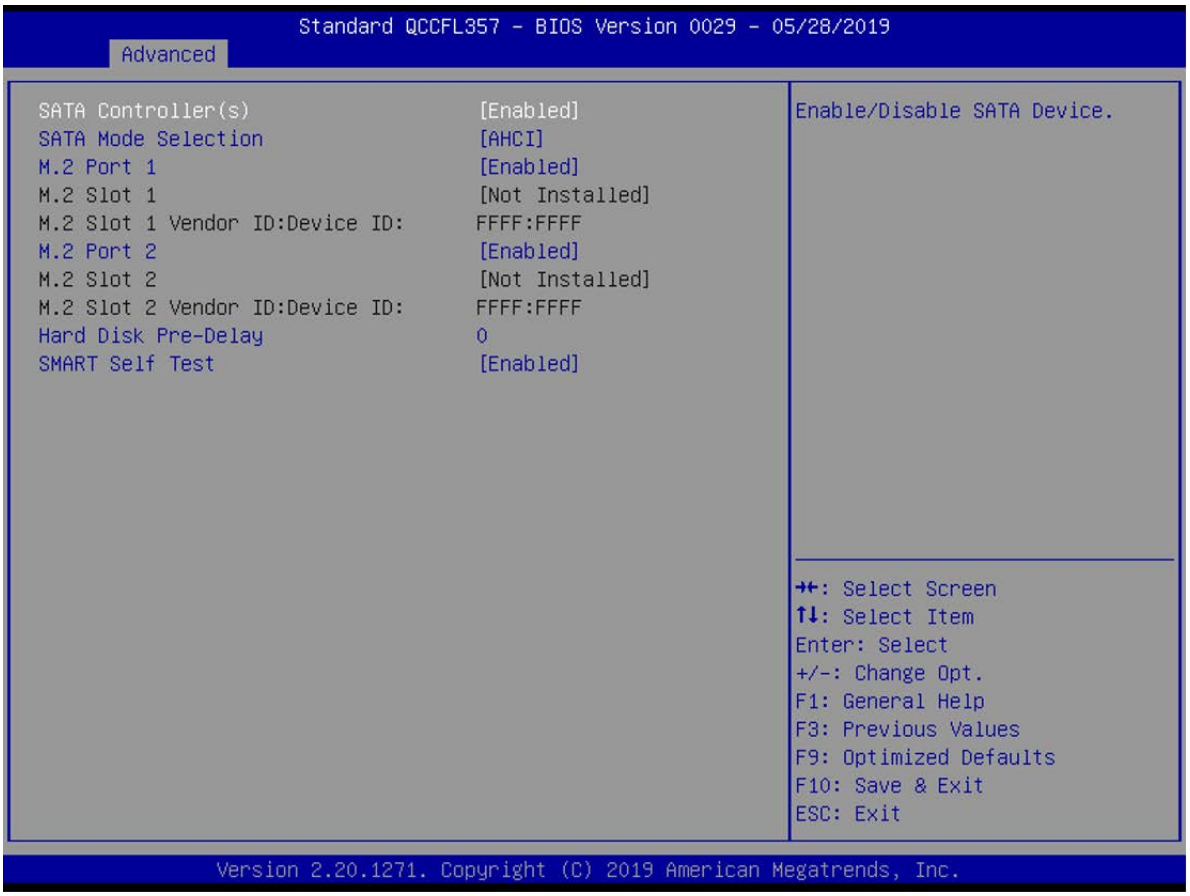
Contains the Video information.

*Add-In Config

Configuration forms from add-in devices are accessible here.

*Event Log

Contains the Event Log information.



Storage page

*SATA Mode Selection

AHCI/RAID/Intel RST Premium With Intel Optane System Acceleration

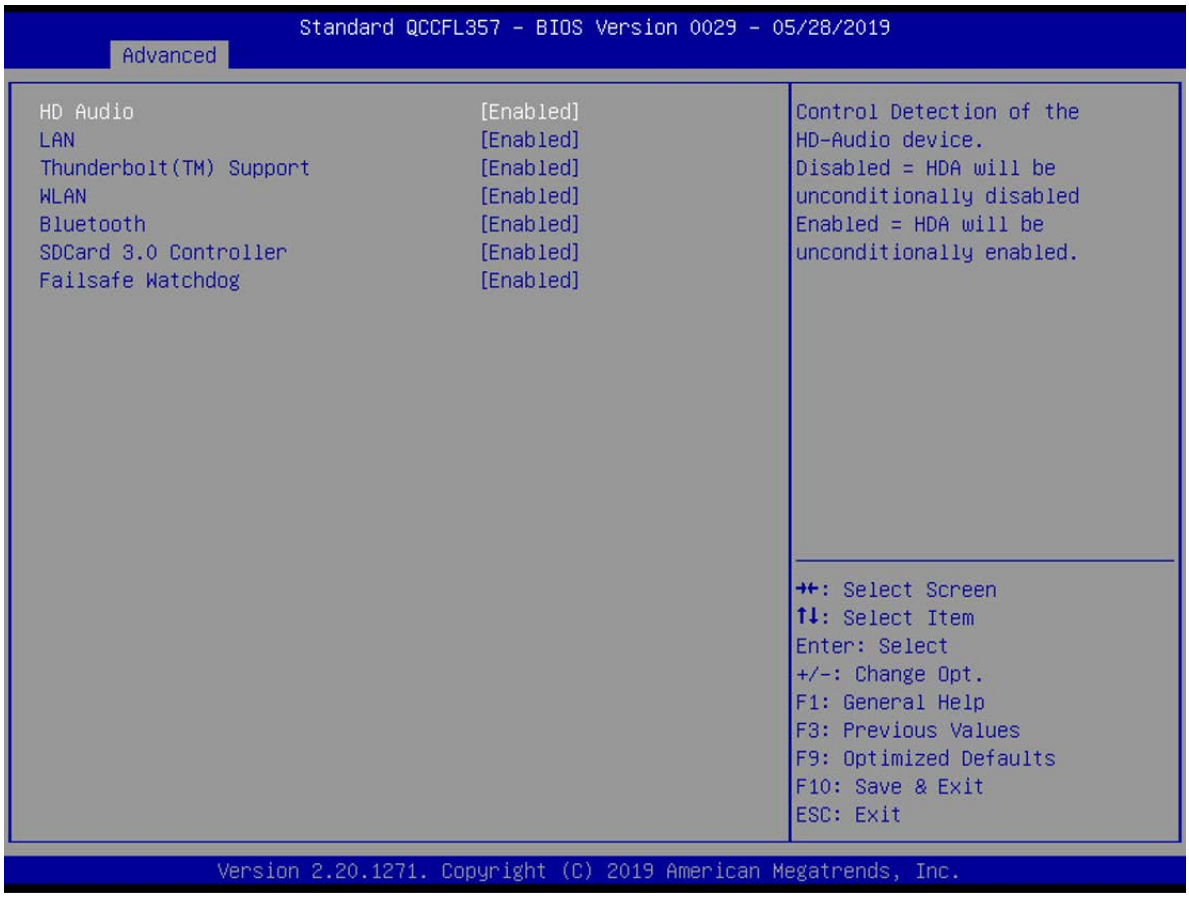
OS may not boot if this setting is changed after OS install.

*Serial M.2 Slot

It will show M.2 Slot device info.

*Hard Disk Pre-Delay

Entry delay in seconds for before hard drives are initialized.



Onboard Devices page

*HD Audio/ LAN/ Thunderbolt/ WLAN/ Bluetooth/ SD Card

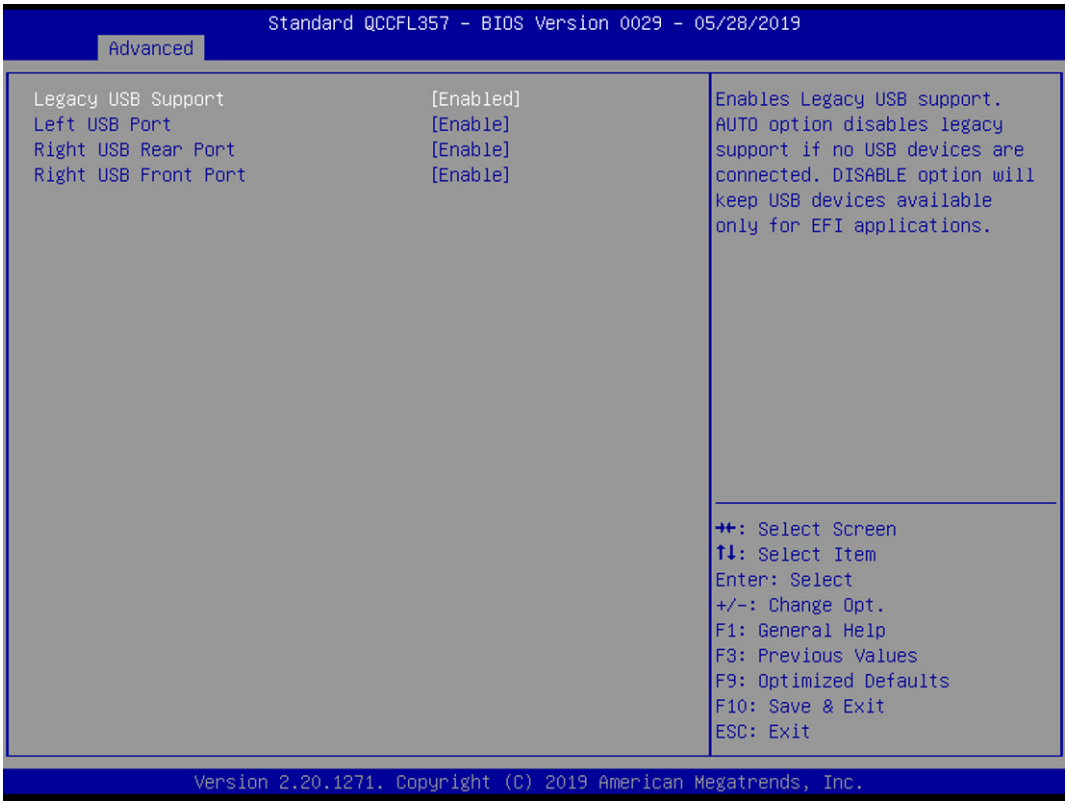
Enable/Disable

Enables or Disables the Onboard Controller.

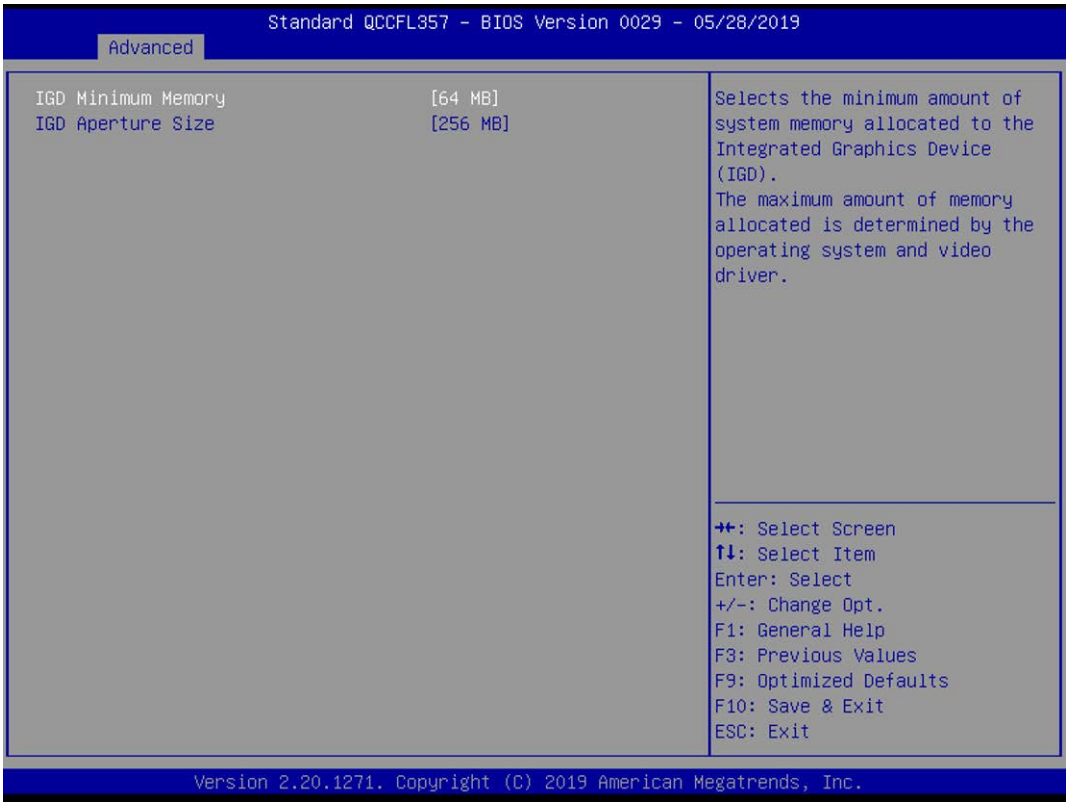
*Failsafe Watchdog

Enable/Disable

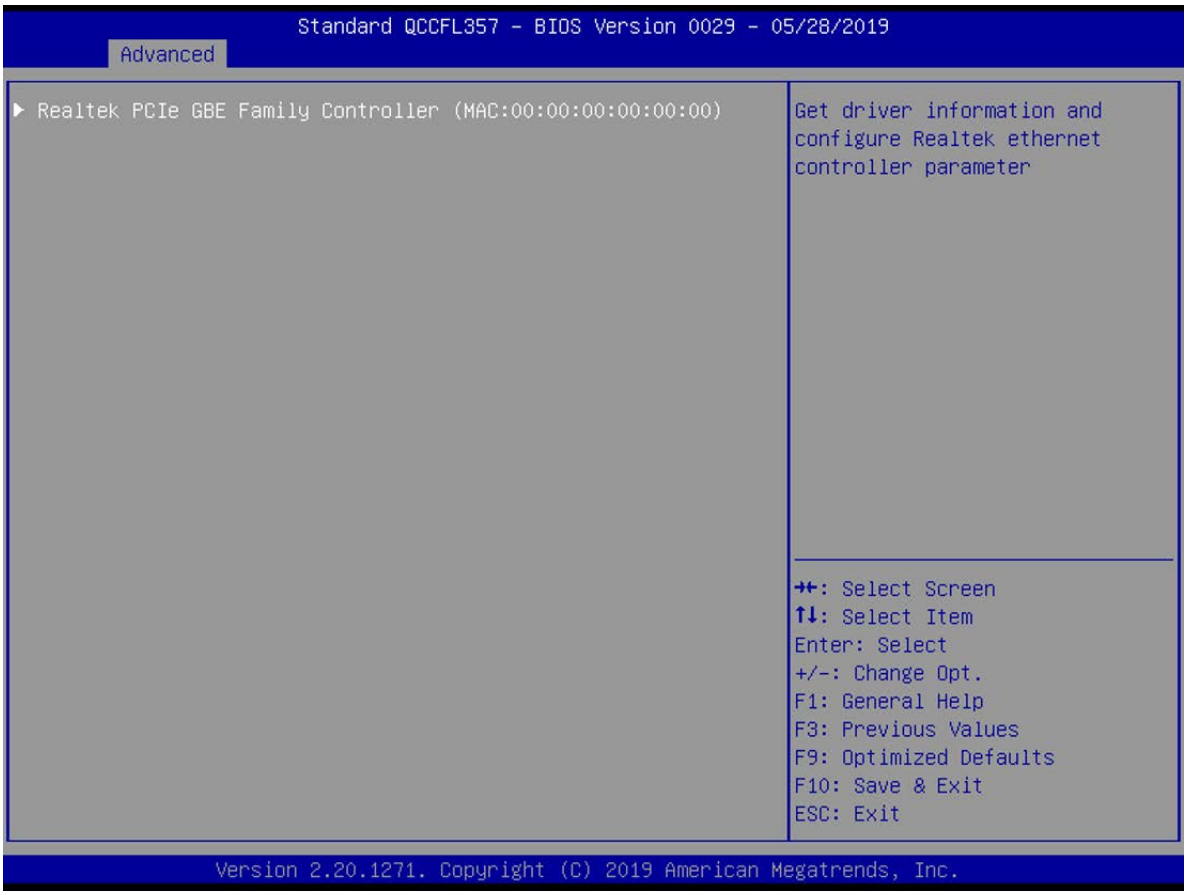
After a boot failure, uses BIOS defaults to allow the system to boot back into BIOS Setup.



USB page



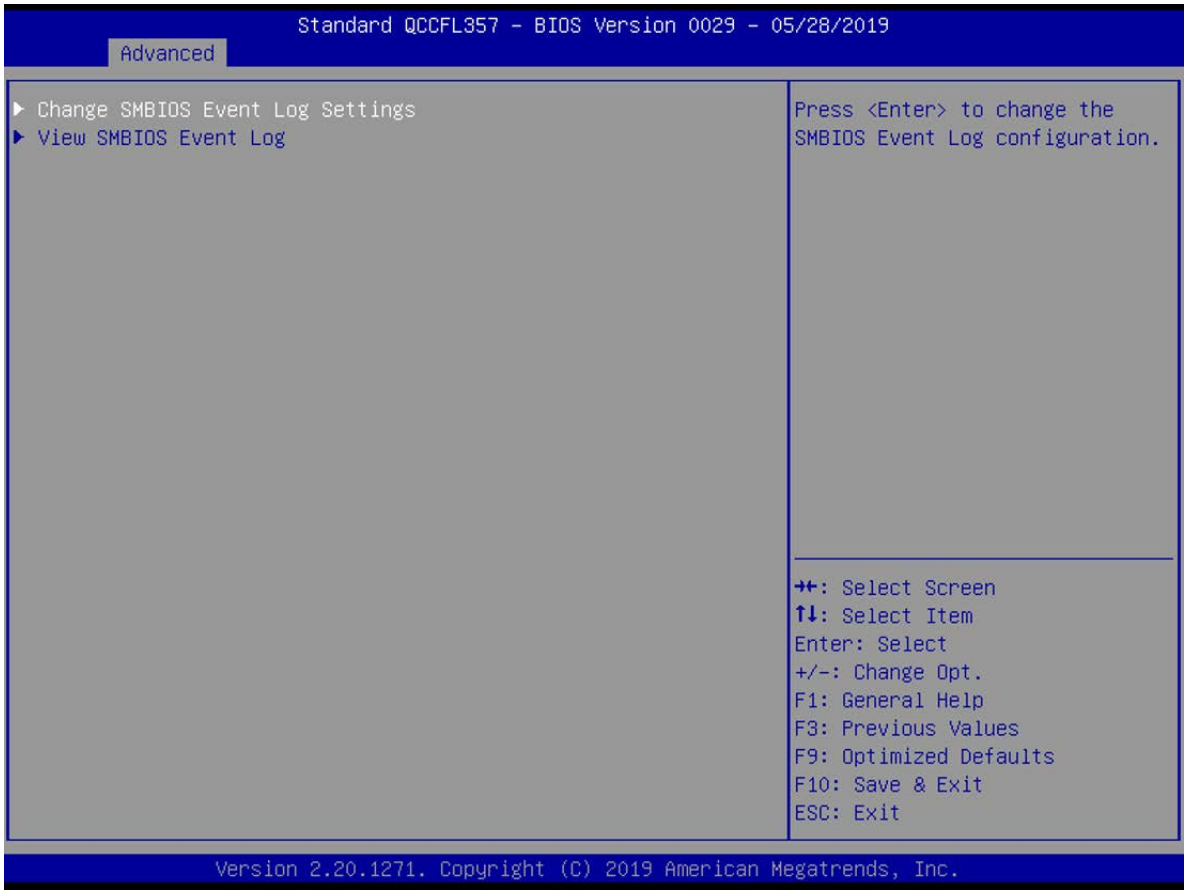
Video page



Add-in Config page

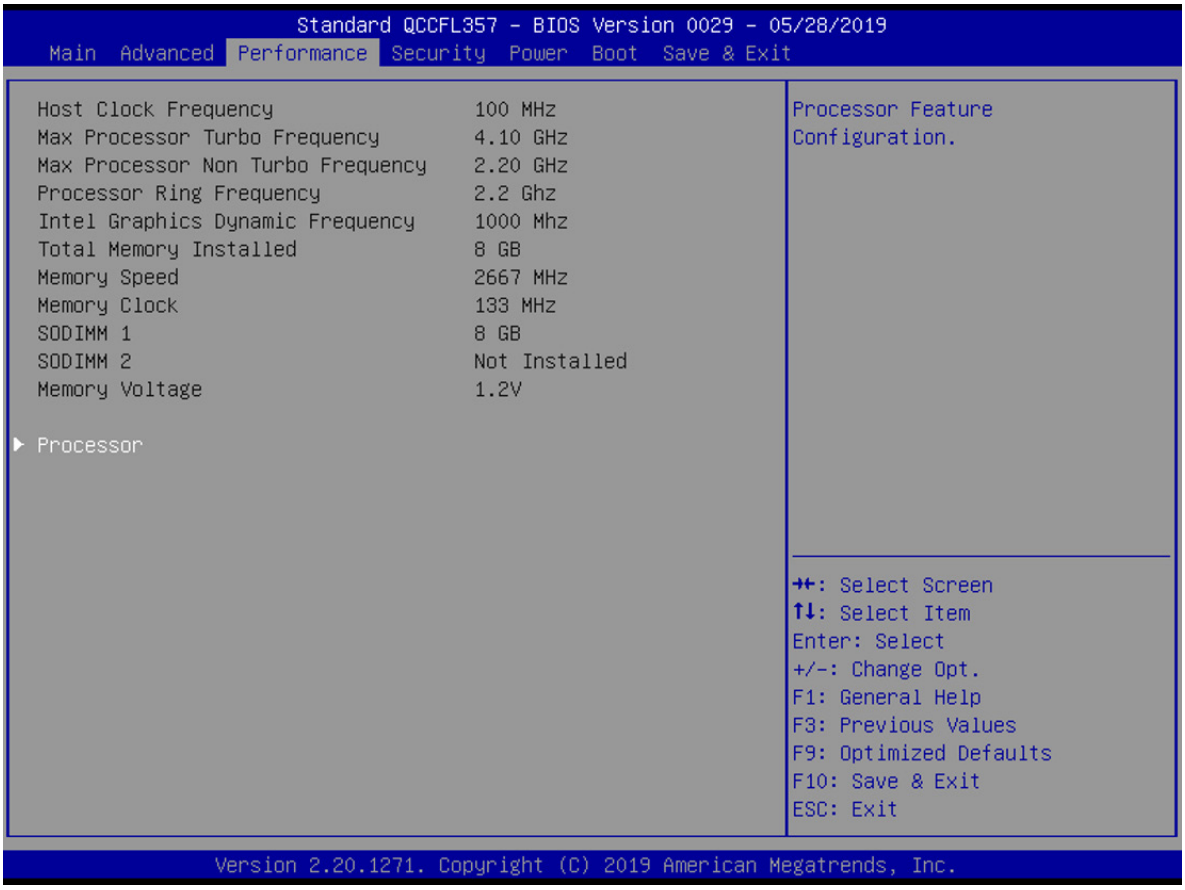
*Realtek PCIe GBE Family Controller (MAC: { MAC Address })

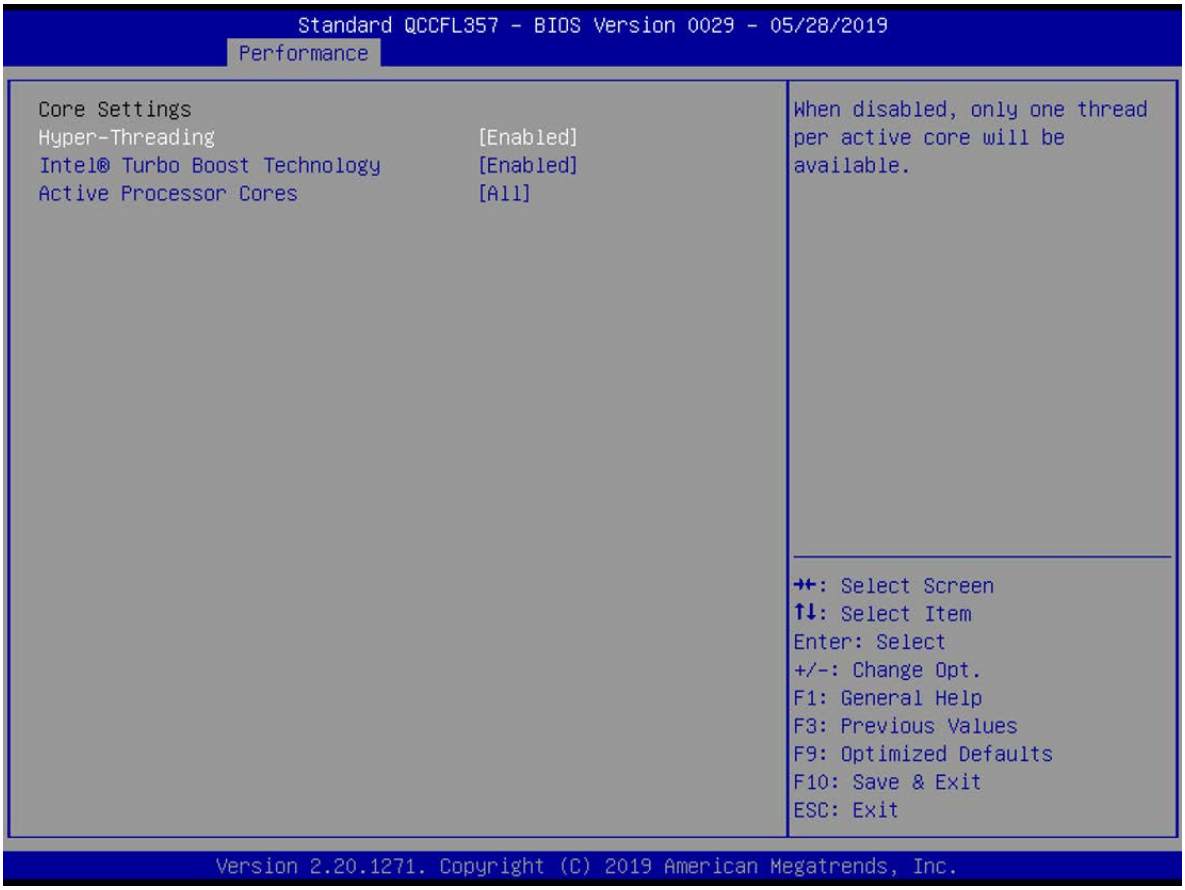
It will show get driver and Realtek detail info.



Event Log page

4.2.3 Performance Menu



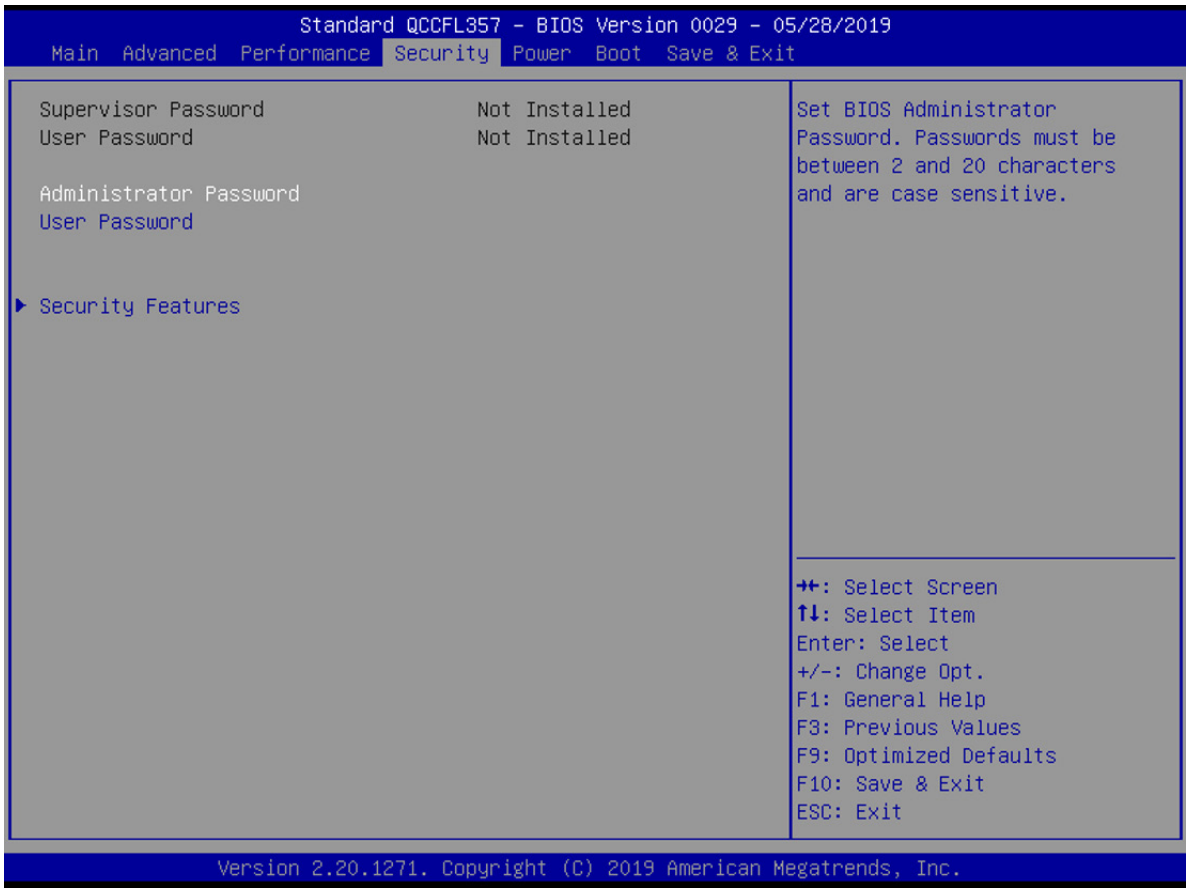


Processor page

*Core Settings

Enables or Disables the Processor Hyper-Threading/ Intel® Turbo Boost Technology/ Core number Controller.

4.2.4 Security Menu



*Administrator/ User Password

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

Enter New Password

Type a maximum of 20-digit password and press [Enter].

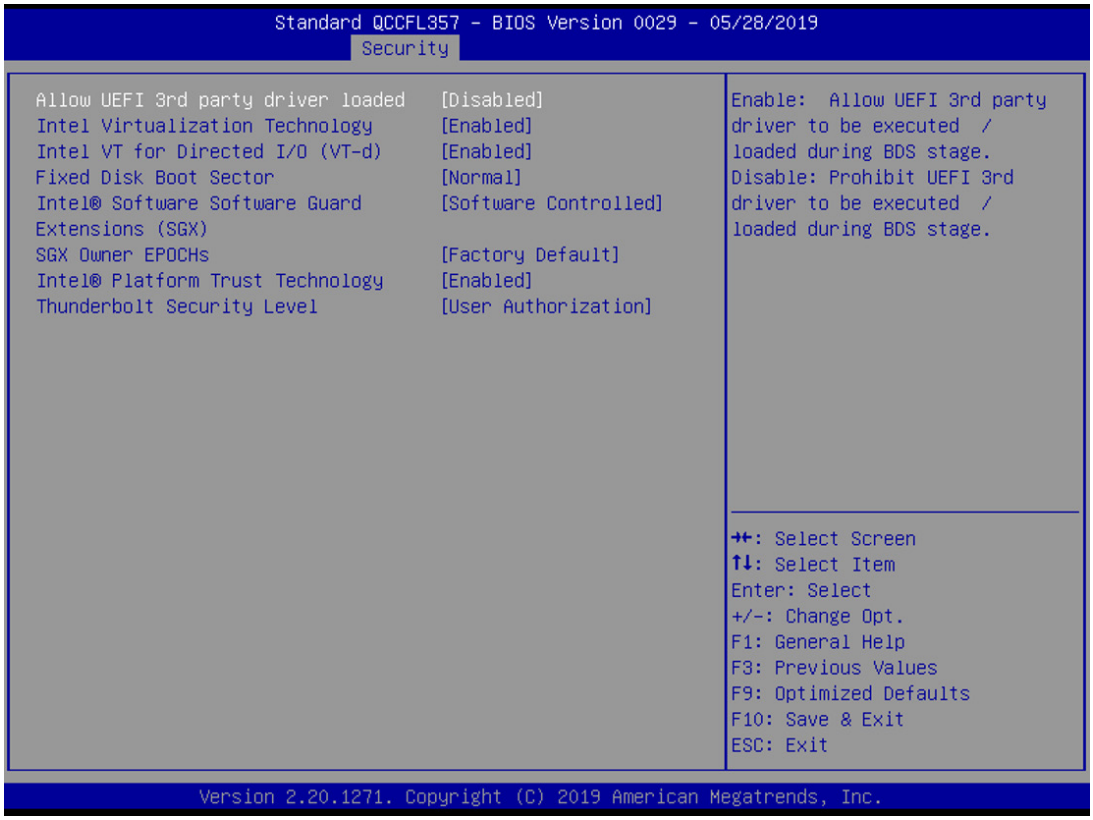
The password typed now will replace any previously set password from CMOS memory. You may also press [ESC] to abandon new password setting. It is extremely important to keep record for any BIOS password which is set as it can not be reset even with the removal of a CMOS battery for the security of your PC.

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

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

The Password Check item is used to specify the type of BIOS password protection that is implemented.

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



Security Features page

*Allow UEFI 3rd party driver loaded

Enable/Disable

UEFI 3rd party driver to be executed / loaded during BDS stage.

*Intel Virtualization Technology

Enable/Disable

When enabled, a VMM can utilize the additional hardware capabilities provided by Vanderpool Technology.

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

Enable/Disable

Which provides additional hardware support for managing I/O virtualization. If Enabled, BIOS will publish a DMA Remapping ACPI table.

*Fixed Disk Boot Sector

Normal/ Write Protect

Normal while installing an operating system.

*Intel Software Guard Extension (SGX)

Enable/Disable/Software Controlled

Software Controlled: When SGX application and ME FW driver are installed, SGX will be enabled via a UEFI OS-BIOS runtime interface.

*SGX Owner EPOCHs

Factory Default/ New Random Owner EPOCHs/ User Defined Owner EPOCHs

SGX sealing key is derived from Owner EPOCHs.

After change the Owner EPOCH value, previously Intel SGX sealed data cannot be accessed.

*Intel® Platform Trust Technology

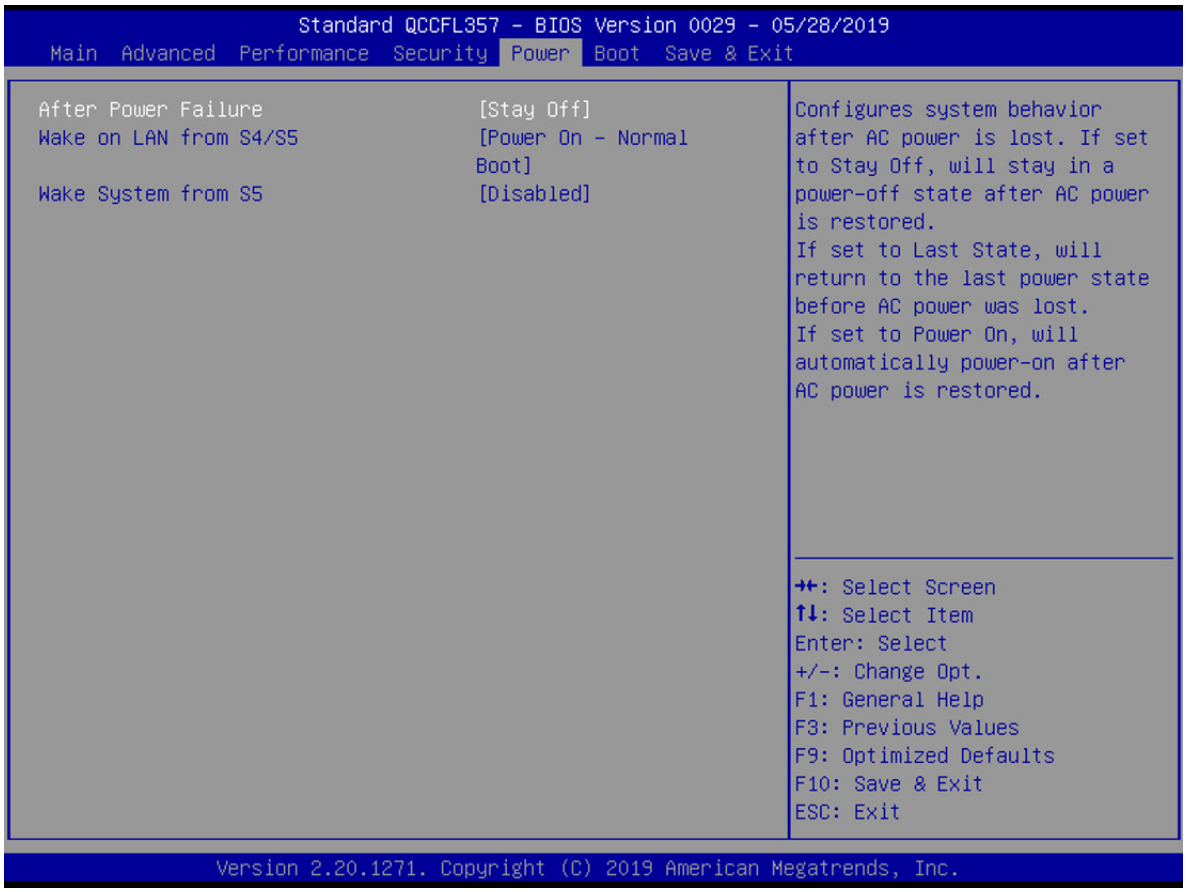
Enables or Disables Intel® Platform Trust Technology.

*Thunderbolt Security Level

No Security/ User Authorization/ Secure Connect/ Display Port only/ USB Docking Only

Security level selection.

4.2.5 Power Menu



· After Power Failure

Stay Off/ Last State/ Power On

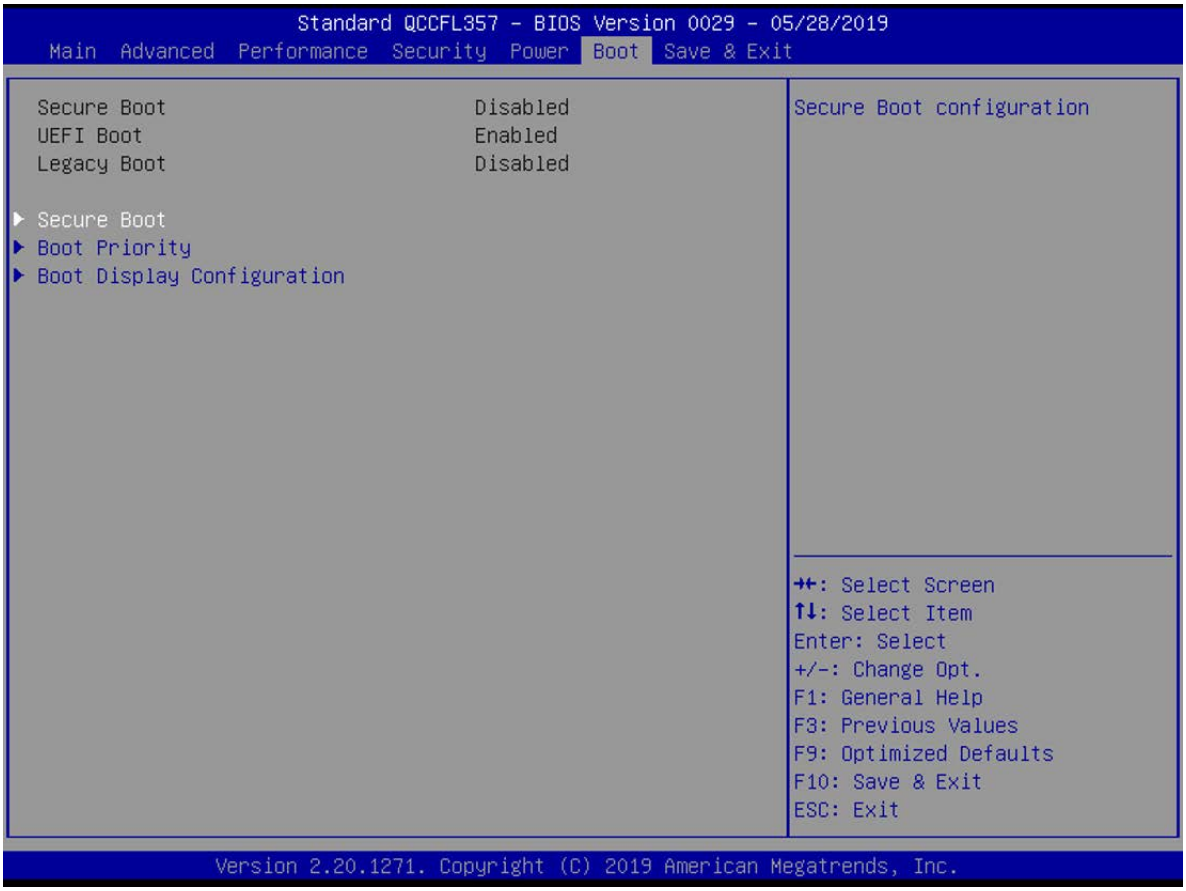
Configures system behavior after AC power is lost.

· Wake on LAN from S4/S5

Stay Off/ Power On - Normal Boot/ Power On – PXE Boot

Behavior when Wake on LAN packet is received during S4/S5.

4.2.6 Boot Menu



· Current Boot State

It will show boot state.

· Secure Boot

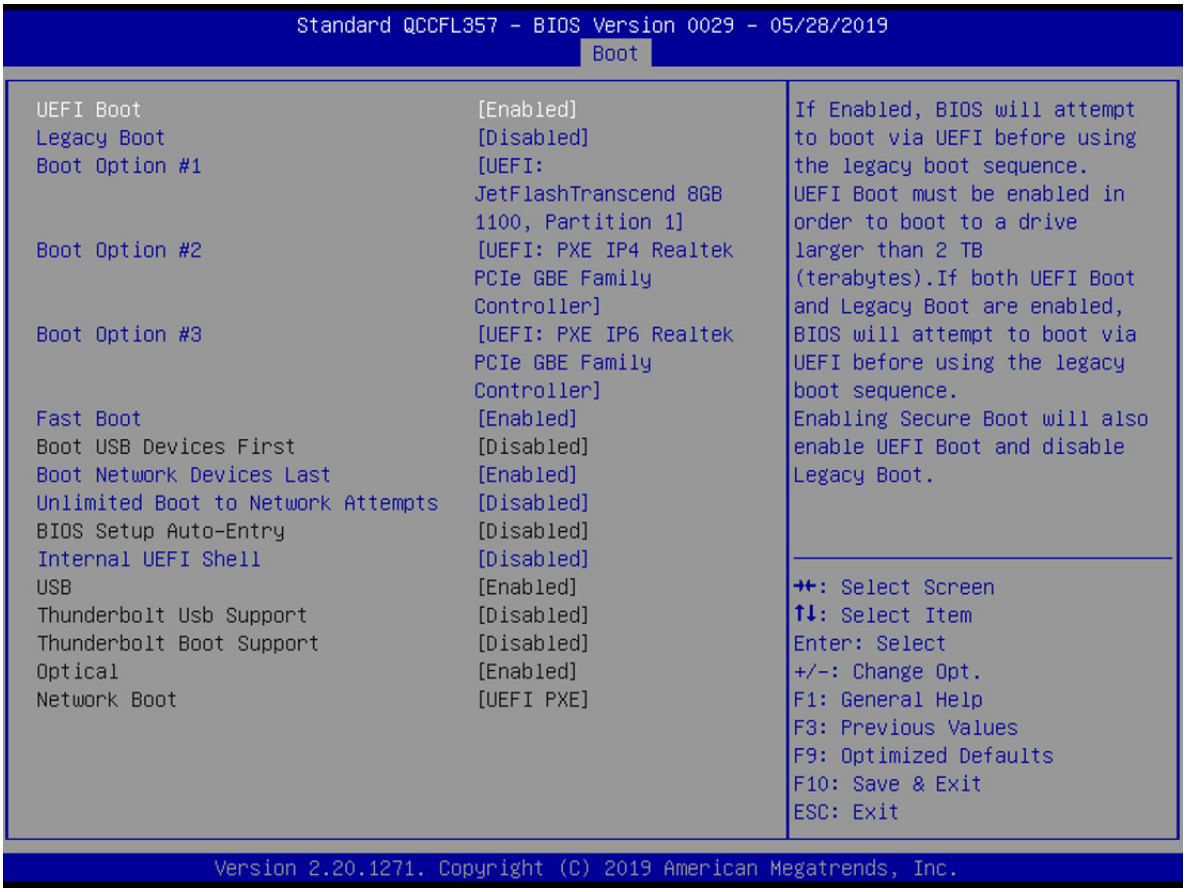
Configure Settings Secure Boot.

· Boot Priority

Configure Settings during System Boot.

· Boot Display Configuration

Configure Settings suppress alert messages and hotkey.



Boot Priority page

*Boot Configuration

Configure Settings during System Boot.

Enabling Secure Boot will also enable UEFI Boot and disable Legacy Boot.

*Set Boot Priority (1st/2nd/3rd/..... Boot)

Specifies the boot sequence from the available devices. A device enclosed in parenthesis has been disabled in the corresponding type menu.

*Fast Boot

Enable/Disable

If Enabled, Boot from Network/Optical/Removable Devices and RAID configuration will be disabled. In addition, Video and USB devices (keyboards and drives) will not be available until after OS boot.

This feature cannot be enabled while a User Password or Hard Disk Drive Password is installed, and when Chipset SATA Mode set to Intel RST Premium With Intel Optane System Acceleration. This feature does not affect USB and video capabilities after OS boot.

Disable Fast Boot without entering BIOS Setup: Power down the system, then hold down the power button until the system beeps.

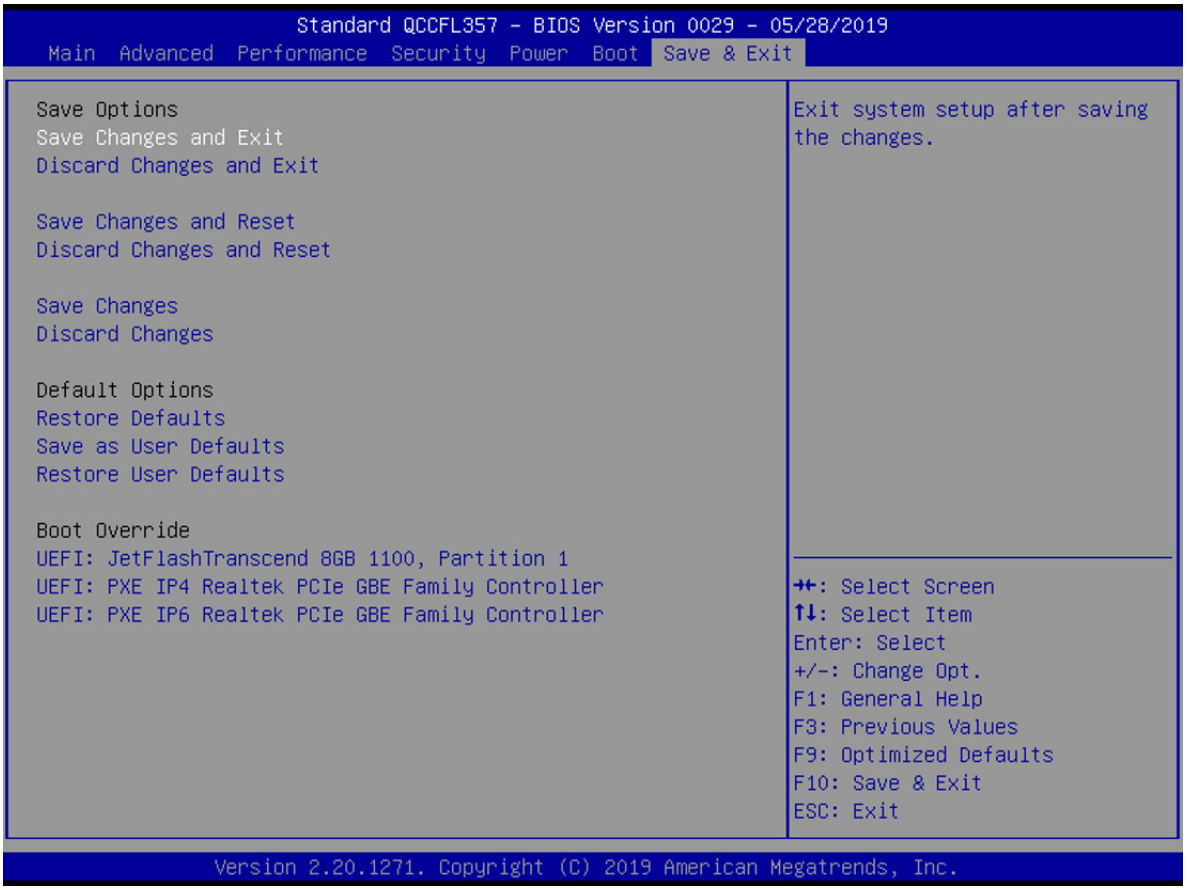
*Boot Network Devices Last

If Enabled, Network devices will always be placed after non-Network devices in the boot priority.

*Unlimited Boot to Network Attempts

If Enabled, network devices will receive unlimited boot attempts after the normal boot order has been exhausted. If Disabled, each boot device will only receive a single boot attempt.

4.2.7 Save & Exit Menu



*Save Changes and Reset

Exit system setup after saving the changes. F10 key can be used for this operation.

*Discard Changes and Exit

Exit system setup without saving any changes. ESC key can be used for this operation.

*Restore Defaults

Restore/Load Defaults values for all the setup options. F9 key can be used for this operation.