AXIOMTEK

GOT817L-511

17" SXGA TFT
Touch Panel Computer

User's Manual

IP69K certification distinguishes the highest level of reliability.

RoHS

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Safety Precautions

Before getting started, please read the following important safety precautions.

1. The GOT817L-511 does not come equipped with an operating system. An operating system must be loaded first before installing any software into the computer.

2. Be sure to ground yourself to prevent static charge when installing the internal components. Use a grounding wrist strap and place all electronic components in any static-shielded devices. Most electronic components are sensitive to static electrical charge.

3. Disconnect the power cord from the GOT817L-511 before any installation. Be sure both the system and external devices are turned OFF. A sudden surge of power could ruin sensitive components that the GOT817L-511 must be properly grounded.

4. The brightness of the flat panel display will be getting weaker as a result of frequent usage. However, the operating period varies depending on the application environment.

5. Turn OFF the system power before cleaning. Clean the system using a cloth only. Do not spray any liquid cleaner directly onto the screen. The GOT817L-511 may come with a touchscreen. Although the touchscreen is chemical resistant, it is recommended that you spray the liquid cleaner on a cloth first before wiping the screen. In case your system comes without the touchscreen, you must follow the same procedure and not spray any cleaner on the flat panel directly.

6. Avoid using sharp objects to operate the touchscreen. Scratches on the touchscreen may cause malfunction or internal failure to the touchscreen.

7. The flat panel display is not susceptible to shock or vibration. When assembling the GOT817L-511, make sure it is securely installed.

8. Do not open the system's back cover. If opening the cover for maintenance is a must, only a trained technician is allowed to do so. Integrated circuits on computer boards are sensitive to static electricity. To avoid damaging chips from electrostatic discharge, observe the following precautions:

   ➢ Before handling a board or integrated circuit, touch an unpainted portion of the system unit chassis for a few seconds. This will help to discharge any static electricity on your body.

   ➢ When handling boards and components, wear a wrist-grounding strap, available from most electronic component stores.

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Table of Contents

CHAPTER 1
Introduction

This chapter contains general information and detailed specifications of the GOT817L-511. Chapter 1 includes the following sections:

■ General Description

■ Specification

■ Dimensions

■ I/O Outlets

■ Package List

1.1 General Description

The GOT817L-511 is a fan-less and compact-size touch panel computer, equipped with a 17" TFT LCD display and low power consumption Intel® Core™ i5-7300U 3.5GHz processor. The GOT817L-511 supports Windows® 10 and Windows® 10 IoT embedded OSs. The panel computer provides Mini card slots of full-size and half-size each for extension. Its excellent ID and friendly user interface make it a professional yet easy-to-use panel computer. The GOT817L-511 is an ideal for space-limited applications in factory automation, machine maker operating systems, building automation, and more.

● **GOT817L-511: 17" TFT SXGA Fanless Touch Panel Computer**

  ➢ Reliable and Stable Design

    The GOT817L-511 adopts a fanless cooling system, which makes it suitable for vibration environments, example for Marine and Crane.

  ➢ Embedded O.S. Supported

    The GOT817L-511 not only supports Windows® 10, but also supports embedded OS, such as Windows® 10 IoT embedded. For storage device, the GOT817L-511 supports 2.5" SSD or 2.5" SATA HDD device.

  ➢ Industrial-grade Product Design

    The GOT817L-511 has an incredible design to be used in different industrial environments.

● **The whole enclosure meets the IP66 standard.**

● **For connecting other devices, the GOT817L-511 also features several interfaces: USB, Ethernet, and RS-232/422/485.**

1.2   Specifications

1.2.1 Main CPU Board

- **CPU**
  - Intel® Core™ i5-7300U 3.5GHz processor onboard (Kaby Lake)

- **System Memory**
  - One 260-pin DDR4-2133 SO-DIMM socket
  - Maximum memory up to 16GB

- **BIOS**
  - America Megatrends UEFI BIOS

1.2.2 I/O System

- **Standard I/O**
  - 2 x RS-232/422/485(default RS-232)
  - 4 x USB 2.0 (M12 connector x 2)

- **Ethernet**
  - One Intel® i-210LM Gigabit Ethernet (M12 X-coded connector)

- **Expansion**
  - Two Mini PCI-E card (full-size x 1 / half size x 1)

- **Storage**
  - One SATA interface

1.2.3 System Specification

- **17" TFT LCD**
  - 17" SXGA 350nits, resolution: 1280x1024

- **Heat Dispensing Design**

- **Disk drive housing:**
  - One 2.5" SATA drive (optional)

- **Net Weight**
  - 6.94 Kgs (15.3 lb)

- **Dimension (Main Body Size)**
  - 415.92 mm x 348.34 mm x 55 mm

- **Operation Temperature**
  - -20℃ to +50℃

● **Relative Humidity**

■ 10% to 95% @ 40℃, Non-Condensing

● **Vibration**

■ 5 to 500 Hz, 1.0 G, random for 2.5" SSD

Note

1. All specifications and images are subject to change without notice.

2. The GOT817L-511 is suited on serious environment; please choose the wide temperature DRAM and SSD.

3. If the operation temperature is higher than 35℃, the wide temperature HDD is recommended to be used on the device.

4. If the operation temperature is higher than 45℃, the wide temperature CF and SSD are recommended to be used on the device.

Warning: According the warrantee is adopt for the IP66 guarantee, please choose CF,SSD and RAM by Axiomtek, also please kindly don't disassemble the system by youself.
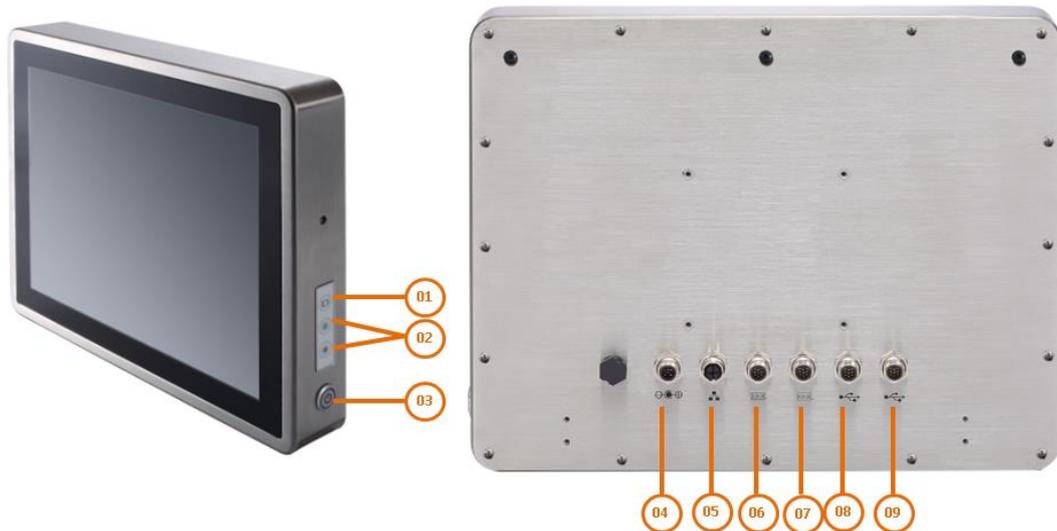
1.3   Dimensions

This diagram shows you dimensions and outlines of the GOT817L-511.
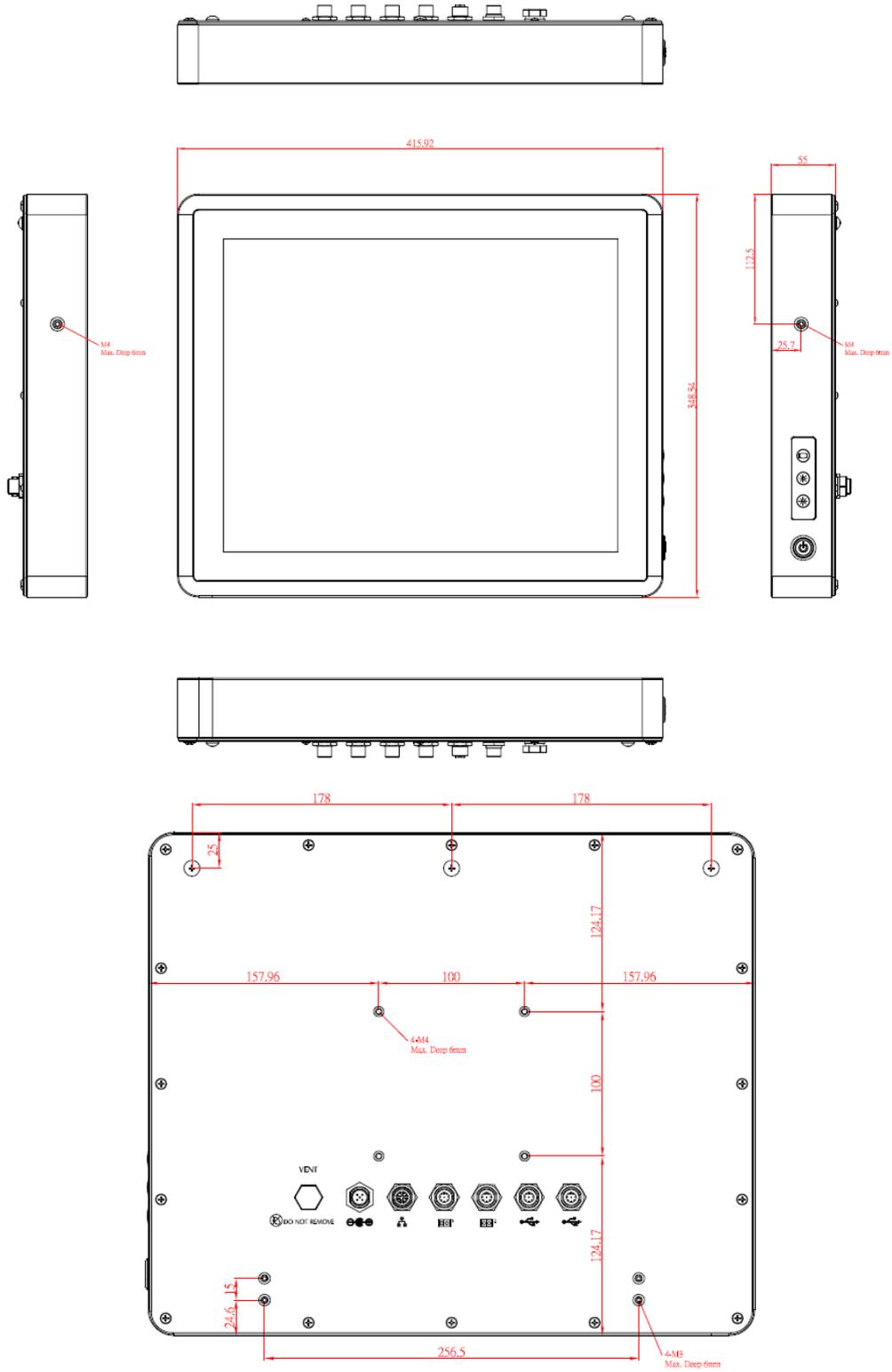
1.4 I/O Outlets

Please refer to the following illustration for I/O locations of the GOT817L-511.

No	Function
1	Backlight ON/OFF
2	Brightness Adjust +/-
3	Power ON/OFF
4	DC Power Connector
5	Ethernet
6	COM1 (RS-232/422/485, default RS-232)
7	COM2 (RS-232/422/485, default RS-232)
8	USB 2.0 x 2
9	USB 2.0 x 2

1.5   Antenna Installation (Optional)

If you have the optional wireless module, you will find the antenna in the accessory box. The installation instructions are as follows:

1. If you add optional 2T2R WIFI module, the ANT1 is MAIN wifi antenna, the ANT2 is AUX wifi antenna.

2. If you add optional UMTS/HSPA+ module , the ANT1 is main UMTS/GSM antenna.

3. If you add optional 2T2R WIFI module and UMTS/HSPA+ module , the ANT1 is MAIN antenna, the ANT2 is AUX antenna, the ANT3 is main UMTS/GSM antenna.

1.6   Package List

When you receive the GOT817L-511, the bundled package should contain the following items:

- **GOT817L-511 x 1**

- **Driver DVD x1**

- **DC cable x1**

- **RAM (8G & 16G by optional)**

- **SATA HDD or SSD by optional**

- **24V Power Adapter (optional)**

- **Water-proof Power / USB / LAN / RS-232 cables (optional)**

- **Water-proof Antenna for Wifi or UMTS/HSPA+ (optional)**

- **VESA ARM(optional)**

If you can not find the package or any items are missing, please contact Axiomtek distributors immediately.

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CHAPTER 2
System Configurations

The GOT817L-511 provides rich I/O ports and flexible expansions for you to meet different demand. The chapter will show you how to install the hardware. It includes:

- I/O Pin Assignment

- Hard Disk and DRAM

- Wireless LAN Card (Optional)

- Water-proof cables (Optional)

- Hanging and VESA mounting (Optional)

2.1   I/O Pin Assignment

The GOT817L-511 has two serial ports, COM1 and COM2 (RS-232/422/485, default RS-232) , two USB ports, Ethernet, and DC-in 12V/24V connecter.

2.1.1   Serial Port Interface

The following table 1 shows you the pin assignments of this connector.

COM1 Data/Power Select (JP3)

The COM1 port has +5V power capability on DCD and +12V on RI by setting this jumper (3x2-pin p=2.0mm). See following table 2.

Table 1: Pin Assignment

Pin	RS-232	RS-422	RS-485
1	DCD	TX-	Data-
2	RXD	TX+	Data+
3	TXD	RX+	No use
4	DTR	RX-	No use
5	GND	GND	GND
6	DSR	No use	No use
7	RTS	No use	No use
8	CTS	No use	No use
9	RI	No use	No use
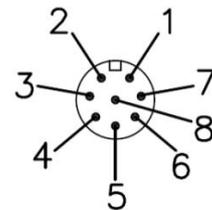
Each port +5V Maximum: 2A, +12V Maximum: 1A.

Note

Table 2: Jumpter setting for JP3

Function	Setting
+5V Power	1-3 close
DCD Data:	3-5 close (Default)
+12V Power	2-4 close
RI Data:	4-6 close (Default)
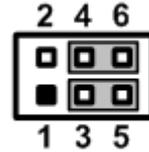
Warning: According the warrantee is adopt for the IP66 guarantee, please inform the COM1 setting when ordering, also please kindly don't disassemble the system by youself.

2.1.2 Ethernet

The GOT817L-511 is equipped with a high performance Plug and Play Ethernet interface, full compliant with IEEE 802.3 standard, and can be connected with a M12 LAN connector.

Please refer to detailed pin assignment list below:

Pin	Signal
1	TX+ (Data transmission positive
2	TX- (Data transmission negative)
3	Rx+(Data reception positive)
4	RJ45 termination
5	RJ45 termination
6	Rx- (Data reception negative)
7	RJ45 termination
8	RJ45 termination

2.1.3 USB Port

The USB is a Universal Serial Bus (compliant with USB 2.0 (480Mbps)) connector on the rear I/O. It is commonly used for installing USB peripherals such as keyboard, mouse, scanner, etc.

Pin	Signal	Pin	Signal
1	USB VCC (+5V level)	5	USB VCC (+5V level)
2	USB #0_D-	6	USB #1_D-
3	USB #0_D+	7	USB #1_D+
4	GND	8	GND
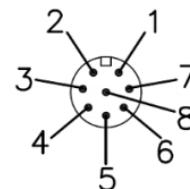
2.1.4 DC Power Jack w/ M12 connector

Pin	Signal
1	+9 ~ 36V
2	+9 ~ 36V
3	GND
4	GND
5	Earth Ground

2.2   Water-proof Cables

GOT800 series uses specific M12 connector for water-proof. Therefore you will order each cable base on application.

There are four kind cables of GOT800 series, by the optional, if you will apply the USB, COM or Ethernet then you can select a cable for the package.

The Power cable is included in the accessory box, when you will need the power adapter, also it can be selected by optional.

2.2.1 Power cable

Please follow pin assignment for the power input.

Pin	Signal
V+	DC 12V or 24V power input
⊕	Earth Ground
GND	GND
GND	GND

2.2.2 Power adapter for GOT817L-511

If you order the power adapter, you should choose the power cord type for your location. The power adapter is 110-240V which is combined M12 connector.

2.2.3 COM

There are two COM cables which are combined M12 connector. Also, you can refer 2.1.1 for the Series port pin assignment.

2.2.4 USB cables

The USB cable is combined M12 connector for water-proof. It is extended two USB ports for application.

2.3   Mounting Method

There are two mounting ways for the GOT817L-511. One is suspension, the other is VESA mount.

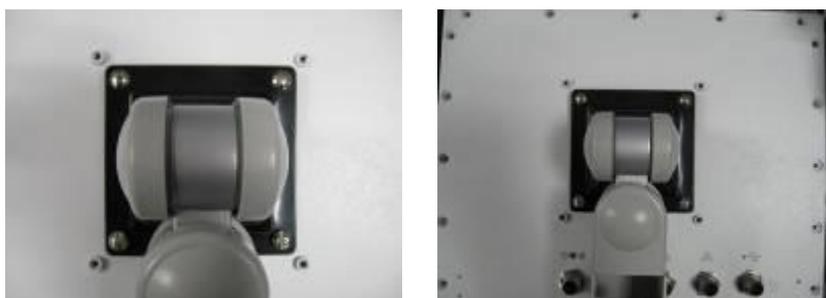### 2.3.1 VESA mounting

The GOT817L-511 can accept VESA 100

2.3.2 VESA-ARM Mounting

Step 1   Find out the 4 screws as marked on the back side of chassis.

Step 2   Assemble the VESA-ARM to the back side of the chassis, and fix the screws.

Step 3   VESA mounting Installation completed.

CHAPTER 3
AMI BIOS Setup Utility

This chapter provides users with detailed description how to set up basic system configuration through the AMIBIOS8 BIOS setup utility.

3.1   Navigation Keys

The BIOS setup/utility uses a key-based navigation system called hot keys. Most of the BIOS setup utility hot keys can be used at any time during the setup navigation process.

These keys include <F1>, <F2>, <F3>, <F4>, <Enter>, <ESC>, <Arrow> keys, and so on.

Some of navigation keys differ from one screen to another.

Note

|	
← **Left/Right**	The Left and Right <Arrow> keys allow you to select a setup screen.
↑↓ **Up/Down**	The Up and Down <Arrow> keys allow you to select a setup screen or sub-screen.
+− Plus/Minus	The Plus and Minus <Arrow> keys allow you to change the field value of a particular setup item.
Tab	The <Tab> key allows you to select setup fields.
F1	The <F1> key allows you to display the General Help screen.
F2	The <F2> key allows you to load previous value
F3	The <F3> key allows you to Load Optimized Defaults.
F4	The <F4> key allows you to save any changes you have made and exit Setup. Press the <F4> key to save your changes.
Esc	The <Esc> key allows you to discard any changes you have made and exit the Setup. Press the <Esc> key to exit the setup without saving your changes.
Enter	The <Enter> key allows you to display or change the setup option listed for a particular setup item. The <Enter> key can also allow you to display the setup sub- screens.

3.2 Main Menu
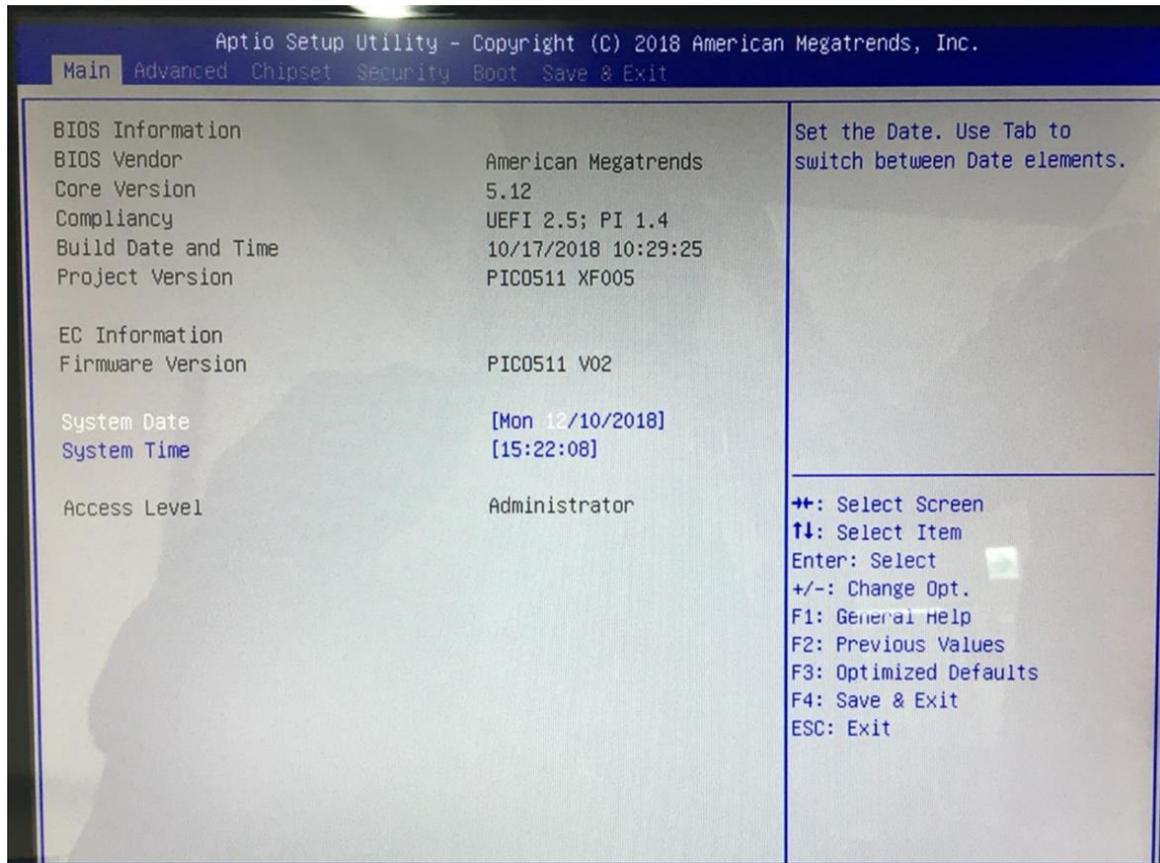
● **BIOS and EC Information**
 Display BIOS and EC firmware information.

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

● **Access Level**
 Display the access level of current user.

3.3   Advanced Menu

The Advanced menu allows users to set configuration of the CPU and other system devices. You can select any of the items in the left frame of the screen to go to the sub menus:

- Hardware Monitor
- Utility Configuration
- Utility Configuration
- CPU Configuration
- SATA Configuration
- PCH-FW Configuration
- USB Configuration
- Device Configuration (This option appears only if an I/O board is connected CN2 and CN3 See Section 2.5.1.)

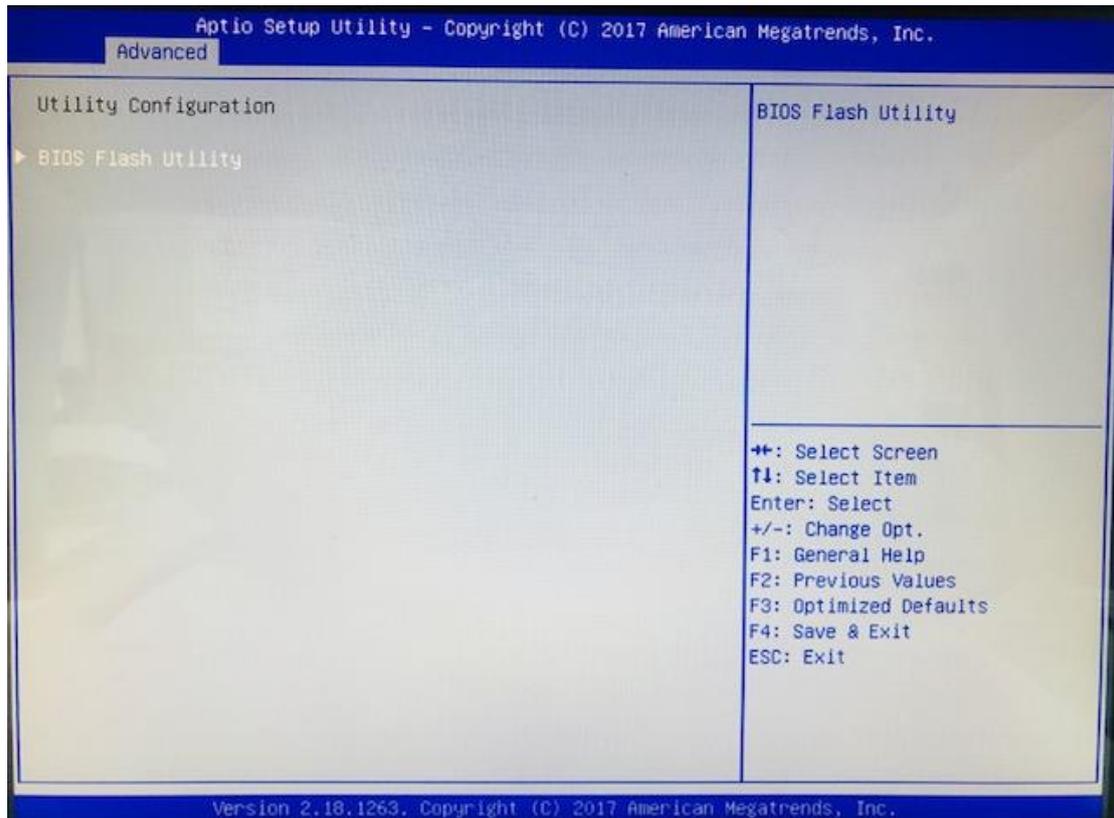For items marked with "►", please press <Enter> for more options.'
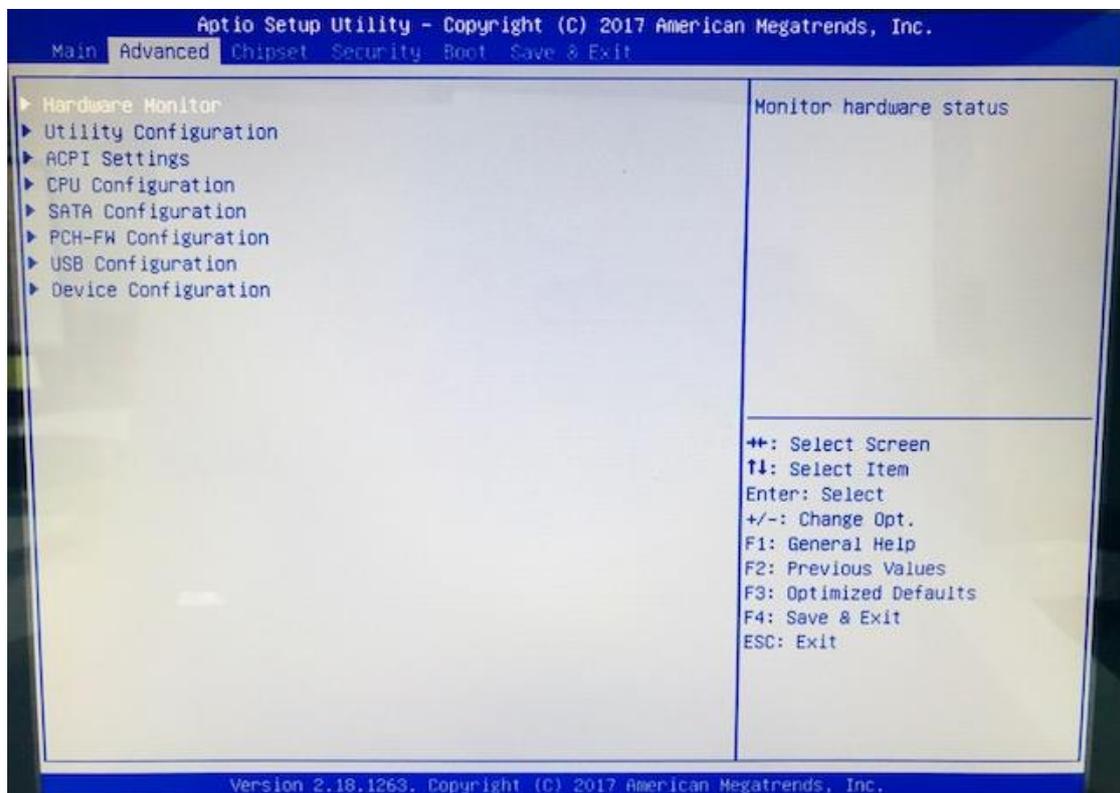
Hardware Monitor

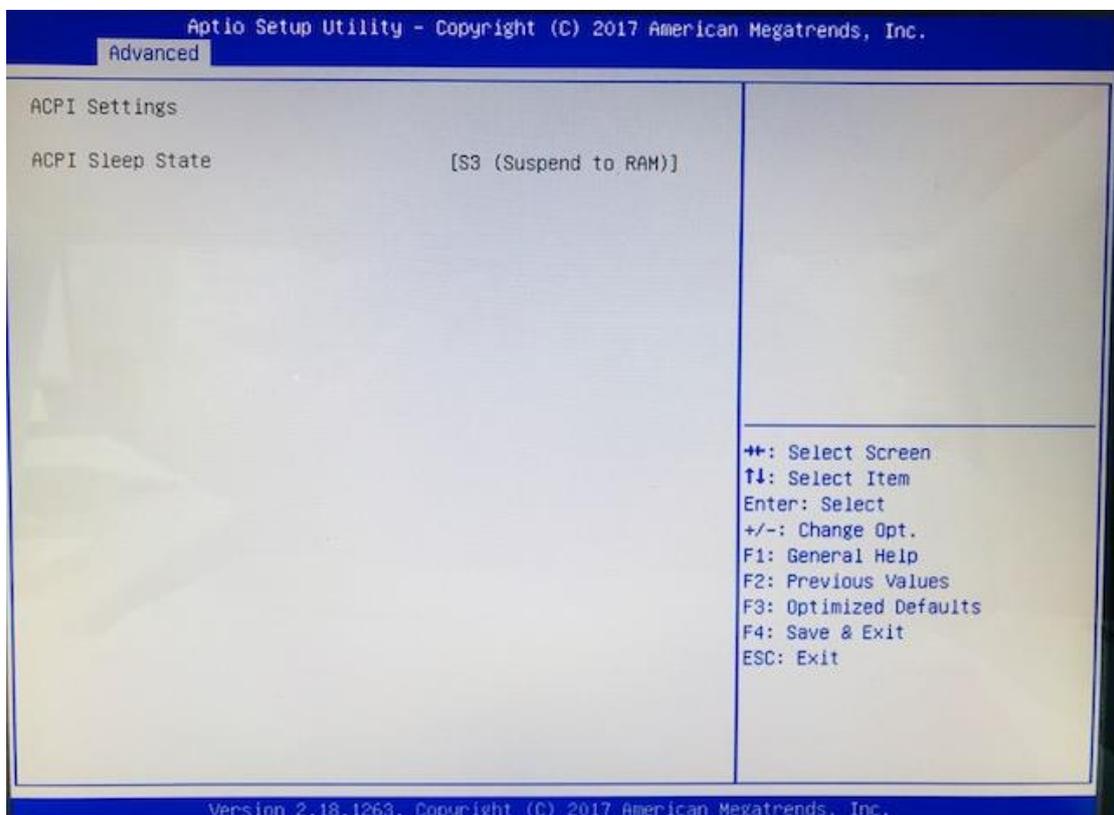This screen monitors hardware health status.
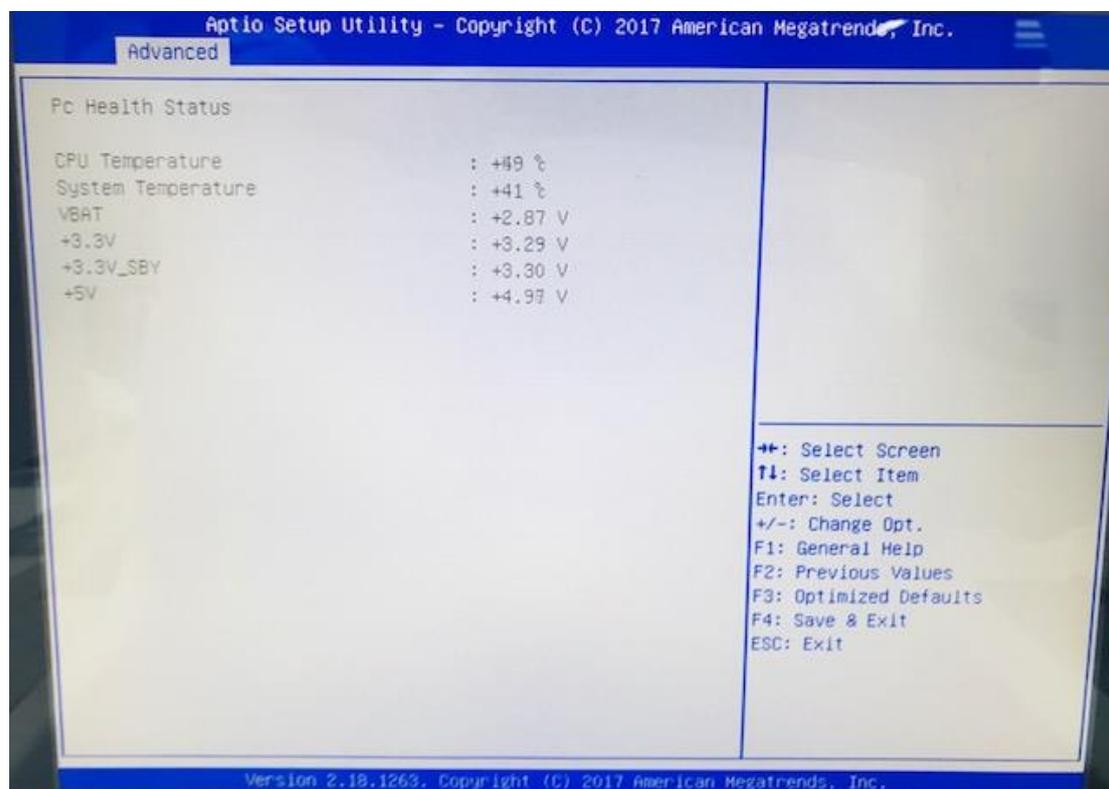
This screen displays the temperature of system and CPU, system voltages (VBAT, +3.3V, +3.3V_SBY and +5V).

Utility Configuration

Aptio Setup Utility - Copyright (C) 2017 American Megatrends, Inc.
Advanced

Utility Configuration   BIOS Flash Utility

▶ BIOS Flash Utility

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

Version 2.18.1263. Copyright (C) 2017 American Megatrends, Inc.

ACPI Settings

Aptio Setup Utility - Copyright (C) 2017 American Megatrends, Inc.
Advanced

ACPI Settings

ACPI Sleep State   [S3 (Suspend to RAM)]

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

Version 2.18.1263. Copyright (C) 2017 American Megatrends, Inc.

ACPI Sleep State

The setting is S3 (Suspend to RAM); this option selects ACPI sleep state the system will enter when suspend button is pressed.

CPU Configuration

This screen shows the CPU Configuration and you can change the value of the selected option.
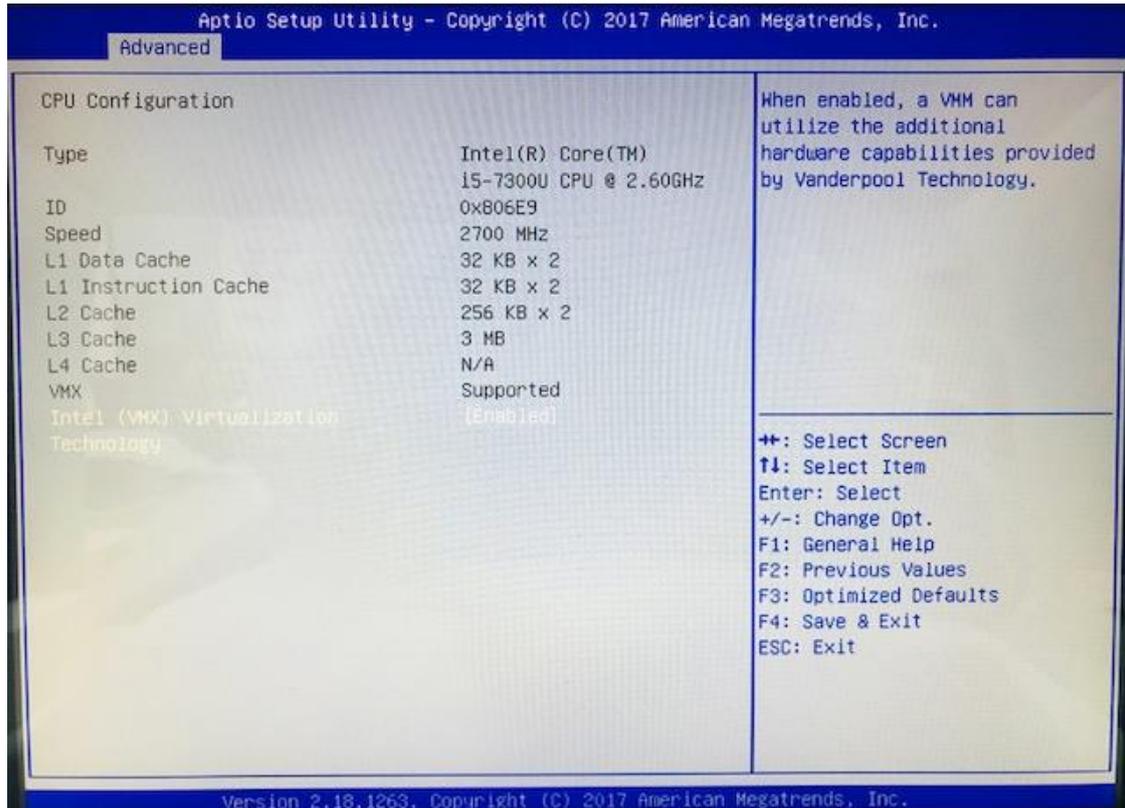
Intel (VMX) Virtualization Technology

Enable or disable Intel Virtualization Technology. When enabled, a VMM (Virtual Machine Mode) can utilize the additional hardware capabilities. It allows a platform to run multiple operating systems and applications independently, hence enabling a computer system to work as several virtual systems.

SATA Configuration

Use this screen to select options for the Super IO Configuration, and change the value of the selected option
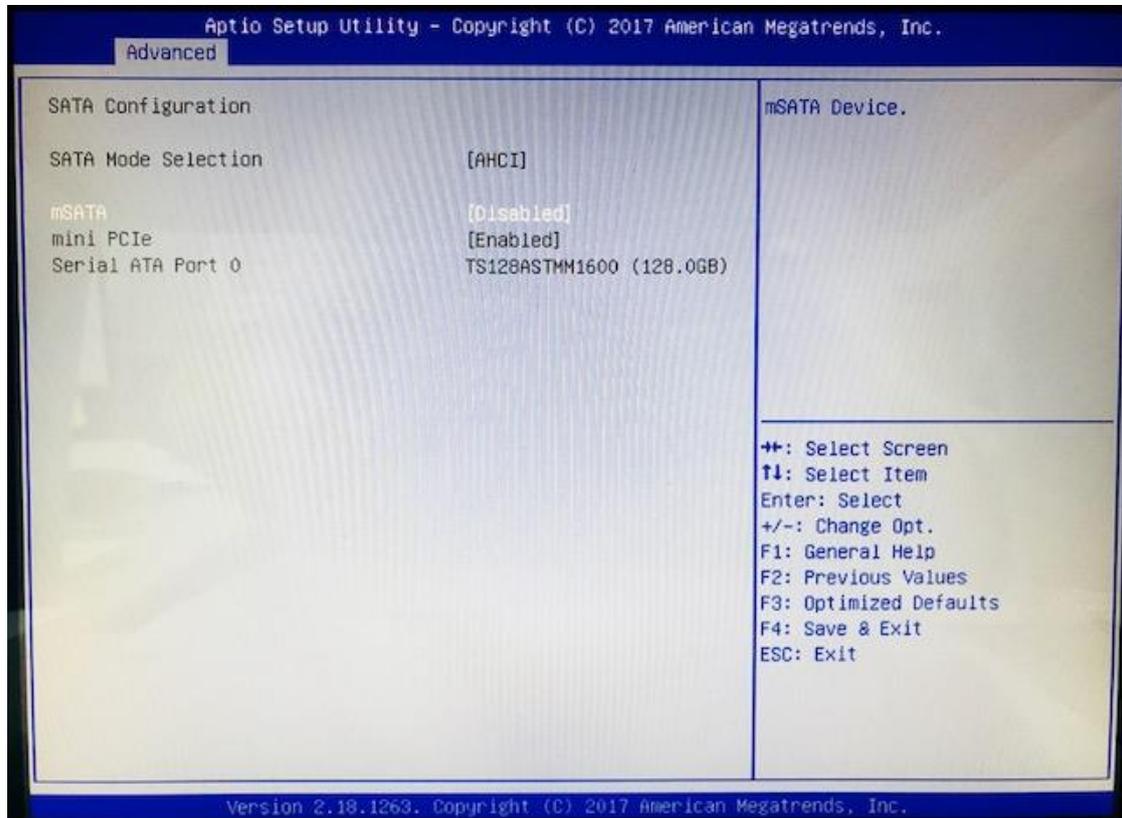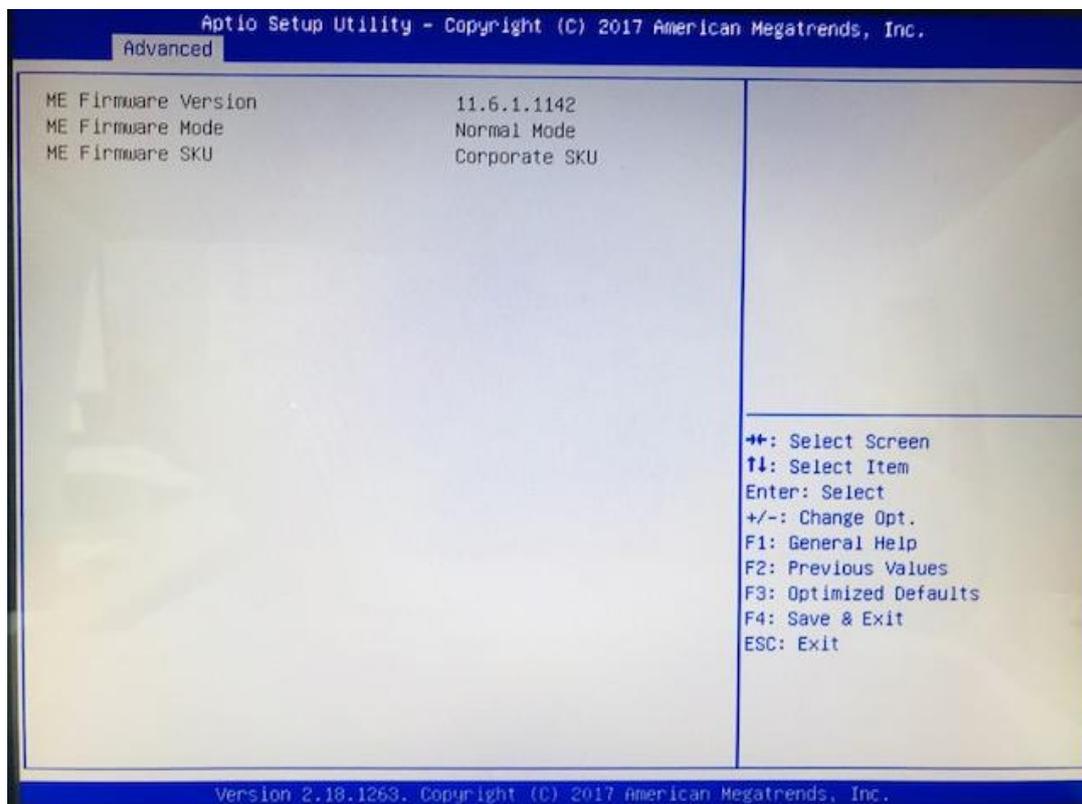

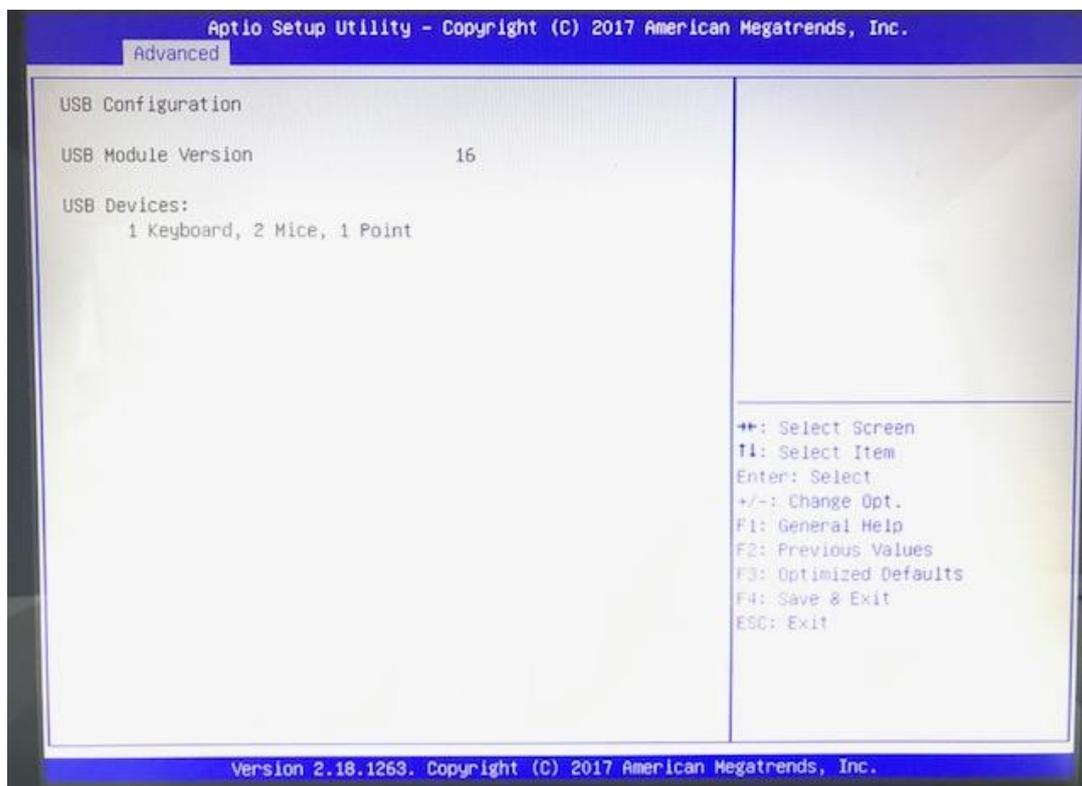**SATA mode selection**

The SATA mode is set to AHCI.

mSATA

Enable or disable mSATA feature.

PCH-FW Configuration

This screen displays ME Firmware information.
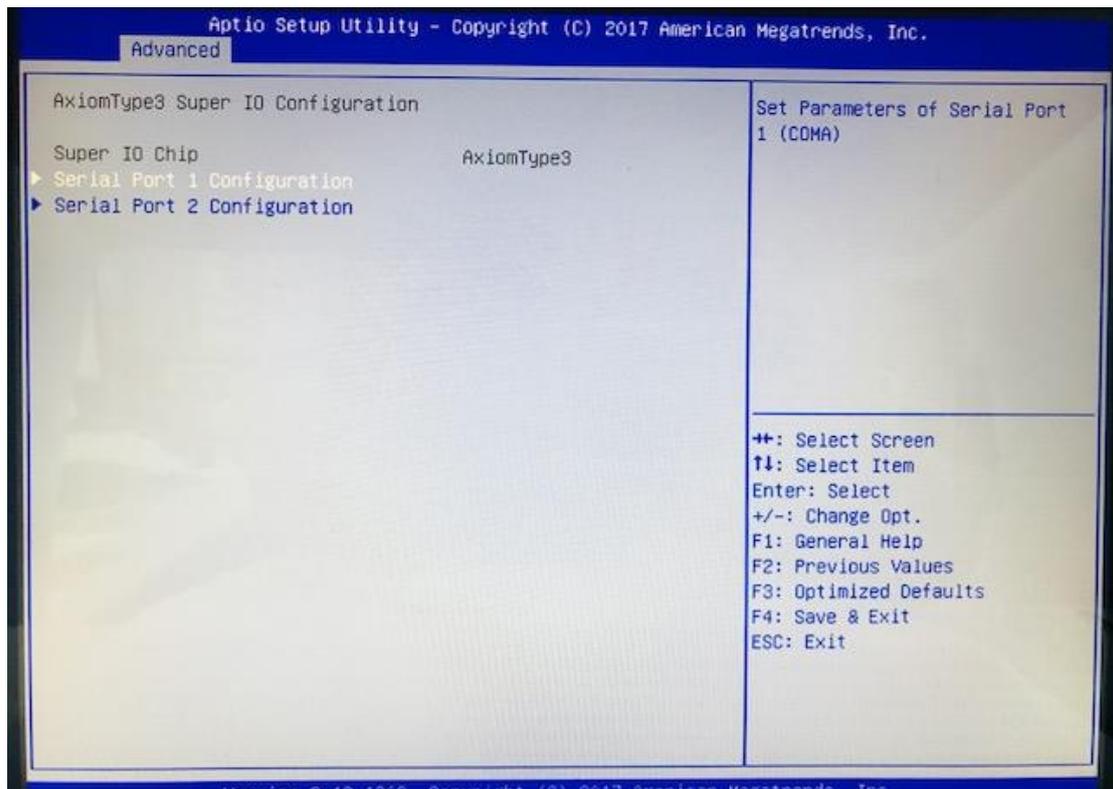

USB Configuration

USB Devices

Display all detected USB devices.

BIOS Flash Utility

BIOS flash utility configuration. For more detailed information, please refer to Appendix D.


AxiomType3 Super IO Configuration

A description of selected item appears on the right side of the screen. For items marked with "   ", please press for more options.
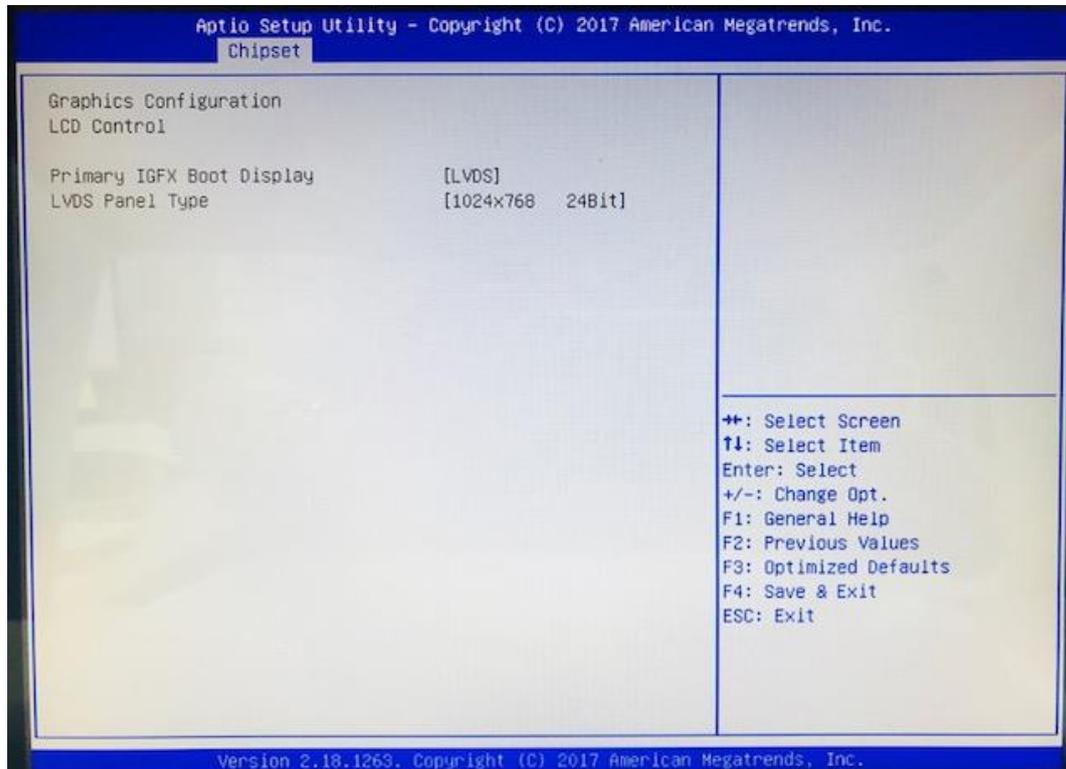
3.4   Chipset Menu

The Chipset menu allows users to change the advanced chipset settings. You can select "System Agent (SA) Configuration in the left frame of the screen to go to the sub menus:

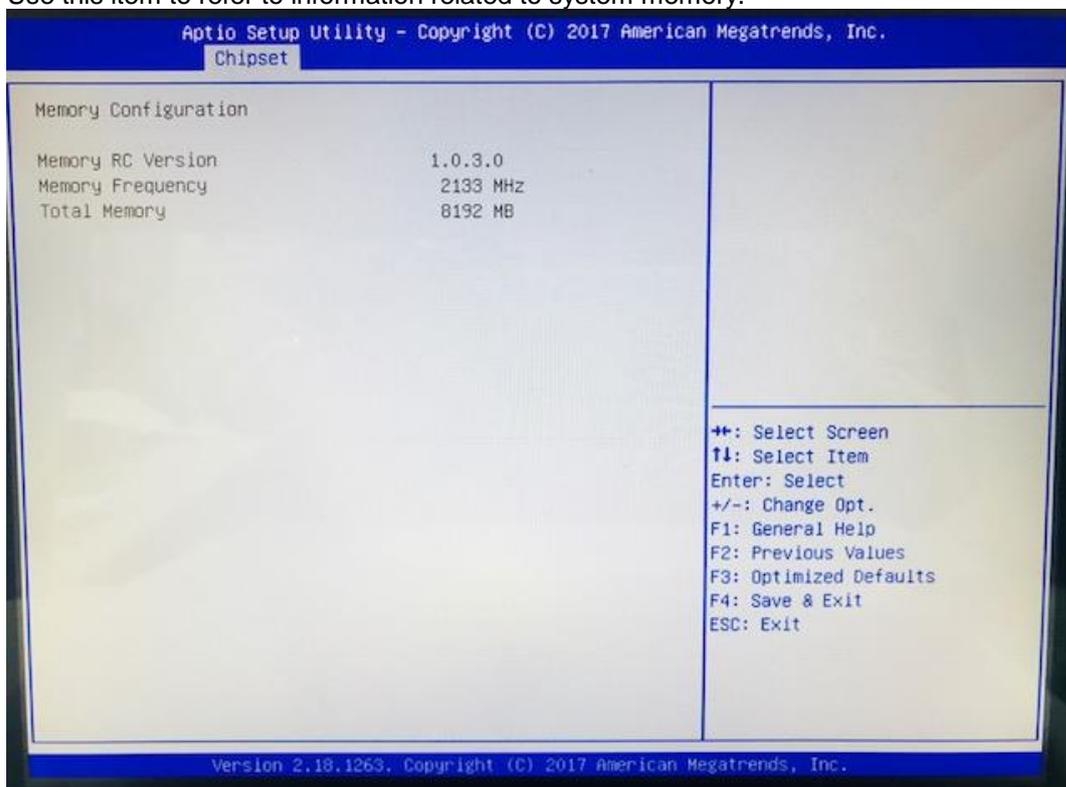For items marked with " ", please press for more options.
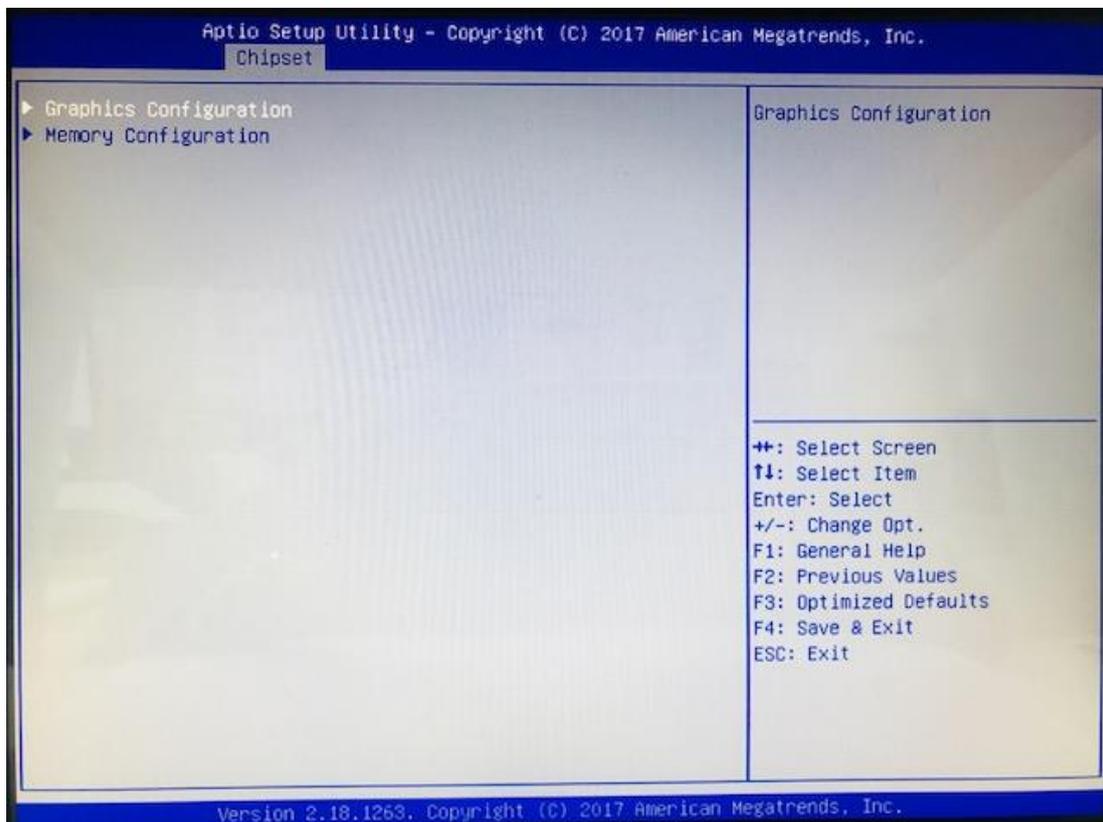
Graphics Configuration

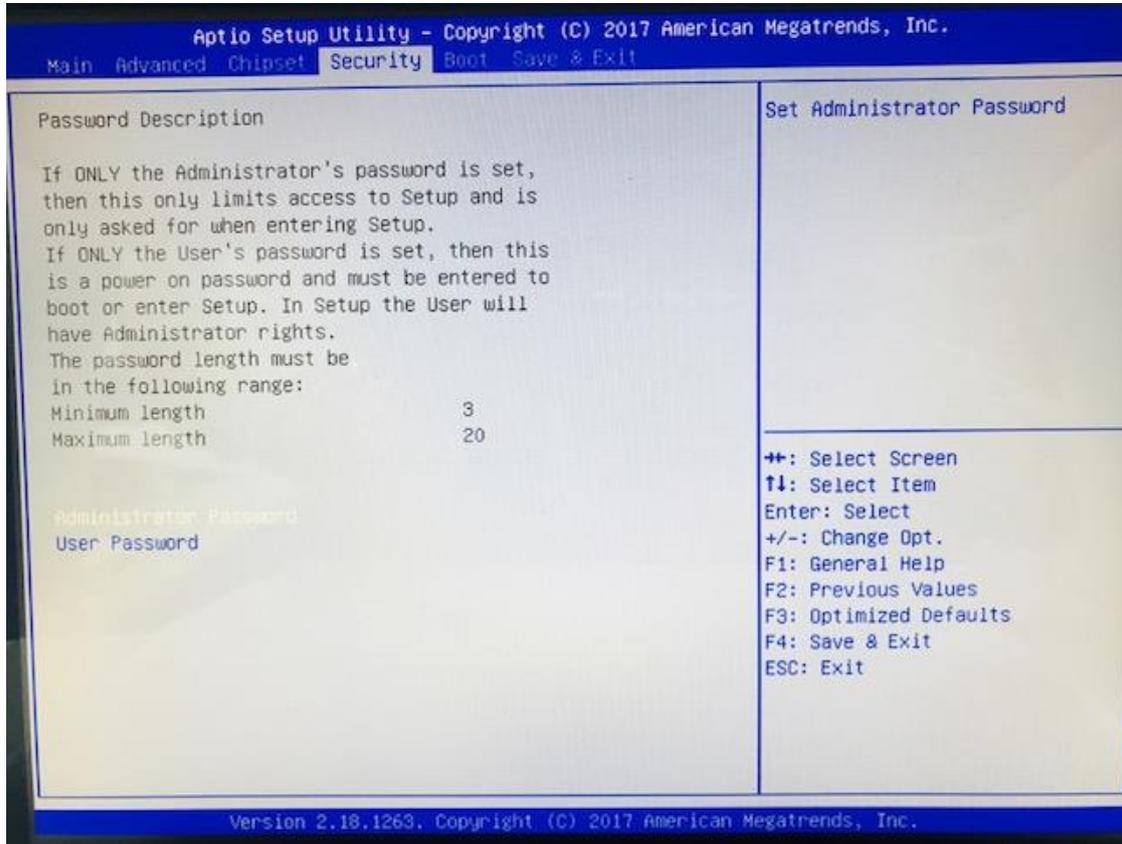Use this item to open graphics configuration sub screen.

Memory Configuration

Use this item to refer to information related to system memory.

3.5 Security Menu

The Security menu allows users to change the security settings for the system.
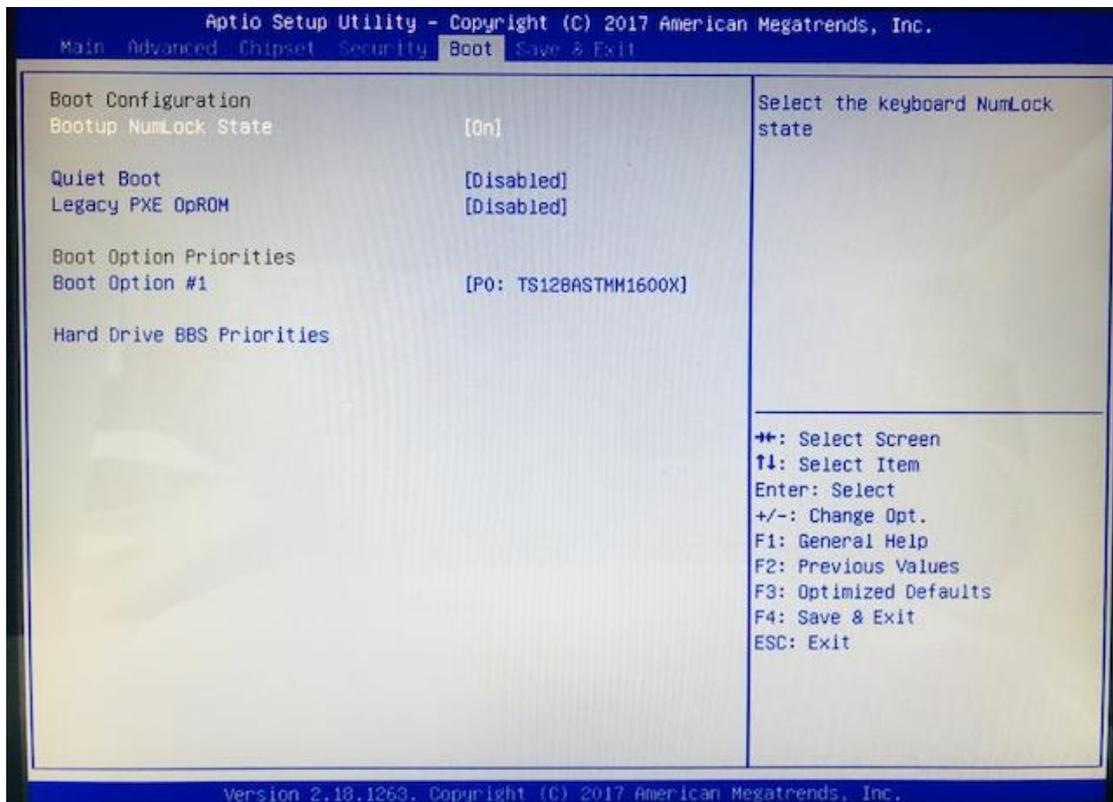

Setup Administrator Password

Use this item to set setup administrator password.

User Password

Use this item to set user password.

3.6   Boot Menu

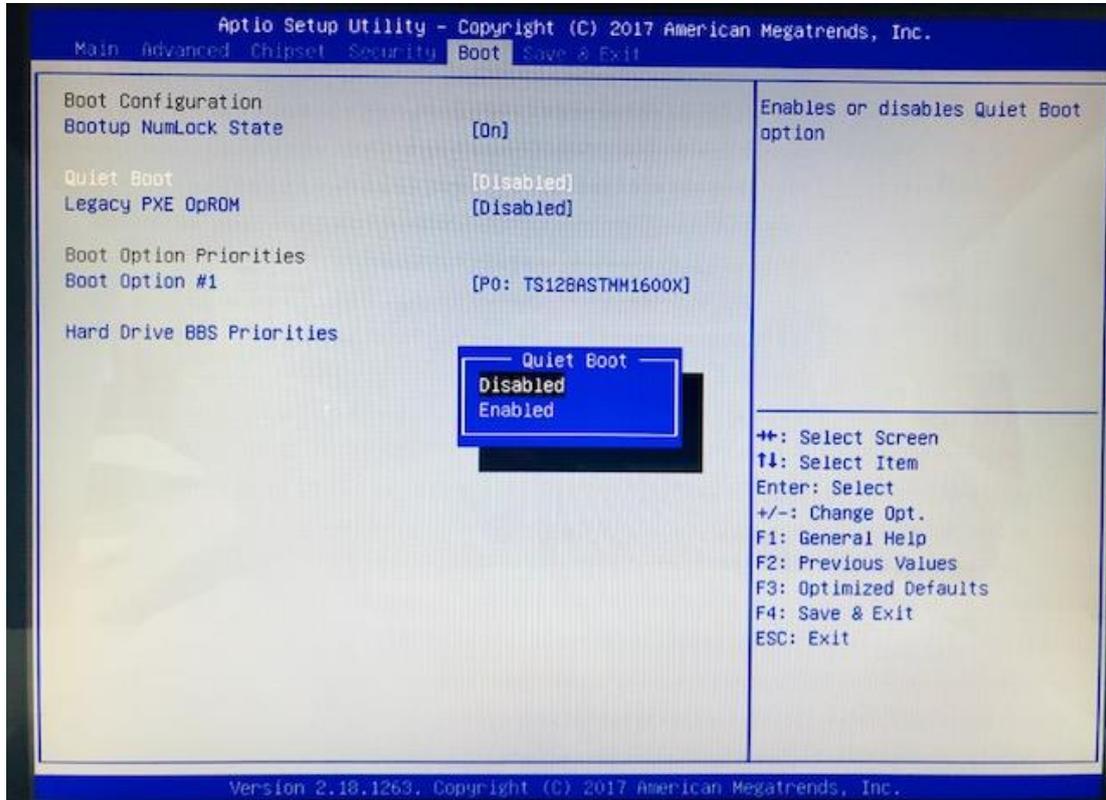The Boot menu allows users to change boot options of the system.

Bootup NumLock State

Use this item to select the power-on state for the keyboard NumLock.

Quiet Boot

Select to display either POST output messages or a splash screen during boot-up.

Launch Pxe OPROM

Use this item to enable or disable the boot ROM function of the onboard LAN chip when the system boots up.

Boot Option Priorities

These are settings for boot priority. Specify the boot device priority sequence from the available devices.

Hard Drive BBS Priorities

These are settings for configuring the order for a specific device group. These options are only visible if at least one device for this group is present.

AMI BIOS Setup Utility
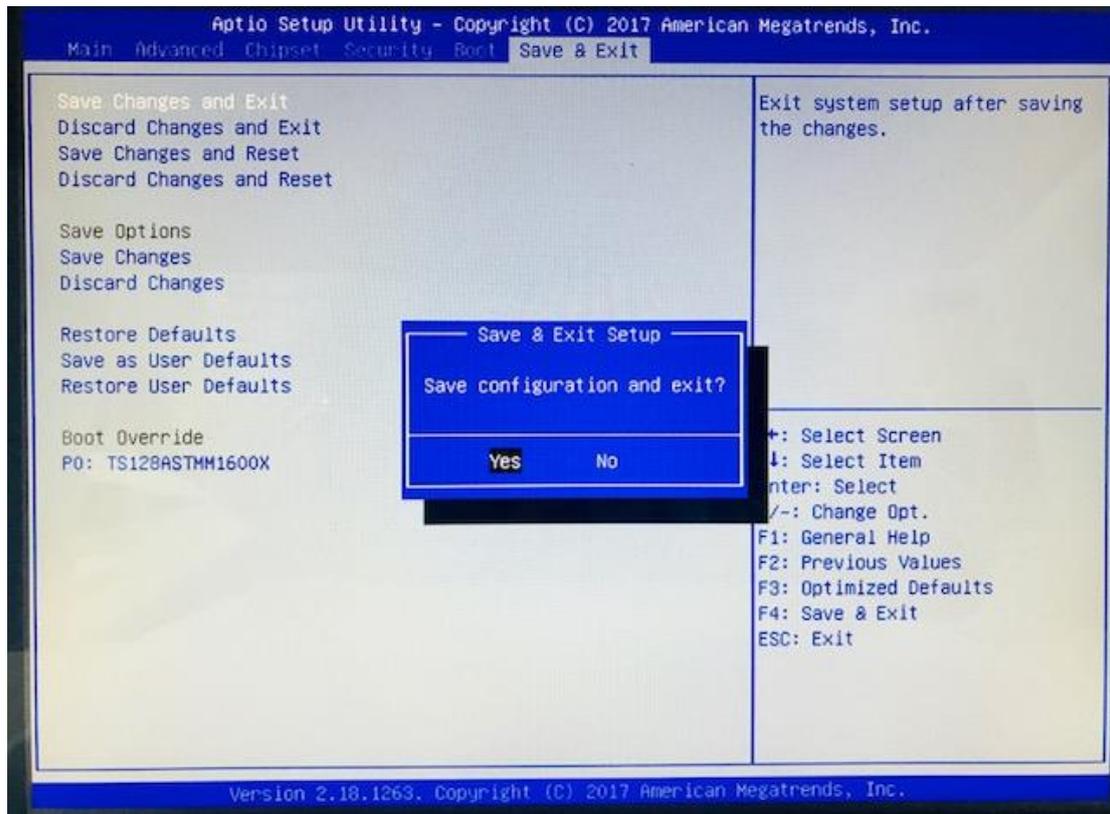
3.7   Save & Exit Menu

Save Changes and Exit

When you have completed the system configuration changes, select this option to leave Setup and return to Main Menu. Select Save Changes and Exit from the Save & Exit menu and press . Select Yes to save changes and exit.

Discard Changes and Exit

Select this option to quit Setup without making any permanent changes to the system configuration and return to Main Menu. Select Discard Changes and Exit from the Save & Exit menu and press . Select Yes to discard changes and exit.

Save Changes and Reset

When you have completed the system configuration changes, select this option to leave Setup and reboot the computer so the new system configuration parameters can take effect. Select Save Changes and Reset from the Save & Exit menu and press . Select Yes to save changes and reset.

Discard Changes and Reset

Select this option to quit Setup without making any permanent changes to the system configuration and reboot the computer. Select Discard Changes and Reset from the Save & Exit menu and press . Select Yes to discard changes and reset.

Save Changes

Select this option to save changes done so far. Select Save Changes from the Save & Exit menu and press . Select Yes to save changes.

Discard Changes

Select this option to discard changes done so far and load previous values. Select Discard Changes from the Save & Exit menu and press . Select Yes to discard changes.

Restore Defaults

It automatically sets all Setup options to a complete set of default settings when you select this option. Select Restore Defaults from the Save & Exit menu and press .

Save as User Defaults

Select this option to save system configuration changes done so far as User Defaults. Select Save as User Defaults from the Save & Exit menu and press .

Restore User Defaults

It automatically sets all Setup options to a complete set of User Defaults when you select this option. Select Restore User Defaults from the Save & Exit menu and press .
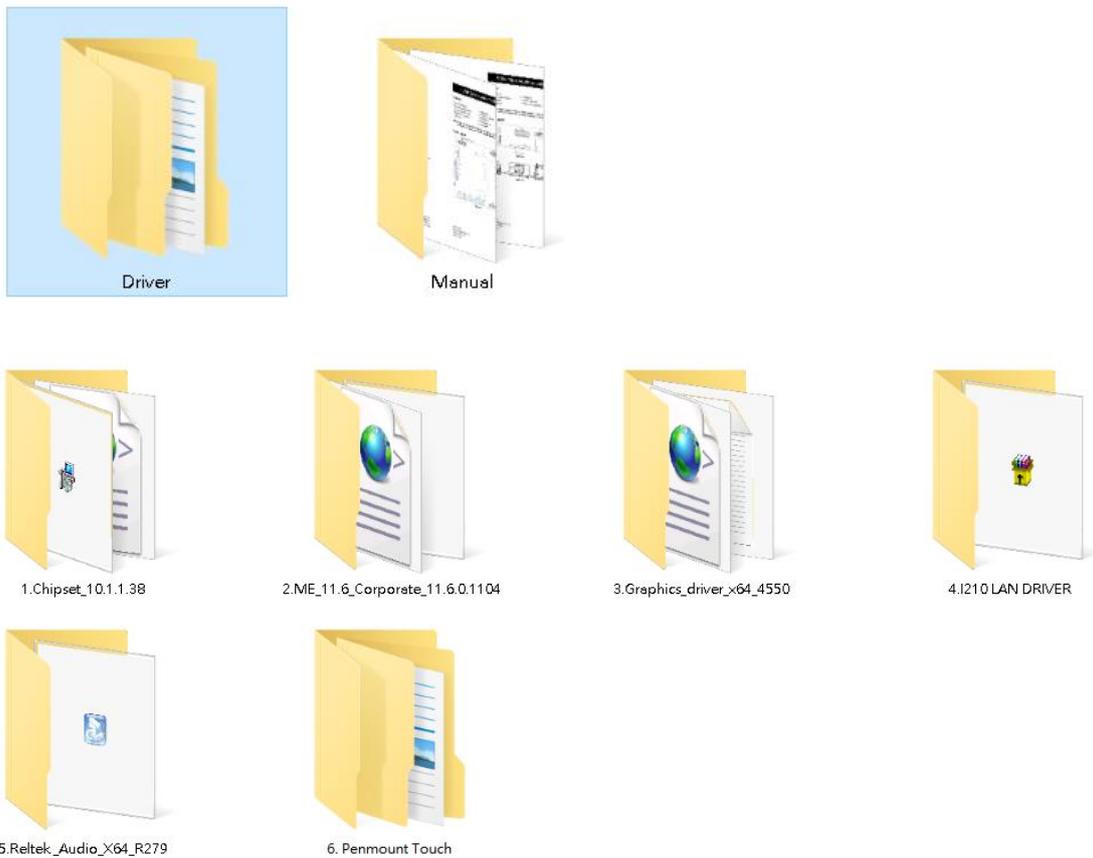
Boot Override

Select a drive to immediately boot that device regardless of the current boot order.

CHAPTER 4
Drivers Installation

4.1   System

GOT817L-511 supports only Windows 10-64. To facilitate the installation of system driver, please carefully read the instructions in this chapter before start installing.

1.   Insert Driver CD and select the "\Drivers".

Driver   Manual

1.Chipset_10.1.1.38   2.ME_11.6_Corporate_11.6.0.1104   3.Graphics_driver_x64_4550   4.I210 LAN DRIVER

5.Reltek_Audio_X64_R279   6. Penmount Touch

2.   Select all files and follow the installing procedure.

Note

If you didn't install graphics driver, it only can be resumed via VGA display when VGA and DP go to sleep mode.

4.2   Touch Screen

The GOT817L-511 uses the 5-wire analog resistive (flat front bezel type). There are the specification and driver installation which are listed below.

4.2.1   Specification

|	
Touch Screen	5-wire Analog Resistive type
Touch Screen Controller	PenMount 6000 USB Touch Screen Controller IC
Communications	USB interface
Resolution	1024 x 1024
Power Input	5V
Power Consumption	Active: 24.6mA / Idle Mode: 13.4mA

4.2.2   Driver Installation- Windows 10

The GOT817L-511 provides a touch screen driver that users can install it under the operating system Windows 10. To facilitate installation of the touch screen driver, you should read the instructions in this chapter carefully before you attempt installation.
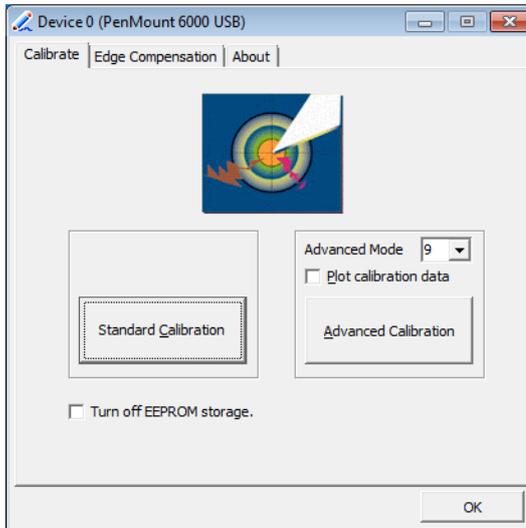
1.   Insert Driver CD and follow the path to select the "\Drivers\Step 7 - Touch".

Step 7.
Penmount
Touch
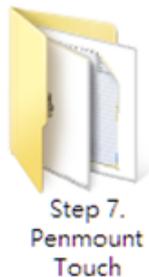
2.   Follow the installing procedure and press OK.

3.   Click Start menu and select "PenMount Utilties"; and then, a "PenMount Control Panel" pops out.
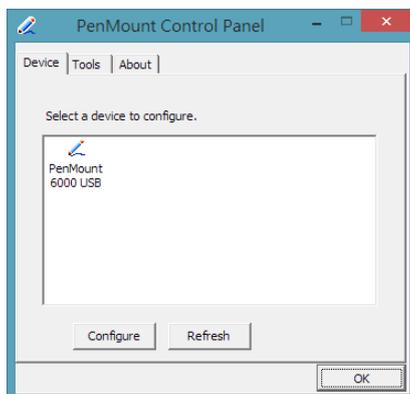
4. Select the "Standard Calibrate" tab.

5. Calibration:

   To adjust the display with touch panel, click "Calibration" and follow the calibrate point to do calibration; there are five points on screen for calibration.

6. Press OK.

4.3   Embedded O.S.

The GOT817L-511 provides the Windows® 10 Embedded. The O.S. is supported devices which are listed below.

WES 10

Here are supported onboard devices:

■   Onboard Multi I/O

■   SATA HDD

■   USB

■   LCD display

■   10/100/1000 base-T Ethernet

■   mSATA

■   Touch Screen