

# User Manual

## PPC-Z103PW

10.1" IP66/69K Stainless Steel 316  
Projected Capacitive Panel PC  
with Intel® Pentium™ N4200 Processor

# Record of Revisions

Version	Issue Date	Descriptions	Made By
1.0	2021/09/16	First Release	Derek

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# Safety Instructions

1. Read these safety instructions carefully.
2. Keep this User Manual for later reference.
3. Disconnect this equipment from any AC outlet before cleaning. Use a damp cloth. Do not use liquid or spray detergents for cleaning.
4. For plug-in equipment, the power outlet socket must be located near the equipment and must be easily accessible.
5. Keep this equipment away from humidity.
6. Put this equipment on a reliable surface during installation. Dropping it or letting it fall may cause damage.
7. The openings on the enclosure are for air convection. Protect the equipment from overheating. **DO NOT COVER THE OPENINGS.**
8. Make sure the voltage of the power source is correct before connecting the equipment to the power outlet.
9. Position the power cord so that people cannot step on it. Do not place anything over the power cord.
10. All cautions and warnings on the equipment should be noted.
11. If the equipment is not used for a long time, disconnect it from the power source to avoid damage by transient overvoltage.
12. Never pour any liquid into an opening. This may cause fire or electrical shock.
13. For safety reasons, the equipment should be opened only by qualified service personnel. If one of the following situations arises, get the equipment checked by service personnel:
  - The power cord or plug is damaged.
  - Liquid has penetrated into the equipment.
  - The equipment has been exposed to moisture.
  - The equipment does not work well, or you cannot get it to work according to the user manual.
  - The equipment has been dropped and damaged.
  - The equipment has obvious signs of breakage.
14. **DO NOT LEAVE THIS EQUIPMENT IN AN ENVIRONMENT WHERE THE STORAGE TEMPERATURE MAY GO BELOW -20° C (-4° F) OR ABOVE 55° C (131° F). THIS COULD DAMAGE THE EQUIPMENT. THE EQUIPMENT SHOULD BE IN A CONTROLLED ENVIRONMENT.**
15. **CAUTION: DANGER OF EXPLOSION IF BATTERY IS INCORRECTLY REPLACED. REPLACE ONLY WITH THE SAME OR EQUIVALENT TYPE RECOMMENDED BY THE MANUFACTURER, DISCARD USED BATTERIES ACCORDING TO THE MANUFACTURER'S INSTRUCTIONS.**

## Safety Precaution - Static Electricity

Follow these simple precautions to protect yourself from harm and the products from damage:

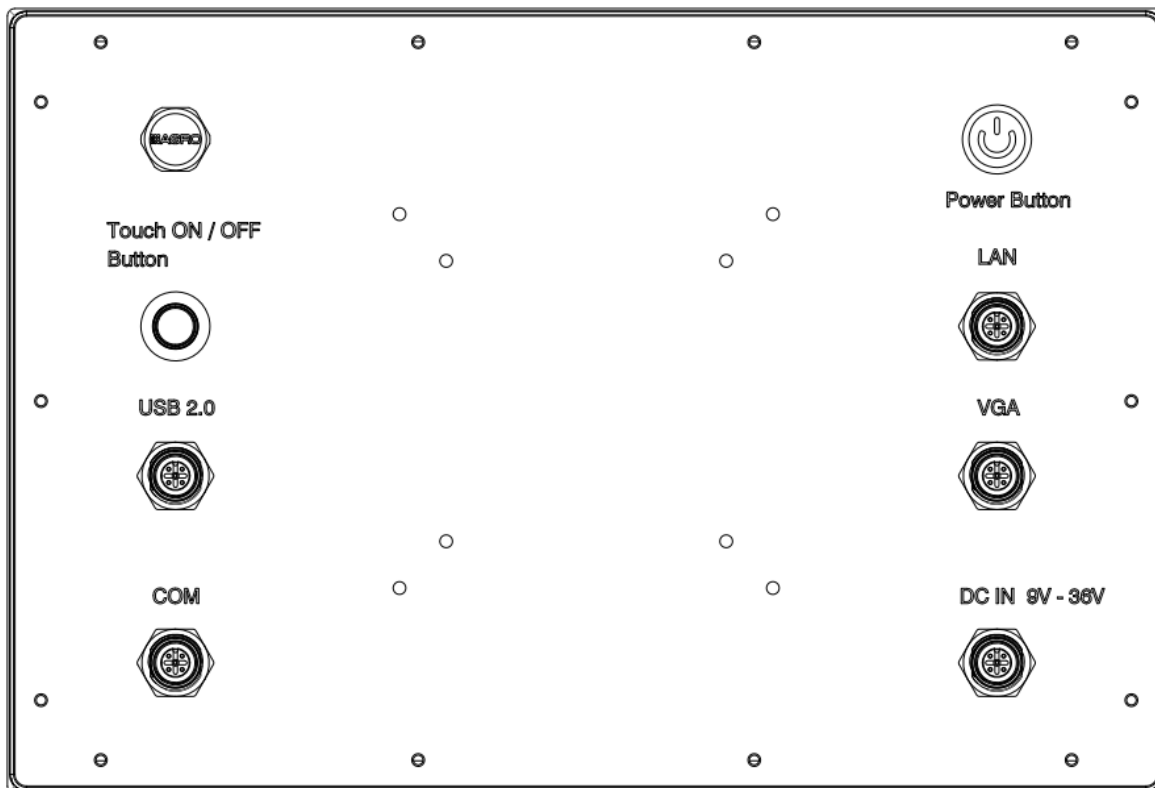
1. To avoid electrical shock, always disconnect the power from your PC chassis before you work on it. Don't touch any components on the CPU card or other cards while the PC is on.
2. Disconnect power before making any configuration changes. The sudden rush of power as you connect a jumper or install a card may damage sensitive electronic components.

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# Chapter 1. General Introduction

## 1.1 I/O Arrangement



### ■ Power Button

Press this button to turn on the system.

The LED is on when the system is operating.

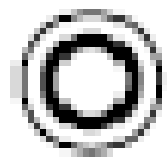
The LED keeps blinking when the system is in S1 sleep state.

The LED is off when the system is in S3/S4 sleep state or powered off (S5).



### ■ Touch On/Off Button

Press this button to turn on the capacitive touch.



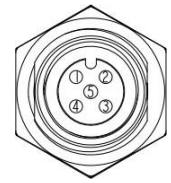
### ■ Pressure Relief Valve (Pressure Balance Element)

It can quickly discharge moisture and pressure, keep the internal pressure of the machine balanced, and effectively prevent the invasion of water and dust.



### ■ DC 9~36V Power Input (M12 Connector, 5 Pin Female)

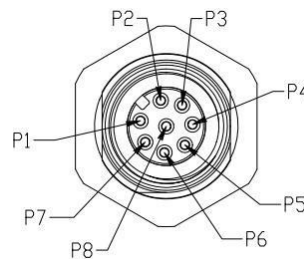
This system supports DC 9~36V input power voltage. The connector must be connected to DC 9 to 36V power adaptor.



Pin	Definition
1	VCC
2	VCC
3	GND
4	GND
5	N/A

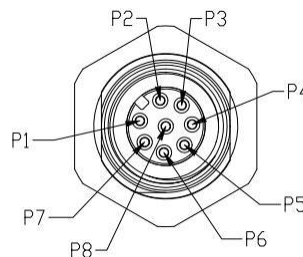
■ LAN Port (M12 Connector, 8 Pin Female)

Pin	Definition	Pin	Definition
1	TX_D1+	5	BI_D3-
2	TX_D1-	6	RX_D2-
3	RX_D2+	7	BI_D4+
4	BI_D3+	8	BI_D4-



■ USB2.0 Port (M12 Connector, 8 Pin Female)

Pin	Definition	Pin	Definition
1	+5	5	+5
2	D-	6	D-
3	D+	7	D+
4	GND	8	GND

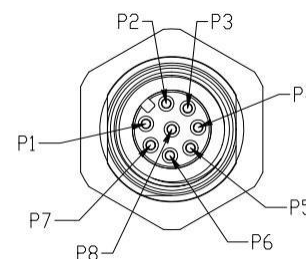


Each USB2.0 port supports 500mA @ 5 V.

■ COM Port (COM 1: RS-232/422/485) (M12 Connector, 8 Pin Female)

Users can change the configuration of COM1 by using jumper setting.

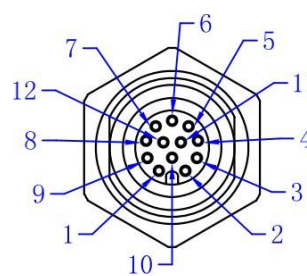
Pin	RS-232	RS-422	RS-485
1	DCD	TX-	D-
2	RXD	TX+	D+
3	TXD	RX-	
4	DTR	RX+	
5	GND	GND	GND
6	DSR		
7	RTS		
8	CTS		



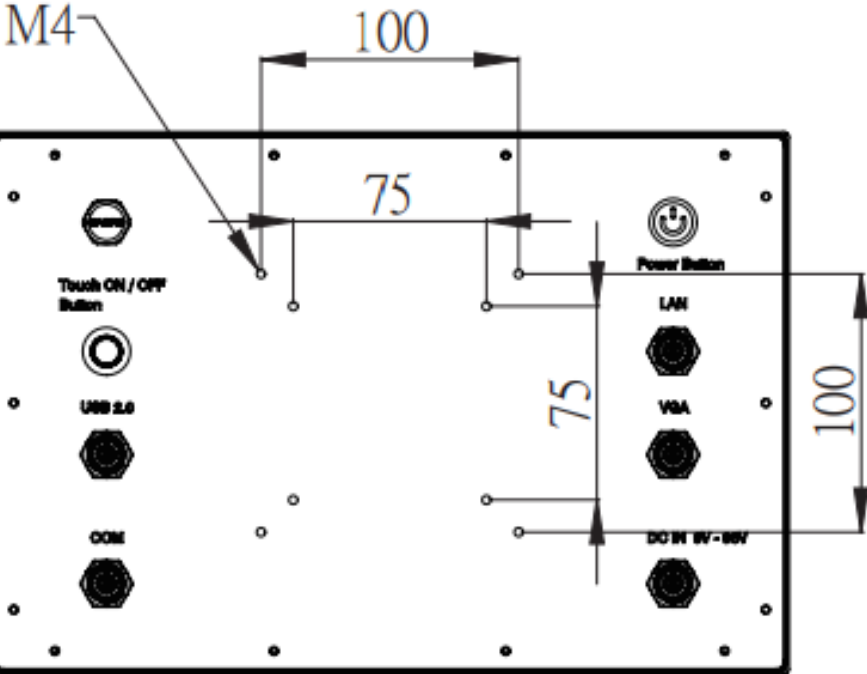
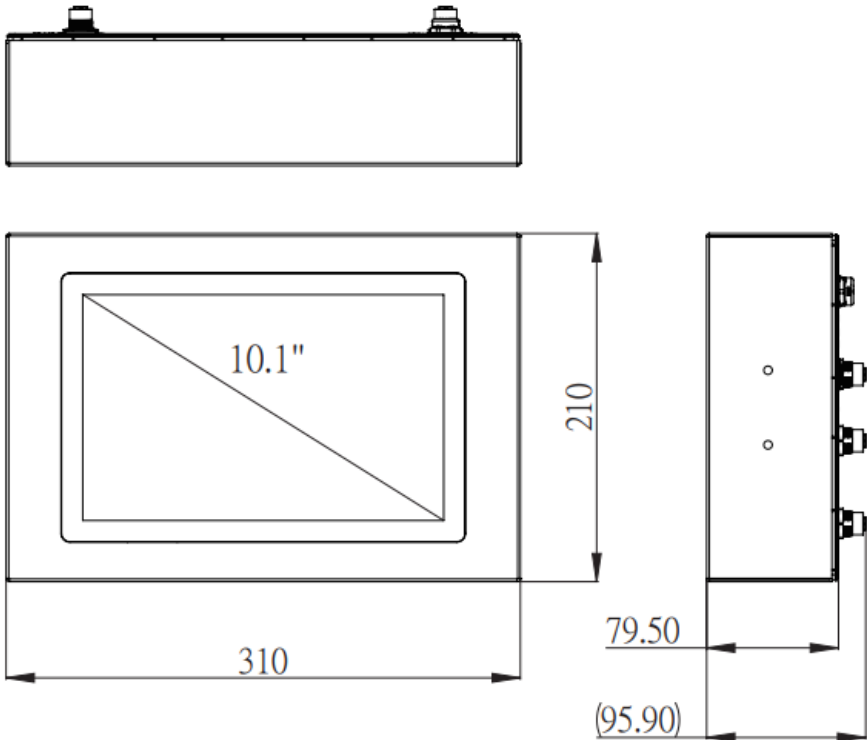


## ■ VGA Port

Pin	Definition	Pin	Definition
1	RED Gnd	7	BLUE
2	RED	8	GREEN GND
3	SDA	9	GREEN
4	GND	10	HS
5	GND	11	SCL
6	BLUE GND	12	VS

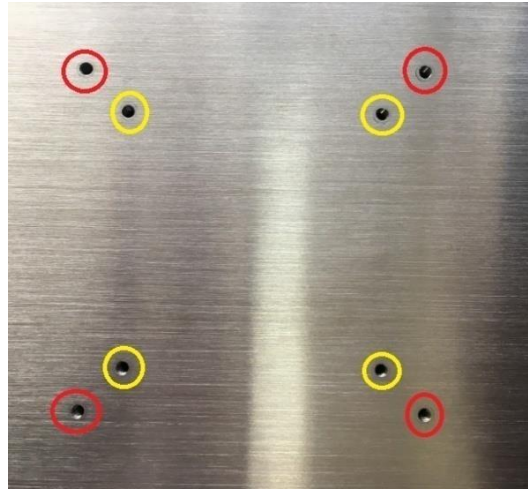


### 1.2 Mechanical Dimensions



## Chapter 2. System Setup

### 2.1 VESA Mount

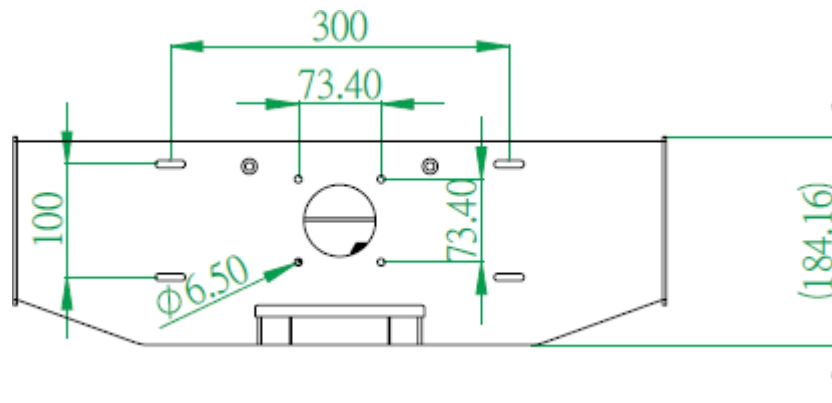


There are three VESA mount dimensions on the back cover: 75 x 75 mm and 100 x 100 mm. Fasten four M4 screws to mount the monitor to a VESA Stand.

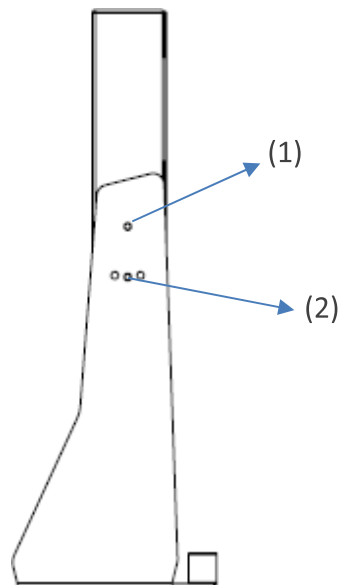
© **NOTE: THE LENGTH OF VESA MOUNT SCREW CANNOT EXCEED 6MM.**

## 2.2 Yoke Mount

Fix the machine by the M6 screw holes of the yoke mount shown below.

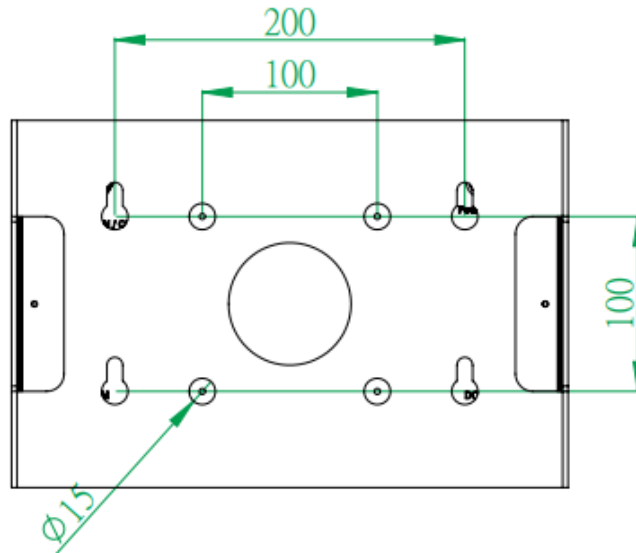


Please first fasten the M6 screw indicated as (1) below, and then fasten the M6 screw indicated as (2) below. The viewing angle can be adjusted  $15^\circ$  back and forth.

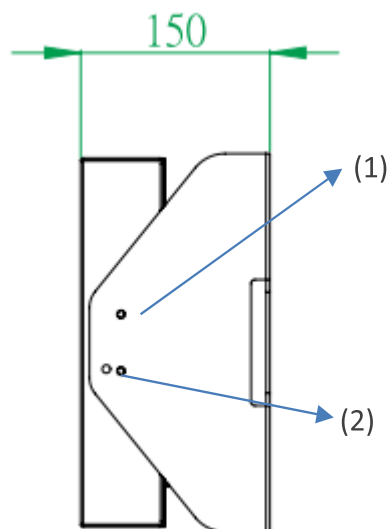


## 2.3 Wall Mount

Fix the machine by the M6 screw holes of the wall mount shown below.



Please first fasten the M6 screw indicated as (1) below, and then fasten the M6 screw indicated as (2) below. The viewing angle can be adjusted  $15^\circ$  back and forth.



## Chapter 3. BIOS Setting

The BIOS (Basic Input/Output System) installed in your computer system's ROM supports Intel® processors. The BIOS provides critical low-level support for a standard device such as disk drives, serial ports, and parallel ports. It also adds virus and password protection as well as special support for detailed fine-tuning of the chipset controlling the entire system. The BIOS provides a setup utility program for specifying the system configurations and settings. The BIOS ROM of the system stores the setup utility.

When you turn on the computer, the BIOS is immediately activated. Pressing the <Del> key immediately allows you to enter the setup utility. When you enter the BIOS setup utility, the top of the screen has a menu bar with the following selections:

- **Main:** To set up the system time/date information
- **Advanced:** To set up the advanced UEFI features
- **H/W Monitor:** To display current hardware status
- **Security:** To set up the security features
- **Boot:** To set up the default system device to locate and load the operating system
- **Exit:** To exit the current screen or the UEFI setup utility

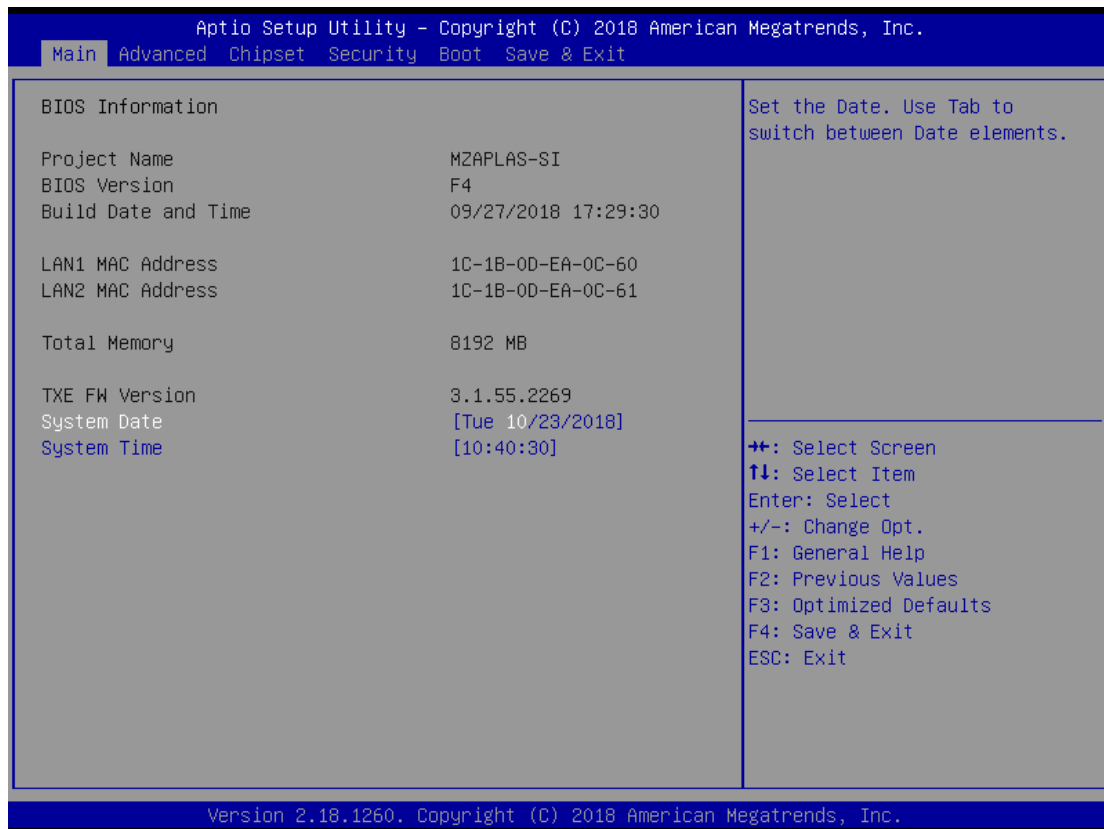
Use ← key or → key to choose the selections on the menu bar.

Use <Enter> key to get into the sub screen or an item.

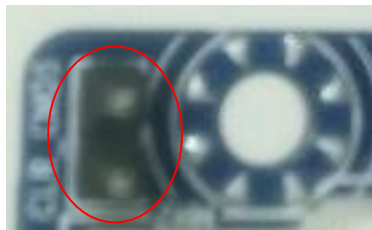
Use ↓ key or ↑ key to move the cursor down or up to select items.

Use <Exit> key to exit the current screen.

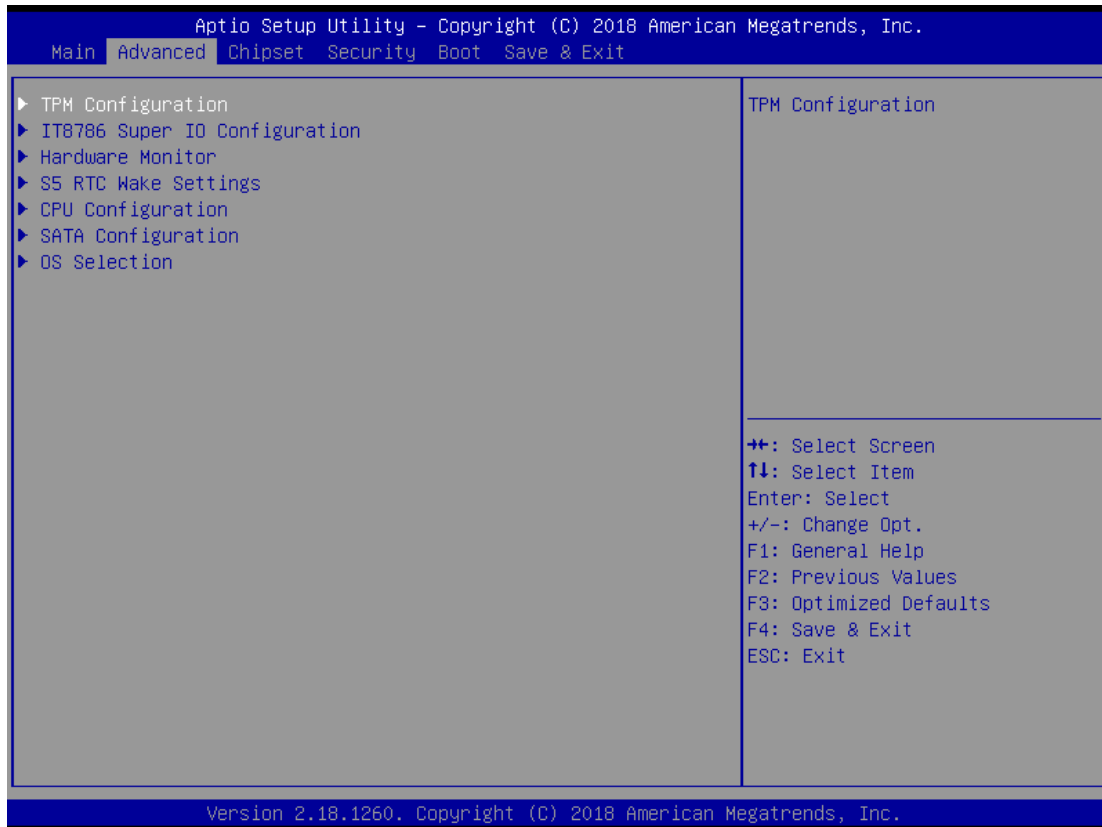
## 3.1 Main



© NOTE: TO CLEAR CMOS, PLEASE SHORT THE TWO PINS INDICATED BELOW.



## 3.2 Advanced



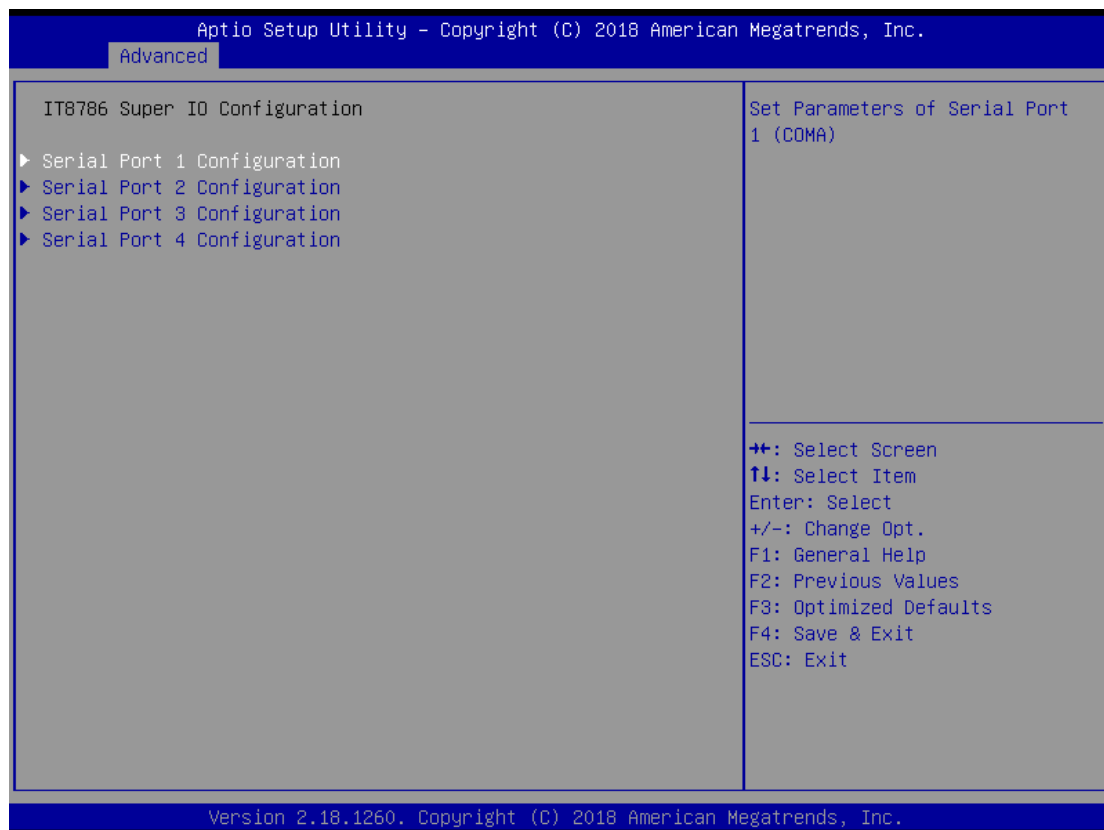


## 3.2.1 TPM Configuration



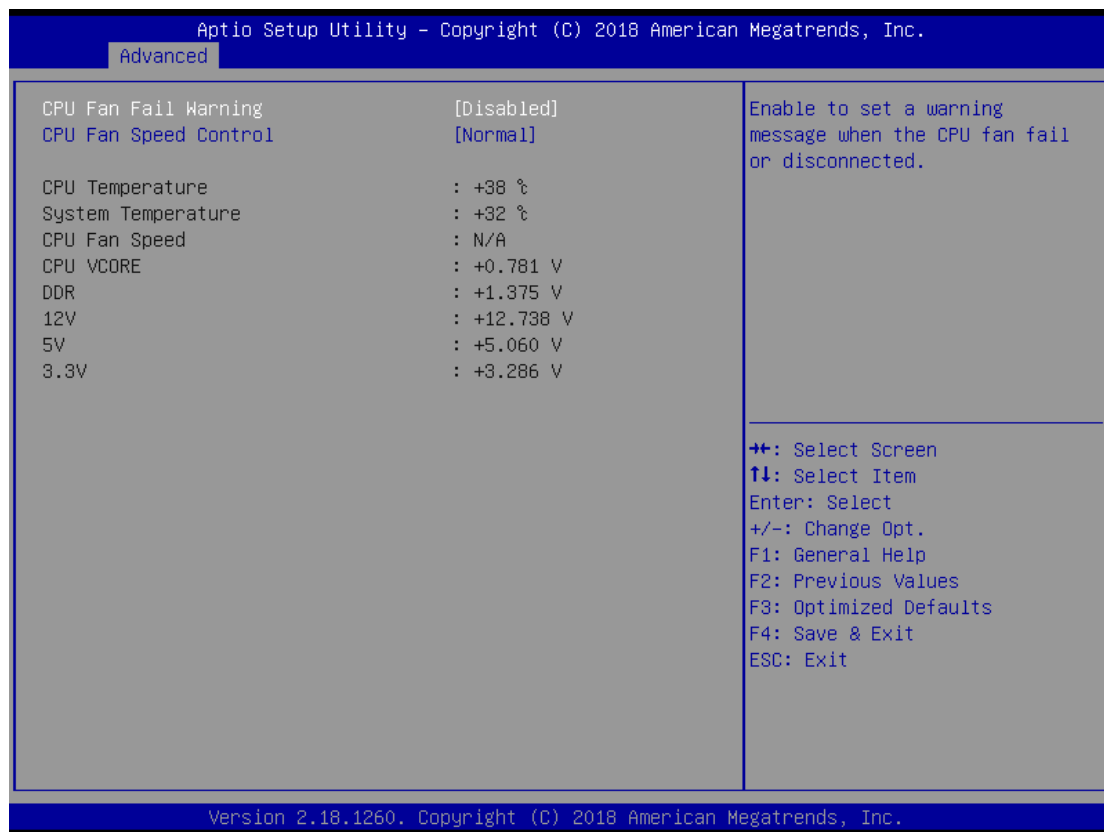
- **fTPM**  
This item allows users to enable or disable the fTPM.
- **Trusted Computing**  
This item allows users to enable or disable the Security Device Support.

## 3.2.2 Super IO Configuration



- **COM1 Configuration**  
This item allows users to enable or disable COM1.
- **COM2 Configuration**  
This item allows users to enable or disable COM2.
- **COM3 Configuration**  
This item allows users to enable or disable COM3.
- **COM4 Configuration**  
This item allows users to enable or disable COM4.

### 3.2.3 Hardware Monitor



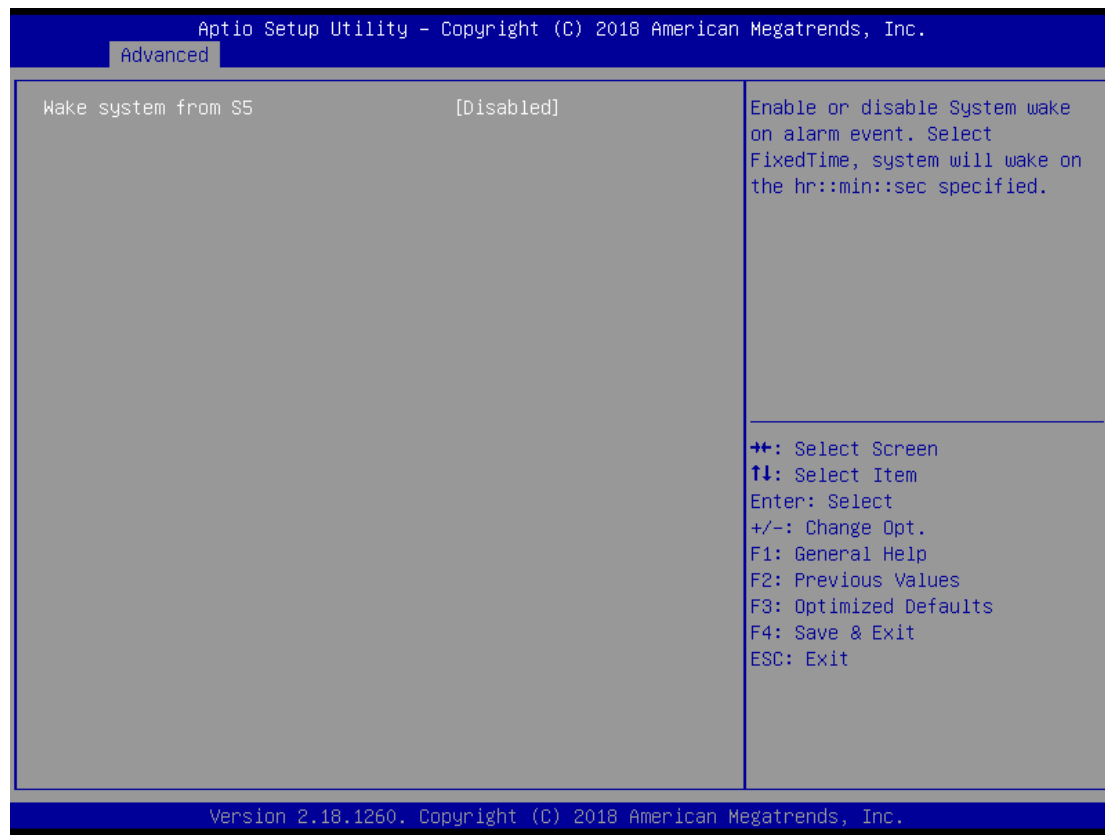
- **CPU Fan Fail Warning**

This item allows users to enable or disable the CPU Fan Fail Warning.

- **CPU Fan Speed Control**

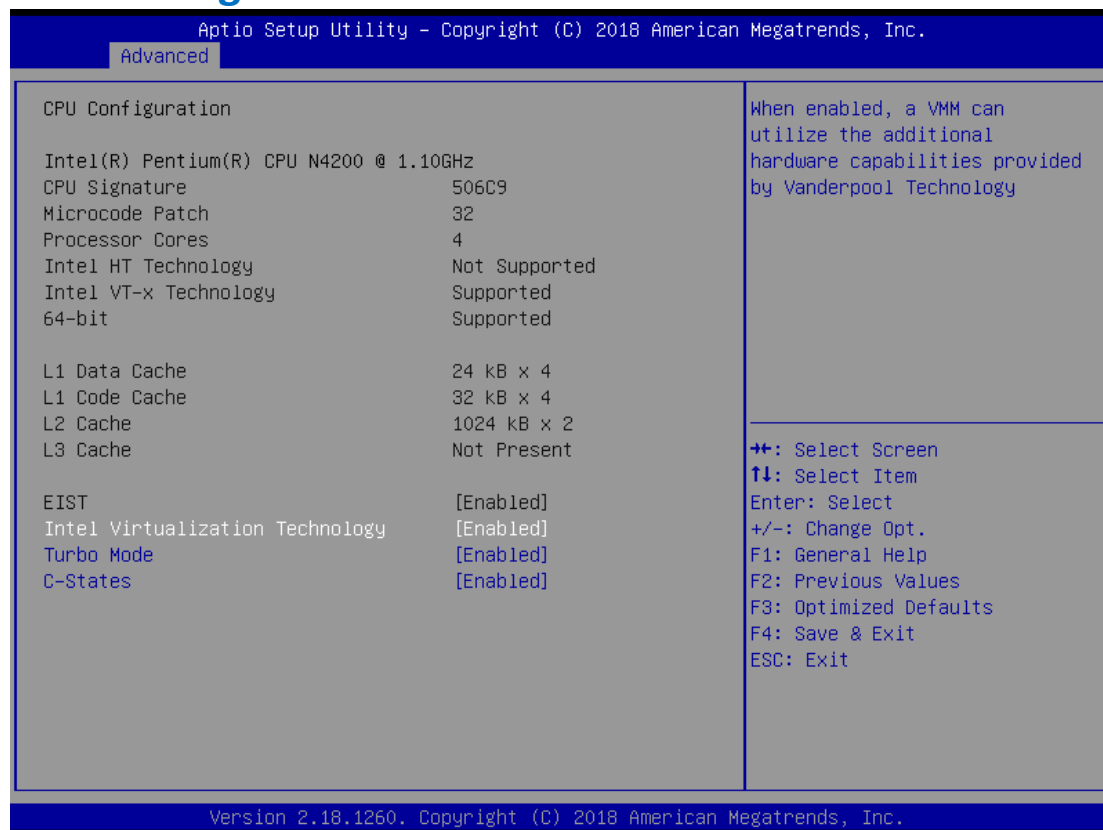
This item allows users to set CPU Fan Speed as [Normal] or [Full Speed].

### 3.2.4 S5 RTC Wake Configuration



- Wake System from S5**  
 This item allows users to set Fixed Time or disable System wake on alarm event. Select Time System will wake on the hr:: min::sec:: specified.

### 3.2.5 CPU Configuration



- **Intel Virtualization Technology**

This item allows users to enable or disable Intel Virtualization Technology. Select [Enabled] can utilize the additional hardware capabilities provided by Vanderpool Technology.

- **Turbo Mode**

This item allows users to enable or disable Turbo mode.

- **C-States**

This item allows users to enable or disable C-States.

## 3.2.6 SATA Configuration



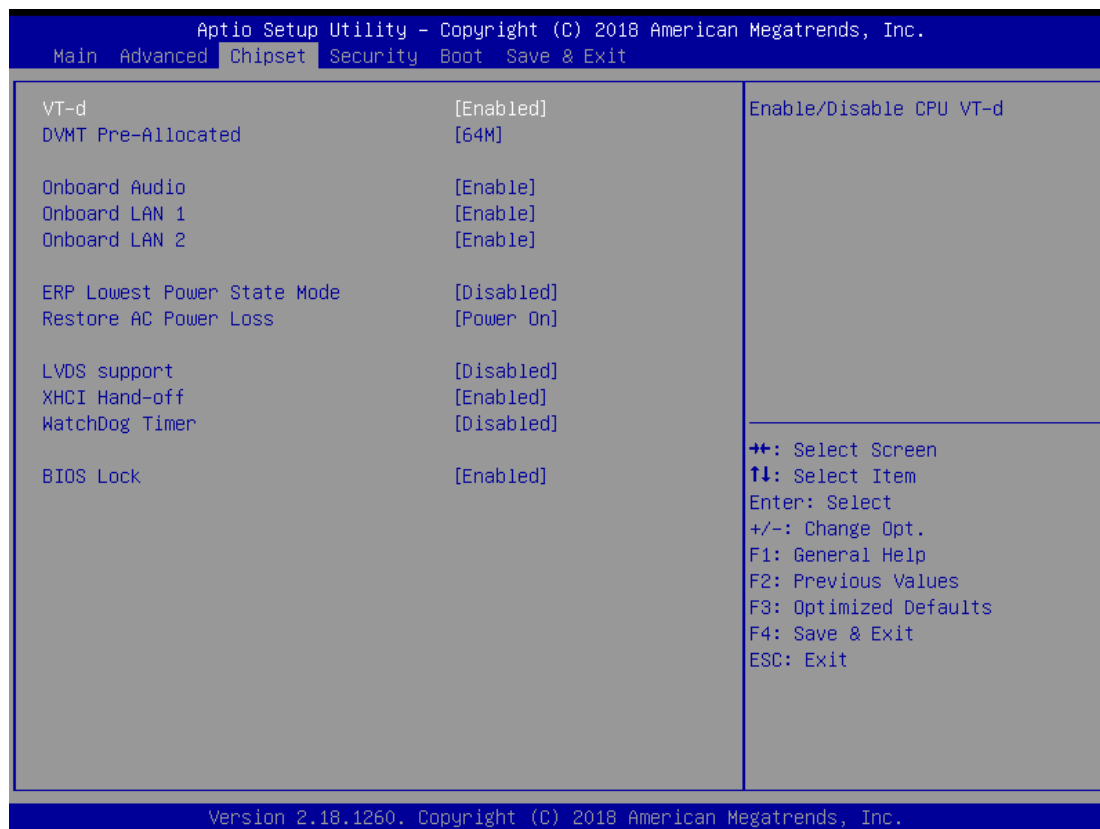
- **SATA Mode Selection**  
The M/B only supports AHCI mode.
- **SATA**  
This item is used to check the hard disk model and capacity.
- **M.2**  
This item is used to check the M.2 SSD model and capacity.

### 3.2.7 OS Selection



- **CSM Support**  
Never support CSM.
- **LAN EFI Driver**  
This item allows users to enable or disable the LAN EFI Driver.

### 3.3 Chipset



- **VT-d**  
This item allows users to enable or disable the VT-d. The default value is [Enabled].
- **DVMT Pre-Allocated**  
This item allows users to set DVMT as [64M], [128M], [256M], or [512M]. The default value is [64M].
- **Onboard Audio**  
This item allows users to enable or disable the Onboard Audio. The default value is [Enabled].
- **Onboard LAN 1**  
This item allows users to enable or disable the Onboard LAN 1. The default value is [Enabled].
- **Onboard LAN 2**  
This item allows users to enable or disable the Onboard LAN 2. The default value is [Enabled].
- **ERP Lowest Power State Mode**  
This item allows users to enable or disable the ERP Lowest Power State Mode. The default value is [Disabled].



- **Restore AC Power Loss (AT/ATX Power Setting)**  
This item allows users to set Restore AC Power Loss as [Power On], [Power Off], or [Last State]. The default value is [Power On].
- **LVDS Support**  
This item allows users to enable or disable the LVDS support. The default value is [Disabled].
- **XHCI Hand-off**  
This item allows users to enable or disable the XHCI Hand-off. The default value is [Enabled].
- **WatchDog Timer**  
This item allows users to set WatchDog Timer as [15S], [30S], [45S], [60S], or [Disabled]. The default value is [Disabled].
- **BIOS Lock**  
This item allows users to enable or disable the BIOS Lock. The default value is [Enabled].

## 3.4 Security



### ■ Administrator Password

This is used to set or change the password for the administrator account. Only the administrator has the authority to change the settings in the UEFI Setup Utility. Leave it blank and press enter to remove the password.

### ■ User Password

This is used to set or change the password for the user account. Users are unable to change the settings in the UEFI Setup Utility. Leave it blank and press enter to remove the password.

### ■ Secure Boot

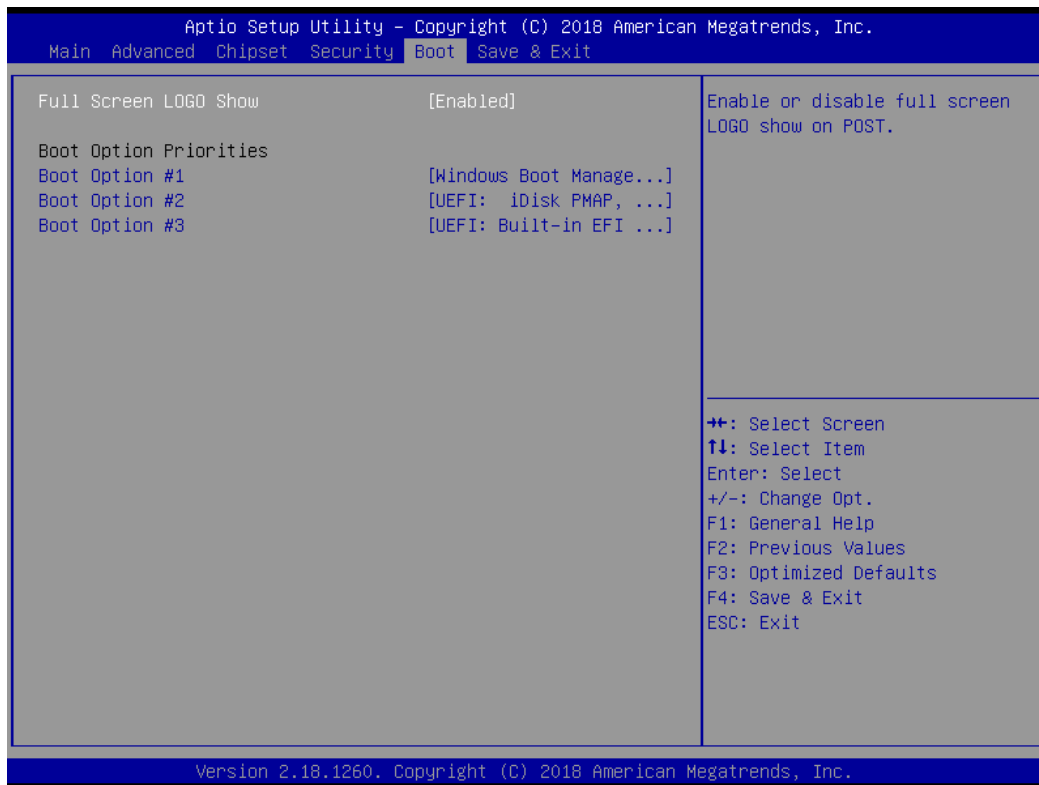
#### 1. Secure Boot Control

This item allows users to enable or disable the Secure Boot Control. The default value is [Enabled].

#### 2. Secure Boot Mode

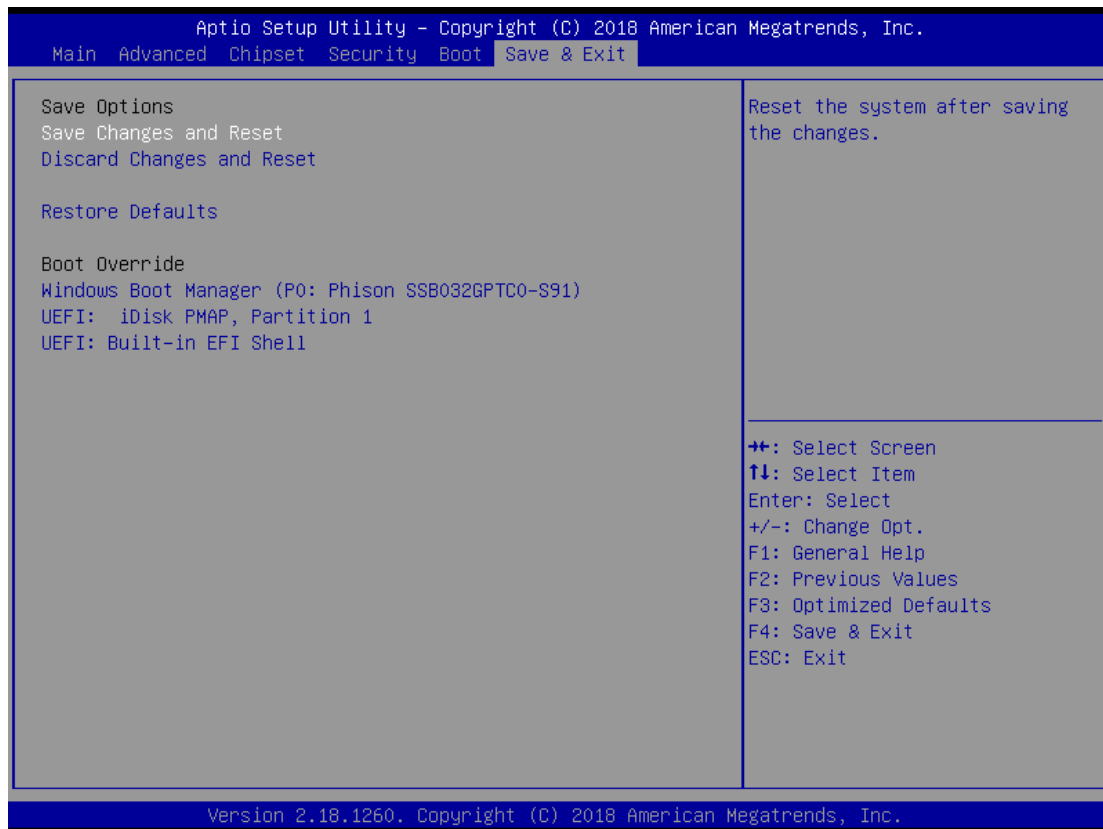
This item allows users to choose [Standard] or [Custom] as the Secure Boot Mode. The default value is [Standard].

## 3.5 Boot



- **Full Screen LOGO Show**  
 This item allows users to enable or disable the Full Screen LOGO Show. The default value is [Disabled].
  
- **Boot Option #1**  
 This item allows users to set the system boot order.

## 3.6 Exit



- **Save Changes and Reset**  
 When this option is selected, the following message will pop up: “Save configuration changes and reset?”. Select [OK] to save the changes and exit the UEFI SETUP UTILITY.
- **Discard Changes and Reset**  
 When this option is selected, the following message will pop up: “Reset without saving?” Select [OK] to exit the UEFI SETUP UTILITY without saving any changes.
- **Restore Defaults**  
 Restore/Load default values for all setup options.
- **Boot Override**  
 Let the user select the boot device.