AXIOMTEK

P1127E-500

All-in-One
12.1" XGA TFT Expandable
Panel PC

User's Manual

RoHS

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CAUTION

Wrong type of batteries may cause explosion. It is recommended that users only replace with the same or equivalent type of batteries as suggested by the manufacturer once properly disposing of any used ones.

Safety Precautions

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

1. 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.

2. Disconnect the power cord from the P1000 series prior to any installation. Be sure both the system and the external devices are turned off. Sudden surge of power could ruin sensitive components. Make sure the P1000 series is properly grounded.

3. Do not open the top cover of the system. 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 a human body.

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

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Table of Contents

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Section 1
Introduction

This Section contains general information and detailed specifications of the P1127E-500, including the following subsections:

Figure 1-1 Front view of the P1127E-500
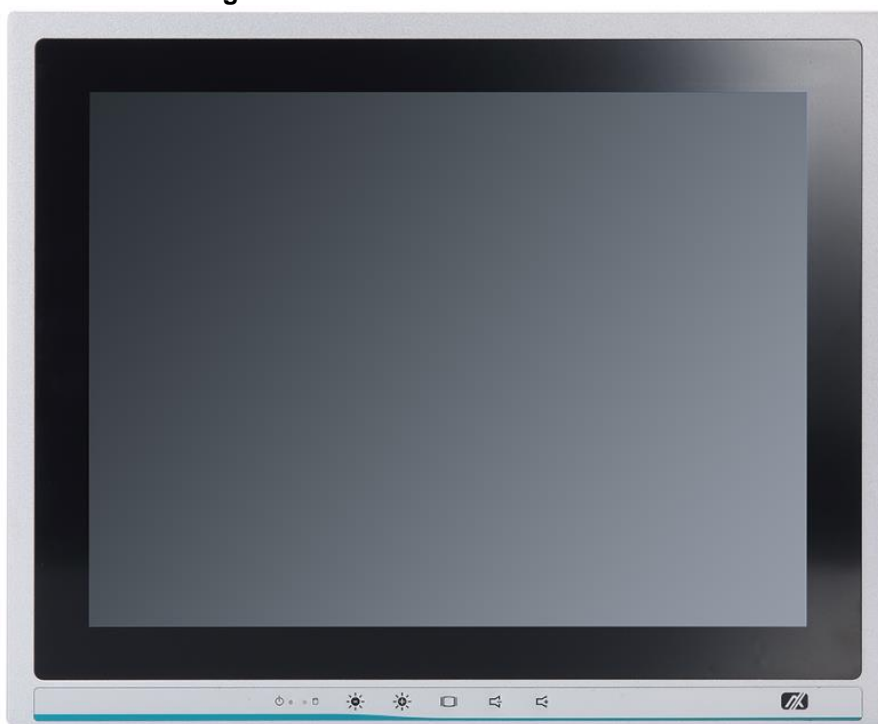
- General Description
- Specification
- Dimensions
- I/O Outlets
- Package List

1.1   General Description

The P1127E-500 adopts a 12.1-inch XGA TFT LCD with 500-nits brightness, a high-performance LGA1151 socket for 7th and 6th generation Intel® Core™ processors, and an Intel® H110 Express chipset to provide excellent computing performance. Furthermore, the P1127E-500 comes with a built-in speaker and an optional WLAN module for wireless connectivity.

Industrial-grade front bezel

The P1127E-500 adopts an industrial-grade front bezel which incorporates the advantages of light weight, high degree of hardness, better heat releasing, easy-to-shape and anti-corrosion features, making the P1127E-500 especially suitable for most rugged industrial environments.

Expandable for PCIe (or PCI optional)

The P1127E-500 comes with one PCIe x4 (or optionally one PCI) for expansion purposes. Users can easily plug in a standard half-size PCI or PCIe card as required.

Speaker and WLAN Antenna Supported

The P1127E-500 features a built-in speaker for kiosk applications to display multimedia contents. It also supports a WLAN module antenna (optional) for wireless network connectivity.

High Performance computing: 7th and 6th Generation Intel® Core™ Processors

The P1127E-500 is powered by LGA1151 Socket 7th and 6th Generation Intel® Core™ i7/i5/i3, Pentium® and Celeron® processors which provide powerful performance and less power consumption. The latest Intel® Kaby Lake-S platform offers reliable and stable performance suitable for rugged environments.

1.2.1   System Specifications

Main CPU Board

- **CPU**
  - LGA1151 socket 7th and 6th generation Intel® Core™ i7/i5/i3, Celeron® and Pentium® processors
- **Chipset**
  - Intel® H110 PCH chipset
- **System Memory**
  - Skylake:
    2 x 288-pin DDR4-2133 Long-DIMM socket support dual channels up to 32GB
  - Kabylake:
    2 x 288-pin DDR4-2400 Long-DIMM socket support dual channels up to 32GB
- **BIOS**
  - AMI BIOS
- **Standard I/O**
  - 1 x RS-232/422/485
  - 3 x RS-232
  - 4 x USB 3.0
  - 1 x HDMI
  - 1 x VGA
  - 1 x Display Port
  - 2 x USB2.0
  - 1 x Remote Power Switch
- **Ethernet**
  - 1 x RJ45 GbE LAN ports (Intel® i219LM)
  - 1 x RJ45 GbE LAN ports (Intel® i211AT)
- **Audio**
  - 1 x Line-out
  - 1 x Mic-in
- **Expansion**
  - 1 x PCIe x4 or 1 x PCI slot.
  - 1 x PCI-Express Mini Card; only WIFI and 3G supported.
  - 1 x SIM card slot.
  - 3 x SMA Type Antenna Hole

- **Storage**
  - 1 x 2.5" SATA HDD
- **Power connector**
  - 1 x AC plug

1.2.2   Mechanical/Environmental Specifications

- **12.1" XGA LCD (with resolutions 1024x768)**

- **5 wired resistive touch**

- **IP65/NEMA4 aluminum front bezel**

- **Net Weight**
  - 4.2 Kgs (9.26 lbs)

- **Dimensions (Main Body Size)**
  - 314.2mm x 105mm x 253.7mm   (12.37" x 4.13" x 9.99") (W x D x H)

- **Operation Temperature**
  - 0°C to 50°C

- **Relative Humidity**
  - 10% to 90% @ 40°C, non-condensing

- **Power Input**
  - 100~240VAC power connector

NOTE 1. All specifications and images are subject to change without notice.
2. Long pressing the button of OSD doesn't have the "repeat" function.

1.3   Dimensions and Outlines

Diagram 1-1 and 1-2 show the outlines and dimensions of the P1127E-500, respectively.

Diagram 1-1 Outlines of the P1127E-500

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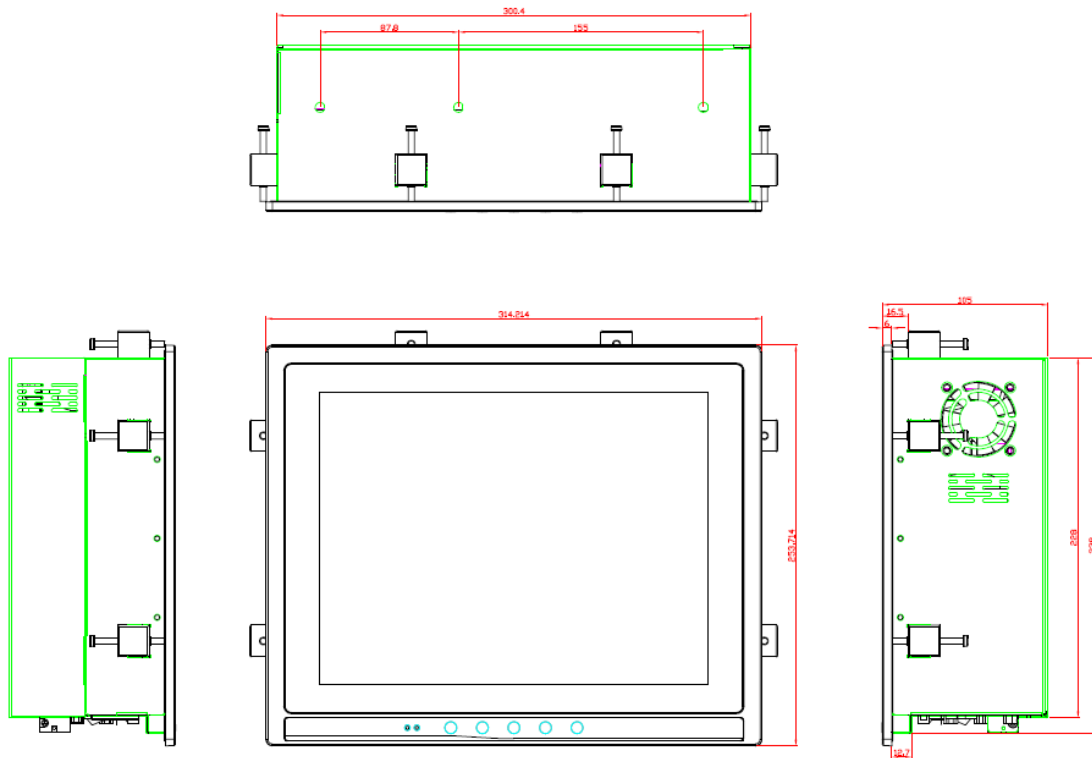
Diagram 1-2 Outlines of the P1127E-500
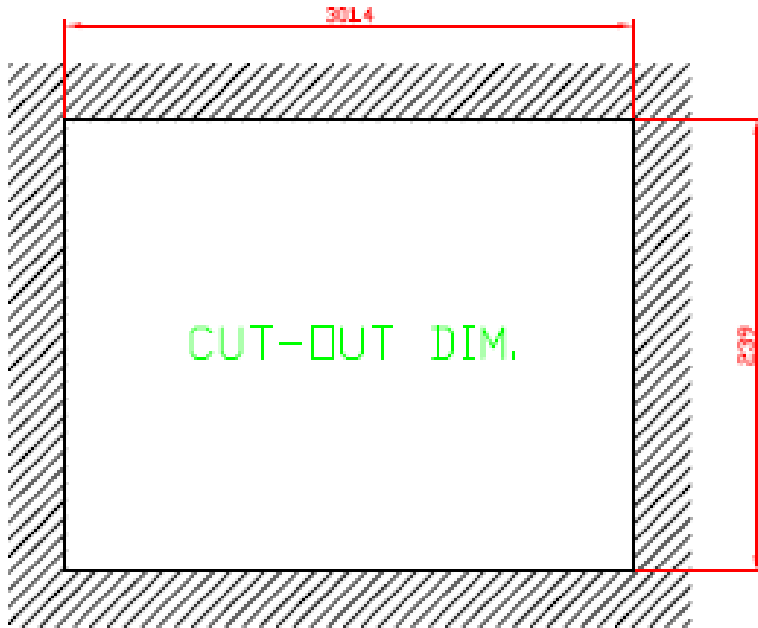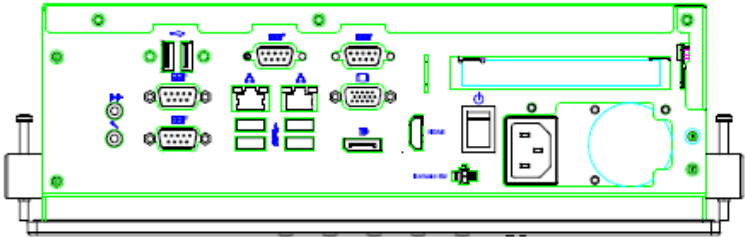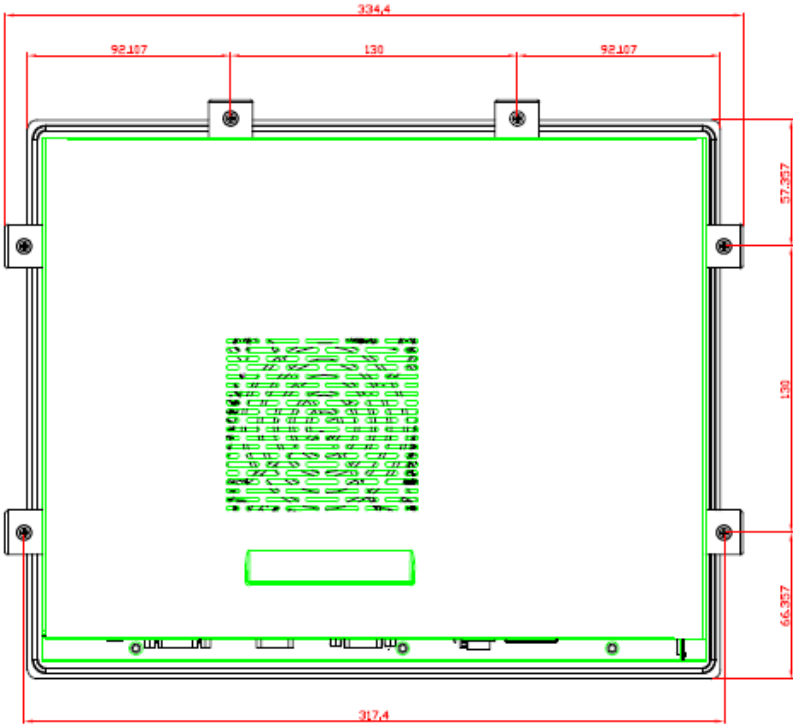
1.4   I/O Outlets

Figure 1-2, 1-3 and Table 1-1, 1-2 illustrate the I/O locations of the P1127E-500 and their functions.

Figure 1-2 Front view of the P1127E-500
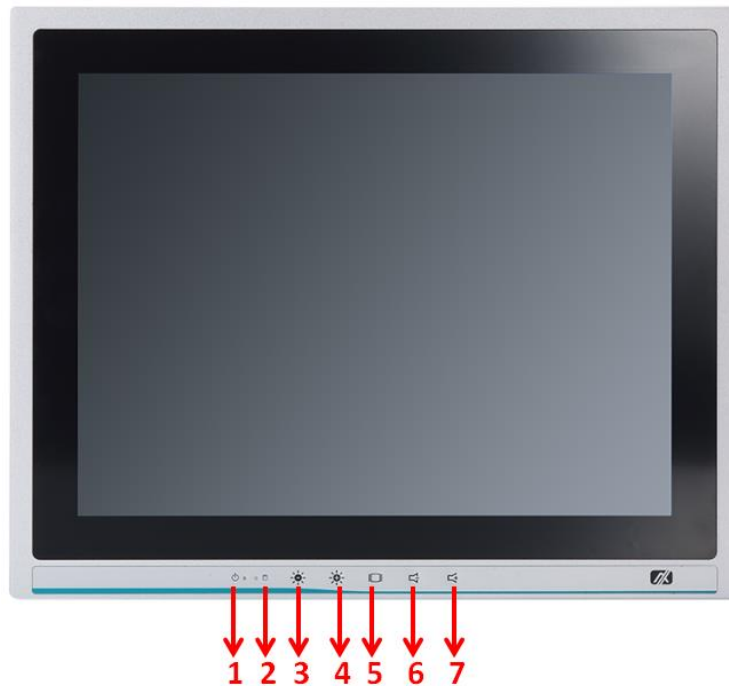
Table 1-1 Functions of the front panel of the P1127E-500

No	Function
1	1 x Display status LED (Red: display off, Green: display on)
2	1 x SATA status LED
3	1 x Brightness down
4	1 x Brightness up
5	1 x Display monitor ON/OFF
6	1 x Volume down
7	1 x Volume up

Figure 1-3 Side view of the P1127E-500
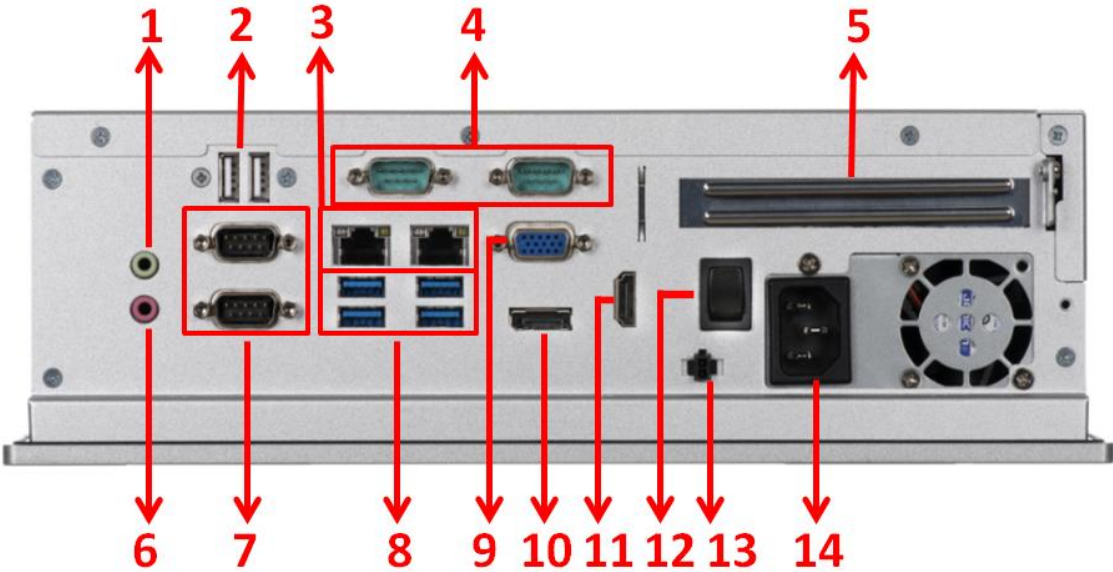
Table 1-2 Functions of the I/O Outlets of the P1127E-500

No	Function
1	1 x Line-out
2	2 x USB2.0
3	2 x RJ45 for Gigabit Ethernet
4	1 x RS-232 (COM3) 1 x RS-232 (COM4)
5	1 x PCI or 1 x PCIe x4 card expansion slot
6	1 x Mic-in
7	1 x RS-232/422/485 (COM1) 1 x RS-232 (COM2)
8	4 x USB3.0
9	1 x VGA
10	1 x Display Port
11	1 x HDMI
12	1 x Switch for power on/off
13	1 x Remote switch button
14	1 x AC plug

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Section 2
Hardware and Installation

The P1127E-500 provides rich I/O ports and flexible expansion to meet different demands. The section explains how to install the hardware.

- **Packing List**
- **System Layout**
- **Mountings: Panel / Wall / Rack / Desktop / VESA**
- **HDD Installation**
- **DRAM Installation**
- **Wireless LAN Module Installation (optional)**
- **Add-on Card Installation**
- **Board Layout**
- **Rear I/O**
- **Jumper Settings**
- **Connector**

2.1   Packing List

The package bundled with the P1127E-500 should contain the following items:

- **P1127E-500 x 1**
- **Driver CD x 1**
- **Panel mount kits x 6**
- **Wall mount / VESA mount bracket x 1 (optional)**
- **Remote power switch cable x1**
- **Power cord x 1**

If any above-mentioned item is missing, please contact an Axiomtek distributor immediately.

2.2   System Layout

To open the P1127E-500, simply unscrew the four screws on the back cover as shown in Figure 2-1, and then push the cover to the right side.

Figure 2-1 Removing the back cover of the P1127E-500
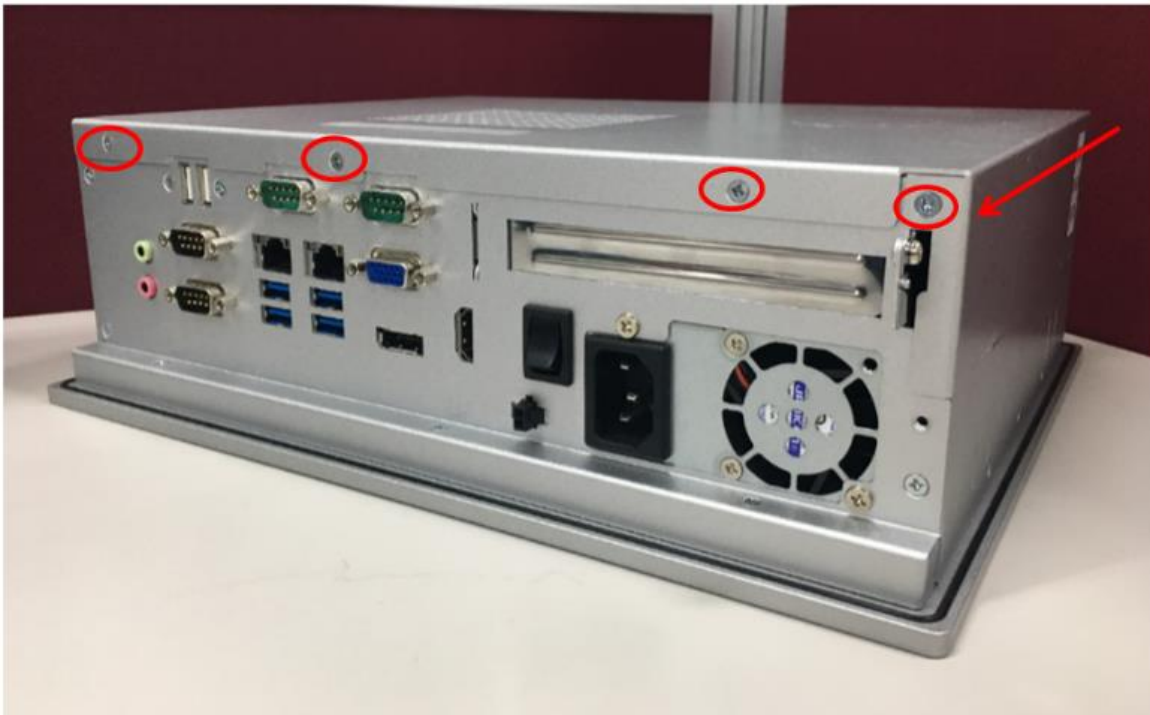
Once the back cover is removed, the internal system should look like Figure 2-2.

Figure 2-2 After Removing the back cover of the P1127E-500, install memory, storage and any other peripherals.
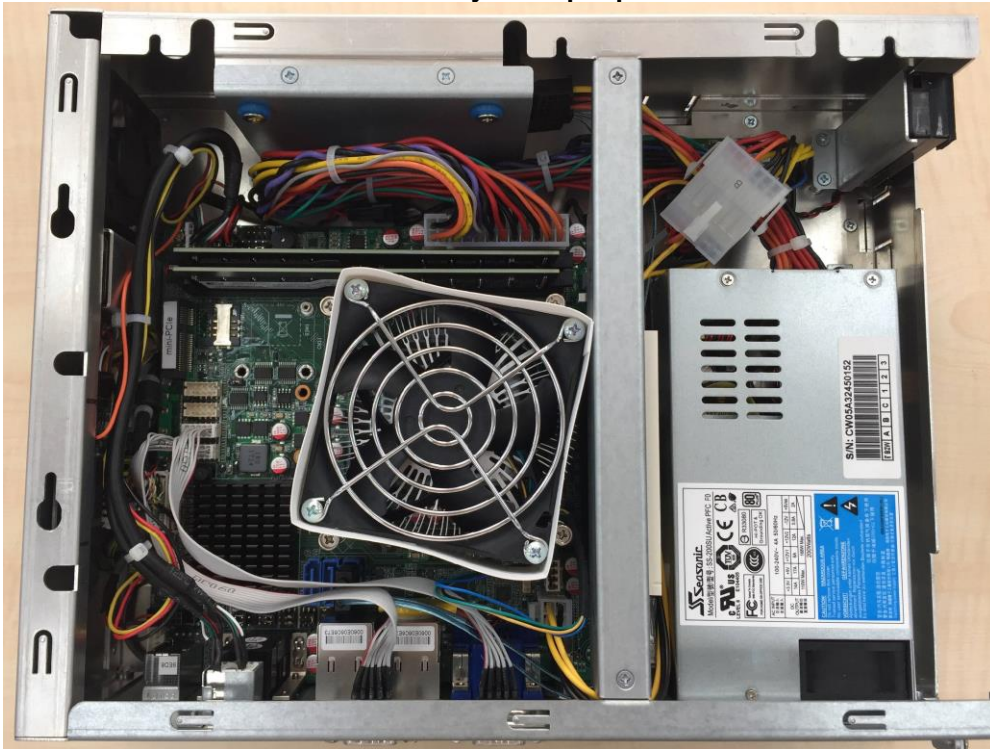
2.3 Mountings: Panel / Wall / Rack / Desktop / VESA

There are 5 application options for the P1127E-500, including Panel/Wall/Rack/ Desktop/VESA mounting ways.

2.3.1 VESA-ARM / Wall-Mount / Desktop-mount

The P1127E-500 provides VESA mount: 75x75 mm or 100x100mm. Screw six screws to fix the kit in the back chassis.

▲Bracket for VESA/wall/desktop mount
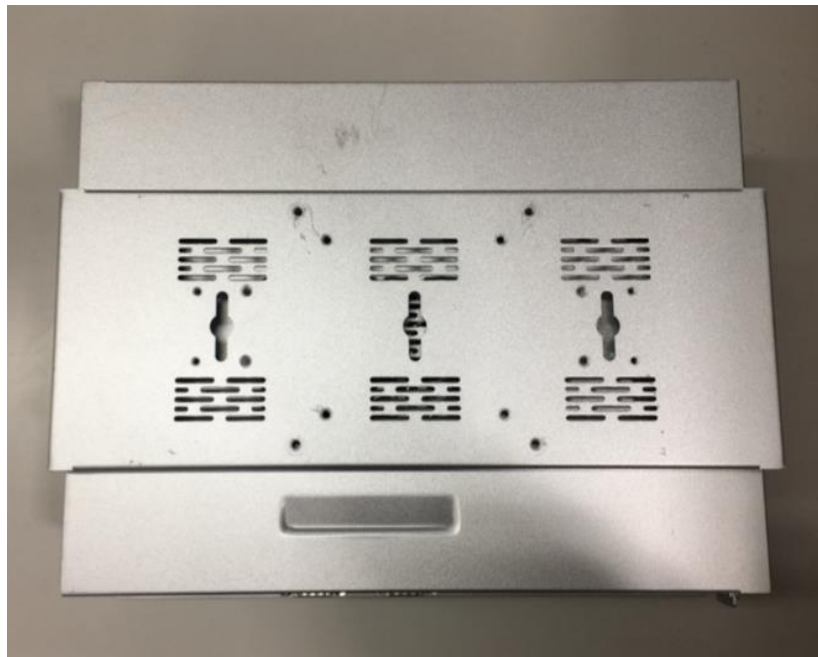
▲Putting the bracket on the back of the system

▲Fixing the bracket by screwing the six screws on the left and right sides.

2.3.2   Panel-mount Kit Assembly

The P1127E-500 is designed for panel mount application. To mount the P1127E-500, the standard set of the mounting kit (6 pieces included in the system packaging) is needed.
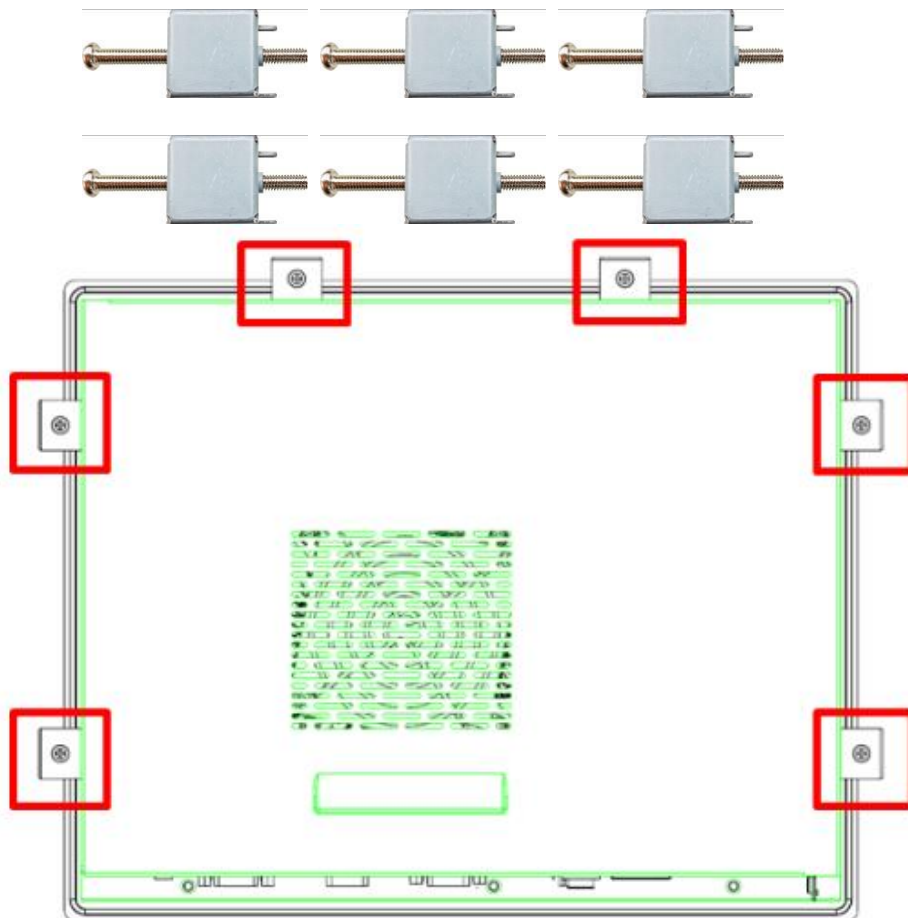
2.4 HDD Installation

The P1127E-500 provides a convenient hard disk drive (HDD) bracket for users to install 1 x 2.5"
SATA HDD. Please follow the steps:

Step 1   **Refer section 2.1 to open the back cover.**

Step 2   **unplug the power cable and unscrew the 4 screws to take off the HDD bracket.**
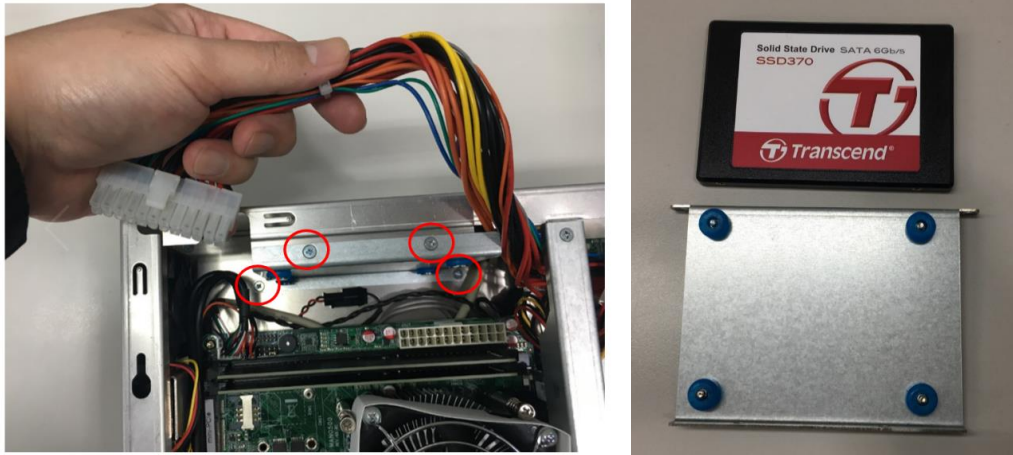
Step 3   **Fix the HDD on the bracket with the 4 screws, as shown in the figures below.**

Step 4   Plug the power and SATA cables to the connectors.

Step 5   Fix the HDD bracket into the main base. Installation is completed.

2.5   DRAM Installation

The P1127E-500 provides one 288-pin DDR4 Long-DIMM socket that supports system memory up to 32GB. Please follow the steps below to install the memory modules.

Step 1   Refer to section 2.1 to open the back cover and locate the DIMM socket on mainboard (MANO500).
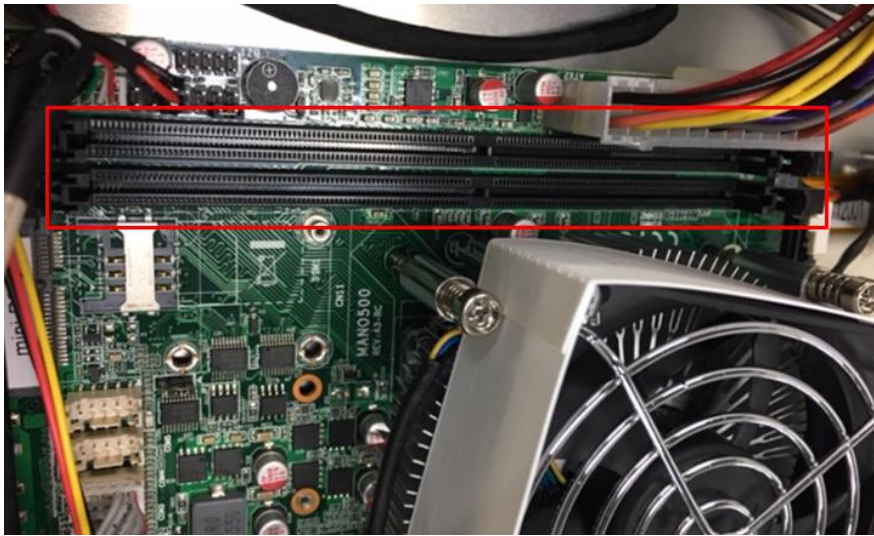
Step 2   Install the Long-DIMM module into the slot and press it down until it firmly sits in place.

Step 3   The slot latches are levered upwards and latch on to the edges of the Long-DIMM.
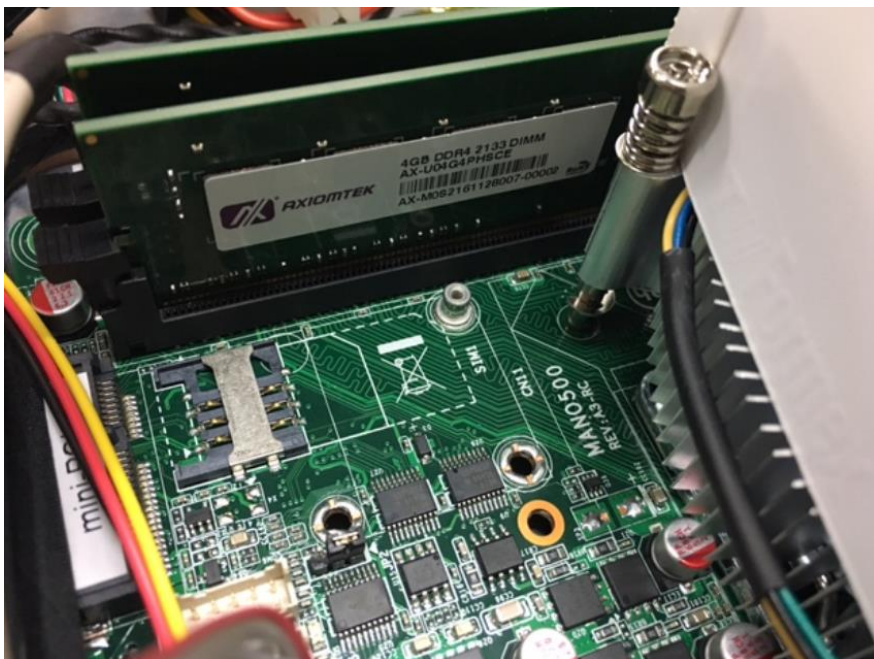
2.6   Wireless LAN Module Installation (optional)

The P1127E-500 provides one wireless LAN module to install. When installing the wireless LAN module, refer to the following instructions and illustrations:

Step 1   Refer to section 2.1 to open the back cover and locate the PCIe Mini-Card slot.

Step 2   Insert the wireless LAN module into Mini card slot and fix it with one screw.
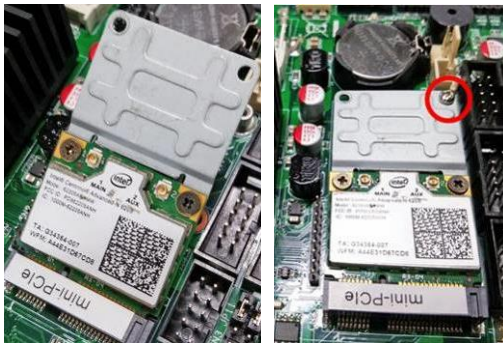
Step 3 **Find the built-in antenna cable and connect it to the wireless LAN module.**

Step 4 **Lift the rubber stopper from the top of the back cover.**
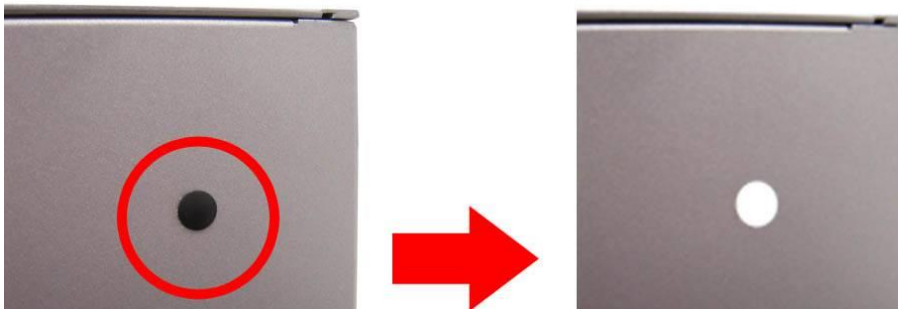
Step 5 **Install the antenna on the antenna connector.**
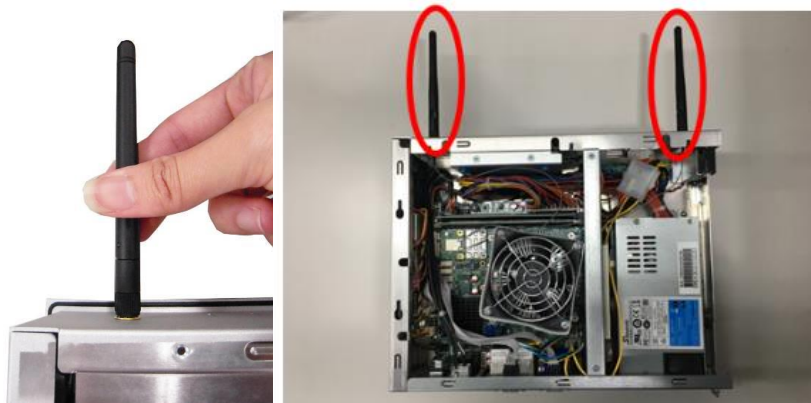
2.7   Add-on Card Installation

The P1127E-500 provides a riser card (PCIe interface) for 1 x PCIe or 1 x PCI slots expansion. The riser card assembly can accommodate both half-size expansion cards. To install the riser card, refer to the following figures and instructions.

Step 1   **Refer section 2.1 to open the back cover and unscrew three screws, and then remove the riser card fix kit and plate.**

Step 2   **Insert the riser card in the socket firmly until it is installed completely. Then insert the add-on card to the socket of the riser card.**
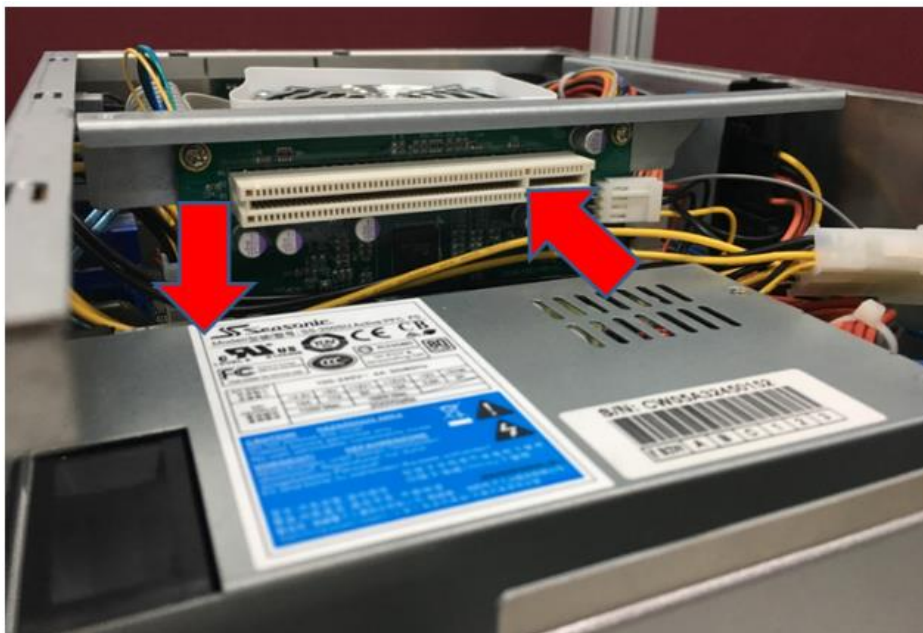
Step 3   **Secure the metal bracket of the card to the system case with two screws. Installation is completed.**
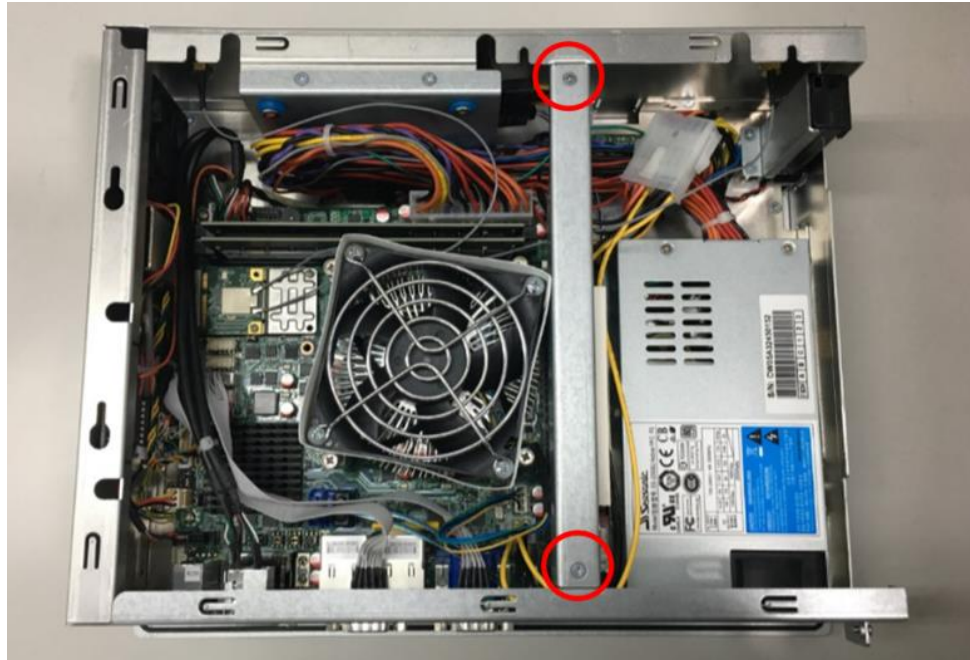
NOTE: *Please use a standard-sized add-on card to avoid conflict to the mechanism.*

2.8   Board Layout
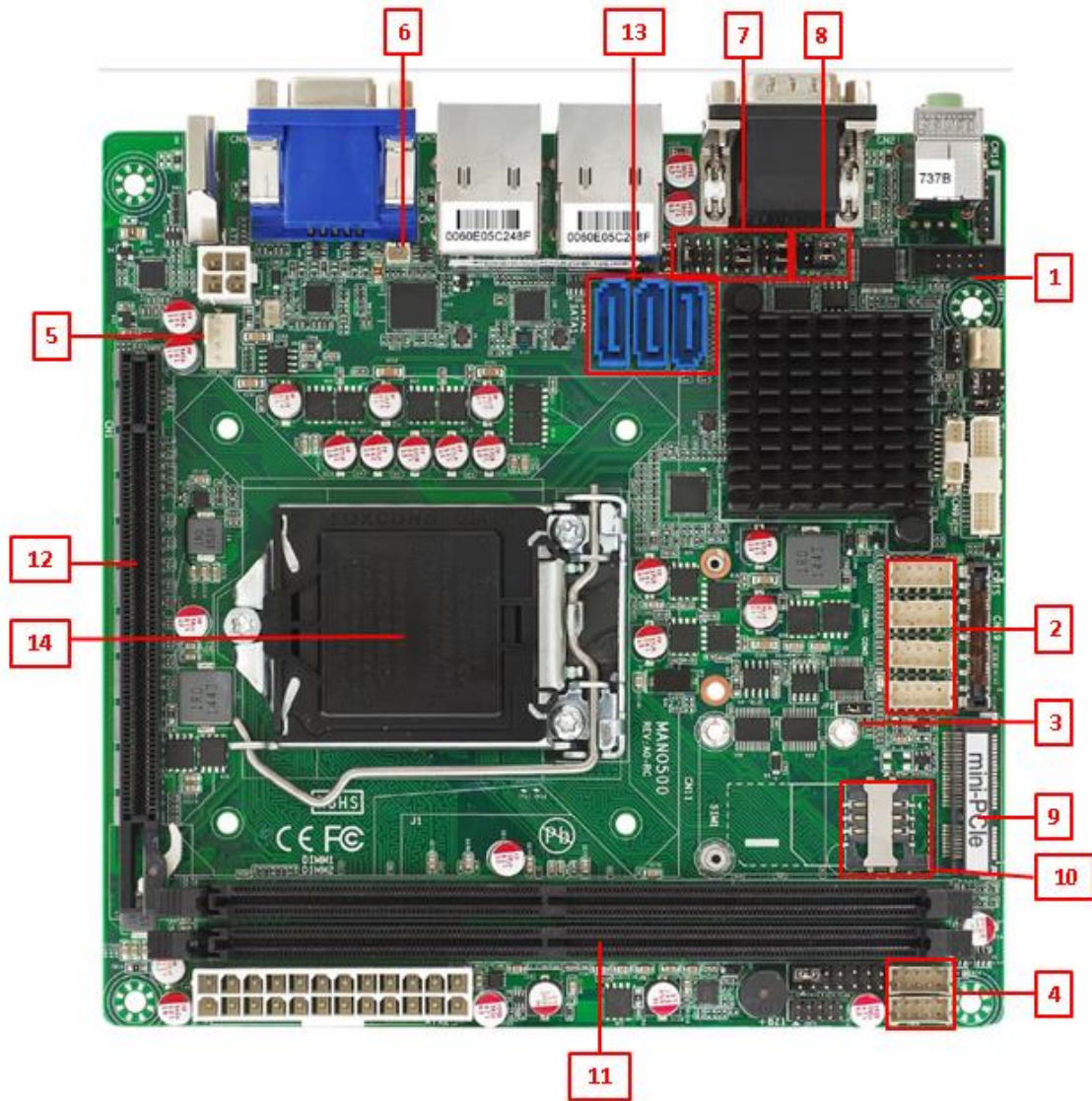
2.9 Rear I/O
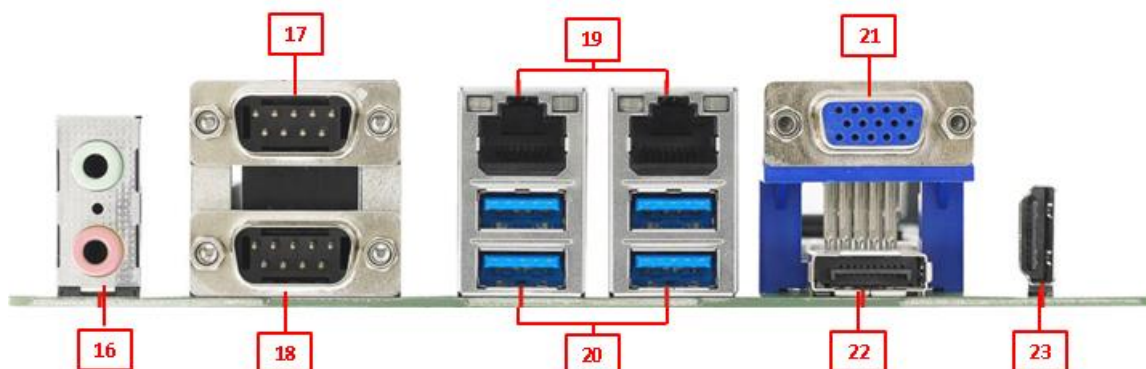
Table 2-1 Jumpers/Headers/Connectors associated with each Label

Jumpers/Headers/Connectors			
Label	Function	Label	Function
1	Clear CMOS Jumper (JP1)	12	PCI-Express x16 Slot (CN1)
2	COM3~COM4 Headers (COM3~COM4)	13	SATA 3.0 Connectors (SATA1~SATA3)
3	AT/ATX Power Mode Select Jumper (JP2)	14	CPU Socket
4	USB 2.0 Wafers (CN13, CN14)	16	Audio Jack (CN2)
5	CPU Fan Connector (CPU_FAN1)	17,18	COM1 and COM2 Connector (CN7)
6	CMOS Battery Connector (BAT1)	19	LAN Connectors (CN3, CN4)
7	COM1 RS-232/422/485 Mode Select Jumpers (JP3~JP5)	20	USB 3.0 Connectors (CN3, CN4)
8	COM1 Data/Power Select Jumper (JP6)	21	VGA Connector (CN6)
9	PCI-Express Mini Card Connector (CN11)	22	DisplayPort Connector (CN5)
10	SIM Card Slot (SIM1)	23	HDMI Connector (CN8)
11	DDR4 LONG-DIMM Sockets (DIMM1, DIMM2)		

NOTE:
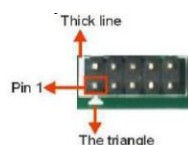
To identify the first pin of a header or jumper, please refer to the following information:
● ***Usually, there is a thick line or a triangle near the header or jumper pin 1.***

A square, which you can find on the back of the motherboard, is usually used for pin 1.

2.10 Jumper Settings

A jumper is a small component consisting of a jumper clip and jumper pins. Install a jumper clip on two jumper pins to close the pins. And remove the jumper clip from two jumper pins to open the pins. Diagram 2-1 illustrates how to set up a jumper.

Diagram 2-1 Definitions of Pin Settings
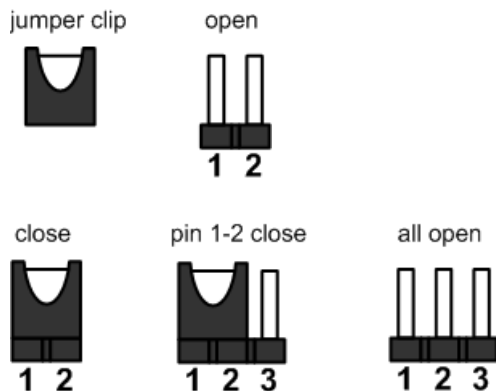
Before applying power to the P1127E-500 series, please make sure all of the jumpers are in default positions which are defined as follows:

 NOTE: *In case that default jumper settings need to be changed, please make any change under the power-off condition.*

Table 2-2 Jumper settings

Jumper	Description		Setting
JP1	Clear CMOS Default: Normal Operation		1-2 Close
JP2	AT/ATX Power Mode Select Default: ATX Mode		1-2 Close
JP3	COM1 RS-232/422/485 Mode Select Default: RS-232		1-2 Close
JP4			3-5, 4-6 Close
JP5			3-5, 4-6 Close
JP6	COM3 Data/Power Select Default: RS-232 Data	CN7 Pin 1: DCD	3-5 Close
		CN7 Pin 9: RI	4-6 Close

2.10.1 Clear CMOS Select (JP1)

JP1 is used to clear the Real Time Clock (RTC) RAM in CMOS. Data, time and system setup parameters stored in the CMOS memory can be cleared by erasing the CMOS RTC RAM data. The onboard battery powers the RAM data in CMOS, which includes system setup information such as system passwords.

To erase the RTC RAM:
1. Turn off the computer and unplug the power cord.
2. Remove the onboard battery.
3. Move the jumper clip from Pins 1-2 (default) to Pins 2-3. Keep the clip on Pins 2-3 for about 5~10 seconds, then move the clip back to Pins 1-2.
4. Re-install the battery.
5. Plug the power cord and turn on the computer.
6. Hold down the <Del> key during the boot process and enter BIOS setup to re-enter data.

Table 2-3 Jumper settings for JP1

Function	Setting
Normal operation (Default)	1-2 close
Clear CMOS	2-3 close

2.10.2 AT/ATX Power Mode Select (JP2)

JP2, a 3x1-pin p=2.54mm jumper, is used to select AT or ATX power mode.

Table 2-4 Jumper settings for JP2

Function	Setting
ATX mode (Default)	1-2 close
AT mode	2-3 close
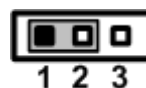
2.10.3 COM1 RS-232/422/485 Mode Select (JP3, JP4, JP5)

Use Jumpers 3, 4 and 5 (3x2-pin p=2.54mm) to set COM1 port to operate as RS-232, RS-422 or RS-485 communication mode.

Table 2-5 Jumper Settings for JP3, JP4 and JP5

Function	Setting
RS-232 mode (Default)	JP3 1-2 close JP4 3-5, 4-6 close JP5 3-5, 4-6 close
RS-422 mode	JP3 3-4 close JP4 1-3, 2-4 close JP5 1-3, 2-4 close
RS-485 mode	JP3 5-6 close JP4 1-3, 2-4 close JP5 1-3, 2-4 close
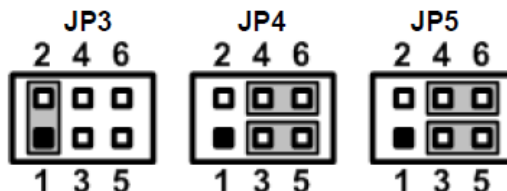
2.10.4 COM1 Data/Power Select (JP6)

The COM1 port has the +5V power capability on DCD and +12V on RI by setting this jumper (3x2-pin p=2.54mm).

Table 2-6 Jumper Settings for JP6

Function	Setting
Power: Set COM1 Pin 1 to +5V	1-3 close
Data: Set COM1 Pin 1 to DCD (Default)	3-5 close
Power: Set COM1 Pin 9 to +12V	2-4 close
Data: Set COM1 Pin 9 to RI (Default)	4-6 close
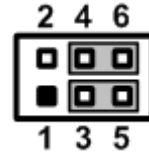
2.11   Connectors

Signals go to other parts of the system through connectors. Loose or improper connection may cause problems or malfunctions, Ensure that all connectors are properly and firmly connected. Table 2-7 is a summary listing the connectors on the hardware.

Table 2-7 A summary of the connectors

Connector	Description
CN1	PCI-Express x16 Slot
CN2	Audio Jack
CN3, CN4	LAN and USB 3.0 Connectors
CN5	DisplayPort Connector
CN6	VGA Connector
CN7	COM1 and COM2 Connector
CN8	HDMI Connector
CN11	PCI-Express Mini Card Connector
CN13, CN14	USB 2.0 Wafers
BAT1	CMOS Battery Connector
CPU_FAN1	CPU Fan Connector
SYS_FAN1	System Fan Connector
SIM1	SIM Card Slot
SATA1~SATA3	SATA 3.0 Connectors
DIMM1~DIMM2	DDR4 LONG-DIMM Sockets

2.11.1 Audio Jack (CN2)

The motherboard provides an HD audio jack on the rear I/O. Install the audio driver, and then attach audio devices to CN2.

Table 2-8 Color assignment for CN2

Pin Color	Signal
Green	Line-out
Pink	MIC-in

2.11.2 LAN and USB 3.0 Connectors (CN3 and CN4)

The motherboard comes with two high performance plug-and-play Ethernet interfaces (RJ-45) which are fully compliant with IEEE 802.3 standards. Connection can be established by plugging one end of the Ethernet cable into this RJ-45 connector and the other end to a 10/100/1000 Base-T hub.

The Universal Serial Bus (compliant with USB 3.0) connectors CN3 and CN4 on the rear I/O are used to install USB peripherals such as a keyboard, mouse, scanner, etc.

Table 2-9 Pin assignment for CN3 (for LAN signals)

Pin	LAN Signal	Pin	LAN Signal
L1	Tx+ (Data transmission positive)	L2	Tx- (Data transmission negative)
L3	Rx+ (Data reception positive)	L4	RJ-1 (For 1000 Base-T only)
L5	RJ-1 (For 1000 Base-T only)	L6	Rx- (Data reception negative)
L7	RJ-1 (For 1000 Base-T only)	L8	RJ-1 (For 1000 Base-T only)
A	Active LED	B	Speed LED
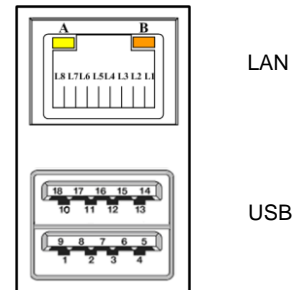
NOTE:
- ● **Speed LED turns orange for 1000Mbps or green for 100Mbps.**

Table 2-10 Pin assignment for CN4 (for USB signals)

Pin	USB Signal	Pin	USB Signal
1	USB3_POWER	2	USB -
3	USB +	4	GND
5	USB3_SSRX	6	USB3_SSRX+
7	GND	8	USB3_SSTX
9	USB3_SSTX+		

2.11.3 DisplayPort Connector (CN5)

The DisplayPort interface is available through CN5.

Table 2-11 Pin Assignment for CN5

Pin	Signal
1	DP_TX0_P
2	GND
3	DP_TX0_N
4	DP_TX1_P
5	GND
6	DP_TX1_N
7	DP_TX2_P
8	GND
9	DP_TX2_N
10	DP_TX3_P
11	GND
12	DP_TX3_N
13	GND
14	GND
15	DP_AUXP
16	GND
17	DP_AUXN
18	DP_HPD
19	GND
20	+3.3V
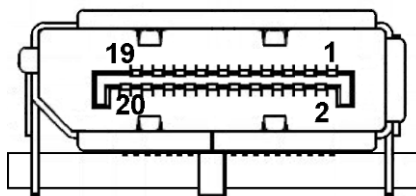
2.11.4 VGA Connector (CN6)

The CN6 is a high-rise 15-pin D-Sub connector which is commonly used for VGA display. This VGA interface can be configured via software utility

Table 2-12 Pin assignment for CN6

Pin	Signal	Pin	Signal
1	Red	2	Green
3	Blue	4	NC
5	GND	6	DETECT
7	GND	8	GND
9	VCC	10	GND
11	NC	12	DDC DATA
13	Horizontal Sync	14	Vertical Sync
15	DDC CLK		
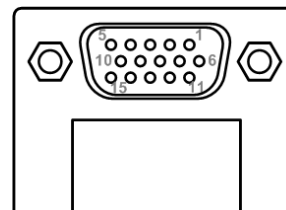
2.11.5 COM Connector (CN7)

The CN7 is a double-deck DB-9 connector for interfaces of COM1 and COM2 serial ports where only COM1 is selectable for RS-232/422/485 mode by jumper settings (see Section 2.3.3). The pin assignments of RS-232/422/485 are listed in Table 2-13 below.

Table 2-13 Pin Assignment for CN7 (for COM1)

COM1

Pin	RS-232	RS-422	RS-485
1	DCD# [*]	TX-	485-
2	RXD	TX+	485+
3	TXD	RX+	N/C
4	DTR#	RX-	N/C
5	GND	GND	GND
6	DSR#	N/C	N/C
7	RTS#	N/C	N/C
8	CTS#	N/C	N/C
9	RI# [*]	N/C	N/C
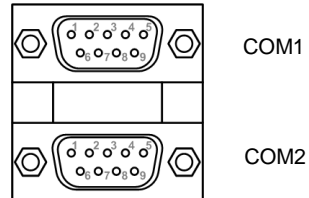
COM1

COM2

NOTE: *[*]: Pin 1 of COM1 can be DCD/+5V and pin 9 of COM1 can be RI/+12V by selecting JP6 (see section 2.10.4).*

Table 2-14 Pin assignment for CN7 (for COM2)

COM2

Pin	Signal	Pin	Signal
1	DCD	2	RXD
3	TXD	4	DTR
5	GND	6	DSR
7	RTS	8	CTS
9	RI		

2.11.6 HDMI Connector (CN8)

The HDMI (High-Definition Multimedia Interface) is a compact digital interface which is capable of transmitting high-definition video and high-resolution audio over a single cable.

Table 2-15 Pin assignment for CN8

Pin	Signal	Pin	Signal
1	HDMI OUT_DATA2+	2	GND
3	HDMI OUT_DATA2-	4	HDMI OUT_DATA1+
5	GND	6	HDMI OUT_DATA1-
7	HDMI OUT_DATA0+	8	GND
9	HDMI OUT_DATA0-	10	HDMI OUT_Clock+
11	GND	12	HDMI OUT_Clock-
13	N/C	14	GND
15	HDMI OUT_SCL	16	HDMI OUT_SDA
17	GND	18	+5V
19	HDMI_HTPLG		
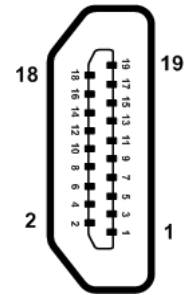
2.11.7 PCI-Express Mini Card Connector (CN11)

The CN11 connector complies with the specifications V 1.2 of the PCI-Express Mini Card.

Table 2-16 Pin assignment for CN11

Pin	Signal	Pin	Signal
1	WAKE#	2	+3.3VAUX
3	N/C	4	GND
5	N/C	6	+1.5V
7	+3.3VAUX	8	UIM_PWR
9	GND	10	UIM_DAT
11	REFCLK-	12	UIM_CLK
13	REFCLK+	14	UIM_REST
15	GND	16	UIM_VPP
17	N/C	18	GND
19	N/C	20	W_DISABLE#
21	GND	22	PERST#
23	PERN0	24	+3.3VAUX
25	PERP0	26	GND
27	GND	28	+1.5V
29	GND	30	SMB_CLK
31	PETN0	32	SMB_DATA
33	PETP0	34	GND
35	GND	36	USB_10-
37	GND	38	USB_10+
39	+3.3VAUX	40	GND
41	+3.3VAUX	42	N/C
43	GND	44	N/C
45	CL_CLK	46	N/C
47	CL_DATA	48	+1.5V
49	CL_RST_N	50	GND
51	N/C	52	+3.3VAUX
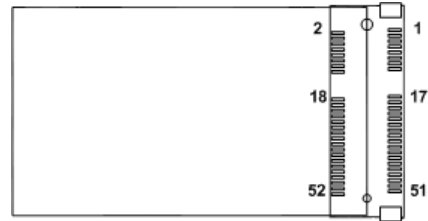
2.11.8 USB 2.0 Wafers (CN13 and CN14)

CN13 and CN14 are 5x2-pin p=2.00mm headers for the USB 2.0 interface

Table 2-17 Pin assignment for CN13

Pin	CN13 Signal	Pin	CN13 Signal
1	+5V	2	+5V
3	USB5-	4	USB6-
5	USB5+	6	USB6+
7	GND	8	GND
9	N/C		
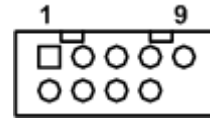
Table 2-18 Pin assignment for CN14

Pin	CN14 Signal	Pin	CN14 Signal
1	+5V	2	+5V
3	USB7-	4	USB8-
5	USB7+	6	USB8+
7	GND	8	GND
9	N/C		

2.11.9 CMOS Battery Connector (BAT1)

Connector BAT1 is used for the CMOS battery interface

Table 2-19 Pin assignment for BAT1

Pin	Signal
1	GND
2	+3.3V

2.11.10 Fan Connectors (CPU_FAN1 and SYS_FAN1)

This motherboard comes with two fan connectors. Fan speed option(s) can be found at BIOS Setup Utility through the path: Advanced\HW Monitor\PC Health Status.

The CPU_FAN1 is a 4x1-pin p=2.54mm connector

Table 2-20 Pin assignment for CPU_FAN1

Pin	Signal
1	GND
2	+12V
3	FAN Speed Detection
4	FAN Speed Control
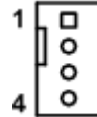
The SYS_FAN1 is a 3x1-pin p=2.54mm connector.

Table 2-21 Pin assignment for SYS_FAN1

Pin	Signal
1	GND
2	+12V
3	FAN Speed Detection

2.11.11 SIM Card Slot (SIM1)

The SIM1 is used when a SIM card is inserted. It is mainly used in 3G wireless network application. In order to work properly, the SIM card must be used together with a 3G module which is inserted into CN11

Table 2-22 Pin assignment for SIM1

Pin	Signal	Pin	Signal
1	UIM_PWR	7	UIM_VPP
2	UIM_REST	8	GND
3	UIM_CLK	9	GND
4	N/C	10	GND
5	N/C	11	GND
6	UIM_DAT	12	GND
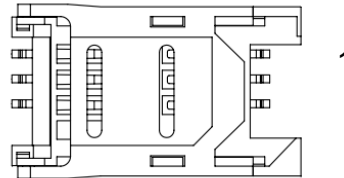
2.11.12 SATA 3.0 Connectors (SATA1~SATA3)

This Serial Advanced Technology Attachment (Serial ATA or SATA) connector is used for SATA 3.0 interface allowing a data transfer rate of up to 6.0Gb/s. It is a computer bus interface for connecting to devices such as hard disk drives.

Table 2-23 Pin assignment for SATA1 ~ SATA3

Pin	Signal
1	GND
2	SATA_TX+
3	SATA_TX-
4	GND
5	SATA_RX-
6	SATA_RX+
7	GND
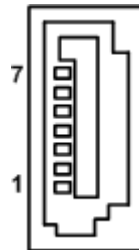
Section 3
AMI BIOS Setup Utility

The AMI UEFI BIOS provides users with a built-in setup program to modify basic system configuration. All configured parameters are stored in a flash chip to save the setup information whenever the power is turned off. This Section provides users with detailed descriptions about how to set up basic system configuration through the AMI BIOS setup utility.

3.1   Starting

To enter the setup screens, follow the steps below:

1.   Turn on the computer and press <Del> during the Power On Self Test (POST) to enter BIOS setup, otherwise, POST will continue with its test routines.
2.   Once you enter the BIOS, the main BIOS setup menu displays. You can access the other setup screens from the main BIOS setup menu, such as the Advanced and Chipset menus.

It is strongly recommended that you should avoid changing the chipset's defaults. Both AMI and your system manufacturer have carefully set up these defaults that provide the best performance and reliability.

3.2   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>, <Enter>, <ESC>, <Arrow> keys, and so on.

NOTE: Some of the navigation keys differ from one screen to another.

Hot Keys	Description
→← **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.
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.
+– Plus/Minus	The Plus and Minus <Arrow> keys allow you to change the field value of a particular setup item.
F1	The <F1> key allows you to display the General Help screen.
F2	The <F2> key allows you to Load Previous Values.
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.

3.3   Main Menu

When you first enter the setup utility, you will enter the Main BIOS setup screen as shown below. You can always return to the Main setup screen by selecting the Main tab. System Time/Date can be set up as described below.

```
            Aptio Setup Utility - Copyright (C) 2017 American Megatrends, Inc.
    Main  Advanced  Chipset  Security  Boot  Save & Exit

    BIOS Information                                        Set the Date. Use Tab to
    Project Version              MAN0500 XF302              switch between Date elements.
    Build Date and Time          12/12/2017 16:31:19

    System Date                  [Wed 01/03/2018]
    System Time                  [10:37:02]

    Access Level                 Administrator


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



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```

BIOS Information
Display the BIOS information.

System Date/Time
Use this option to change the system time and date. Highlight System Time or System Date using the <Arrow> keys. Enter new values through the keyboard. Press the <Tab> key or the <Arrow> 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 the current user.

3.4   Advanced Menu

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

► ACPI Settings
► CPU Configuration
► SATA Configuration
► PCH-FW Configuration
► USB Configuration
► IT8786 Super IO Configuration
► Hardware Monitor
► Smart Fan Function
► Utility Configuration

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

```
             Aptio Setup Utility - Copyright (C) 2017 American Megatrends, Inc.
        Main  Advanced  Chipset  Security  Boot  Save & Exit

     ▶ ACPI Settings                                           System ACPI Parameters.
     ▶ CPU Configuration
     ▶ SATA Configuration
     ▶ PCH-FW Configuration
     ▶ USB Configuration
     ▶ IT8786 Super IO Configuration
     ▶ Hardware Monitor
     ▶ Smart Fan Function
     ▶ Utility Configuration


                                                               →←: 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.
```
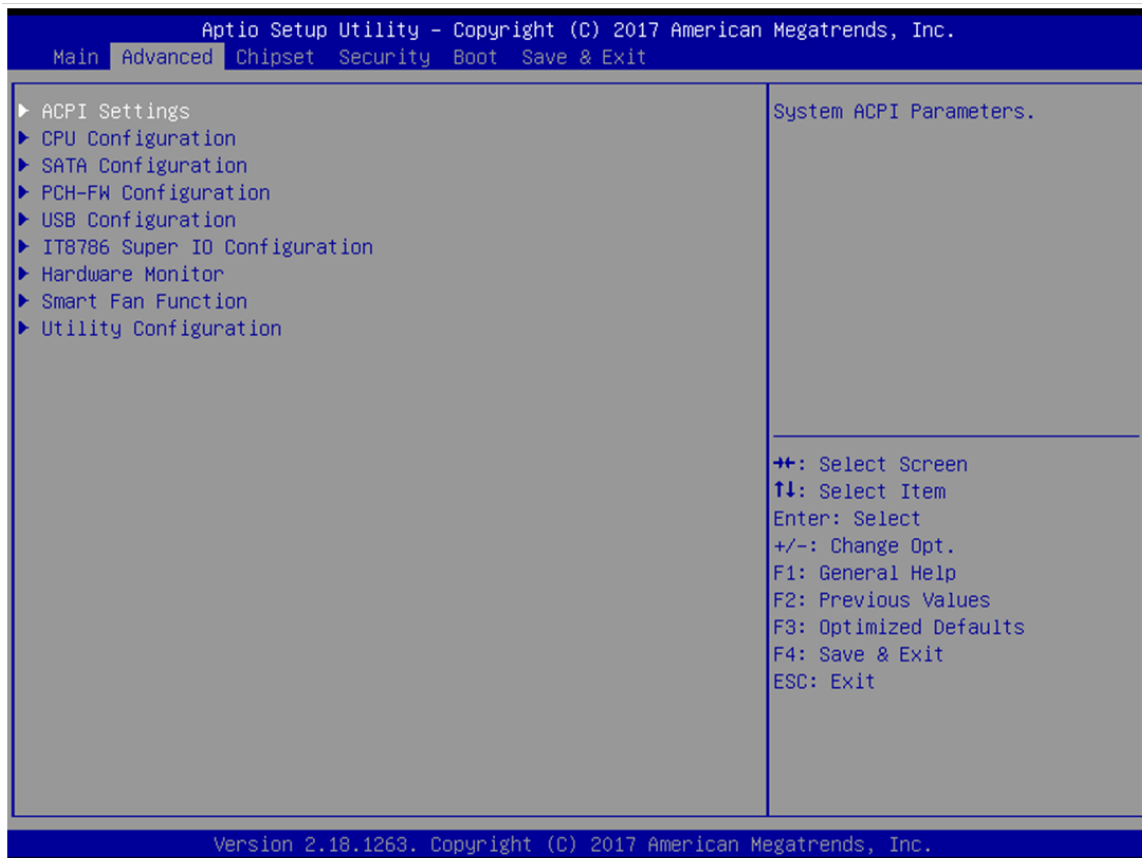
● **IT8786 Super IO Configuration**

You can use this screen to select options for the Super IO Configuration, and change the value of the selected option. A description of the selected item appears on the right side of the screen. For items marked with "►", please press <Enter> for more options.

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

   IT8786 Super IO Configuration                              Set Parameters of Serial Port
                                                              1 (COMA)
   Super IO Chip                       IT8786
 ▶ Serial Port 1 Configuration
 ▶ Serial Port 2 Configuration
 ▶ Serial Port 3 Configuration
 ▶ Serial Port 4 Configuration




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



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```

Serial Port 1~4 Configuration

Use these items to set parameters related to serial port 1~4.

● **Hardware Monitor**
This screen monitors hardware health status.

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

 Pc Health Status

 CPU temperature                  : +33 %
 System temperature               : +37 %
 CPU Fan Speed                     : 998 RPM
 System Fan Speed                  : 3750 RPM
 VCC_CPU                           : +1.068 V
 VCC_DDR                           : +1.200 V
 +12V                              : +12.096 V
 +5V                               : +5.010 V
 +3.3V                             : +3.320 V

                                                  →←: 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.
```

This screen displays the temperatures of the system and CPU, cooling fans speed in RPM and system voltages (VCC_CPU, VIN1~VIN4 and VBAT).

● **Smart Fan Function**

This screen allows you to select a CPU fan mode.

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

  Pc Health Status                                              CPU FAN Mode Select

  CPU FAN                              [Automatic Mode]
    Fan off temperature limit            20
    Fan start temperature limit          45



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



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```

CPU FAN Mode

This item allows you to select a CPU fan mode, which can be set to Full On, Automatic Mode and Manual Mode. The default setting is Automatic Mode.

● **Utility Configuration**

BIOS Flash Utility
This is the screen of BIOS flash utility configuration. For more detailed information, please refer to Appendix B.

```
         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                                            Select the highest ACPI sleep
                                                           state the system will enter
  ACPI Sleep State              [S3 (Suspend to RAM)]      when the SUSPEND button is
                                                           pressed.




                                                           ←→: 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
When the suspend button is pressed, the ACPI (Advanced Configuration and Power Interface) sleep state is S3 (Suspend to RAM).

● **CPU Configuration**

This screen shows the CPU information, and you can change the value of the selected option.

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

 CPU Configuration                                        Enabled for Windows XP and
                                                          Linux (OS optimized for
 Type                      Intel(R) Core(TM)              Hyper-Threading Technology)
                           i3-7101E CPU @ 3.90GHz         and Disabled for other OS (OS
 ID                        0x906E9                        not optimized for
 Speed                     3900 MHz                       Hyper-Threading Technology).
 L1 Data Cache            32 KB x 2
 L1 Instruction Cache     32 KB x 2
 L2 Cache                  256 KB x 2
 L3 Cache                  3 MB
 L4 Cache                  N/A
 VMX                       Supported
 SMX/TXT                   Not Supported
                                                         ────────────────────────────
 Hyper-Threading           [Enabled]                      →←: Select Screen
 Intel (VMX) Virtualization [Enabled]                     ↑↓: Select Item
 Technology                                               Enter: Select
                                                          +/-: Change Opt.
                                                          F1: General Help
                                                          F2: Previous Values
                                                          F3: Optimized Defaults
                                                          F4: Save & Exit
                                                          ESC: Exit




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```

Intel 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 single computer system to work as several virtual systems.

● **SATA Configuration**

During system boot up, the BIOS automatically detects the presence of SATA devices. In the SATA Configuration menu, you can see the currently installed hardware in the SATA ports.

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

    SATA Controller(s)                   [Enabled]                    Enable/Disable SATA Device.
    SATA Mode Selection                  [AHCI]

    Serial ATA Port 1                    Empty
    Serial ATA Port 2                    WDC WD3200LPVX (320.0GB)
    Serial ATA Port 3                    Empty




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




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```

SATA Mode Selection

This item shows the SATA Controller(s) operate in AHCI (Advanced Host Controller Interface) mode.

● **PCH-FW Configuration**

This screen displays ME Firmware information.

● **USB Configuration**

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

  USB Configuration                                             Mass storage device emulation
                                                                type. 'AUTO' enumerates
  USB Module Version                  16                        devices according to their
                                                                media format. Optical drives
  USB Controllers:                                              are emulated as 'CDROM',
       1 XHCI                                                   drives with no media will be
  USB Devices:                                                  emulated according to a drive
       1 Drive, 1 Keyboard, 2 Mice                              type.

  Mass Storage Devices:
   silicon-power PMAP                 [Auto]


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




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```

USB Devices
Displays all detected USB devices.

3.5 Chipset Menu

The Chipset menu allows users to change the advanced chipset settings. You can select any of the items in the left frame of the screen to go to the sub menus:

► System Agent (SA) Configuration
► PCH-IO Configuration

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

```
              Aptio Setup Utility - Copyright (C) 2017 American Megatrends, Inc.
        Main  Advanced  Chipset  Security  Boot  Save & Exit

    ▶ System Agent (SA) Configuration                       System Agent (SA) Parameters
    ▶ PCH-IO Configuration




















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




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```

.
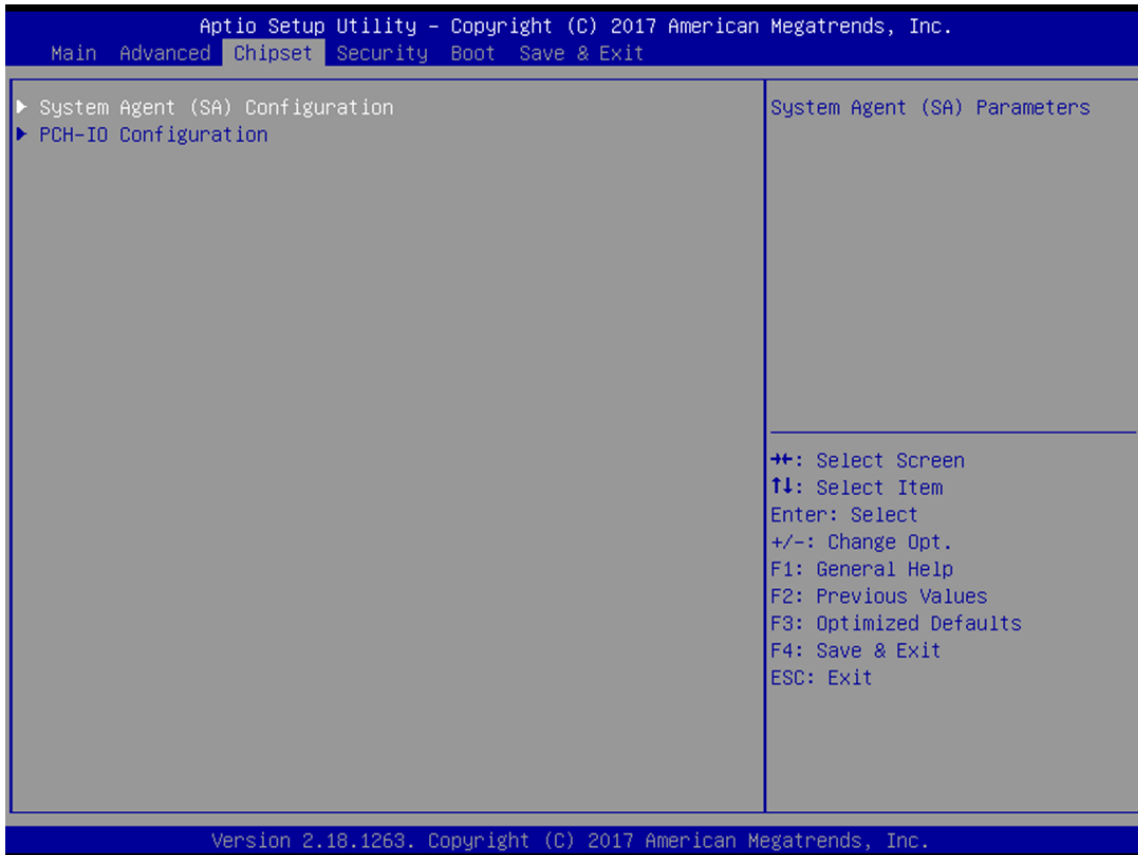
● **System Agent (SA) Configuration**

This screen shows System Agent version information and provides functions for specifying related parameters.

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

    SA PCIe Code Version          1.0.3.1              Graphics Configuration
    VT-d                          Supported

  ▶ Graphics Configuration
  ▶ Memory Configuration




                                                       ↔: 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.
```

Graphics Configuration

Use this item to configure internal graphics controller.

Memory Configuration

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

● **Memory Configuration**
This screen shows the system memory information.

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

Memory RC Version                 1.0.3.1
Total Memory                      16384 MB

Channel 0 Slot 0                  Populated & Enabled
    Size                          16384 MB (DDR4)
    Number of Ranks               2
    Manufacturer                  Transcend
Channel 1 Slot 0                  Not Populated / Disabled


                                                    →←: 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.
```

3.6   Security Menu

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

```
         Aptio Setup Utility - Copyright (C) 2017 American Megatrends, Inc.
     Main  Advanced  Chipset  Security  Boot  Save & Exit

    Password Description                                    Set Administrator Password

    If ONLY the Administrator's password is set,
    then this only limits access to Setup and is
    only asked for when entering Setup.
    If ONLY the User's password is set, then this
    is a power on password and must be entered to
    boot or enter Setup. In Setup the User will
    have Administrator rights.
    The password length must be
    in the following range:
    Minimum length                    3
    Maximum length                    20                  ──────────────────────────
                                                          ↔: Select Screen
    Administrator Password                                ↑↓: Select Item
    User Password                                         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.
```
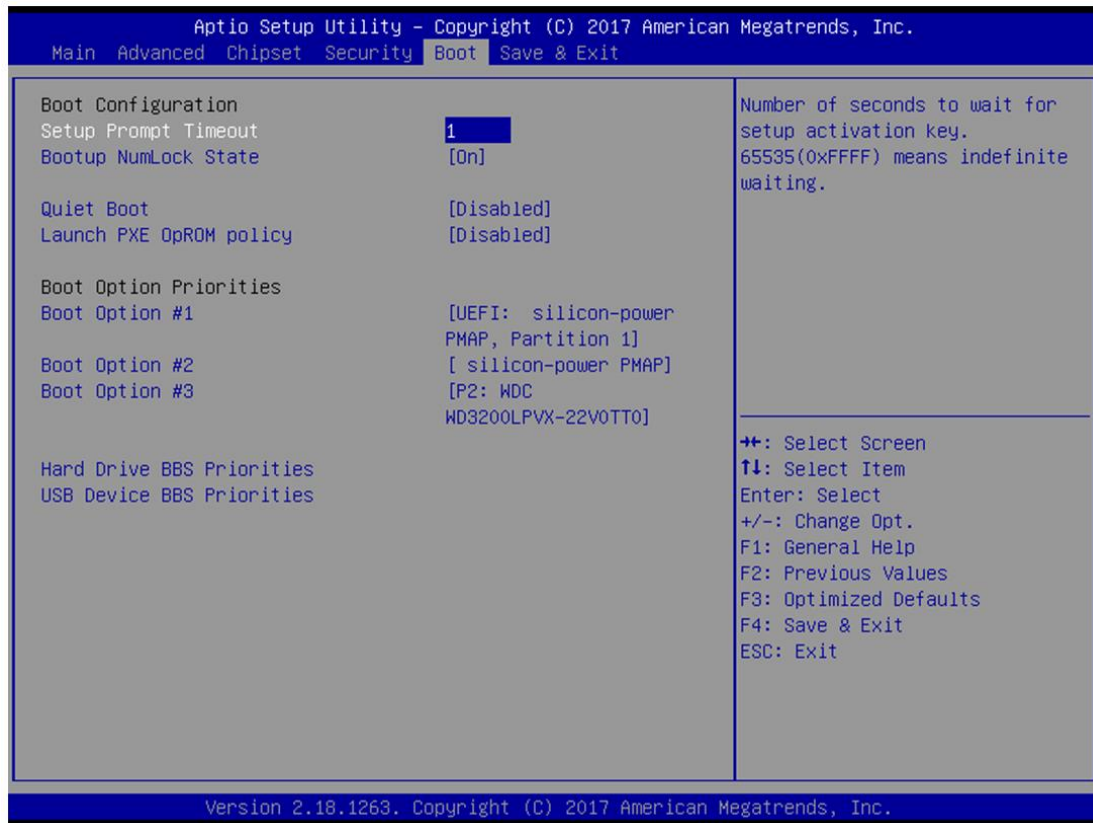
Administrator Password
This item indicates whether an administrator password has been set (installed or uninstalled).

User Password
This item indicates whether a user password has been set (installed or uninstalled).

3.7   Boot Menu

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

```
          Aptio Setup Utility - Copyright (C) 2017 American Megatrends, Inc.
    Main  Advanced  Chipset  Security  Boot  Save & Exit

    Boot Configuration                                          Number of seconds to wait for
    Setup Prompt Timeout               1                        setup activation key.
    Bootup NumLock State               [On]                     65535(0xFFFF) means indefinite
                                                                waiting.
    Quiet Boot                         [Disabled]
    Launch PXE OpROM policy            [Disabled]

    Boot Option Priorities
    Boot Option #1                     [UEFI:  silicon-power
                                       PMAP, Partition 1]

    Boot Option #2                     [ silicon-power PMAP]
    Boot Option #3                     [P2: WDC
                                       WD3200LPVX-22V0TT0]
                                                                ─────────────────────────────
    Hard Drive BBS Priorities                                   →←: Select Screen
    USB Device BBS Priorities                                   ↑↓: Select Item
                                                                Enter: Select
                                                                +/-: Change Opt.
                                                                F1: General Help
                                                                F2: Previous Values
                                                                F3: Optimized Defaults
                                                                F4: Save & Exit
                                                                ESC: Exit




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```

Setup Prompt Timeout
Enter the number of seconds to wait for setup activation key. 65535(0xFFFF) means indefinite waiting.

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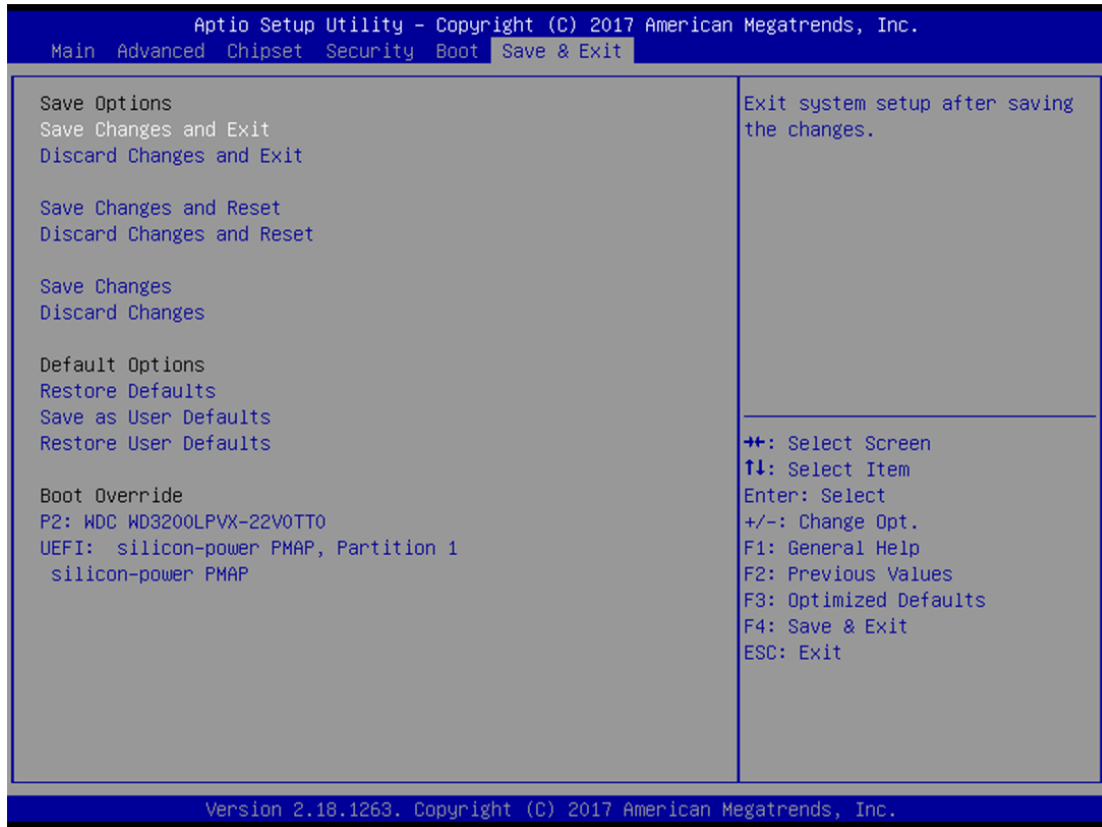
Launch PXE OpROM policy
Use this item to enable or disable the boot ROM function of the onboard LAN chip when the system boots up.

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

3.8   Save & Exit Menu

The Save & Exit menu allows users to load your system configuration with optimal or fail-safe default values.

```
            Aptio Setup Utility - Copyright (C) 2017 American Megatrends, Inc.
    Main  Advanced  Chipset  Security  Boot  Save & Exit

   Save Options                                          Exit system setup after saving
   Save Changes and Exit                                 the changes.
   Discard Changes and Exit

   Save Changes and Reset
   Discard Changes and Reset

   Save Changes
   Discard Changes

   Default Options
   Restore Defaults
   Save as User Defaults
   Restore User Defaults                                 ++: Select Screen
                                                         ↑↓: Select Item
   Boot Override                                         Enter: Select
   P2: WDC WD3200LPVX-22V0TT0                            +/-: Change Opt.
   UEFI:  silicon-power PMAP, Partition 1                F1: General Help
    silicon-power PMAP                                   F2: Previous Values
                                                         F3: Optimized Defaults
                                                         F4: Save & Exit
                                                         ESC: Exit

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```

Save Changes and Exit
When you have completed the system configuration changes, select this option to leave Setup and return to the Main Menu. Select Save Changes and Exit from the Save & Exit menu and press <Enter>. 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 the Main Menu. Select Discard Changes and Exit from the Save & Exit menu and press <Enter>. 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 <Enter>. 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 <Enter>. Select Yes to discard changes and reset.

Save Changes

When you have completed the system configuration changes, select this option to save changes. Select Save Changes from the Save & Exit menu and press <Enter>. Select Yes to save changes.

Discard Changes

Select this option to quit Setup without making any permanent changes to the system configuration. Select Discard Changes from the Save & Exit menu and press <Enter>. 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 <Enter>.

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 <Enter>.

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 <Enter>.

Boot Override

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

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Section 4
Driver Installation

4.1   System

The P1127E-500 supports Windows 7 / Windows 8.1 / WES7 / WE8S / Windows 10 / Windows 10 IoT Enterprise. To facilitate the installation of system drivers, please carefully read the instructions in this section before starting to install.

Win 7

Step 1   Insert the Driver CD and select the "\Drivers".
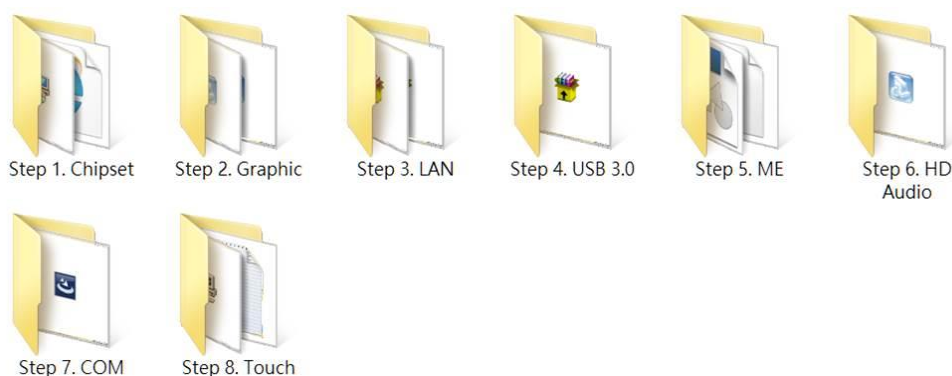
Step 2   Select all files and follow the installing procedure.

CAUTION :   Run the USB3.0 Utility before WIN 7 installation.
1.   Download and unzip the Windows 7 USB 3.0 Creator utility to a temporary folder on the Admin system.
2.   Connect the USB device containing the Windows 7 image to the Admin system.
3.   Right-click the file **Installer_Creator.exe** and select **Run as administrator**.
4.   Browse to the root of the USB drive.
5.   Click **Create Image** to begin the creation process.
6.   Wait for the process to finish. It can take up to 15 minutes.

CAUTION :   WIN 10 Display Resolution setting
1.   The resolution major setting must use the maximum resolution of the P1127E-500 LCD panel (1024x768).
2.   As the resolution of an external display may be higher than that of the P1127E-500 LCD panel and could cause the display function to fail, setting with maximum resolution of an external display is not allowed.
3.   The Kaby Lake CPU only supports WIN10 64bit.

4.2   Touch Screen

The P1127E-500 uses a 5-wire analog resistive touch screen. The specification and driver installation are described below.

●   **Specification**

Touch Screen	5-wire Analog Resistive type
Touch Screen Controller	PenMount 6500 USB Touch Screen Controller IC
Communications	USB interface
Baud Rate	19200 baud rate fixed
Resolution	2048x2048

● **Driver Installation- Windows 7 / 8.1 /10**

The P1127E-500 provides a touch screen driver that users can install under the operating system Windows 7 / 8.1 /10. To facilitate installation of the touch screen driver, you should read the instructions in this section carefully before you start installation.

Step 1   **Insert the Driver CD and follow the path to select the "\Drivers\Step 7. Touch".**
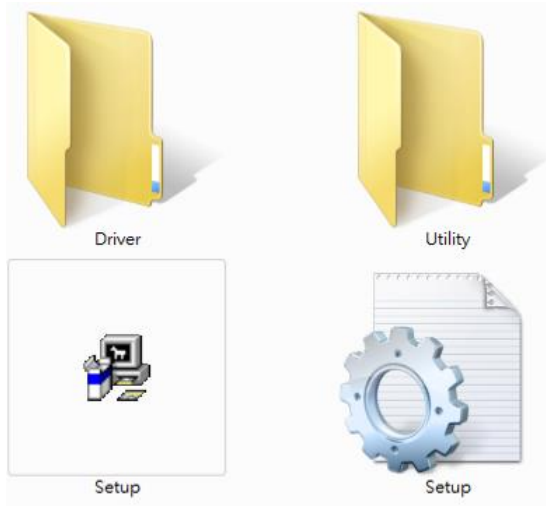
Step 2   **Follow the installing procedure and press OK.**

Step 3   **Click Start menu and select "PenMount Utilities", and then a "PenMount Control Panel" pops out.**
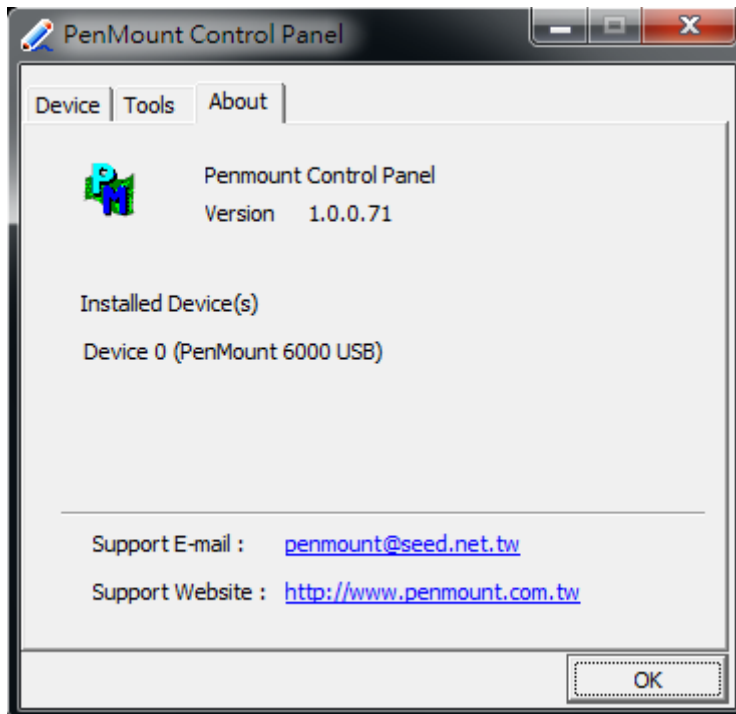
Step 4   Click "Configure"
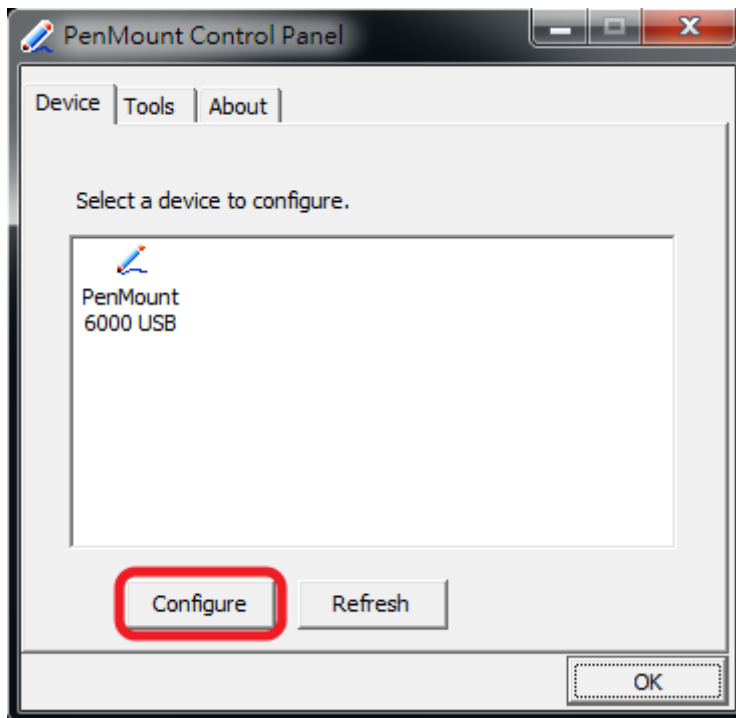
Step 5   Select the "Standard Calibration" tab.
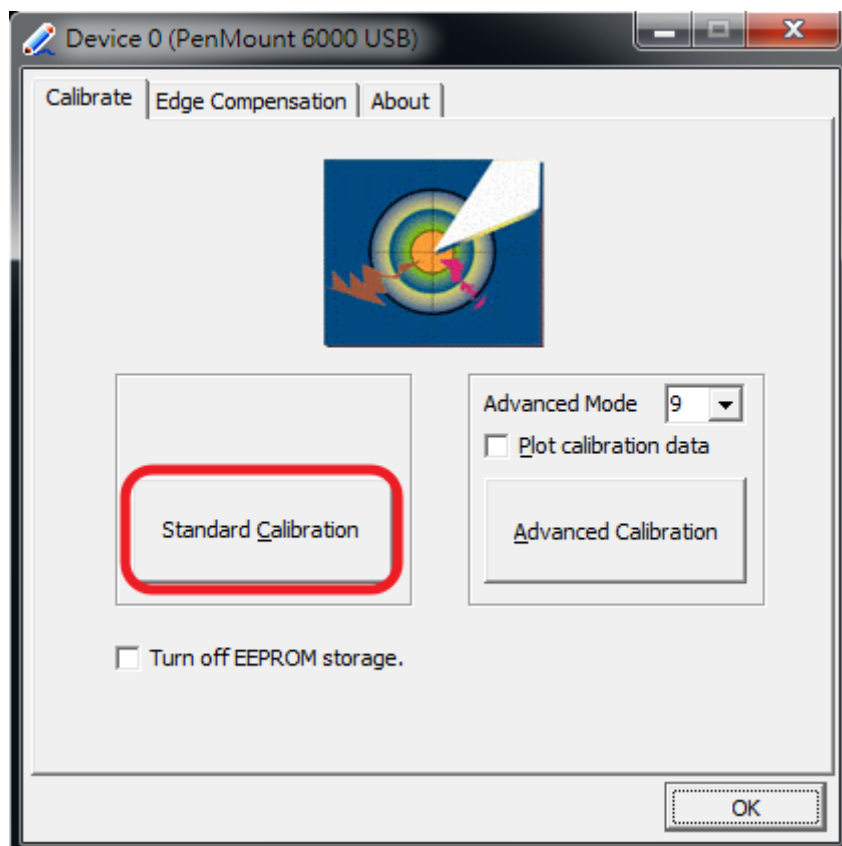
Step 6   Calibrations:
To adjust the display of the touch panel, click "Calibration" and follow the calibrating point to do calibration; there are five points on the screen for calibration.

Touch the red square.
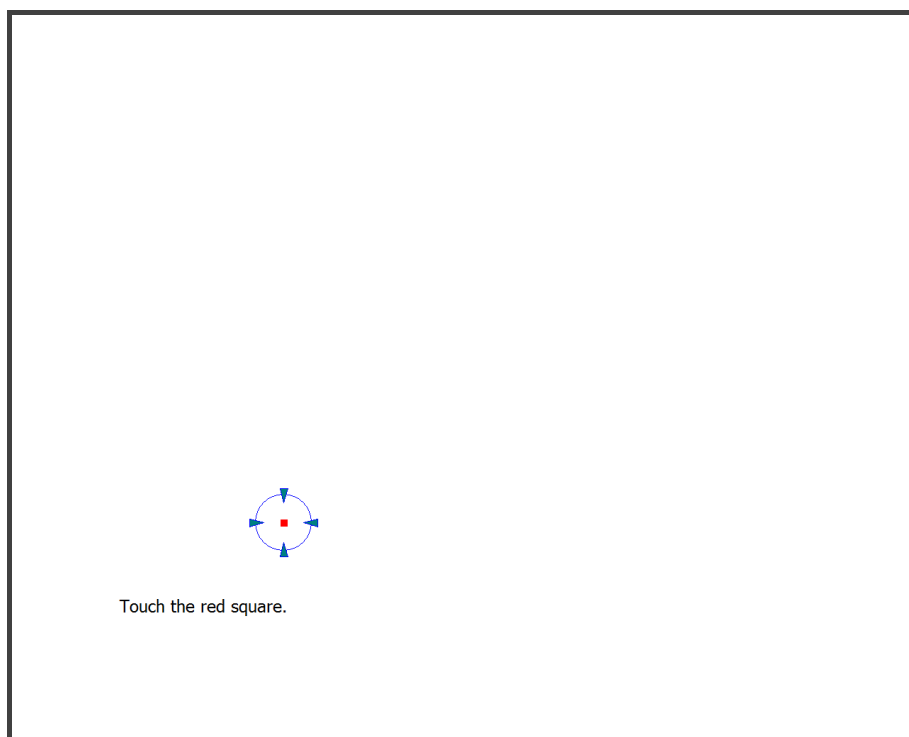
Step 7   Press OK.

4.3   Embedded OS

The P1127E-500 supports the 6th-generation Skylake processor in Windows 7 / 8 / 8.1 / 10, but only supports the 7th-generation Kaby Lake processor in Windows 10. The devices supported by the OS are listed below.

● **WES7 / WE8S**

Here are supported onboard devices:

- Onboard multi I/O
- SATA HDD
- USB
- PS2 keyboard and mouse
- CRT/LCD display
- 10/100/1000 base-T Ethernet
- Onboard audio
- Touch screen

PenMount Touch Screen

Before you can use PenMount to calibrate the touch screen, here is what you should do:
1. Set up the PenMount touch device driver by executing C:\Penmount\ Windows 2000-XP V5.0\setup.exe. When the installation is completed, an icon "PM" appears on the Taskbar.
2. Calibrate the touch screen by clicking on the "PM" icon, and then continue with the calibration.
3. Restart the computer.

Appendix
BIOS Flash Utility

The BIOS Flash Utility is a new helpful function in the BIOS setup program. With this function you can easily update system BIOS without having to enter an operating system. In this appendix you may learn how to do it in just a few steps. Please read and follow the instructions below carefully.
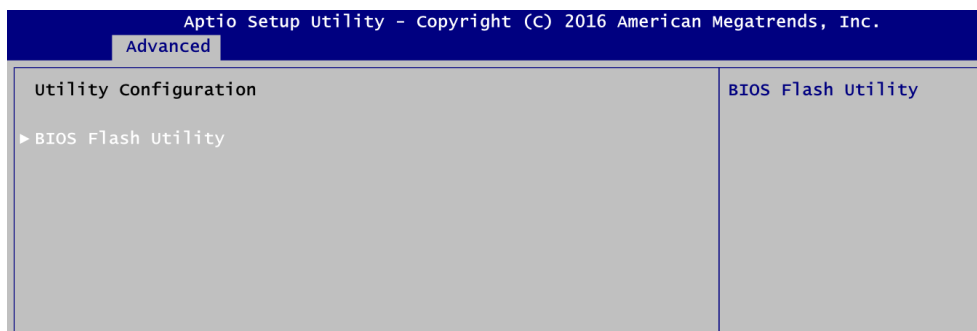
1. In your USB flash drive, create a new folder and name it "Axiomtek". See the figure below.
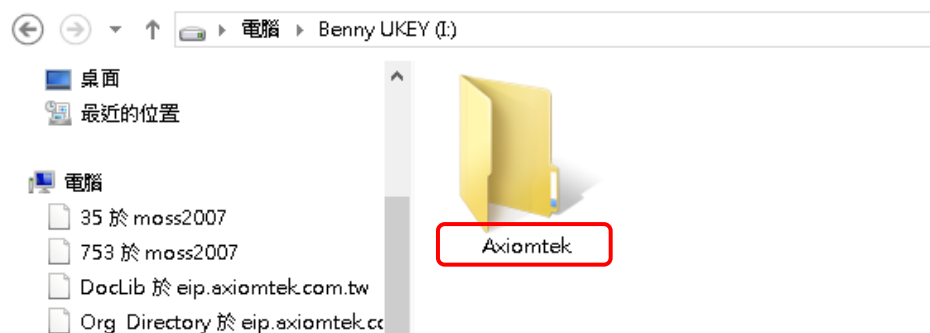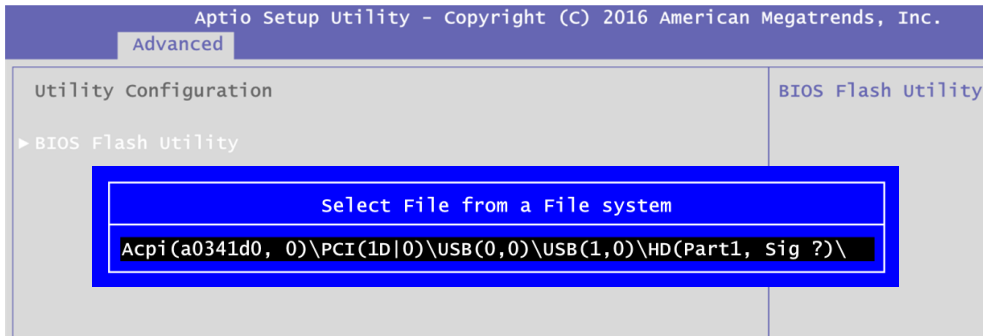

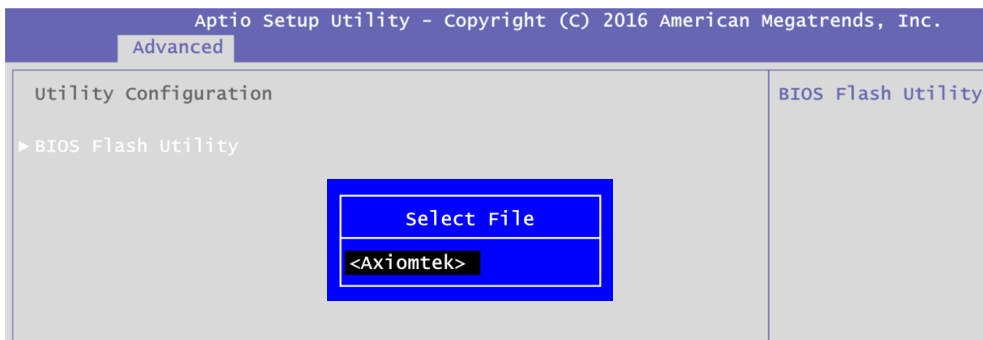2. Copy a BIOS ROM file (e.g. MANO500.005) to the "Axiomtek" folder.

3. Insert the USB flash drive to your system.

4. Enter the BIOS setup menu and go to Advanced\Utility Configuration. Select BIOS Flash Utility and press <Enter>.
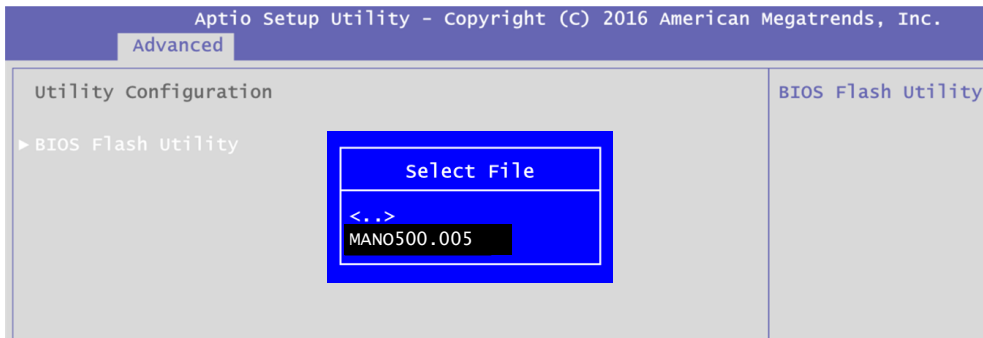
5. BIOS automatically detects all USB drive(s) attached to the system. In this example, only one USB drive is attached to the system, so you can see only one device displayed in the figure below.

```
Aptio Setup Utility - Copyright (C) 2016 American Megatrends, Inc.
 Advanced

Utility Configuration                              BIOS Flash Utility

▶BIOS Flash Utility

            ┌─────────────────────────────────────────────┐
            │         Select File from a File system       │
            ├─────────────────────────────────────────────┤
            │ Acpi(a0341d0, 0)\PCI(1D|0)\USB(0,0)\USB(1,0)\HD(Part1, Sig ?)\ │
            └─────────────────────────────────────────────┘
```

6. Select the USB drive containing the BIOS ROM file you want to update using the <↑> or <↓> key. Then press <Enter> to get into the "Axiomtek" folder.

```
Aptio Setup Utility - Copyright (C) 2016 American Megatrends, Inc.
 Advanced

Utility Configuration                              BIOS Flash Utility

▶BIOS Flash Utility

              ┌──────────────────────────┐
              │        Select File       │
              ├──────────────────────────┤
              │ <Axiomtek>               │
              └──────────────────────────┘
```

7. Now you can see the BIOS ROM file on the screen. Press <Enter> to select.

```
Aptio Setup Utility - Copyright (C) 2016 American Megatrends, Inc.
 Advanced

Utility Configuration                              BIOS Flash Utility

▶BIOS Flash Utility
              ┌──────────────────────────┐
              │        Select File       │
              ├──────────────────────────┤
              │ <..>                     │
              │ MANO500.005              │
              └──────────────────────────┘
```

8. Select the Start to flash system BIOS option to begin the updating procedure.

```
Aptio Setup Utility - Copyright (C) 2016 American Megatrends, Inc.
 Advanced

Utility Configuration                              BIOS Flash Utility

▶BIOS Flash Utility
              ┌──────────────────────────┐
              │     BIOS Flash Utility    │
              ├──────────────────────────┤
              │ Return to BIOS Setup Menu │
              │ Start to flash system BIOS│
              └──────────────────────────┘
```
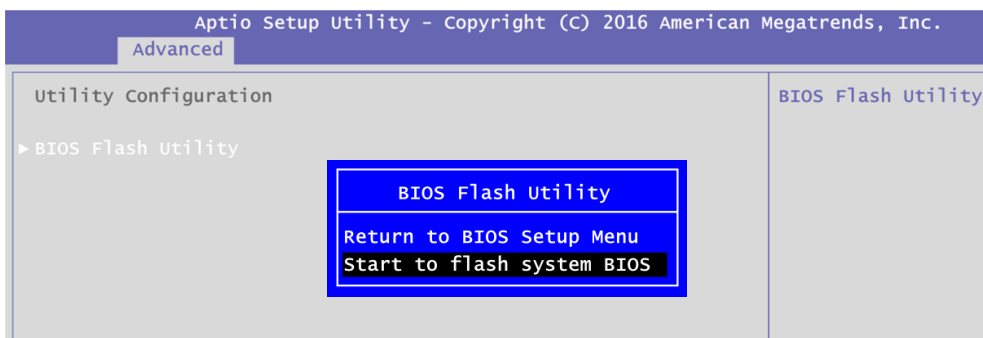
9. Please wait for BIOS to complete the entire flash update process: erase data, write new data and verify data.
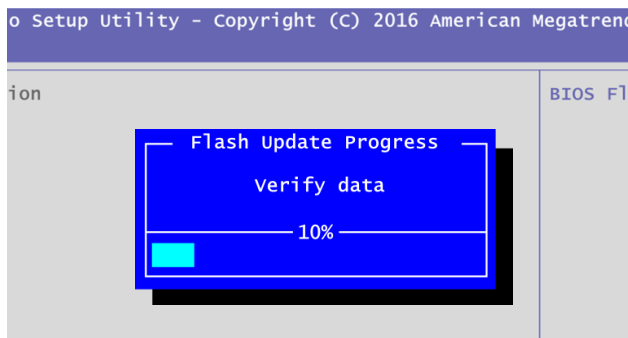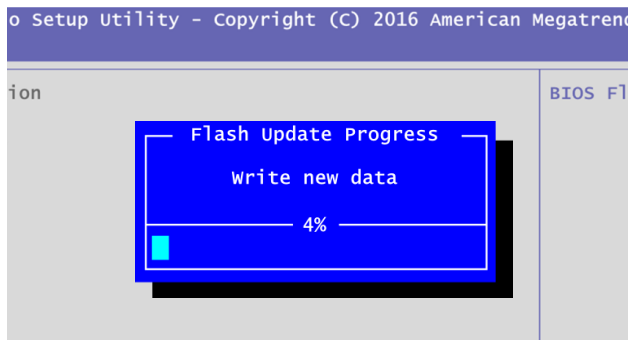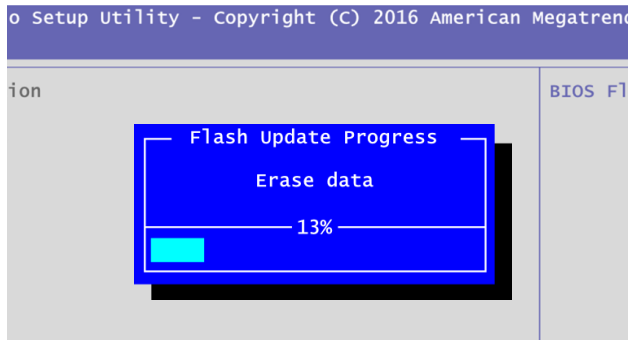
10. When you see the following figure, press <Enter> to finish the update process. After that the system will shut down and restart immediately.