



AXIOMTEK

P1177E-842

**All-in-One
17" SXGA TFT Expandable
PANEL PC**

User's Manual



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If you replace wrong batteries, it causes the danger of explosion. It is recommended by the manufacturer that you follow the manufacturer's instructions to only replace the same or equivalent type of battery, and dispose of used ones.

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Safety Precautions

Before getting started, read the following important cautions.

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 cords from the P1000 Series before making 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 system's top 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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Chapter 1

Introduction

This chapter contains general information and detailed specifications of the P1177E-842. Chapter 1 includes the following sections:



- General Description
- Specification
- Dimensions
- I/O Outlets
- Package List

1.1 General Description

The P1177E-842 adopts a 17-inch SXGA TFT LCD with 250-nits brightness and Intel® Celeron® Processor J1900 at 2.0 GHz to provide excellent computing performance with low power consumption. Furthermore, P1177E-842 adopts built-in speaker and option WLAN module for wireless connectivity.

Industrial-grade front bezel

P1177E-842 adopts industrial-grade material front bezel which incorporates the advantages of light weight, high degree of hardness better heat releasing, easy-to-shape and anti-corrosion ability. Therefore, P1177E-842 is especially suitable for most rugged industrial environments.

Expandable for PCIe (PCI optional)

P1177E-842 has 1 PCIe (1 PCI optional) for expansion purpose. User can easily plug in standard half-size PCI or PCIe card for any requirement.

Speaker and WLAN Antenna Supported

P1177E-842 features built-in speakers for kiosk application to display multimedia content program. It also supports WLAN module (optional) antenna for wireless network connectivity.

Low power consumption computing: Intel® Celeron® Processor J1900

P1177E-842 is powered by Intel® Celeron® Processor J1900 at 2.0 GHz which deliver great balance between computing performance and low power consumption. Intel® Bay Trail SoC offers reliable and stable performance and rugged environment.

1.2 Specifications

Main CPU Board

- **CPU**
 - Intel® Celeron® Processor J1900 at 2.0 GHz
- **System Chipset**
 - Intel® Bay Trail SoC
- **System Memory**
 - 1 x 204-pin DDR3L 1600/1333 MHz SO-DIMM socket
 - Maximum up to 8GB DDR3L memory.
- **BIOS**
 - AMI BIOS via SPI interface with socket

I/O System

- **Standard I/O**
 - 2 x RS-232/422/485, 2 x RS-232
 - 3 x USB 2.0
 - 1 x USB 3.0
 - 1 x HDMI
 - 1 x VGA
- **Ethernet**
 - 2 x RJ45 GbE LAN Ports, Support 1000/100/10Mbps Gigabit/Fast Ethernet.
- **Audio**
 - 1 x Line-out
 - 1 x Mic-in
- **Expansion**
 - 1 x PC x1 slot.
 - 1 x PCI-Express Mini Card; only support WIFI and 3G.
 - 1 x SIM card slot.
- **Storage**
 - 1 x 2.5" or 3.5" SATA HDD
- **Power connector**
 - 1 x AC plug

System Specification

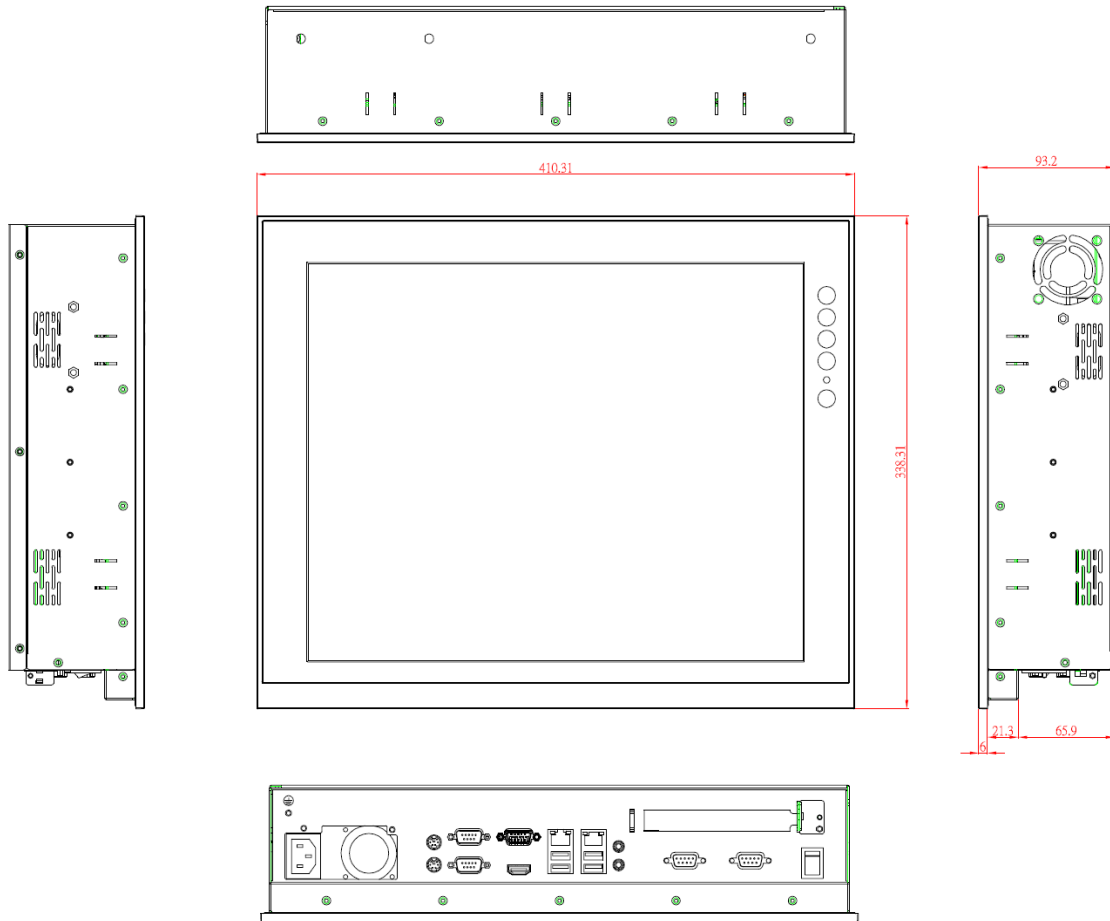
- **17" SXGA (1280x1024) LCD**
- **5 wired resistive Touch**
- **IP65/NEMA4 aluminum front bezel**
- **Net Weight**
 - 6.3 Kgs (13.89 lb)
- **Dimension (Main Body Size)**
 - 410 mm (16.14") (W) x 92 mm (3.62") (D) x 338mm (13.30") (H)
- **Operation Temperature**
 - 0°C to 45°C
- **Relative Humidity**
 - 10% to 90% @ 40°C, Non-Condensing
- **Power Input**
 - 100~240VAC power connector

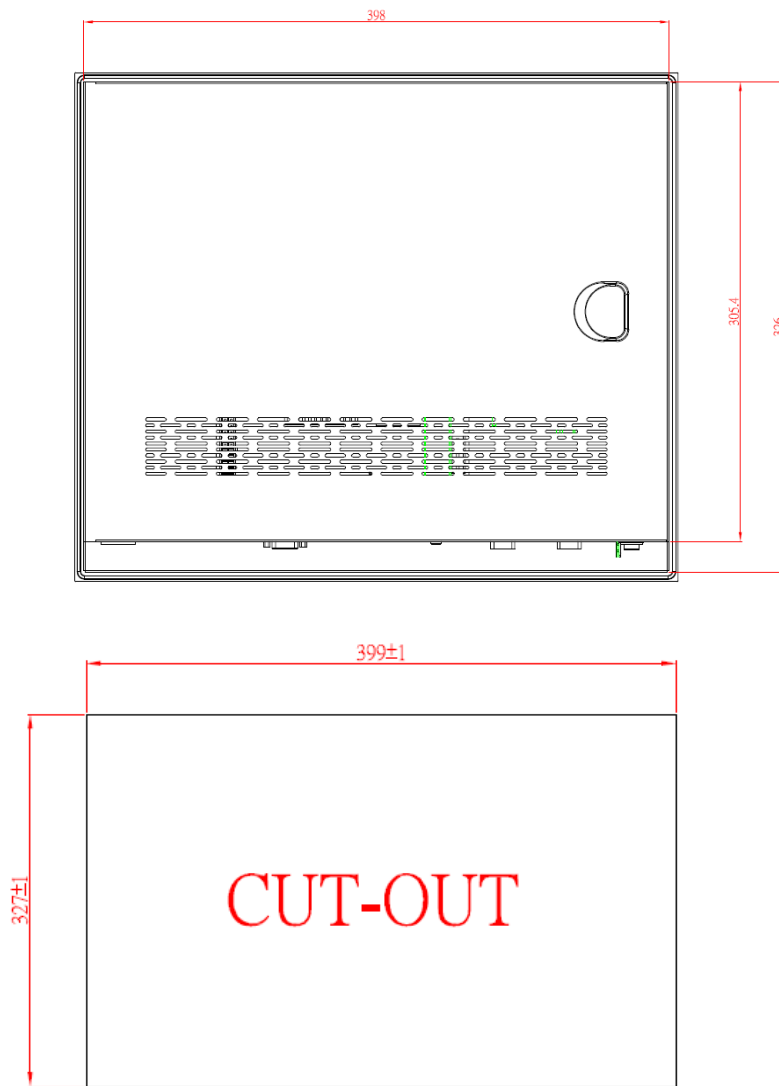


NOTE 1. All specifications and images are subject to change without notice.
2. Long press the button of OSD doesn't have "repeat" function.

1.3 Dimensions and Outlines

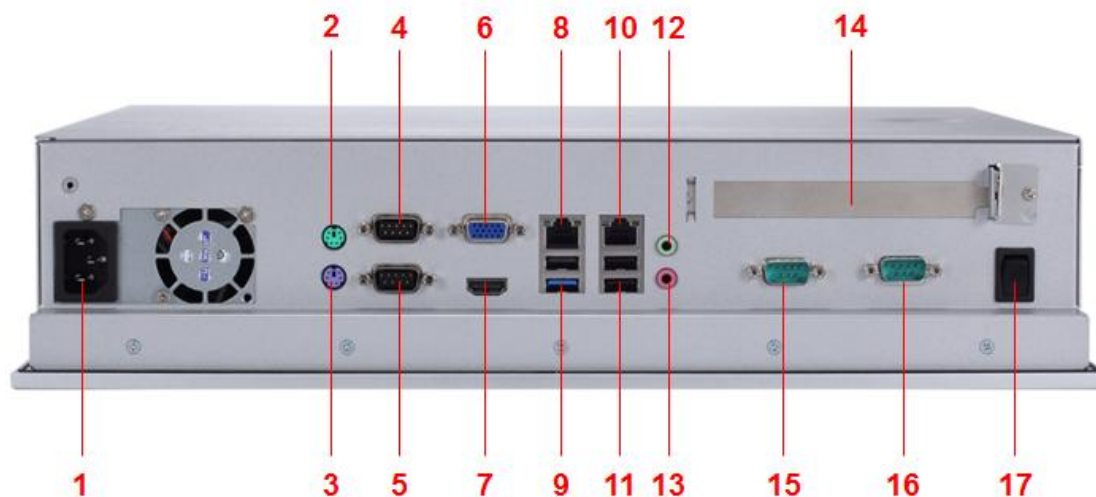
The following diagrams show the dimensions and outlines of P1177E-842.





1.4 I/O Outlets

Please refer to the following illustration for I/O locations of the P1177E-842.



No	Function
1	1 x AC Plug
2	PS/2 Mouse
3	PS/2 Keyboard
4	1 x RS-232/422/485 (COM1)
5	1 x RS-232/422/485 (COM2)
6	1 x VGA
7	1 x HDMI
8	1 x RJ45 for GIGA Ethernet
9	1 x USB3.0, 1 x USB2.0
10	1 x RJ45 for GIGA Ethernet
11	2 x USB2.0
12	1 x Line-out
13	1 x Mic-in
14	1 x PCI Card expansion slot
15	1 x RS-232 (COM3)
16	1 x RS-232 (COM4)
17	1 x Switch for power on/off

1.5 Packing List

When you receive the P1177E-842, the bundled package should contain the following items:

- **P1177E-842 unit x 1**
- **Driver CD x 1**
- **Panel mount kit x 7**
- **Wall/VESA mount kit x 1 (optional)**
- **Rack mount kit x 1 (optional)**
- **Power cord x 1**

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

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Chapter 2

Hardware and Installation

The P1177E-842 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:

- **Open Back Cover**
- **Serial Port Interface**
- **Ethernet**
- **Mounting Method**
- **HDD Installation**
- **DRAM Installation**
- **Wireless LAN Module (optional)**
- **Add-On Card Installation**
- **Jumper Settings**

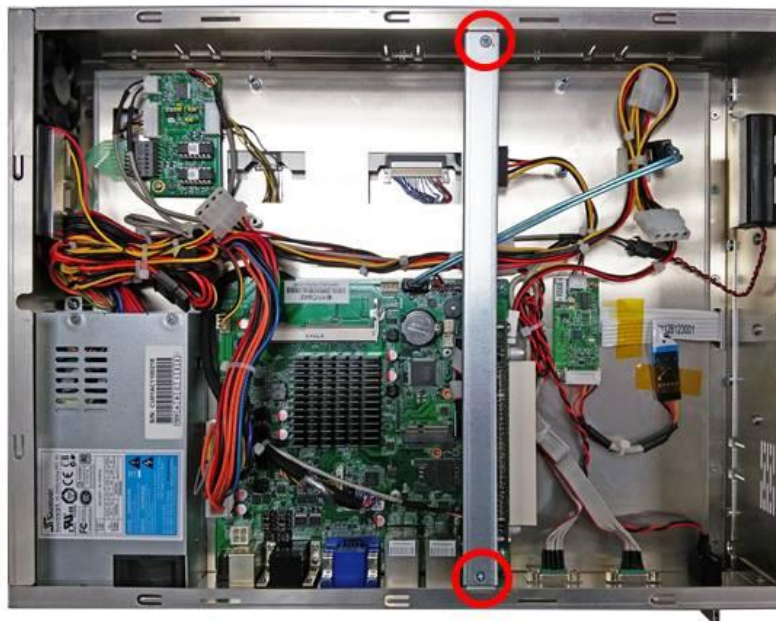
2.1 Open back cover

This section tells users how to open back cover. Please follow the steps below.

Step 1 Unscrew 3 screws on the back cover and push to the right side. Please refer the photo below.



Step 2 Remove the back cover and unscrew 2 screws.



2.2 Serial Ports Interface

This motherboard supports RS-232/422/485 on COM1 & COM2 ports; 2 x RS-232 on COM3 & COM4. The pin assignments are listed in table below. If you need to adjust these COM ports to work as RS-232/422/485, please refer to BIOS setting in section 3.4.

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

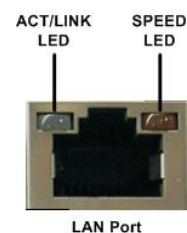
2.3 Ethernet

The P1177E-842 is equipped with two high performance plug and play Ethernet interfaces (RJ-45) which are fully compliant with the IEEE 802.3 standard. Connection can be established by plugging one end of the Ethernet cable into this RJ-45 connector and the other end to a 1000/100/10-Base-T hub.

There are two LEDs next to the LAN port. Please refer to the table below for the LAN port LED indications.

LAN Port LED Indications

Activity/Link LED		SPEED LED	
Status	Description	Status	Description
OFF	No link	OFF	10Mbps connection
Blinking	Data activity	Green	100Mbps connection
ON	Link	Orange	1Gbps connection



2.4 Mountings: Panel / Wall / Rack / Desktop / VESA

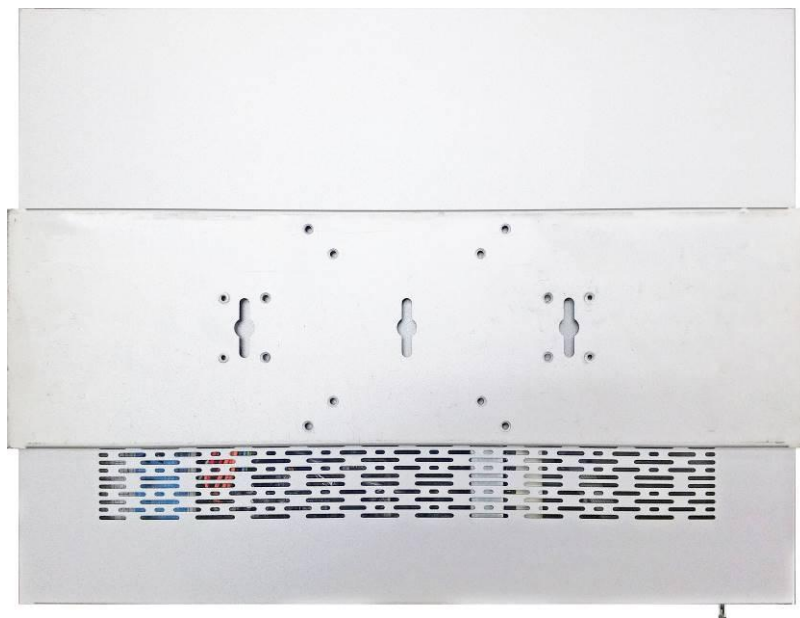
There are 5 application options for the P1177E-842, including Panel/Wall/Rack/ Desktop/VESA mounting ways.

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

The P1177E-842 provides VESA mount: 75x75 mm or 100x100mm. Screw six screws to fix the kit in the back chassis.



▲VESA/ Wall mount bracket



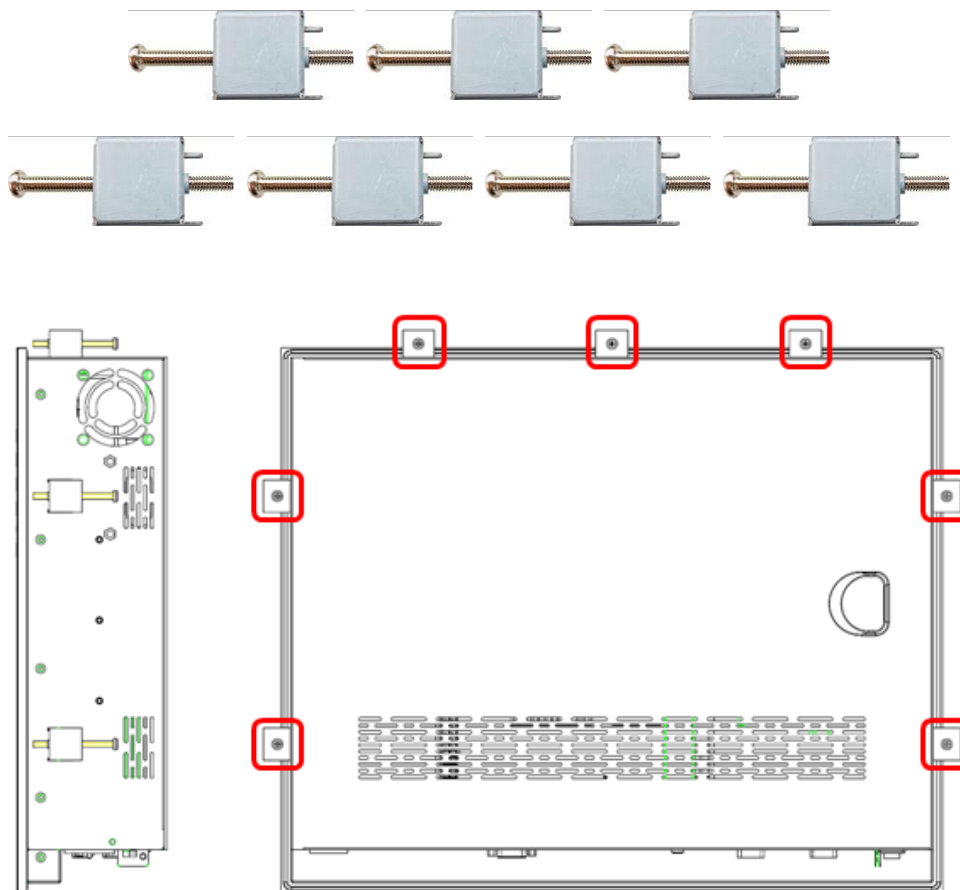
▲ Putting the bracket on the back of system



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

2.4.2 Panel-mount Kit Assembly

The P1177E-842 is designed for panel mount application. To mount the P1177E-842, the standard set of mounting kit (7pcs included in the system packaging) is needed.



2.4.3 Rack-mount Kit Assembly

The P1177E-842 is designed for rack mount application. To mount the P1177S-871, the standard set of mounting kit (included in the system packaging) is needed.



Step 1 Unscrew the fix screws from the left and right side of the system.



Step 2 Fixing the rack-mount bracket to the left and right of the system.

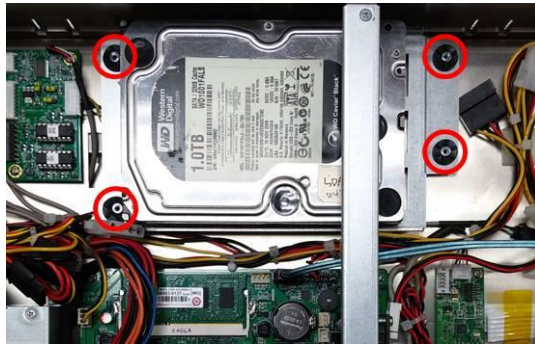


2.5 HDD Installation

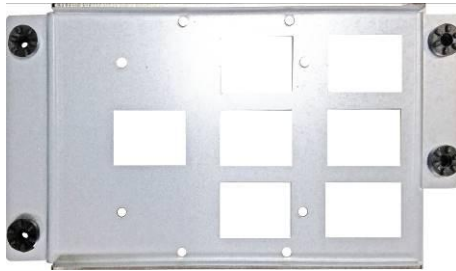
The P1177E-842 provides a convenient Hard Disk Drive (HDD) bracket for users to install 2.5" 1 x 3.5" or 2.5" SATA HDD. Please follow the steps:

Step 1 Refer section 2.1 to open the back cover.

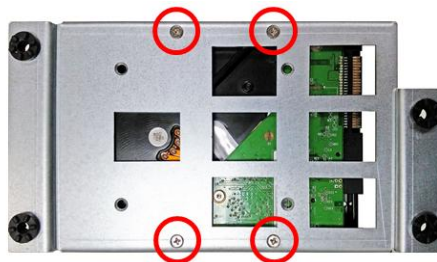
Step 2 Unscrew 4 screws to take off the HDD bracket.



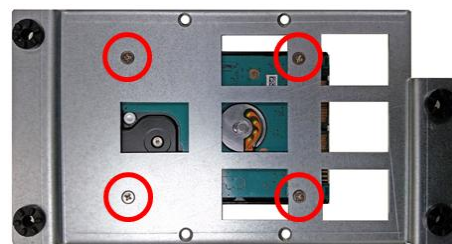
Step 3 Fix the HDD on bracket by the screws.



▲ 1 x 3.5" or 2.5" SATA HDD Bracket



▲ Fix 3.5" HDD on the back of bracket



▲ Fix 2.5" HDD on the back of bracket

Step 4 Fix the HDD bracket into the main base.



Step 5 Plug the power and SATA cables to connectors. Installation completes.



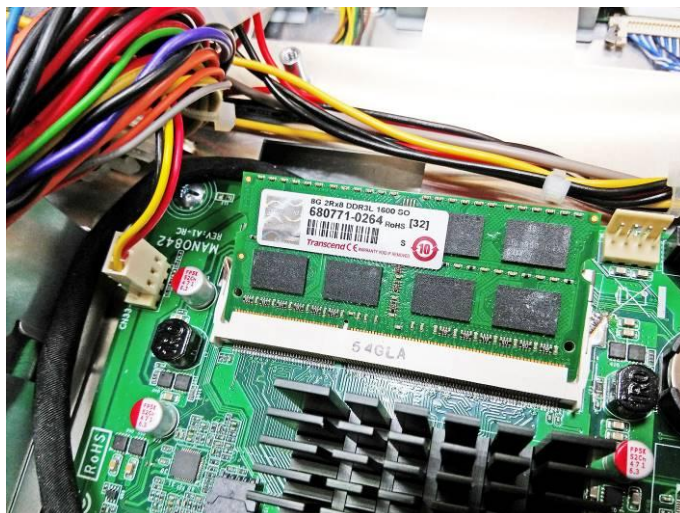
2.6 DRAM Installation

The P1177E-842 provides one 204-pin DDR3L SO-DIMM sockets that support system memory up to 8GB. Please follow steps below to install the memory modules:

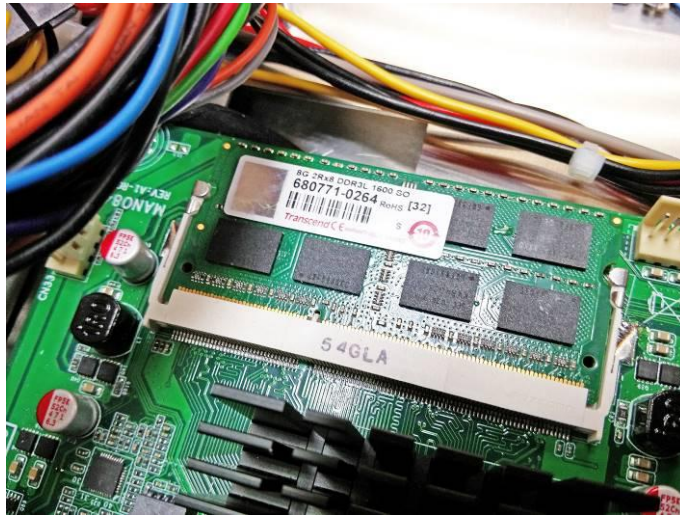
- Step 1** Refer to section 2.1 to open the back cover and find out DIMM socket on mainboard (MANO842).



- Step 2** Install the SO-DIMM module into the slot and press it firmly down until it seats correctly.



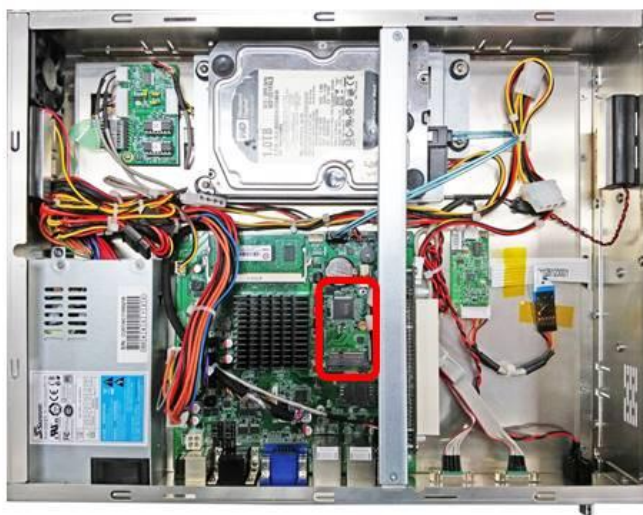
- Step 3** The slot latches are levered upwards and latch on to the edges of the SO-DIMM.



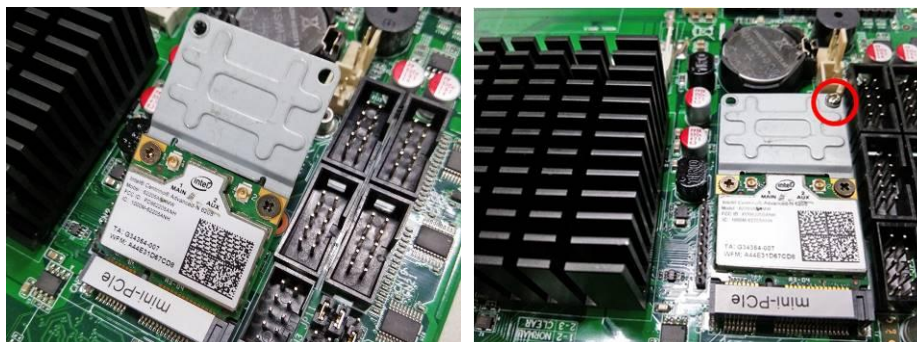
2.7 Wireless LAN Module Installation (optional)

The P1177E-842 provides one wireless LAN module to install. When installing the wireless LAN module, refer to the following instructions and illustration:

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



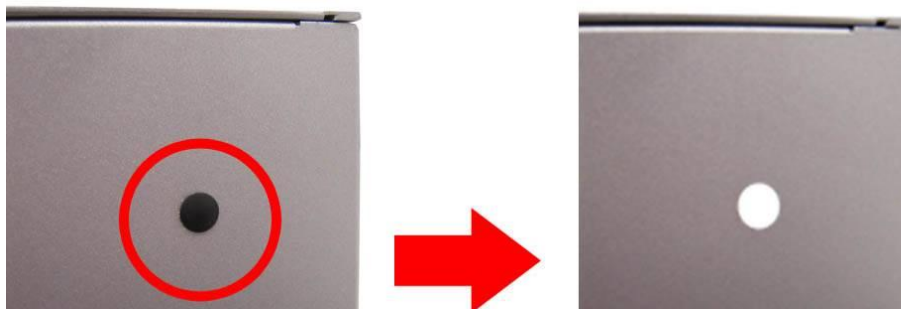
Step 2 Insert wireless LAN module to Mini card slot and fixing it by 1 screw.



Step 3 Find the built-in Antenna cable and connect it wireless LAN card.



Step 4 Lift the rubber stopper from the top of back cover.



Step 5 Install the antenna on the antenna connector.



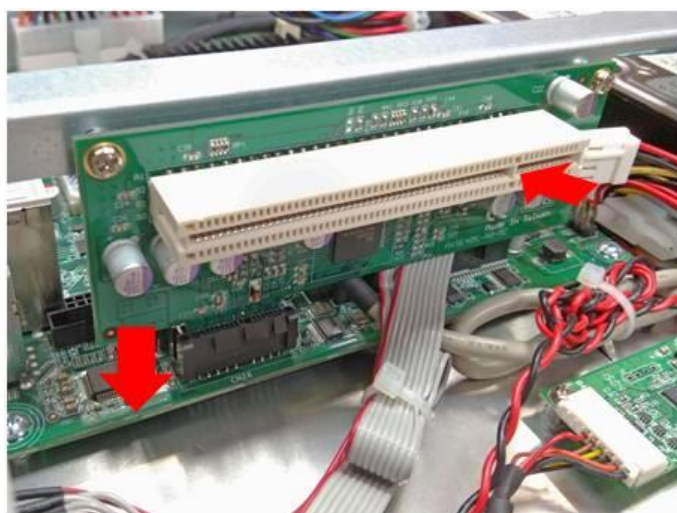
2.8 Add-on Card Installation

The P1177E-842 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 figure and instructions below:

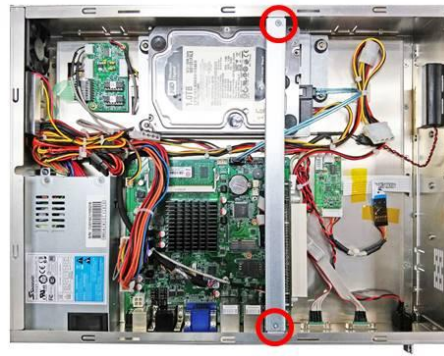
- Step 1** Refer section 2.1 to open the back cover and unscrew 2 screws, and then remove the riser card fix kit and plate.



- Step 2** Insert the riser card in the socket firmly until it is completely seated. And, insert the add-on card you need to the socket of riser card.

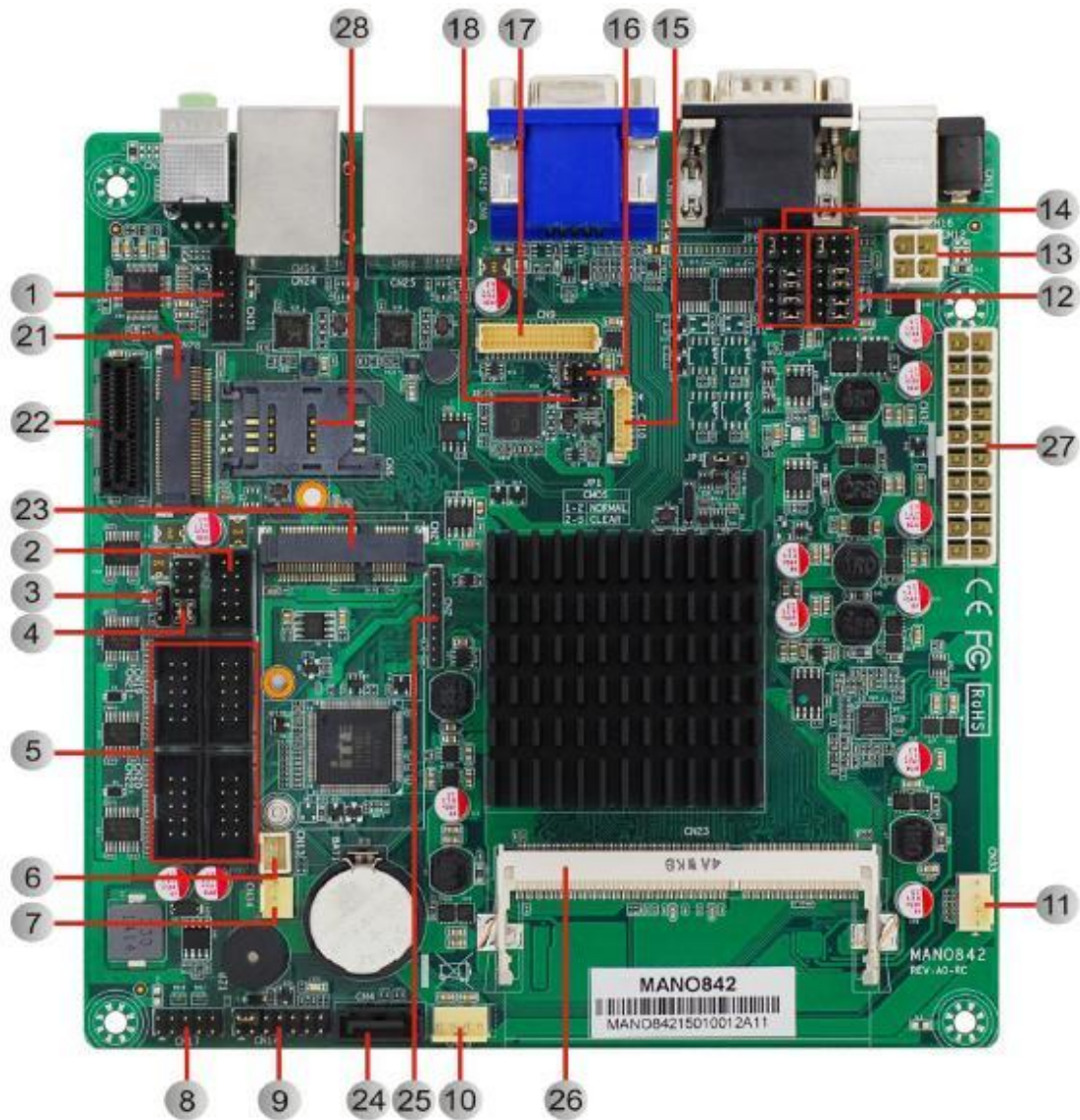


Step 3 Secure the metal bracket of the card to the system case with four screws. Installations complete.

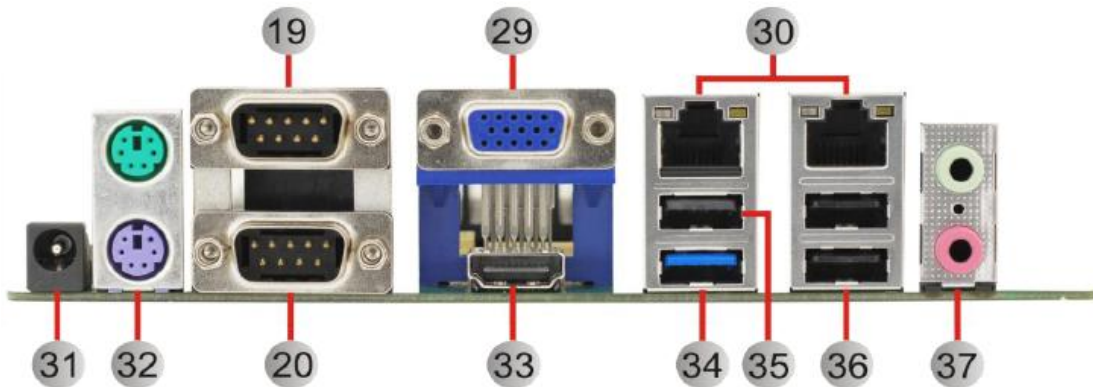


NOTE: Please use the standard size of add-on card to avoid conflicting the mechanism.

2.9 Board Layout



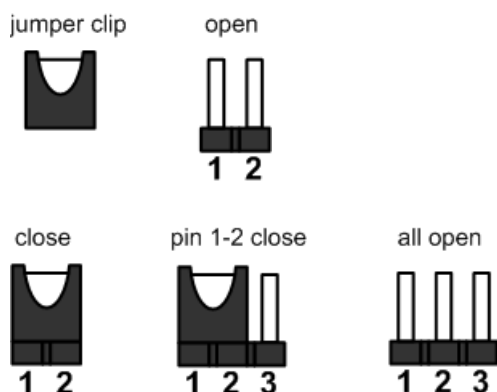
2.10 Rear I/O



1	Front Audio Header (CN31)	20	COM2 Connector (CN18)
2	Internal USB Header (CN3)	21	mSATA Slot (CN28)
3	AT/ATX Power Mode Select Jumper (JP4)	22	PCI-Express x1 Slot (CN26)
4	COM3 Data/Power Select Jumper (JP11)	23	PCI-Express Mini Card Connector (CN27)
5	COM3~COM6 Headers (CN19~CN22)	24	SATA 2.0 Connector (CN4)
6	Power Button Header (CN13)	25	Debug Header (CN2)
7	Fan2 Connector (CN34)	26	DDR3L SO-DIMM Socket (CN23)
8	GPIO Header (CN17)	27	ATX Power Input Connector (CN32)
9	Front Panel Header (CN14)	28	SIM Card Slot (CN5)
10	DC12V/5V Power Output Connector (CN15)	29	VGA Connector (CN8)
11	Fan1 Connector (CN33)	30	LAN Connectors (CN24~CN25)
12	COM1 RS-232/422/485 Mode Select Jumpers (JP5~JP7)	31	DC12V Power Input Connector 2 (CN11)
13	DC12V Power Input Connector 1 (CN12)	32	PS/2 Keyboard and Mouse Connector (CN16)
14	COM2 RS-232/422/485 Mode Select Jumpers (JP8~JP10)	33	HDMI Connector (CN29)
15	LVDS Backlight Control Header (CN10)	34	USB 3.0 Connector (CN25)
16	LVDS VDD Select Jumper (JP2)	35	USB 2.0 Connector (CN25)
17	LVDS Signal Header (CN9)	36	USB 2.0 Connectors (CN24)
18	LVDS Backlight PWM/CCFL Select Jumper (JP3)	37	Audio Connector (CN30)
19	COM1 Connector (CN18)		

2.11 Jumper Settings

Jumper is a small component consisting of jumper clip and jumper pins. Install jumper clip on 2 jumper pins to close. And remove jumper clip from 2 jumper pins to open. The following illustration shows how to set up jumper.



Before applying power to MANO842 Series, please make sure all of the jumpers are in factory default position. Below you can find a summary table of all jumpers and onboard default settings.



NOTE: Once the default jumper setting needs to be changed, please do it under power-off condition.

Jumper	Description	Setting	
JP1	Clear CMOS	1-2 Close	
JP2	LVDS VDD Select +5V	2-3 Close	
JP3	LVDS Backlight PWM/CCFL Select Default: PWM	1-2 Close	
JP4	AT/ATX Power Mode Select Default: ATX Mode	1-2 Close	
JP5	COM1 RS-232/422/485 Mode Select Default: RS-232	1-2 Close	
JP6		3-5, 4-6 Close	
JP7		3-5, 4-6 Close	
JP8	COM2 RS-232/422/485 Mode Select Default: RS-232	1-2 Close	
JP9		3-5, 4-6 Close	
JP10		3-5, 4-6 Close	
JP11	COM3 Data/Power Select Default: RS-232 Data	COM3 Pin 1: DCD#	7-9 Close
		COM3 Pin 8: RI#	8-10 Close

2.11.1 Clear CMOS Select (JP1)

This jumper allows you to clear the Real Time Clock (RTC) RAM in CMOS. You can clear the CMOS memory of date, time, and system setup parameters by erasing the CMOS RTC RAM data. The onboard button cell 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 key during the boot process and enter BIOS setup to re-enter data.

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

2.11.2 LVDS VDD Select (JP2)

This motherboard supports voltage selection for flat panel displays. Use this 3x2-pin p=2.54mm jumper to set up VDD power of the LVDS connector. To prevent hardware damage, before connecting please make sure that the input voltage of LVDS panel is correct.

Function	Setting
+3.3V	1-2 close
+5V	3-4 close
+12V	5-6 close



2.11.3 AT/ATX Power Mode Select (JP4)

This 3x1-pin p=2.54mm jumper allows you to select AT or ATX power mode.

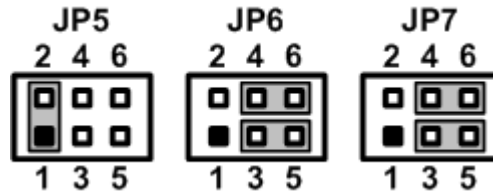
Function	Setting
ATX mode (Default)	1-2 close
AT mode	2-3 close



2.11.4 COM1 RS-232/422/485 Mode Select (JP5, JP6, JP7)

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

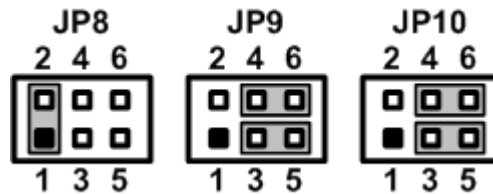
Function	Setting
RS-232 mode (Default)	JP5 1-2 close JP6 3-5, 4-6 close JP7 3-5, 4-6 close
RS-422 mode	JP5 3-4 close JP6 1-3, 2-4 close JP7 1-3, 2-4 close
RS-485 mode	JP5 5-6 close JP6 1-3, 2-4 close



2.11.5 COM2 RS-232/422/485 Mode Select (JP8, JP9, JP10)

Use these jumpers (3x2-pin p=2.54mm) to set COM2 port to operate as RS-232, RS-422 or RS-485 communication mode.

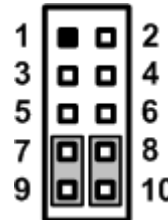
Function	Setting
RS-232 mode (Default)	JP8 1-2 close JP9 3-5, 4-6 close JP10 3-5, 4-6 close
RS-422 mode	JP8 3-4 close JP9 1-3, 2-4 close JP10 1-3, 2-4 close
RS-485 mode	JP8 5-6 close JP9 1-3, 2-4 close



2.11.6 COM3 Data/Power Select (JP11)

The COM3 port has +5V/+12V power capability on DCD and +5V/+12V on RI by setting this 5x2-pin p=2.54mm jumper.

Function	Setting
Power: Set COM3 pin 1 to +12V level	1-3 close
Power: Set COM3 pin 1 to +5V level	3-5 close
Data: Set COM3 pin 1 to DCD# (Default)	7-9 close
Power: Set COM3 pin 8 to +12V level	2-4 close
Power: Set COM3 pin 8 to +5V level	4-6 close
Data: Set COM3 pin 8 to RI# (Default)	9-10 close



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Chapter 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 chapter provides users with detailed description 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 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.

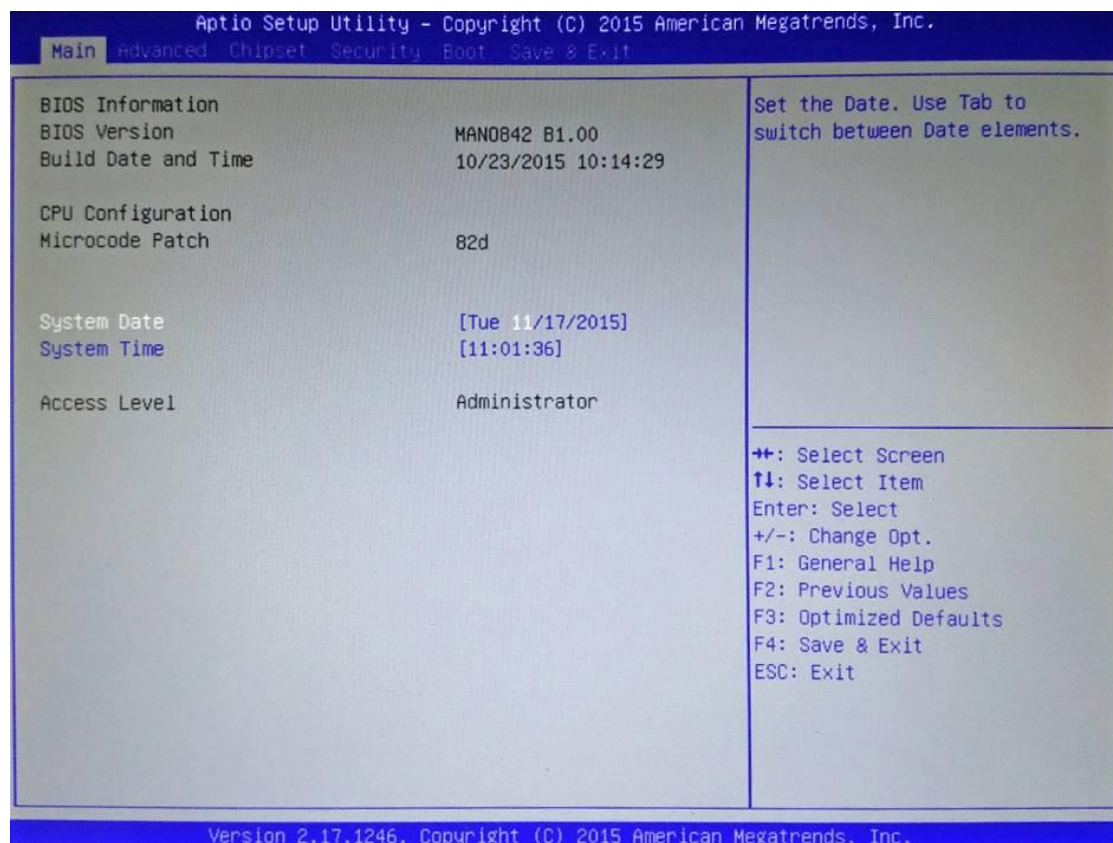


NOTE: Some of the navigation keys differ from one screen to another.

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 setup screen. You can always return to the Main setup screen by selecting the Main tab. System Time/Date can be set up as described below. The Main BIOS setup screen is shown below.



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

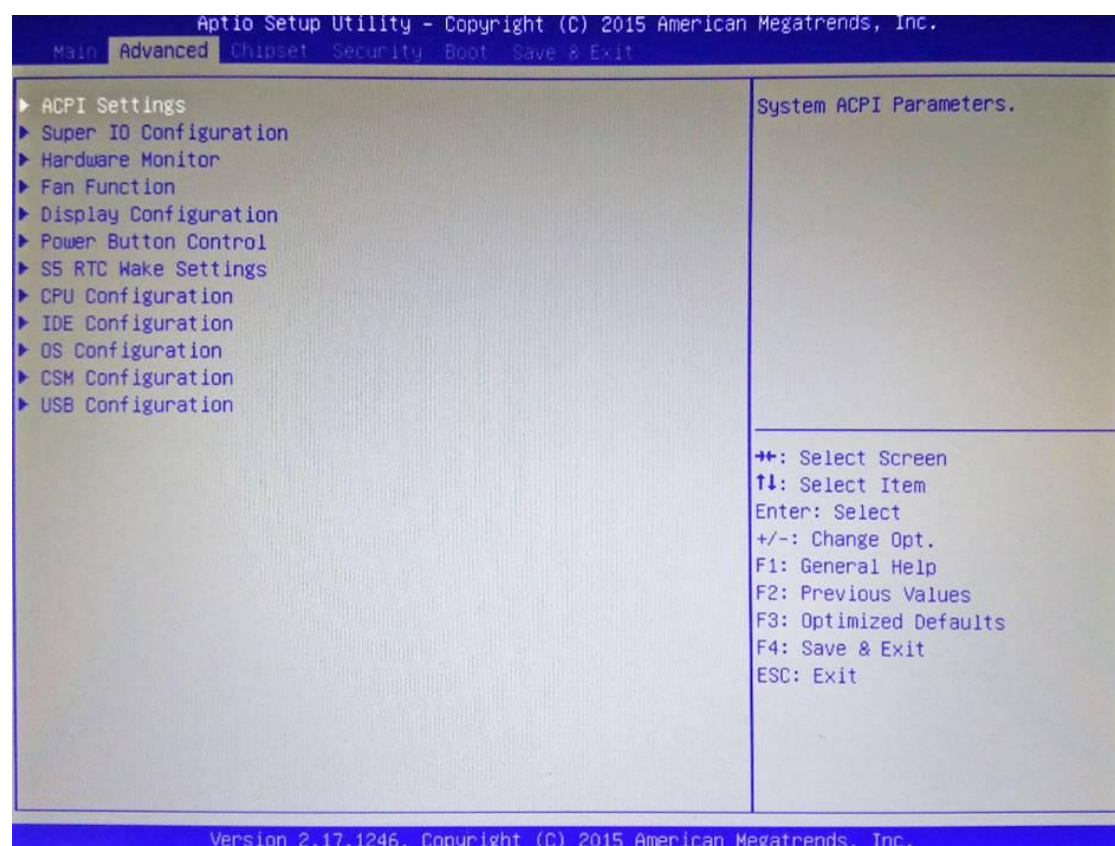
Display the access level of current user.

3.4 Advanced Menu

The Advanced menu also 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:

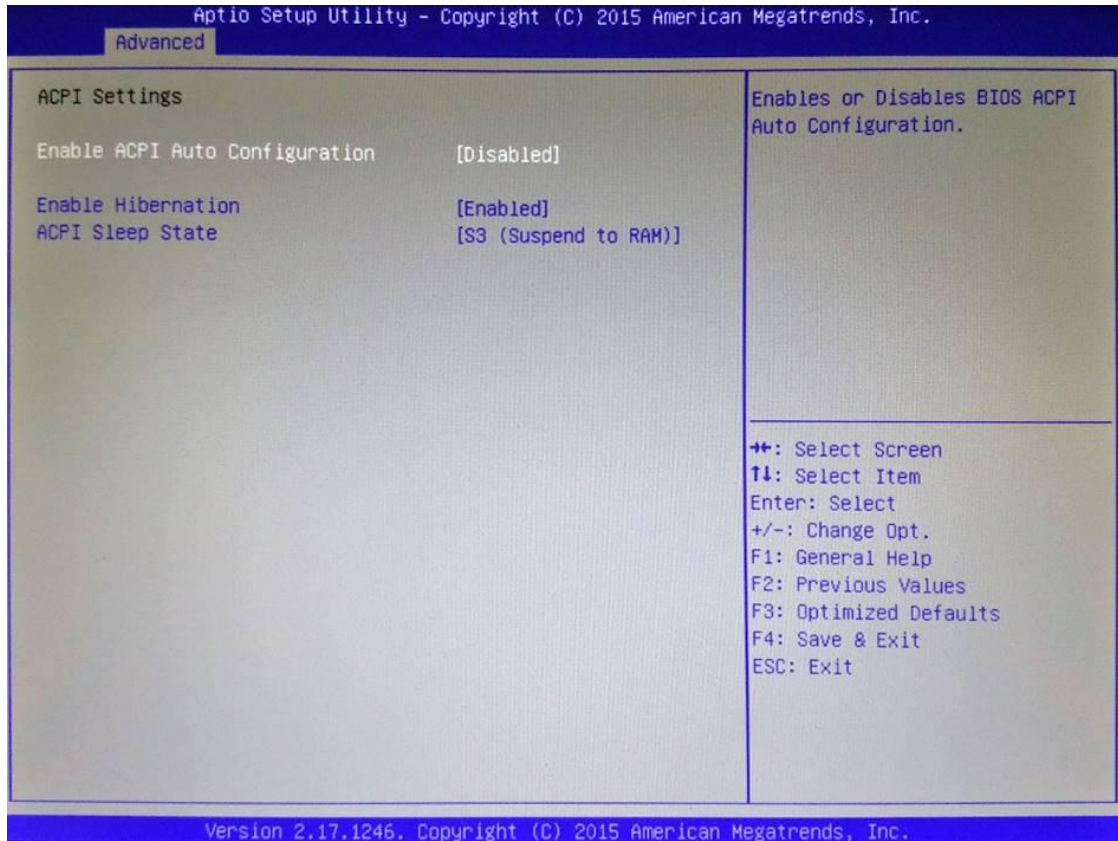
- ▶ ACPI Settings
- ▶ Super IO Configuration
- ▶ Hardware Monitor
- ▶ Fan Function
- ▶ Display Configuration
- ▶ Power Button Control
- ▶ S5 RTC Wake Settings
- ▶ CPU Configuration
- ▶ IDE Configuration
- ▶ OS Configuration
- ▶ CSM Configuration
- ▶ USB Configuration

For items marked with “▶”, please press <Enter> for more options.



- **ACPI Settings**

You can use this screen to select options for the ACPI configuration, and change the value of the selected option. A description of the selected item appears on the right side of the screen.



Enable ACPI Auto Configuration

Enable or disable BIOS ACPI auto configuration.

Enable Hibernation

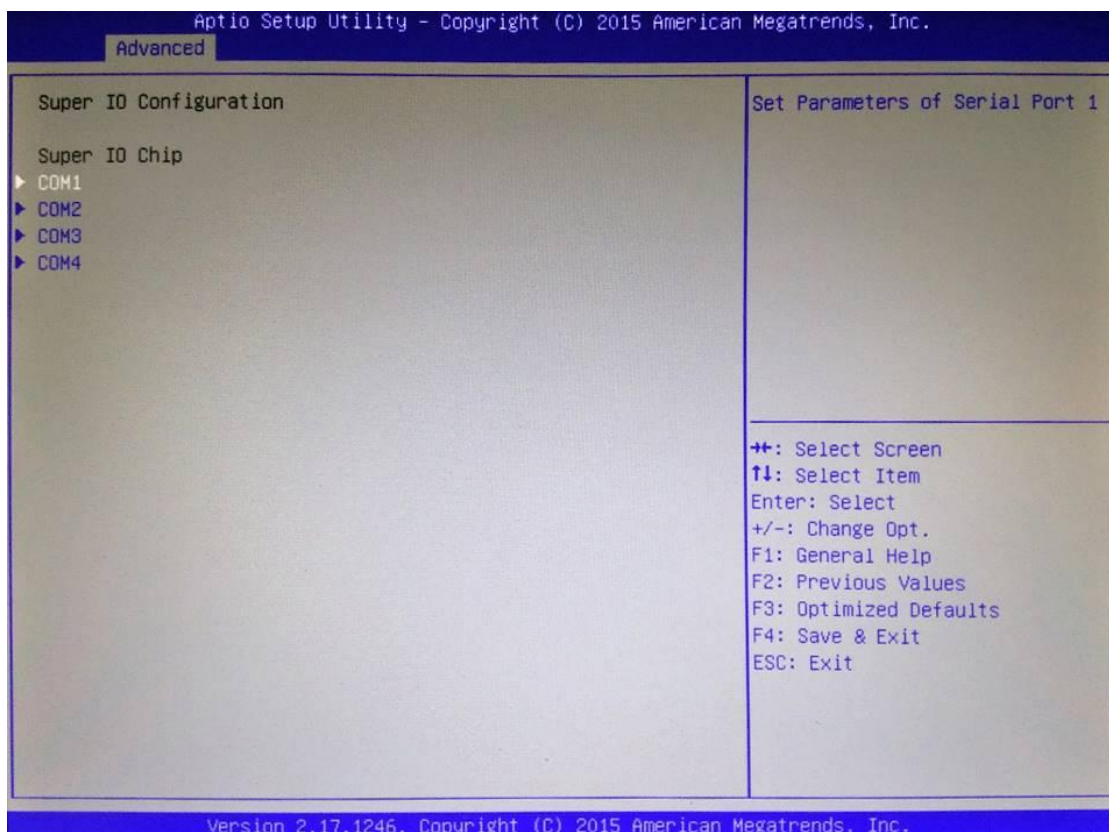
Enable or disable system ability to hibernate (OS/S4 sleep state).

ACPI Sleep State

Select the ACPI (Advanced Configuration and Power Interface) sleep state. Configuration options are Suspend Disabled and S3 (Suspend to RAM). The default setting is S3 (Suspend to RAM); this option selects ACPI sleep state the system will enter when suspend button is pressed.

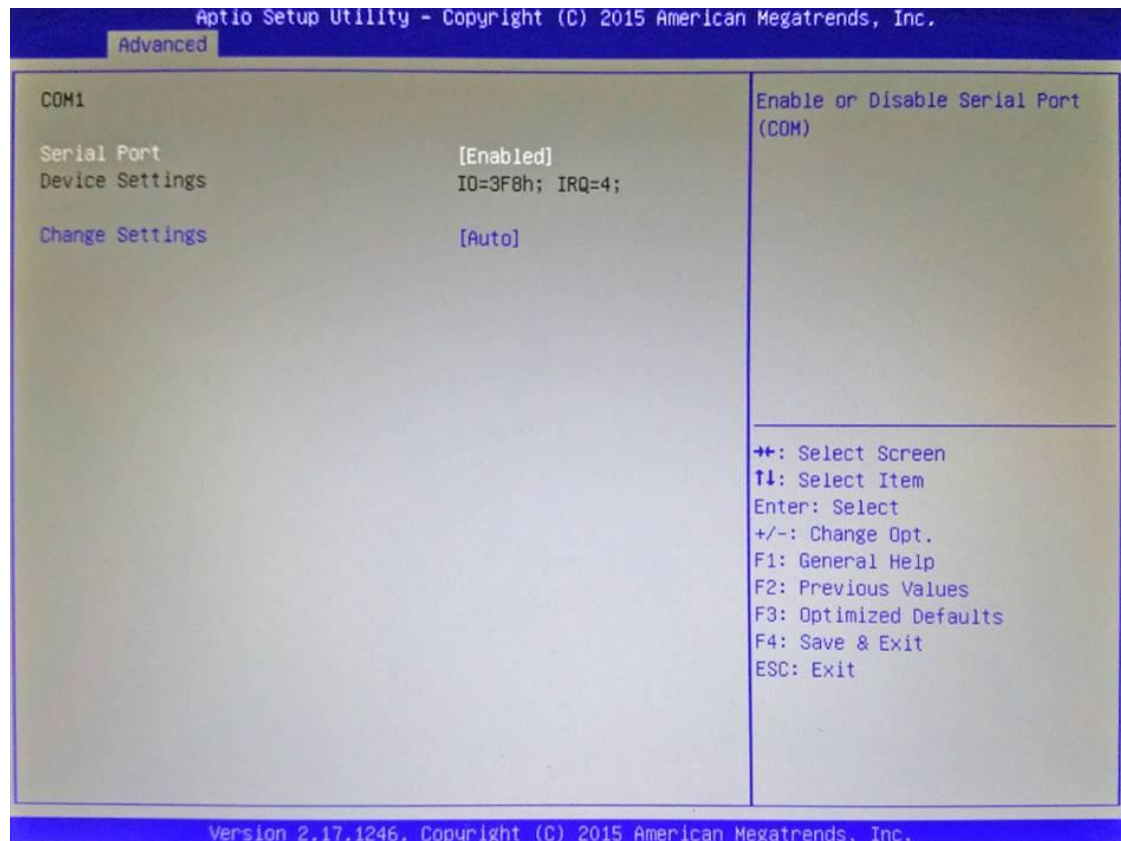
- **Super IO Configuration**

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.

**COM1~4**

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

- **COM1**



Serial Port

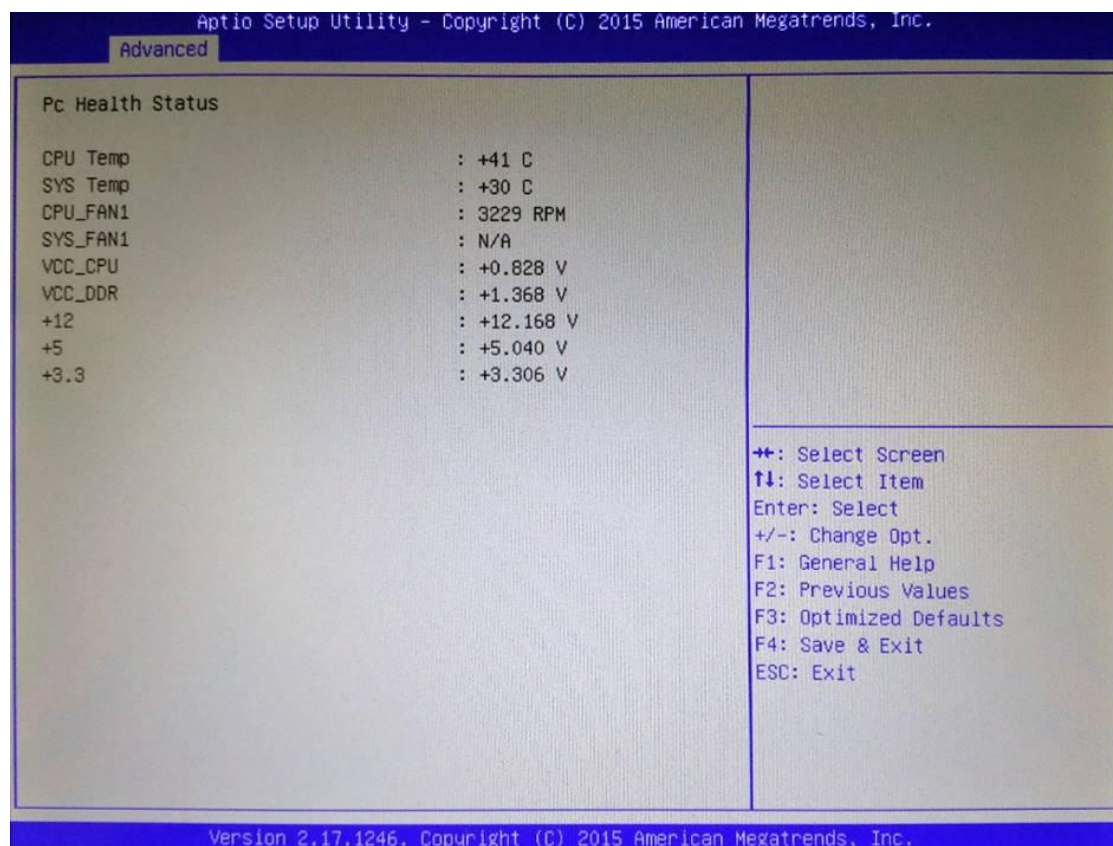
Enable or disable serial port 1. The optimal setting for base I/O address is 3F8h and for interrupt request address is IRQ4.

Change Settings

Select an optimal setting for serial port.

- **Hardware Monitor**

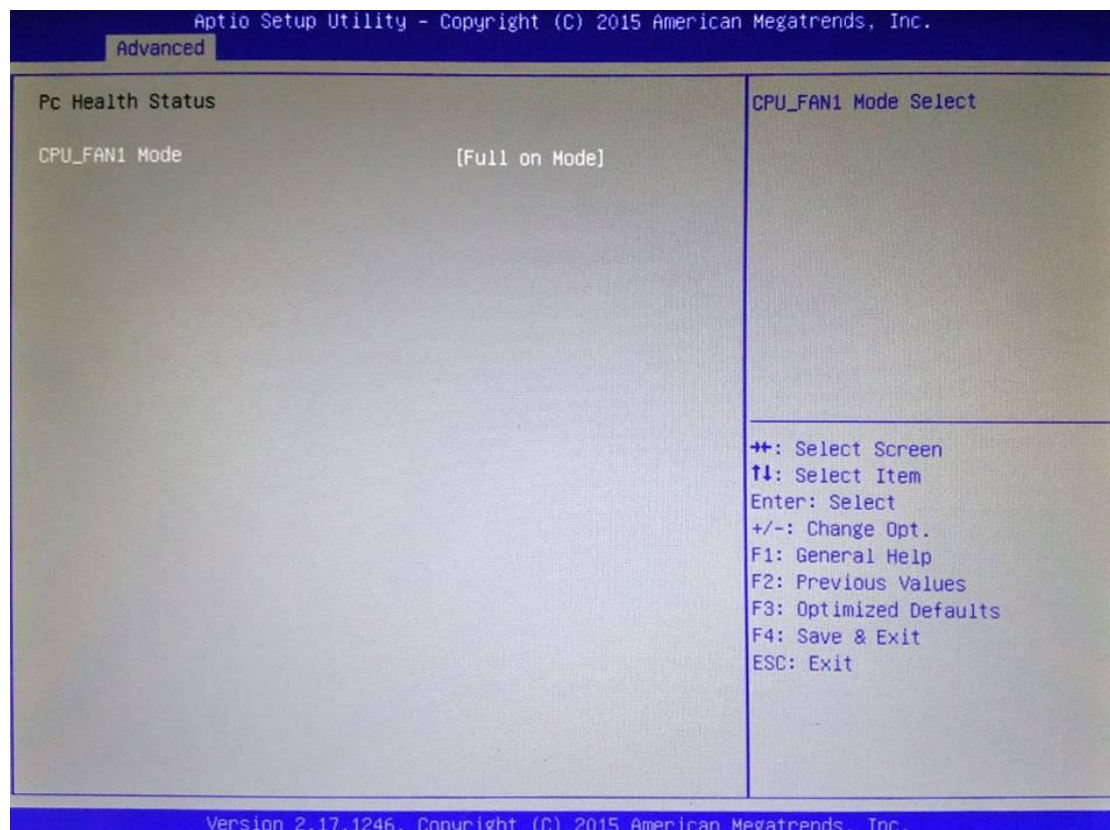
This screen monitors hardware health status.



This screen displays the temperature of system and CPU, cooling fans speed in RPM and system voltages (VCC_CPU, VCC_DDR, +12V, +5V, +3.3V and VBAT).

- **Smart Fan Function**

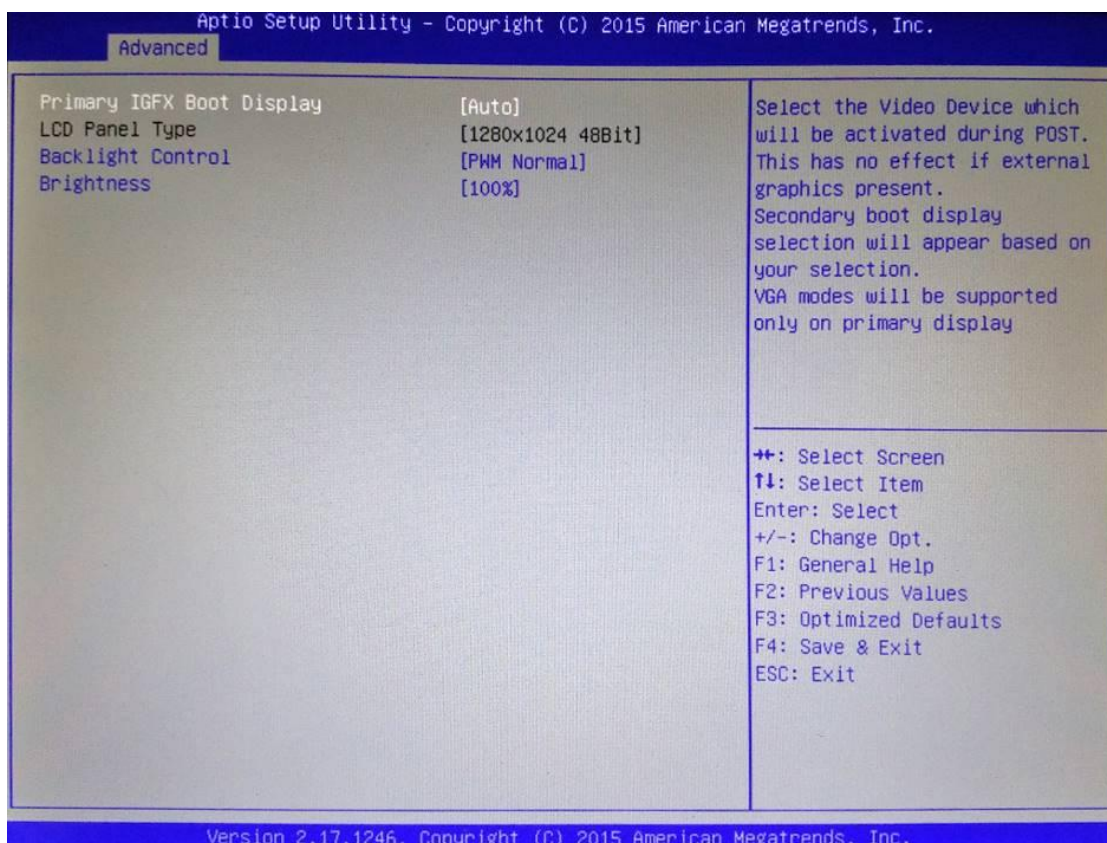
This screen allows you to select the fan mode.



CPU_FAN1 Mode

This item allows you to select the fan mode, which can be set to Full on Mode, Manual Mode, Auto PWM Mode or Auto RPM Mode.

- **Display Configuration**



Primary IGFX Boot Display

Select the video device which will be activated during POST (Power-On Self Test). The default is Auto.

LVDS Panel Type

Select LVDS panel resolution; see the selection options in image above.

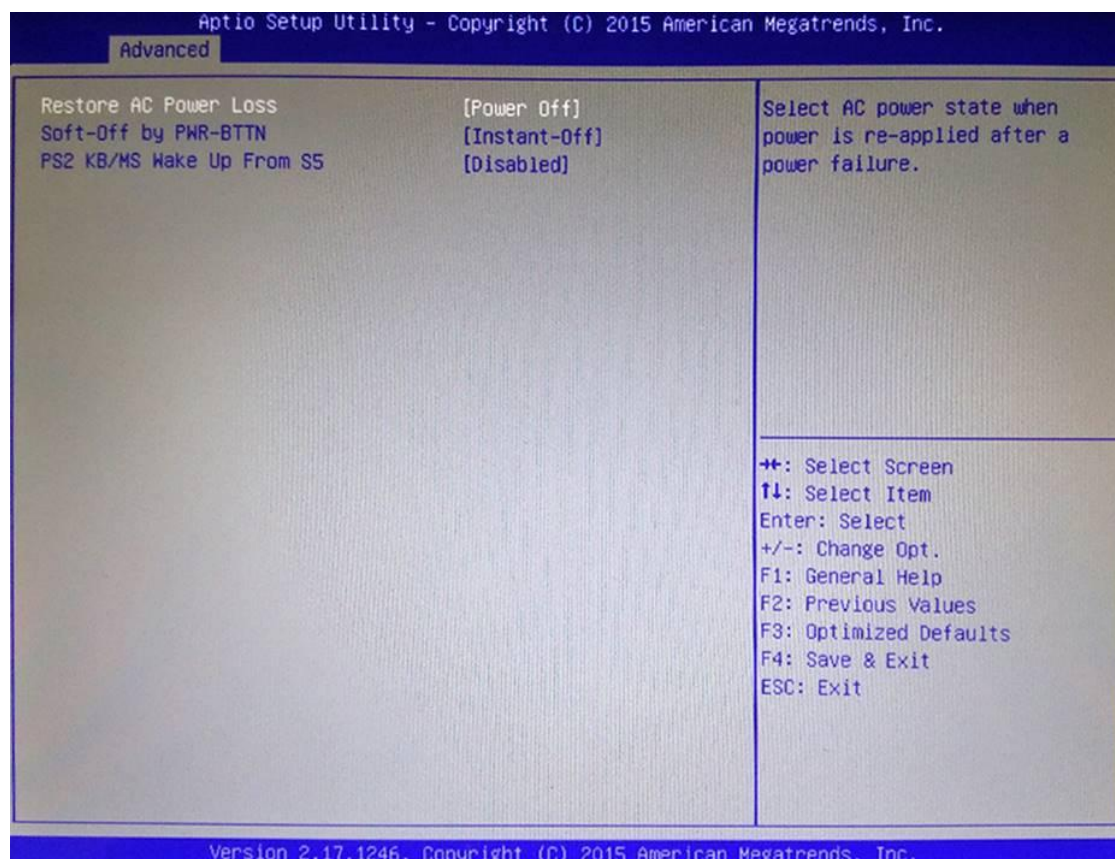
Backlight Control

Select panel backlight control mode.

Brightness

Select the brightness of LVDS panel ranging from 30% to 100%. The default setting is 100%.

- **Power Button Control**



Restore AC Power Loss

This item decides the state of system when AC power is resupplied after a power failure. Mode options are Power Off, Power On and Last State.

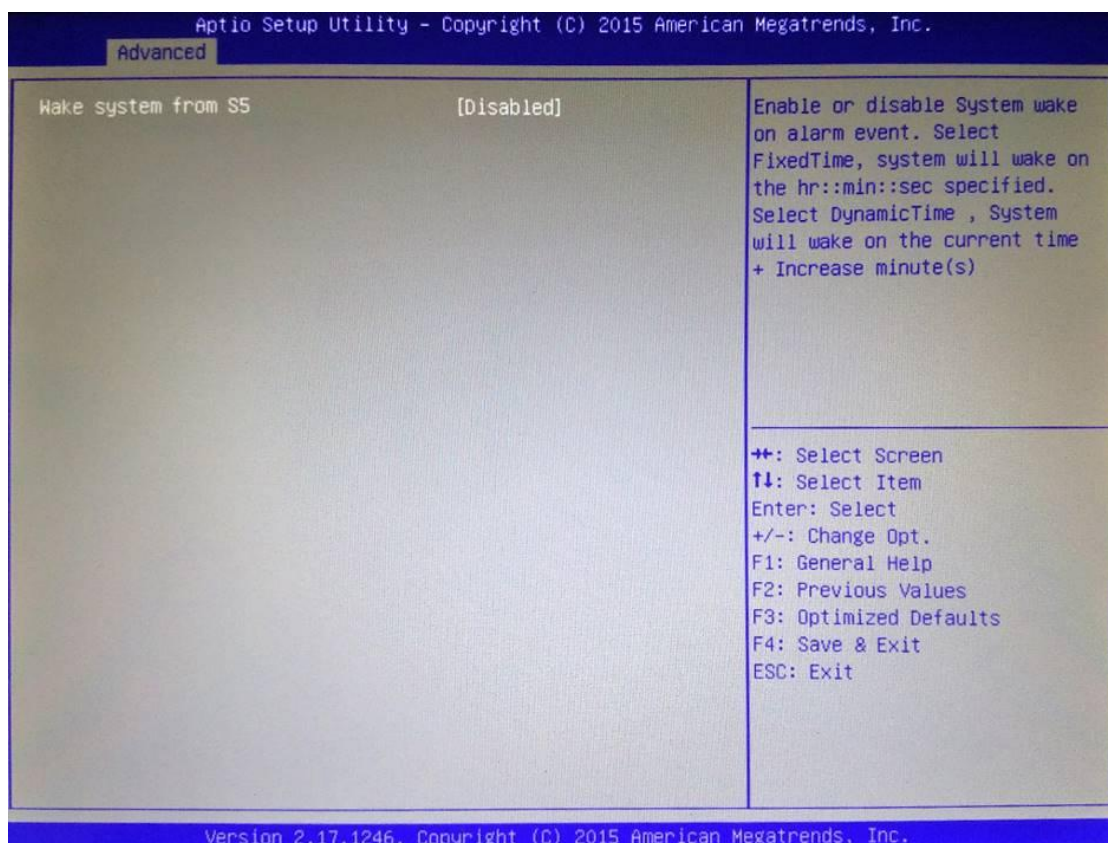
Soft-Off by PWR-BTTN

- Instant-Off: The system will shut down instantly when the power button is pressed.
- Delay 4 sec: The system will shut down only when the power button is pressed and held at least 4 seconds.

PS/2 KB/MS Wake Up From S5

This item decides whether or not the PS/2 keyboard or mouse can wake up the system from S5 state.

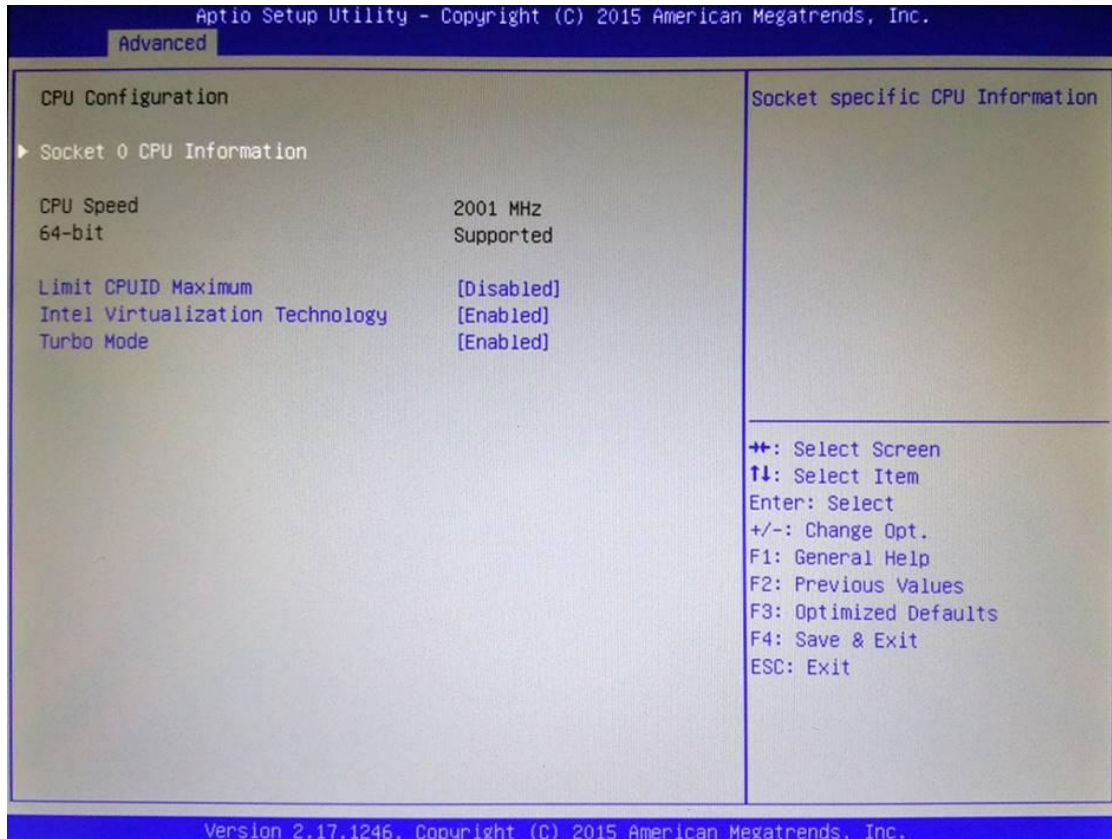
- **S5 RTC Wake Settings**

**Wake system from S5**

Enable or disable system wake on alarm event. It allows you to wake up the system in a certain time. Select Fixed Time to set the system to wake on the specified time. Use <↑> <↓> to switch among the items: Day, Hour, Minute and Second, and type the value in the selected item as you wish. For example, if you want the system to start up automatically at 14:25:26, the 13th day of each month, then you should enter 13, 14, 25, and 26 from top to bottom.

- **CPU Configuration**

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



Socket 0 CPU Information

This item is for CPU information.

Limit CPUID Maximum

This item allows user to limit the maximum value of CPUID. In Windows XP environment, this item should be disabled.

Intel Virtualization Technology

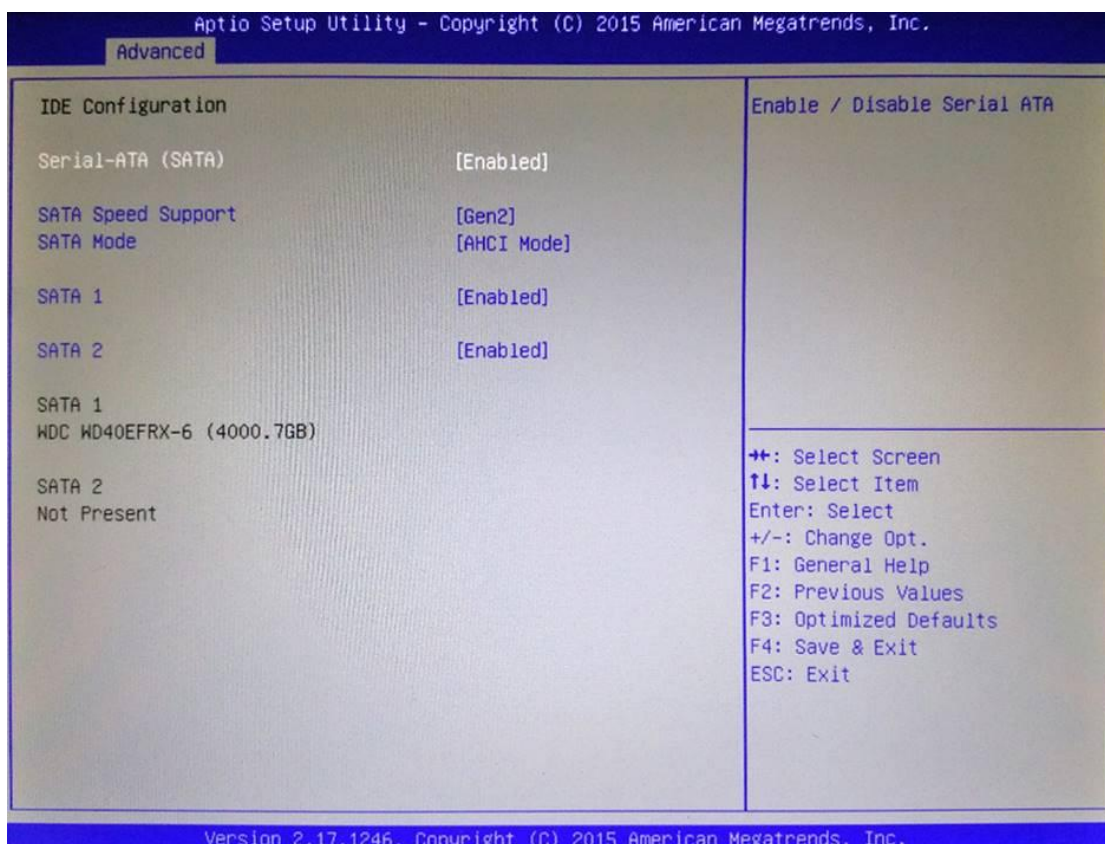
Enable or disable Intel Virtualization Technology. When enabled, a VMM (Virtual Machine Mode) can utilize the additional hardware capabilities. It allows a platform to run multiple operating systems and applications independently, hence enabling a computer system to work as several virtual systems.

Turbo Mode

Enable or disable the Turbo Mode feature.

- **IDE Configuration**

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



Serial-ATA (SATA)

Enable or disable the SATA controller feature.

SATA Speed Support

Select SATA speed support.

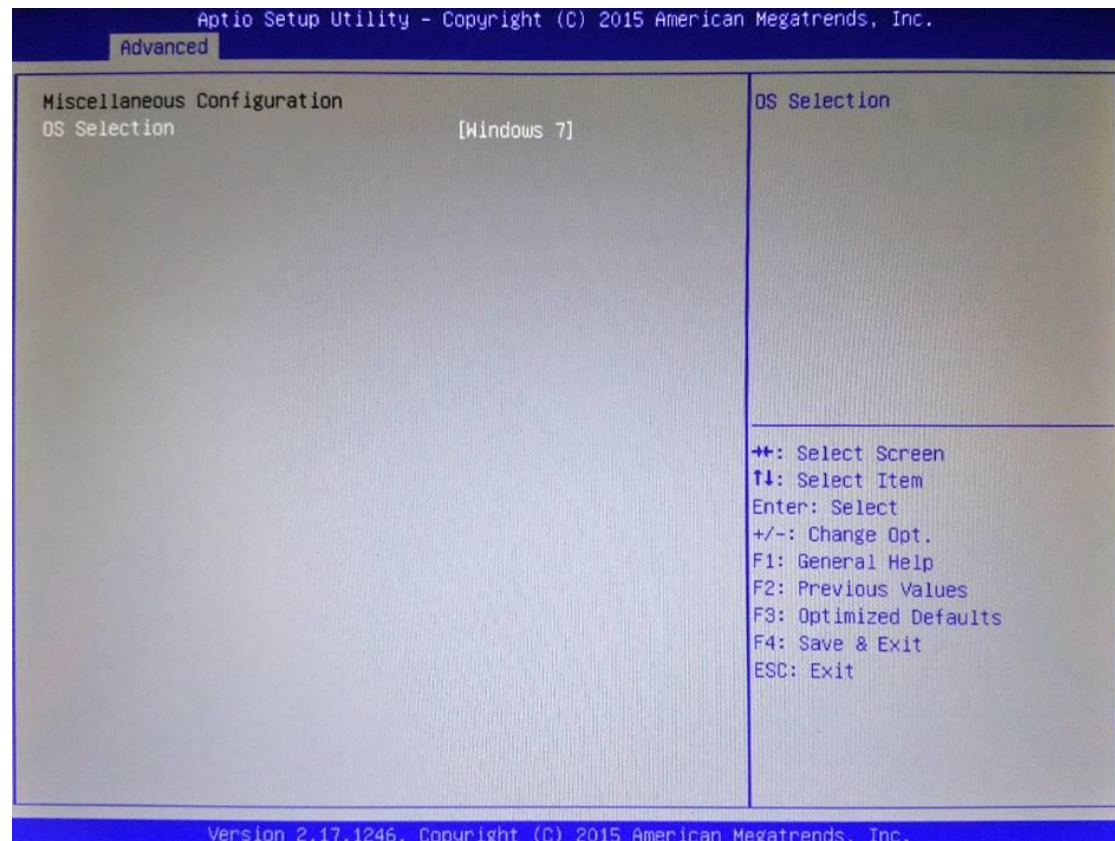
SATA Mode

Determine how SATA controller(s) operate. Operation mode options are IDE Mode, AHCI (Advanced Host Controller Interface) Mode. The default is AHCI Mode.

SATA 1~2

Enable or disable the onboard SATA port 1~2.

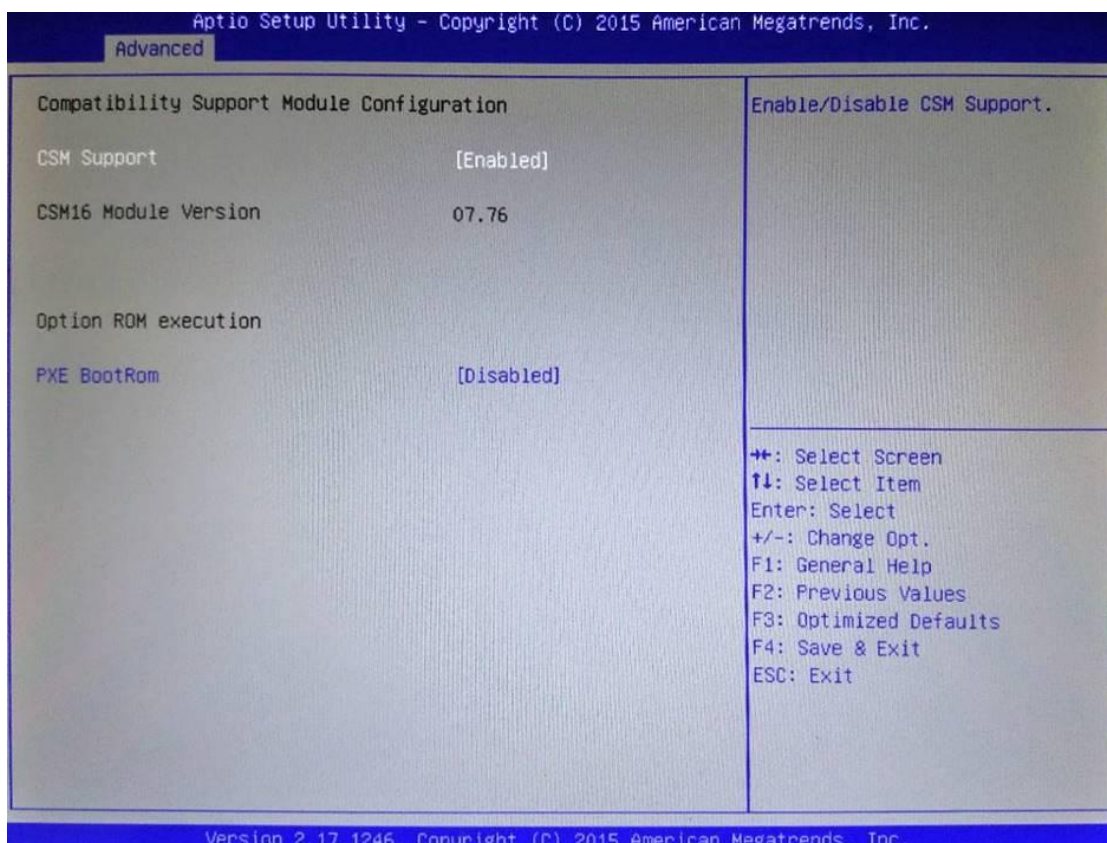
- **OS Configuration**



OS Selection

This item allows user to select the proper Operating System.

- **CSM Configuration**

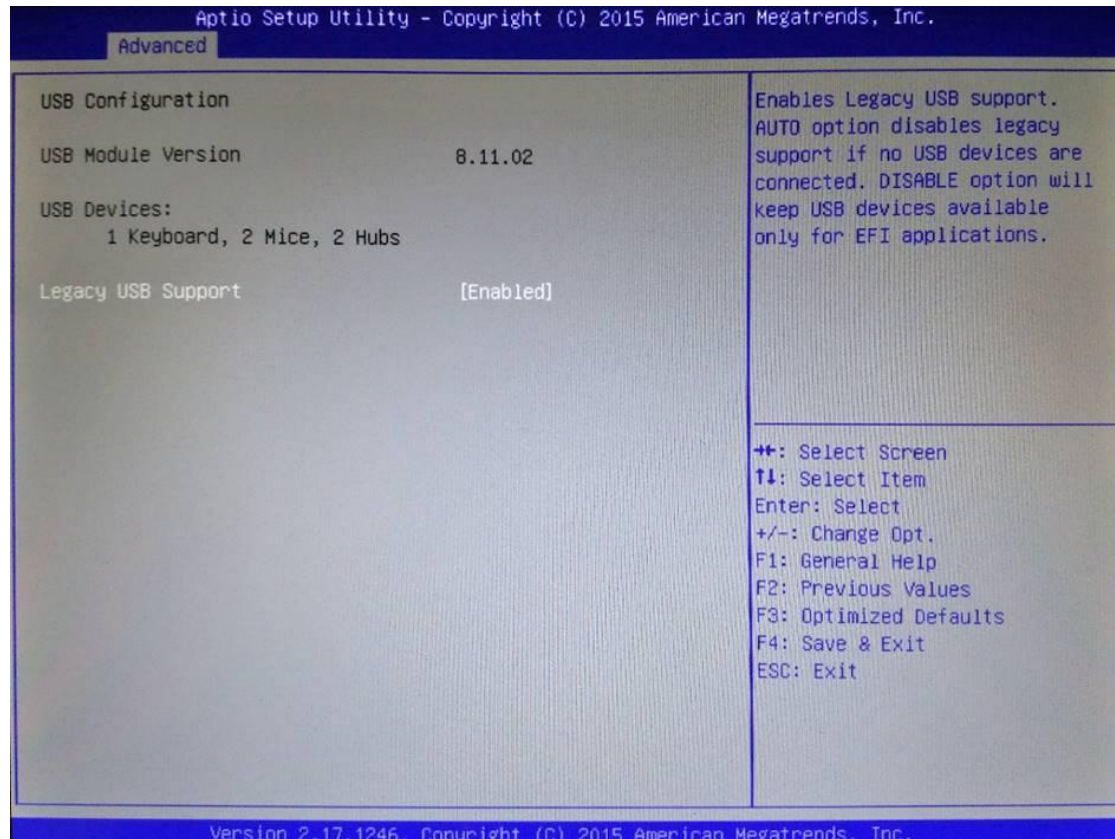
**CSM Support**

Enable or disable CSM (Compatibility Support Module) support.

PXE BootRom

Enable or disable the Preboot eXecution Environment (PXE) boot ROM function of the onboard LAN chip during system boots up.

- **USB Configuration**



Legacy USB Support

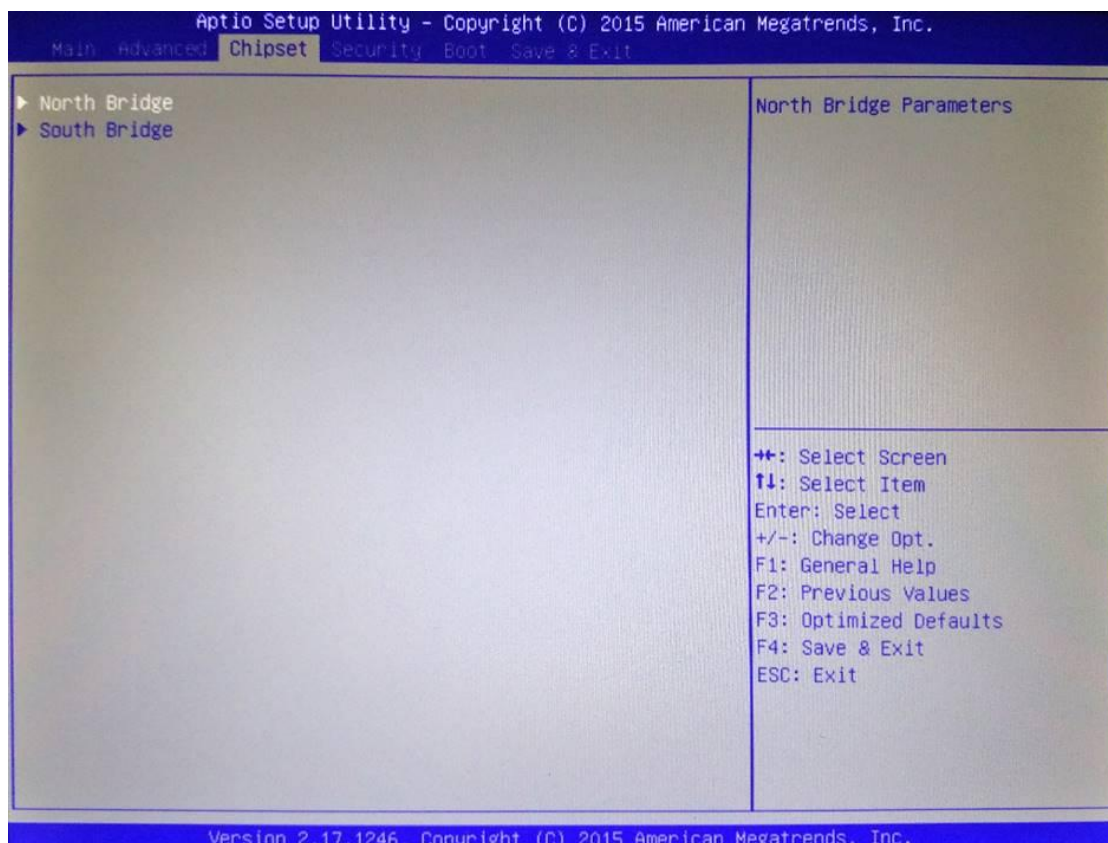
Use this item to enable or disable legacy support for USB devices. The default setting is Enabled. Auto option disables legacy support if no USB devices are connected. Disable option will keep USB devices available only for EFI applications.

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:

- ▶ North Bridge
- ▶ South Bridge

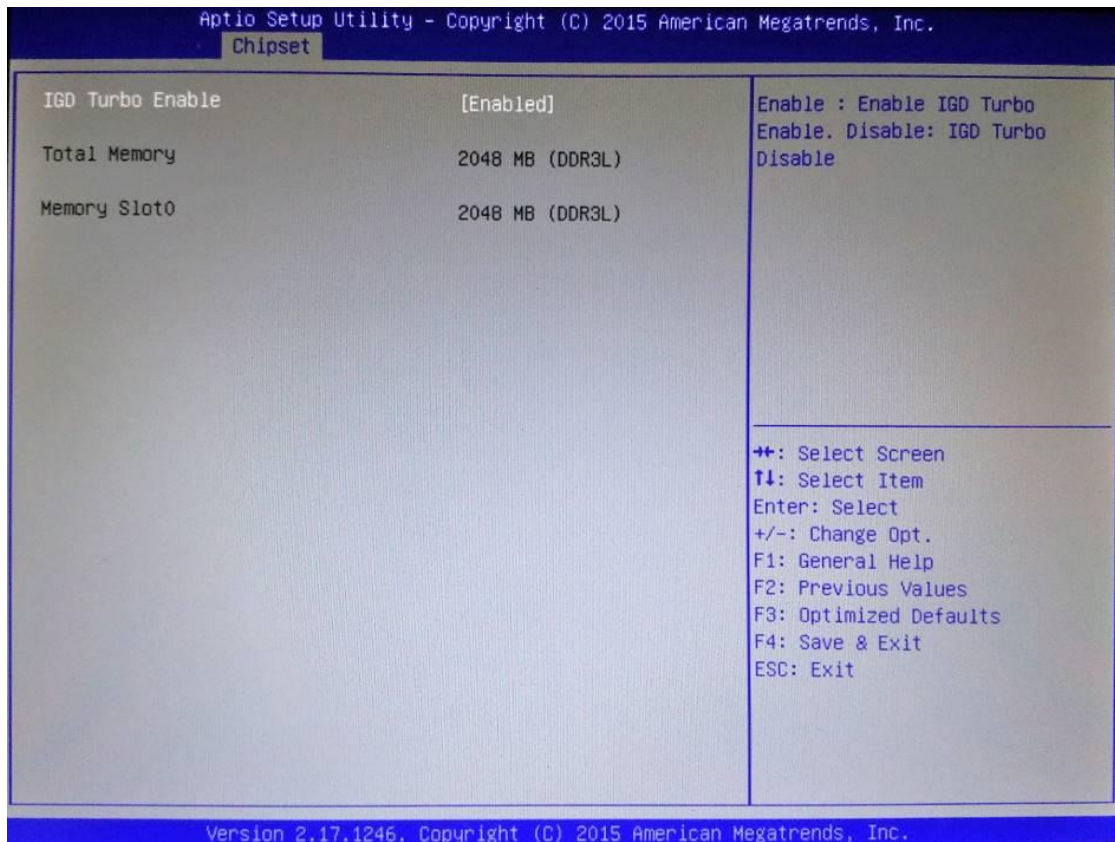
For items marked with “▶”, please press <Enter> for more options.



- **North Bridge**

IGD Turbo Enable

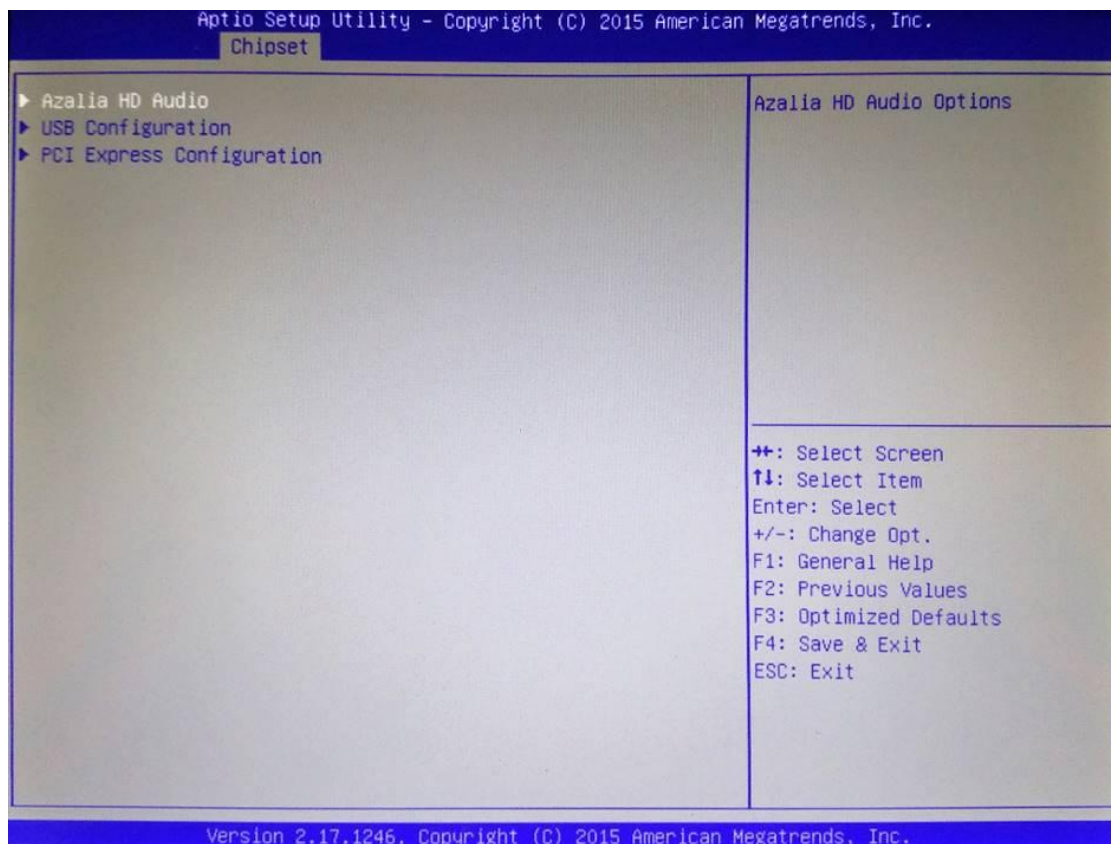
Enable or disable the IGD Turbo feature.



This screen shows system memory information.

- **South Bridge**

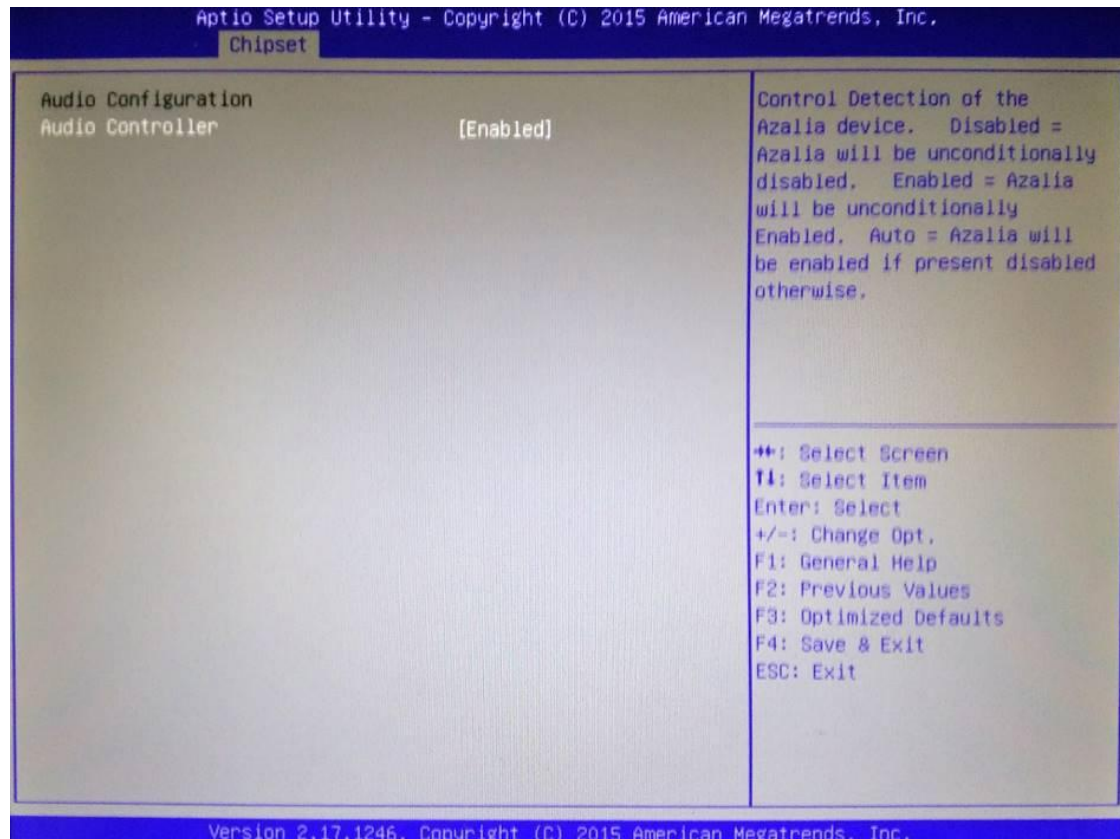
This screen allows users to configure parameters of South Bridge chipset.



Azalia HD Audio

Disable=Azalia will be unconditionally Disable

Enable=Azalia will be unconditionally Enable

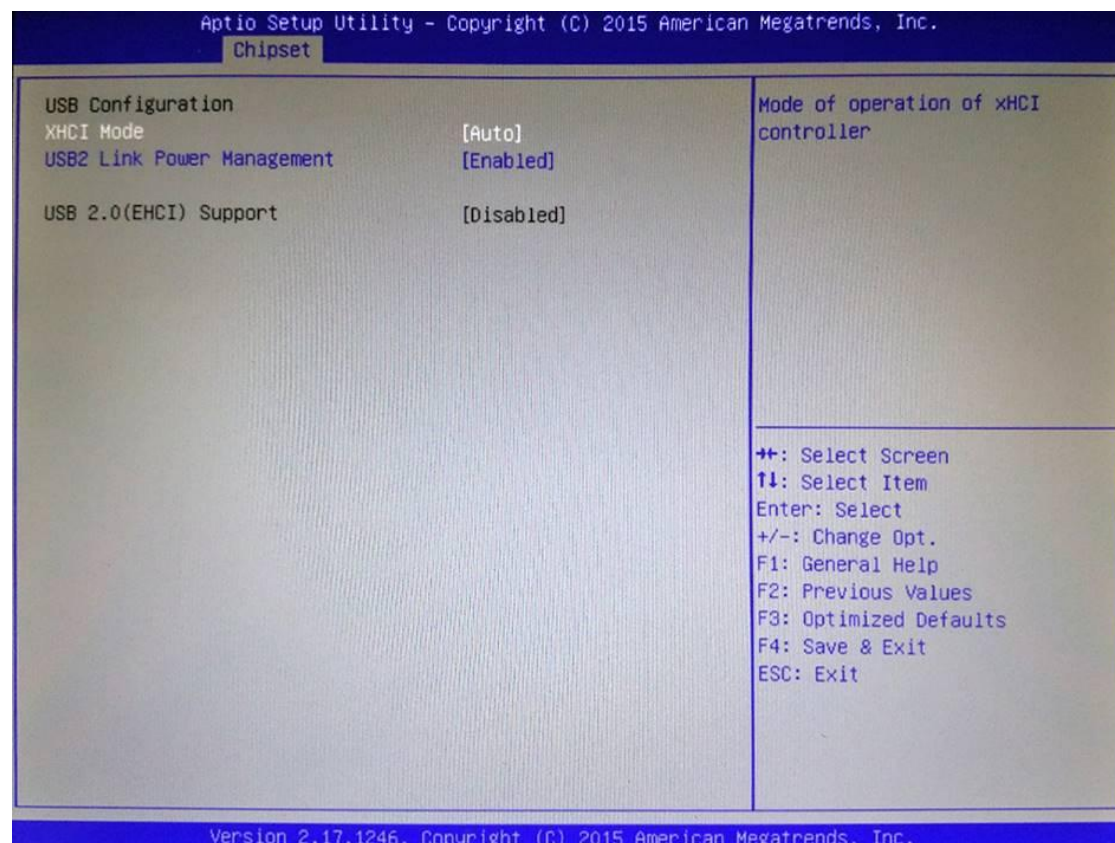


USB Configuration

XHCI Mode

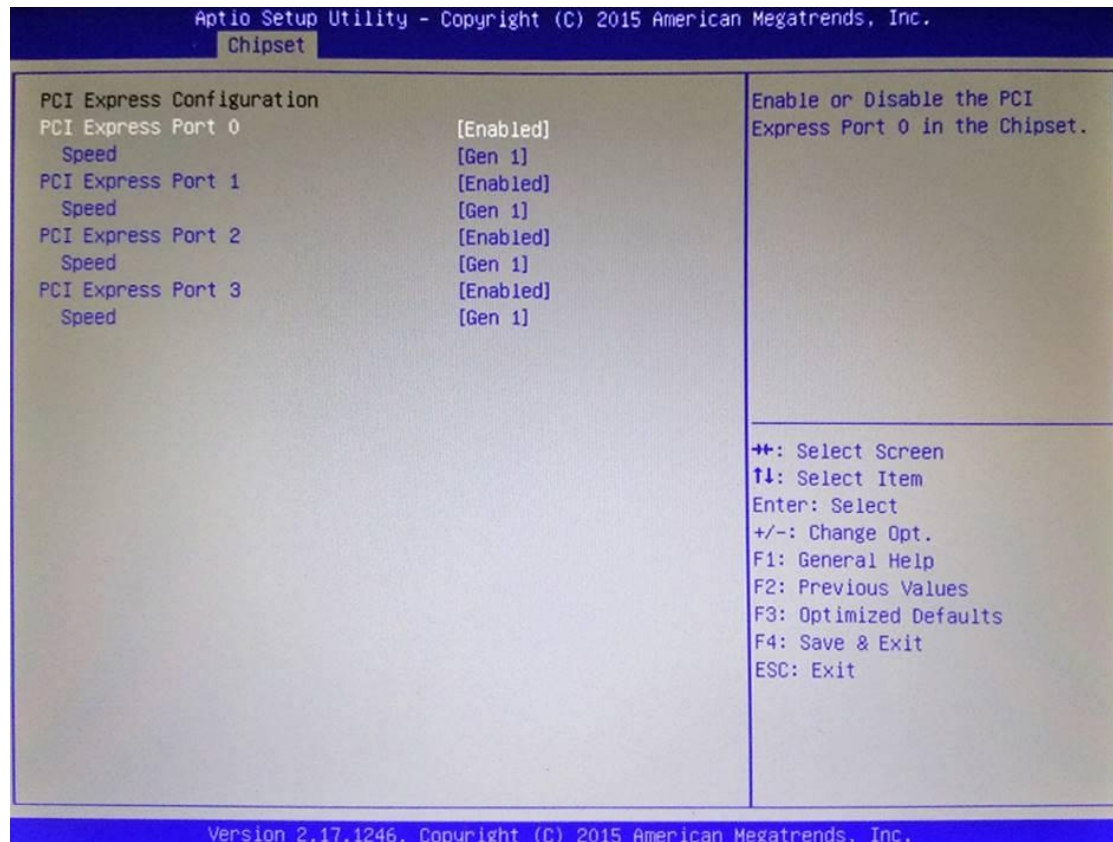
Enable/Disable or select Auto/Smart Auto XHCI Mode feature.

USB 2.0(EHCI) can select Enable when XHCI mode is disabled.



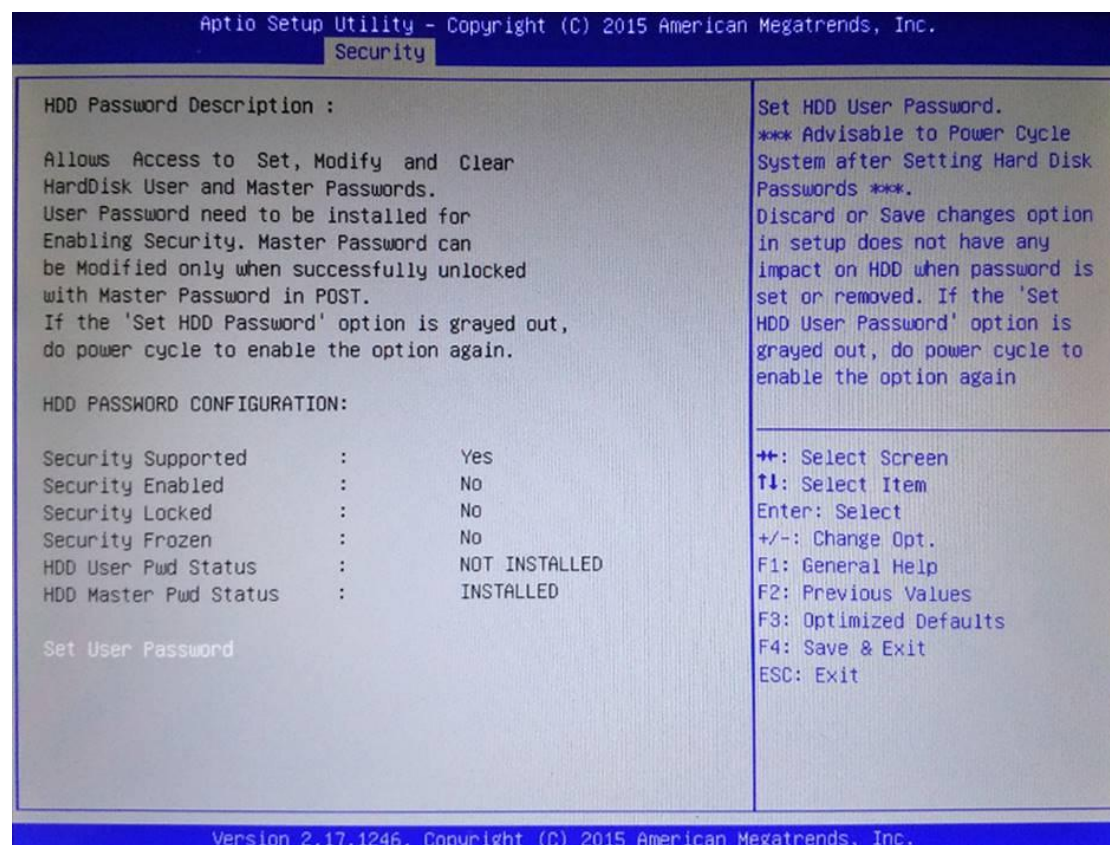
PCI Express Configuration

PCI Express port 0~3 can select Enable or Disable
Speed can select Gen1/Gen2 or Auto



3.6 Security Menu

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



Administrator Password

This item indicates whether an administrator password has been set (installed or uninstalled).

User Password

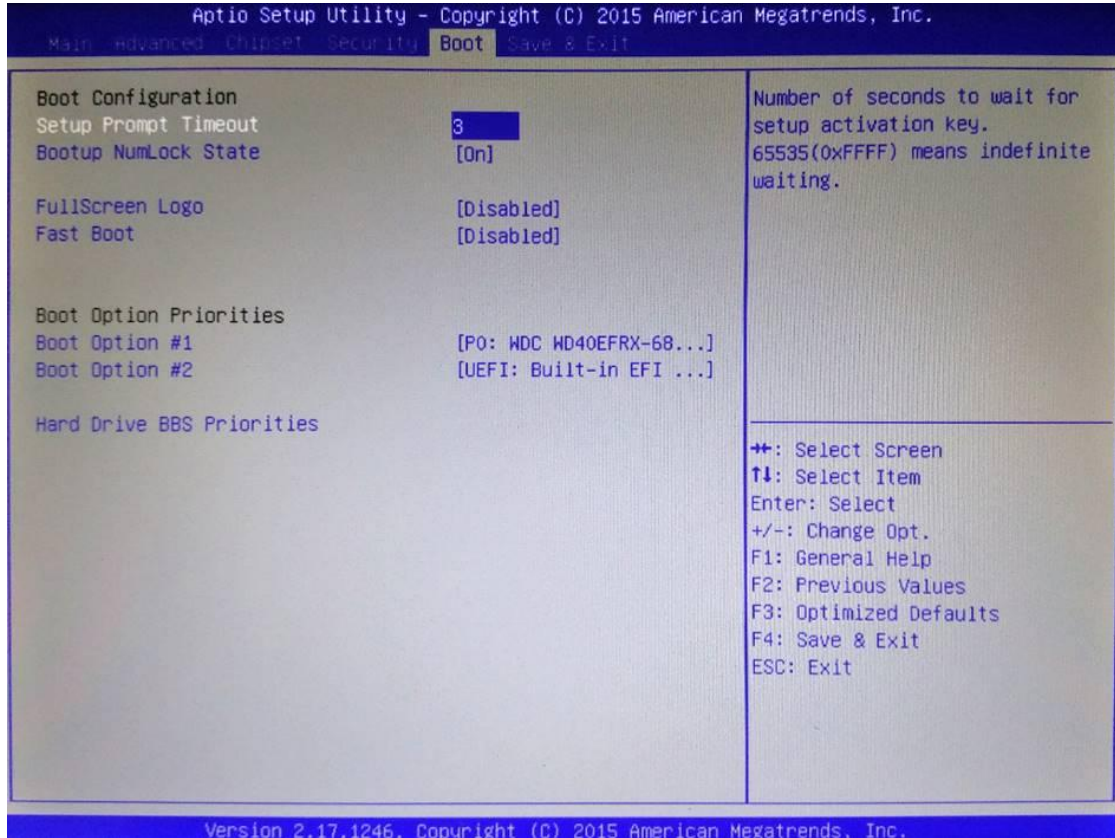
This item indicates whether a user password has been set (installed or uninstalled).

HDD Security Configuration

This item indicates whether the HDD password has been set (installed or uninstalled)

3.7 Boot Menu

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



Setup Prompt Timeout

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.

FullScreen Logo

Enable or disable OEM logo display at system startup.

Fast Boot

Enable or disable fast boot function. BIOS skips some certain procedures to decrease system boot up time.

Boot Option Priorities [Boot Option #1, ...]

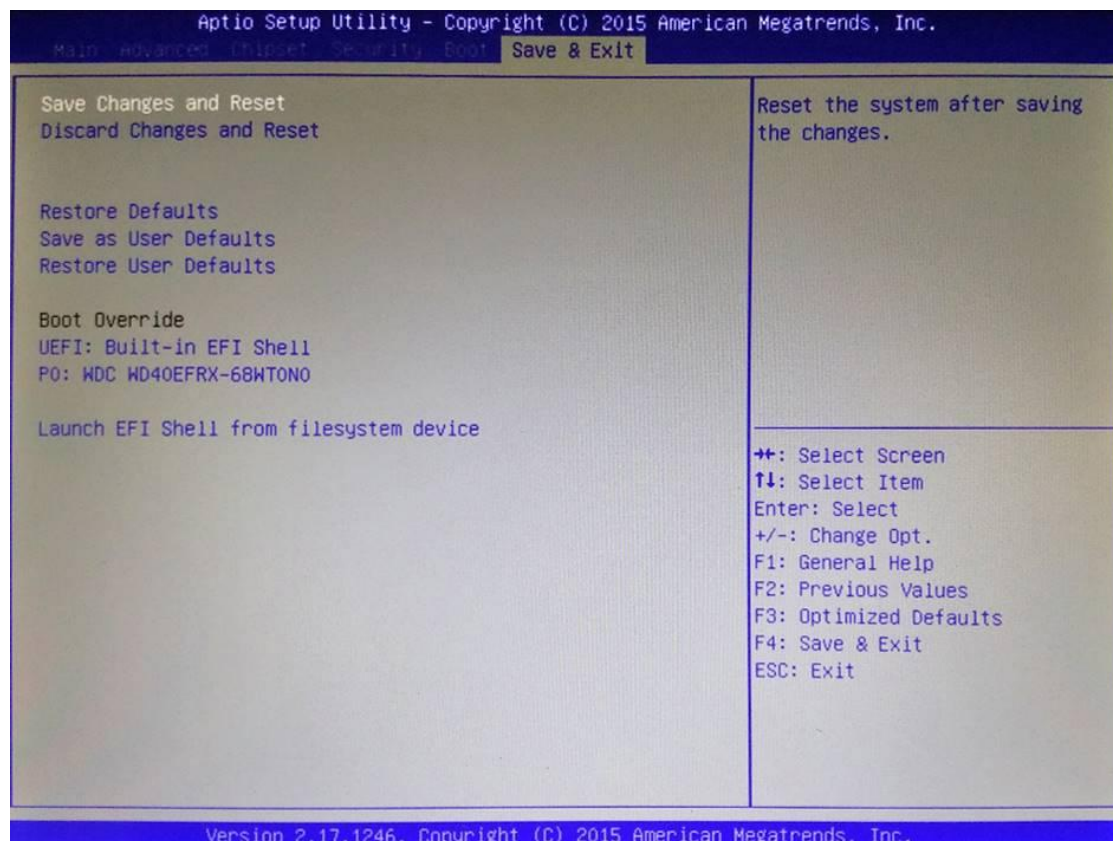
These are settings for boot priority. Specify the boot device priority sequence from the available devices.

Hard Drive BBS Priorities

These are define the boot order for the hard drive

3.8 Save & Exit Menu

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



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.

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.

Launch EFI Shell from filesystem device

Attempt to launch EFI Shell application (Shellx64.efi) from one of the available filesystem devices.

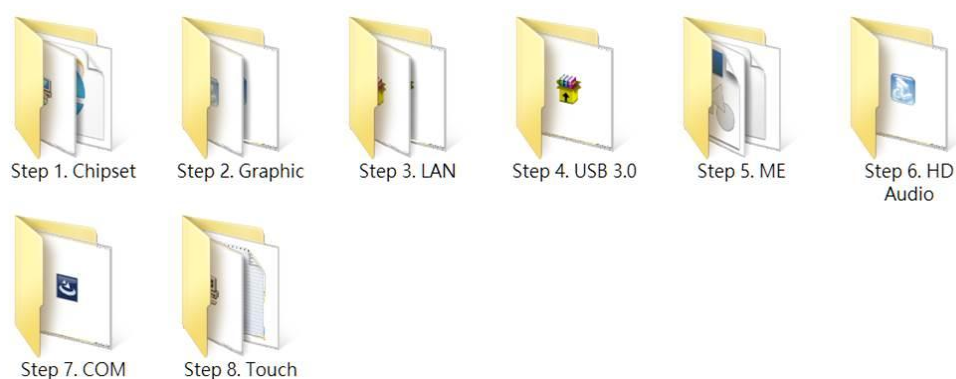
Chapter 4

Drivers Installation

4.1 System

P1177E-842 supports Windows 7 / Windows 8.1 / WES7 / WE8S. To facilitate the installation of system driver, please carefully read the instructions in this chapter before start installing.

Step 1 Insert Driver CD and select the “\Drivers”.



Step 2 Select all files and follow the installing procedure.

4.2 Touch Screen

The P1177E-842 uses the 5-wire analog resistive. There are the specification and driver installation which are listed below.

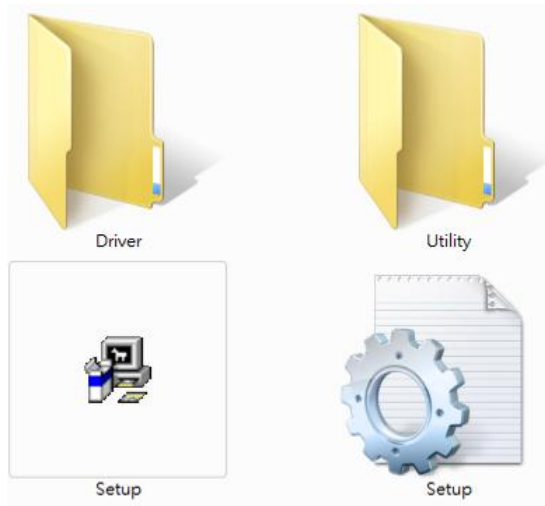
- **Specification**

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	1280 X 1024

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

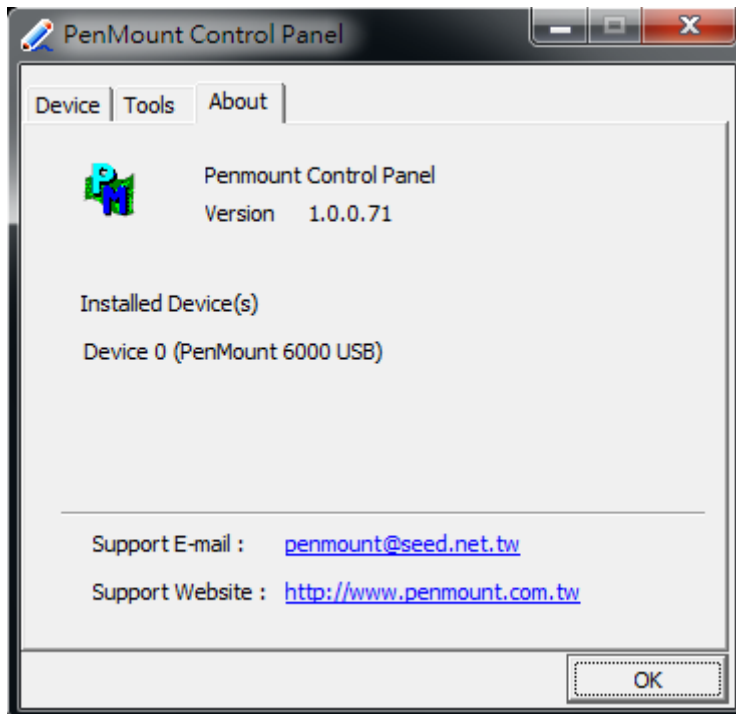
The P1177E-842 provides a touch screen driver that users can install it under the operating system Windows 7. To facilitate installation of the touch screen driver, you should read the instructions in this chapter carefully before you attempt installation.

Step 1 Insert Driver CD and follow the path to select the “\Drivers\Step 7. Touch”.

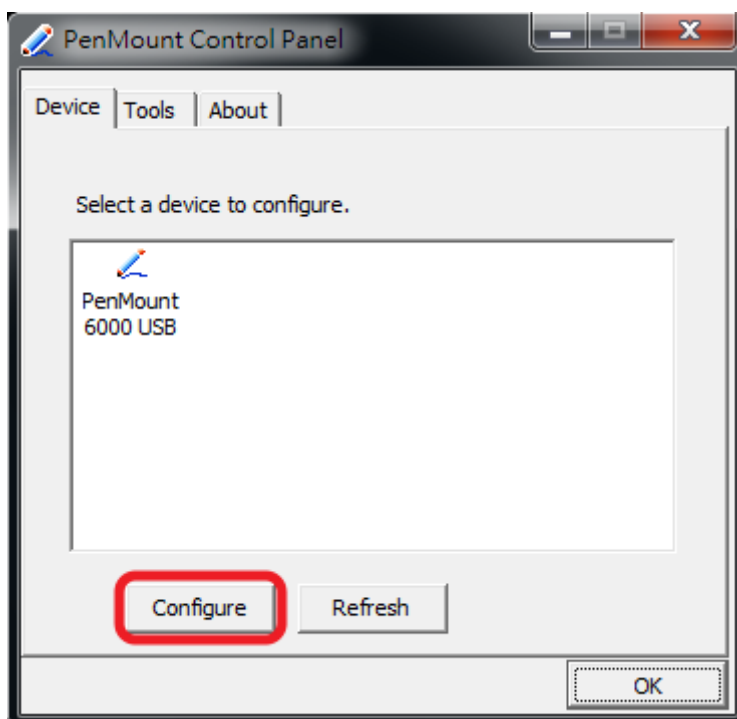


Step 2 Follow the installing procedure and press OK.

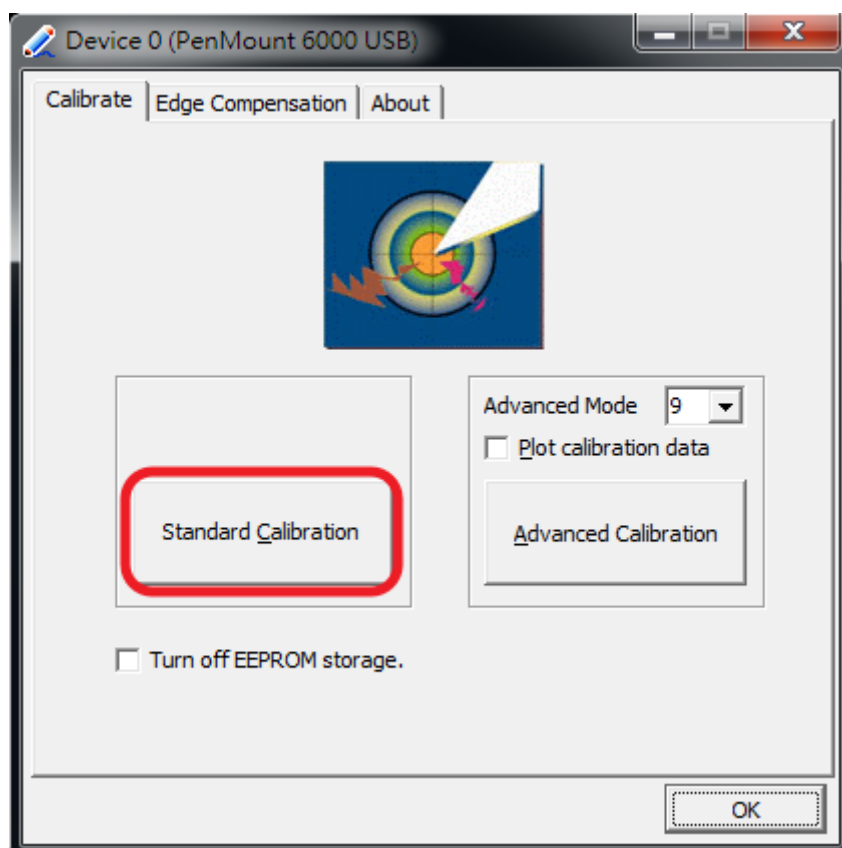
Step 3 Click Start menu and select “PenMount Utilities”; and then, a “PenMount Control Panel” pops out.



Step 4 Click "Configure"

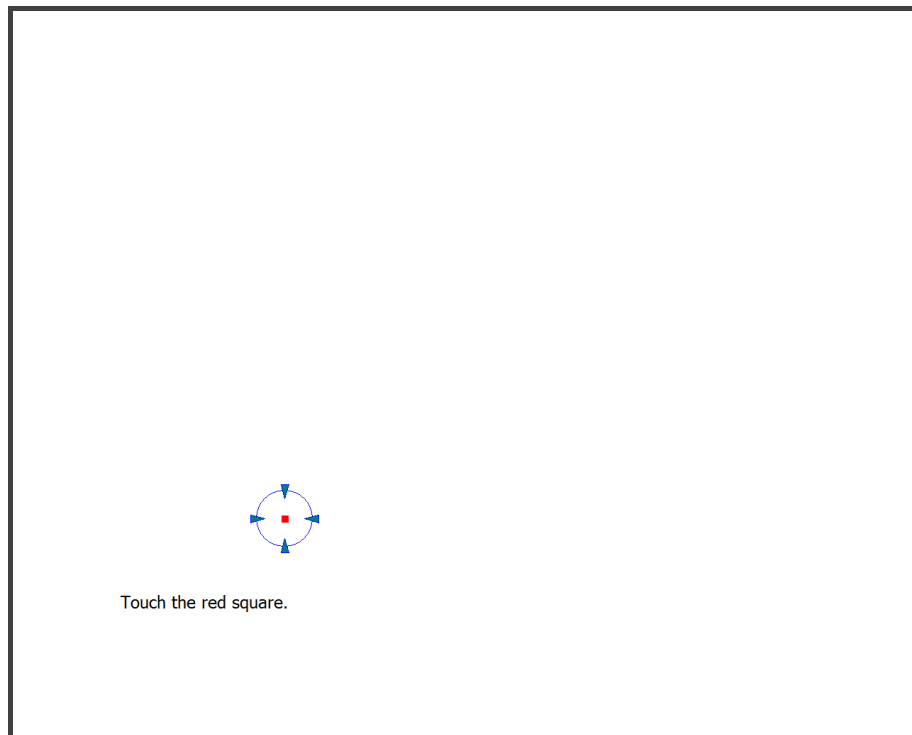


Step 5 Select the "Standard Calibrate" tab.



Step 6 Calibrations:

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.



Step 7 Press OK.

4.3 Embedded O.S.

The P1177E-842 provides the Windows 7 Embedded and Windows Embedded 8 Standard. The O.S. is supported devices which 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 and calibrate it, here is what you should do:

1. Set up Penmount touch device driver by executing C:\Penmount\ Windows 2000-XP V5.0\setup.exe. When the installation is finished, an icon "PM" appears on the Taskbar.
2. Calibrate Penmount touch by clicking on the "PM" icon, and the go on the calibration.
3. Restart the computer.