WEBS-3392

Fan-less Embedded System

User's Manual

Version 1.0

Table of Contents

How to Use This Manual

How to Use This Manual

The manual describes how to configure your WEBS-3392 system to meet various operating requirements. It is divided into five chapters, with each chapter addressing a basic concept and operation of Fan-less Embedded System.

Chapter 1: System Overview. Present what you have in the box and give you an overview of the product specifications and basic system architecture for this fan-less embedded system.

Chapter 2: System Installation. Show the definitions and locations of all the interfaces and describe a proper installation guide so that you can easily configure your system.

Chapter 3: BIOS Setup Information. Specify the meaning of each setup parameters, how to get advanced BIOS performance and update new BIOS. In addition, POST checkpoint list will give users some guidelines of trouble-shooting.

Chapter 4: Important Instructions. Indicate some instructions which must be carefully followed when the fan-less embedded system is used.

Chapter 5: Frequent Asked Questions. Provide the answers for the most frequently asked questions.

The content of this manual is subject to change without prior notice. These changes will be incorporated in new editions of the document. The vendor may make supplement or change in the products described in this document at any time.

Revision History

Revision	Date	Details of Change(s)
V1.0	2015/5/28	Initial Release

Chapter 1
System Overview

1.1 Introduction

Portwell Inc., a world-leading innovator in the Industrial PC (IPC) market and a Premium Member of the Intel® Internet of Things (IoT) Solutions Alliance, announced WEBS-3392, a fan-less embedded system. Builds on Intel® Baytrail SoC and takes advantages of Intel® Atom™ E3800 Series processor technologies, especially its compact design plus low power consumption.

Portwell's WEBS-3392 is designed to be power-optimized and value-optimized. Instead of adopting a mobile CPU like a traditional embedded system, WEBS-3392 utilizes the newest Intel® Atom™ platform including two sku of Intel® Atom™ E3845 and Intel® Atom™ J1900, and Intel® Baytrail SoC chipset, which is more economical compared to its mobile counterpart and provides great efficacy as well as ultra low power consumption; this makes WEBS-3392 not only competitive but outstanding in the market. The system further takes advantage of the Intel® Atom™ processor technologies supporting dual channel DDR3L memory up to 16GB. Furthermore, the WEBS-3392 embedded system include rich I/O interfaces and fast connectivity with: three independent display (Display Port/VGA/DVI-D) interfaces, two Gigabit Ethernet ports, one RS-232/422/485 port, three RS-232 port, one USB 3.0 port, and four USB 2.0 ports. An optional wireless or 3G/GPS module can be added via a Half-size Mini-PCIe socket.

The rugged, fan-less design makes the WEBS-3392 durable in harsh environment applications, such as factory automation and industrial automation. Portwell's WEBS-3392 has already passed a vibration test of 5Grms/ 5~500Hz and a shock test of 50G, assuring its solidity and reliability. In addition, the system accepts a wide input voltage range from 12V to 24V. This power-source flexibility enables product usage in a variety of situations. Moreover, the WEBS-3392 is more than a robust and dependable embedded system with high performance and graphics efficacy. Its stylish mechanical design enhances the system's artistry. Potential applications include plant engineering, transportation & logistics, as well as display control and gateway, etc.

1.2 Check List

The WEBS-3392 package should cover the following basic items:

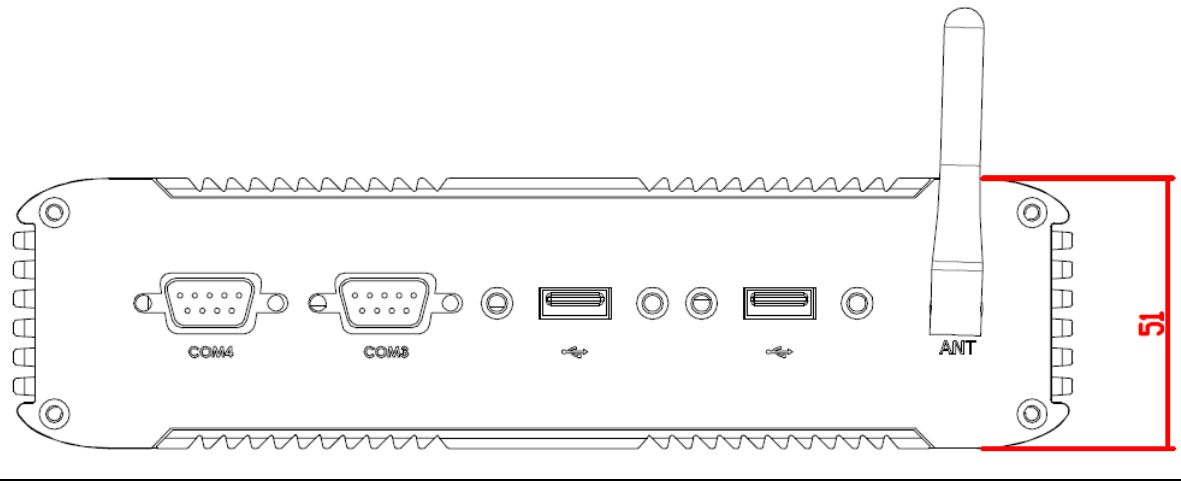
- ✓ One WEBS-3392 Fan-less Embedded System
- ✓ One 60W AC/DC Power Adapter DC-plug with screw
- ✓ One Wall Mount Kit
- ✓ Other Accessories

If any of these items is damaged or missing, please contact your vendor and keep all packing materials for future replacement and maintenance.

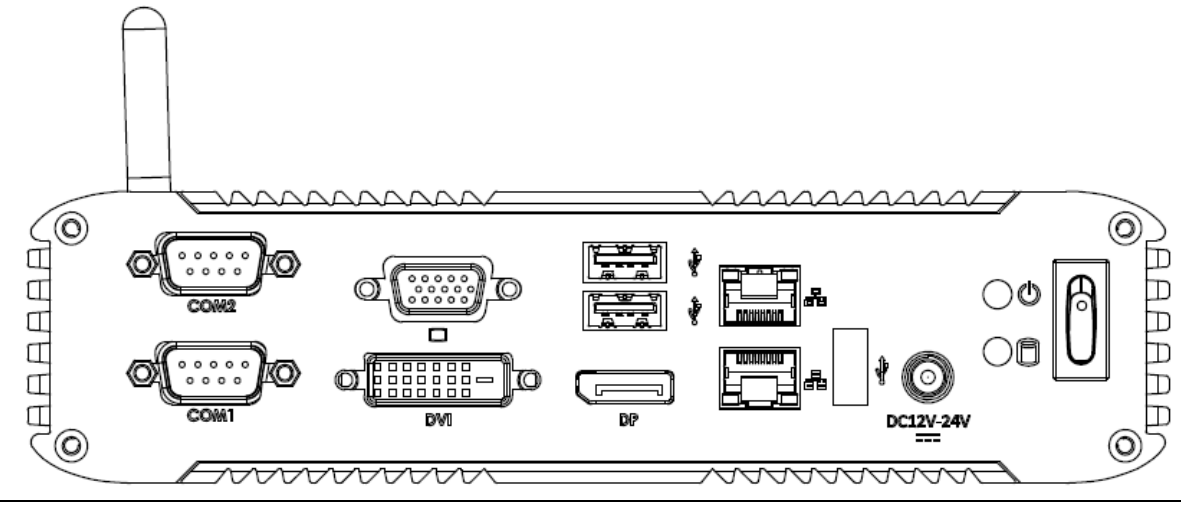
1.3 Product Specification

System	
M/B	WADE-8079
System Chipset	Intel® Baytrail SoC
CPU	Intel® Atom™ E3845 Processor. 1.91Ghz/4C/4T/DDR3L CPU.2M Cache. Intel® Atom™ J1900 Processor. 2Ghz/4C/4T/DDR3L CPU.2M Cache.
BIOS	Phoenix(EFI) BIOS
System Memory	Dual 240-pin SO-DIMM socket supports DDR3L 1333/1600 up to 16GB
Storage	1x 2.5" SATA HDD/SSD, 1x mSATA
Watchdog Timer	Programmable via S/W from 1 sec. to 255 sec.
H/W Status Monitor	-Temperature (CPU & System) -Voltage (CPU Vcore, VBAT, 5VSB, 12V, 5V, 3.3V)
Expansion	-1x Half-size Mini-PCIe socket(USB+PCIe) -1x Full-size Mini-PCIe socket(mSATA)
External I/O	
Series Ports	4x COM Ports (1x RS-232/422/485 selectable by BIOS, 3x RS-232)
Display	1x DVI-D, 1x VGA, 1x DP
USB	1x USB 3.0, 4x USB 2.0
Audio	N/A
LAN	2x Gigabit Ethernet (Dual Intel® I210IT)
GPIO	N/A
Other	-1x Antenna hole for WiFi or 3G/GPS module
Power Supply Unit	
Power Supply	DC 12~24V
Environment	
Operating Temperature	-10℃ to 45℃
Storage Temperature	-40℃ to 80℃
Relative Humidity	95% @ 40℃, non-condensing
Operating Vibration	5Grms/5~500Hz, IEC 60068-2-64
Operating Shock	50G, 11 msec, IEC 60068-2-27
Mechanical	
Dimension (WxDxH)	200 x 200 x 51 mm; 7.9" x 7.9" x 2"
Weight	2.2kg
Mounting	Wall, DIN Rail, Panel mounting kit

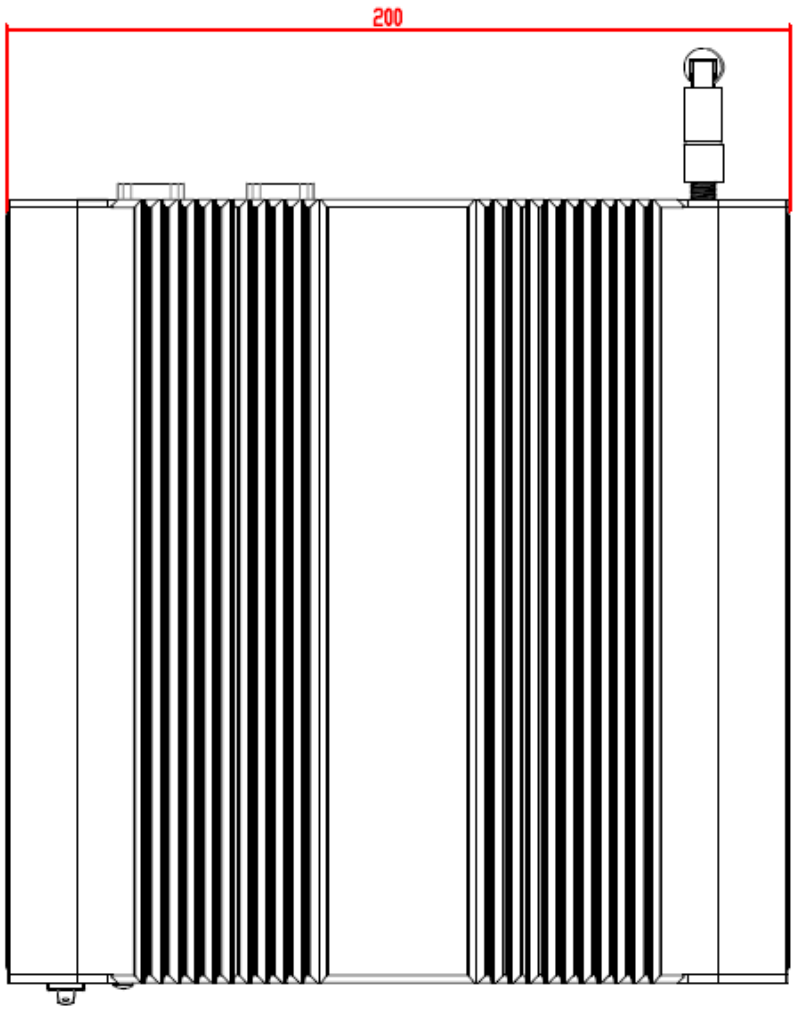
1.4 Mechanical Dimension



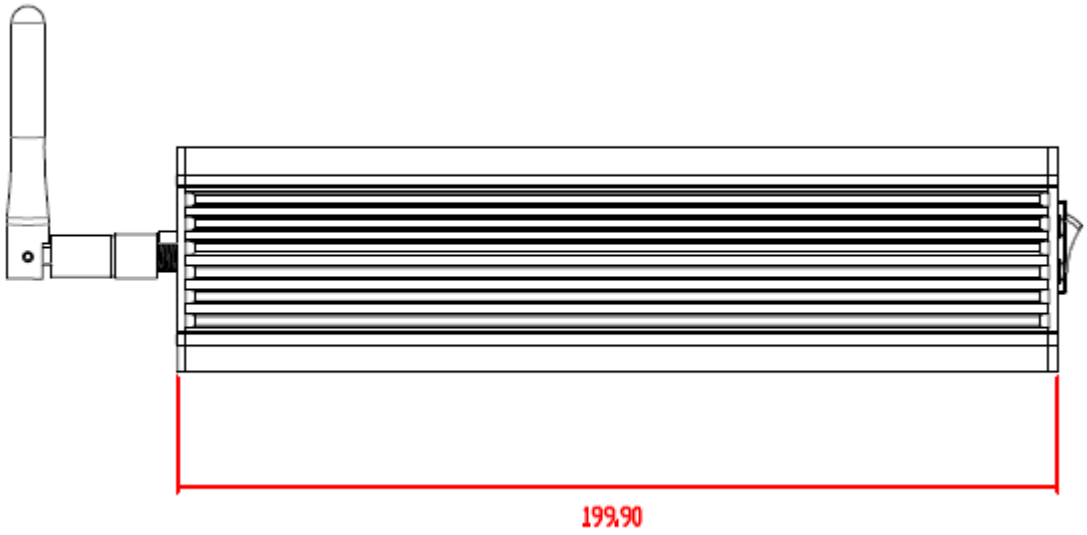
Front view of the WEBS-3392 system



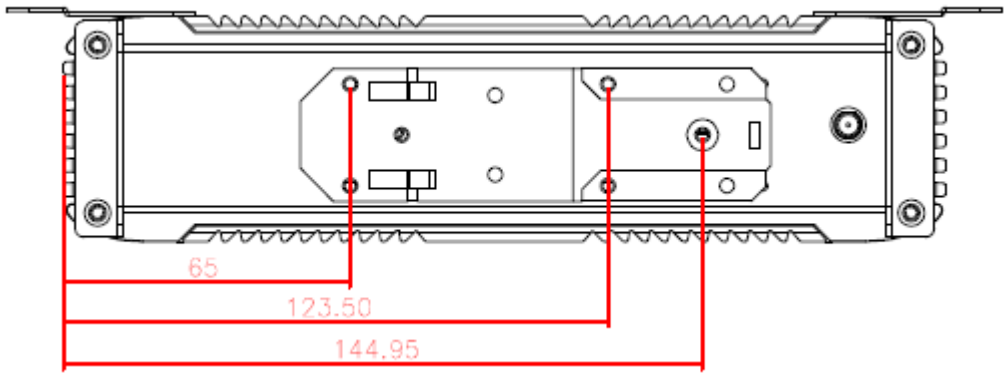
Rear view of the WEBS-3392 system



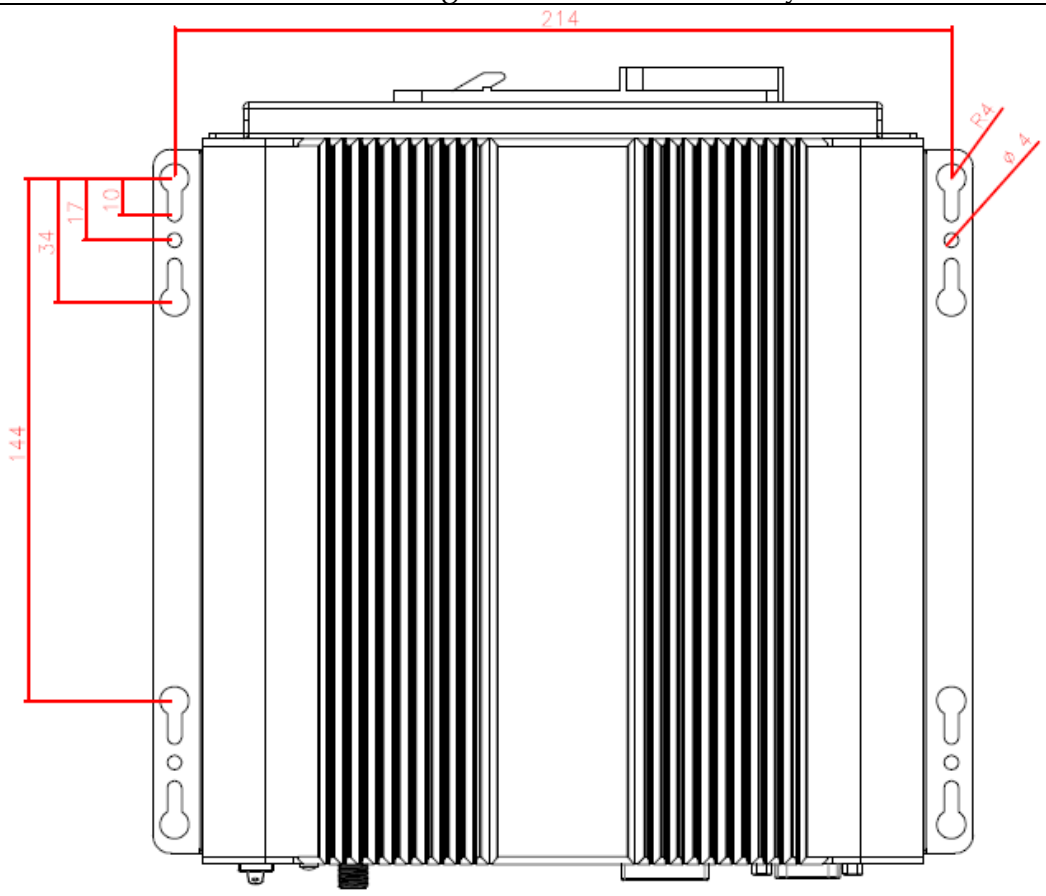
Top view of the WEBS-3392 system



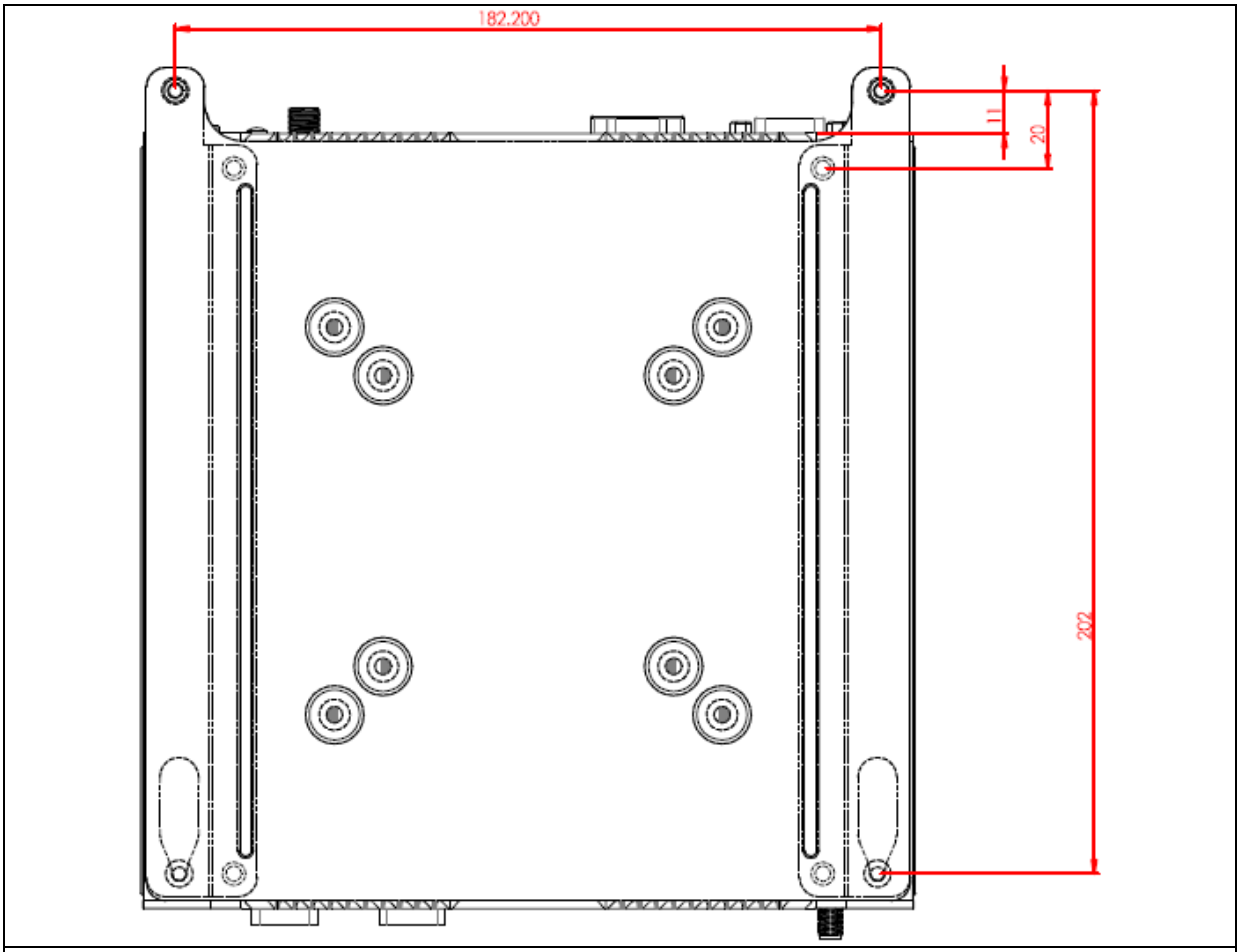
Side view of the WEBS-3392 system



DIN Rail mounting kit of the WEBS-3392 system



Wall mounting kit of the WEBS-3392 system



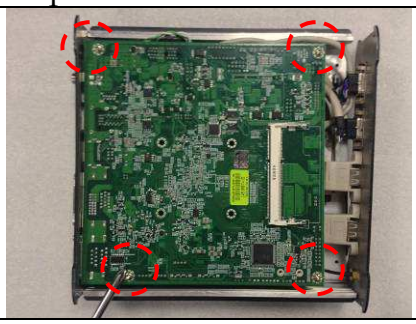
Panel mounting kit of the WEBS-3392 system

Chapter 2
System Installation

This chapter provides you with instructions to set up your system. Definitions and locations of all the interfaces are described so that you can easily configure your system. For more detailed PIN assignment and jumper setting, please refer to user's manual of WADE-8079."

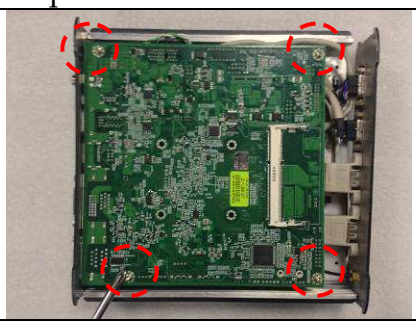
2.1 HDD Installation

WEBS-3392 supports 1x 2.5" HDD/SSD. (The height must be less than 10mm)

Step 1. Loosen the 4 screws of the front cover	Step 2. Loosen the 4 screws of the rear cover
	
Step 3. Take out the back cover	Step 4. Loosen the 4 screws of the board
	
Step 5. Install 2.5" HDD on the bracket with screws and connect the SATA data/power cable.	Step 6. Screw the 12 screws and finish the installation
	

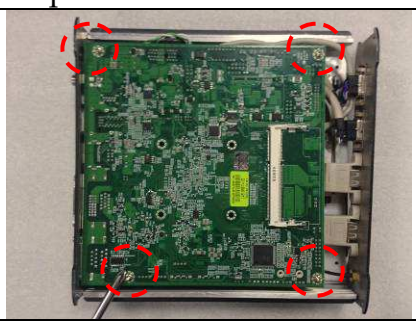
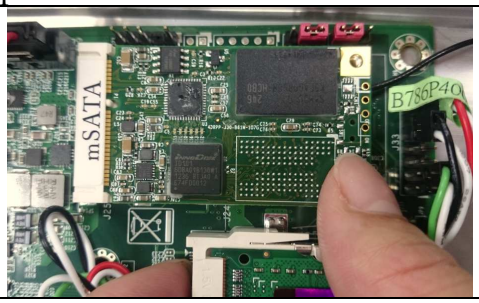
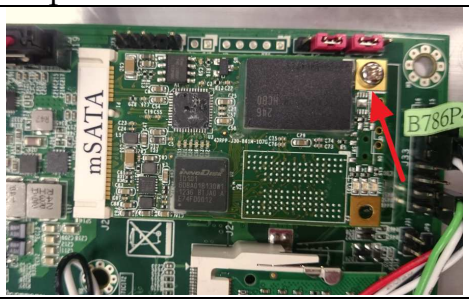
2.2 Half-size Mini-PCIe Device Installation

It's easy to install and maintenance the 1x Half-size Mini-PCIe device.

Step 1. Loosen the 4 screws of the front cover	Step 2. Loosen the 4 screws of the rear cover
	
Step 3. Take out the back cover	Step 4. Loosen the 4 screws of the board
	
Step 5. Assemble the Half-size Mini-PCIe 3G/GPS/WiFi card	Step 6. Screw the screw and connect the antenna cable
	
Step 7. Screw the 12 screws and finish the installation	
	

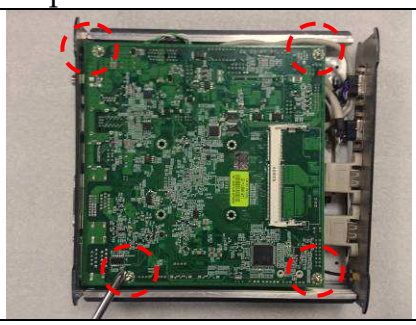
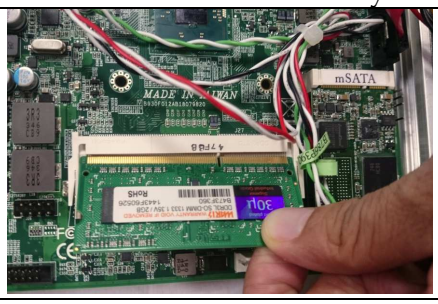
2.3 Full-size mSATA Device Installation

It's easy to install and maintenance the 1x Full-size mSATA device.

Step 1. Loosen the 4 screws of the front cover	Step 2. Loosen the 4 screws of the rear cover
	
Step 3. Take out the back cover	Step 4. Loosen the 4 screws of the board
	
Step 5. Assemble the Full-size mSATA	Step 6. Screw the screw
	
Step 7. Screw the 12 screws and finish the installation	
	

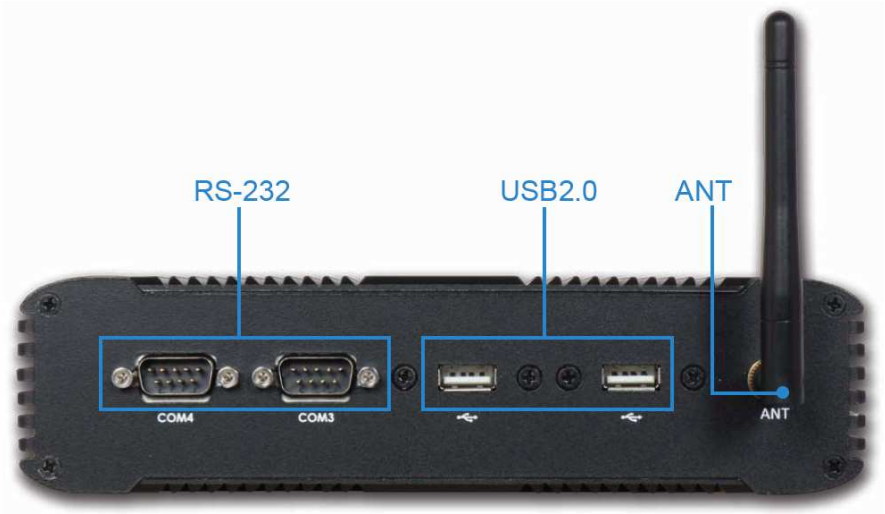
2.4 Memory device Installation

It's easy to install and maintenance the memory device.

Step 1. Loosen the 4 screws of the front cover	Step 2. Loosen the 4 screws of the rear cover
	
Step 3. Take out the back cover	Step 4. Loosen the 4 screws of the board
	
Step 5. Assemble the memory card and make sure it has been locked by socket	Step 6. Screw the 12 screws and finish the installation
	

2.5 I/O Interfaces

2.5.1 Front View



COM port:

- RS-232

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

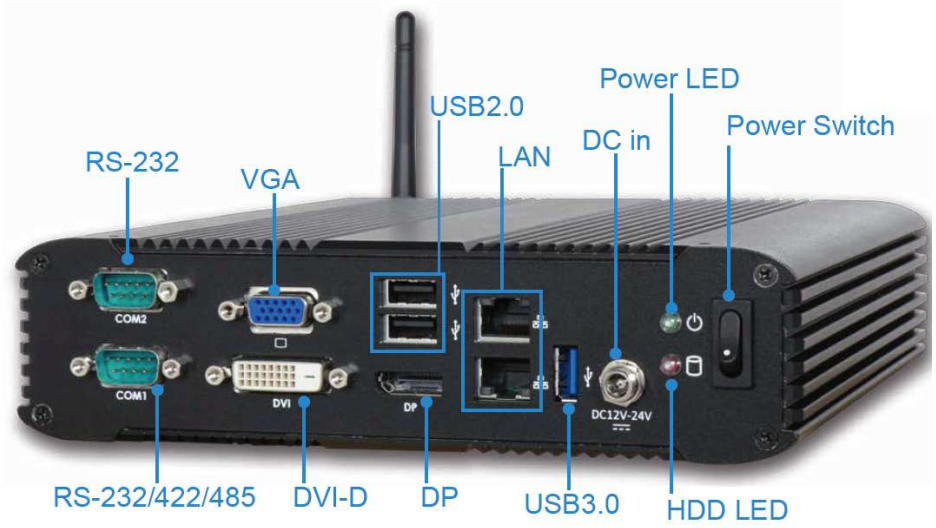
USB 2.0:

Support two USB (Universal Serial Bus) ports. (Two USB 2.0)

ANT hole:

Antenna hole for WiFi or 3G/GPS module

2.5.2 Rear View



COM port:

- RS-232

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

- RS-232/4222/485
  *Note: RS-232/422/485 configuration is determined by BIOS setting. Check BIOS setting for details.

Pin	Signal
1	DCD#1/485D/422T-
2	RXD#1/485D/422T+
3	TXD#1/422R+
4	DTR#1/422R-
5	GND
6	DSR#1
7	RTS#1
8	CTS#1
9	RI#1

VGA:

VGA – CRT display output

PIN No.	Signal Description	PIN No.	Signal Description
1	Red	2	Green
3	Blue	4	NC
5	GND	6	RGND
7	GGND	8	BGND
9	KEY(+5V)	10	SGND
11	NC	12	SDA
13	H Sync	14	V Sync
15	SCL	16	

DVI-D:

DVI-D display output

PIN No.	Signal Description	PIN No.	Signal Description
1	TDC0-	2	TDC0+
3	GND	4	GND
5	TDC1-	6	TDC1+
7	GND	8	GND
9	TDC2-	10	TDC2+
11	GND	12	GND
13	TLC-	14	TLC-+
15	VCC5	16	VCC5
17	DDC_SC	18	DDC_SD
19	HPD_IN	20	X

USB3.0 & USB 2.0:

Support three USB (Universal Serial Bus) ports including one USB 3.0 and two USB 2.0.

DP:

DP (Display Port) display output

PIN No.	Signal Description	PIN No.	Signal Description
1	D0+	2	GND
3	D0-	4	D1+
5	GND	6	D1-
7	D2+	8	GND
9	D2-	10	D3+
11	GND	12	D3-
13	AUX_EN#	14	GND
15	AUX+	16	GND
17	AUX-	18	Hot plug
19	GND	20	VCC3

LAN:

Two Gigabit Ethernet (10/100/1000 Mbits/sec) LAN ports by using Intel WGI210IT GbE Ethernet Controller

DC in: (Wide range DC source support, 12 ~24V)
Using the provided DC source to connect to the system

Power Led:
Shows the power connection as a small blinking indicator

HDD Led:
Shows real-time read and write activity of your HDD/SSD as a small blinking indicator

Power Switch:
It is for system ON/OFF control

2.6 Getting Started

It is easy to get the system started.

Step 1. Make sure the power supply (12~24V) is connected properly	Step 2. Press the power switch to turn on the system
	

Chapter 3
BIOS Setup Information

WEBS-3392 system adopts WADE-8079 mother board.WADE-8079 is equipped with the Phoenix BIOS stored in Flash ROM. These BIOS has a built-in Setup program that allows users to modify the basic system configuration easily. This type of information is stored in CMOS RAM so that it is retained during power-off periods. When system is turned on, WADE-8079 communicates with peripheral devices and checks its hardware resources against the configuration information stored in the CMOS memory. If any error is detected, or the CMOS parameters need to be initially defined, the diagnostic program will prompt the user to enter the SETUP program. Some errors are significant enough to abort the start up.

3.1 Entering Setup - Launch System Setup

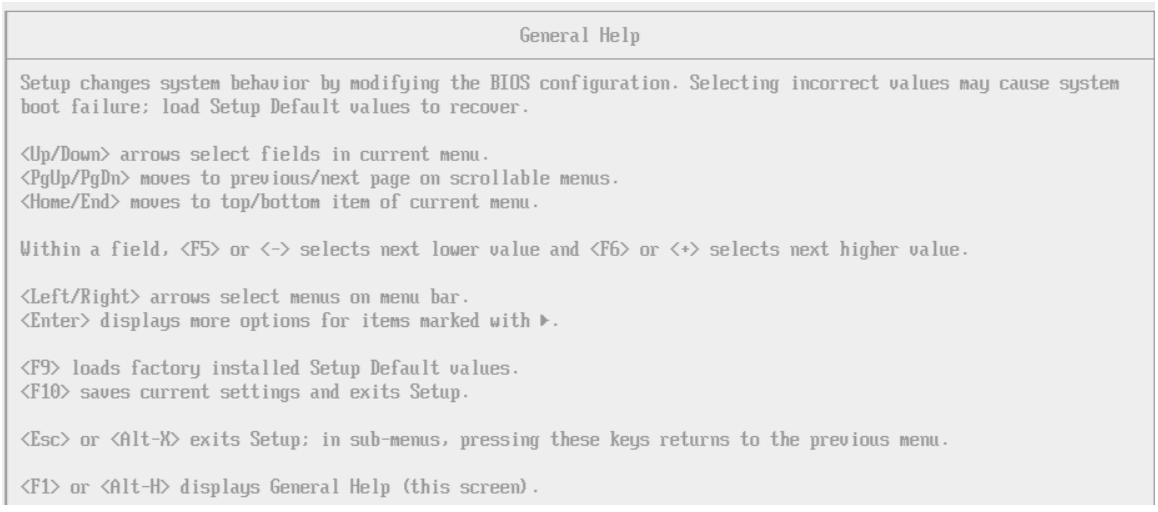
Power on the computer and the system will start POST (Power On Self Test) process. When the message below appears on the screen, press <F2> key will enter BIOS setup screen.

Press <F2> to enter SETUP

If the message disappears before responding and still wish to enter Setup, please restart the system by turning it OFF and On or pressing the RESET button. It can be also restarted by pressing <Ctrl>, <Alt>, and <Delete> keys on keyboard simultaneously.

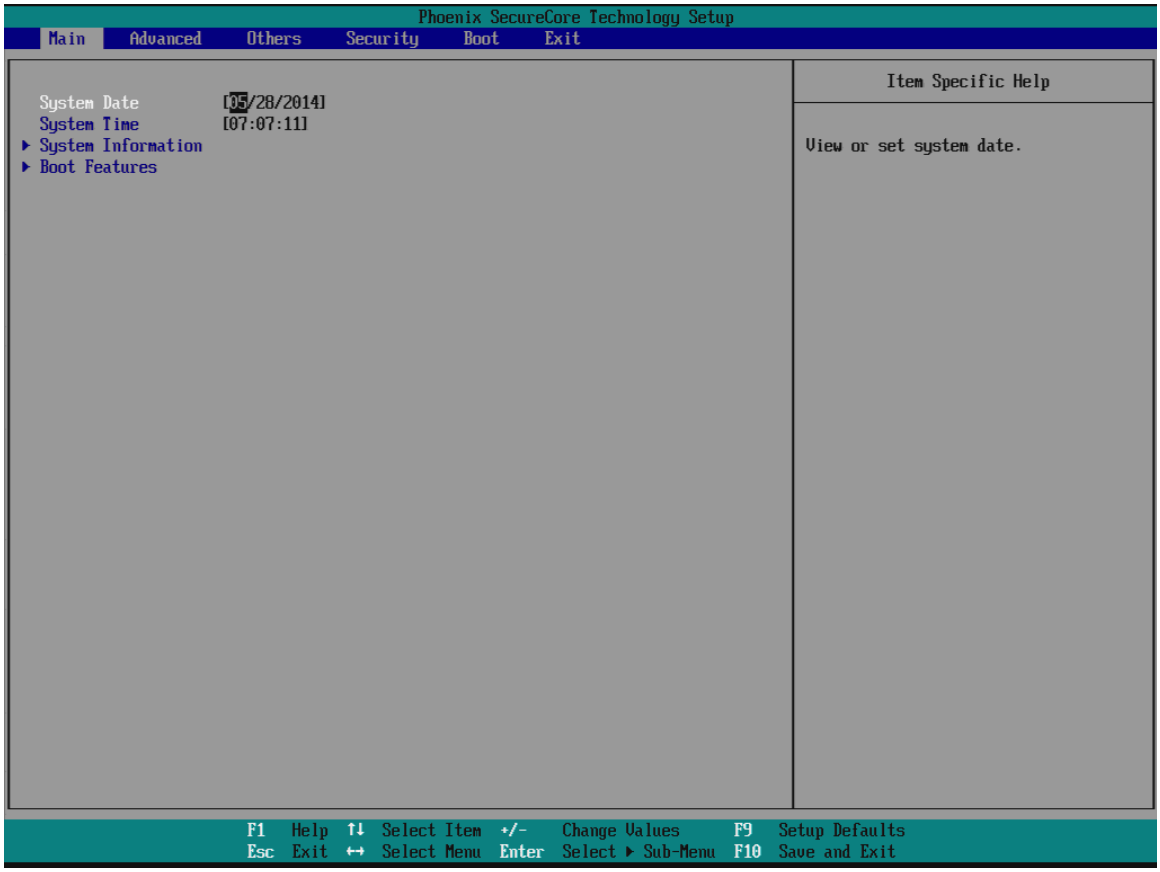
Press <F1> to Run General Help or Resume

The BIOS setup program provides a General Help screen. The menu can be easily called up from any menu by pressing <F1>. The Help screen lists all the possible keys to use and the selections for the highlighted item. Press <Esc> to exit the Help screen.

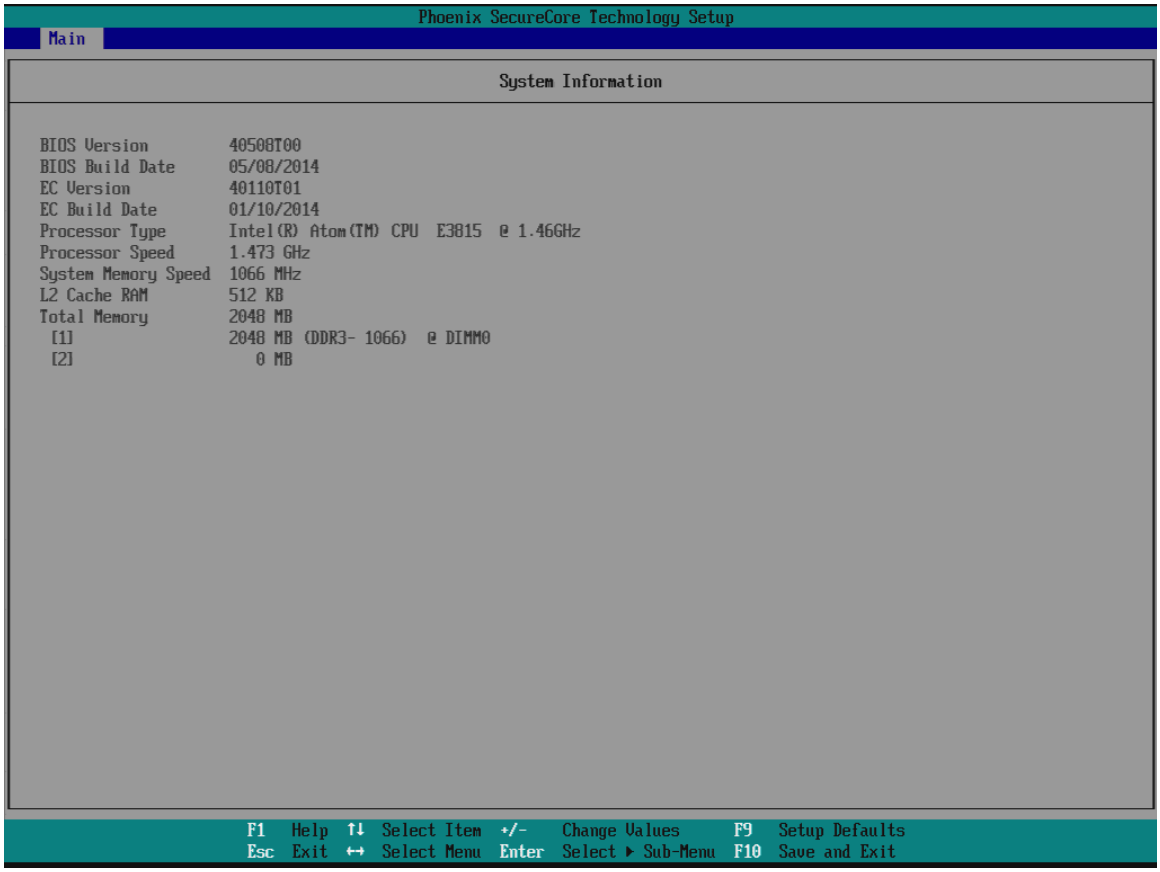


3.2 Main

Once you enter WADE-8079 Phoenix BIOS CMOS Setup Utility, a Main Menu is presented. The Main Menu allows user to select from eleven setup functions and two exit choices. Use arrow keys to switch among items and press <Enter> key to accept or bring up the sub-menu.
This setup page includes all the items in standard compatible BIOS. Use the arrow keys to highlight the item and then use the <PgUp>/<PgDn> or <+>/<-> keys to select the value or number you want in each item and press <Enter> key to certify it.
Follow command keys in CMOS Setup table to change Date, Time, Drive type, and Boot Sector Virus Protection Status.

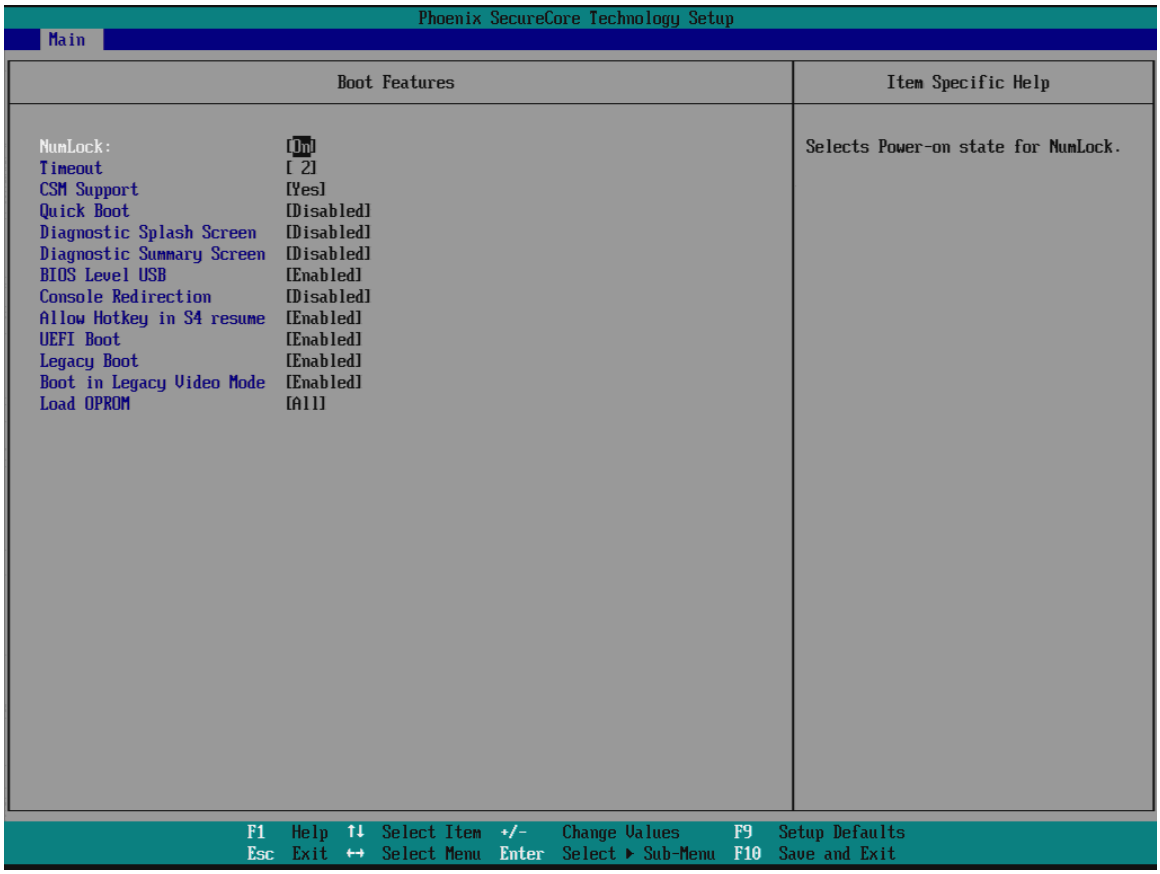


System Date
View or set system date
The date format is <Day>, <Month> <Date> <Year>. Use [+] or [−] to configure system Date.
System Time
View or set system time
The time format is <Hour> <Minute> <Second>. Use [+] or [−] to configure system
Time.
System Information
Display System Information.



Boot Features

Select Boot features.



NumLock:
Selects Power-on state for NumLock
Choices: On, Off.

Timeout
Number of seconds that P.O.S.T will wait for the user input before booting
Choices: 0-99 seconds.

CSM Support
Compatibility Support Module that provide backward compatibility services for legacy BIOS services, like int10/int13, dependent OS.

Quick Boot
Enable/Disable quick boot
Choices: Disable, Enable.

Diagnostic Splash Screen
If you select 'Enabled' the diagnostic splash screen always displays during boot. If you select 'Disabled' the diagnostic splash screen does not displays unless you press HOTKEY during boot
Choices: Disable, Enable.

Diagnostic Summary Screen
Display the Diagnostic summary screen during boot
Choices: Disable, Enable.

BIOS Level USB
Enable/Disable all BIOS support for USB in order to reduce boot time. Note that this will prevent using a USB keyboard in setup or a USB biometric scanner such as a finger print reader to control access to setup, but does not prevent the operating system from supporting such hardware
Choices: Disable, Enable.

Console Redirection
Enable/Disable Universal Console Redirection
Choices: Disable, Enable.

Allow Hotkey in S4 Resume
Enable hotkey detection when system resuming from Hibernate state
Choices: Disable, Enable.

UEFI Boot
Enable the UEFI boot.
Choices: Disable, Enable.

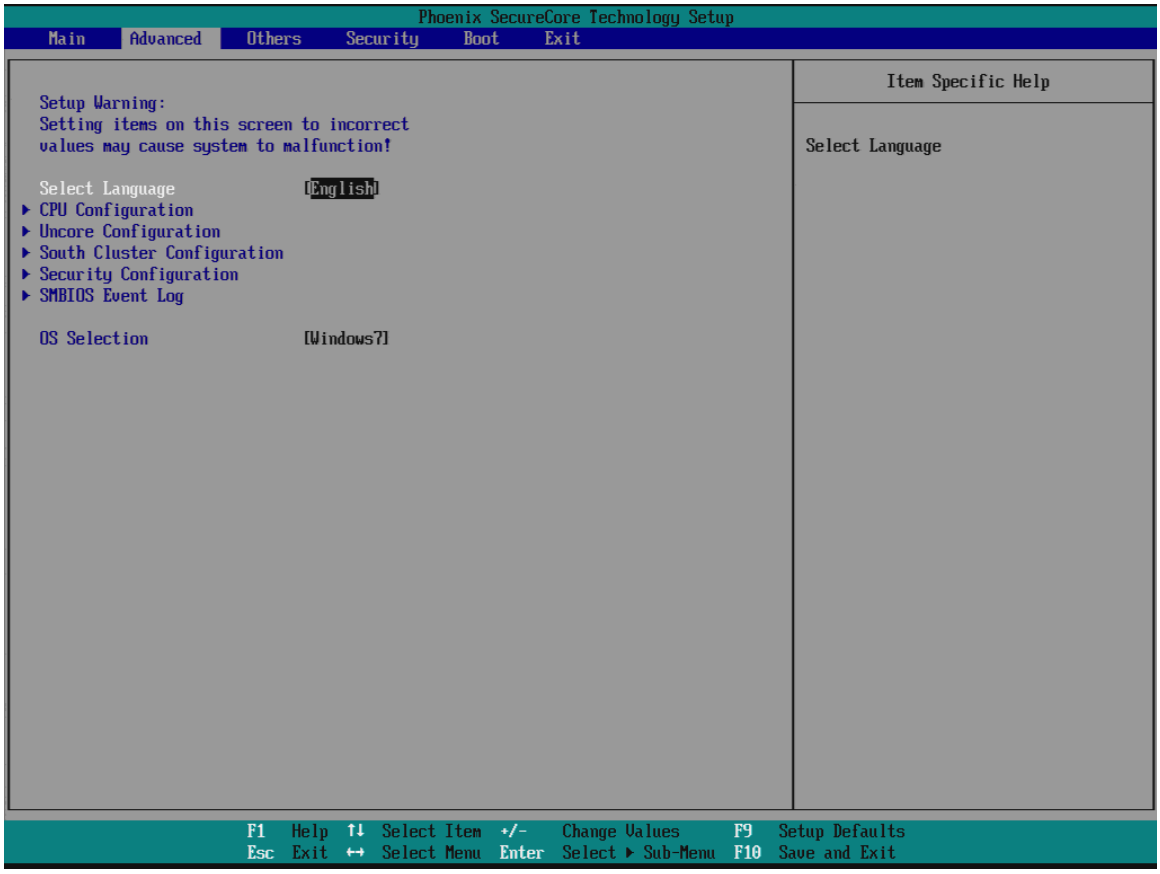
Legacy Boot
Enable the Legacy boot
Choices: Disable, Enable.

Boot in Legacy Video mode
Enable to force the display adapter to switch video mode to Text mode 3 at the end of BIOS POST for non-UEFI boot mode (Legacy boot). Some legacy software, such as DUET, requires that the BIOS explicitly enter text video mode prior to boot.
Choices: Disable, Enable.

Load OPROM
Load OPROMs or demand according to the boot device.
Choices: All, On demand.

3.3 Configuration

Setup Warning:
Setting items on this screen to incorrect values may cause system to malfunction!
Advanced

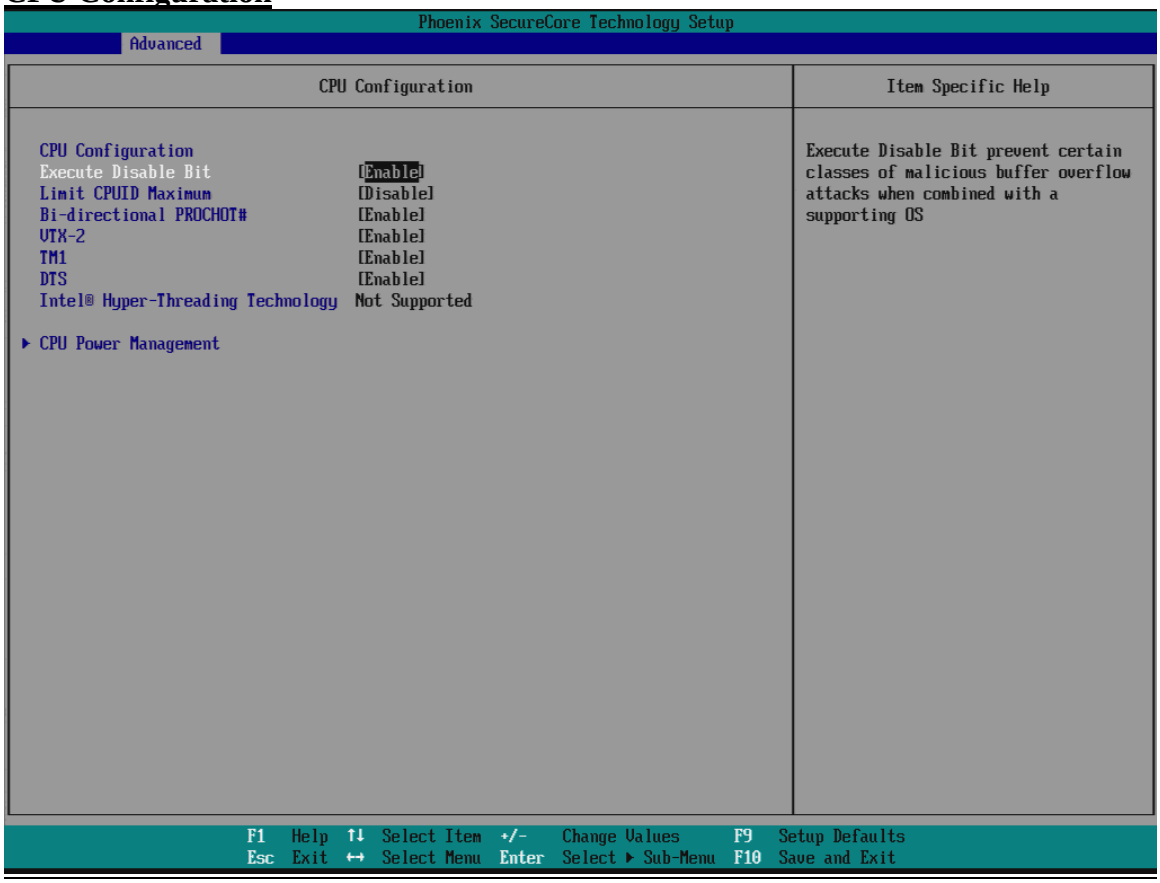


Select Language
Select Language
Choices: English, Japanese, French, Korean, Traditional Chinese, Simplified Chinese.

OS Selection

OS Selection
Choices: Windows 8.x, Android, Windows 7.

CPU Configuration



Execute Disabled Bit

Execute Disabled Bit prevent certain classes of malicious buffer overflow attacks when combined with a supporting OS
Choices: Disable, Enable.

Limit CPUID Maximum

Disabled for Windows XP
Choices: Disable, Enable.

Bi-directional PROCHOT#

When a processor thermal sensor trips (either core), the PROCHOT# will be driven. If bi-direction is enabled, external agents can drive PROCHOT# to throttle the processor
Choices: Disable, Enable.

VTX-2

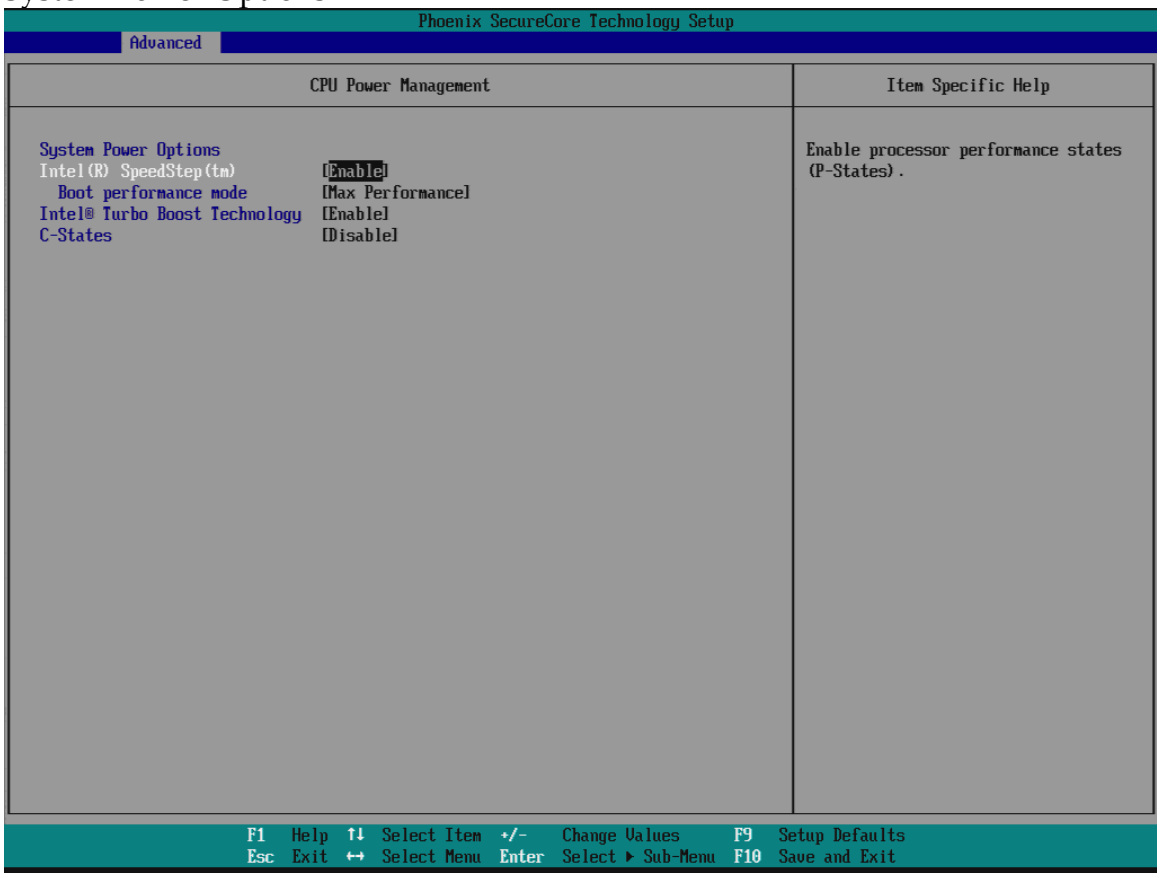
To enable or disable the VTX-2 Mode support
Choices: Disable, Enable.

TM1

Enable/Disable TM1
Choices: Disable, Enable.

DTS
Enabled/Disable Digital Thermal Sensor
Choices: Disable, Enable.

CPU Power Management
System Power Options



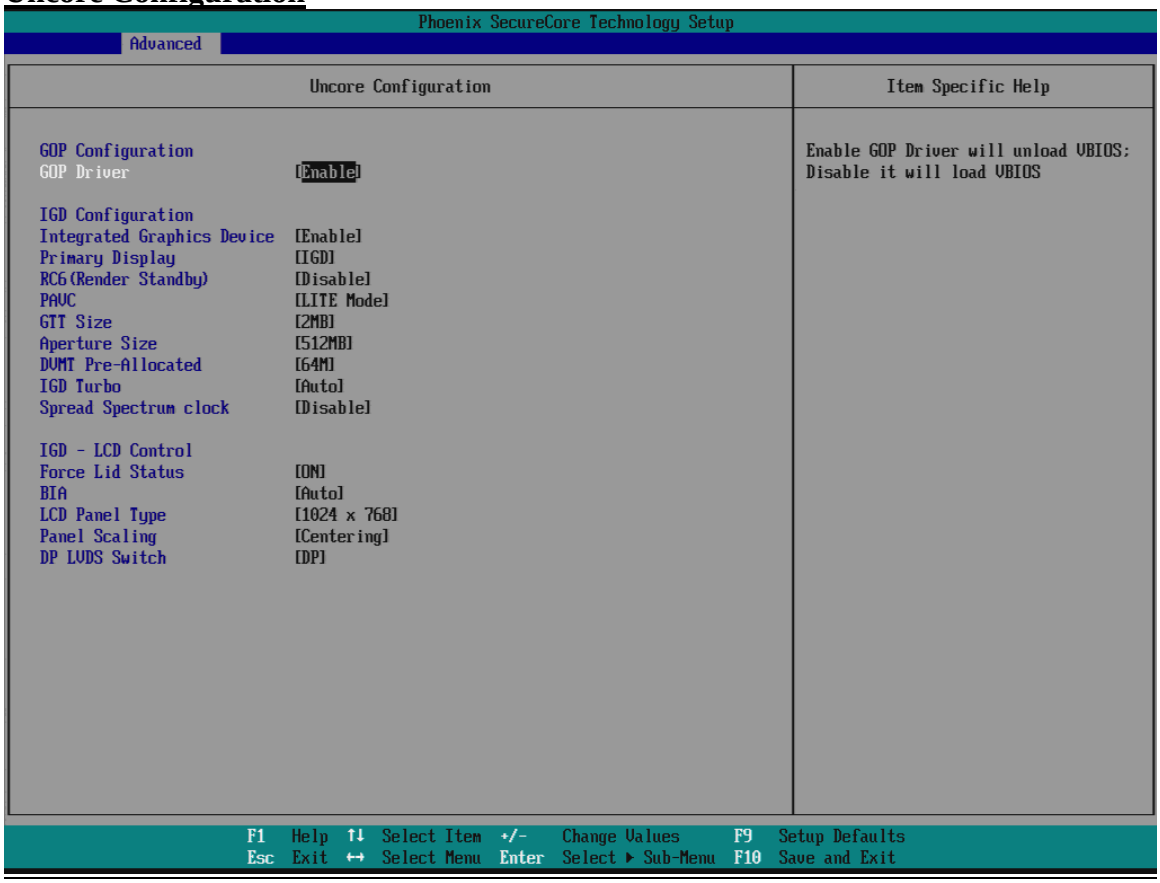
Intel® SpeedStep™
Enable processor performance status (P-Status)
Choices: Disabled, Enabled.

Boot performance mode
Select the performance state that the BIOS will set before OS handoff
Choices: Max Performance, Max Battery.

Intel® Turbo Boot Technology
Enable to automatically allow processor cores to run faster than the base operation frequency if it's operating below power, current, and temperature specification limits.
Choices: Disable, Enable.
C-States
Enable/Disable C States

Choices: Disable, Enable.

Uncore Configuration



GOP Driver

Enable GOP Driver will unload VBIOS; Disable it will load VBIOS
Choices: Enable, Disable.

Integrated Graphic Device

Enable: Enable Integrated Graphics Device (IGD) when selected as the Primary Video Adapter. Disable: Always disable IGD
Choices: Disable, Enable.

Primary Display

Select which of IGD/PCI Graphics device should be Primary Display. Or select SG for switchable / Hybrid Gfx.
Choices: Auto, IGD, PCIe, SG.

RC6 (Rander Standby)

Check to enable render standby support
Choices: Enable, Disable.

PAVC

Enable/Disable Protected Audio Video control.
Choices: Disable, LITE Mode, SERPENT Mode.

GTT Size
Select the GTT Size
Choices: 1MB, 2MB.

Aperture Size
Select the Aperture Size
Choices: 128MB, 256MB, 512MB.

DVMT Pre-Allocated
Select DVMT 5.0 Pre-Allocated (Fixed) Graphics Memory sized used by the Internal Graphic Device
Choices: 32M, 64M, 96M, 128M, 160M, 192M, 224M, 256M, 288M, 320M, 352M, 384M,416M, 448M, 480M, 512M.

IGD Turbo
Select the IGD turbo feature, if auto selected, IGD turbo will only be enabled when SOC stepping is B0 or above.
Choices: Auto, Enable, Disable.

Spread Spectrum clock
Enable clock chip Spread Spectrum feature
Choices: Disable, Enable.

Force Lid States
For test: Force to set lid status as on or off
Choices: OFF, ON.

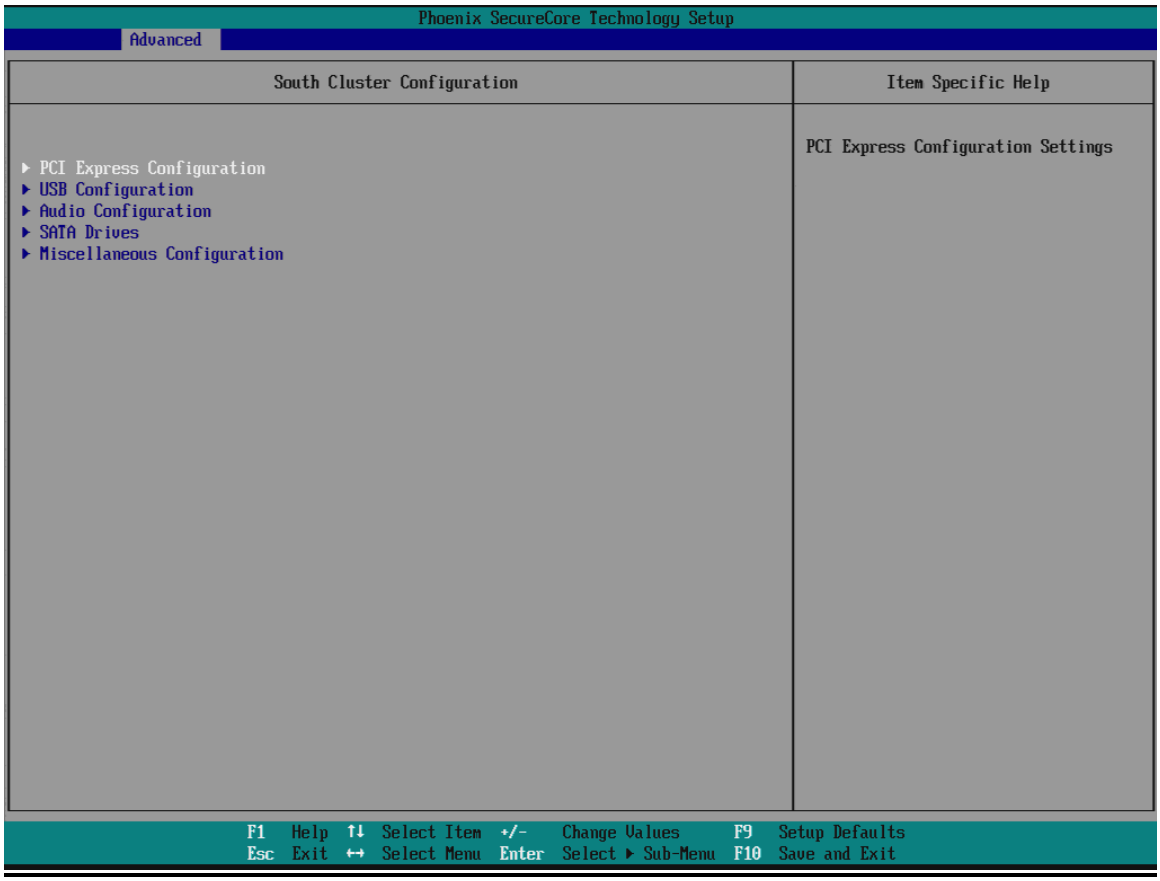
BIA
Auto: GMCH use VBIOS default, Level n: Enable with selected aggressiveness level.
Choices: Auto, Disable, Level 1, Level 2, Level 3, Level 4, Level 5.

LCD Panel type
Choices: 640 x 480, 800 x 600, 1025 x 768, 1280 x1024, 1400 x1050, 1600 x 1200, 1360 x768, 1680 x 1050, etc.

Panel Scaling
Select the LCD Panel scaling option used by Internal Graphic device
Choices: Auto, Centering, Stretching.

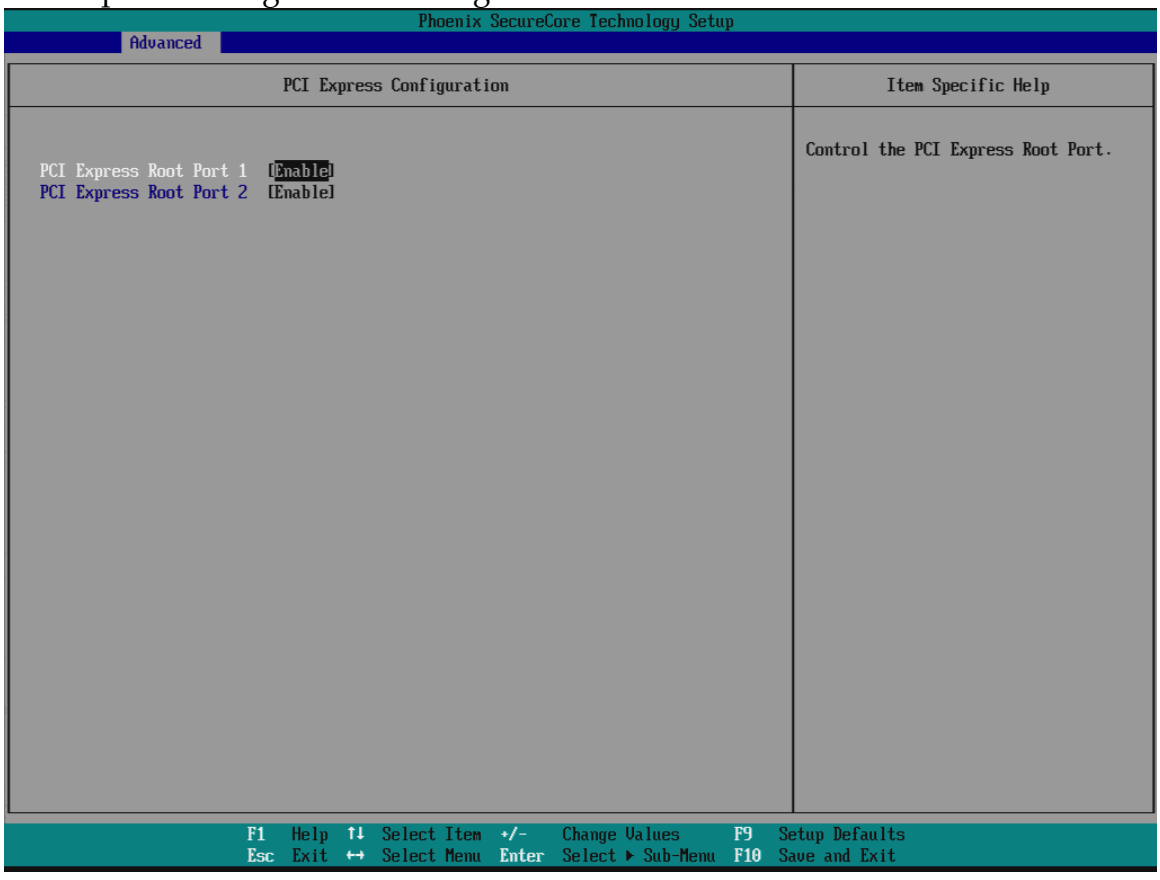
DP LVDS Switch
Choices: DP, LVDS.

South Cluster Configuration



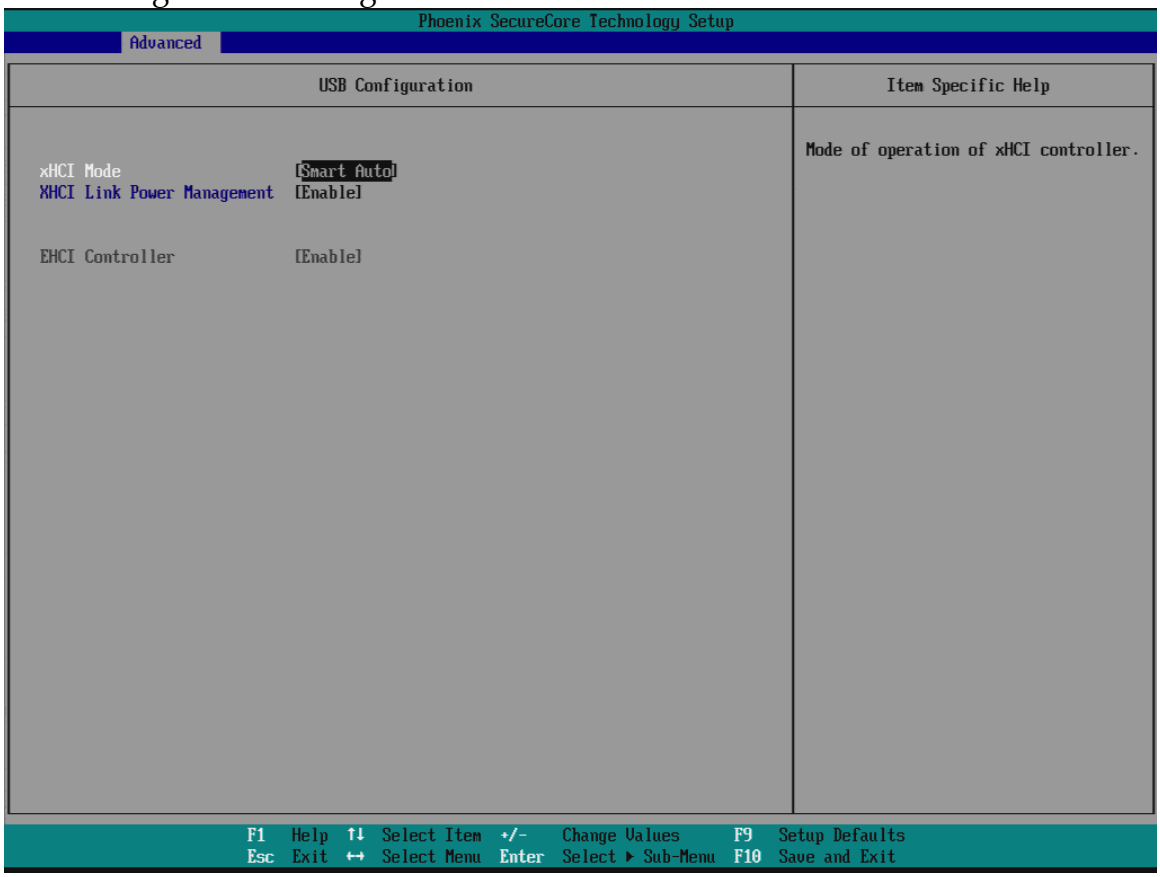
PCI Express Configuration

PCI Express Configuration Settings



PCI Express Root Port #1 - #2
Control PCI Express root port
Choices: Enable, Disable.

USB Configuration
USB Configuration settings

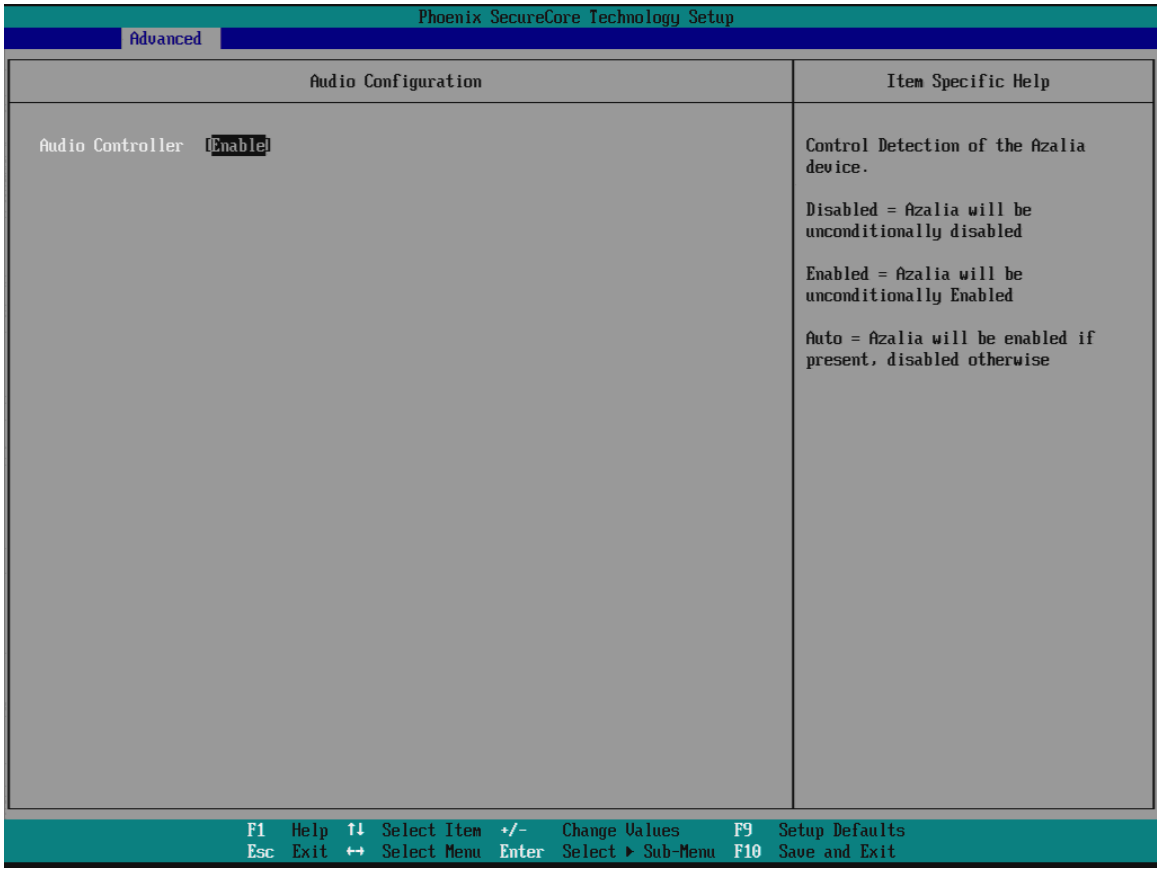


xHCI Mode
Mode of operation of xHCI controller
Choices: Smart Auto, Auto, Enable, Disable.

xHCI Link Power Management
Enable/Disable xHCI Link Power Management
Choices: Enable, Disable.

EHCI Controller
Control the USB EHCI (USB 2.0) function.
Choices: Enable, Disable.

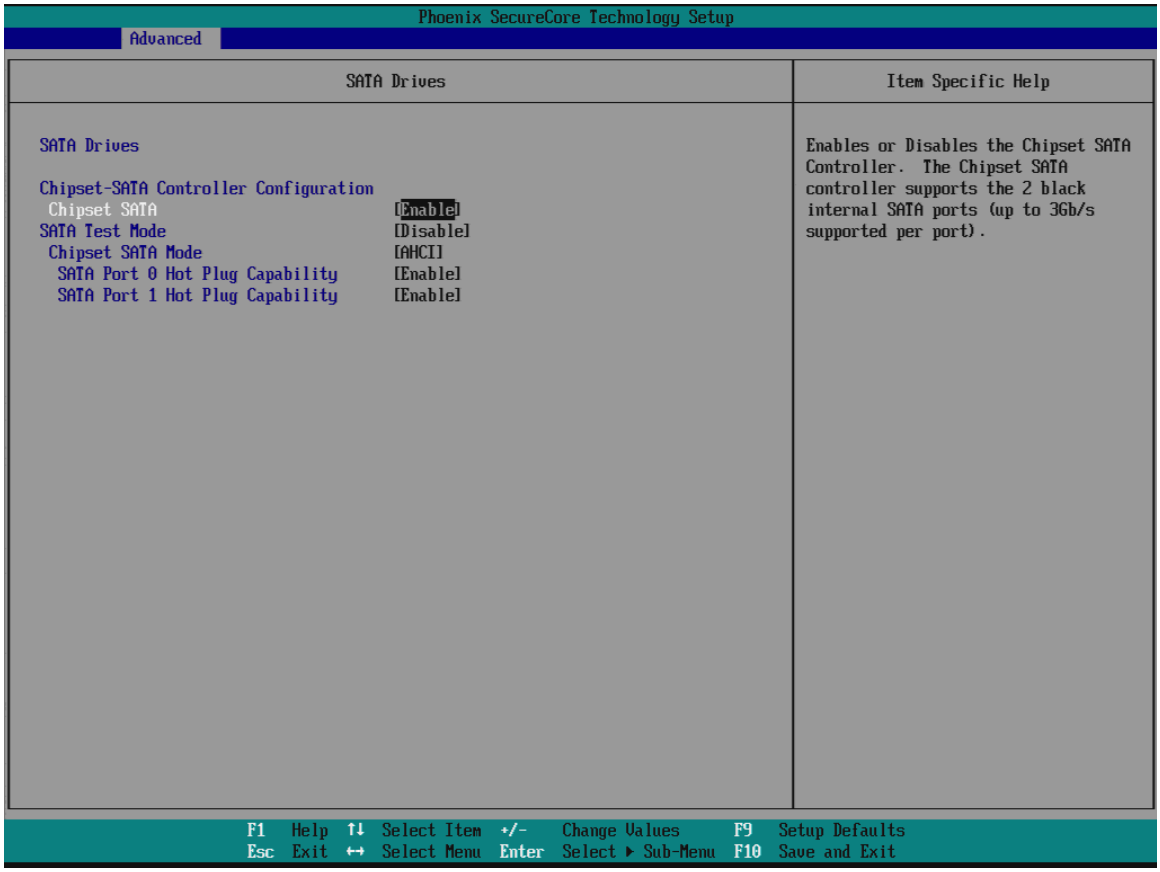
Audio Configuration
Audio Configuration Settings



Audio Controller
Control Detection of the Azalia device.

Disabled = Azalia will be unconditionally disabled.
Enabled = Azalia will be unconditionally enabled.
Auto = Azalia will be enabled if present. Disable otherwise
Choices: Disable, Enable.

SATA Drives
Press<Enter> to select the SATA Device Configuration Setup options.



Chipset SATA

Enables or Disables the Chipset SATA Controller. The Chipset SATA controller supports the 2 black internal SATA ports (up to 3 Gb/s supported per port).
Choices: Enable, Disable.

SATA Test Mode

Test Mode Enable/Disable
Choices: Enable, Disable.

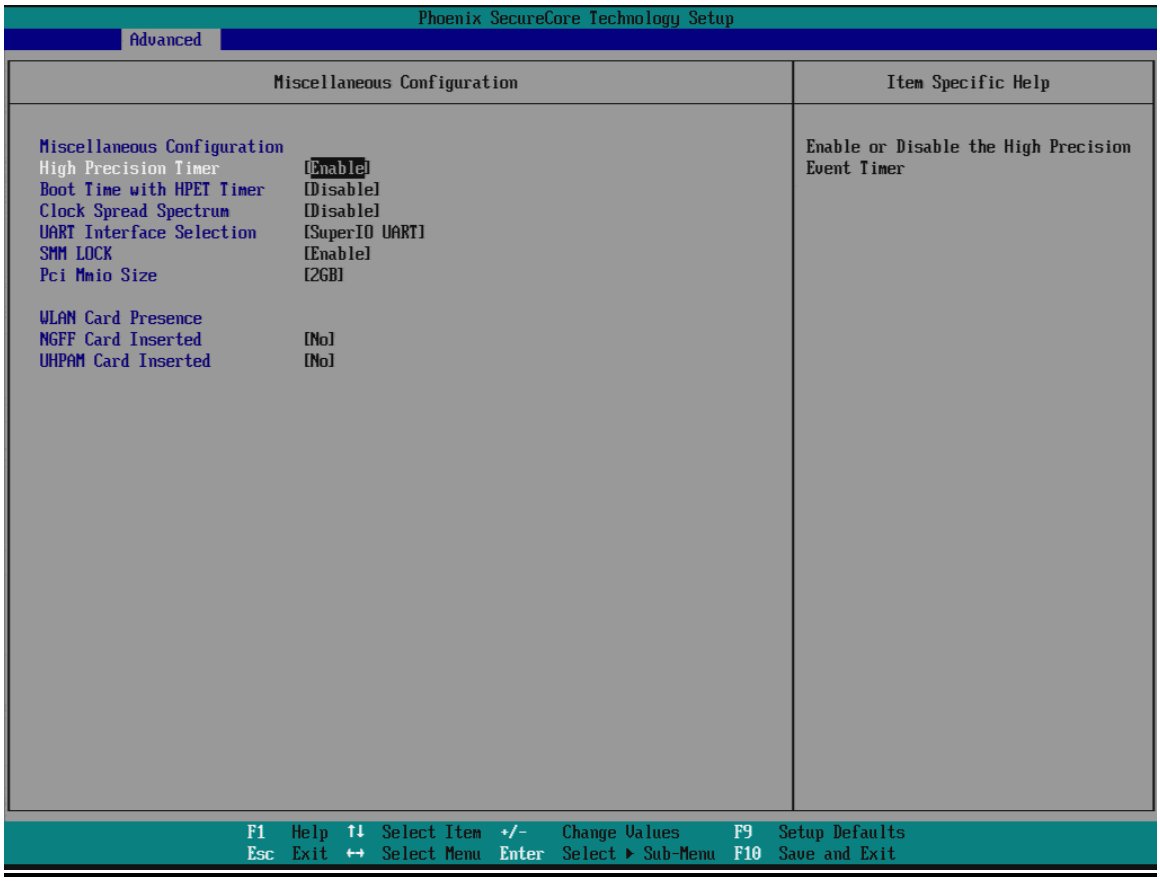
Chipset SATA Mode

IDE: Compatibility mode disables.
AHCI support: Supports advanced SATA features such as Native Command Queuing.
Warning: OS may not boot if this setting is changed after OS install.
Choices: IDE, AHCI.

Serial Port 0/1 Hot Plug Capability

If enabled, SATA port 0/1 will be reported as Hot Plug capable.
Choices: Enable, Disable.

Miscellaneous Configuration



High Precision Timer

Enable or Disable the High Precision Event Timer.
Choices: Disable, Enable.

Boot Time with HPET Timer

Boot time calculation with High Precision Event Timer enable.
Choices: Disable, Enable.

Clock Spread Spectrum

Enable Clock Chip's Spread Spectrum feature.
Choices: Disable, Enable.

UART Interface Selection

Select which UART interface to use.
Choices: Intermal UART, SuperIO UART.

SMM LOCK

Enable/Disable SMM Lock feature. It will lock the SMRAM and unable load SMM
driver any more.
Choices: Disable, Enable.

Pci Mmio Size

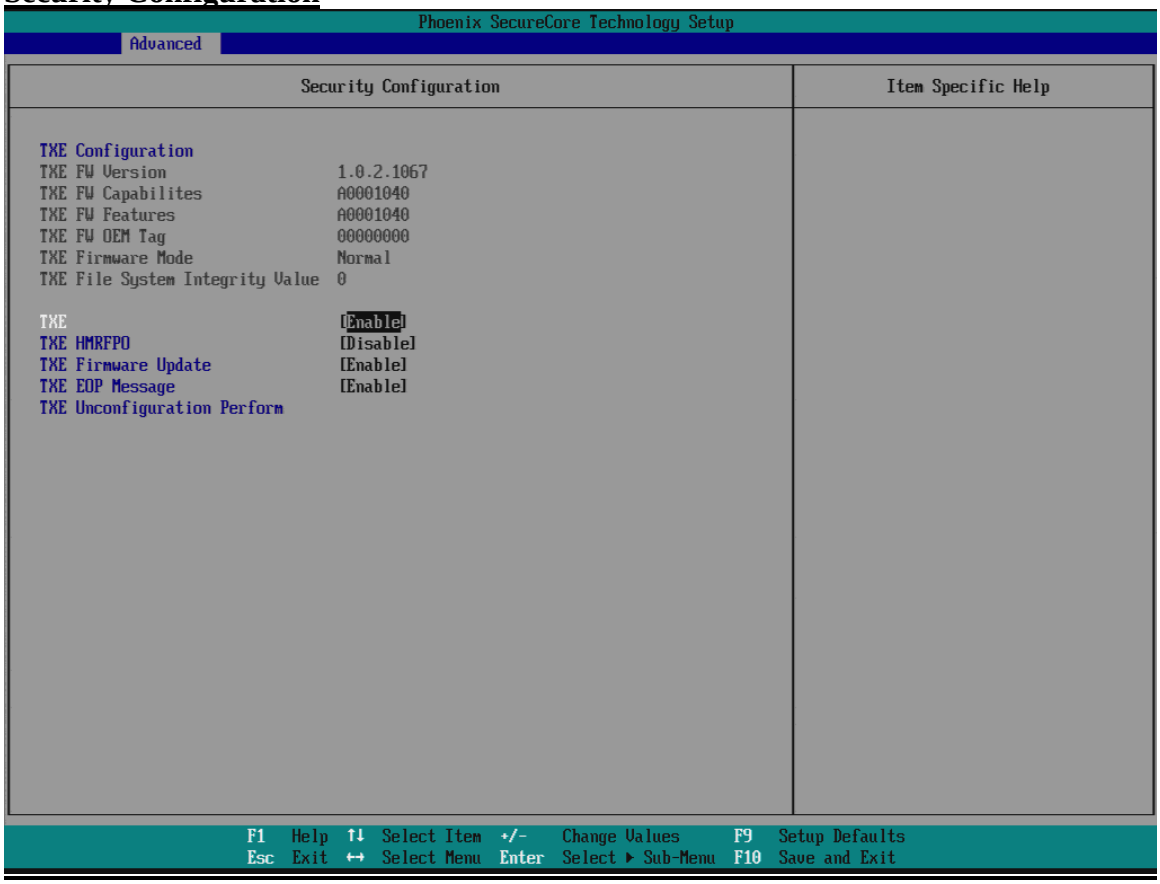
Pci Mmio Size.

Choices: 2 GB, 1.5 GB, 1.25 GB, 1GB.

NGFF Card Inserted
Set "YES" if NGFF Card is inserted.
Choices: No, Yes.

UHPAM Card Inserted
Set "YES" if UHPAM Card is inserted.
Choices: No, Yes.

Security Configuration



TXE
Choices: Disable, Enable.

TXE HMRFPO
Choices: Disable, Enable.

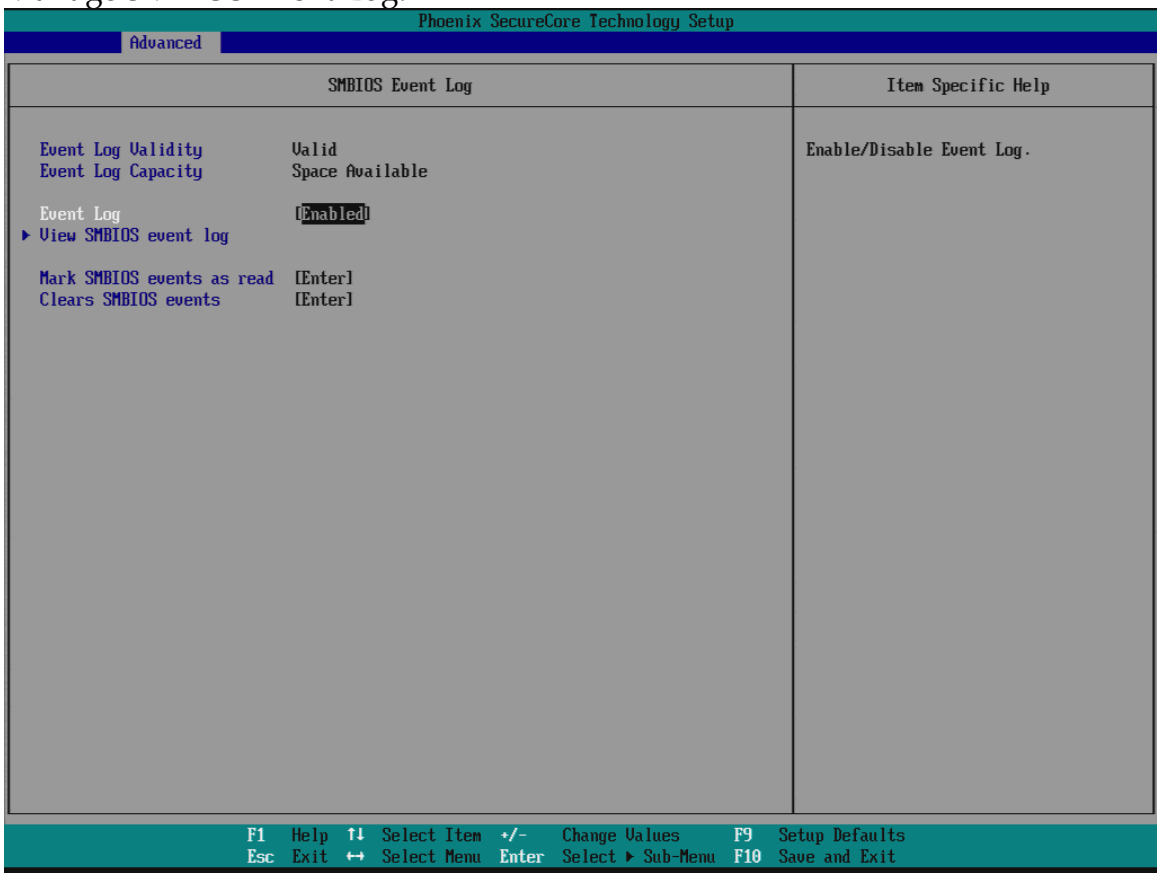
TXE Firmware Update
Choices: Disable, Enable.

TXE EOP Message
Choices: Disable, Enable.

TXE Unconfiguration Perform

Choices: No, Yes.

SMBIOS Event Log
Manage SMBIOS Event Log.

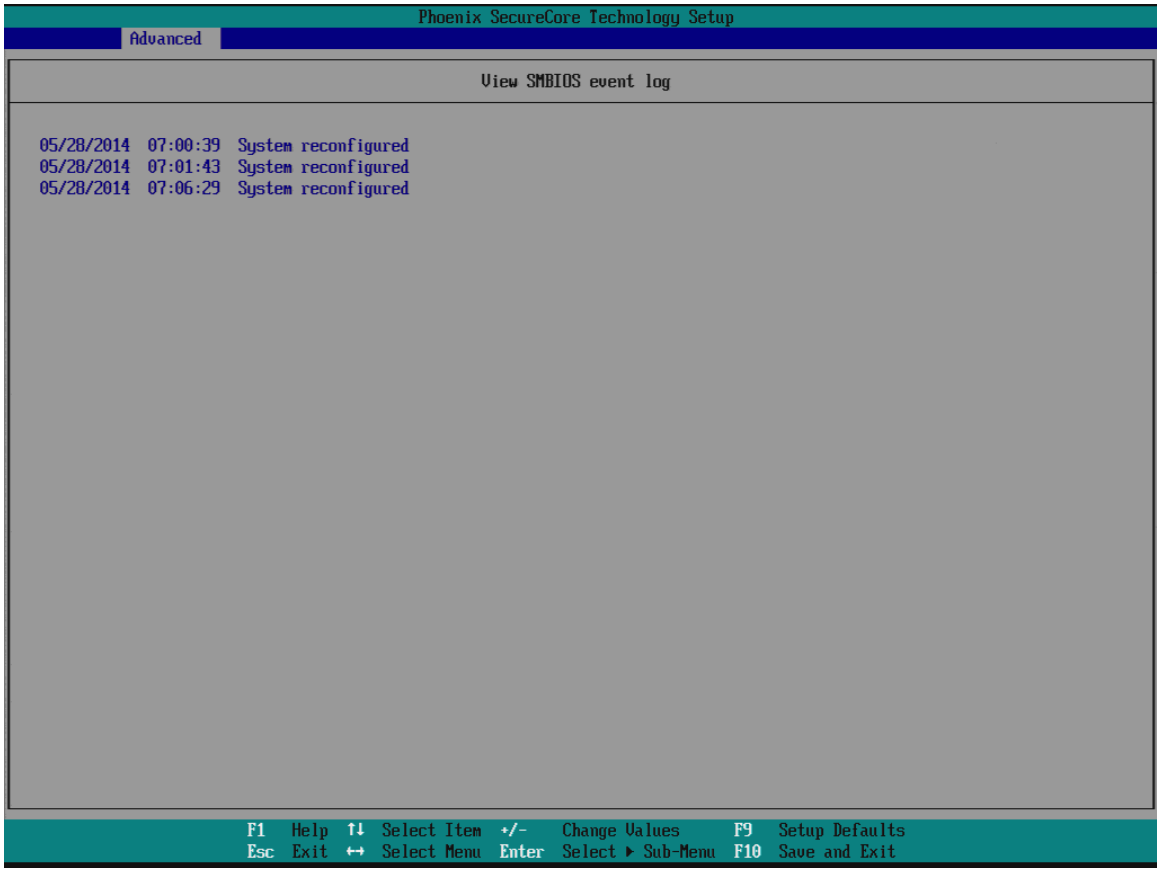


Event Log
Enable/Disable Event Log.
Choices: Disable, Enable.

Mark SMBIOS events as read
Mark SMBIOS events as read. Marked SMBIOS events won't be displayed.
Choices: No, Yes.

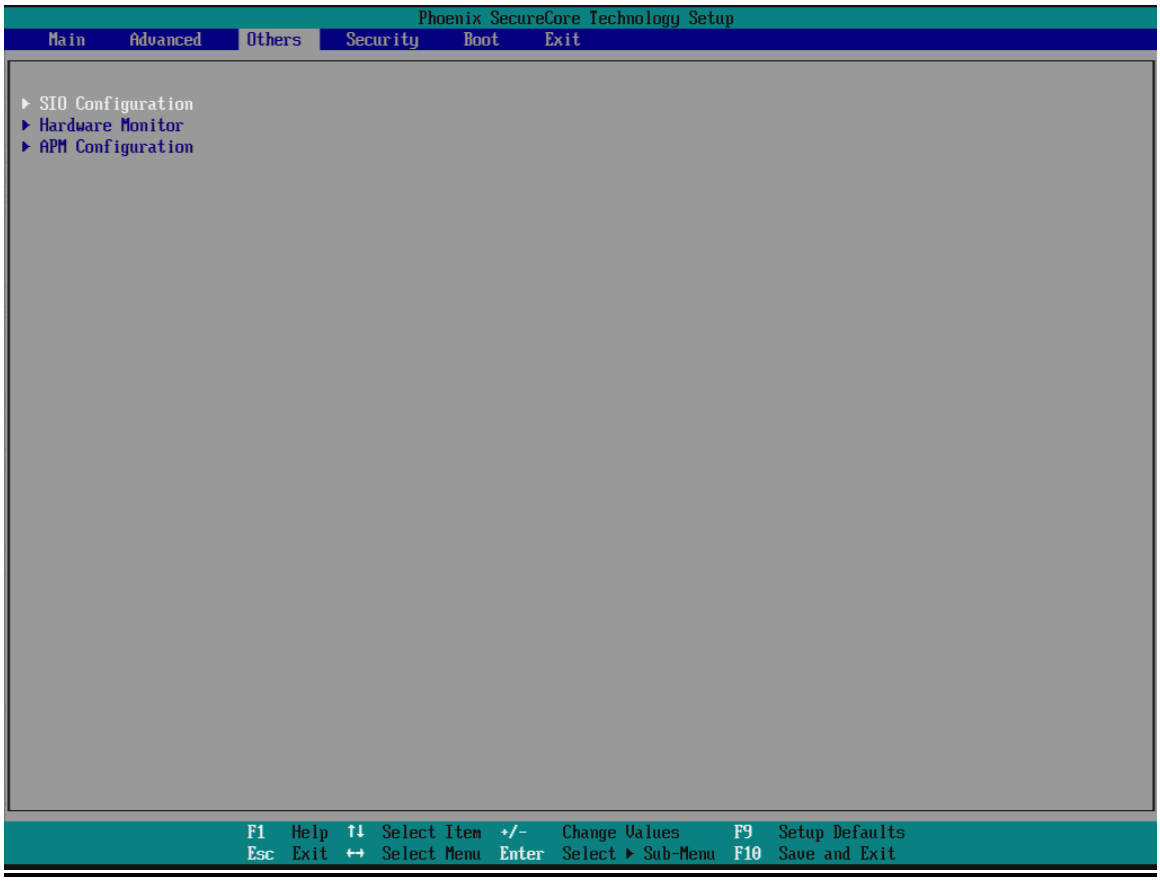
Clears SMBIOS events
Clears SMBIOS events.
Choices: No, Yes.

View SMBIOS event log
View SMBIOS event log

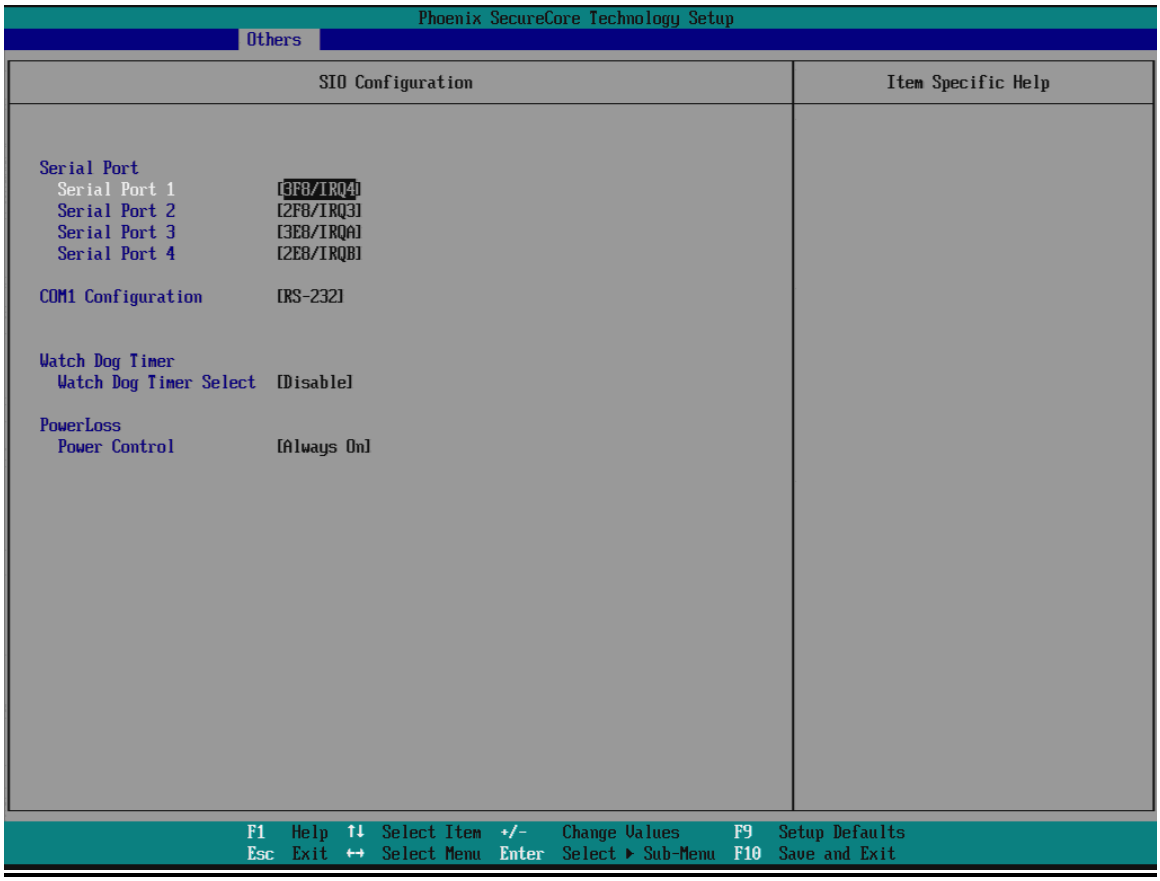


3.4 Other

Others



SIO Configuration



Serial Port 1
Choices: Disable, 3F8/IRQ4.

Serial Port 2
Choices: Disable, 2F8/IRQ3.

Serial Port 3
Choices: Disable, 3F8/IRQA.

Serial Port 4
Choices: Disable, 2F8/IRQB.

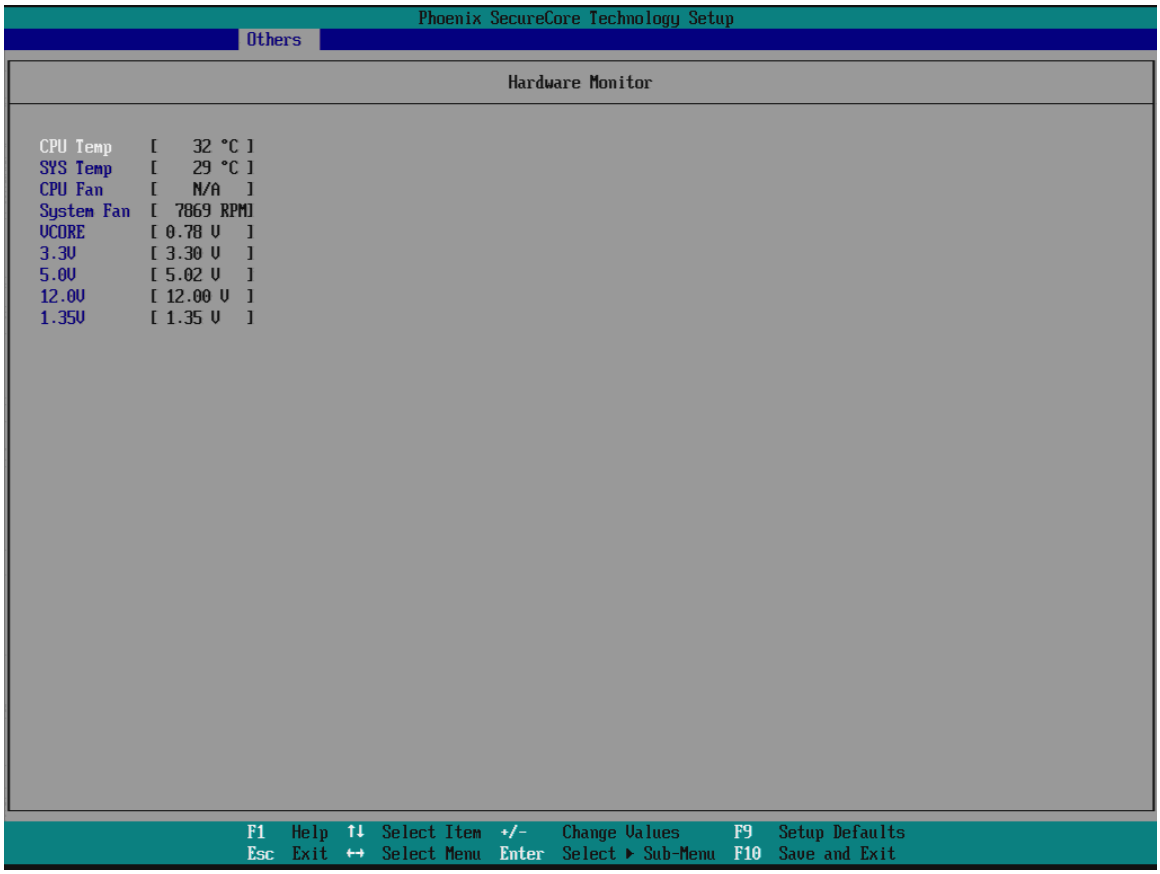
COM1 Configuration
Select COM1 Configuration.

Choices: RS-232, RS-422, RS-485.

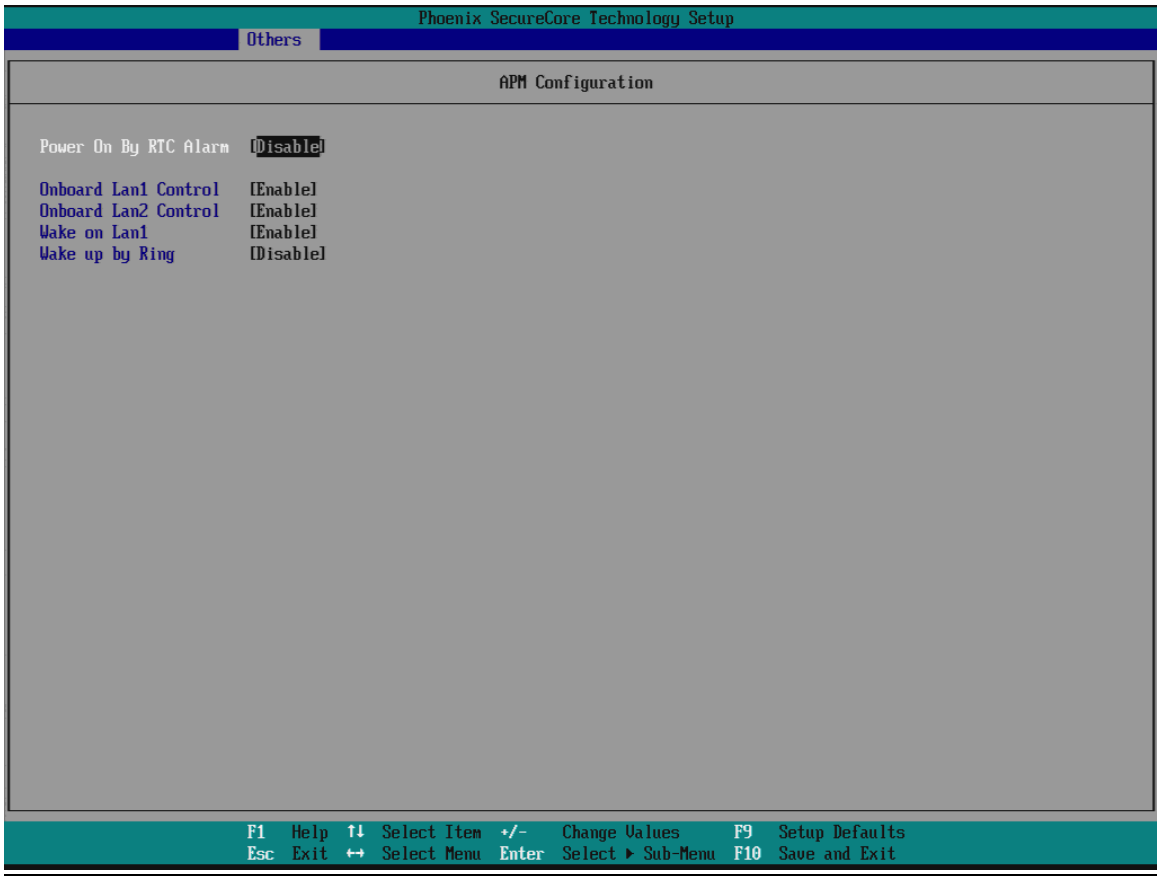
Watch Dog Timer Select
Choices: Disable, 15 secs, 30 secs, 1 min, 2 mins, 3 mins.

Power Control
Choices: Former State, Always On, Always Off.

Hardware Monitor



APM Configuration



Power On By RTC Alarm
Choices: Disable, Enable.

Wake on LAN1
Choices: Disable, Enable.

Wake on LAN2
Choices: Disable, Enable.

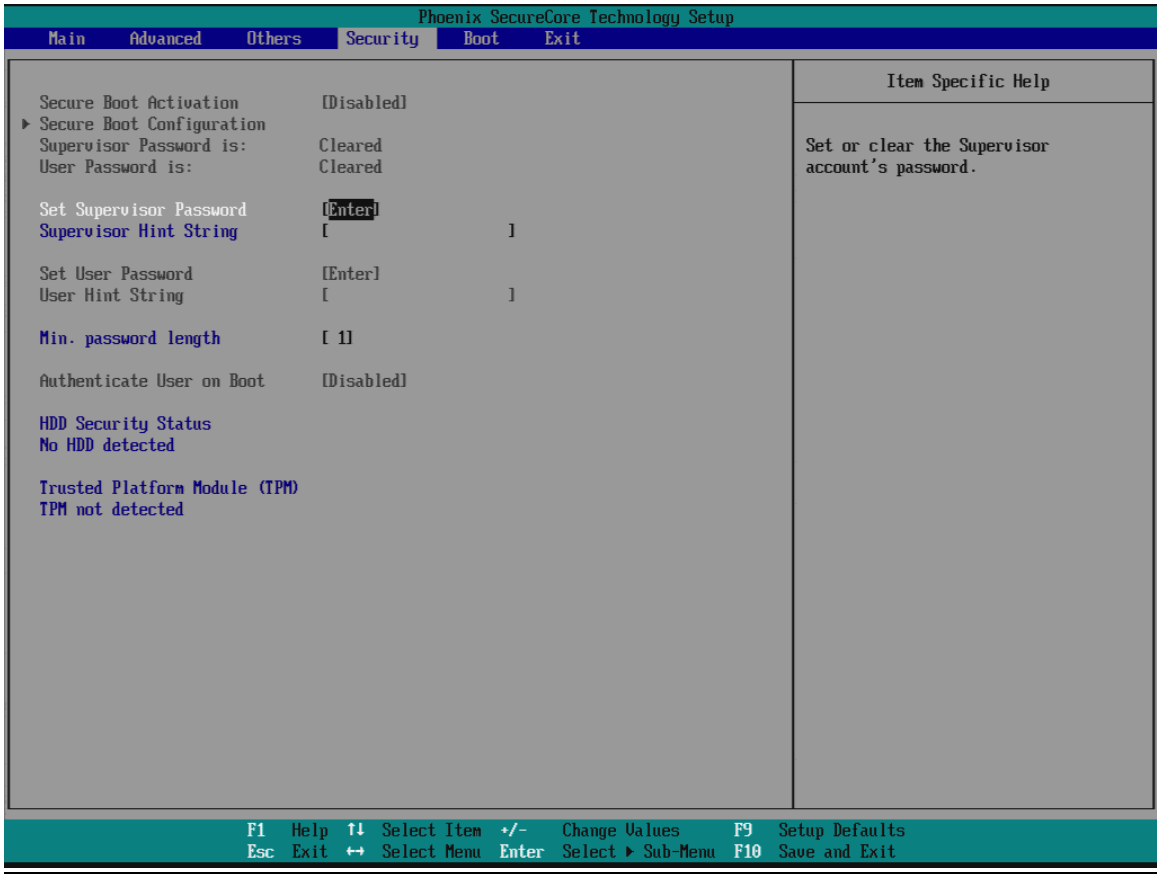
Wake on LAN1
Choices: Disable, Enable.

Wake up by Ring
Choices: Disable, Enable.

3.5 Security

This section lets you set security passwords to control access to the system at boot time and/or when entering the BIOS setup program. Some systems have a single password, while many newer ones now have two: a supervisor and a user password.

Security



Set Supervisor Password
Set or clear the Supervisor account's password.

Supervisor Hint String
Press Enter to type Supervisor Hint String.

Set User Password (Show only)
Set or clear the User account' password.

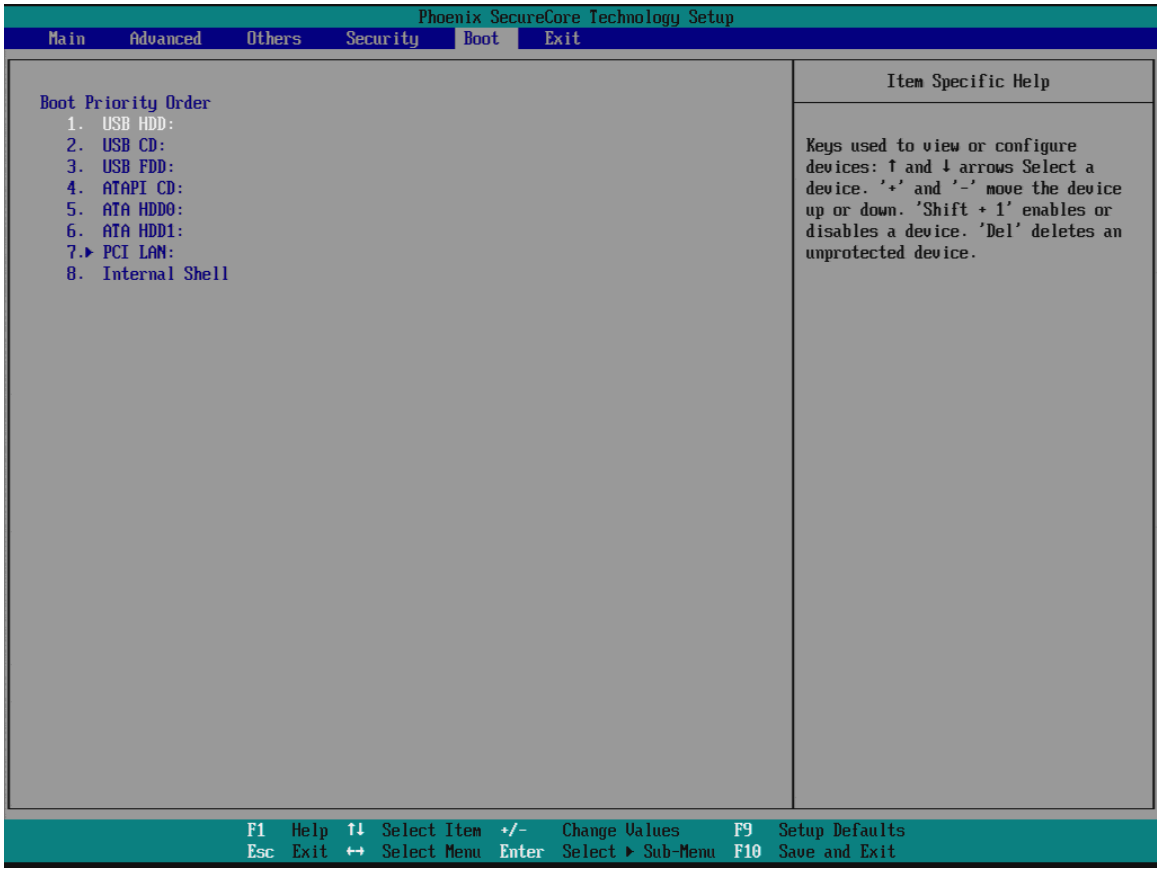
Supervisor Hint String (Show only)
Press Enter to type User Hint String.

Min. password length
Set the minimum number of characters for password (1-20).
Choices: 0, 1.etc

3.6 Boot

Use this menu to specify the priority of boot devices.

Boot

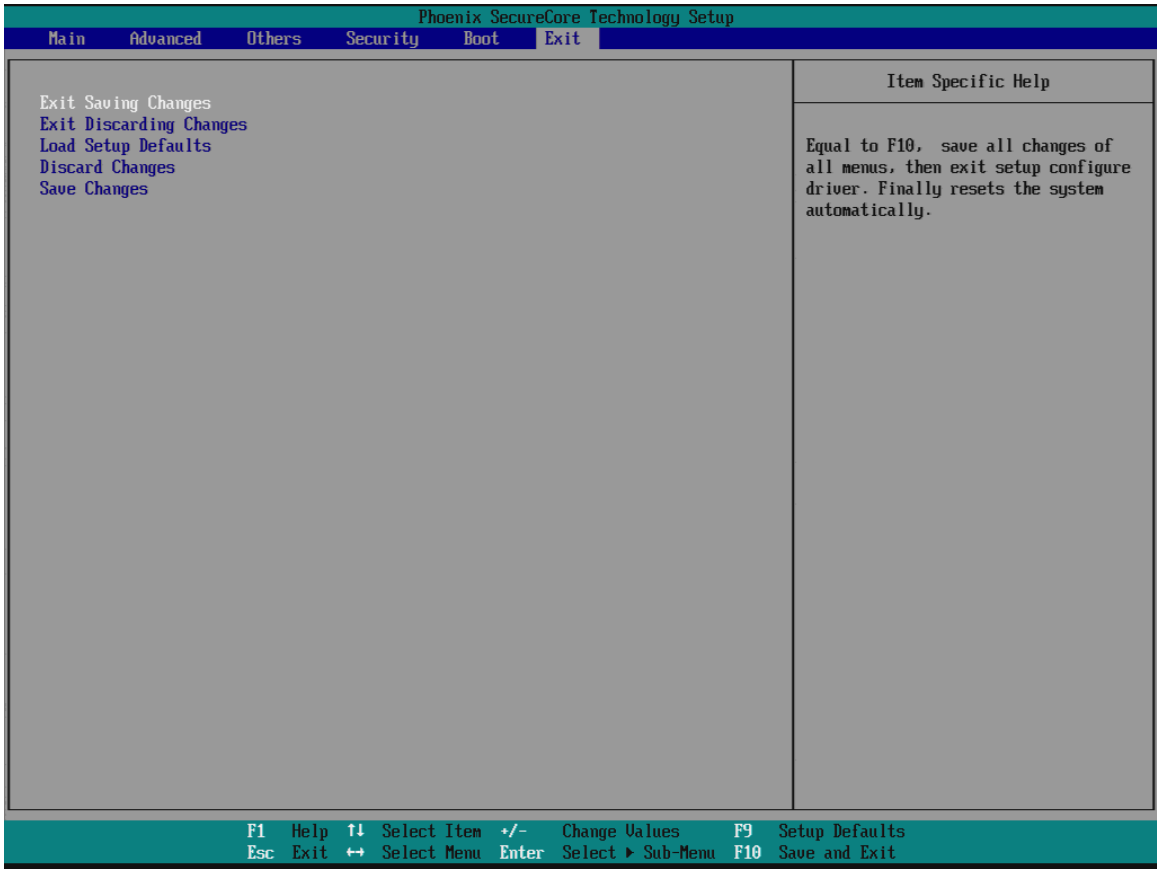


Boot Priority Order

Keys used to view or configure devices: ↑ and ↓ arrows Select a device. '+' and '-'move the device up or down. 'Shift + 1' enabled or disables a device. 'Del' deletes an unprotected device.

3.7 Exit

This menu allows you to load the BIOS default values or factory default settings into the BIOS and exit the BIOS setup utility with or without changes.



Exit Saving Changes
Equal to F10, save all changes of all menus, then exit setup configure driver. Finally resets the system automatically.

Exit Discarding Changes
Equal to ESC, never save changes, then exit setup configure driver.

Load Setup Defaults
Equal to F9. Load standard default values.

Discard Changes
Load the original value of this boot time. Not the default Setup value.

Save Changes
Save all changes of all menus, but do not reset system.

Chapter 4
Important Instructions

This chapter includes instructions which must be carefully followed when the fan-less embedded system is used.

4.1 Note on the Warranty

Due to their limited service life, parts which, by their nature, are especially subject to wear are not included in the guarantee beyond the legal stipulations.

4.2 Exclusion of Accident Liability Obligation

Portwell, Inc. shall be exempt from the statutory accident liability obligation if users fail to abide by the safety instructions.

4.3 Liability Limitations / Exemption from the Warranty Obligation

In the event of damage to the system unit caused by failure to abide by the hints in this manual and on the unit (especially the safety instructions), Portwell, Inc. shall not be required to respect the warranty even during the warranty period and shall be free from the statutory accident liability obligation.

4.4 Declaration of Conformity

EMC

CE/FCC Class A

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

1. This equipment may not cause harmful interference.
2. This equipment must accept any interference that may cause undesired operation.

Applicable Standards:

EN 55022: 2006 + A1: 2007, Class A
EN 61000-3-2: 2006
EN 61000-3-3: 1995 + A1: 2001 + A2: 2005
EN 55024: 1998 + A1: 2001 + A2: 2003
IEC 61000-4-2: 2008
IEC 61000-4-3: 2006 + A1: 2007
IEC 61000-4-4: 2004
IEC 61000-4-5: 2005
IEC 61000-4-6: 2007
IEC 61000-4-8: 1993 + A1: 2000
IEC 61000-4-11: 2004
FCC 47 CFR Part 15 Subpart

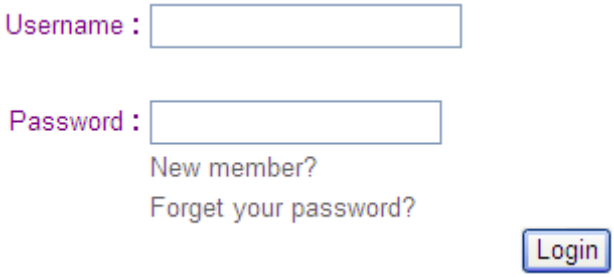
Chapter 5
Frequent Asked Questions

Q1: How to update the BIOS file of the WEBS-3392?

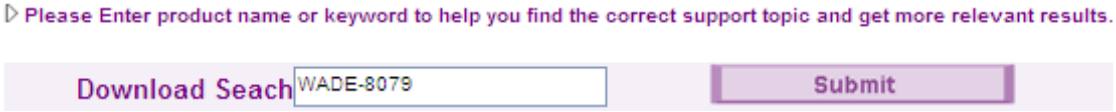
Answer:

1. Please visit web site of the **Portwell Download Center** as below hyperlink
http://www.portwell.com.tw/support/download_center.php
Then you must register an account first.
http://www.portwell.com.tw/member/newmember.php (The E-Mail box should be an existing Company email address that you check regularly.)

2. Input your User name and password to log in the download center.



3. Select the **"Search download"** to input the keyword **"WADE-8079" or "WEBS-3392"**.

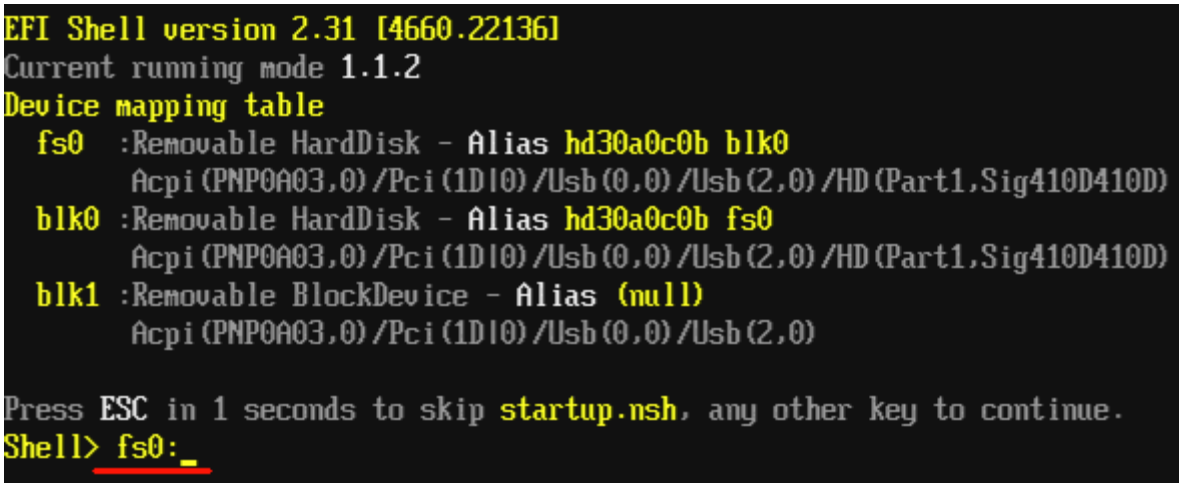


4. Find the **"BIOS"** page to download the ROM file and flash utility.

5. Execute the zip file to root of the bootable USB pen drive. You can get the **"Shell Flash 32.efi"**, **"temp.bin"**, **"Update.nsh"** three files.

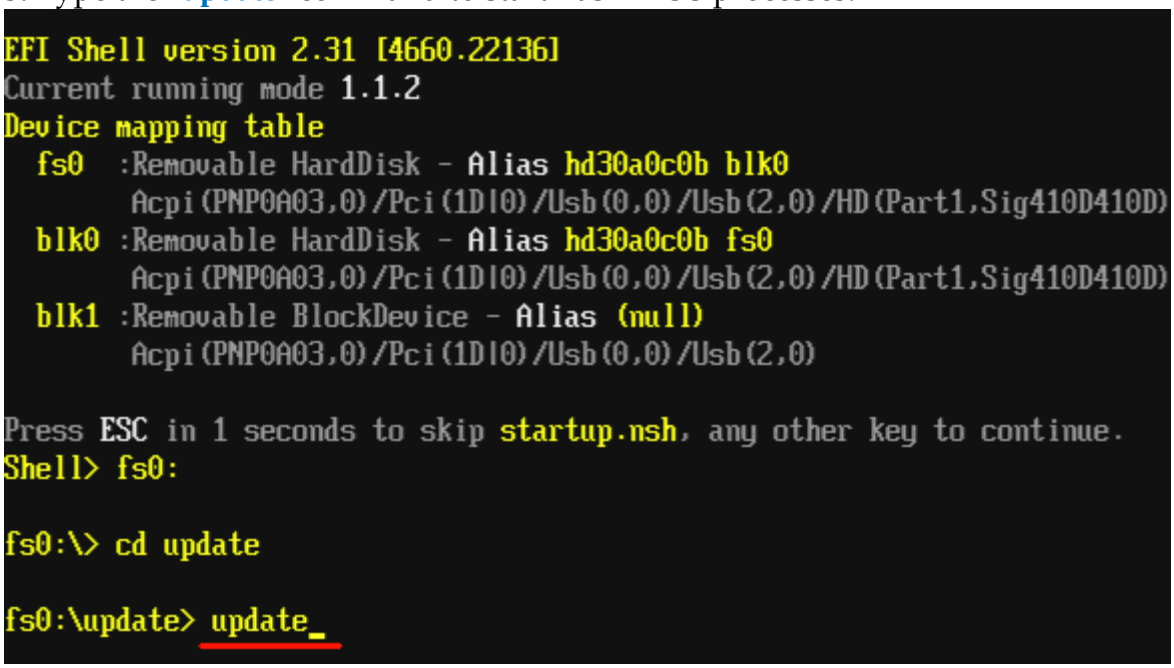
6. Insert your USB pen drive in USB port of the WEBS-3392 system and power-on.

7. Boot to EFI-Shell mode then input the **"fs0:"** command to switch to the root of the USB pen drive.



8. Enter the folder you save update image by command [cd "folder name"], in this case is [cd update]

9. Type the "**update**" command to start flash BIOS processes.



10. When it finished all update processes, please reboot your system around 5 seconds.

11.

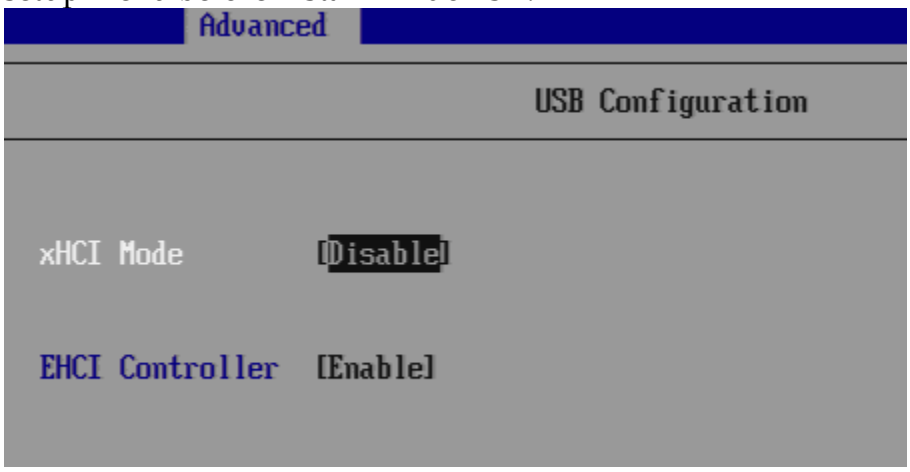
```
- Programming Flash [0x73A000]    4KB of    4KB - 100% complete.
- Erasing Flash Block [0x752000] - 100% complete.
- Programming Flash [0x752000]    4KB of    4KB - 100% complete.
- Erasing Flash Block [0x758000] - 100% complete.
- Programming Flash [0x758000]    4KB of    4KB - 100% complete.
- Erasing Flash Block [0x75B000] - 100% complete.
- Programming Flash [0x75B000]    4KB of    4KB - 100% complete.
- Erasing Flash Block [0x75D000] - 100% complete.
- Programming Flash [0x75D000]    4KB of    4KB - 100% complete.
- Erasing Flash Block [0x77F000] - 100% complete.
- Programming Flash [0x77F000]  124KB of  124KB - 100% complete.
- Erasing Flash Block [0x7EE000] - 100% complete.
- Programming Flash [0x7EE000]   36KB of   36KB - 100% complete.
- Verifying Flash [0x800000] 8192KB of 8192KB - 100% complete.
RESULT: The data is identical.

FPT Operation Passed


fs0:\update> _
```

12. Please press the **"F2"** key to BIOS setup menu to select **"Load Setup Defaults"** and then select **"Exit Saving Changes"** option to finish all BIOS flash processes.

Q2: How to install USB 3.0 Windows 7 driver of the WEBS-3392?

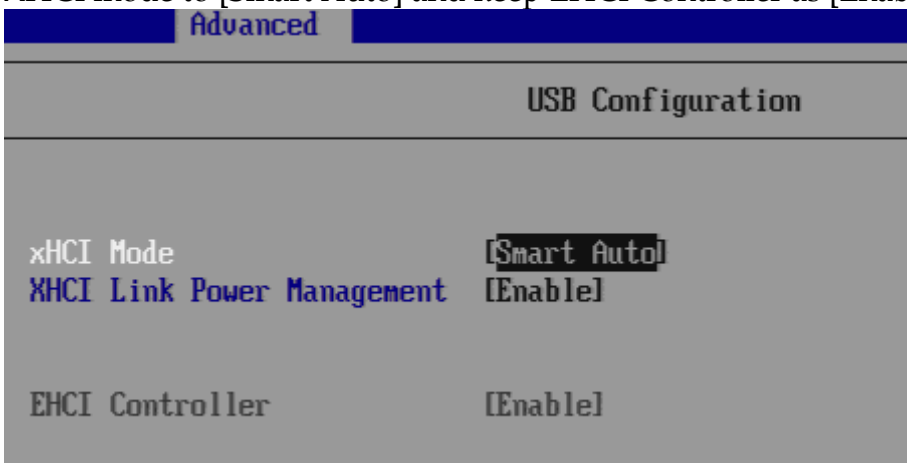
Answer:
Because of the WEBS-3392 is Bay Trail platform, USB 3.0 driver need to use the other method to install USB 3.0 driver on windows 7, but windows 8 OS doesn't.

Step1. You must disable the XHCI mode and enable the EHCI Controller from BIOS setup menu before install windows 7.

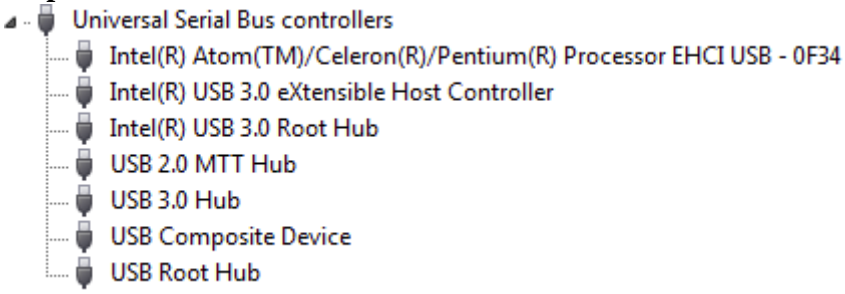


Step2. After complete the Windows 7 installation then change the BIOS setting of

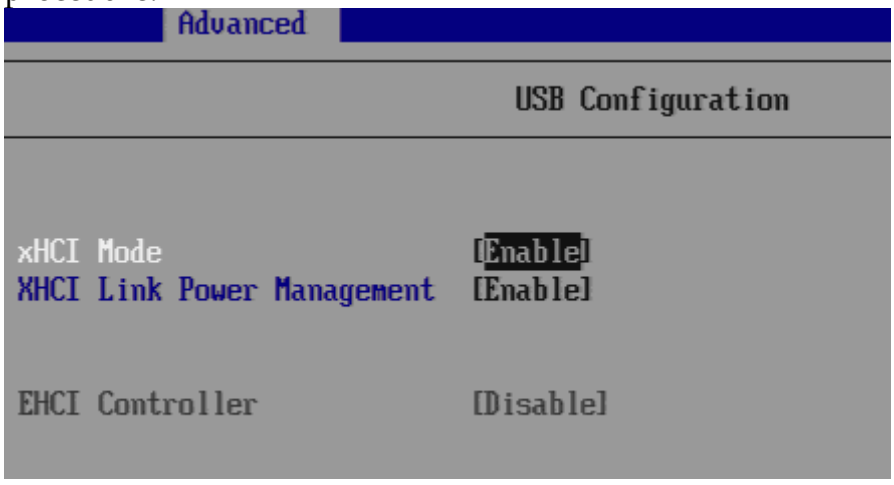
XHCI mode to [Smart Auto] and keep EHCI Controller as [Enable].



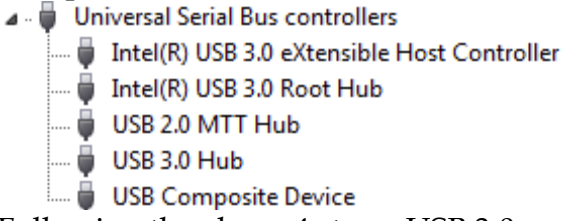
Step3. Then Boot into windows 7 and install the USB 3.0 driver.



Step4. After USB 3.0 driver installed completely, you have to change the BIOS setting of XHCI mode to [Enable] and EHCI Controller to [Disable], and then complete the procedure.



Complete the USB 3.0 driver installation.



Following the above 4 steps, USB 3.0 can work properly on Windows 7 OS.