

User Manual

DS-270

**Advanced Graphic Performance
OPS Computing Player with
Intel J1900 Processor**

ADVANTECH

Enabling an Intelligent Planet

Copyright

The documentation and the software included with this product are copyrighted 2015 by Advantech Co., Ltd. All rights are reserved. Advantech Co., Ltd. also reserves the right to improve the products described in this manual at any time without notice. No part of this manual may be reproduced, copied, translated, or transmitted in any form or by any means without the prior written permission of Advantech Co., Ltd. Information provided in this manual is intended to be accurate and reliable. However, Advantech Co., Ltd. assumes no responsibility for its use, nor for any infringements on the rights of third parties that may result from its use.

Acknowledgements

Award is a trademark of Award Software International, Inc.

IBM, PC/AT, PS/2 and VGA are trademarks of International Business Machines Corporation.

Intel® and ATOM® are trademarks of Intel Corporation.

RTL is a trademark of Realtek Semi-Conductor Co., Ltd..

ESS is a trademark of ESS Technology, Inc.

UMC is a trademark of United Microelectronics Corporation.

SMI is a trademark of Silicon Motion, Inc.

Creative is a trademark of Creative Technology LTD.

CHRONTEL is a trademark of Chrontel Inc.

All other product names or trademarks are properties of their respective owners.

For more information about this and other Advantech products, please visit our website at <http://www.advantech.com/>

For technical support and services, please visit our support website at <http://support.advantech.com.tw/support/>

Product Warranty (2 years)

Advantech warrants the original purchaser that each of its products will be free from defects in materials and workmanship for two years from the date of purchase.

This warranty does not apply to any products that have been repaired or altered by persons other than repair personnel authorized by Advantech, or products that have been subject to misuse, abuse, accident, or improper installation. Advantech assumes no liability under the terms of this warranty as a consequence of such events.

Because of Advantech's high quality-control standards and rigorous testing, most customers never need to use our repair service. If an Advantech product is defective, it will be repaired or replaced at no charge during the warranty period. For out-of-warranty repairs, customers are billed according to the cost of replacement materials, service time, and freight. Please consult your dealer for more details.

If you suspect your product to be defective, follow the steps listed below:

1. Collect all information about the problem encountered (for example, CPU speed, Advantech products used, other hardware and software used, etc.). Note anything abnormal and list any onscreen messages displayed when the problem occurs.
2. Call your dealer and describe the problem. Please have the manual, product, and any relevant information readily available.
3. If your product is diagnosed as defective, obtain an RMA (return merchandise authorization) number from your dealer. This allows us to process your return more quickly.
4. Carefully pack the defective product, a completed Repair and Replacement Order Card, and proof of the purchase date (such as a photocopy of your sales receipt) in a shippable container. Products returned without proof of purchase date are not eligible for warranty service.
5. Write the RMA number clearly on the outside of the package; then ship the product prepaid to your dealer.

Declaration of Conformity

FCC Class B

Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules.

These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

Technical Support and Assistance

1. Visit the Advantech website at <http://support.advantech.com> for the latest product information.
2. Contact your distributor, sales representative, or Advantech's customer service center for technical support if you require additional assistance. Please have the following information ready before calling:
 - Product name and serial number
 - Description of your peripheral attachments
 - Description of your software (operating system, version, application software, etc.)
 - A complete description of the problem
 - The exact wording of any error messages

Warnings, Cautions, and Notes

Warning! *Warnings indicate conditions, which if not observed, can cause personal injury!*



Caution! *Cautions are included to help users avoid hardware damage and data losses.*



For example,

“New batteries are at risk of exploding if incorrectly installed. Do not attempt to recharge, force open, or heat the battery. Replace the battery only with the same or equivalent type recommended by the manufacturer. Discard used batteries according to the manufacturer's instructions.”

Note! *Notes provide additional information.*



Packing List

Before installation, please ensure that the following items have been shipped:

- 1 x DS-270 unit
- 1 x Simple Chinese User Manual
- 1 x Accessory box
- 1x China RoHS

Safety Instructions

1. Read these safety instructions carefully.
2. Retain this user manual for future reference.
3. Disconnect this equipment from all AC outlets before cleaning. Do not use liquid or spray detergents for cleaning. Instead, use only a damp cloth.
4. For pluggable equipment, the power outlet socket should be located nearby and easily accessible.
5. Protect this equipment from humidity.
6. Place this equipment on a reliable surface during installation. Dropping or letting the equipment fall can cause damage.
7. The openings on the enclosure are for air convection to protect the equipment from overheating. Do not cover the openings.
8. Ensure that power voltage is correct before connecting the equipment to a power outlet.
9. Position the power cord so that people cannot step on it. Do not place anything over the power cord.
10. All cautions and warnings on the equipment should be noted.
11. If not used for a long time, disconnect the equipment from the power source to avoid damage by transient overvoltage.
12. Never pour liquid into the openings. This can cause fire or electrical shock.
13. Never open the equipment. For safety reasons, the equipment should only be opened by qualified service personnel.
14. If one of the following occurs, have the equipment checked by authorized service personnel:
 - The power cord or plug is damaged.
 - Liquid has penetrated the equipment.
 - The equipment has been exposed to moisture.
 - The equipment is malfunctioning, or does not operate according to the user manual.
 - The equipment has been dropped or damaged.
 - The equipment shows obvious signs of breakage.
15. Do not store this equipment in an environment where the temperature fluctuates below -20 °C (-4 °F) or above 60 °C (140 °F) as this can cause damage. The equipment should be stored in a controlled environment.
16. **CAUTION:** Batteries are at risk of exploding if incorrectly installed. Replace only with the same or equivalent type recommended by the manufacturer. Discard used batteries according to the manufacturer's instructions.

The sound pressure at the operator position does not exceed 70 dB (A), as per IEC 704-1:1982.

DISCLAIMER: These instructions are provided according to IEC 704-1. Advantech disclaims all responsibility for the accuracy of all statements contained herein.

Contents

Chapter 1 General Introduction1

1.1	Introduction	2
1.2	Product Features.....	2
1.2.1	Key Features.....	2
1.2.2	Display	2
1.2.3	Power Consumption.....	2
1.3	Hardware Specifications	3
1.4	Mechanical Specifications	4
1.4.1	Dimensions	4
	Figure 1.1 DS-270 Mechanical Dimensions (Unit: mm).....	4
1.4.2	Weight.....	4
1.5	Power Requirements.....	4
1.5.1	System Power:.....	4
1.5.2	RTC Battery:	4
1.6	Environmental Specifications	5
1.6.1	Operating Temperature.....	5
1.6.2	Relative Humidity	5
1.6.3	Storage Temperature.....	5
1.6.4	Vibration Loading During Operation (HDD)	5
1.6.5	Safety.....	5
1.6.6	EMC	5

Chapter 2 Hardware Installation7

2.1	DS-270 I/O Connectors.....	8
2.1.1	Front I/O.....	8
2.1.2	Rear I/O	8
2.2	DS-270 External I/O Connectors.....	8
2.2.1	Power ON/OFF Button.....	8
	Figure 2.1 Power ON/OFF Button	8
2.2.2	USB Connectors	8
	Figure 2.2 USB Connector.....	8
	Table 2.1: USB3.0 Port Pin Assignments.....	9
2.2.3	Ethernet Connector (LAN)	9
	Figure 2.3 Ethernet Connector	9
	Table 2.2: LAN Connector Pin Assignments	9
2.2.4	Audio Connector	9
	Figure 2.4 Line-out.....	9
2.2.5	HDMI.....	10
	Figure 2.5 HDMI Connector.....	10
	Table 2.3: HDMI Pin out	10
2.2.6	JAЕ TX-25 Connector	10
	Figure 2.6 JAЕ TX-25 80-pin Connector.....	10
	Table 2.4: JAЕ-TX-25 Pin out.....	10
2.3	Hardware Installation	11
2.3.1	Storage Installation	11
	Figure 2.7 HDD Installation.....	12
2.3.2	Memory 1 Installation.....	13
	Figure 2.8 Memory 1 Installation	13
2.3.3	Memory 2 Installation.....	14
	Figure 2.9 Memory 2 Installation	14
2.3.4	Mini PCIe Card.....	15
	Figure 2.10mini-PCle Installation.....	15

Chapter 3	BIOS Settings	17
3.1	BIOS Introduction.....	18
3.2	Entering Setup	18
3.2.1	Main Setup.....	18
	Figure 3.1 Main setup screen	18
3.2.2	Advanced BIOS Features Setup.....	19
	Figure 3.2 Advanced BIOS Features setup screen	19
	Figure 3.3 ACPI setup screen	20
	Figure 3.4 HW Monitor screen.....	21
	Figure 3.5 S5 RTC Wake setup screen.....	21
	Figure 3.6 CPU Configuration setup screen.....	22
	Figure 3.7 IDE Configuration setup screen	23
	Figure 3.8 Miscellaneous Configuration setup screen.....	24
	Figure 3.9 USB Configuration setup screen	25
	Figure 3.10 Intel® TXE Configuration setup screen	26
3.2.3	Chipset BIOS Feature Setup	27
3.2.4	Security BIOS Feature Setup	28
	Figure 3.11 Security Configuration setup screen	28
3.2.5	Boot BIOS Feature Setup	29
	Figure 3.12 Boot Configuration setup screen	29
3.2.6	Save & Exit BIOS Feature Setup.....	30
	Figure 3.13 Save & Exit Configuration setup screen.....	30
Chapter 4	Software	33
4.1	Intel® TXE Driver Installation.....	34

Chapter 1

General Introduction

This chapter gives background information regarding the DS-270 series.

1.1 Introduction

DS-270 OPS follows Intel's OPS (Open Pluggable Standard). DS-270 is integrated with an Intel®Celeron® J1900 Quad-Core processor and bundled with NVIDIA GeForce GT730M graphics. It supports Ultra HD advanced graphic performance, up to 3840x 2160@30MHz. To meet Intel's OPS standard, the slot-in and cableless design is able to reduce installation and maintain costs, as well as simplify usage, maintenance, and the upgrading process.

For faster installation by Digital Signage customers, DS-270 OPS device is connected via a JAE 80-pin connector which supports HDMI, DP, UART and USB3.0/USB2.0 signals with the monitor. Through UART, it is easy to get status and management reports.

DS-270 also has Giga LAN x1, HDMI x1 (up to 3840x2160@30MHz) and USB3.0 x2 via front I/O. DS-270 Digital Signage player empowers intelligent environments.

1.2 Product Features

1.2.1 Key Features

- Intel® Celeron J1900 Quad-core processor
- Follow Intel OPS (Open Pluggable Standard)
- Support HDMI, DP, UART, and USB3.0/ USB2.0 signal by JAE 80-pin connector
- Slot-in design and easy installation and maintain

1.2.2 Display

- Supports up to Ultra HD (3840x 2160 @30MHz) video playback performance (subject to the video media format and playback software)

1.2.3 Power Consumption

- Idle: 11.82 W
- Max.: 21.84 W

1.3 Hardware Specifications

- **CPU:** Intel® Celeron J1900 Quad-core processor
- **System Chipset:** SoC solution
- **Graphic Chipset:** NVIDIA GeForce GT730M
- **BIOS:** AMI 64 Mbit Flash BIOS
- **System Memory:** DDR3L 204 pin SO-DIMM x2 , up to 8GB (4GB per SO-DIMM)
- **HDD:** Supports 2.5" SATA HDD or SSD x1 (max 7mm height)
- **WatchDog timer:** interval 255 seconds (depends on software setting)
- **I/O Interface**
 - JAE TX25 80-pin connector x1
 - HDMI x1
 - USB 3.0 x2 (compliant ports)
 - Audio phone jack for Line-out x1
 - Full-size mini-PCIe (internal) x1 (support mSATA)
- **Ethernet Chipset:** 1 x Intel I211 (Gigabit LAN)
 - Speed: 10/100/1000 Mbps
 - Interface: 1 x RJ-45 jacks with LED
 - Standard: IEEE 802.3z/ab (1000 Base-T) or IEEE 802.3u 100 Base-T
- **Resolution:** HDMI: Up to 3840 x 2160 @ 30 Hz (Ultra HD)

Caution! For systems with only one RAM module, please insert the module into the SODIMM 1 slot before system bootup.



1.6 Environmental Specifications

1.6.1 Operating Temperature

0° C - 40° C (32~104° F) w/ HDD ; 0° C - 50° C (32~122° F) w/ SSD

1.6.2 Relative Humidity

95% @ 40 °C (non-condensing)

1.6.3 Storage Temperature

-20 ~ 70 °C (-4 ~ 158 °F)

1.6.4 Vibration Loading During Operation (HDD)

0.2 Grms, IEC 60068-2-64, random, 5 ~ 500 Hz, 1 Oct./min, 1 hr/axis.

1.6.5 Safety

UL, CB, BSMI, CCC

1.6.6 EMC

CE, FCC Class B, BSMI, C-Tick

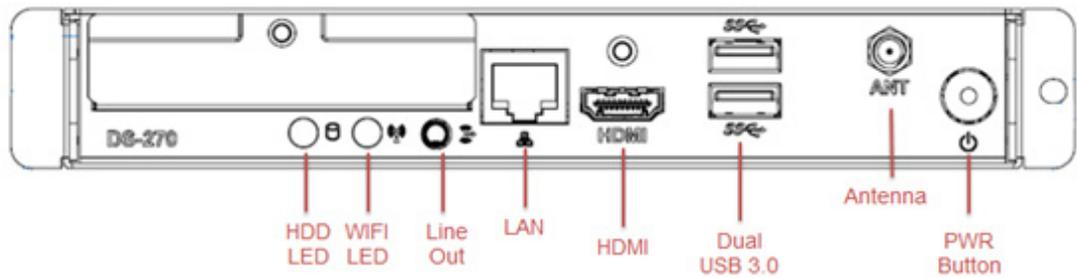
Chapter 2

Hardware Installation

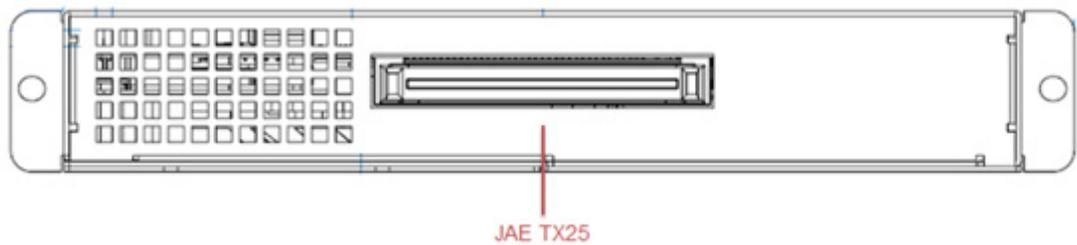
This chapter introduces external I/O and the installation of DS-270 Hardware.

2.1 DS-270 I/O Connectors

2.1.1 Front I/O



2.1.2 Rear I/O



2.2 DS-270 External I/O Connectors

2.2.1 Power ON/OFF Button

DS-270 has a power ON/OFF button on the front side. Push this button to turn the system ON and OFF. It also supports a 4 second delay soft power off.



Figure 2.1 Power ON/OFF Button

2.2.2 USB Connectors

DS-270 supports USB3.0 interface for 2pcs, which gives complete Plug and Play and hot swapping capability for up to 127 external devices. The USB interface is compliant with USB UHCI, Rev. 3.0. The USB interface supports Plug and Play, which enables you to connect or disconnect a device without turning off the system.

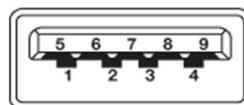


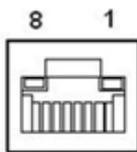
Figure 2.2 USB Connector

Table 2.1: USB3.0 Port Pin Assignments

Pin	Signal Name
1	VBUS
2	USB Data-
3	USB Data+
4	GND
5	StdA_SSRX-
6	StdA_SSRX+
7	GND_DRAIN
8	StdA_SSTX-
9	StdA_SSTX+

2.2.3 Ethernet Connector (LAN)

DS-270 provides one RJ-45 LAN interface connector, fully compliant with IEEE802.3u 10/100/1000 Base-T CSMA/CD standards. The Ethernet port provides a standard RJ-45 jack connector with LED indicators to show its Active/Link status and speed status.

**Figure 2.3 Ethernet Connector****Table 2.2: LAN Connector Pin Assignments**

Pin	Signal Name
1	MDI0+
2	MDI0-
3	MDI1+
4	MDI1-
5	GND
6	GND
7	MDI2+
8	MDI2-

2.2.4 Audio Connector

Line-Out: Stereo speakers, earphone or front surround speakers can be connected to the Line-out jack.

**Figure 2.4 Line-out**

2.2.5 HDMI

DS-270 is designed for HDMI for 1pcs to communicate full video or sounds and follow HDCP. HDMI follow HDCP standard simultaneously.

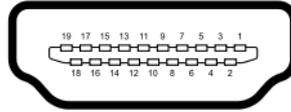


Figure 2.5 HDMI Connector

Table 2.3: HDMI Pin out

Pin	Signal Name
1	TMDS Data 2+
2	TMDS Data 2 shield
3	TMDS Data 2-
4	TMDS Data 1+
5	TMDS Data 1 shield
6	TMDS Data 1-
7	TMDS Data 0+
8	TMDS Data 0 shield
9	TTMDS Data 0-
10	TMDS Clock+
11	TMDS Clock shield
12	TMDS Clock-
13	CEC
14	Reserved
15	SCL
16	SDA
17	DDC/CEC Ground
18	+5V
19	Hot Plug Detect

2.2.6 JAE TX-25 Connector

DS-270 supports JAE TX-25 80-in angle connector which plugs JAE TX-24 to a monitor.

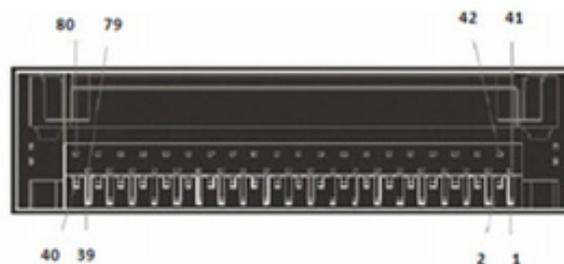


Figure 2.6 JAE TX-25 80-pin Connector

Table 2.4: JAE-TX-25 Pin out

Pin	Signal Name	Pin	Signal Name
-----	-------------	-----	-------------

Table 2.4: JAE-TX-25 Pin out

1	DDP_3N	41	RSVD
2	DDP_3P	42	RSVD
3	GND	43	RSVD
4	DDP_2N	44	RSVD
5	DDP_2P	45	RSVD
6	GND	46	RSVD
7	DDP_1N	47	RSVD
8	DDP_1P	48	RSVD
9	GND	49	RSVD
10	DDP_0N	50	SYS_FAN
11	DDP_0P	51	UART_RXD
12	GND	52	UART_TXD
13	DDP_AUXN	53	GND
14	DDP_AUXP	54	StdA_SSRX-
15	DDP_HPDP	55	StdA_SSRX+
16	GND	56	GND
17	TMD_CLK-	57	StdA_SSTX-
18	TMD_CLK+	58	StdA_SSTX+
19	GND	59	GND
20	TMDS0-	60	USB_PN2
21	TMDS0+	61	USB_PP2
22	GND	62	GND
23	TMDS1-	63	USB_PN1
24	TMDS1+	64	USB_PP1
25	GND	65	GND
26	TMDS2-	66	USB_PN0
27	TMDS2+	67	USB_PP0
28	GND	68	GND
29	HDMI_DDC_DATA	69	AZ_LINEOUT_L
30	HDMI_DDC_CLK	70	AZ_LINEOUT_R
31	HDMI_HPDP	71	HDMI_CEC
32	GND	72	PB_
33	+12V~+24V	73	PS_ON#
34	+12V~+24V	74	PWR_STATUS
35	+12V~+24V	75	GND
36	+12V~+24V	76	GND
37	+12V~+24V	77	GND
38	+12V~+24V	78	GND
39	+12V~+24V	79	GND
40	+12V~+24V	80	GND

2.3 Hardware Installation

2.3.1 Storage Installation

1. To assemble the storage module, secure the HDD to HDD bracket with 2 screws.

2. Undo the top storage screws and remove.
3. Install the storage module into DS-270 as below, and connect the storage and SATA connector onto the device.
4. Lastly, fix the storage module onto DS-270 via a single screw.

HDD module installation

HDD module

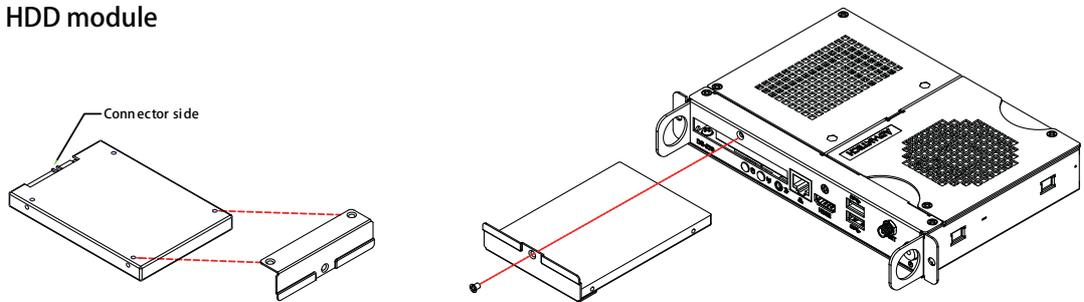


Figure 2.7 HDD Installation

2.3.2 Memory 1 Installation

1. Remove the 2 screws on the top silver cover of the fan.
2. Undo the top storage screws and remove.
3. Undo 4 screws on the top chassis and remove. Please be careful to avoid any fan cable damage.
4. Install memory into the SO-DIMM1 slot.
5. Lastly, follow the below steps and install the whole system.

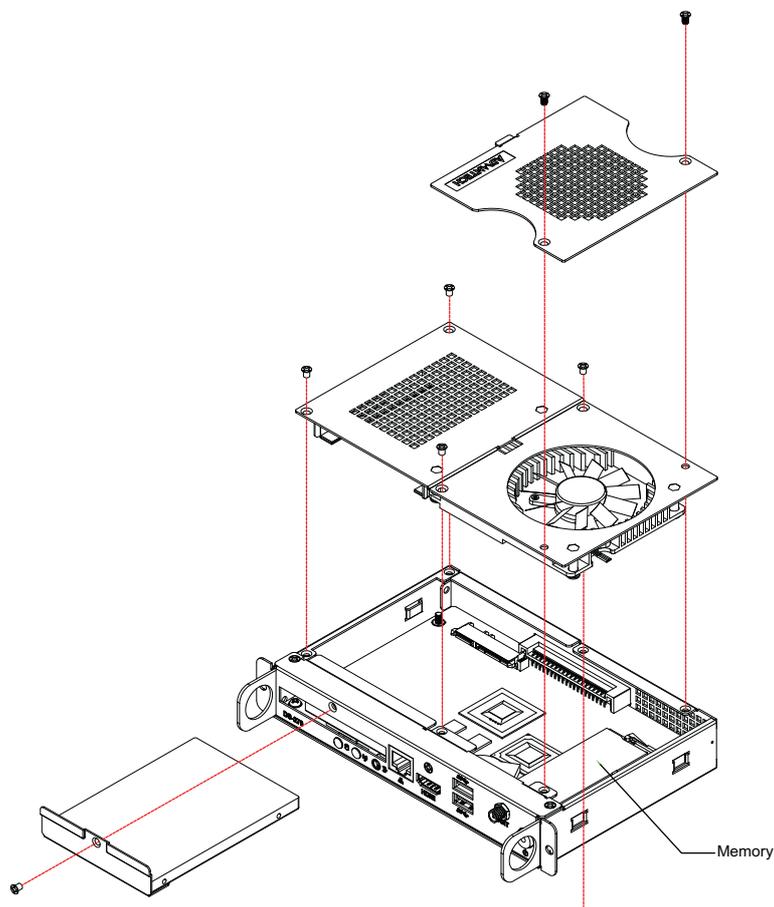


Figure 2.8 Memory 1 Installation

2.3.3 Memory 2 Installation

1. Remove 5 screws on the bottom chassis of DS-270.
2. Install memory into the SO-DIMM 2 slot.
3. Lastly, follow the steps to install the whole system.

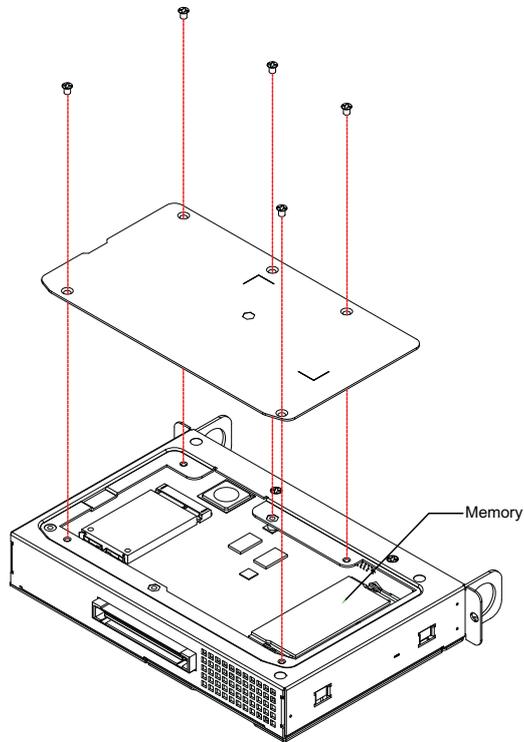


Figure 2.9 Memory 2 Installation

2.3.4 Mini PCIe Card

1. Remove 5 screws on the bottom chassis of DS-270.
2. Install the mini-PCIe card into the mini-PCIe slot.
3. Lastly, follow the steps below and install the whole system.

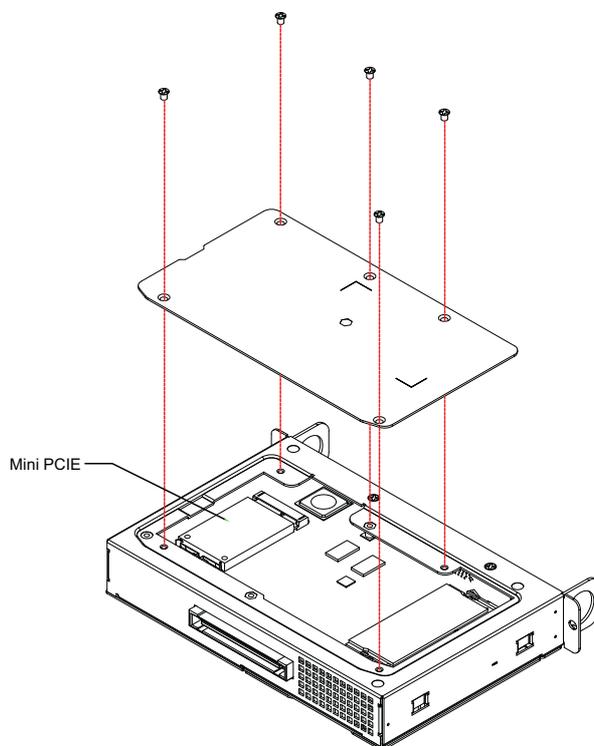


Figure 2.10 mini-PCIe Installation

Chapter 3

BIOS Settings

This chapter introduces how to set BIOS configuration data.

3.1 BIOS Introduction

With the AMI BIOS Setup program, you can modify BIOS settings and control various system features. This chapter describes the basic navigation of the DS-270 series BIOS setup screens.

AMI BIOS's ROM has a built-in setup program that allows users to modify the basic system configuration. This information is stored in flash part CMOS so it retains the setup information when the power is turned off.

3.2 Entering Setup

3.2.1 Main Setup

When you first enter the BIOS Setup Utility, you will enter the Main setup screen. You can always return to the Main setup screen by selecting the Main tab.

The Main BIOS setup screen has two main frames. The left frame displays all the options that can be configured. Options in blue can be configured, and grayed-out options cannot be configured instead. The right frame displays the key legend.

The key legend in the top is an area reserved for a text message. When an option is selected in the left frame, it is highlighted in white. Often a text message will accompany it.

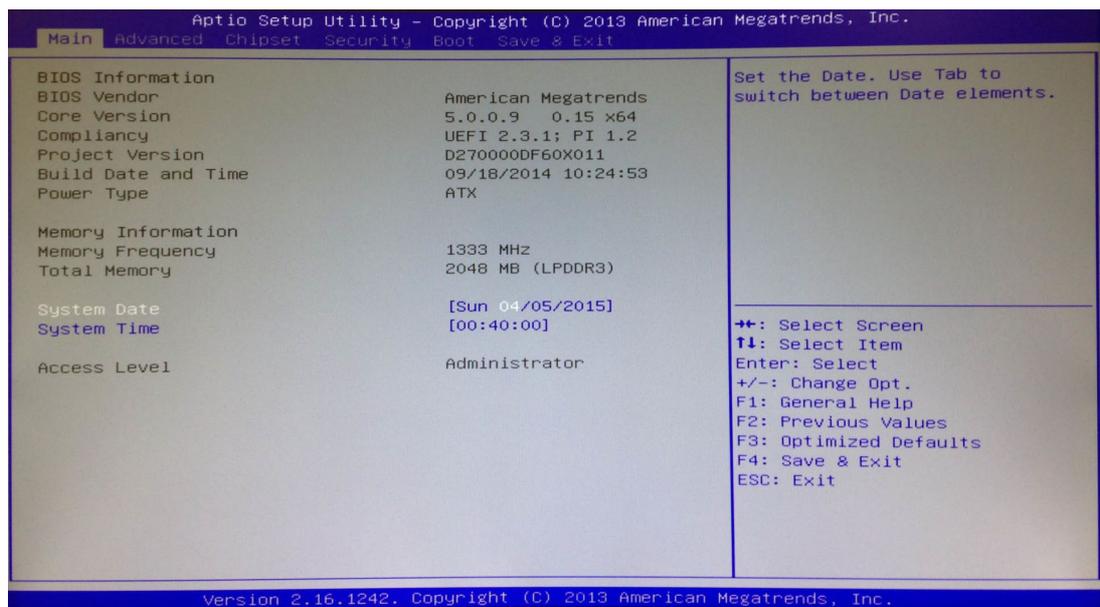


Figure 3.1 Main setup screen

■ System Time/System Date

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 must be entered in HH:MM:SS format.

3.2.2 Advanced BIOS Features Setup

Select the Advanced tab from the DS-270 setup screen to enter the Advanced BIOS Setup screen. You can select any of the items in the left frame of the screen, such as CPU configuration, to go to the sub menu for that item. You can display an Advanced BIOS Setup option by highlighting it using the <Arrow> keys. All Advanced BIOS Setup options are described in this section. The Advanced BIOS Setup screens are shown below. The sub menus are described on the following pages.

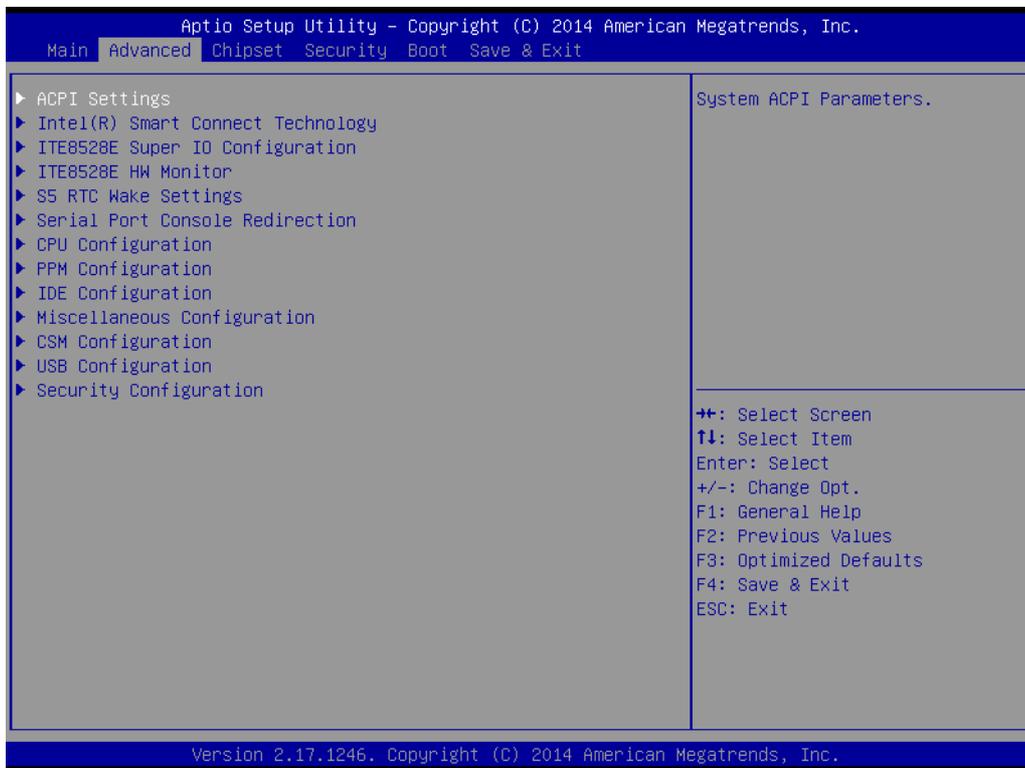


Figure 3.2 Advanced BIOS Features setup screen

- **ACPI Settings**
System ACPI Parameters

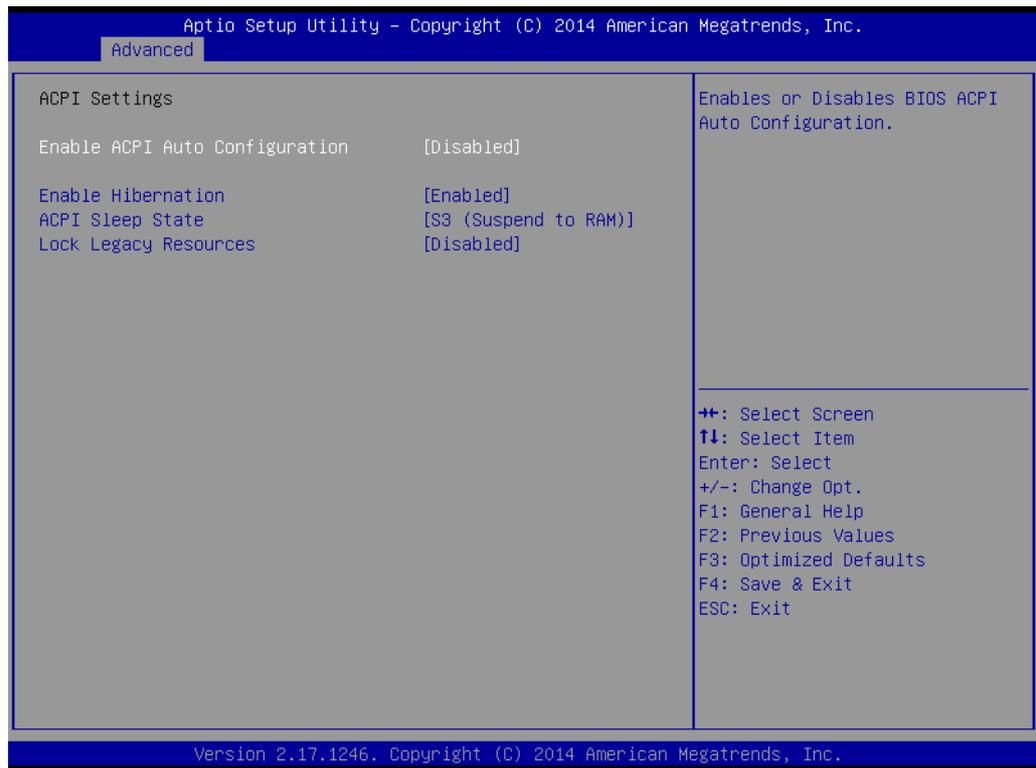


Figure 3.3 ACPI setup screen

- **Intel® Smart Connect Technology**
Intel® Smart Connect Technology settings. Default is disabled.



- **ITE8528E HW Monitor**
Monitor hardware status (PC health status)

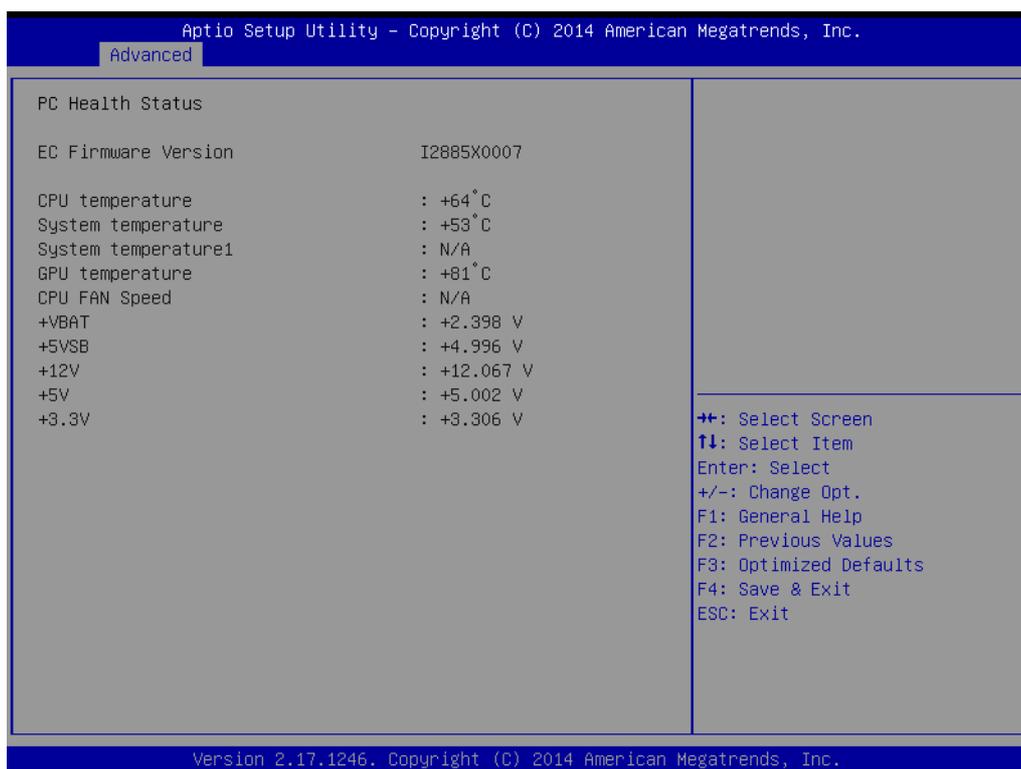


Figure 3.4 HW Monitor screen

- **S5 RTC Wake Settings**
Enable/disable system wake from S5 using RTC alarm

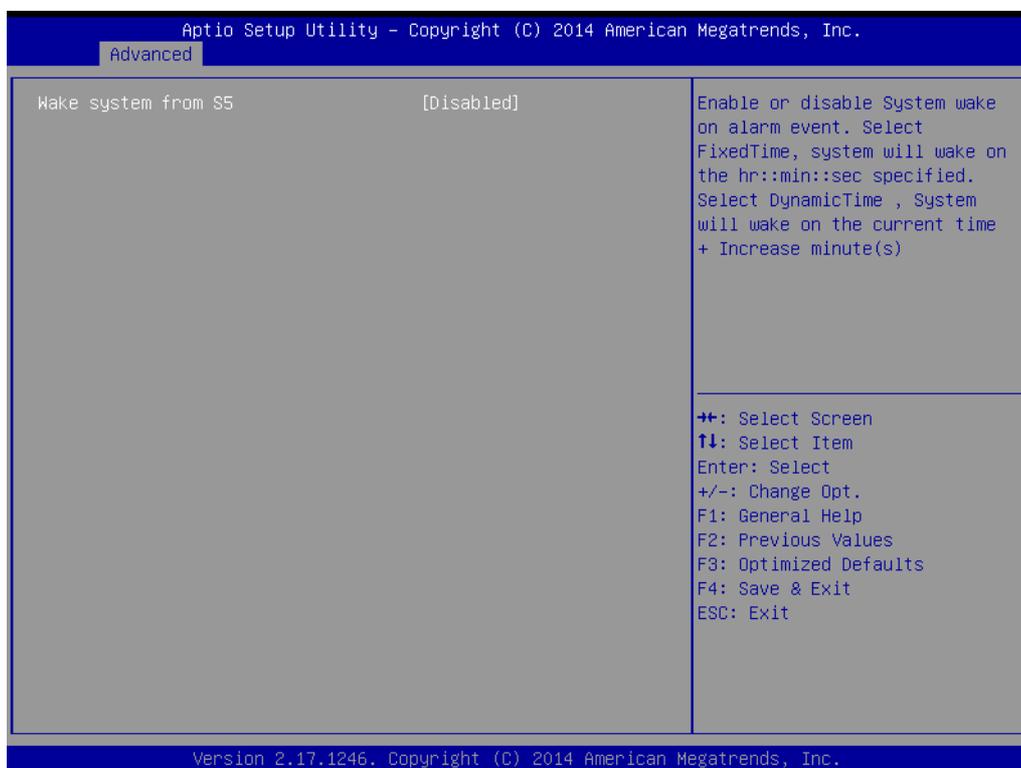


Figure 3.5 S5 RTC Wake setup screen

- **Serial Port Console Redirection**
Serial Port Console Redirection.
- **CPU Configuration**
CPU Configuration Parameters.

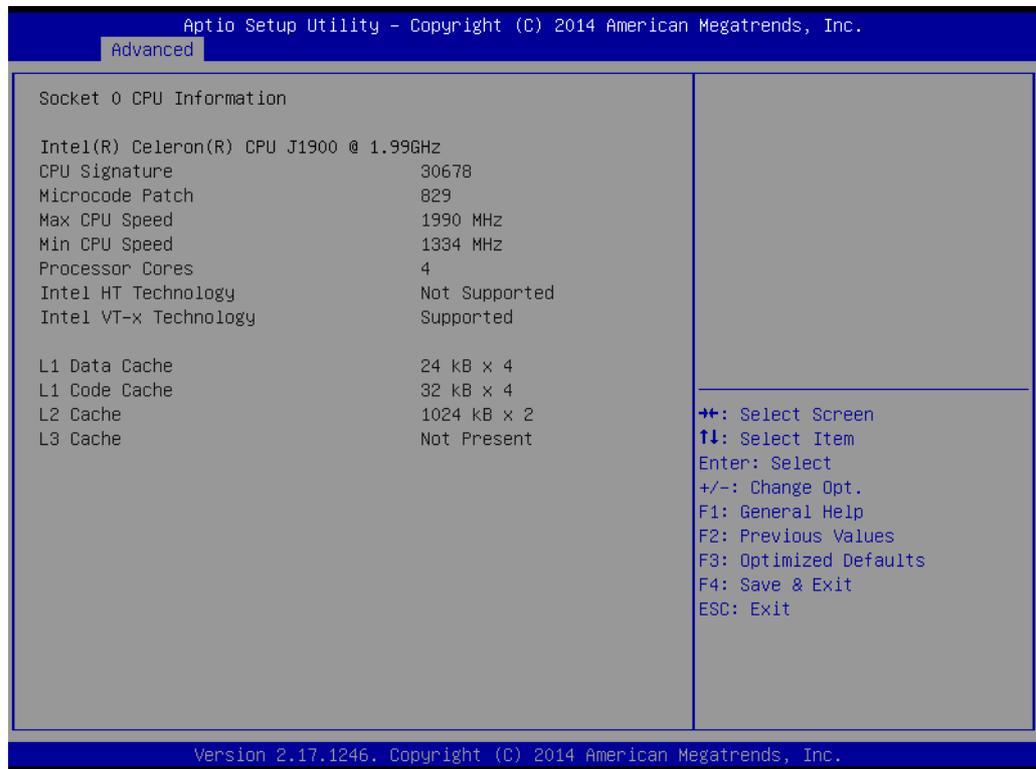


Figure 3.6 CPU Configuration setup screen

- **PPM Configuration**
Enable/disable CPU C state report to OS

- **IDE Configuration**
IDE devices configuration.

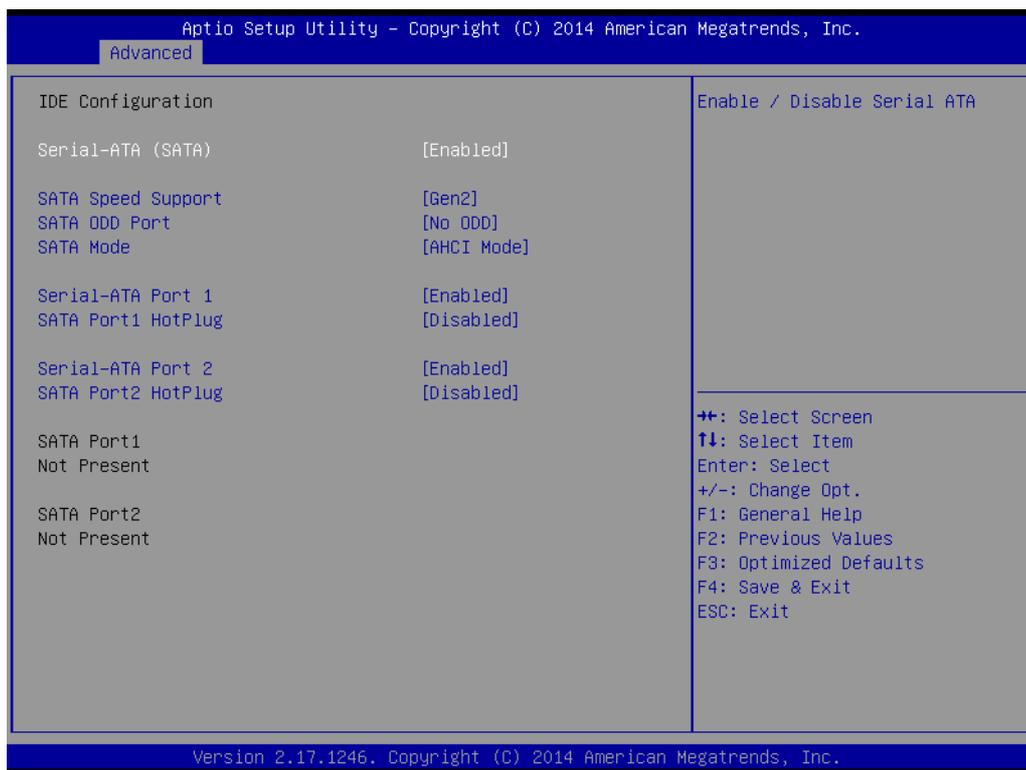


Figure 3.7 IDE Configuration setup screen

- **Miscellaneous Configuration**
 Enable/disable miscellaneous features
 - **High Precision Timer**
 Enable/disable the high precision event timer
 - **PCI Express Dynamic Clock Gating**
 Enable/disable PCIe dynamic clock gating
 - **OS Selection**
 The OS selection should be set and matched with applied OS.

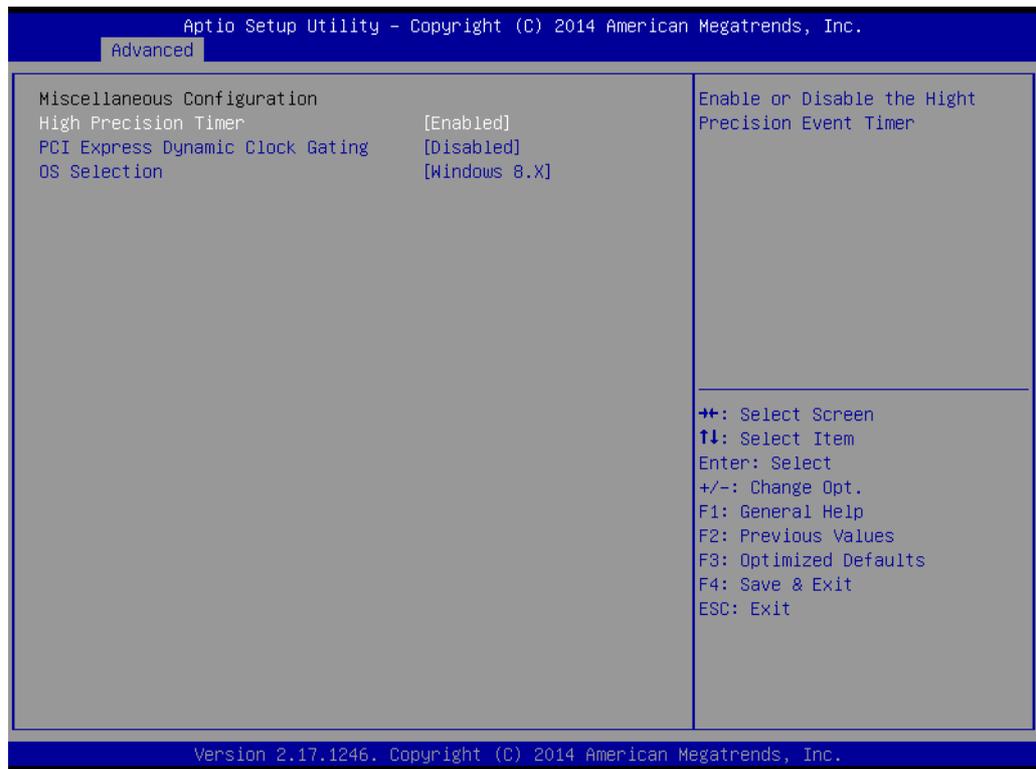


Figure 3.8 Miscellaneous Configuration setup screen

- **CSM Configuration**
 Enable/Disable, Option ROM execution settings, etc.

■ USB Configuration

USB Configuration Parameters

– Legacy USB Support

Enable/disable legacy USB support. The AUTO option disables legacy support if no USB devices are connected. The DISABLE option renders USB devices only available for EFI applications.

– XHCI Hand-Off

This is a workaround for OS without XHCI hand-off support. The XHCI ownership change should be claimed by the XHCI driver.

– EHCI Hand-Off

This is a workaround for OS without EHCI hand-off support. The EHCI ownership change should be claimed by the EHCI driver.

– USB Mass Storage Driver Support

Enable/disable USB mass storage driver support

– USB Transfer Timeout

Allows users to specify the timeout value for Control, Bulk, and Interrupt transfers. The value options available are 1, 5, 10, and 20 seconds.

– Device Reset Timeout

Allows users to specify the USB mass storage device Start Unit Command timeout value. The value options available are 10, 20, 30, and 40 seconds.

– Device Power-Up Delay

Allows auto/manual configuration of the USB mass storage device Start Unit Command timeout value.



Figure 3.9 USB Configuration setup screen

■ **Security Configuration**
Intel® Anti-Theft Technology configuration

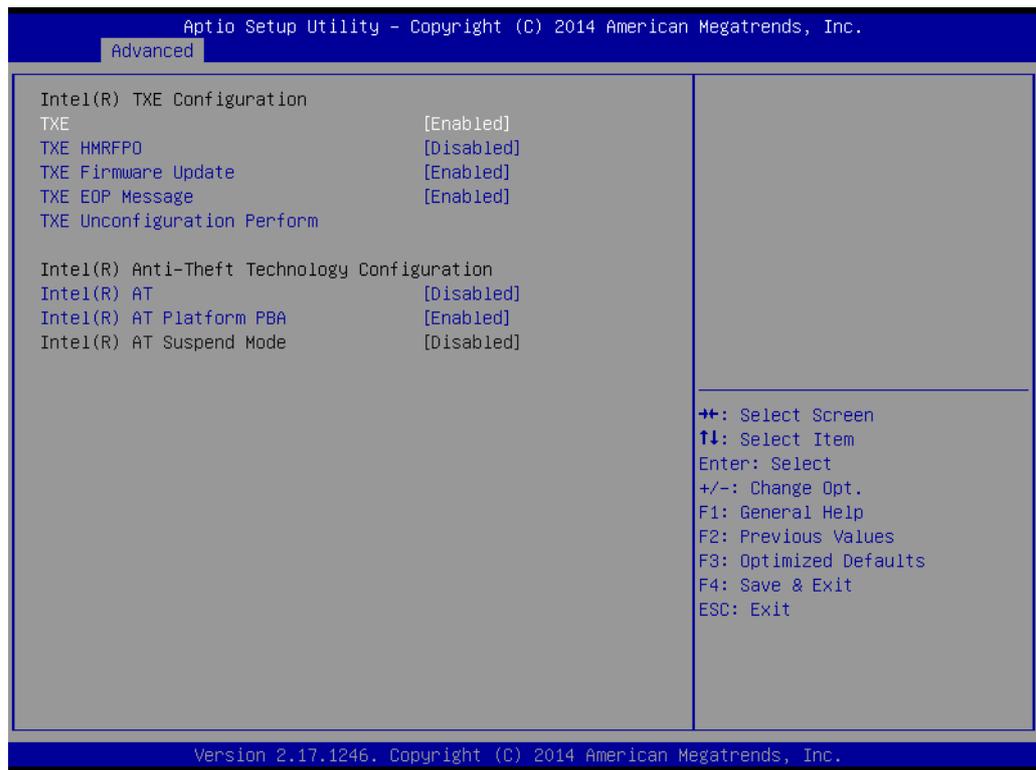


Figure 3.10 Intel® TXE Configuration setup screen

3.2.3 Chipset BIOS Feature Setup

Select the Chipset tab in the DS-270 BIOS Setup Utility to enter the Chipset BIOS setup screen. Users can select any item displayed in the left frame.

- **North Bridge**
 - North Bridge parameters
 - **Memory Information**
 - Max TOLUD: Maximum value of TOLUD
- **South Bridge**
 - South Bridge parameters
 - **Azalia HD Audio**
 - Azalia HD audio options
 - **USB Configuration**
 - USB Configuration settings
 - XHCI Mode:** Enable/disable the XHCI controller
 - USB2 Link Power Management:** Enable/disable USB2 link power management
 - **PCI Express Configuration**
 - PCI Express Configuration settings
 - **LAN1 Control**
 - Enable/disable LAN1
 - **LAN2 Control**
 - Enable/disable LAN2
 - **PXE OpROM**
 - Controls .exe files
 - **Launch PXE OpROM**
 - Enable/disable boot options for legacy network devices
 - **PCIe Wake**
 - Enable/disable system wake from S5 via PCIe
 - **Restore AC Power Loss**
 - Select AC power state when power is re-applied after a power failure
 - **Global SMI Lock**
 - Enable/disable SMI lock
 - **BIOS Read/Write Protection**
 - Enable/disable BIOS SPI region read/write protection

3.2.4 Security BIOS Feature Setup

Select the Security tab from the setup screen to enter the Security BIOS Setup screen.

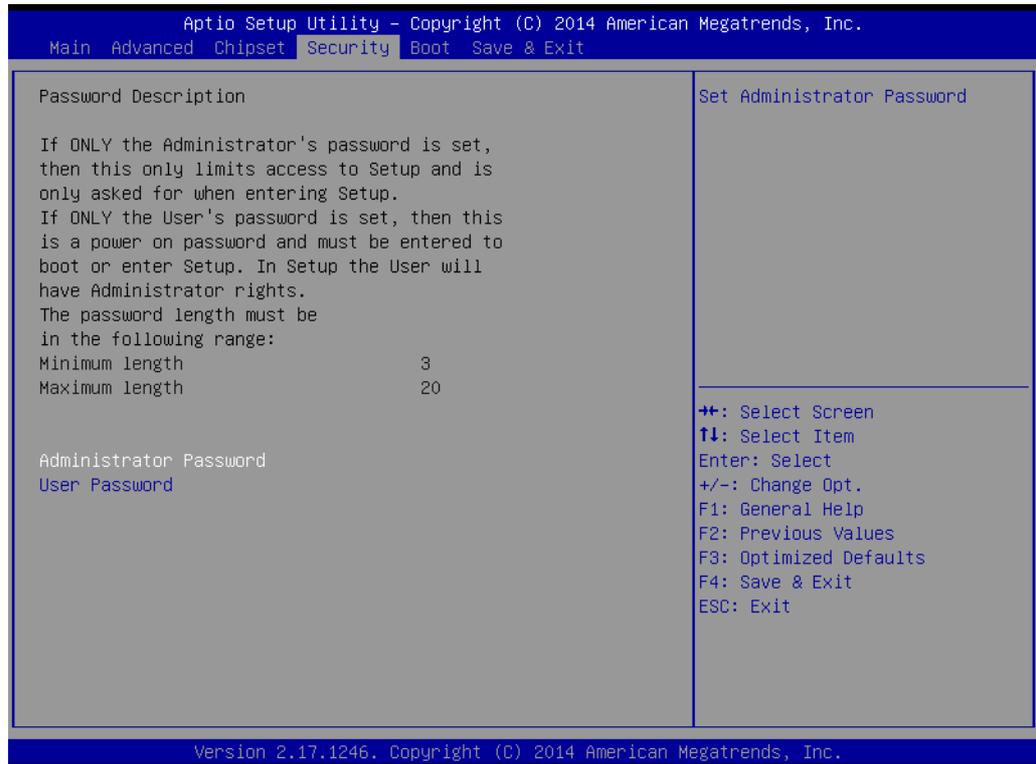


Figure 3.11 Security Configuration setup screen

- **Administrator Password**
Set Administrator Password.
- **User Password**
Set User Password.

3.2.5 Boot BIOS Feature Setup

Select the Boot tab in the DS-270 BIOS Setup Utility to enter the Boot BIOS setup screen. Users can select any item displayed in the left frame.

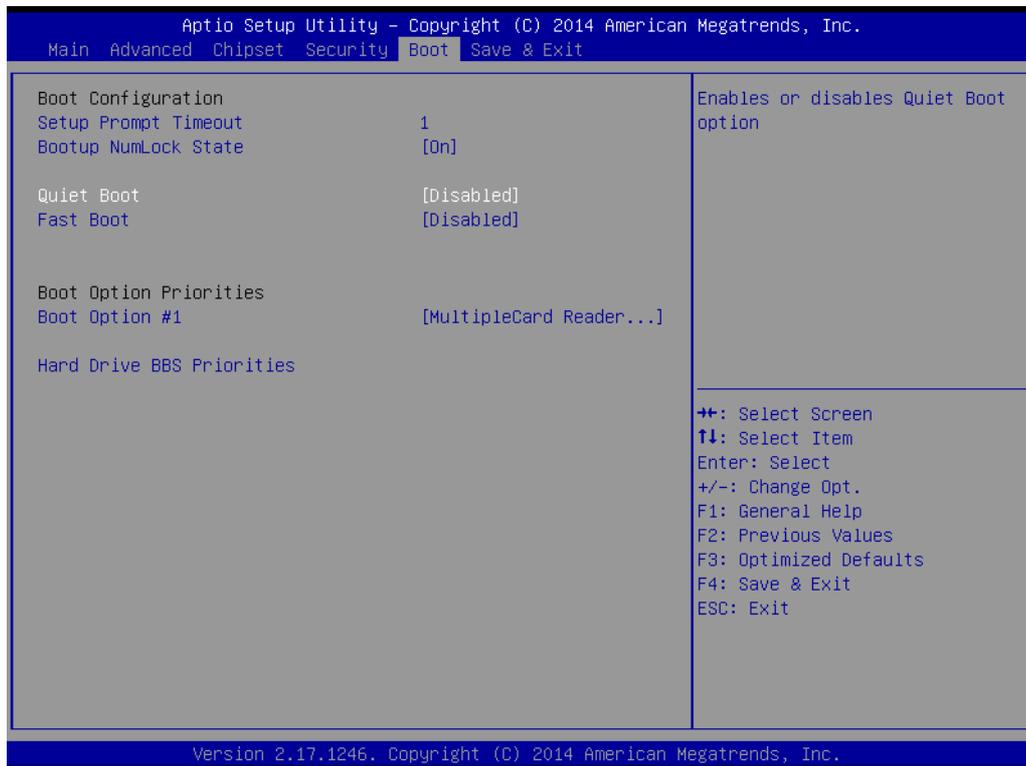


Figure 3.12 Boot Configuration setup screen

- **Setup Prompt Timeout**
Number of seconds to wait for setup activation key. 65535(0xFFFF) means indefinite waiting.
- **Bootup NumLock State**
Select the keyboard NumLock state.
- **Quiet Boot**
Enable/disable Quiet Boot option
- **Fast Boot**
Enable/disable boot with initialization of a minimal set of devices required to launch active boot option. Has no effect for BBS boot options.
- **Boot Option #1**
Set the system boot order.

3.2.6 Save & Exit BIOS Feature Setup

Select the Save & Exit tab from the setup screen to enter the Save & Exit BIOS Setup screen.

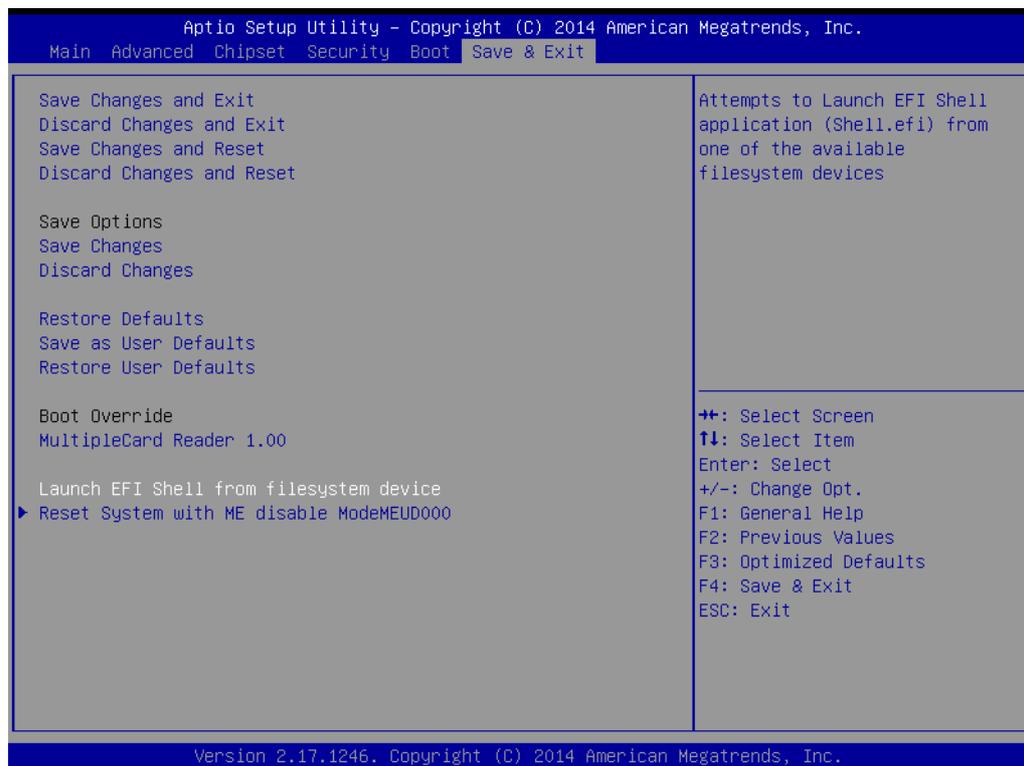


Figure 3.13 Save & Exit Configuration setup screen

- **Save Changes and Exit**
Exit system setup after saving the changes.
- **Discard Changes and Exit**
Exit system setup without saving any changes.
- **Save Changes and Reset**
Reset the system after saving the changes.
- **Discard Changes and Reset**
Reset system setup without saving any changes.
- **Save Changes**
Save Changes done so far to any of the setup options.
- **Discard Changes**
Discard Changes done so far to any of the setup options.
- **Restore Defaults**
Restore/Load Defaults values for all the setup options.
- **Save as User Defaults**
Save the changes done so far as User Defaults.
- **Restore User Defaults**
Restore the User Defaults to all the setup options.
- **Boot Override**
 - **UEFI**
Built-in EFI Shell
 - **Launch EFI Shell From File System Device**

Attempts to Launch EFI Shell application (Shell.efi) from one of the available file system devices.

– **Reset System With ME Disable Mode MEUD000**

ME will runs into the temporary disable mode, ignore if ME ignition FWMED001.

Chapter 4

Software

This chapter highlights the OS installation prompts.

4.1 Intel® TXE Driver Installation

For Windows 7, it is necessary to install Windows update KB2685811 before installing TXE driver.

Notice: For more KB2685811 information, please reference and download from Microsoft's Official website.

<http://www.microsoft.com/en-us/download/details.aspx?id=38423>

Note!



- *It is highly recommended to use the FITC tool provided in this kit.*
- *Please make sure to use Intel TXE FW and system tools from the same kit. Versioning combinations might cause unexpected issues.*
- *Please use SPI Flash parts that align with the Bay Trail Platform SoC SPI Flash Compatibility Requirements document (IBL# 514482, section 3)*
- *Please note that Intel® TXE driver for Android OS is provided as part of the Android based UEFI BIOS OS image.*
- *FPT, TXEInfo, TXEManuf tools do not support Windows* 7. Customer requested to run TXE manufacturing tools in EFI Shell or WinPE environment.*
- ***For Windows* 7 OS only: Intel TXE driver uses KMDF (WDF) 1.11, which is builtin on Windows* 8 and Windows* 8.1. However, Windows* 7 doesn't have it. Please install Kernel-Mode Driver Framework (KMDF) version 1.1. Otherwise, yellow bang appears on Intel TXE device upon installation. Please follow instructions in this link: <http://www.microsoft.com/en-us/download/details.aspx?id=38423>***
- ***Disclaimer: SAMPLE SIGNER REFERENCE CODE DOES NOT OFFER ADEQUATE SECURITY. CUSTOMER NEEDS TO ADD SIGNIFICANT FUNCTIONALITY AND MODIFY THIS SOFTWARE TO PROTECT CUSTOMER PRIVATE KEY. INTEL ASSUMES NO LIABILITY FOR LOST OR STOLEN PRIVATE KEY DATA AND/OR SYSTEMS OR ANY OTHER DAMAGES RESULTING THEREOF.***
- *The VCN value has increased to '8'. As a result, Full FW upgrade from Intel® TXE FW 1.1.0.1089 is possible however a downgrade from Intel® TXE FW 1.1.0.1113 to an earlier kit is not possible.*

Caution! *Caution! Before OS installation, the selected OS should be specified and match the OS employed by the BIOS (refer to Figure 3.8).*



ADVANTECH

Enabling an Intelligent Planet

www.advantech.com

Please verify specifications before quoting. This guide is intended for reference purposes only.

All product specifications are subject to change without notice.

No part of this publication may be reproduced in any form or by any means, such as electronically, by photocopying, recording, or otherwise, without the prior written permission of the publisher.

All brand and product names are trademarks or registered trademarks of their respective companies.

© Advantech Co., Ltd. 2015