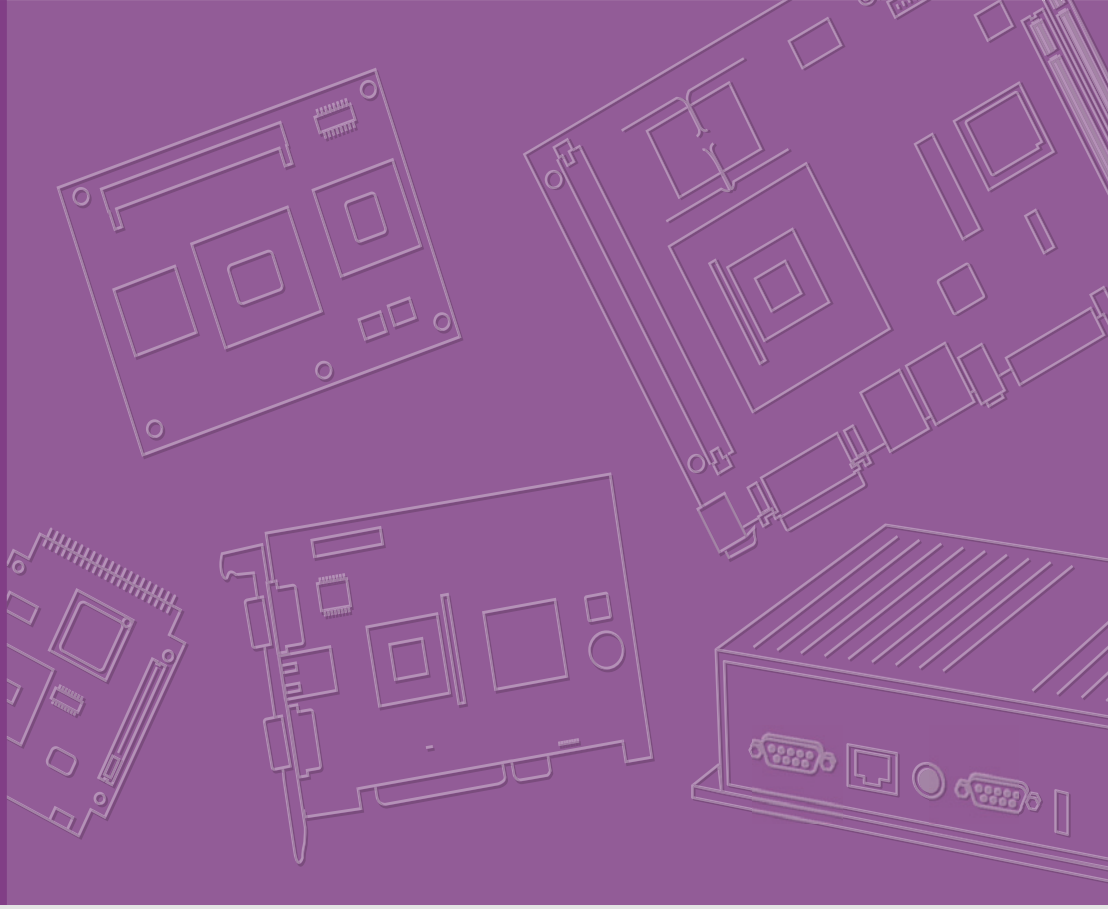

User Manual

DS-570

Graphic-Optimized Digital Signage Player Powered by NVIDIA N14M

ADVANTECH

Enabling an Intelligent Planet

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Advantech warrants to you, 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 which have been repaired or altered by persons other than repair personnel authorized by Advantech, or which 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.

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2. Call your dealer and describe the problem. Please have your manual, product, and any helpful information readily available.
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Technical Support and Assistance

1. Visit the Advantech website at http://support.advantech.com where you can find the latest information about the product.
2. Contact your distributor, sales representative, or Advantech's customer service center for technical support if you need additional assistance. Please have the following information ready before you call:
   - 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 you avoid damaging hardware or losing data. e.g.*

There is a danger of a new battery exploding if it is 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 optional additional information.*

Battery Information

Batteries, battery packs, and accumulators should not be disposed of as unsorted household waste. Please use the public collection system to return, recycle, or treat them in compliance with the local regulations.

Packing List

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

- 1 x DS-570 Unit
- 1 x accessory box including below
  - 1 x bracket sets for power adapter
  - 2 x mount brackets
  - 1 x cardboard-warranty
  - 1 x power adapter
  - 1 x China RoHS

Optional Power Cord & Accessories

Part Number	Description
1702002600	3-pin power cord (US)
1700018705	3-pin power cord (EU)
1702031801	3-pin power cord (UK)
1702031836	3-pin power cord (AU)
1700000237	3-pin power cord with PSE (Japan)
1700000596	3-pin power cord with CCC (China)

Safety Instructions

1. Read these safety instructions carefully.
2. Keep this User Manual for later reference.
3. Disconnect this equipment from any AC outlet before cleaning. Use a damp cloth. Do not use liquid or spray detergents for cleaning.
4. For plug-in equipment, the power outlet socket must be located near the equipment and must be easily accessible.
5. Keep this equipment away from humidity.
6. Put this equipment on a reliable surface during installation. Dropping it or letting it fall may cause damage.
7. The openings on the enclosure are for air convection. Protect the equipment from overheating. DO NOT COVER THE OPENINGS.
8. Make sure the voltage of the power source is correct before connecting the equipment to the power outlet.
9. Position the power cord so that people cannot step on it. Do not place anything over the power cord.
10. All cautions and warnings on the equipment should be noted.
11. If the equipment is not used for a long time, disconnect it from the power source to avoid damage by transient overvoltage.
12. Never pour any liquid into an opening. This may cause fire or electrical shock.
13. Never open the equipment. For safety reasons, the equipment should be opened only by qualified service personnel.
14. If one of the following situations arises, get the equipment checked by service personnel:
    - The power cord or plug is damaged.
    - Liquid has penetrated into the equipment.
    - The equipment has been exposed to moisture.
    - The equipment does not work well, or you cannot get it to work according to the user's manual.
    - The equipment has been dropped and damaged.
    - The equipment has obvious signs of breakage.
15. DO NOT LEAVE THIS EQUIPMENT IN AN ENVIRONMENT WHERE THE STORAGE TEMPERATURE MAY GO BELOW -20° C (-4° F) OR ABOVE 60° C (140° F). THIS COULD DAMAGE THE EQUIPMENT. THE EQUIPMENT SHOULD BE IN A CONTROLLED ENVIRONMENT.
16. CAUTION: DANGER OF EXPLOSION IF BATTERY IS INCORRECTLY REPLACED. REPLACE ONLY WITH THE SAME OR EQUIVALENT TYPE RECOMMENDED BY THE MANUFACTURER, DISCARD USED BATTERIES ACCORDING TO THE MANUFACTURER'S INSTRUCTIONS.

The sound pressure level at the operator's position according to IEC 704-1:1982 is no more than 70 dB (A).

DISCLAIMER: This set of instructions is given according to IEC 704-1. Advantech disclaims all responsibility for the accuracy of any statements contained herein.

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Chapter 1

General Introduction

This chapter gives background information of DS-570 series.

1.1 Introduction

DS-570 is powered by an Intel® Celeron® N2930/ J1900 Quad-core processor with an integrated nVidia N14M graphic module for UHD playback. With NVIDIA Optimus technology, the system energizes media playback with over 10 times normal performance, due to its combination of integrated graphics, high performance editing and converting of videos, and rich 3D user interface. DS-570 delivers advanced graphics performance with lower cost to meet your signage application requirements.

DS-570 has 4 display output interfaces (2 x HDMI, 1 x DP++ and 1 x VGA) to provide up to 4 display outputs simultaneously. For better connectivity, it has internal support for 2 x Mini PCIe interfaces for add-on functions such as wireless and TV tuner cards to fulfill different requirements. DS-570 also supports 2 x GLAN, 4 x USB ports (3 x USB 2.0, 1x USB 3.0), 2 x COM (RS-232) ports and audio ports (SPDIF and Line out) for system integration and applications.

1.2 Product Features

1.2.1 General

- Supports Intel® Celeron® N2930 Quad core 1.86 GHz on board CPU (CPU TDP up to 7.5 W) or Celeron J1900 Quad core 2.0 GHz on board CPU (CPU TDP up to 10 W)
- Supports 2 HDMI (HDMI 1 supports CEC) ports, 1 DP++ and 1 VGA for multi displays
- Supports 2 x GbE, 1 x USB 3.0, 3 x USB 2.0 and 2 x COM (RS-232)
- Internal 2.5-inch SATA HDD/SSD drive bay for storage devices
- Built-in 2 MiniPCIe slot for easy expansion e.g. WiFi, TV-tuner etc.
- Easy integration and easy maintenance

1.2.2 Display

- **Multi-display support:**
  - Supports up to 4 display outputs simultaneously.
  - HDMIs and DP++ max. resolution can up to 4K2K (3840 x 2160 pixels)
  - Supports at least one UHD video playback performance (but subject to the video media format and playback software)

1.2.3 Power Consumption

- **CPU N2930:**
  - Typical: 10.5W (w/o expansion)
  - Max.: 15.7W (w/o expansion)
- **CPU J1900:**
  - Typical: 9.7W (w/o expansion)
  - Max: 22.6W (w/o expansion)

1.3 Hardware Specifications

- **CPU:** Intel® Celeron® N2930 Quad core 1.86 GHz or Celeron J1900 Quad core 2.0 GHz
- **System Chipset:** SoC solution
- **BIOS:** AMI uEFI 64 Mbit Flash BIOS
- **System Memory:** 2 x DDR3 SO-DIMM sockets, support DDR3L 1333 MHz up to 8 GB (Max. 4GB per each SO-DIMM socket)
- **Graphic chipset:** NVIDIA N14M-GS
- **HDD:** Supports 1 x 2.5" SATA HDD
- **SSD:** Share with the 2.5" SATA HDD drive bay
- **Watchdog Timer:** Supported by Advantech SUSIAccess API
- **I/O Interface:** 2 x RS-232
- **USB:** 1 x USB 3.0 and 3 x USB 2.0 compliant ports
- **Audio:** Supports one audio jack, default is line-out (jack sense supported); one S/PDIF/Audio jack port.
- **Ethernet Chipset:** 2 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 compliant
- **Expansion:**
  - miniPCIe: 2 socket internal (Full size, one with SIM card support)
- **Resolution:**
  - HDMI: Up to 3840 x 2160 @ 30 Hz (UHD)
  - DP++: Up to 3840 x 2160 @ 30 Hz (UHD)
  - VGA: Up to 2048 x 1536 @ 60 Hz

1.4 Mechanical Specifications

- **Dimensions:** 220.0 x 150.0 x 44.2 mm (8.67" x 5.91" x 1.74") (L x W x H)

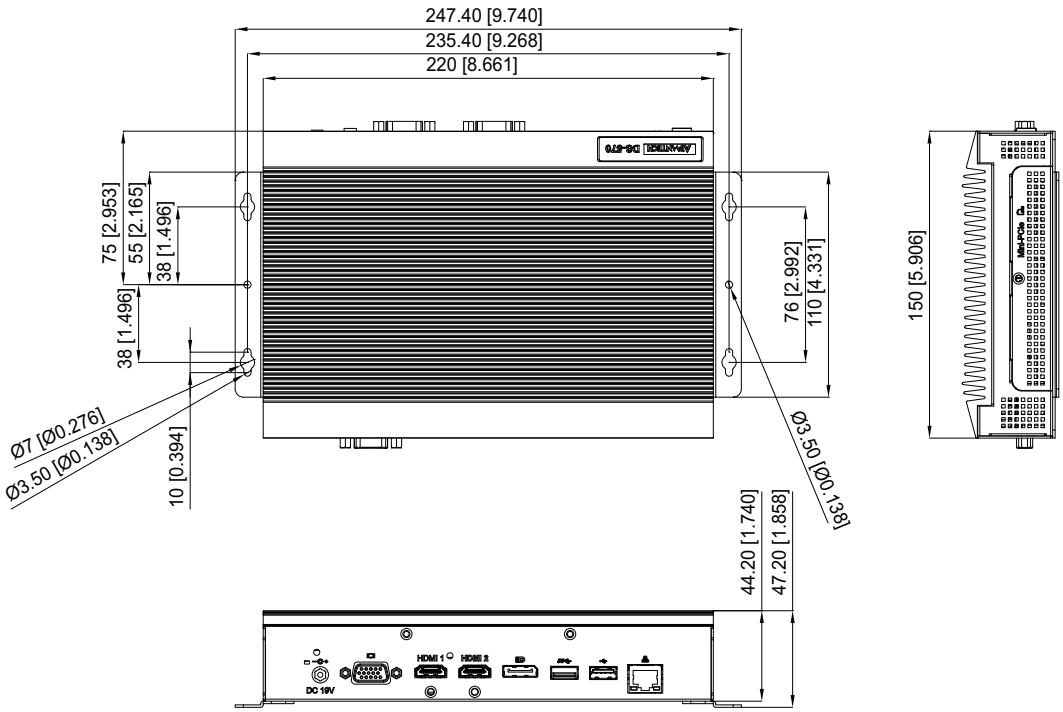

Figure 1.1 DS-570 Mechanical Dimensions

- **Weight:** 1.7 kg (3.75 lb)

1.5 Power Requirements

- **System Power:**
  - Minimum power input: 19 V_{DC}, 3.42 A
- **RTC Battery:** 3 V/195 mAH BR2032

1.6 Environment Specifications

- **Operating Temperature:** 0° C ~ 40° C (32 ~ 104° F) / 0° C~ 70° C (32 ~ 158° F) with extended temperature RAM and SSD
- **Relative Humidity:** 95% @ 40° C (non-condensing)
- **Storage Temperature:** -20 ~ 70° C (-4 ~ 167° F)
- **Vibration Loading During Operation:** 1.0 Grms, IEC 60068-2-64, random, 5 ~ 500 Hz, 1 Oct./min, 1 hr/axis.
- **Shock During Operation:** 20 G, IEC 60068-2-27, half sine, 11 ms duration
- **Safety:** UL,BSMI, CCC, CB, LVD
- **EMC:** CE, FCC Class B, BSMI

Chapter 2

Hardware Installation

This chapter introduces DS-570 external I/O and the Hardware installation.

2.1 DS-570 Front and Rear Views

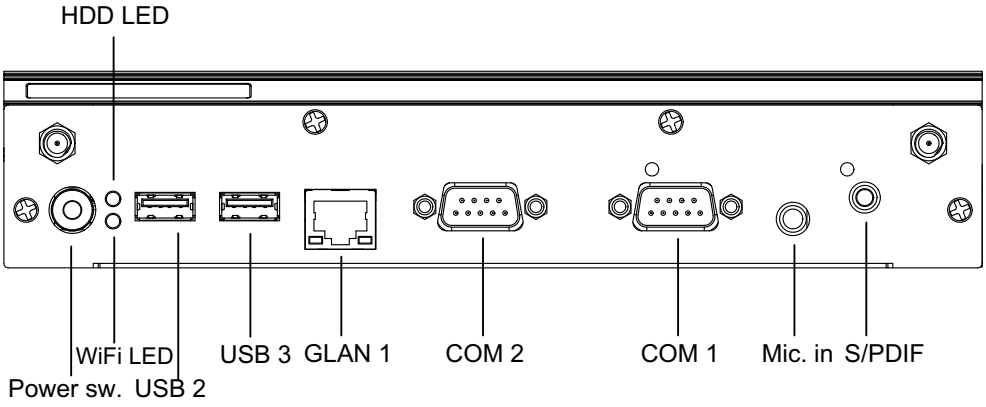

Figure 2.1 Front view

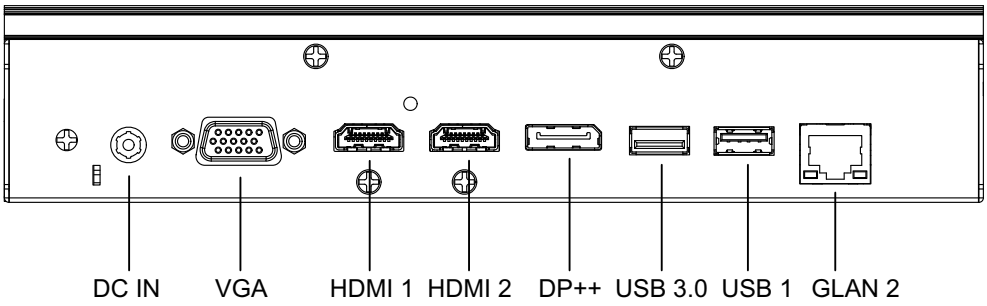

Figure 2.2 Rear view

2.2 DS-570 Front External I/O Connectors

2.2.1 Power ON/OFF Button

DS-570 has a power ON/OFF button on front side. Push this button to turn the system ON and OFF. It can also support 4 second delay soft power off.

Figure 2.3 Power button

2.2.2 USB Connectors

DS-570 front side provides 2 USB 2.0 interface connectors, which give complete Plug & Play and hot swapping capability for up to 127 external devices. The two USB 2.0 interface are compliant with USB UHCI, Rev. 2.0. The USB ports support Plug and Play, which enables you to connect or disconnect a device without turning off the computer.

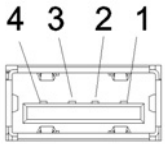

Figure 2.4 USB connector

Table 2.1: USB Port Pin Assignments	
Pin	**Signal Name**
1	VCC
2	USB Data-
3	USB Data+
4	GND

2.2.3 Ethernet Connector (LAN)

DS-570 provides two RJ45 LAN interface connectors (1 x LAN in front-side; 1 x LAN in rear-side), they are fully compliant with IEEE 802.3u 10/100/1000 Base-T CSMA/CD standards. The Ethernet port provides a standard RJ-45 jack connector with LED indicators on the front side to show its Active/Link status and speed status.

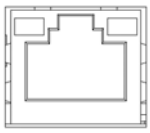

Figure 2.5 LAN connector

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-
9	MDI3+
10	MDI3-
11	VCC
12	ACT
13	Link100#
14	Link1000#

2.2.4 COM Connector

DS-570 provides two D-sub 9-pin connectors serial communication interface port. The port can support RS-232 mode communication.

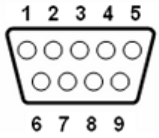

Figure 2.6 COM connector

Table 2.3: COM Port Pin Assignments

Pin	Signal Name
1	DCD
2	RxD
3	TxD
4	DTR
5	GND
6	DSR
7	RTS
8	CTS
9	RI

2.2.5 Audio Connector

Microphone can be connected to the audio jack (only supports mic in function).

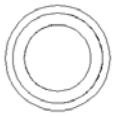

Figure 2.7 Audio connector

2.2.6 S/PDIF Connector

The S/PDIF port allows you to transfer digital sound to an amplifier or television. It supports jack-sensing and can be the Line out function.

Figure 2.8 S/PDIF connector

2.3 DS-570 Rear External I/O Connectors

2.3.1 Power Input Connector

DS-570 comes with a DC-Jack header that takes 19 VDC external power input.

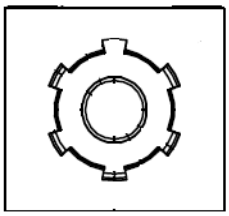

Figure 2.9 DC input connector

2.3.2 VGA Connector

DS-570 provides one high resolution VGA interface connected by a D-sub 15-pin connector to support VGA(CRT) compatible monitors. It supports display resolutions of up to 2048 x 1536 @ 60 Hz.

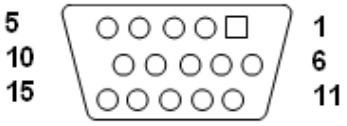

Figure 2.10 VGA Connector

Table 2.4: VGA Connector Pin Assignments

Pin	Signal Name
1	RED
2	GREEN
3	BLUE
4	NC
5	GND
6	GND
7	GND
8	GND
9	NC
10	GND
11	NC
12	DDC DAT
13	H-SYNC
14	V-SYNC
15	DDC CLK

2.3.3 HDMI Connector

DS-570 2 HDMI (High-Definition Multimedia Interface) connectors provide all-digital audio/video interface to transmit the uncompressed audio/video signals and are HDCP and (only one of them, HDMI 1, can support). Connect the HDMI audio/video device to this port. HDMI technology can support a maximum resolution of 3840 x 2160p but the actual resolutions supported depend on the monitor being used.

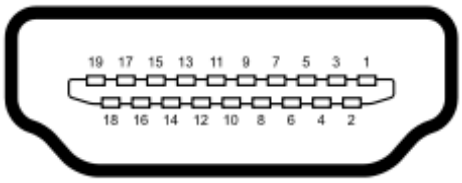

Figure 2.11 HDMI connector

Table 2.5: HDMI Connector Pin Assignments

Pin	Signal Name
1	TMDS Data2+
2	GND
3	TMDS Data2–
4	TMDS Data1+
5	GND
6	TMDS Data1–
7	TMDS Data0+
8	GND
9	TMDS Data0–
10	TMDS Clock+
11	GND
12	TMDS Clock–
13	NC
14	NC
15	SCL
16	SDA
17	GND
18	+5 V Power
19	Detect

2.3.4 DP++ Connector

DS-570 DP++ connector not only supports DP output but also can direct output single-link HDMI and DVI signals using a simple passive adapter. It can support a maximum resolution of 3840 x 2160p but the actual resolutions supported depend on the monitor being used.

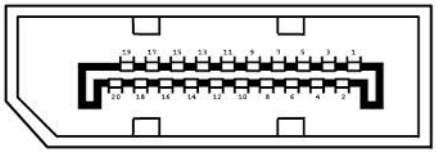

Figure 2.12 DP++ connector

Table 2.6: DP++ Connector Pin Assignments

Pin	Signal Name
1	ML_Lane 0 (p)
2	GND
3	ML_Lane 0 (n)
4	ML_Lane 1 (p)
5	GND
6	ML_Lane 1 (n)
7	ML_Lane 2 (p)
8	GND
9	ML_Lane 2 (n)
10	ML_Lane 3 (p)
11	GND
12	ML_Lane 3 (n)
13	CONFIG1
14	CONFIG2
15	AUX CH (p)
16	GND
17	AUX CH (n)
18	Hot Plug
19	Return
20	DP_PWR

2.3.5 USB Connectors

DS-570 rear side has 2 x USB interface connectors (1 x USB 2.0 and 1 x USB 3.0), which give complete Plug & Play and hot swapping capability for up to 127 external devices. The three USB 2.0 interface are compliant with USB UHCI, Rev. 2.0. and the USB 3.0 is compliant with USB UHCI, Rev. 3.0. All the USB ports support Plug and Play, which enables you to connect or disconnect a device without turning off the computer. USB 2.0 pin definition refer Table 2.1

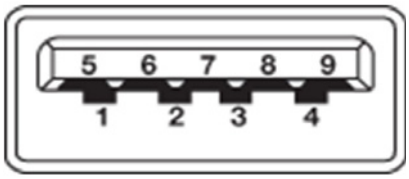

Figure 2.13 USB 3.0 connector

Table 2.7: USB 3.0 Connector 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+

2.4 Hardware Installation

2.4.1 Memory Installation

1. Remove Mini-PCIe cover, HDD cover by loosening the 5 fixing screws
2. Remove the heatsink by loosening the 4 fixing screws on front and rear panels, and 2 fixing screws inside the chassis
3. Insert the memory module into memory sockets
4. Reverse the above-mentioned steps to assemble the system

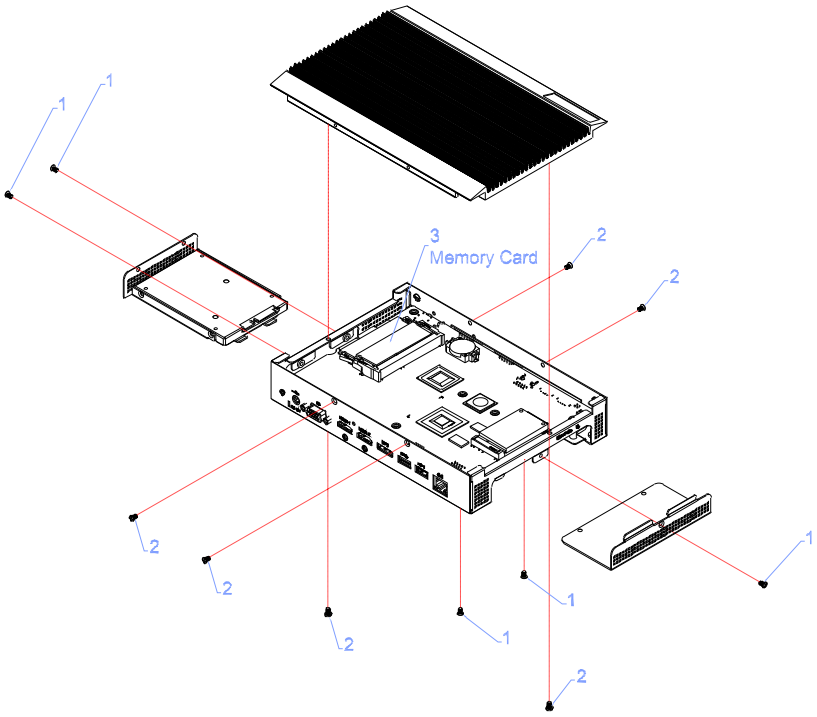

Figure 2.14 Memory module installation

2.4.2 HDD Installation

1. Assemble the 2.5-inch SATA HDD on HDD bracket with 4 HDD screws.
2. Install the HDD module into the system.
3. Assemble the HDD cover back with 2 screws.

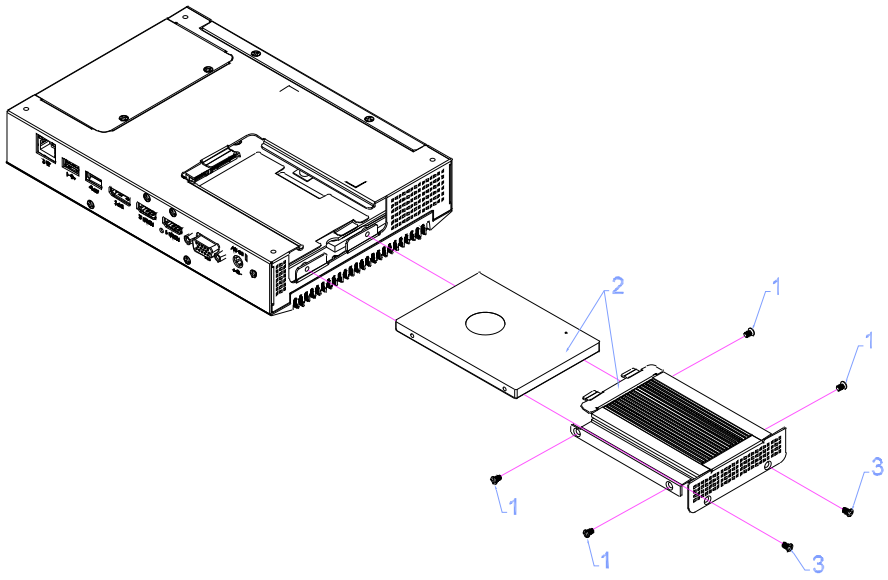

Figure 2.15 HDD installation

2.4.3 Mini Card & SIM Card Installation

1. Remove the Mini PCIe cover by loosening the 3 fixing screws.
2. Insert the Mini card into Mini PCIe card slot. Place the SIM card into SIM card socket (Note: The SIM card slot is under the Mini PCIe slot-do not mix them up).
3. Assemble back the Mini PCIe cover with the screws.

Note! *Mini PCIe1 supports mSATA and mini PCIE cards.*

Note! *The SIM Card slot is under the Mini PCIE2 slot.*

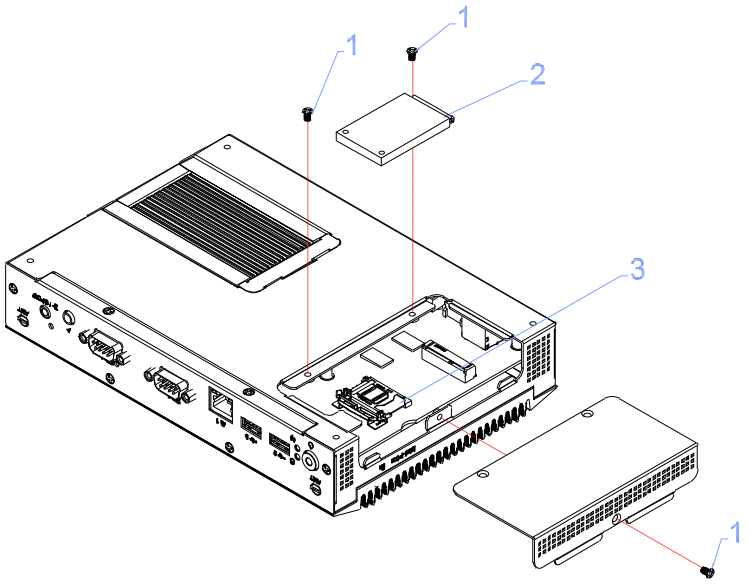

Figure 2.16 Mini PCIe and SIM card installation

2.4.4 Installation of Antenna for Wireless LAN

1. Refer to the above steps to remove the Mini-PCIe cover, and HDD cover.
2. Remove the heatsink by loosening the 4 fixing screws on the front and the rear I/O panels, and 2 fixing screws inside the chassis; and then remove the front panel 4 screws to take off the front cover.
3. Fix the antenna onto the front IO panel.
4. Re-assemble the system.

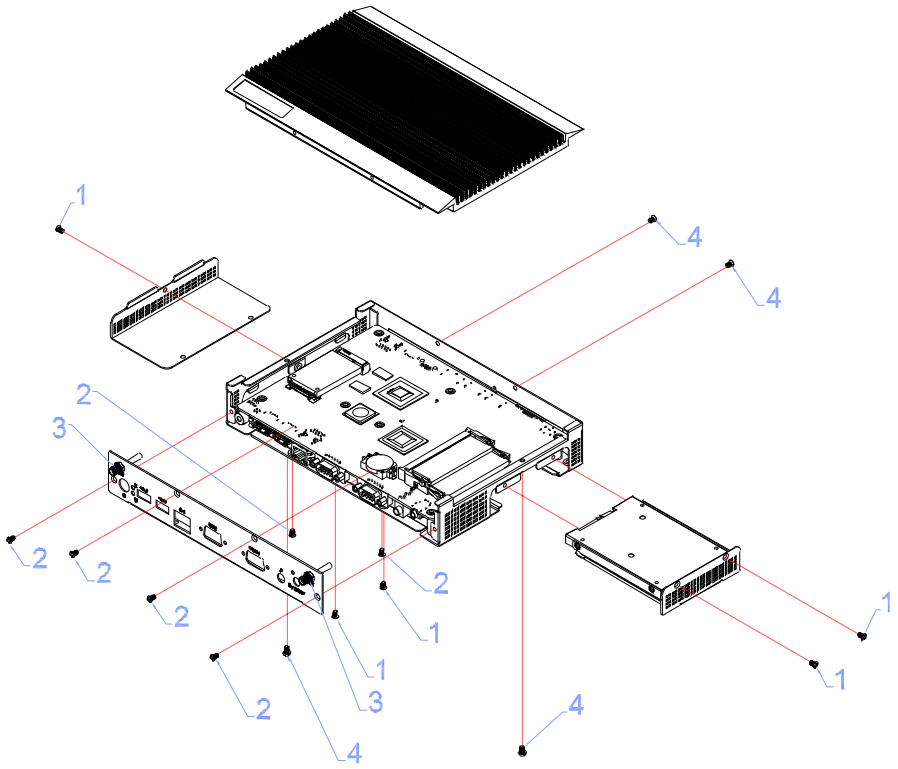

Figure 2.17 Installation of Antenna for Wireless LAN

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-570 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 the 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. 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-570 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.

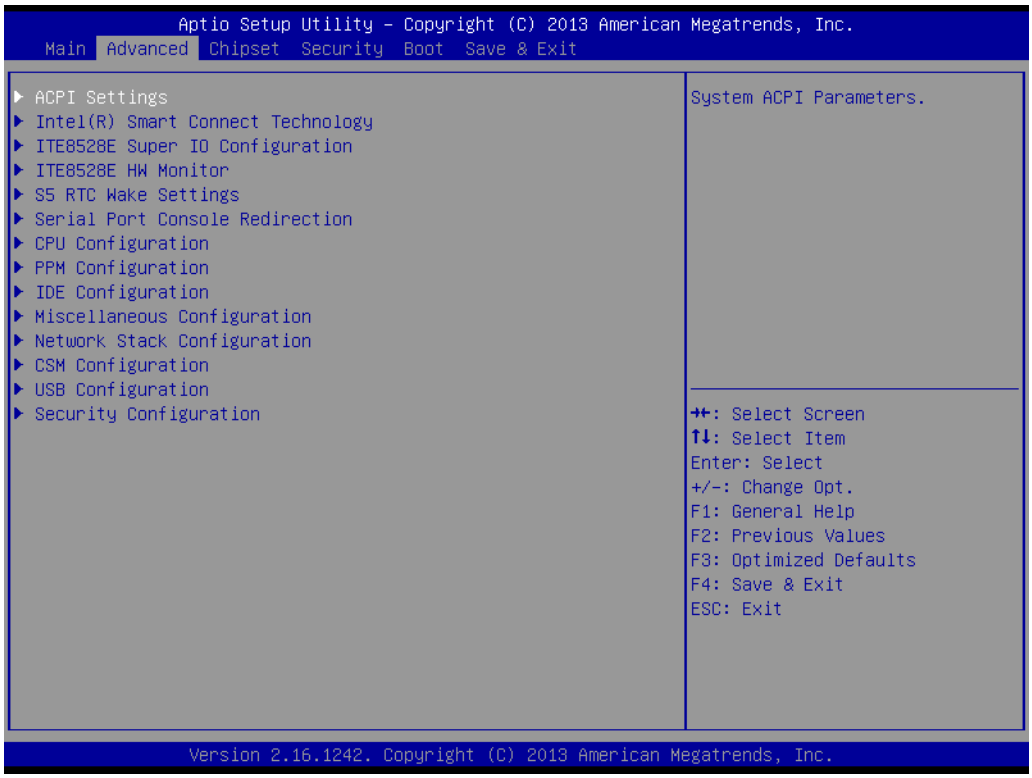

Figure 3.2 Advanced BIOS Features setup screen

- **ACPI Settings**
  System ACPI Parameters

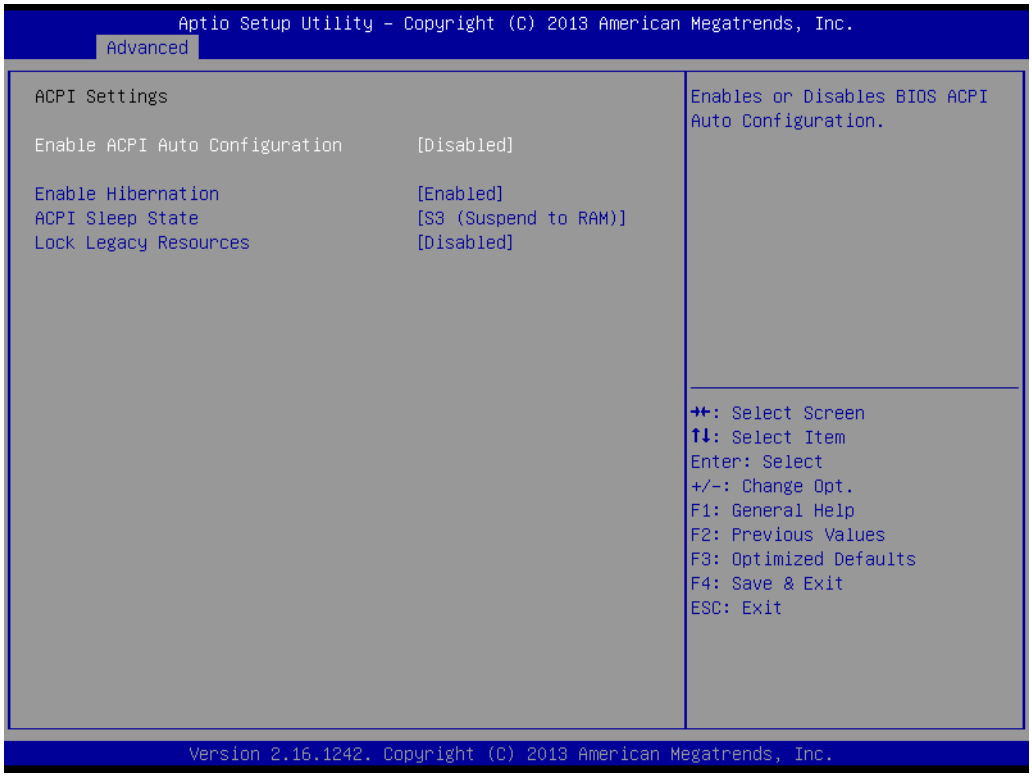

Figure 3.3 ACPI setup screen

- **Intel® Smart Connect Technology**
  Intel® Smart Connect Technology settings
  - **ISCT Notification Control**
    Enable/Disable ISCT support
  - **ISCT WLAN Power Control**
    Enable/Disable ISCT WLAN power support
  - **ISCT WWAN Power Control**
    Enable/Disable ISCT WWAN power support
  - **ISCT Sleep Duration Value Format**
    ISCT sleep duration is only in seconds format, actual time format is not supported
  - **ISCT RF Kill Switch Type**
    Software/Hardware ISCR RF Kill Switch Type
  - **ISCT RTC Timer Support**
    Enable/Disable ISCT RTC Timer

- **ITE8528E Super IO Configuration**
  System Super IO chip parameters

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

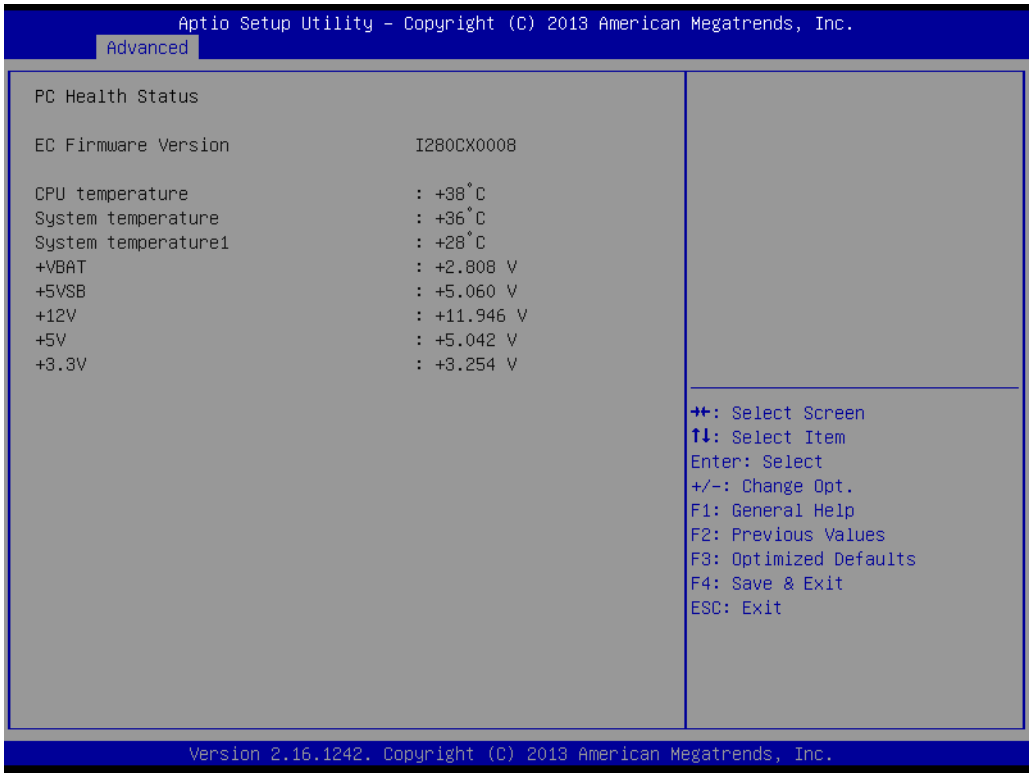

Figure 3.4 HW Monitor Screen

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

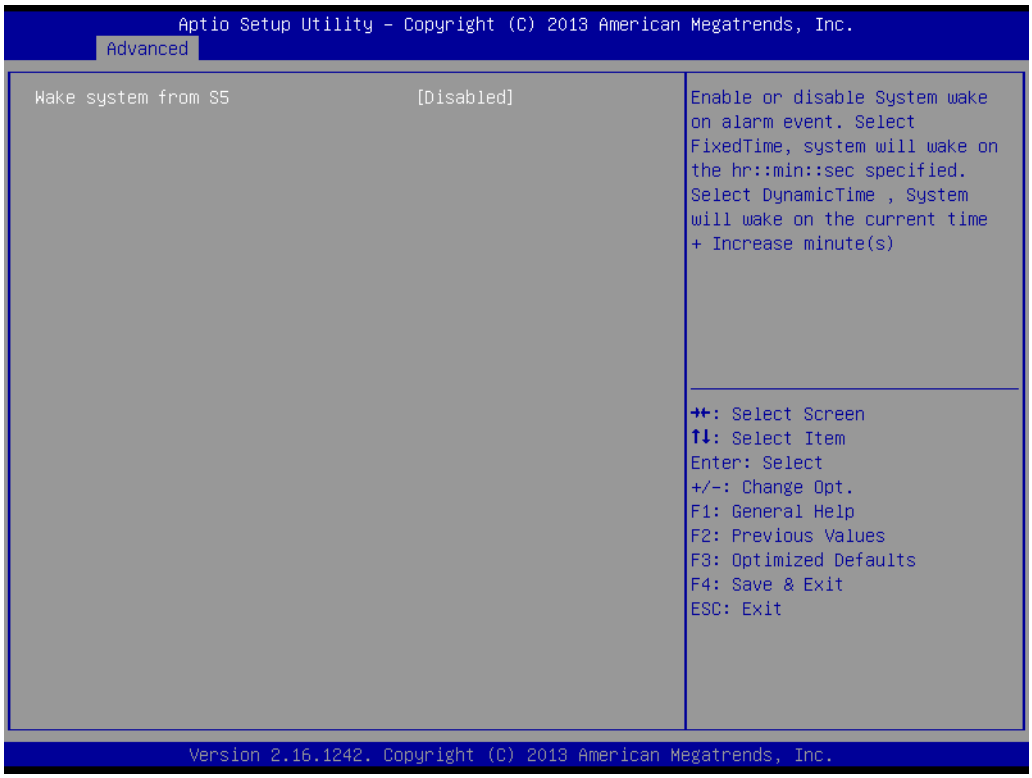

Figure 3.5 S5 RTC Wake setup screen

- **Serial Port Console Redirection**
  Serial Port Console Redirection

- **CPU Configuration**
  CPU Configuration parameters

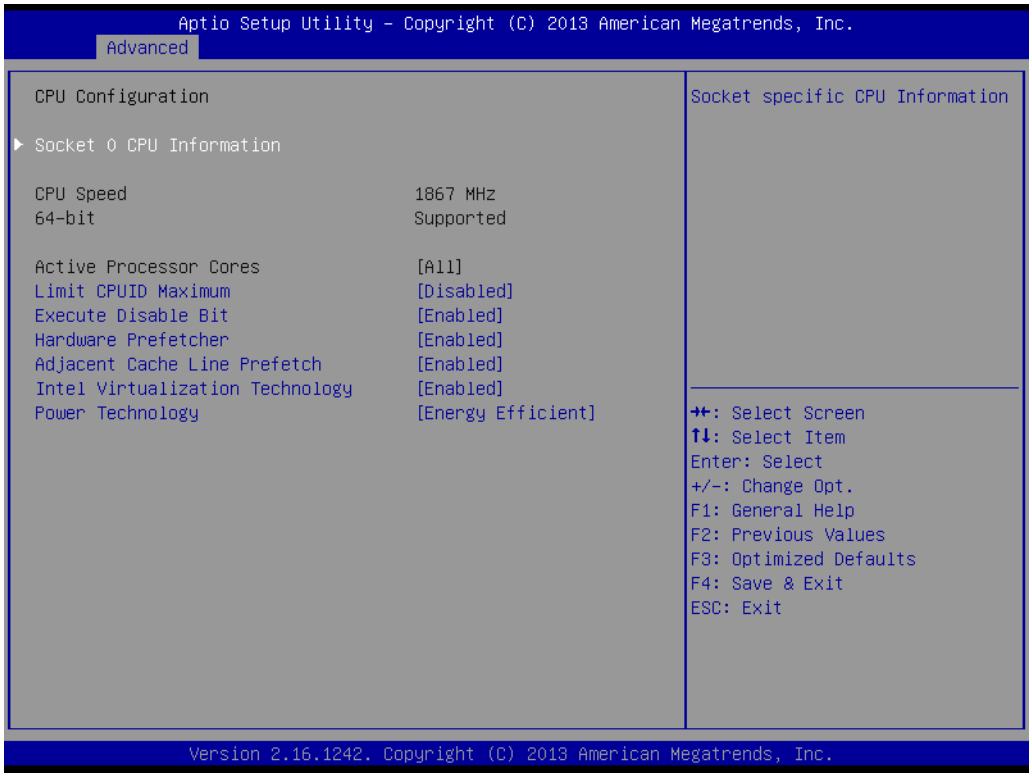

Figure 3.6 CPU Configuration setup screen

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

- **IDE Configuration**
  IDE device configuration.

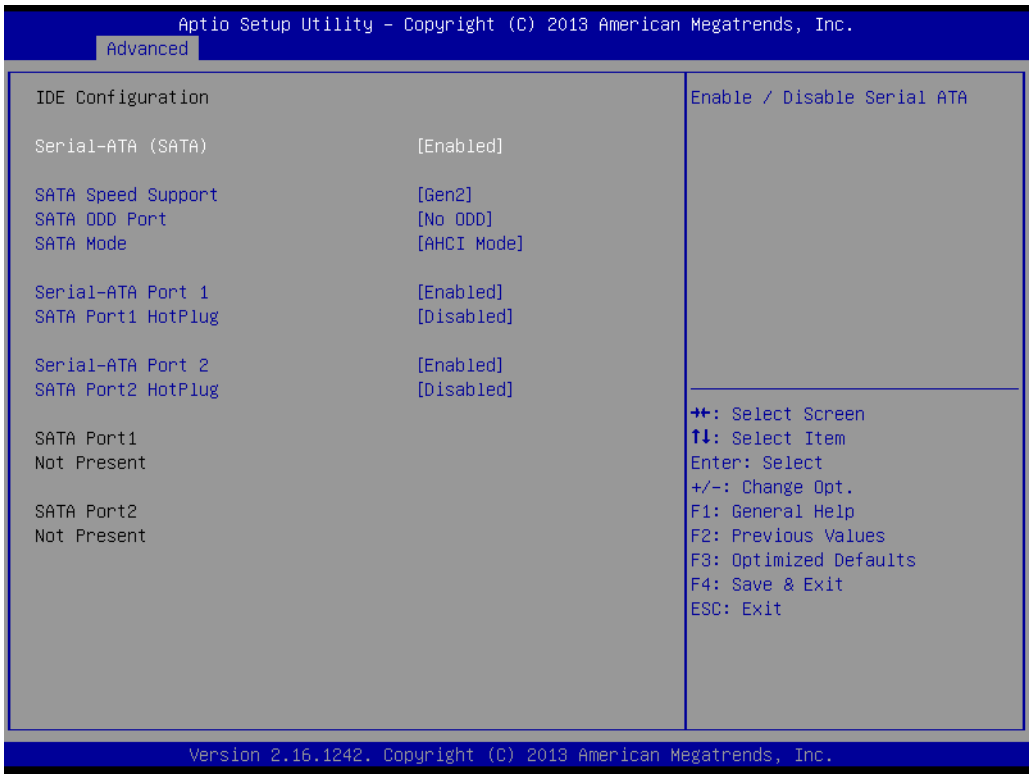

Figure 3.7 IDE configuration setup screen

- **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**
    OS Selection. The OS selection should be set and matched what OS applied.

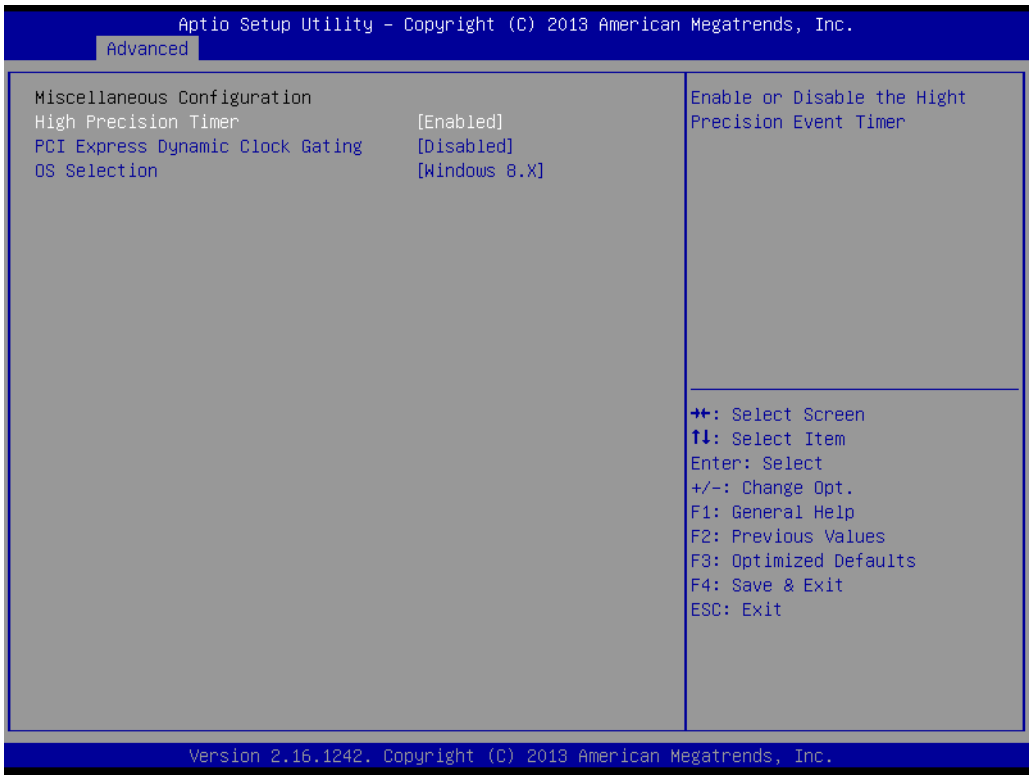

Figure 3.8 Miscellaneous Configuration setup screen

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

- **USB Configuration**
  USB Configuration parameters
  - **Legacy USB Support**
    Enable legacy USB support. AUTO option disables legacy support if no USB devices are connected. DISABLE option will keep USB devices available only 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 XHCI driver
  - **EHCI Hand-off**
    This is a workaround for OS without EHCI hand-off support. The EHCI ownership change should be claimed by EHCI driver
  - **USB Mass Storage Driver Support**
    Enable/Disable USB mass storage driver support
  - **USB transfer time-out**
    The time-out value for control, bulk, and Interrupt transfers. The choice: 1 sec, 5 sec, 10 sec, 20 sec
  - **Device reset time-out**
    USB mass storage device Start Unit Command time-out. The choice: 10 sec, 20 sec, 30 sec, 40 sec
  - **Device power-up delay**
    Auto/Manual, USB mass storage device Start Unit Command time-out.

Figure 3.9 USB Configuration setup screen

- **Security Configuration**

  Intel® Anti-Theft Technology configuration

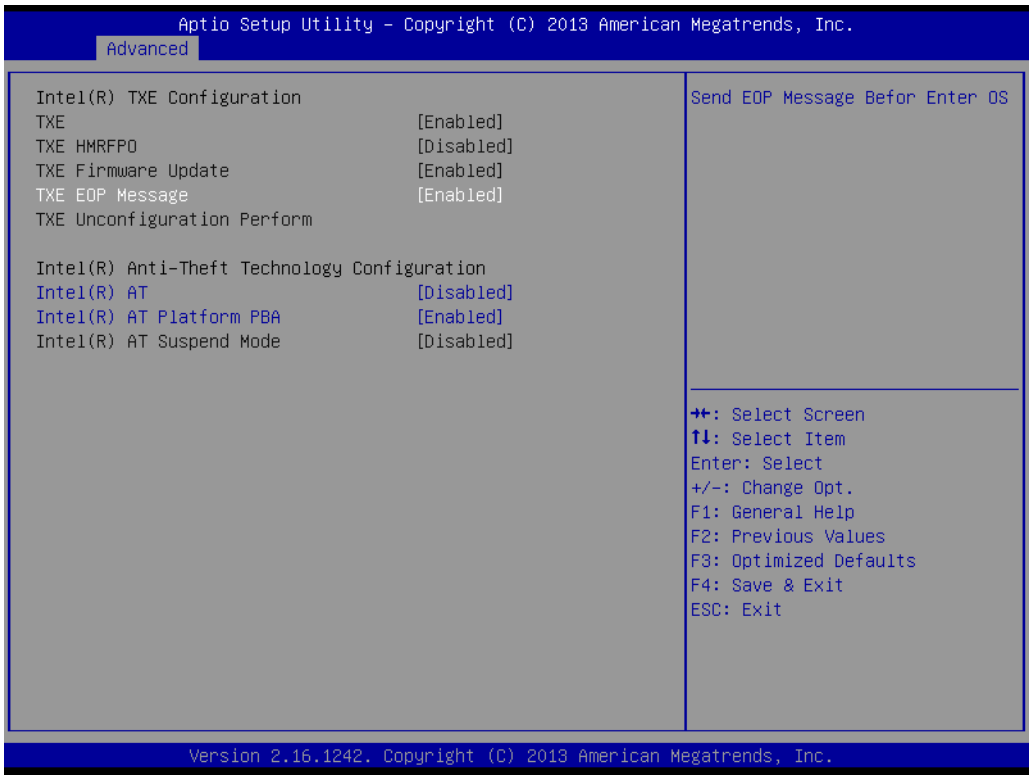

Figure 3.10 Intel® TXE Configuration setup screen

3.2.3 Chipset BIOS Feature Setup

Select the Chipset tab from the DS-570 setup screen to enter the Chipset BIOS setup screen. Users can select any item in the left frame of the screen.

- **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 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 the .exe)
  - **Launch PXE OpROM**
    Enable or disable boot options for legacy network devices.
  - **PCIE Wake**
    Enable/disable PCIE to wake the system from S5
  - **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 protect

3.2.4 Security BIOS Feature Setup

Select the security tab from the setup screen to enter the security BIOS setup screen.

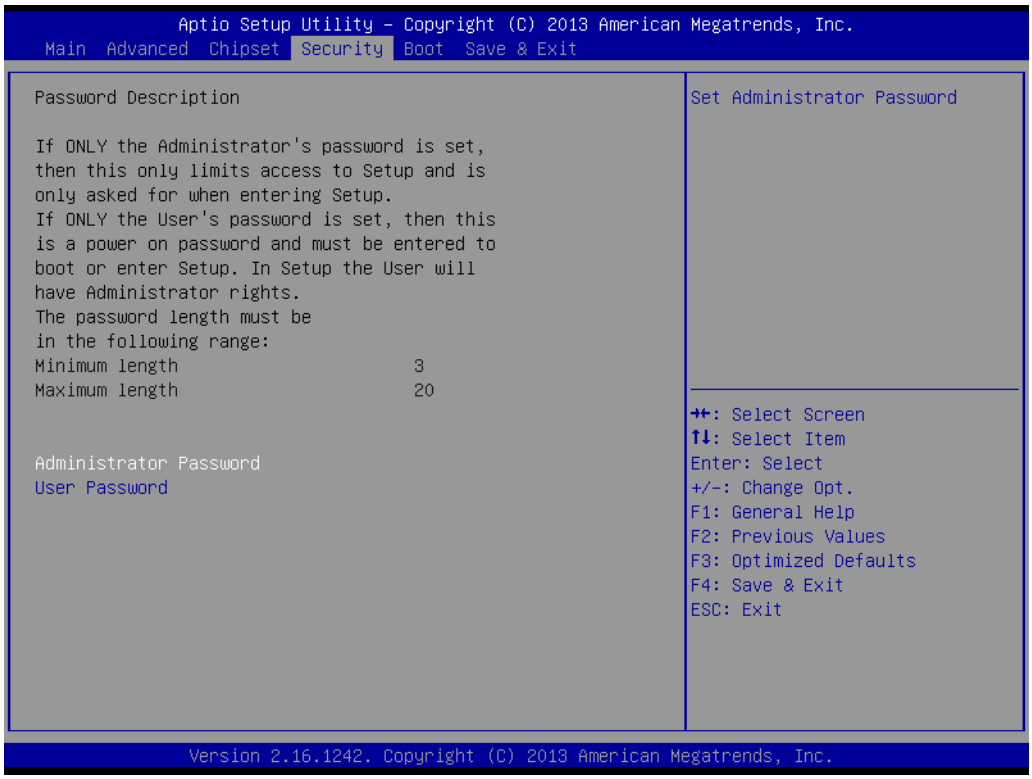

Figure 3.11 Security configuration setup screen

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

3.2.5 Boot BIOS Feature Setup

Select the Boot tab from the DS-570 setup screen to enter the Boot BIOS setup screen. Users can select any item in the left frame of the screen.

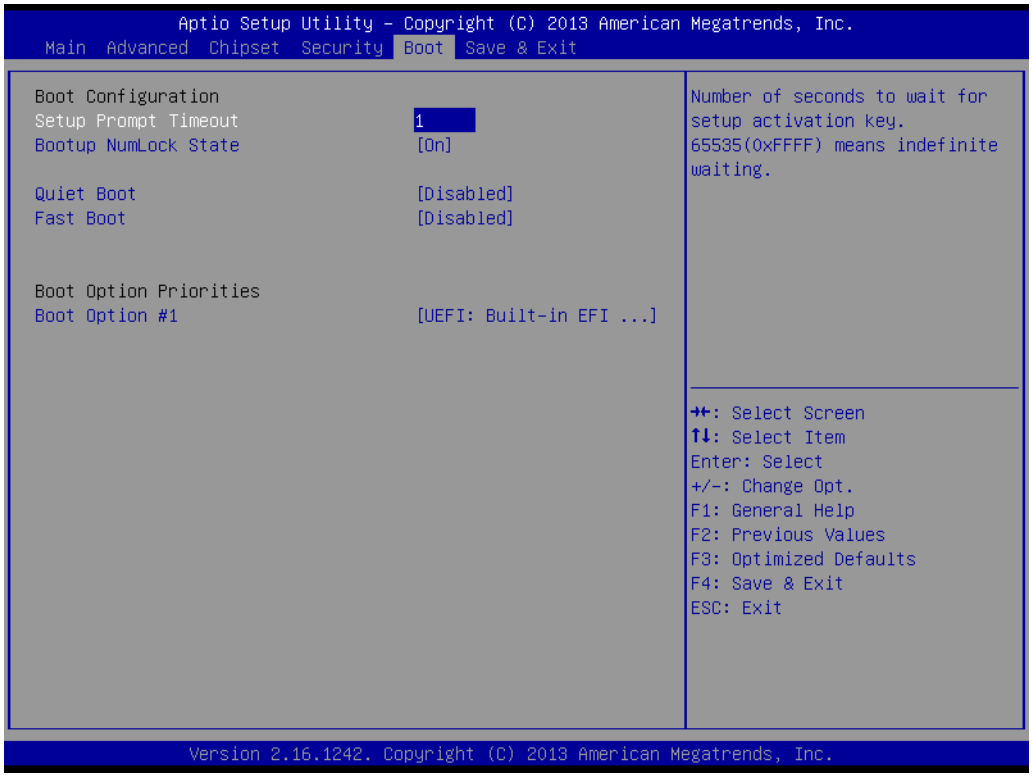

Figure 3.12 Boot configuration setup screen

- **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.

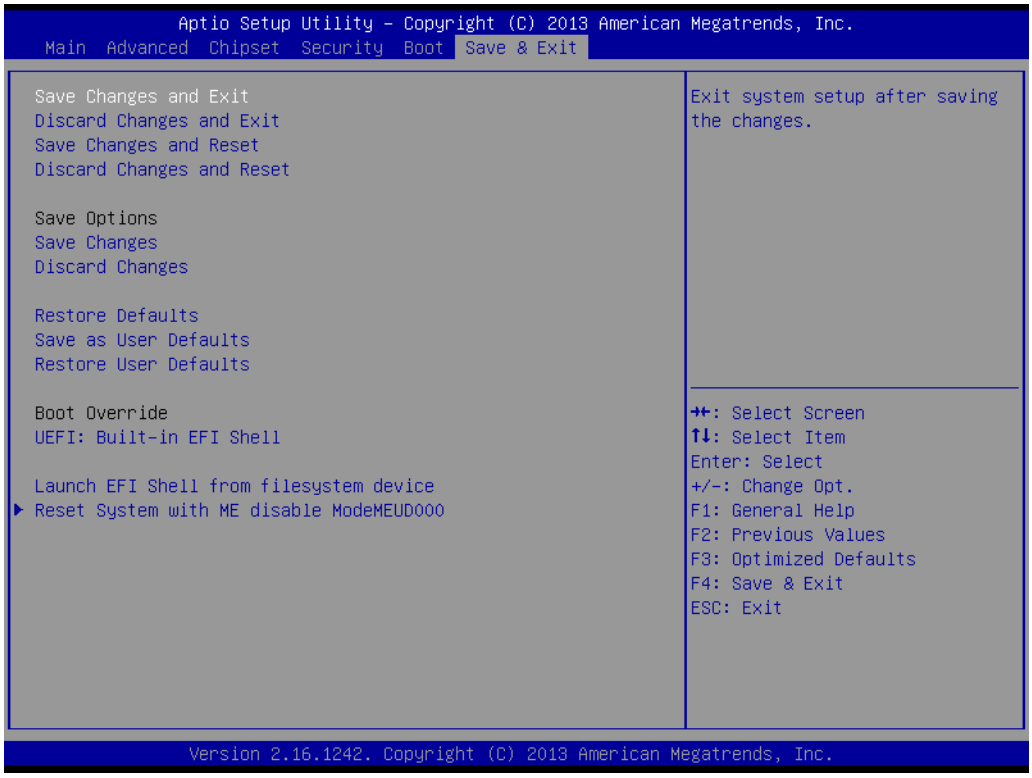

Figure 3.13 Save & Exit configuration setup screen

- **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 ModeMEUD000**

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

Chapter 4

Software

This chapter highlights the OS installation prompt.

4.1 Intel TXE driver Installation

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

Notice: more the KB2685811 explanation, please reference and download from Microsoft 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(R) TXEI 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 TXEI Driver uses KMDF (WDF) 1.11, which is built-in 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 TXEI device upon installation. Please follow instructions in this link: KB2685811***
- *Sample Signer tool reference code kit details available in section 1.2.*
  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 ¯8ˇ. As a result, Full FW upgrade from Intel(R) TXE FW 1.1.0.1089 is possible however a downgrade from Intel(R) TXE FW 1.1.0.1113 to an earlier kit is not possible.*

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