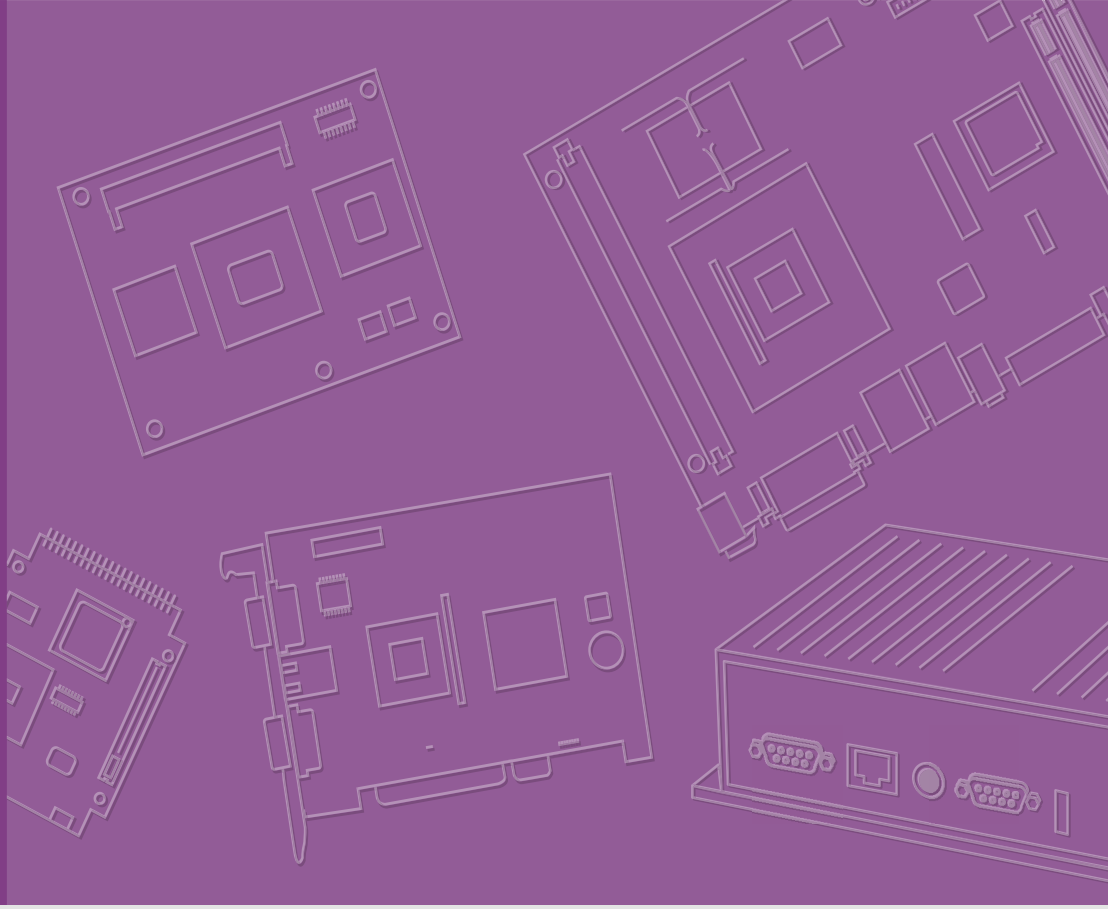

User Manual

DS-370

Cost-Effective Fanless Digital Signage Player

ADVANTECH

Enabling an Intelligent Planet

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Acknowledgements

For more information about this or 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/

Part No. 2006037010 Edition 1

Printed in China May 2015

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 merchandize 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 a 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.

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 that if not observed can cause personal injury!*

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

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.*

Declaration of Conformity

FCC Class B

Note: This equipment has been tested and found to comply with the limits of a Class B digital device, pursuant to part 15 of the FCC Regulations. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If the equipment does cause harmful interference to radio or television reception, as determined by turning the equipment off and on again, users are encouraged to try to correct the interference by performing one or more of the following actions:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for assistance.

Packing List

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

- 1 x DS-370 unit
- 1 x accessory box comprising
  - 1 x power adaptor
  - 1 x bracket set for fixing the power adapter plug
  - 2 x mounting brackets
  - 1 x China RoHS
  - 1 x Simplified Chinese user manual for CCC
  - 1 x content management software
  - 4 x foot rubbers and screws

Optional Accessories

Part Number	Description
1700001524	3-pin power cord (US)
170203183C	3-pin power cord (EU)
170203180A	3-pin power cord (UK)
1702031836	3-pin power cord (AU)
1700008921	3-pin power cord with PSE approval (Japan)
1700019146	3-pin power cord with CCC approval (China)

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.

ATTENTION: Risque d'explosion si la batterie est remplacee de maniere incorrecte. Remplacer uniquement avec un modèle recommandé par le fabricant, et éliminer les piles usagées selon les instructions du fabricant.

DISCLAIMER: These instructions are provided according to IEC 60950-1 (Ed. 2). Advantech disclaims all responsibility for the accuracy of statements contained herein.

Contents

Chapter 1

General Introduction

This chapter gives background information regarding the DS-370 series.

1.1 Introduction

DS-370 is an ideal digital signage player becuase it provides a system platform that is not only compact, but also cost effective. For digital signage applications, this device delivers a high graphics performance and energy saving benefits.

DS-370 is powered by an Intel® Celeron® J1900 quad-core processor, supports 3 display output interfaces (HDMI, DP++, and VGA), and can provide up to 2 display outputs simultaneously. The platform is also equipped with 64GB of micro SSD on-board storage for fast system boot and file read/write velocity. When used for kiosk applications, direct user manipulation exposes the system and software to potential alteration and damage. However, the built-in value-added software (write protection) eliminates this risk by ensuring that the system is returned to its original state with each reboot to provide users with a consistent use experience.

DS-370 features 2 gigabit LAN ports, 4 USB ports (3 x USB 2.0 and 1 x USB 3.0), as well as 2 x COM (RS-232) and audio ports (1 x mic-in and 1 x SPDIF/line-out) to facilitate system integration and application. To enhance connectivity, the device also supports 2 mini PCIe interfaces to enable the inclusion of add-on functions, wireless modules, and/or 3G modules.

1.2 Product Features

1.2.1 General

- Intel® Celeron® J1900 quad-core, 2.0 GHz processor (CPU TDP up to 10 W)
- Features 1 x HDMI, 1 x DP++, and 1 x VGA port (supports dual display)
- Equipped with 64 GB of micro SSD on-board storage (optional)
- Supports 2 x GbE, 1 x USB 3.0, 3 x USB 2.0, and 2 x COM (RS-232) ports
- Features a 2.5” (7 mm height) SATA HDD/SSD drive bay for storage devices
- Built-in 2 x mini PCIe slots for easy expansion (e.g., WiFi, 3G…etc)
- Easy integration and maintenance

1.2.2 Display

- **Resolution:**
  - HDMI / DP++: up to 1920 x 1080 @60Hz
  - VGA: up to 2048 x 1280 @60Hz

1.2.3 Power Consumption

- **Idle:** 4.4 W (w/o expansion)
- **Max.:** 10.9 W (w/o expansion)

1.3 Hardware Specifications

- **CPU:** Intel® Celeron® J1900 quad-core, 2.0 GHz processor
- **System Chipset:** SoC solution with built-in Intel® Celeron® J1900 processor
- **BIOS:** AMI uEFI 64 Mbit Flash BIOS
- **System Memory:** 2 x DDR3L SO-DIMM sockets support up to 8 GB of DDR3L 1333 MHz memory (Max. 4 GB per SO-DIMM socket)
- **Processor Graphics:** Intel® HD Graphics
- **HDD:** Supports 1 x 2.5" (7 mm height) SATA HDD
- **SSD:** 64 GB MLC micro SSD on-board storage (optional) or shared 2.5" (7 mm height) 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 ports
- **Audio:** Supports 1 x mic-in and 1 x SPDIF/line-out port
- **Ethernet Chipset:** 2 x Intel 211 (Gigabit LAN)
  - Speed: 10/100/1000 Mbps
  - Interface: 2 x RJ-45 jacks with LED
  - Standard: IEEE 802.3z/ab (1000 Base-T) or IEEE 802.3u 100 Base-T compliant
- **Expansion**
  - Mini PCIe: 2 internal sockets (full size)

Note!

1. *The mini PCIe socket on the bottom supports an mSATA interface (This function is disabled if users choose the on-board micro SSD option.)*
2. *The SIM socket only functions with the mini PCIe module on the same side, and does not work with the mini PCIe socket on the bottom.*

- **Resolution**
  - HDMI: Up to 1920 x 1080 @60 Hz
  - DP++: Up to 1920 x 1080 @60 Hz
  - VGA : Up to 2048 x 1280 @60 Hz

1.4 Mechanical Specifications

- **Dimensions:** 204.0 x 118.2 x 44.2 mm (8.03 x 4.65 x 1.74") (W x D x H)

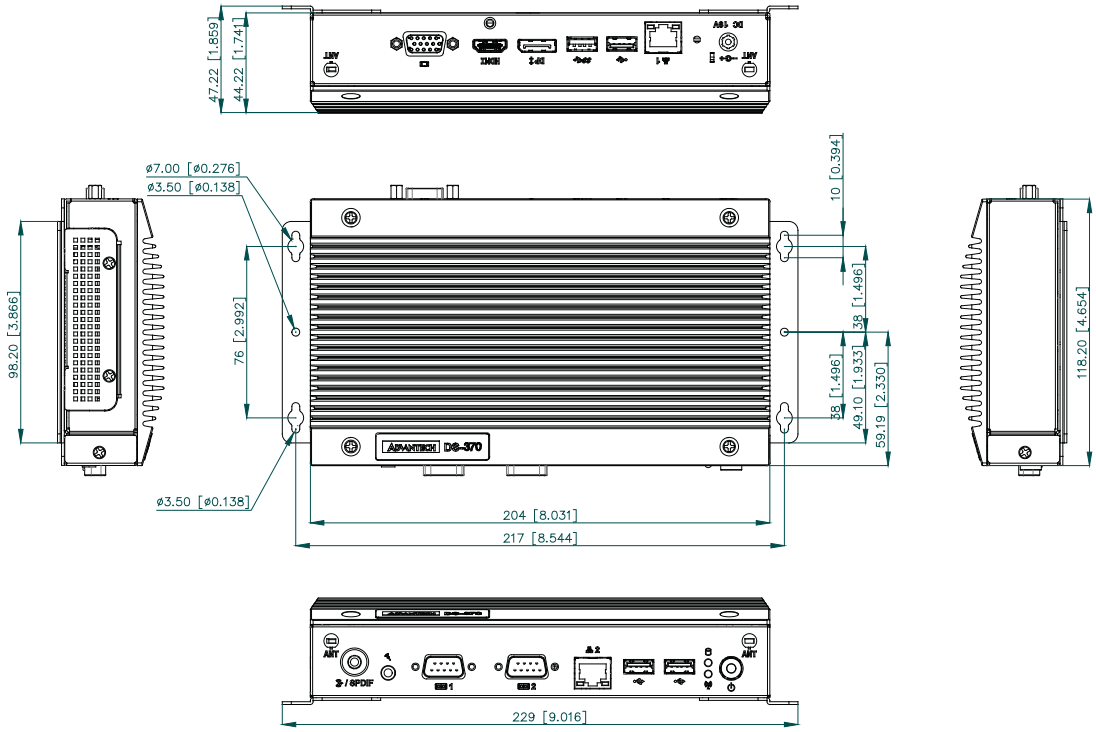


Figure 1.1 DS-370 mechanical dimensions

- **Weight:** 1.1 kg (2.43 lb)

1.5 Power Requirements

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

1.6 Environmental Specifications

- **Operating Temperature:** 0 ~ 40 °C (32 ~ 104 °F)
- **Relative Humidity:** 95% @ 40 °C (non-condensing)
- **Storage Temperature:** -20 ~ 60 °C (-4 ~ 140 °F)
- **Vibration Load During Operation:** 0.5 Grms, IEC 60068-2-64, random, 5 ~ 500 Hz , 3 axes,1 hr/axis.
- **Shock During Operation:** 10 G, IEC 60068-2-27, half sine, 11 ms duration
- **Safety:** UL, CB, BSMI, CCC
- **EMC:** CE/FCC Class B, BSMI, CCC

Chapter 2

Hardware Installation

This chapter describes the DS-370 external I/O and explains the hardware installation process.

2.1 DS-370 Front and Rear Views

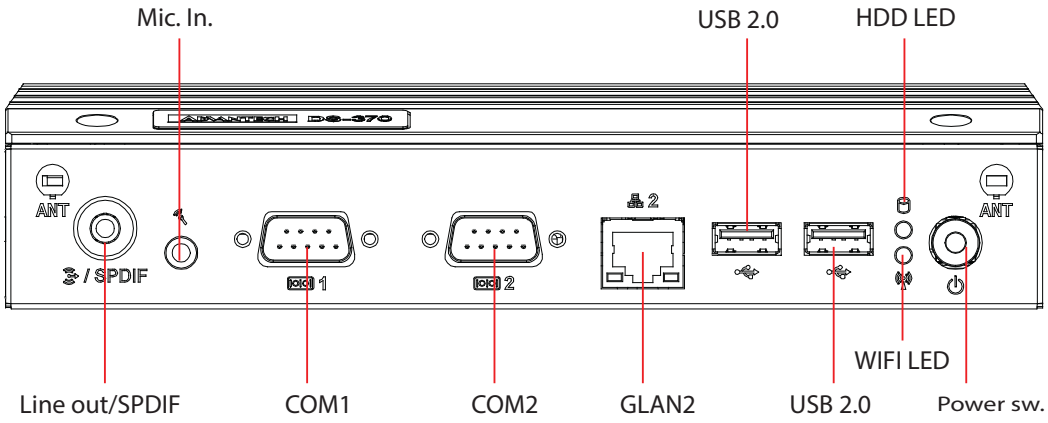


Figure 2.1 Front view

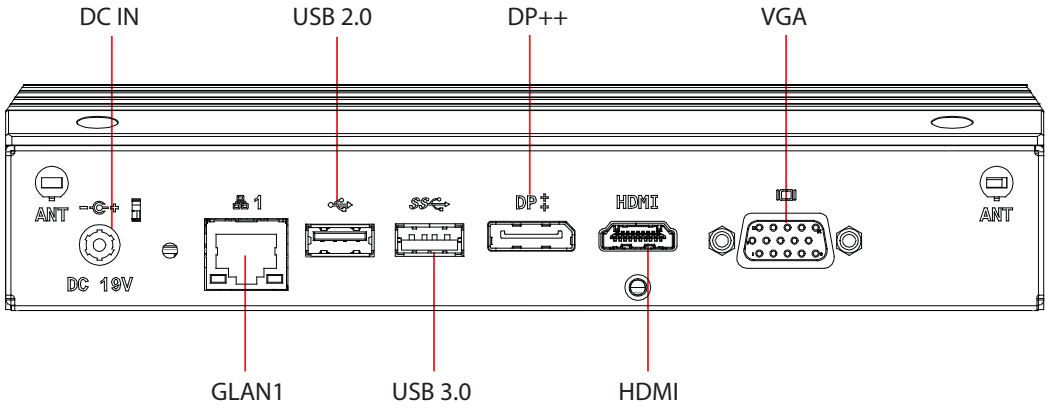


Figure 2.2 Rear view

2.2 DS-370 Front External I/O Connectors

2.2.1 Power ON/OFF Button

DS-370 features a power ON/OFF button located on the front. Press this button to turn the system ON or OFF. This feature also supports a 4-second-delay soft power off.

Figure 2.3 Power button

2.2.2 USB Connectors

At the front of DS-370 are two USB 2.0 interface connectors that provide complete plug-and-play and hot-swapping capabilities for up to 127 external devices. The two USB 2.0 interfaces are compliant with USB UHCI, Revision. 2.0.

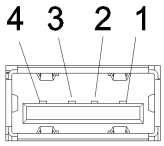


Figure 2.4 USB connector

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-370 features two RJ45 LAN interface connectors (one LAN at the front and one at the rear). These connectors are fully compliant with IEEE 802.3u 10/100/1000 Base-T CSMA/CD standards. The Ethernet port supports a standard RJ-45 jack connector, and LED indicators at the front of DS-370 display its active link and speed status.

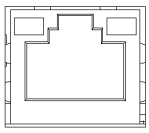


Figure 2.5 LAN connector

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-370 is equipped with two D-sub 9-pin connectors for serial communication interface ports. These ports support RS-232 mode communication.

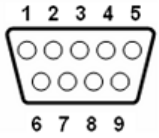


Figure 2.6 COM connector

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

A microphone can be connected to the audio jack (pink) to provide either line-in or mic-in input functions.

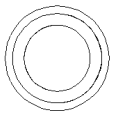


Figure 2.7 Audio connector

2.2.6 S/PDIF Connector

The S/PDIF port enables transfers of digital sound to an amplifier or television, and supports jack sensing and line-out functions. Configuration can be conducted via the driver UI.

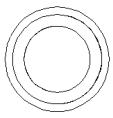


Figure 2.8 S/PDIF connector

2.3 DS-370 Rear External I/O Connectors

2.3.1 Power Input Connector

DS-370 features a DC jack header that requires an input of 19 V DC power.

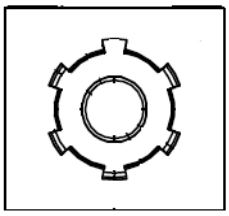


Figure 2.9 DC input connector

2.3.2 VGA Connector

DS-370 supports one high-resolution VGA interface connected by a D-sub 15-pin connector.

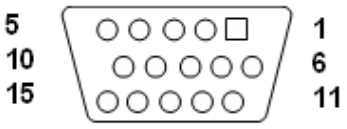


Figure 2.10 VGA connector

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-370 is equipped with HDMI connectors that provide an HDCP-compliant, all-digital audio/video interface for transmitting uncompressed audio/video signals. HDMI technology supports a maximum resolution of 1920 x 1080p (full HD); however, the actual resolution depends on the monitor used.

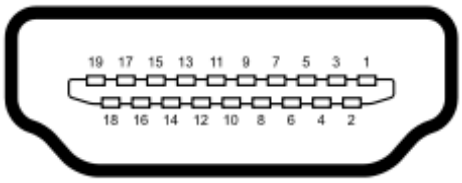


Figure 2.11 HDMI connector

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-370 features a DP++ connector for transmitting audio and video. This connector not only supports DP output, but also single-link HDMI and DVI signals via a simple passive adapter.

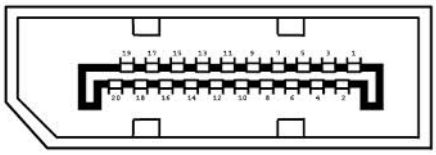


Figure 2.12 DP++ connector

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

At the rear of DS-370 are two USB interface connectors (one USB 2.0 and one USB 3.0) that offer complete plug-and-play and hot-swapping capabilities for up to 127 external devices.

The USB 2.0 interface is compliant with USB UHCI, Revision. 2.0. (Refer to Table 2.1 for pin definitions.)

The USB 3.0 interface is compliant with USB UHCI, Revision 3.0. (Refer to Table 2.7 for pin definitions.)

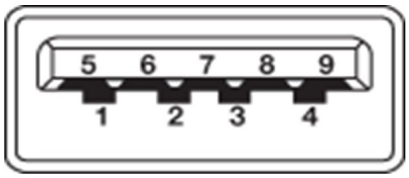


Figure 2.13 USB 3.0 connector

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. Loosen the four screws that secure the top cover of the device.
2. Remove the heat-sink cover.
3. Insert the memory module into a memory socket.
4. Reattach the heat-sink cover and tighten the screws

Note! *Use the DIMM 1 slot when installing only one RAM.*

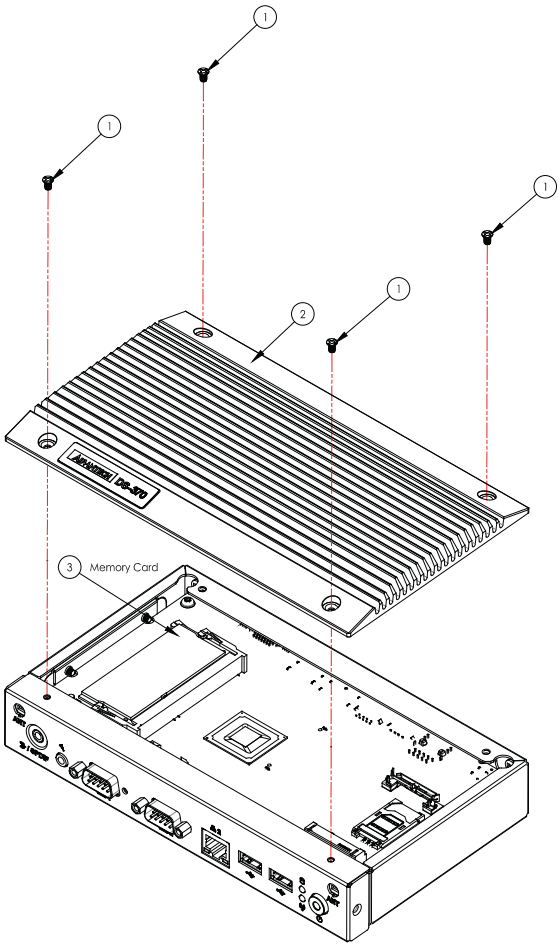


Figure 2.14 Memory module installation

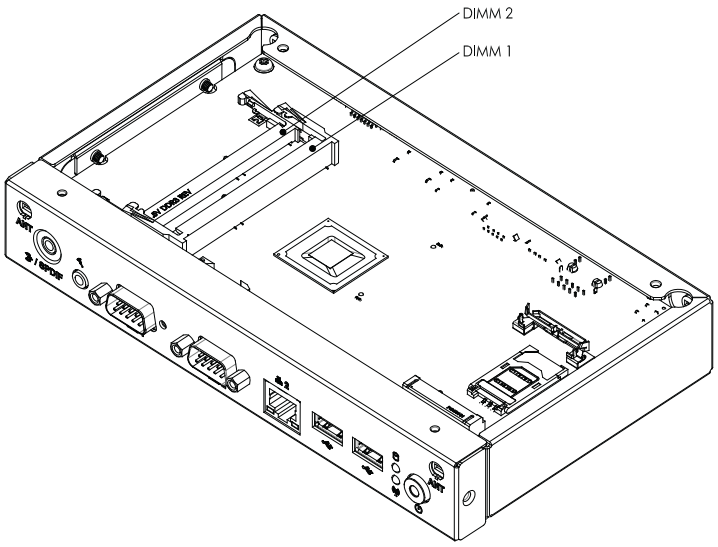


Figure 2.15 Memory slot definition

2.4.2 HDD Installation

1. Loosen the two screws on the side.
2. Loosen the four screws on the two sides of the bracket.
3. Insert the HDD into the bracket.
4. Reattach the bracket and tighten the four screws.

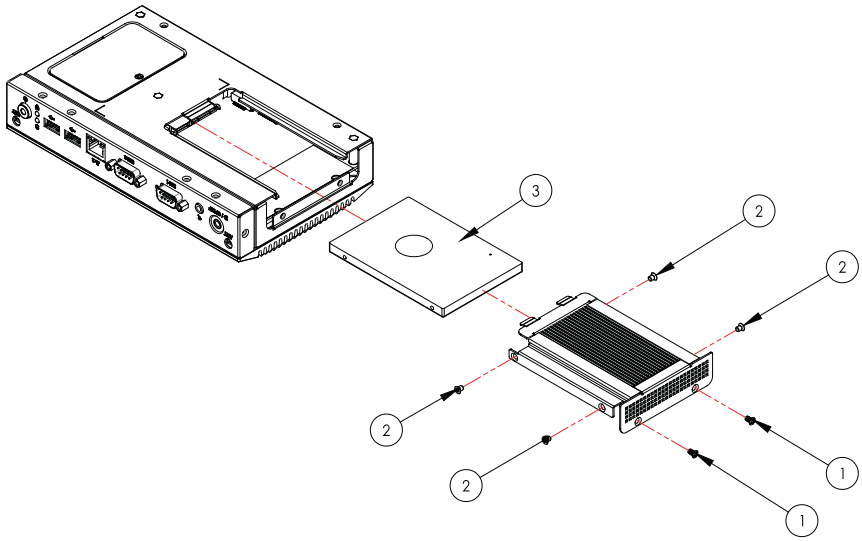


Figure 2.16 HDD installation

2.4.3 Mini PCIe and SIM Card Installation

[Top]

1. Loosen the four screws that secure the top cover of the device..
2. Remove the heat-sink cover.
3. Insert the mini PCIe module and SIM card into the apporpriate sockets.
4. Reattach the heat-sink cover and tighten the screws.

Note 1 *The SIM socket only functions with the mini PCIe module on the same side, and does not work with the socket on the bottom.*

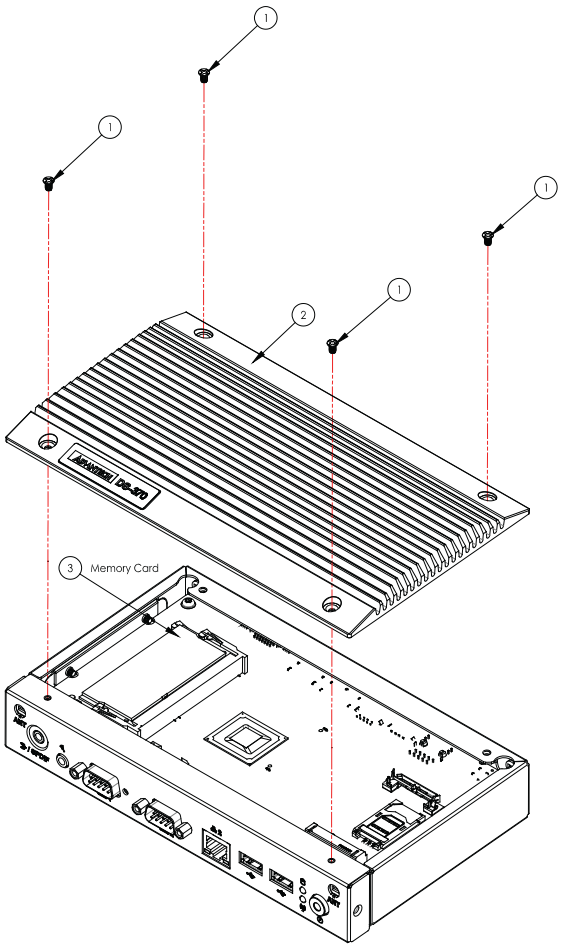


Figure 2.17 Mini PCIe and SIM card installation

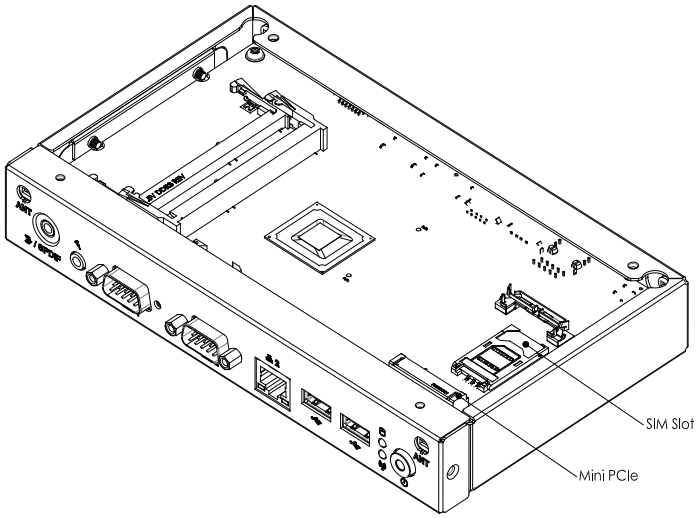


Figure 2.18 Mini PCIe/SIM card installation

[Bottom]

1. Loosen the screw that secures the mini PCIe cover.
2. Remove the mini PCIe cover.
3. Insert the mini PCIe card into the socket.
4. Reattach the mini PCIe cover and tighten the screws.

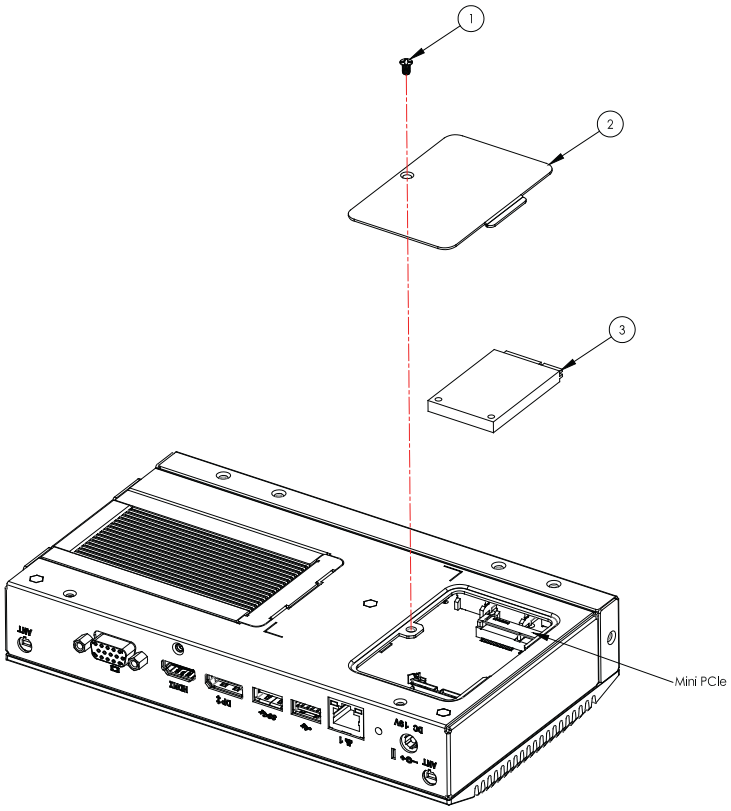


Figure 2.19 Mini PCIe installation

2.4.4 Wireless LAN Card Antenna Installation

[Front]

1. Loosen the four screws on the top and remove the heat-sink cover.
2. Loosen the two screws on the side and remove the HD module.
3. Loosen the screw on the bottom and remove the PCIe cover.
4. Loosen the six screws in the front cover.
5. Loosen the four screws near the two COM ports then remove the front cover.
6. Attach the antenna to the front I/O panel.
7. Perform the above steps in reverse order to reassemble the device.

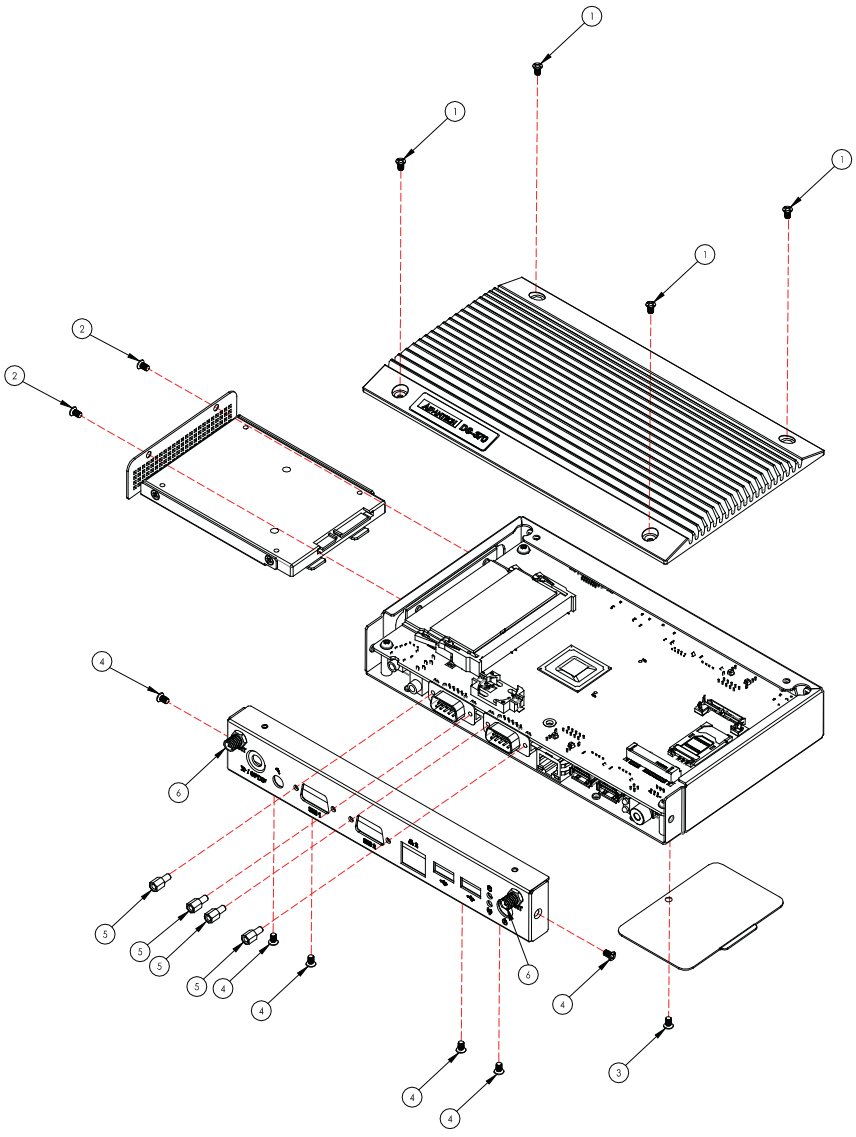


Figure 2.20 Antenna module installation - front

[Rear]

1. Loosen the four screws on the motherboard.
2. Detach the motherboard from the chassis.
3. Attach the antenna module to the back of the chassis.
4. Perform the above steps in reverse order to reassemble the device.

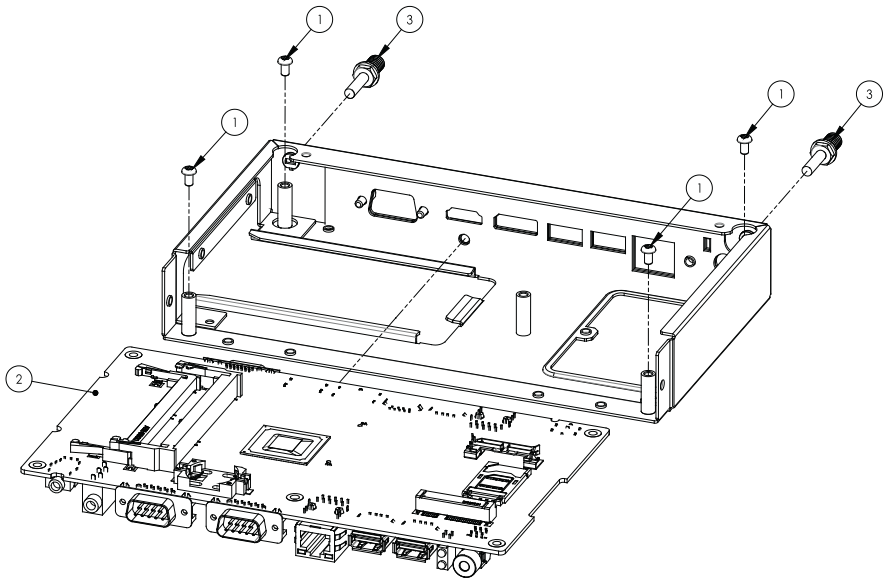


Figure 2.21 Antenna module installation - rear

2.4.5 Mount Bracket Installation

1. Loosen the two screws on the bottom of the chassis.
2. Align the screw holes in mount brackets with those in the chassis.
3. Attach the brackets to the chassis by tightening the four screws.
4. After affixing the mount brackets, the device can be mounted on a table or wall.

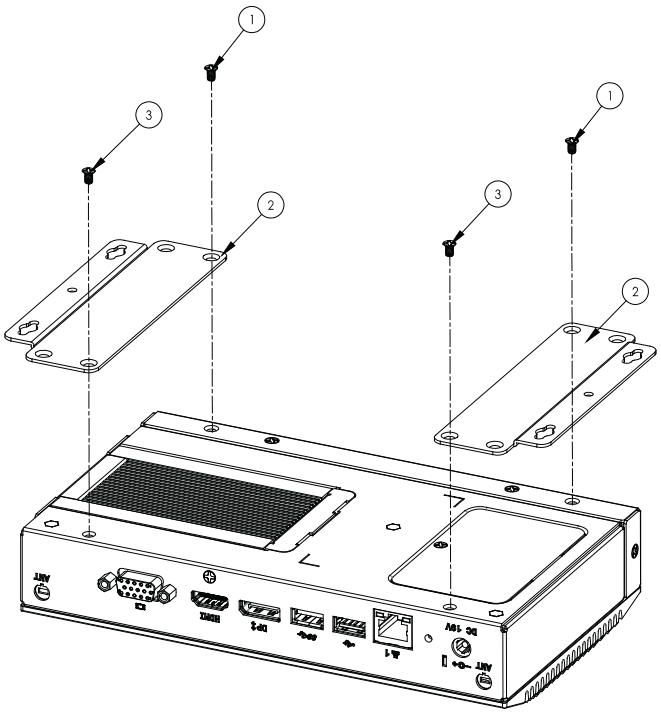


Figure 2.22 Mount bracket installation

2.4.6 Rubber Foot Installation

1. Loosen the two screws on the bottom of the chassis.
2. Retrieve the four rubber feet from the accessory box.
3. Attach the rubber feet to the four corners using the four screws provided in the acessory box.

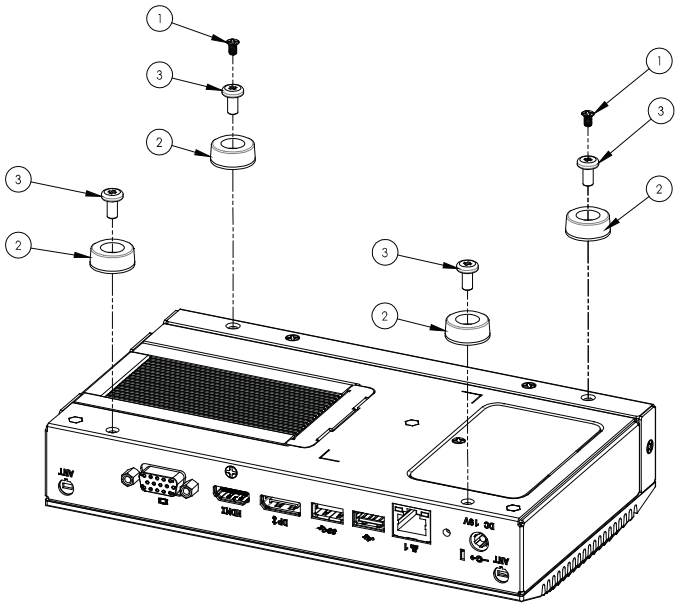


Figure 2.23 Rubber foot installation

Chapter 3

BIOS Settings

This chapter explains the BIOS configuration process.

3.1 BIOS Introduction

Using the AMI BIOS Setup program, users can modify the BIOS settings and control various system features. This chapter describes the basic navigation of the BIOS setup screens for the DS-370 series.

The AMI BIOS's ROM features a built-in setup program that allows users to modify the basic system configuration. This information is stored in the flash portion of the CMOS to ensure the setup information is retained even when the system is powered off.

3.2 Enter Setup

3.2.1 Main Setup

When first entering the BIOS Setup Utility, users will land on the Main setup screen. Users can always return to the Main setup screen by selecting the Main tab.

The Main BIOS setup screen features two main frames. The left frame displays all configurable options. The blue options can be configured, whereas the gray options cannot. The right frame displays the key legend, above which is an area reserved for text messages. When an option is selected in the left frame, the text becomes white and is often accompanied by a text message.

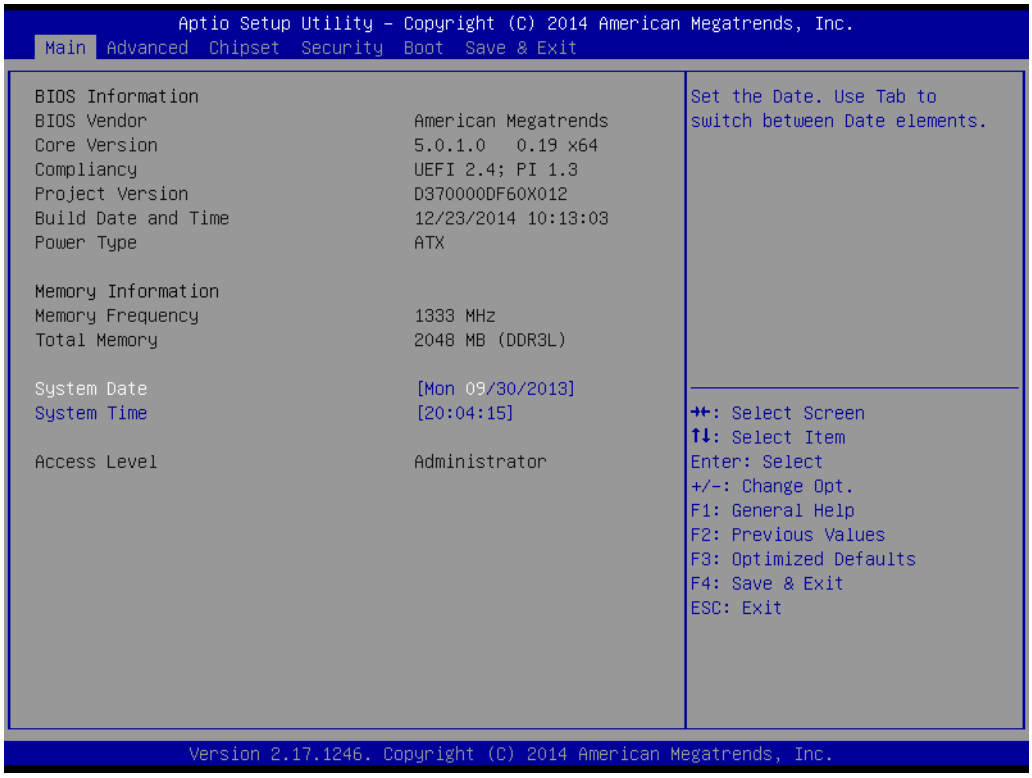


Figure 3.1 Main setup screen

- **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 via 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 Setup

Select the Advanced tab from the DS-370 setup screen to enter the Advanced BIOS setup screen. Users can select any item in the left frame of the screen, such as CPU configuration, to access the sub menu for that item. Use the <Arrow> keys to scroll through the Advanced BIOS Setup options. All Advanced BIOS Setup options are described in this section. The Advanced BIOS setup screens are shown below, and each sub menu is described in the following pages.

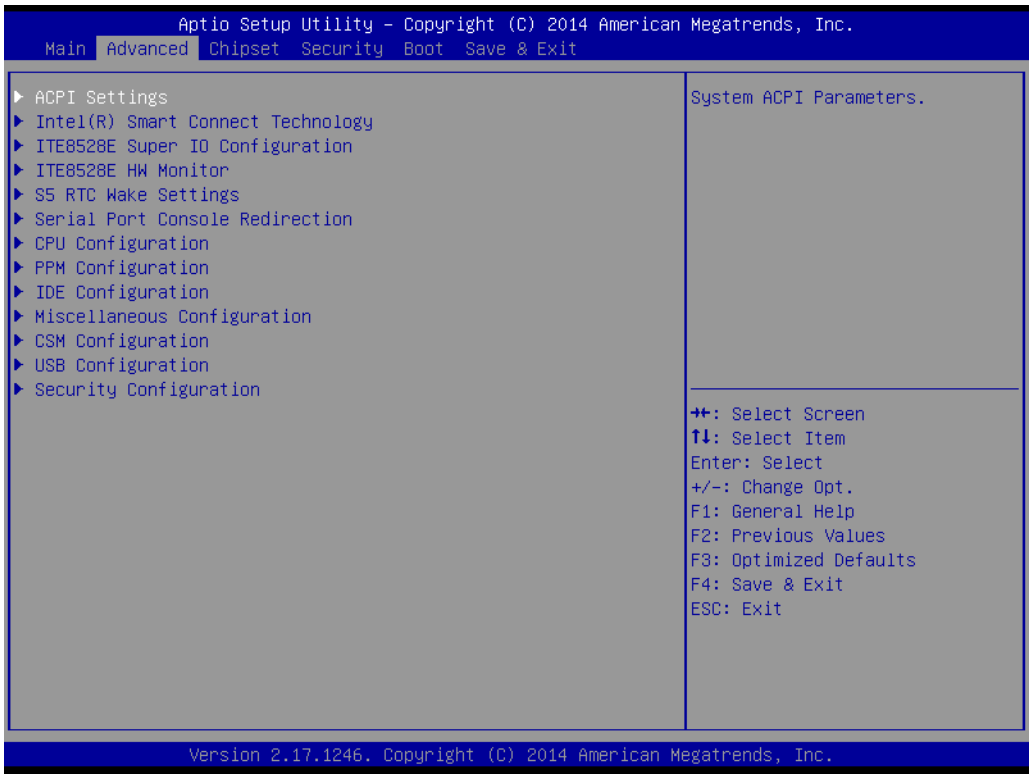


Figure 3.2 Advanced BIOS setup screen

- **ACPI Settings**
  This item allows users to control hardware monitoring and power management.

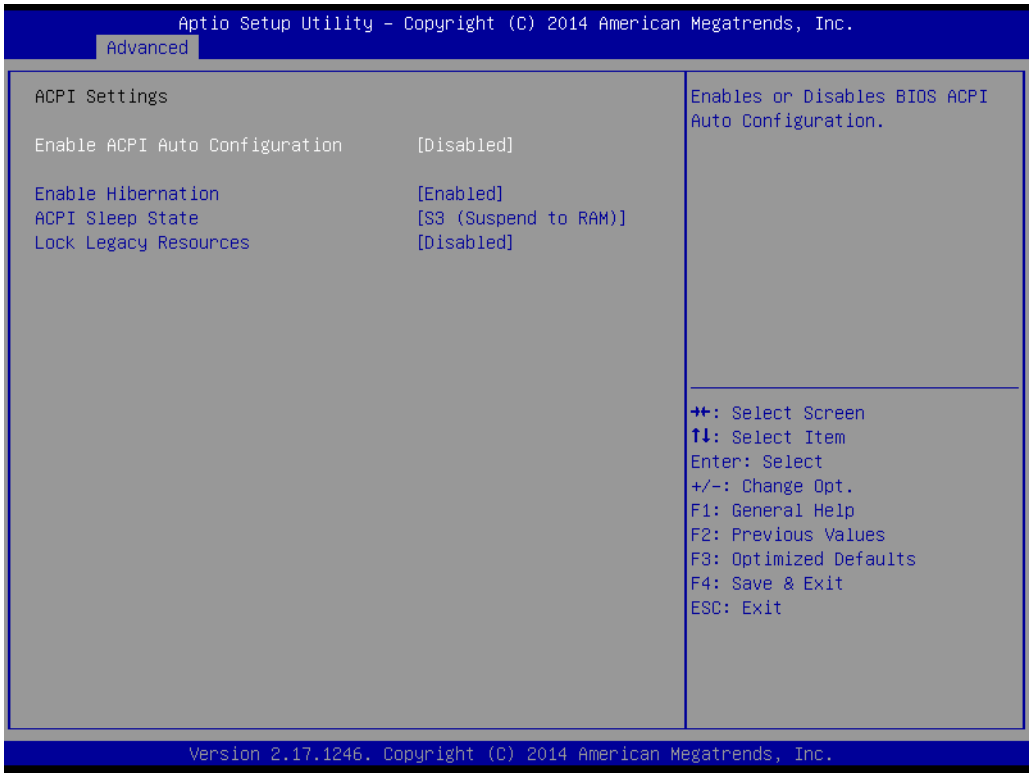


Figure 3.3 ACPI setup screen

- **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**
    The ISCT sleep duration value can only be displayed in seconds, the actual time is not a supported display format
  - **ISCT RF Kill Switch Type**
    Select the software/hardware ISCR RF kill switch type
  - **ISCT RTC Timer Support**
    Enable/disable the ISCT RTC timer

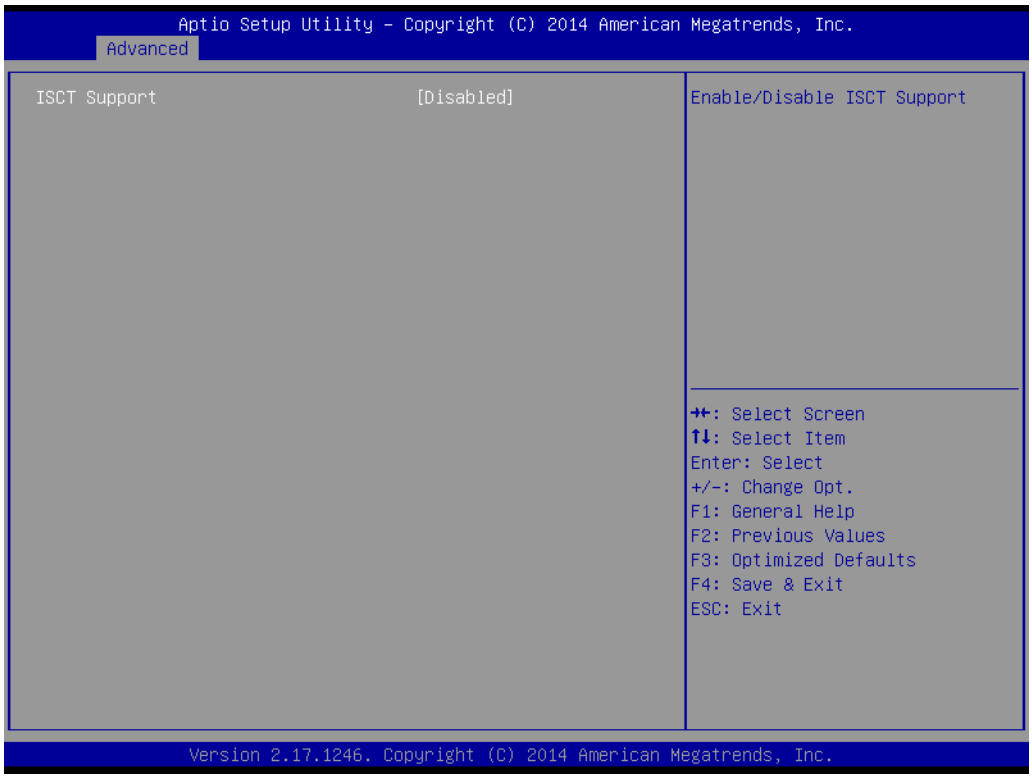


Figure 3.4 ISCT setup screen

- **ITE8528E Super I/O Configuration**
  System super I/O chip parameters

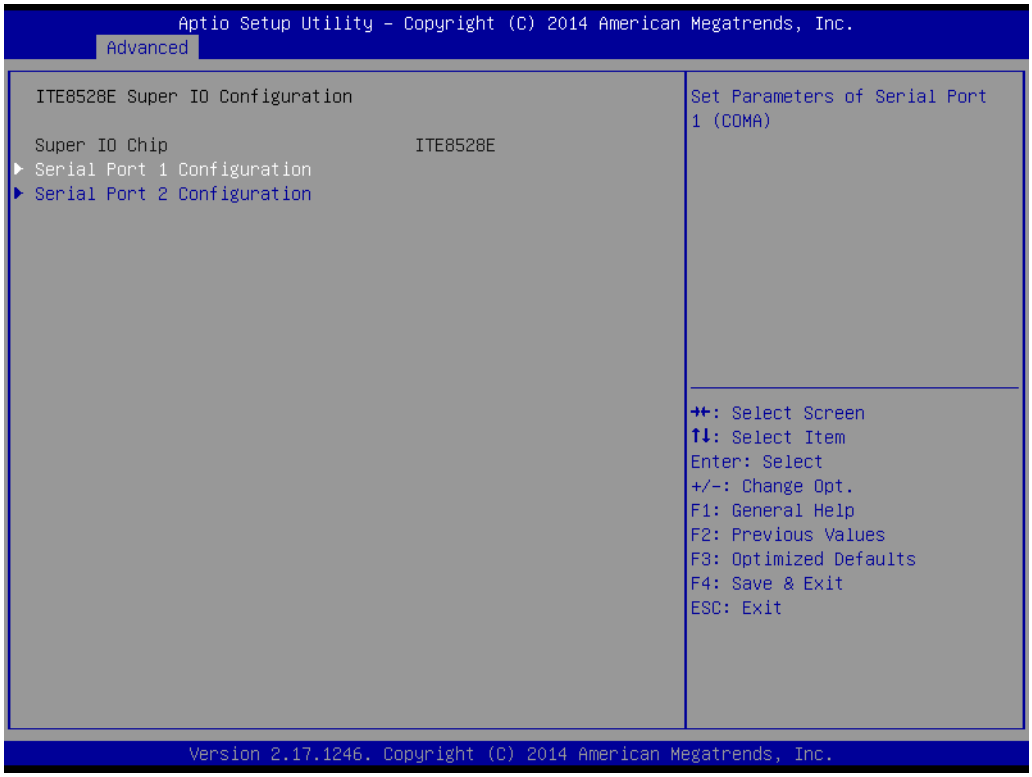


Figure 3.5 Super I/O configuration setup screen

- **ITE8528E HW Monitor**
  Hardware status (PC health) monitoring

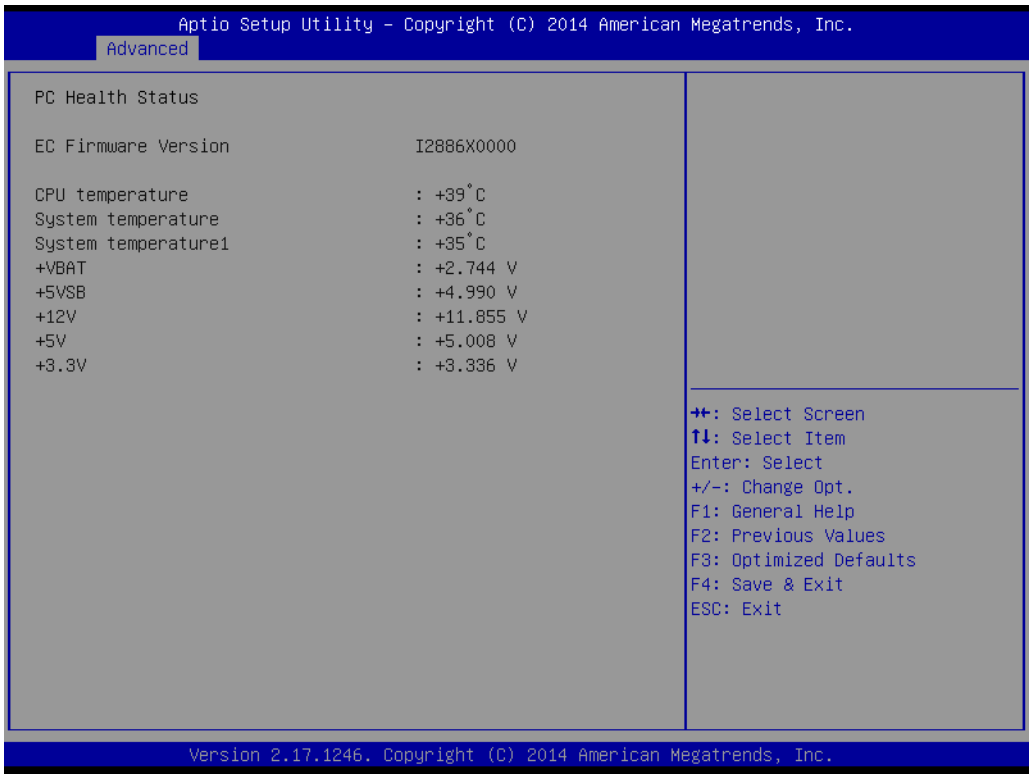


Figure 3.6 Hardware monitoring screen

- **S5 RTC Wake Settings**
  Enable the system to wake from S5 using a real-time clock (RTC) alarm

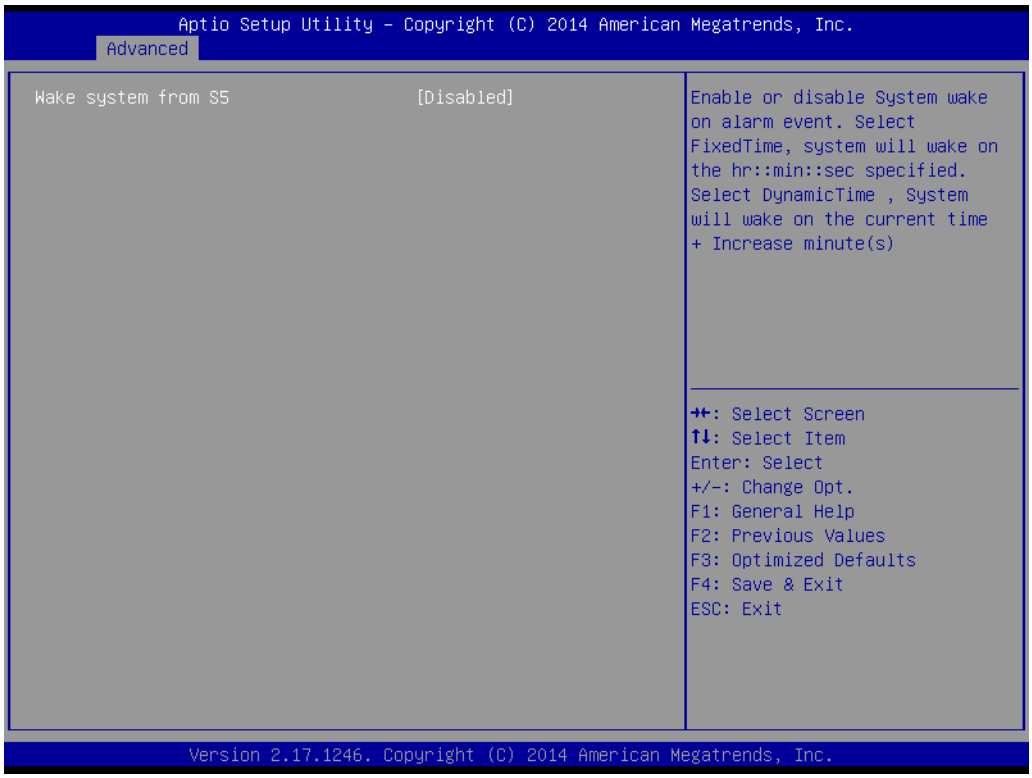


Figure 3.7 S5 RTC wake setup screen

Serial Port Console Redirection

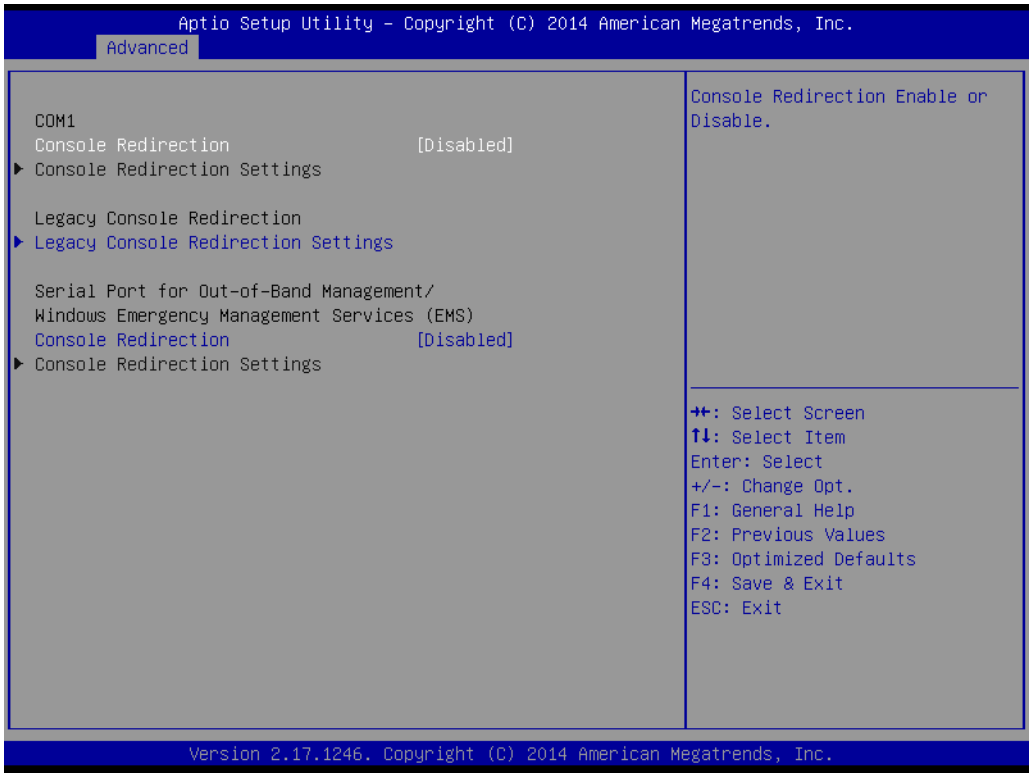


Figure 3.8 Serial port console redirection setup screen

CPU Configuration

CPU configuration parameters

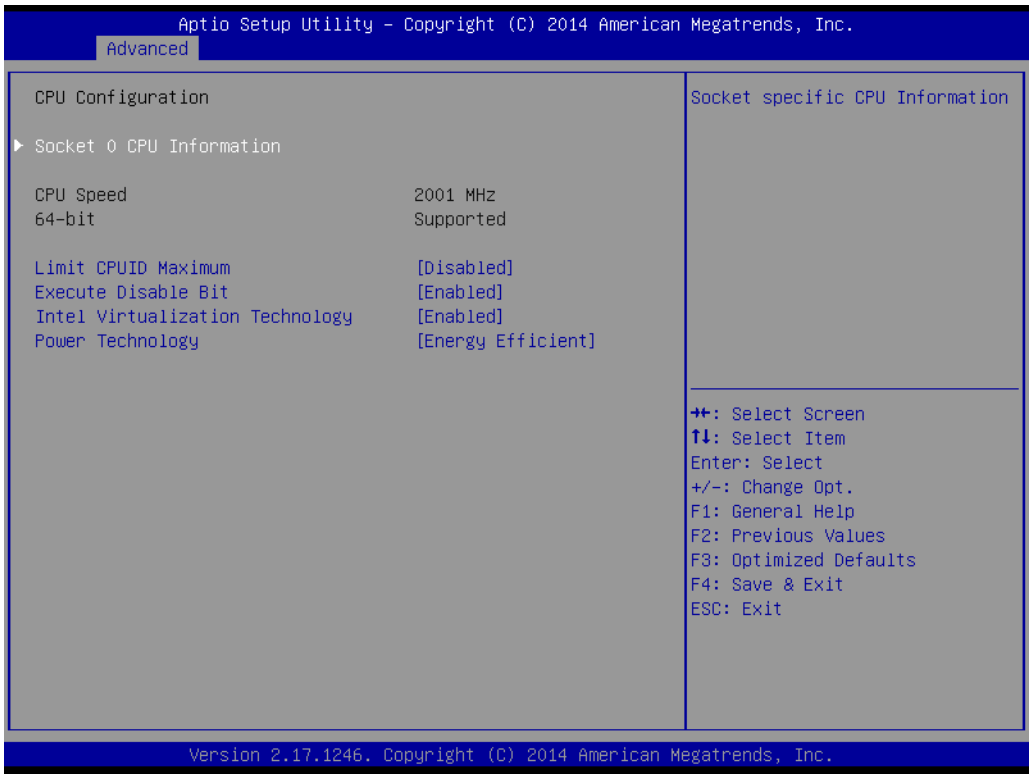


Figure 3.9 CPU configuration setup screen

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

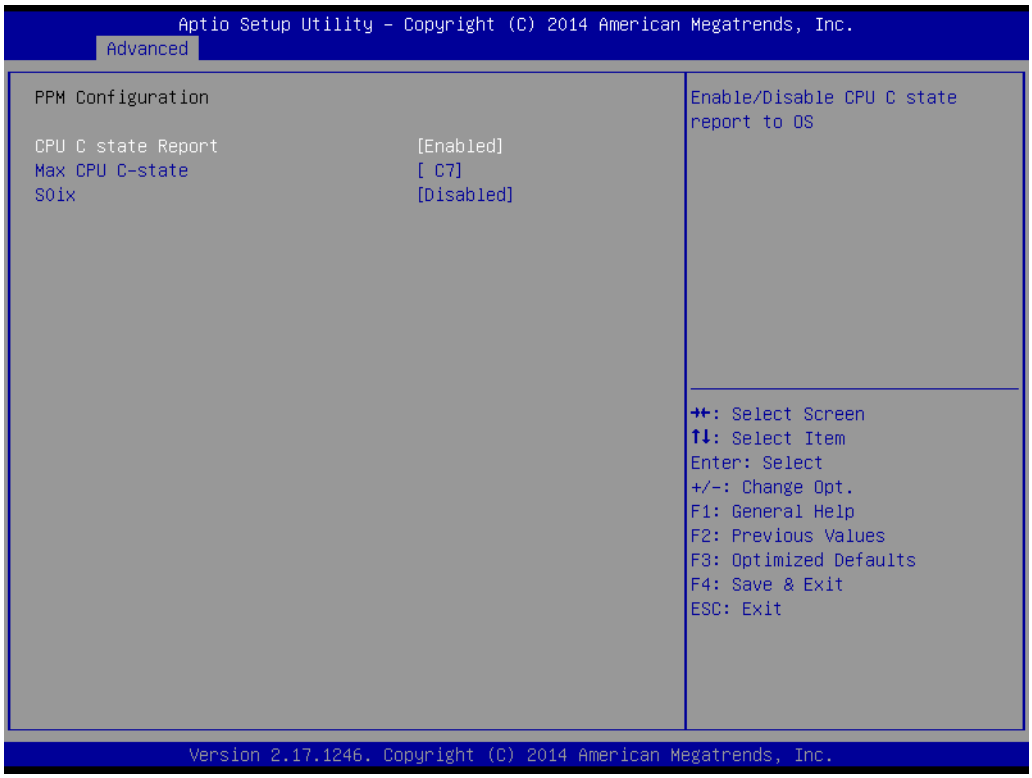


Figure 3.10 CPU C-state report setup screen

- **IDE Configuration**
  IDE device configuration

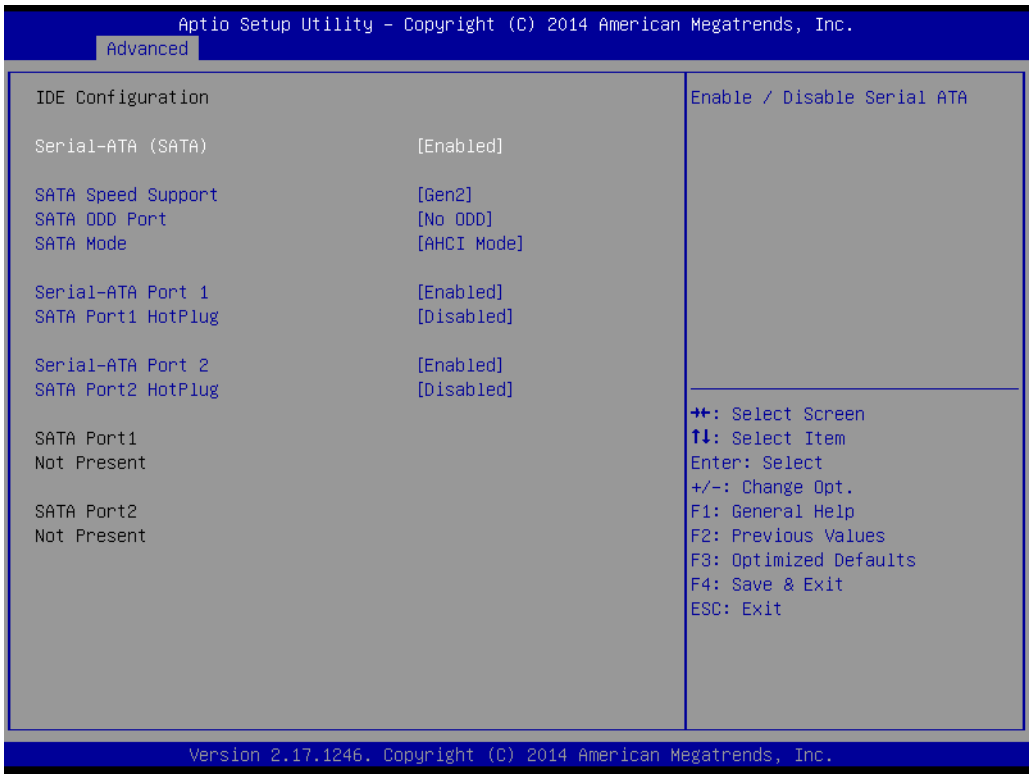


Figure 3.11 IDE configuration setup screen

- **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 should be selected according to the available systems

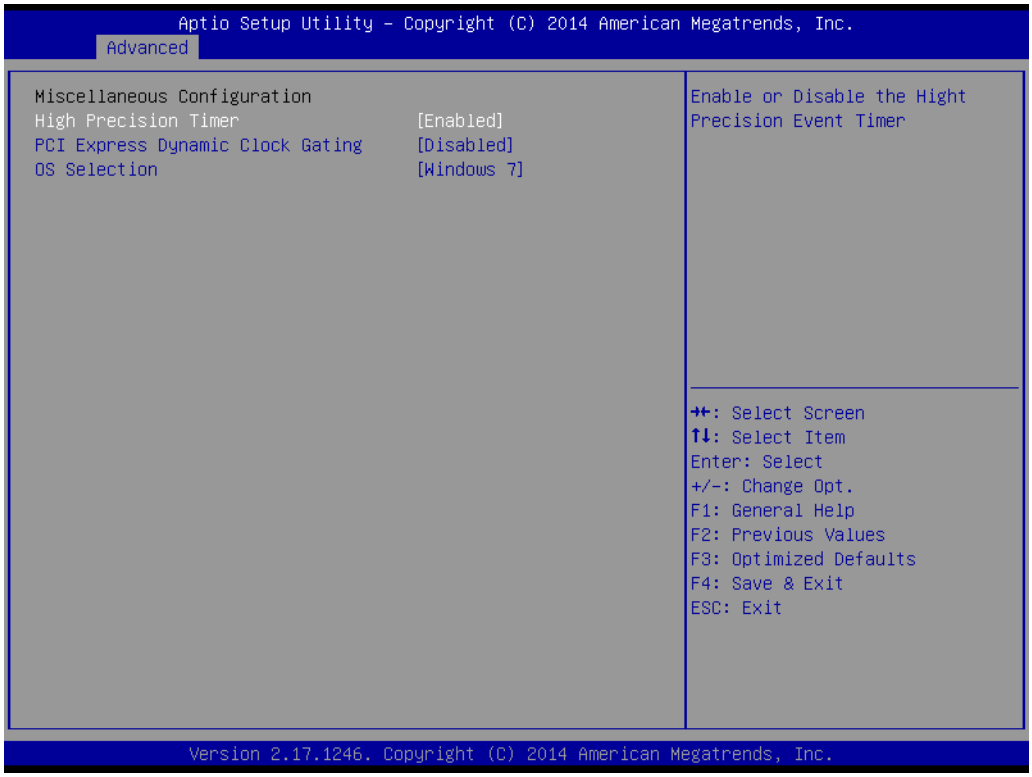


Figure 3.12 Miscellaneous configuration setup screen

- **CSM Configuration**
  Enable/disable option ROM execution

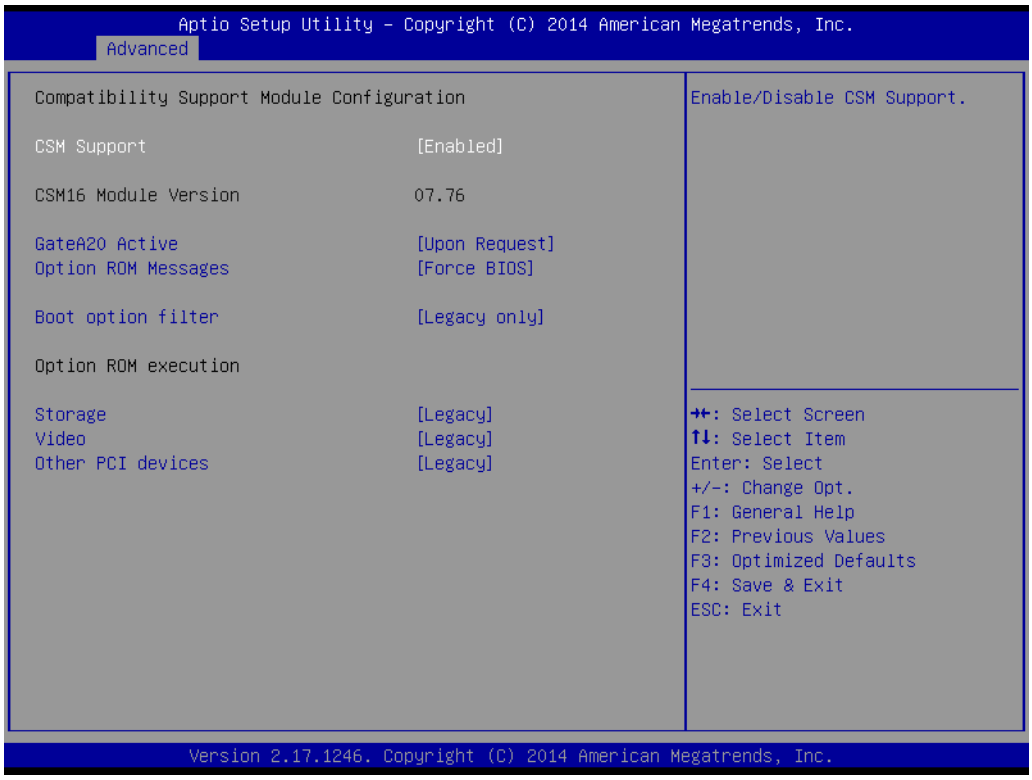


Figure 3.13 Hardware monitor setup screen

- **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 available for EFI applications only.

  – **XHCI Hand-Off**

  This provides 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 EHCI driver.

  – **USB Mass Storage Driver Support**

  Enable/disable USB mass storage driver support

  – **USB Transfer Timeout**

  Allows users to set the timeout value for control, bulk, and interrupt transfers; options include 1, 5, 10, and 20 seconds.

  – **Device Reset Timeout**

  Allows users to set the USB mass storage device start unit command timeout time; options include 10, 20, 30, and 40 seconds.

  – **Device Power-Up Delay**

  Enable/disable Auto or Manual USB mass storage device start unit command timeout.

Figure 3.14 USB configuration setup screen

- **Security Configuration**

  Intel® Anti-Theft Technology configuration

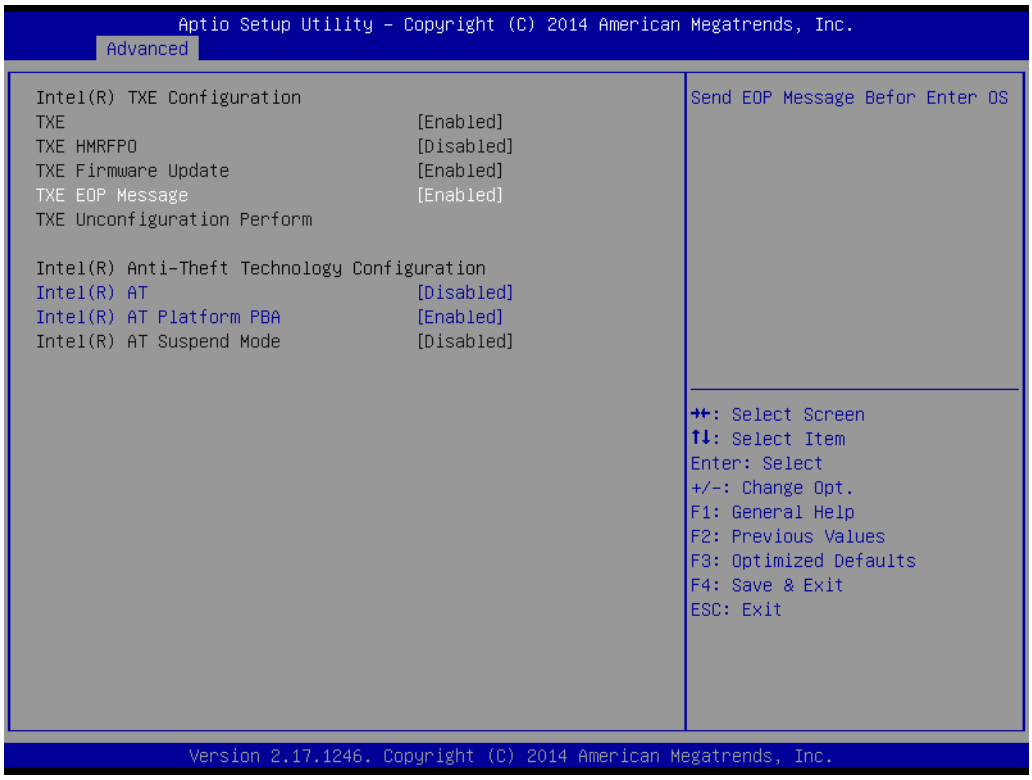


Figure 3.15 Intel TXE configuration setup screen

3.2.3 BIOS Chipset Setup

Select the Chipset tab in the DS-370 BIOS Setup Utility to enter the BIOS Chipset setup screen. Users can select any item displayed 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 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 the .exe file
  - **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

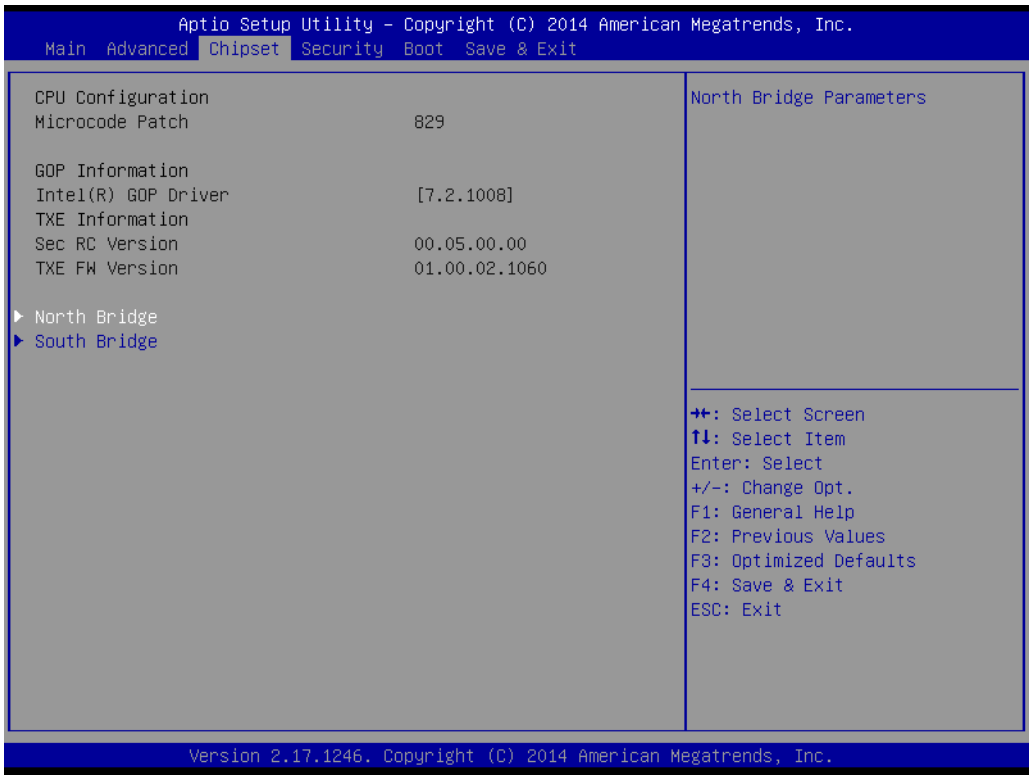


Figure 3.16 North Bridge and South Bridge setup screen

3.2.4 BIOS Security Setup

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

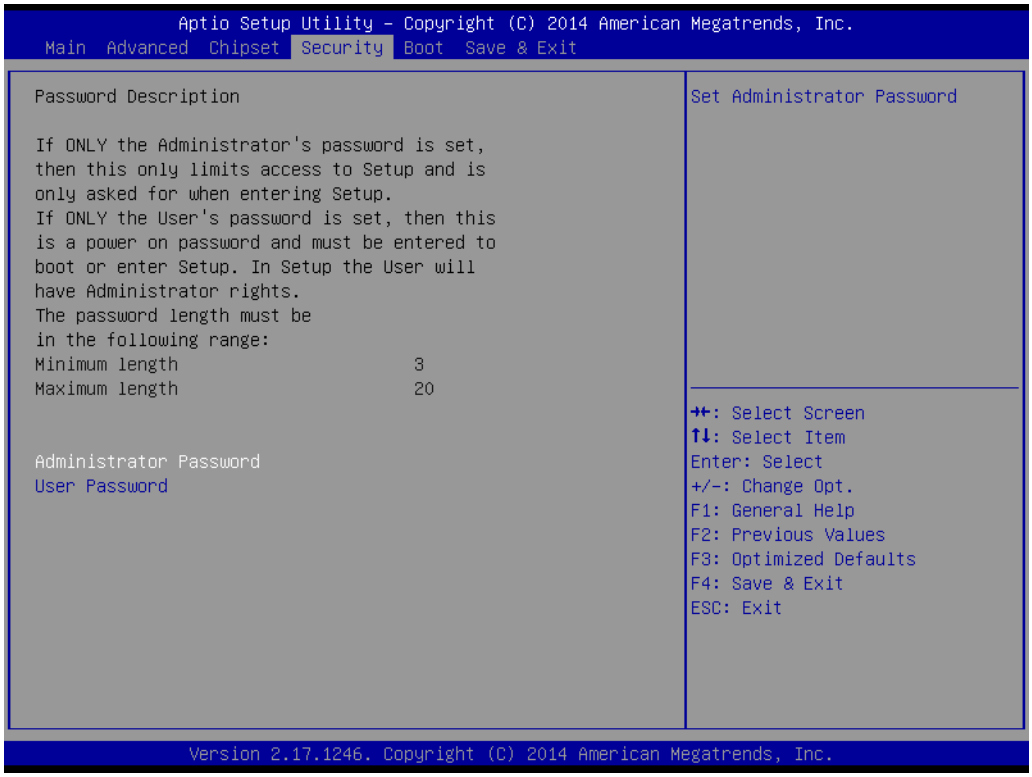


Figure 3.17 Security configuration setup screen

- **Administrator Password**
  Set an administrator password
- **User Password**
  Set a user password

3.2.5 BIOS Boot Setup

Select the Boot tab from the DS-370 setup screen to enter the BIOS Boot setup screen. Users can select any item in the left frame of the screen.

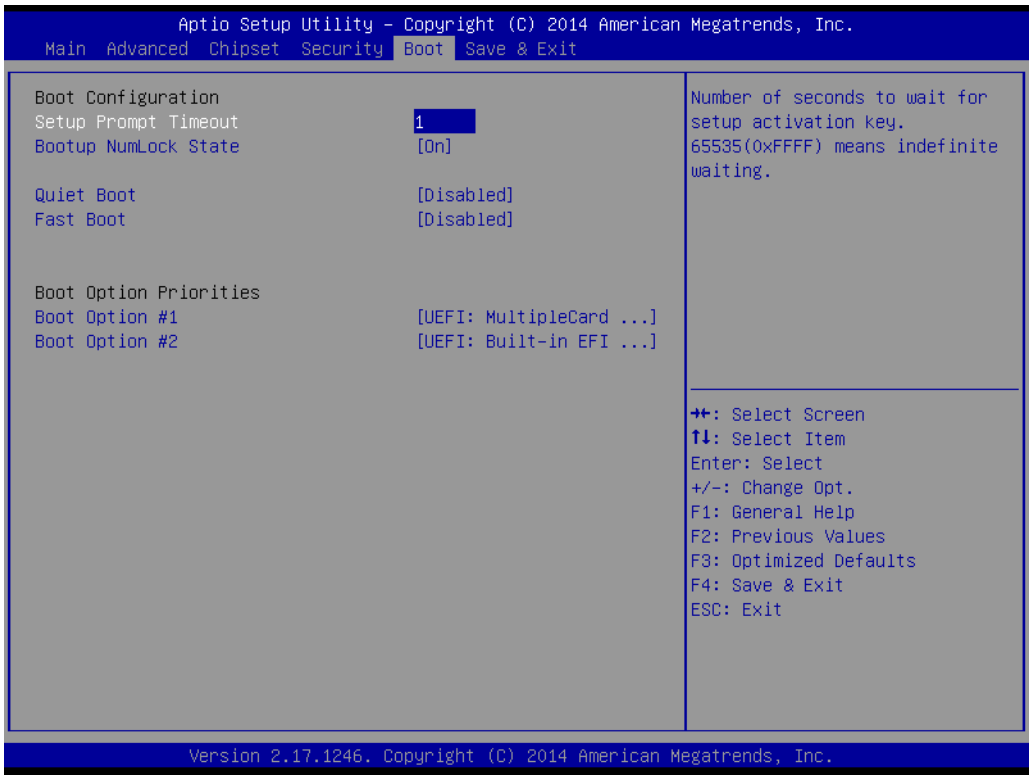


Figure 3.18 Boot configuration setup screen

- **Setup Prompt Timeout**
  Allows users to set the number of seconds to wait for a setup activation key. A value of 65535 (0xFFFF) means wait indefinitely.
- **Bootup NumLock State**
  Allows users to select the keyboard NumLock state
- **Quiet Boot**
  Enable/disable quiet booting
- **Fast Boot**
  Enable/disable rapid booting by initializing the minimum number of devices necessary for launching the active boot option.
- **Boot Option #1**
  Set the system boot order

3.2.6 BIOS Save & Exit Setup

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

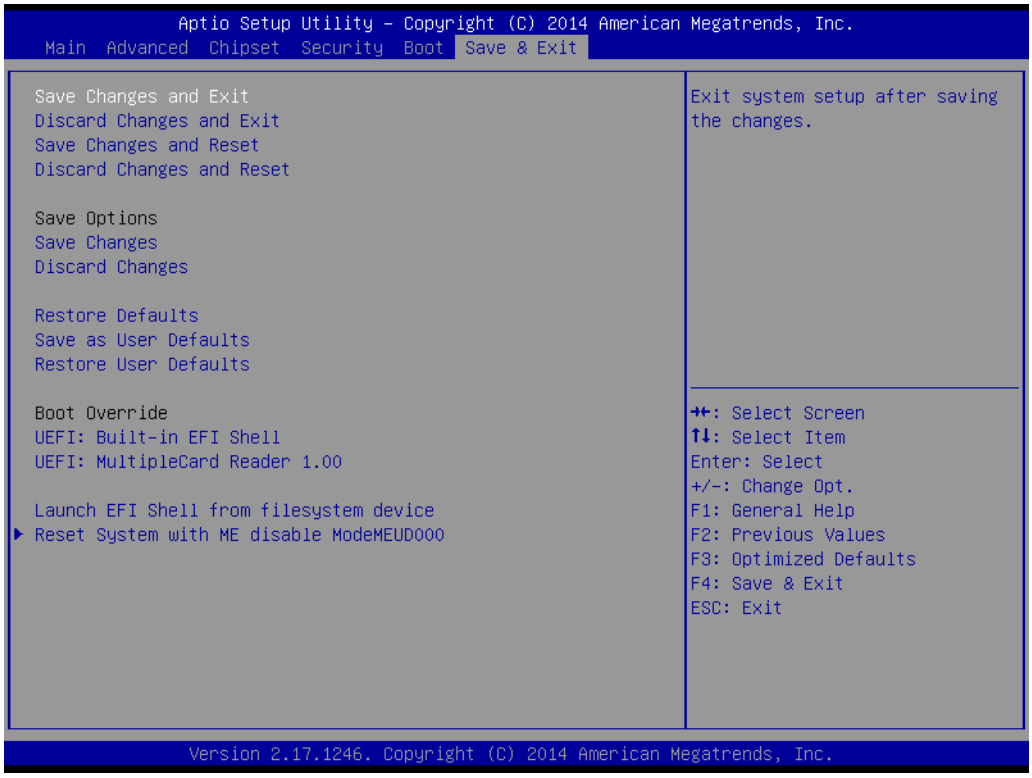


Figure 3.19 Save & Exit configuration setup screen

- **Save Changes and Exit**
  Exit system setup after saving changes
- **Discard Changes and Exit**
  Exit system setup without saving changes
- **Save Changes and Reset**
  Reset the system after saving changes
- **Discard Changes and Reset**
  Reset the system without saving changes
- **Save Changes**
  Save changes to all setup options
- **Discard Changes**
  Discard changes to all setup options
- **Restore Defaults**
  Restore/load the default values for all setup options
- **Save as User Defaults**
  Save changes as User Defaults
- **Restore User Defaults**
  Restore the User Defaults to all setup options
- **Boot Override**
  - **UEFI**
    Built-in EFI Shell

- **Launch EFI Shell From File System Device**
  Allows users to launch the EFI Shell application (Shell.efi) from an available file system device
- **Reset System with ME Disable Mode MEUD000**
  Set ME to temporarily disabled mode, ignore if the ME ignition is FWMED001

Chapter 4

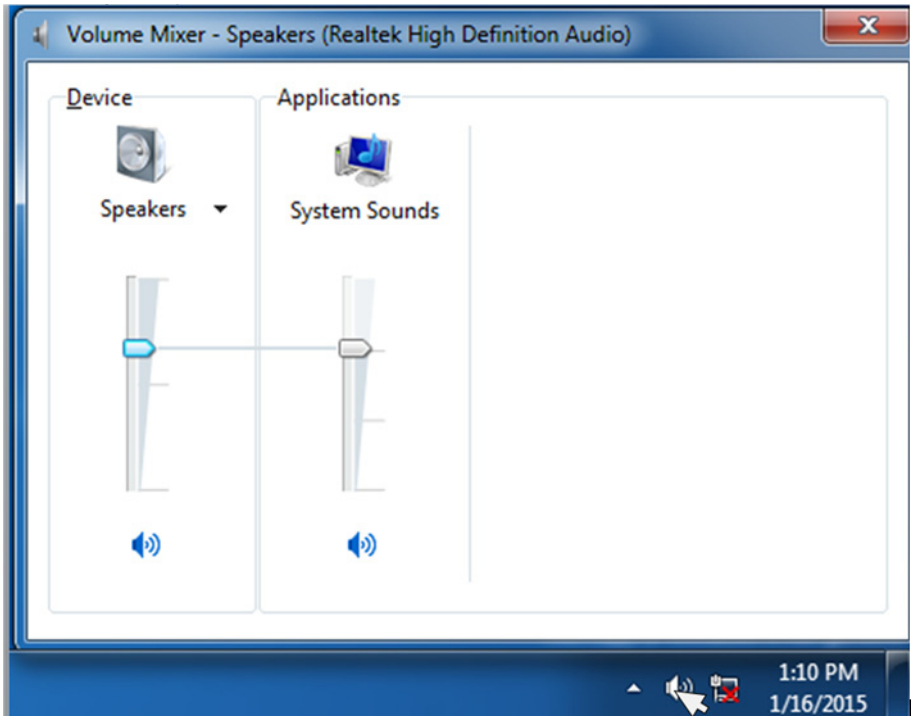
Troubleshooting

For users experiencing errors or difficulty operating DS-370, try the solutions outlined in this chapter.

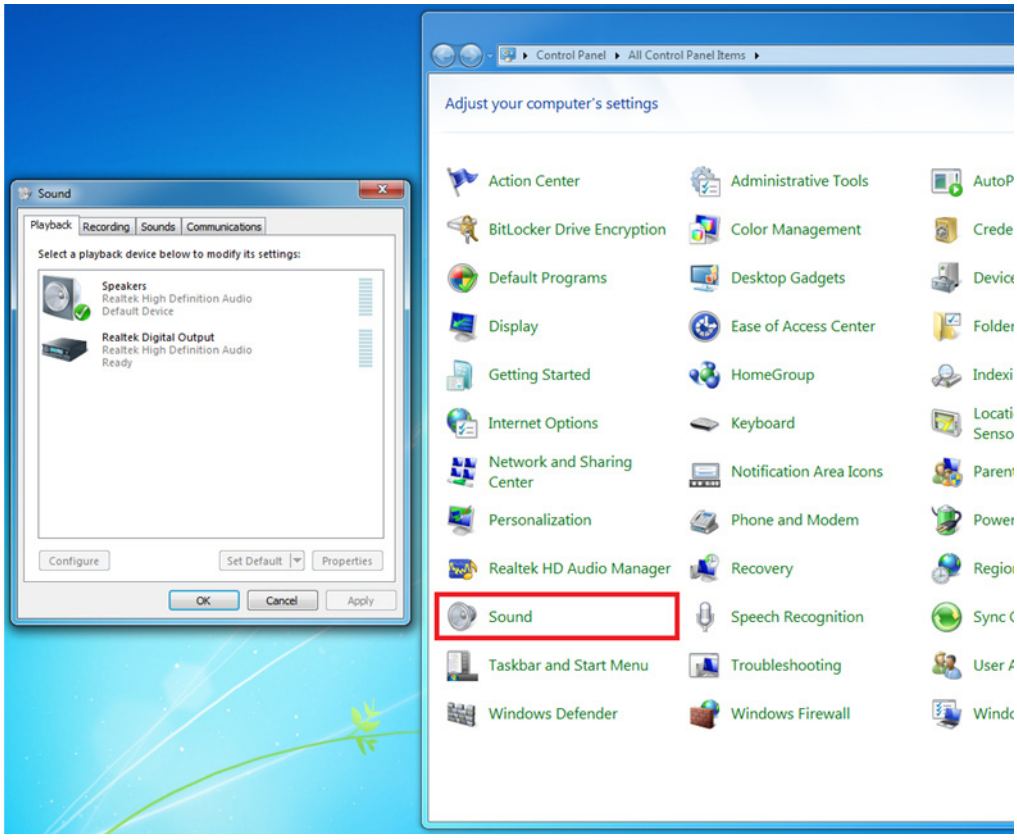
4.1 No Sound From SPDIF Device

Should the SPDIF device not be emiting sound, follow the steps outlined below to adjust the system settings.

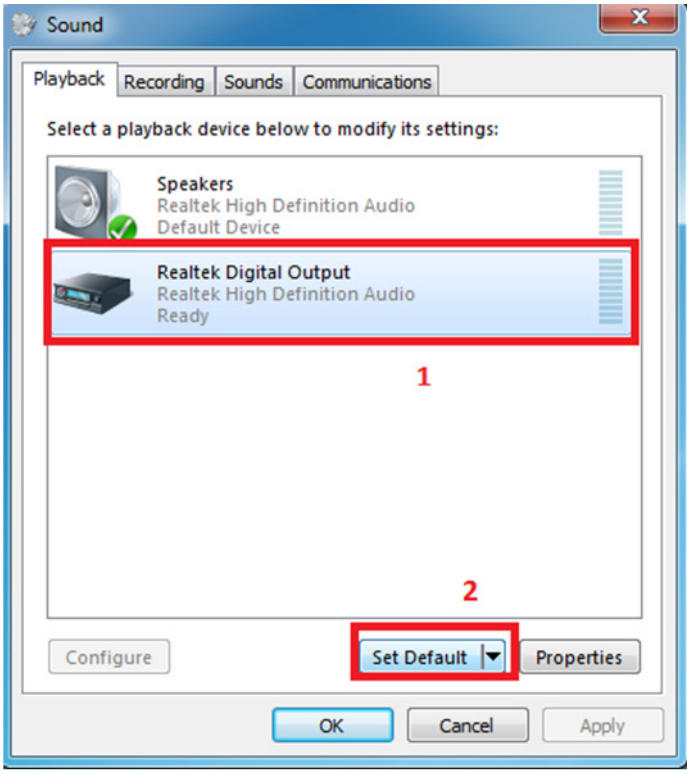
1. Connect the SPDIF device to DS-370 using a cable.
2. Check the volume mixer utility on the Windows taskbar (the default setting is the system speaker).



3. Enter the Control Panel and access the Sound settings.



4. Set Realtek Digital Output as the default.



5. The sound is output from the SPDIF device and can be controlled using the Volume Mixer utility.

4.2 TXE Driver Installation

For Windows 7, the Windows update KB2685811 must be installed before TXE driver installation.

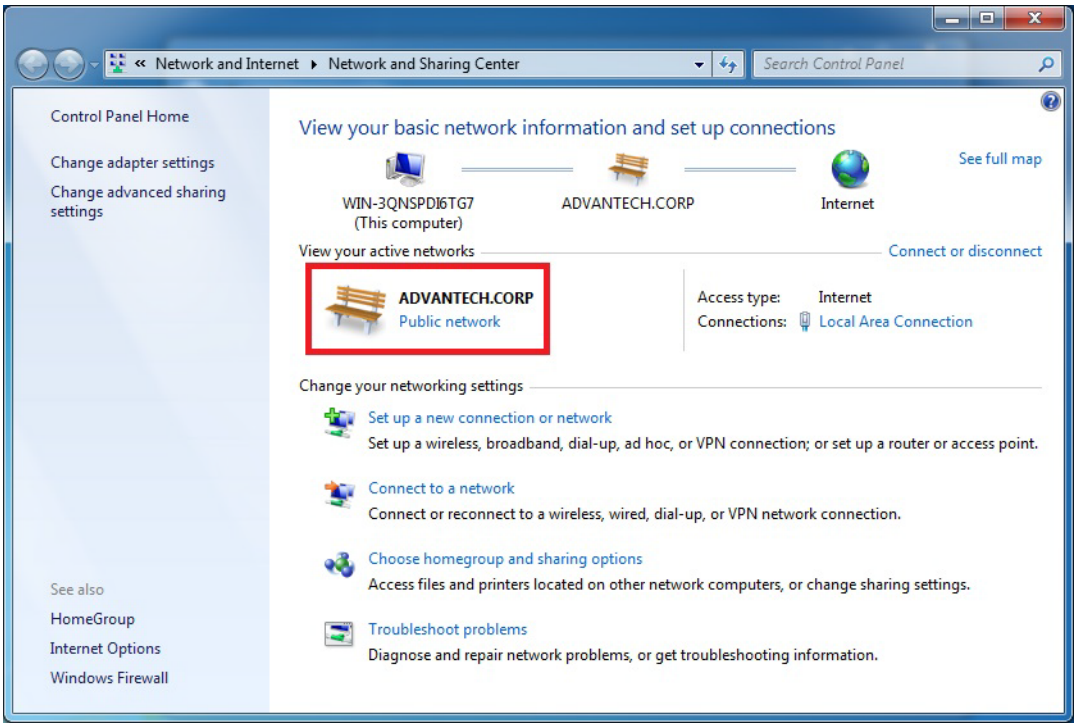
Notice: For more information about KB2685811, please download the relevant update information from Microsoft's official website, or access the following link:
http://www.microsoft.com/en-us/download/details.aspx?id=38423

Note

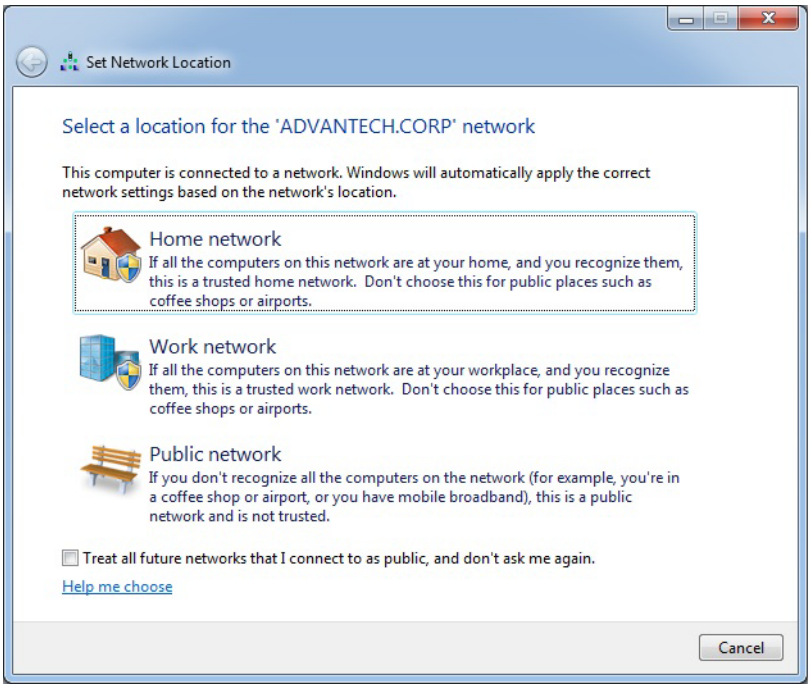
- *We strongly recommend using the FITC tool provided in this kit.*
- *Please use the Intel TXE FW and system tools provided in the same kit. Combining tool from different kit versions can cause unexpected problems.*
- *Please use SPI Flash devices that adhere to the specifications outlined in the Bay Trail Platform SoC SPI Flash Compatibility Requirements (IBL#514482, Section 3).*
- *The Intel(R) TXEI driver for Android OS is provided as part of the Android-based UEFI BIOS OS image.*
- *FPT, TXEInfo, and TXEManuf tools do not support Windows 7. Users are advised to run TXE manufacturing tools in an EFI Shell or WinPE environment.*
- *For Windows* 7 OS only: The Intel TXEI driver uses KMDF (WDF) 1.11, which is built into Windows 8 and 8.1. However, because Windows 7 is not equipped with this driver, users must install the Kernel-Mode Driver Framework (KMDF), Version 1.1. Otherwise, a yellow bang will appear on the Intel TXEI device upon installation. Please follow the instructions provided in the following link:* http://www.microsoft.com/en-us/download/details.aspx?id=38423
- *Details of the sample signer tool reference code kit are provided in Section 1.2.*
- *Disclaimer: The sample signer reference code does not provide adequate security. Additional functionality and software modifications are required to protect users' private keys. Intel(R) assumes no liability for lost or stolen private key data and/or system damage or any other problems resulting thereof.*
- *The VCN value is increased to ¯8ˇ. Consequently, a full firmware 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.*

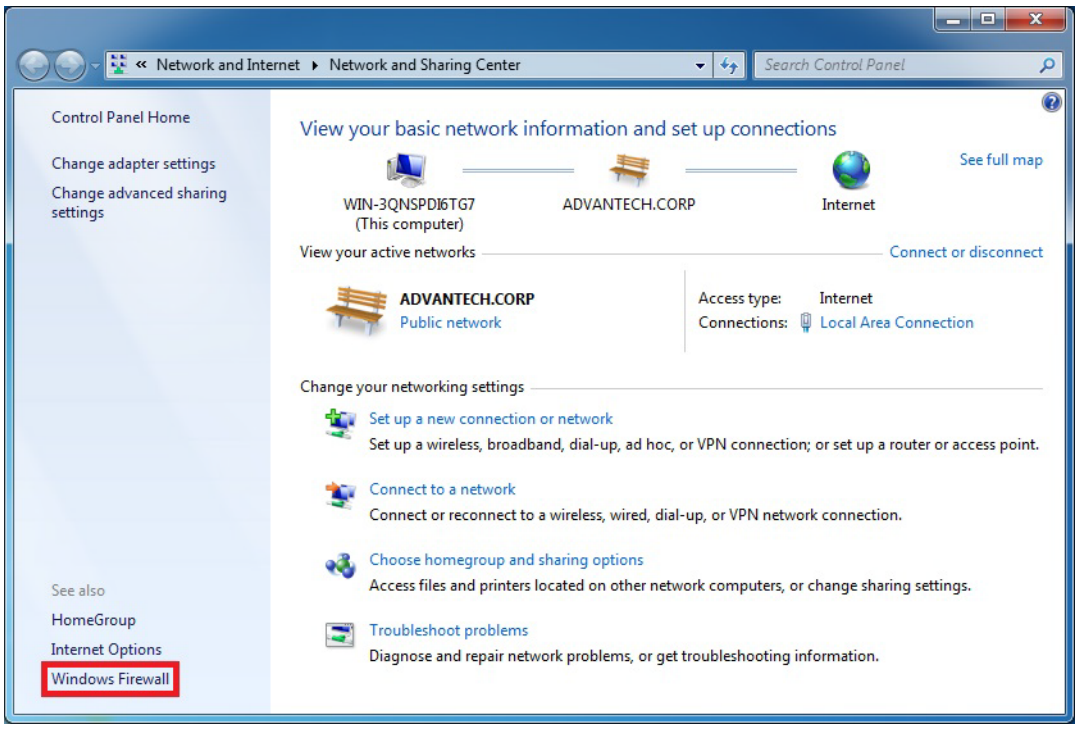
4.3 Using SUSIAccess Backup/Recovery

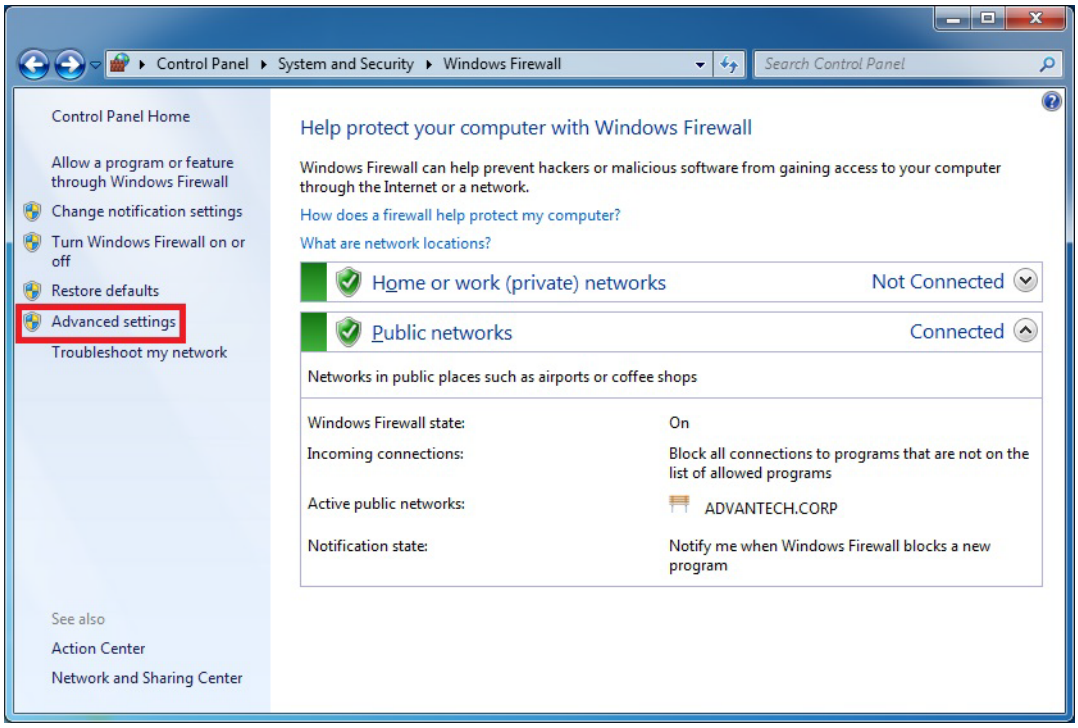
Method 1: Modify the network settings from a public network to a home or work-based network.

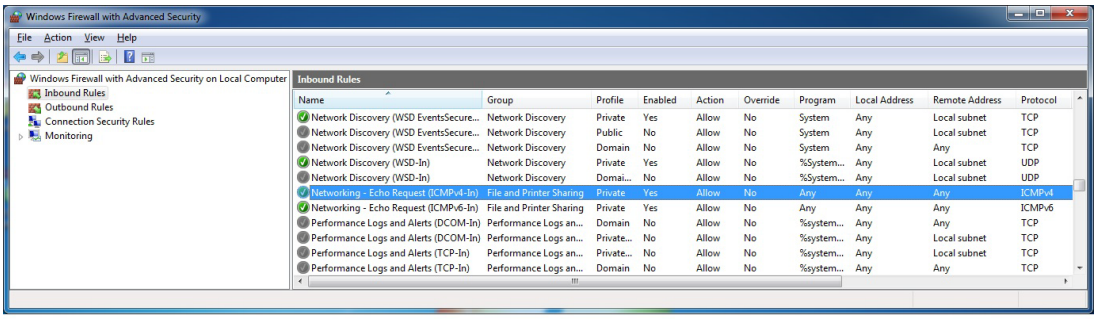


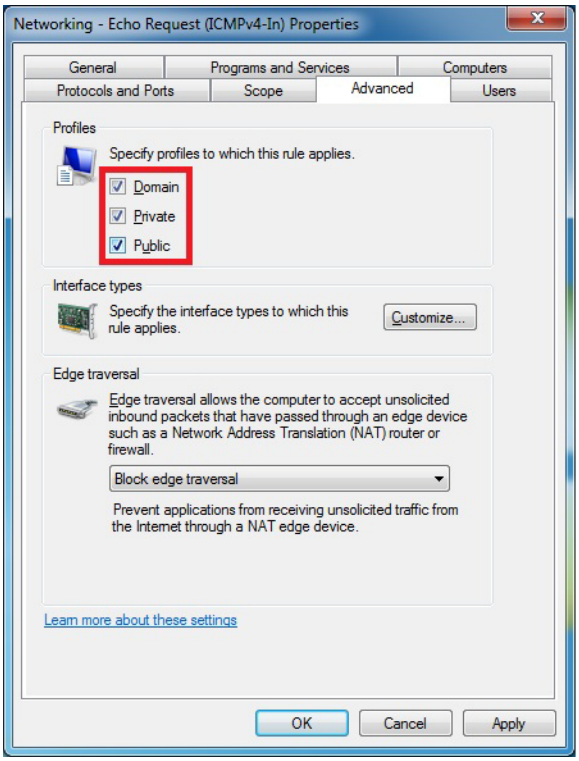
Method 2: Modify the Windows firewall settings by accessing the Windows firewall and selecting the Advanced tab. Locate and open the Networking-Echo Request (ICMPv4-in). Access the Advanced tab, configure all options (i.e., set the domain to private or public), and press click the <OK> button to apply all setting changes.




« Network and Internet ▸ Network and Sharing Center
Search Control Panel
Control Panel Home
Change adapter settings
Change advanced sharing settings
View your basic network information and set up connections
See full map
WIN-3QNSPDI6TG7
(This computer)
ADVANTECH.CORP
Internet
View your active networks
Connect or disconnect
ADVANTECH.CORP
Public network
Access type: Internet
Connections: Local Area Connection
Change your networking settings
Set up a new connection or network
Set up a wireless, broadband, dial-up, ad hoc, or VPN connection; or set up a router or access point.
Connect to a network
Connect or reconnect to a wireless, wired, dial-up, or VPN network connection.
Choose homegroup and sharing options
Access files and printers located on other network computers, or change sharing settings.
Troubleshoot problems
Diagnose and repair network problems, or get troubleshooting information.
See also
HomeGroup
Internet Options
Windows Firewall


Control Panel ▸ System and Security ▸ Windows Firewall
Search Control Panel
Control Panel Home
Allow a program or feature through Windows Firewall
Change notification settings
Turn Windows Firewall on or off
Restore defaults
Advanced settings
Troubleshoot my network
Help protect your computer with Windows Firewall
Windows Firewall can help prevent hackers or malicious software from gaining access to your computer through the Internet or a network.
How does a firewall help protect my computer?
What are network locations?
Home or work (private) networks
Not Connected
Public networks
Connected
Networks in public places such as airports or coffee shops
Windows Firewall state: On
Incoming connections: Block all connections to programs that are not on the list of allowed programs
Active public networks: ADVANTECH.CORP
Notification state: Notify me when Windows Firewall blocks a new program
See also
Action Center
Network and Sharing Center


Windows Firewall with Advanced Security
File Action View Help
Windows Firewall with Advanced Security on Local Computer
Inbound Rules
Outbound Rules
Connection Security Rules
Monitoring
Inbound Rules
Name Group Profile Enabled Action Override Program Local Address Remote Address Protocol
Network Discovery (WSD EventsSecure... Network Discovery Private Yes Allow No System Any Local subnet TCP
Network Discovery (WSD EventsSecure... Network Discovery Public No Allow No System Any Local subnet TCP
Network Discovery (WSD EventsSecure... Network Discovery Domain No Allow No System Any Any TCP
Network Discovery (WSD-In) Network Discovery Private Yes Allow No %System... Any Local subnet UDP
Network Discovery (WSD-In) Network Discovery Domai... No Allow No %System... Any Local subnet UDP
Networking - Echo Request (ICMPv4-In) File and Printer Sharing Private Yes Allow No Any Any Any ICMPv4
Networking - Echo Request (ICMPv6-In) File and Printer Sharing Private Yes Allow No Any Any Any ICMPv6
Performance Logs and Alerts (DCOM-In) Performance Logs an... Domain No Allow No %system... Any Any TCP
Performance Logs and Alerts (DCOM-In) Performance Logs an... Private... No Allow No %system... Any Local subnet TCP
Performance Logs and Alerts (TCP-In) Performance Logs an... Private... No Allow No %system... Any Local subnet TCP
Performance Logs and Alerts (TCP-In) Performance Logs an... Domain No Allow No %system... Any Any TCP


Networking - Echo Request (ICMPv4-In) Properties
General
Programs and Services
Computers
Protocols and Ports
Scope
Advanced
Users
Profiles
Specify profiles to which this rule applies.
Domain
Private
Public
Interface types
Specify the interface types to which this rule applies.
Customize...
Edge traversal
Edge traversal allows the computer to accept unsolicited inbound packets that have passed through an edge device such as a Network Address Translation (NAT) router or firewall.
Block edge traversal
Prevent applications from receiving unsolicited traffic from the Internet through a NAT edge device.
Learn more about these settings
OK
Cancel
Apply

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