SETO-1000

Rugged Outdoor Server
with Intel® Xeon® Processor E5-2400 v2

User's Manual



Manual Revision: 1.0
Revision Date: March 28, 2018
Part No.: 50-1Z251-1000

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Leading EDGE COMPUTING

Preface

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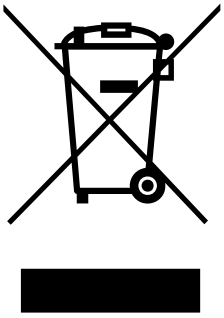
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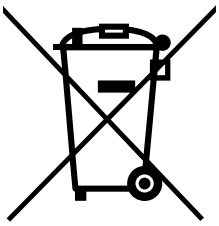
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Battery Labels (for products with battery)









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WARNING: This product can expose you to chemicals including acrylamide, arsenic, benzene, cadmium, Tris(1,3-dichloro-2-propyl)phosphate (TDCPP), 1,4-Dioxane, formaldehyde, lead, DEHP, styrene, DINP, BBP, PVC, and vinyl materials, which are known to the State of California to cause cancer, and acrylamide, benzene, cadmium, lead, mercury, phthalates, toluene, DEHP, DIDP, DnHP, DBP, BBP, PVC, and vinyl materials, which are known to the State of California to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

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Revision History

Revision	Release Date	Description of Change(s)
1.0	2018-03-28	Initial release

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1 Overview

1.1 Introduction

The SETO-1000 is a 1U rackmount server with an all-aluminium conduction cooled chassis that is designed for application in a rugged outdoor RAN network environment. It is powered by a single or dual Intel® Xeon® Processor E5-2400 v2, triple-channel DDR3-1600 RDIMM per CPU with one DIMM slot per channel, Intel® C604 Chipset,, and optional Intel® Communications Chipset 8920. The enclosure is IP65 ingress rated and is fully sealed against dust and water jets. Front IO features include 2x 10G via SPF+ ports, 2x GbE via RJ-45 ports, 2x USB 2.0 port, and 1x RS-232. The rear panel features two externally accessible 2.5” SATA drive bays.

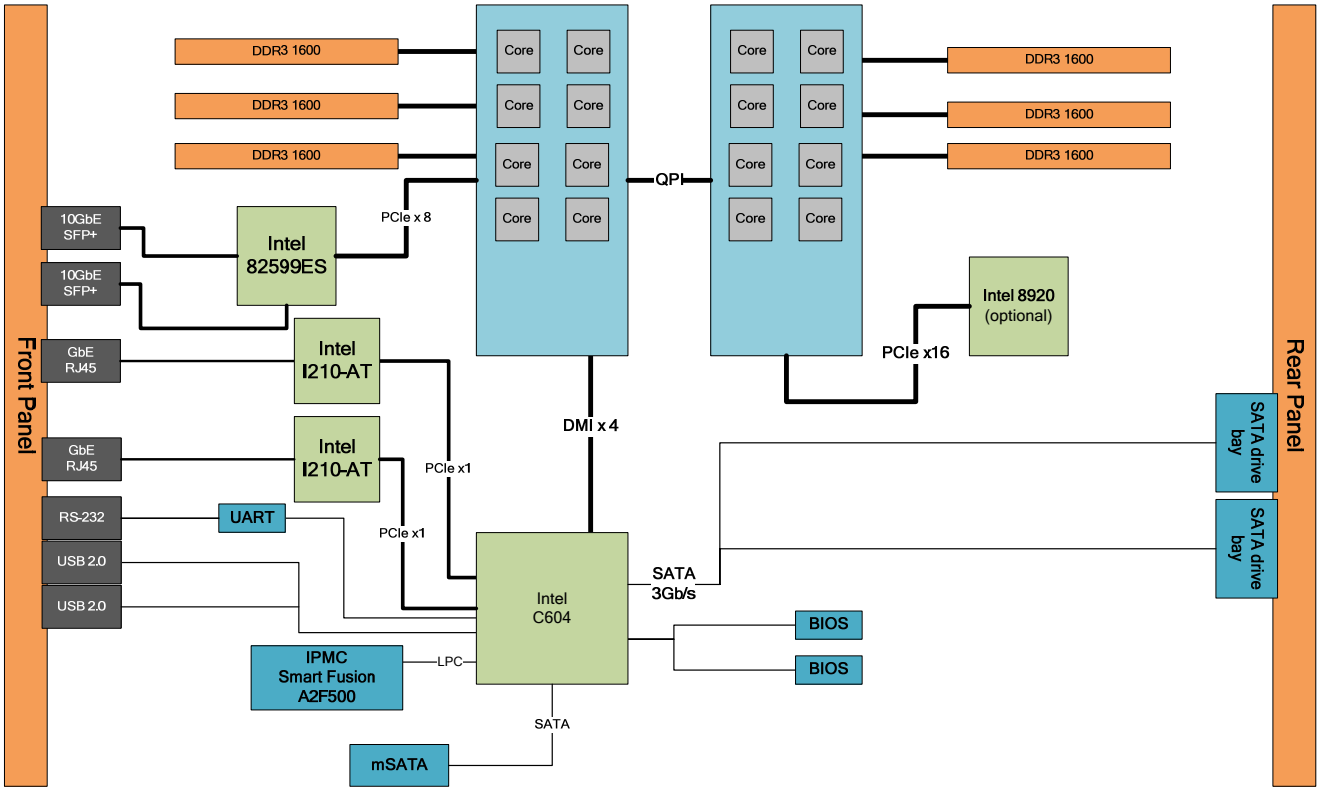
The SETO-1000 performs in the harsh outdoor environment with an operating temperature range of -40°C to 55°C. Target applications include TEMs, NEP, mobile CDN suppliers, CMTS vendors and the military sector.

Detailed features are outlined below and a functional block diagram is shown in the next section.

- Single/Dual Intel® Xeon® processor E5-2400 V2 series with Intel® C604H Chipset
  - Intel® Xeon® E5-2418L v2 (6C/12T)
  - Intel® Xeon® E5-2428L v2 (8C/16T)
  - Intel® Xeon® E5-2448L v2 (10C/20T)
- 6x DDR3-1066/1333/1600 240-pin VLP RDIMM sockets, REG/ECC, up to 96 GB
- 2x 10GbE SFP+ ports, 2x GbE ports by RJ-45
- Optional Intel® Communications Chipset 8920 (dual CPU SKU only)
- Breakout connector for 1x RS-232 for console port and 2x USB ports (configuration only)
- 2x externally accessible 2.5” SATA drive bays
- mSATA module onboard

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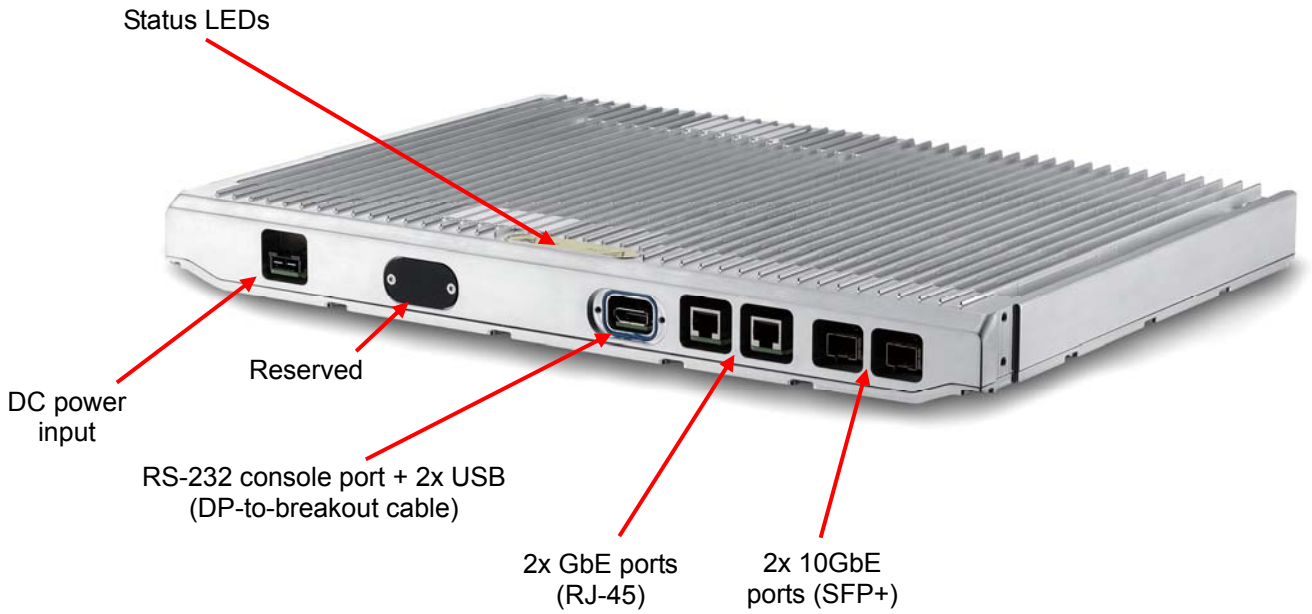
1.2 Block Diagram



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1.3 Mechanical Overview

1.3.1Front Panel

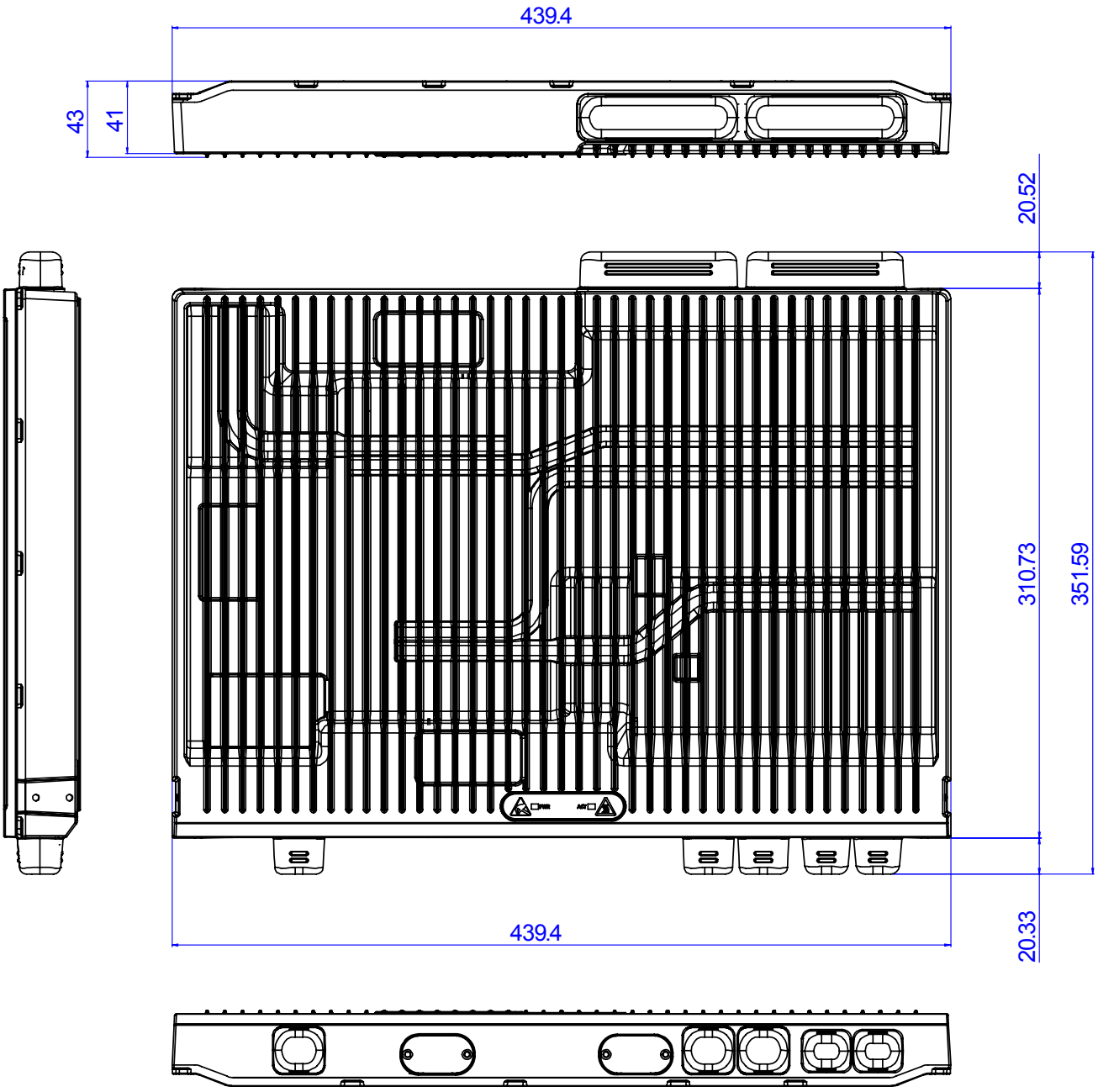


1.3.2Rear Panel



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1.4 Mechanical Dimensions



Dimensions: mm

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1.5 Package Contents

Before opening, please check the shipping carton for any damage. If the shipping carton and contents are damaged, notify the dealer for a replacement. Retain the shipping carton and packing material for inspection by the dealer. Obtain authorization before returning any product to ADLINK.

Check that the following items are included in the package. If there are any missing items, contact your dealer:

- SETO-1000 Rugged Outdoor Server
- Breakout cable for console port and USB ports (configuration only)
- Power cable
- Optional RJ-45 and SPF+ cables with IP65 shrouds

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2 Specifications

2.1 SETO-1000 Specifications

Main System

CPU	Single or dual CPU: • Intel® Xeon® E5-2418L v2 (6C/12T) • Intel® Xeon® E5-2428L v2 (8C/16T) • Intel® Xeon® E5-2448L v2 (10C/20T)
L2 Cache	15MB/20MB/25MB (2418L/2428L/2448L)
Chipset	Intel® C604 PCH
Memory	6x DDR3-1066/1333/1600 * 240-Pin VLP RDIMM sockets, REG\ECC, up to 96GB
BIOS	AMI BIOS on SPI flash memory
Operating Systems	Windows Server 2012, Fedora 20, CentOS 7.0 (no OS installed by default)
Power Requirement	-48 VDC nominal (36 to 72 VDC), max. 500W

I/O Interfaces

SFP+	2x 10GbE
Ethernet	2x 10/100/1000BASE-T Ethernet port (RJ-45)
Remote Console	1x RS-232, 2x USB ports (proprietary DisplayPort connector to breakout cable)
Status LEDs	Power, Software Activity

Storage

Drive Bays	2x 2.5”SATA drive bays for 7mm drives, heated for low temperature operation (externally accessible from rear)
Other	1x mSATA socket onboard (up to 128GB)

Mechanical & Environmental

Form Factor	439.4mm x 43mm x 351.59 mm (W x H x D)
Temperature	Operating temp.: -40°C to 55°C Storage temp.: -40°C to 70°C
Humidity	Operating: 5% - 95% @40°C, non-condensing Storage: 5% - 90%, non-condensing
Shock	20g / 11ms (EN611312-2)
Vibration	5Hz ≦ f ≦ 9Hz with 3.5mm 9Hz ≦ f ≦ 150 Hz with 1g (EN61131-2)
Certifications	FCC Class A, CE emissions, CB and RoHS compliant

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2.2 Status LEDs



Power Status LED (PWR)

PWR LED	Condition	Description
Off	No power connected	
Green	Busbar Voltage is OK	Power source DC input is OK – default state.
Orange	Cold start in progress	Heating is turned on and equipment will start when operating temperature is reached.

Software Activity LED (ACT)

ACT LED	Condition	Description
Orange	Unit is booting	Under BIOS control; if no OS is found, LED will stay orange
Green	BIOS gives control to OS	Under OS control
Red	BIOS fail	

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3 Getting Started

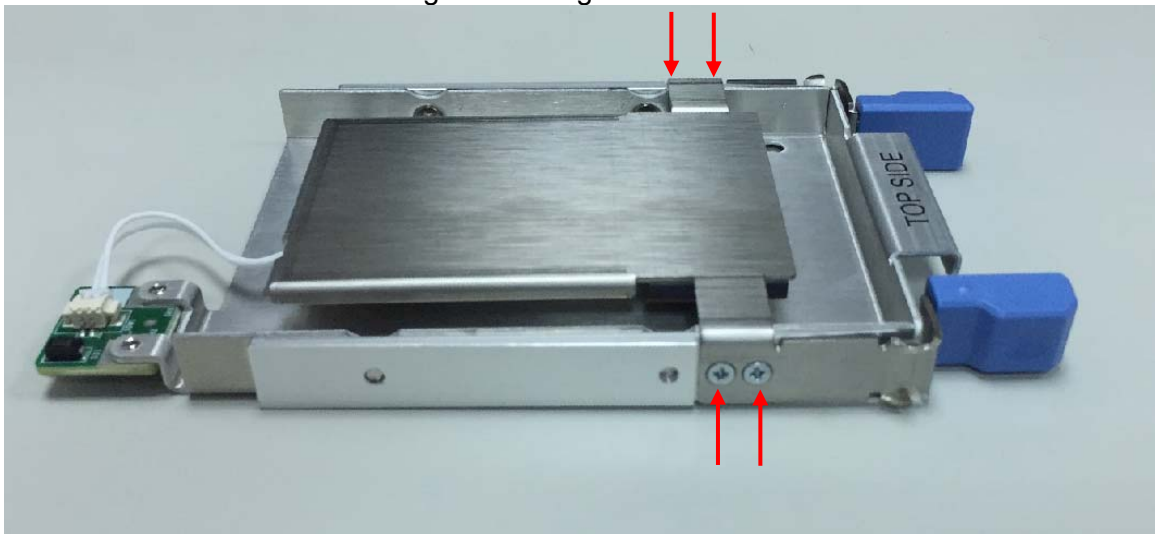
3.1 SATA Drive Installation

To install a 2.5” SATA drive, first remove the rubber cap from the rear of the chassis.

1. Take out the drive bracket by squeezing the locking tabs together and pulling it out of the chassis.

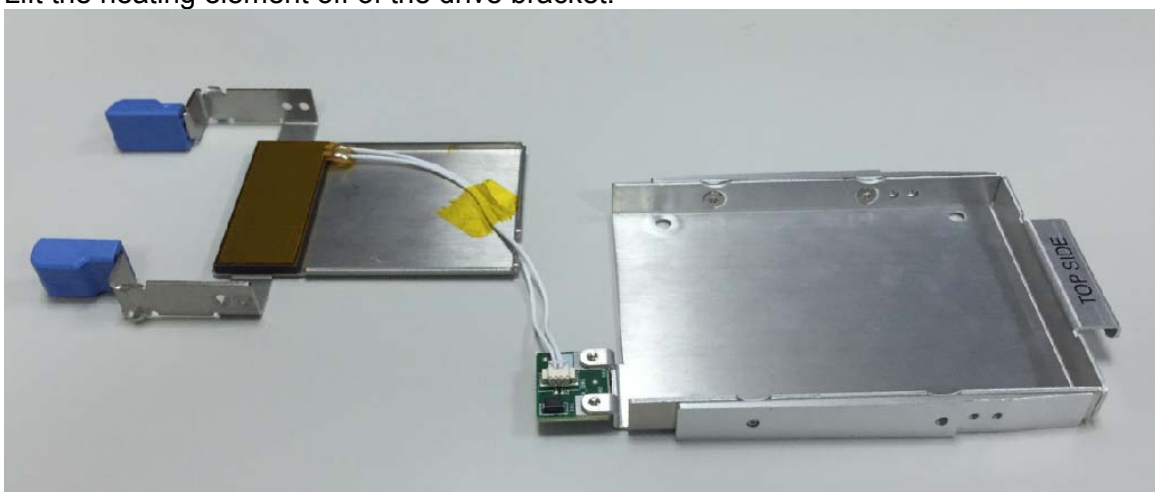


2. Remove the four screws securing the heating element to the drive bracket.

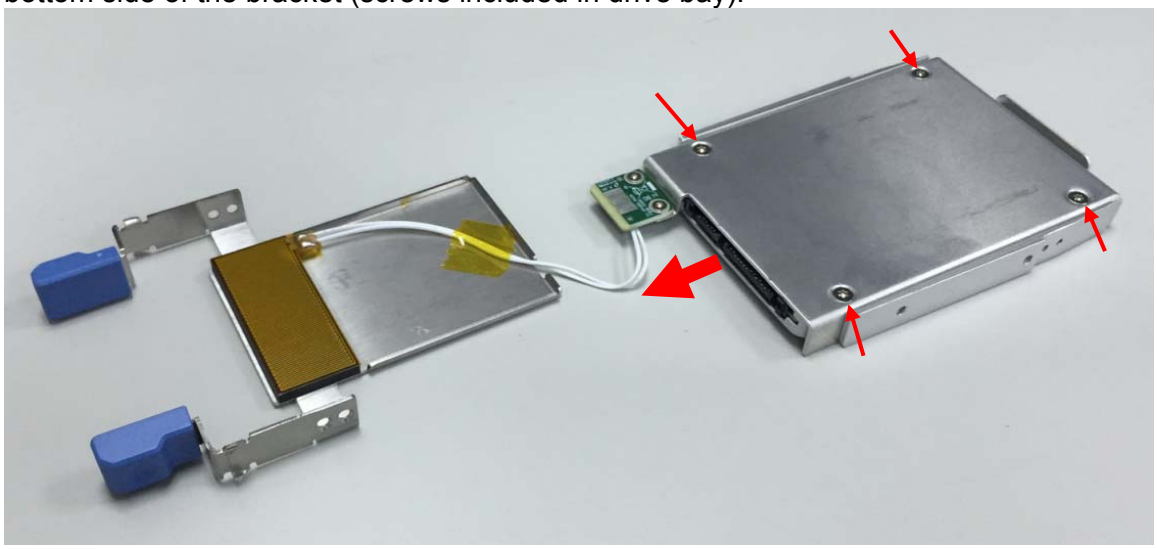


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3. Lift the heating element off of the drive bracket.

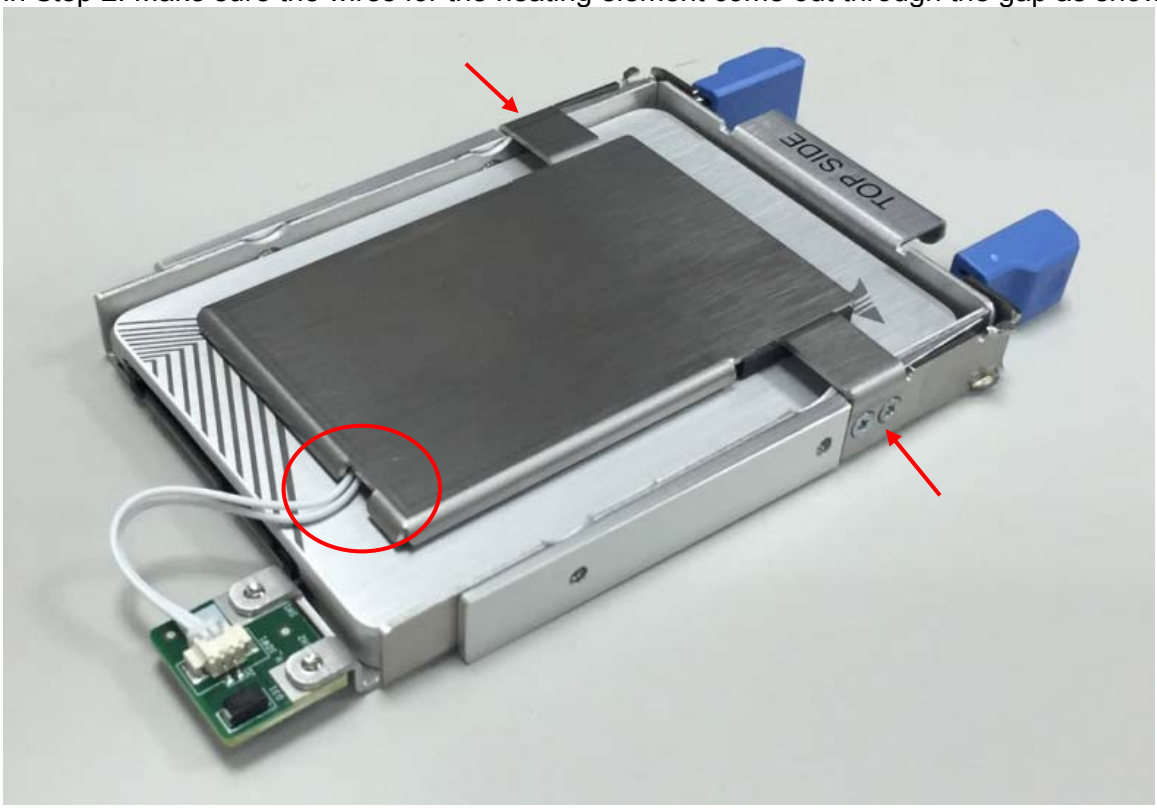


4. Install the 7mm SATA drive into the bracket as shown and secure with four screws from the bottom side of the bracket (screws included in drive bay).



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5. Replace the heating element and secure it to the drive bracket with the four screws removed in Step 2. Make sure the wires for the heating element come out through the gap as shown.



6. Insert the drive bay into the chassis until it clicks in place. Replace the rubber cap, making sure it is fully inserted.



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3.2 Connecting the Configuration Breakout Cable

A breakout cable is provided to access the RS-232 serial console port and two USB 2.0 ports for configuring the SETO-1000. A DisplayPort connector with proprietary pinout is used to bring out the signals. The breakout cable is equipped with security dongle functionality to prevent unauthorized access to the device.

To connect a cable to the SETO-1000, follow the steps below

1. Remove the two Torx T8 screws securing the cover plate to the chassis.



2. Connect the breakout cable provided with the SETO-1000.



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3.3 Connecting the IP65 Shrouded Cables

Optional cables provided by ADLINK for the SETO-1000 are equipped with an IP65 shroud to keep out dust and water. To connect a cable to the SETO-1000, follow the steps below (RJ-45 connector shown).

1. Pull back the shroud to expose the connector.



2. Insert the connector into the socket of the SETO-1000.



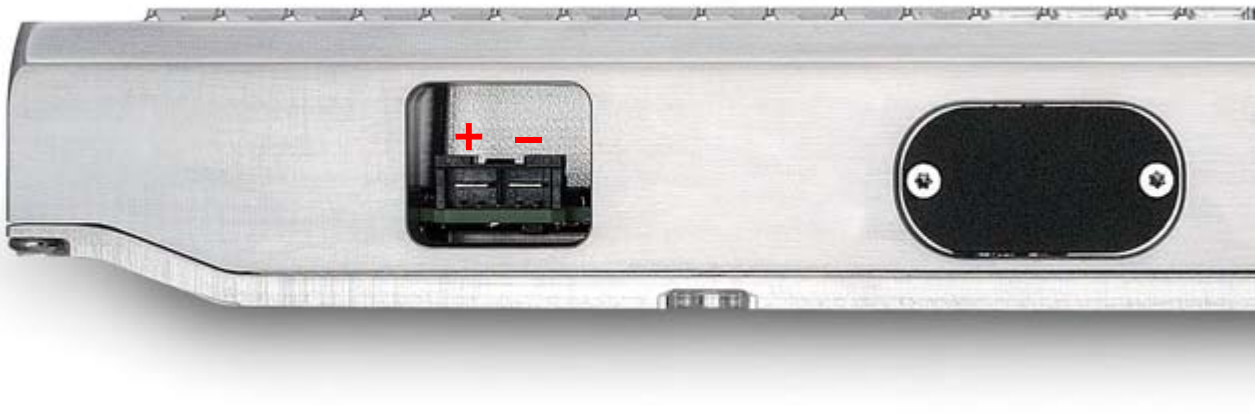
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3. Fully insert the cable shroud into the chassis to provide IP65 ingress protection.



3.4 Connecting the Power Cable

The power inlet for the SETO-1000 is at the rear of the chassis with polarity as indicated below.

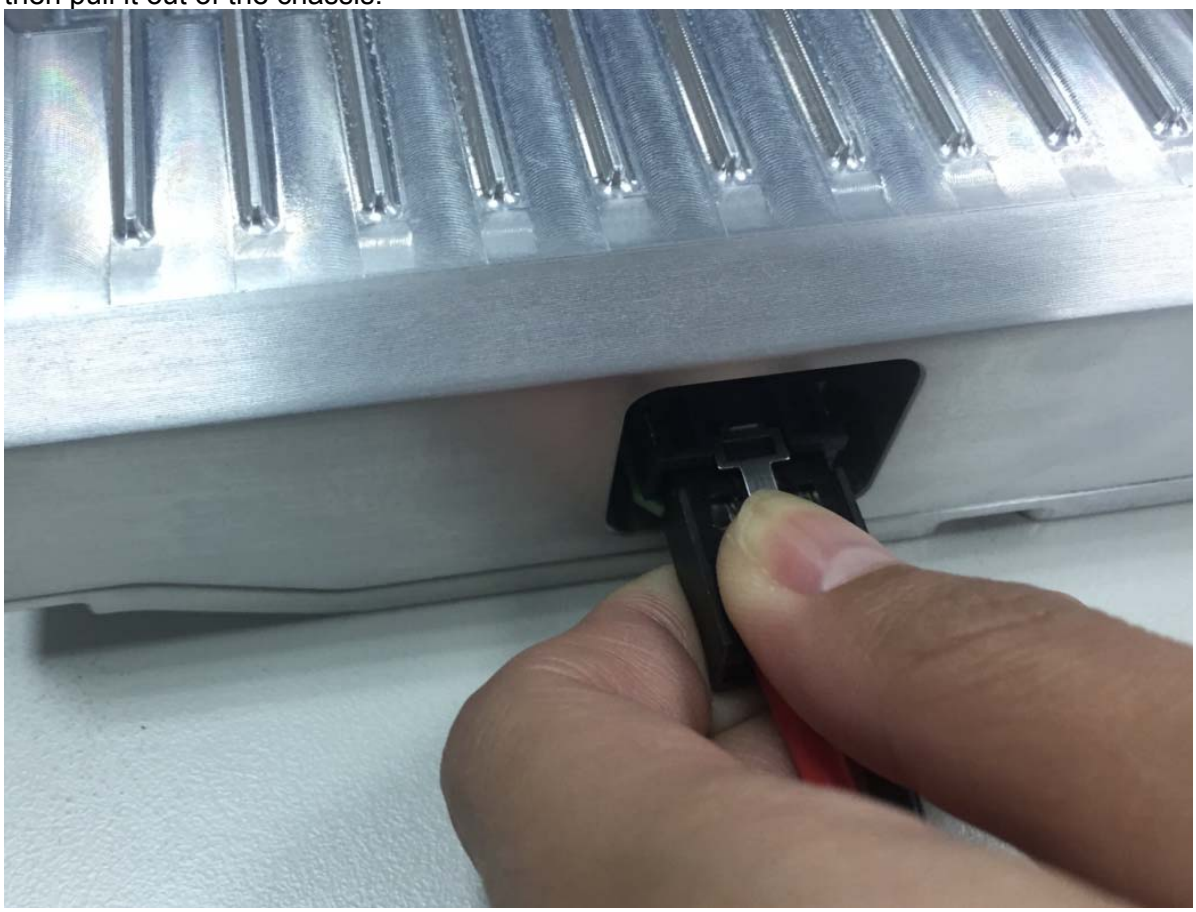


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1. Connect the supplied cable to your 48V power supply and insert the connector as shown.



2. To disconnect the power cable, press down on the locking tab to release the connector, and then pull it out of the chassis.



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3.5 Powering On the SETO-1000

After power is supplied to the SETO-1000, the following sequence occurs.

1. The PWR LED will light green.
2. The ACT LED will flash red/orange a few times, then stay orange during BIOS bootup.
3. If an OS is installed on either SATA drive or on a bootable USB flash drive connected to the configuration breakout dongle, the LED will light green after control is passed to the OS.

3.6 Accessing the SETO-1000 Control Console

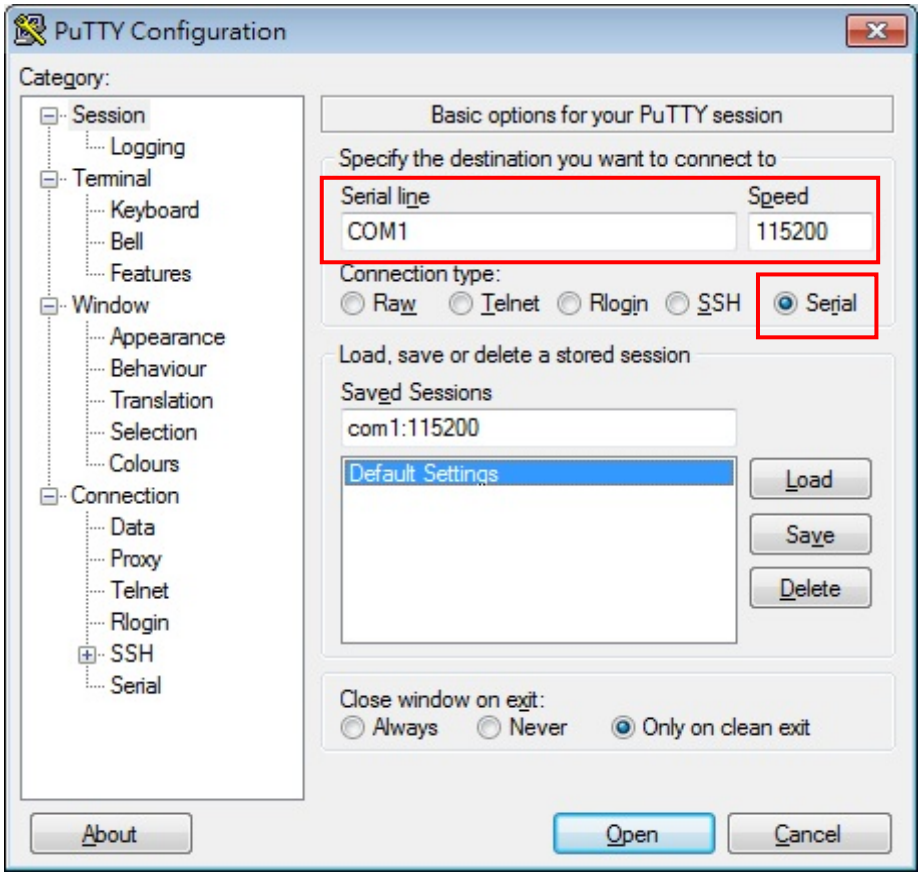
The SETO-1000 is a headless device and an RS-232 console port is provided via the proprietary DisplayPort connector on the front panel. User's can connect to the SETO-1000 console from a client PC using "PuTTY". Download PuTTY from http://www.putty.org.

Connect the breakout cable to the DisplayPort connector as described above in Section 3.2. Run the program to open the PuTTY configuration window. Set "Serial line" to the COM port of the client PC.

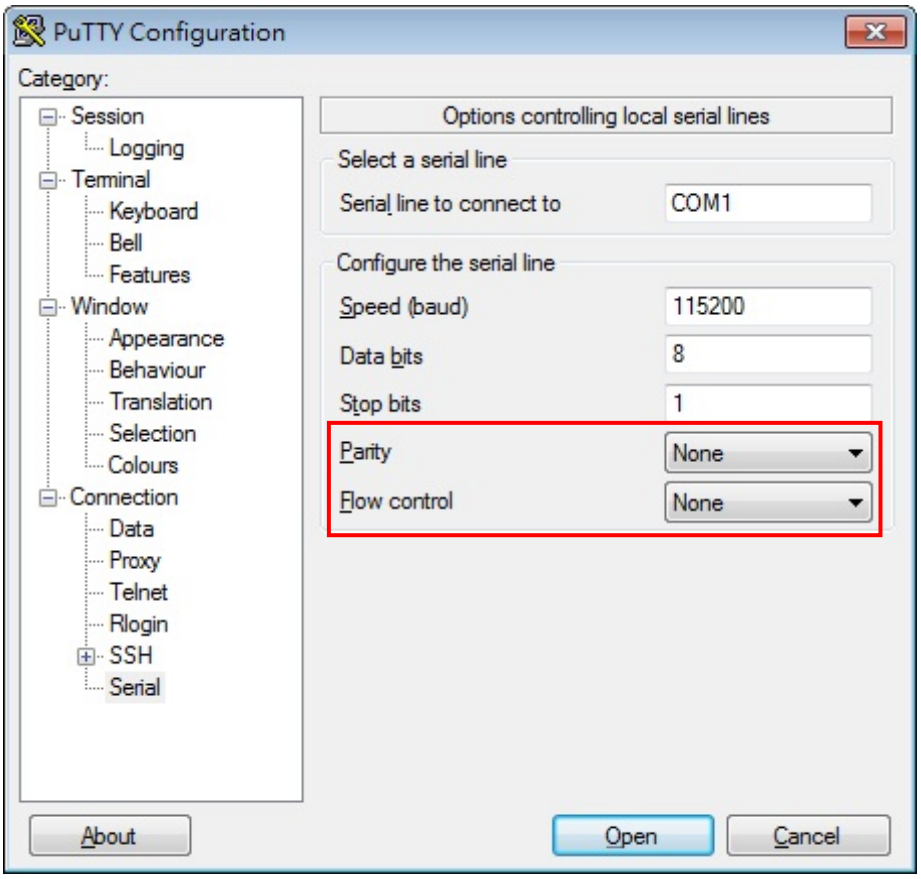
To connect to the SETO-1000 local management console, enter the following settings into the PuTTY Configuration window:

- Speed: 115200
- Parity bit: None
- Flow Control: None
- All others settings default

Click "Open" to open the PuTTY command line interface.



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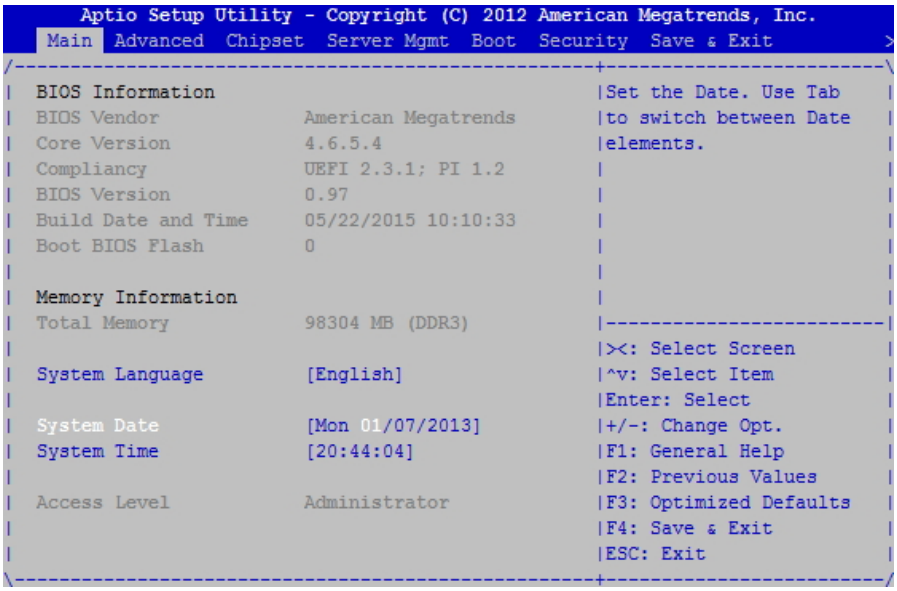
After powering on the SETO-1000, the terminal program PuTTY will connect to the SETO-1000 shell via the COM port.



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3.7 Entering BIOS Setup

Follow the instructions above to access the SETO-1000 control console. After power is supplied to the SETO-1000, press the <DELETE> key repeatedly until the BIOS Setup menu appears.



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4 BIOS Setup

The following chapter describes basic navigation for the SETO-1000 BIOS setup utility.

4.1 Entering BIOS Setup

To enter the setup screen, follow these steps:

1. Power on the motherboard
2. Press the < Delete > key on your keyboard when you see the following text prompt: < Press DEL to enter Setup >
3. After you press the < Delete > key, the main BIOS setup menu displays. You can access the other setup screens from the main BIOS setup menu, such as Chipset and Power menus.

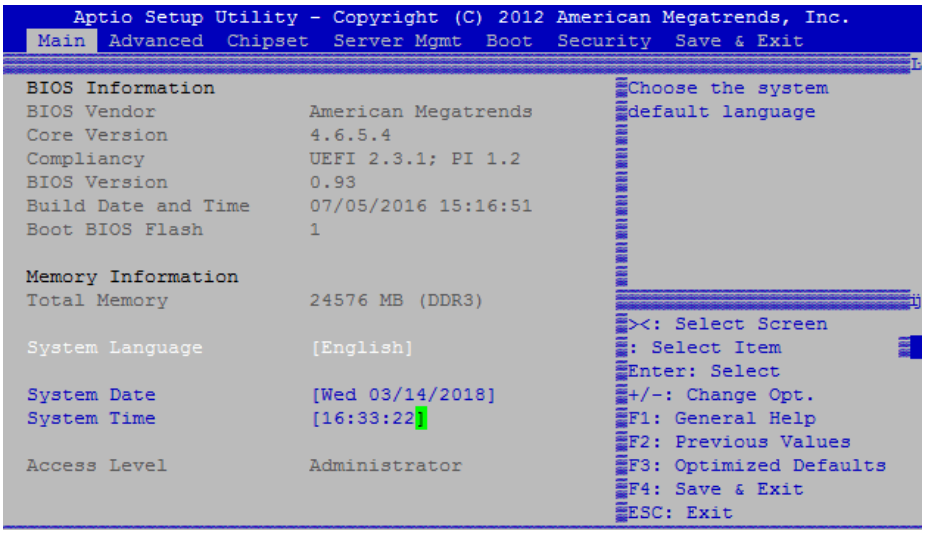


NOTE: In most cases, the < Delete > key is used to invoke the setup screen. However, there are several cases that use other keys, such as < F1 >, < F2 >, and so on.

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4.1.1Setup Menu

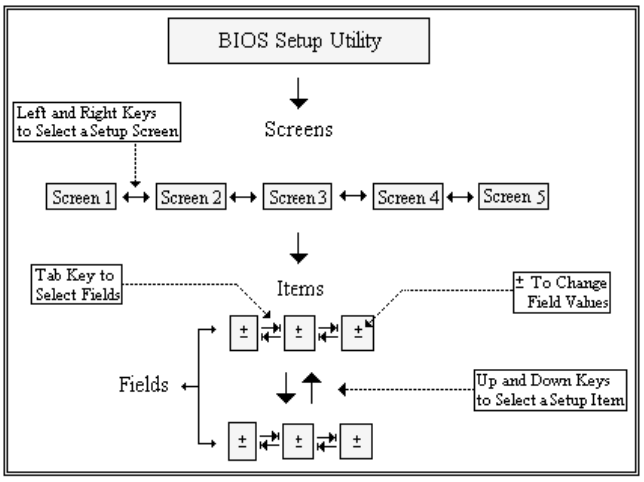
The Main BIOS setup menu is the first screen that you can navigate to. The Main BIOS setup menu screen has two main frames. The left frame displays all the options that can be configured. “Grayed” options cannot be configured, and “Blue” options can be. The right frame displays the key legend. Above the key legend 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.



Note: The **Event Log** menu is to the right of the Save & Exit menu. To access it, continue to press the <Right Arrow> key after you have reached the **Save & Exit** menu.

4.1.2Navigation

The BIOS setup/utility uses a key-based navigation system called hot keys. Most of the BIOS setup utility hot keys can be used at any time during the setup navigation process.
These keys include < F1 >, < F10 >, < Enter >, < ESC >, < Arrow > keys, and so on.

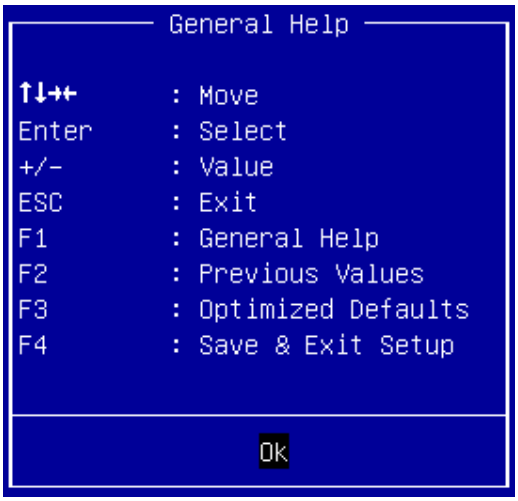


NOTE: There is a hot key legend located in the right frame on most setup screens.

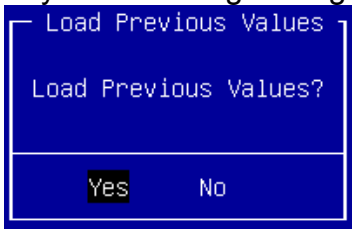
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→←	Left/Right. The *Left and Right* < Arrow > keys allow you to select a setup screen. For example: Main screen, Advanced screen, Chipset screen, and so on.
↑↓	Up/Down The *Up and Down* < Arrow > keys allow you to select a setup item or sub-screen.
+-	Plus/Minus The *Plus and Minus* < Arrow > keys allow you to change the field value of a particular setup item. For example: Date and Time.
Tab	The < Tab > key allows you to select setup fields.

Hot Key	Description
Enter	The < Enter > key allows you to display or change the setup option listed for a particular setup item. The < Enter > key can also allow you to display the setup sub-screens.
F1	The < F1 > key allows you to display the General Help screen. Press the < F1 > key to open the General Help screen.



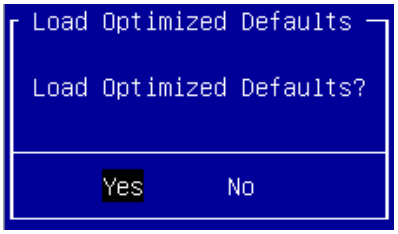
F2	The < F2 > key on your keyboard is the previous values key. It is not displayed on the key legend by default. To set the previous values settings of the BIOS, press the < F2 > key on your keyboard. It is located on the upper row of a standard 101 keyboard. The previous value settings allow the motherboard to boot up with the least amount of options set. This can lessen the probability of conflicting settings.



Press the < Enter > key to load previous values. You can also use the < Arrow > key to select *Cancel* and then press the < Enter > key to abort this function and return to the previous screen.

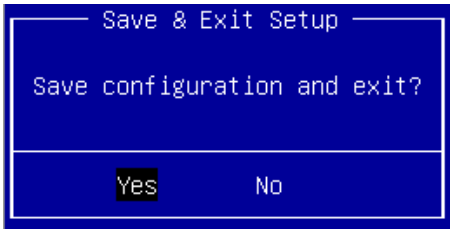
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F3 The < F3 > key on your keyboard is the optimized defaults key. To set the optimized defaults settings of the BIOS, press the < F3 > key on your keyboard. It is located on the upper row of a standard 101 keyboard. The optimized defaults settings allow the motherboard to boot up with the optimized defaults of options set. This can lessen the probability of conflicting settings.



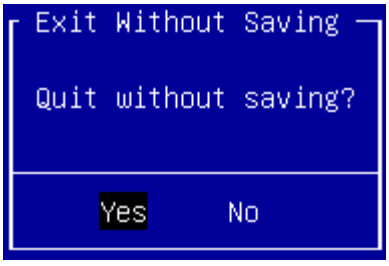
Press the < Enter > key to load optimized defaults. You can also use the < Arrow > key to select *Cancel* and then press the < Enter > key to abort this function and return to the previous screen.

F4 The < F4 > key allows you to save any changes you have made and exit Setup. Press the < F4 > key to save your changes. The following screen will appear:



Press the < Enter > key to save the configuration and exit. You can also use the < Arrow > key to select *Cancel* and then press the < Enter > key to abort this function and return to the previous screen.

ESC The < Esc > key allows you to discard any changes you have made and exit the Setup. Press the < Esc > key to exit the setup without saving your changes. The following screen will appear:

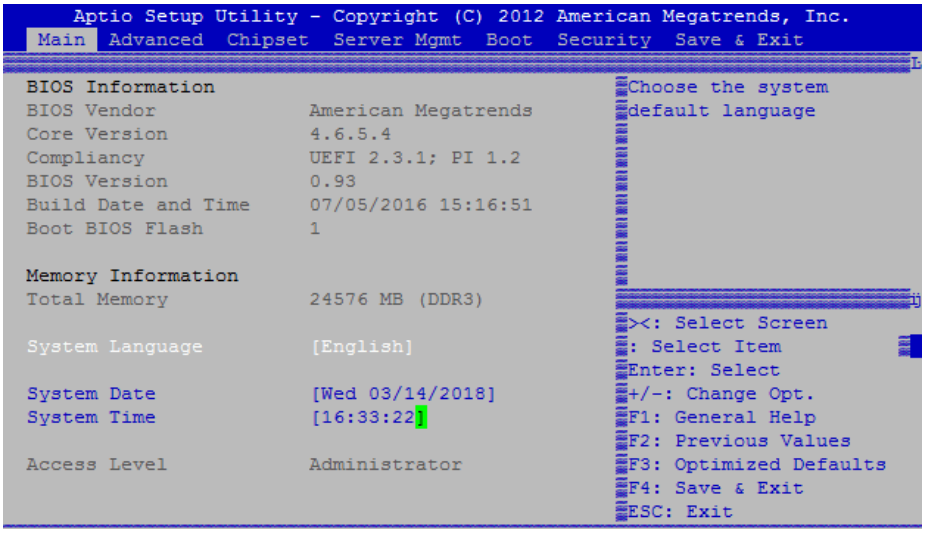


Press the < Enter > key to discard changes and exit. You can also use the < Arrow > key to select *Cancel* and then press the < Enter > key to abort this function and return to the previous screen.

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4.2 Main Setup

When you first enter the Setup Utility, you will find the Main setup screen. You can always return to the Main setup screen by selecting the *Main* tab. There are two Main Setup options. They are described in this section. The Main BIOS Setup screen is shown below.



4.2.1System & Board Info

The Main BIOS setup screen reports processor, memory and board information.

BIOS Vendor	Displays the BIOS vendor.
Core Version	Displays the BIOS core version.
Compliancy Version	Displays the current UEFI Specification version.
BIOS Version	Displays the current BIOS version.
Build Data and Time	Displays the BIOS build data and time.
System Language	Displays default system language.

4.2.2System Date/System Time

Use this option to change the system time and date. Highlight *System Time* or *System Date* using the < Arrow > keys. Enter new values using the keyboard. Press the < Tab > key or the < Arrow > keys to move between fields. The date must be entered in MM/DD/YY format. The time is entered in HH:MM:SS format.

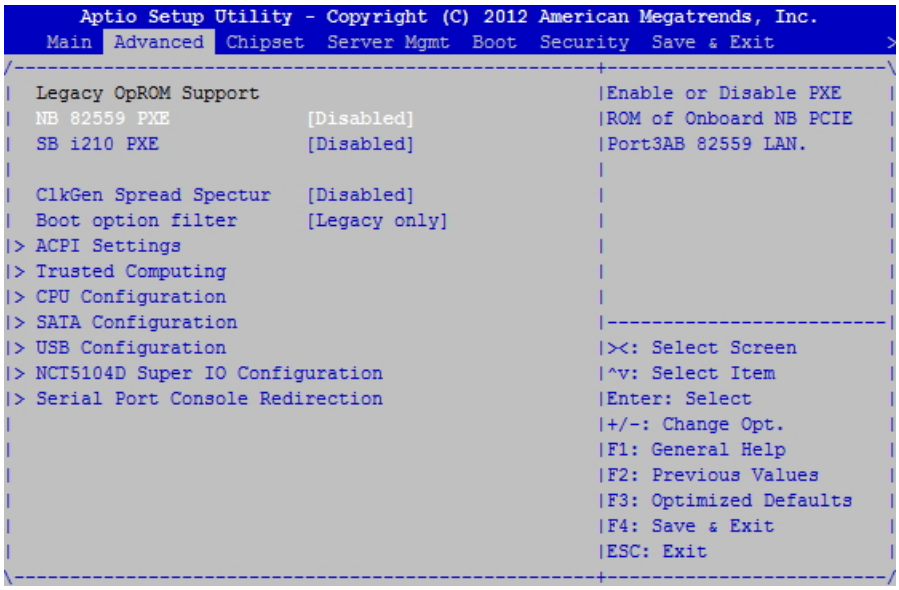
NOTE:

The time is in 24-hour format. For example, 5:30 A.M. appears as 05:30:00, and 5:30 P.M. as 17:30:00.

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4.3 Advanced BIOS Setup

Select the *Advanced* tab from the setup screen to enter the Advanced BIOS Setup screen. You can select any of the items in the left frame of the screen, (ex: Super IO 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. The Advanced BIOS Setup screen is shown below.
The sub menus are described on the following pages.



Launch PXE OpROM
Boot Option for Legacy Network Devices. Set this value to Enabled/Disabled.

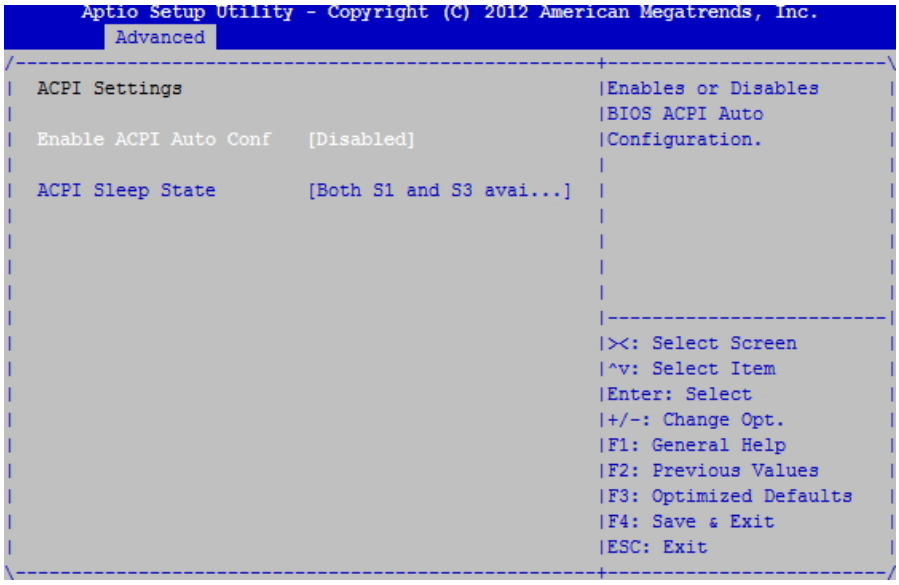
ClkGen Spread Spectrum
Enable/Disable Clock Generator spread spectrum function. Set this value to Enabled/Disabled.

Boot option filter
This item selects which set of devices the BIOS boots from. The options are UEFI

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4.3.1ACPI Settings

You can use this screen to select options for the ACPI Advanced Configuration Settings. Use the up and down < Arrow > keys to select an item. Use the < + > and < - > keys to change the value of the selected option. A description of the selected item appears on the right side of the screen. The settings are described on this page. The screen is shown below.



Enable ACPI Auto Configuration

Enables or disables BIOS ACPI Auto Configuration

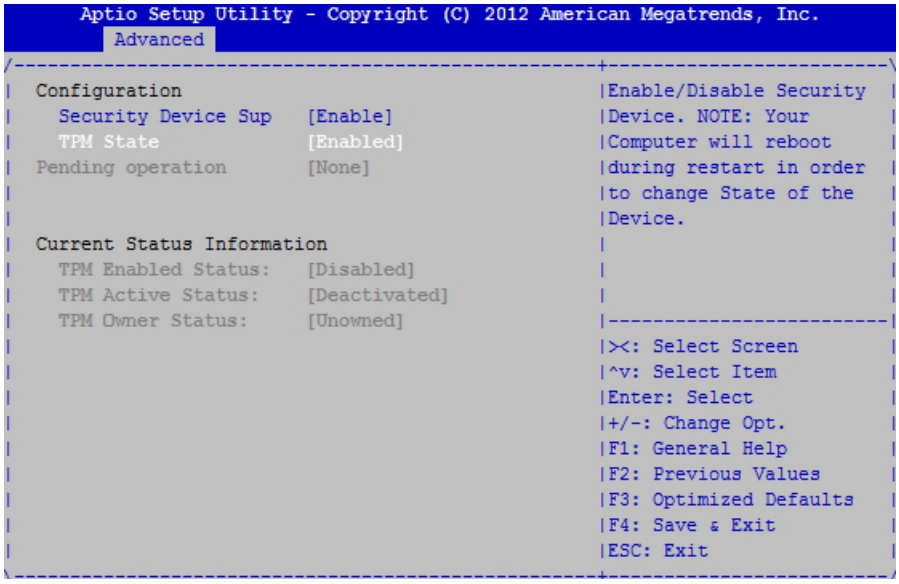
ACPI Sleep State

Select the highest ACPI sleep state the system will enter, when the SUSPEND button is pressed.

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4.3.2Trusted Computing

Trusted Computing is an industry standard to make personal computers more secure through a dedicated hardware chip, called a Trusted Platform Module (TPM). This option allows you to enable or disable the TPM support.



Security Device Support

This item allows you to enables or disables BIOS support for security device. O.S. will not show Security Device. TCG EFI protocol and INT1A interface will not be available. Options: Enabled/Disabled.

TPM Support

OS will not show TPM. Reset of platform is required. Options: Enabled/Disabled.

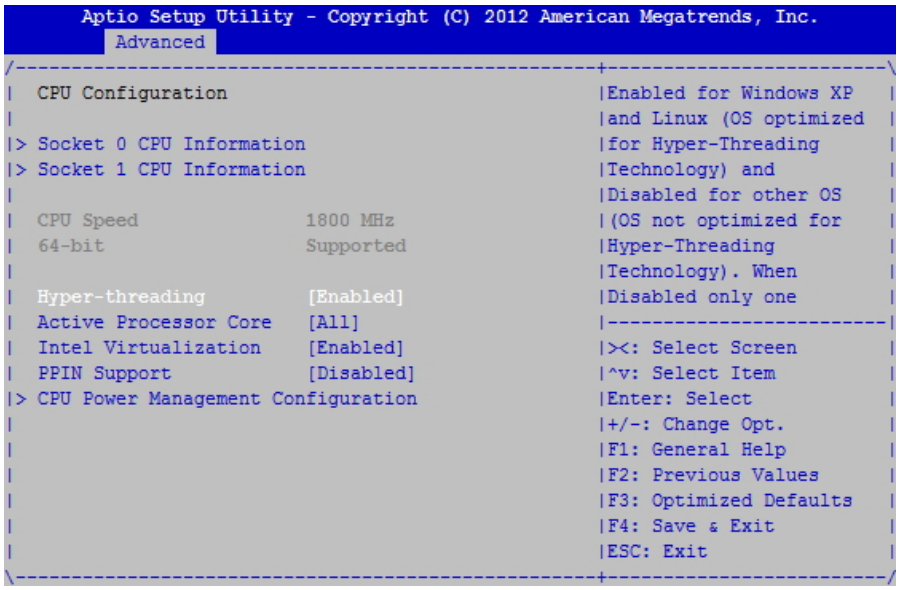
TPM State

Enable/Disable Security Device.
Note: your computer will reboot during restart in order to change state of the device.
Options: Enabled/Disabled.

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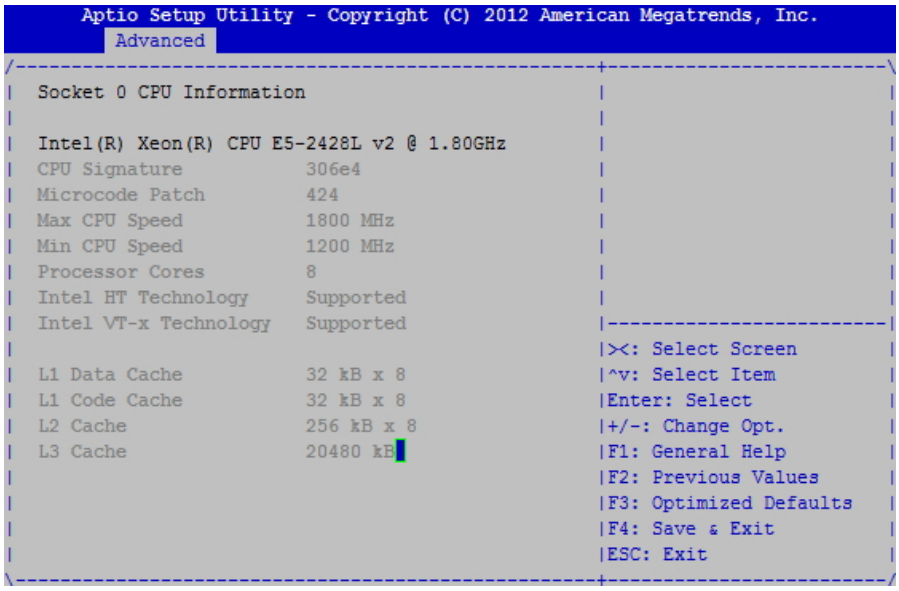
4.3.3CPU Configuration

You can use this screen to select options for the CPU Configuration Settings. Use the up and down < Arrow > keys to select an item. Use the < + > and < - > keys to change the value of the selected option. A description of the selected item appears on the right side of the screen. The settings are described on the following pages. An example of the *CPU Configuration* screen is shown below.



Socket 0/1 CPU Information

An example of the CPU Information screen is shown below.



Hyper-threading

Enabled for Windows XP and Linux (OS optimized for Hyper-Threading Technology) and Disabled for other OS (OS not optimized for Hyper-Threading Technology).

Options	
Enabled	For Windows XP and Linux (OS optimized for Hyper-Threading Technology).
Disabled	For other OS (OS not optimized for Hyper-Threading Technology).

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Active Processor Core

Number of cores to enable in each processor package.
Set this value to **All, 1, 2, 3.**

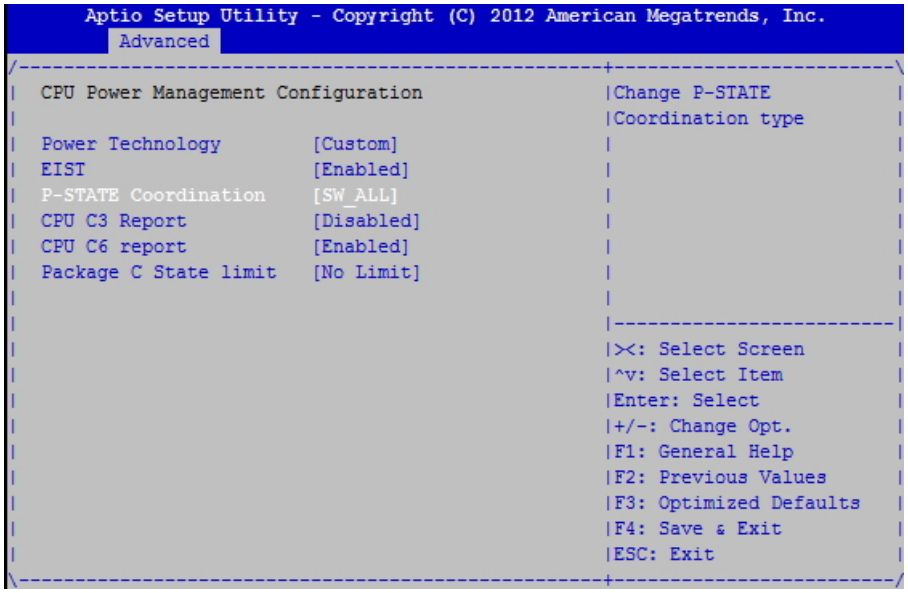
Intel Virtualization Technology

When enabled, a VMM can utilize the additional hardware capability provided by Vanderpool Technology. Set this value to **Enabled/Disabled.**

PPIN Support

Enable/Disable Protected Processor Inventory Number (PPIN).

CPU Power Management Configuration



EIST

Conventional Intel SpeedStep Technology switches both voltage and frequency in tandem between high and low levels in response to processor load. Options available: Enabled/Disabled. Default setting is Enabled.

P-STATE Coordination

In HW_ALL mode, the processor hardware is responsible for coordinating the P-state among logical processors dependencies. The OS is responsible for keeping the P-state request up to date on all logical processors.
In SW_ALL mode, the OS Power Manager is responsible for coordinating the P-state among logical processors with dependencies and must initiate the transition on all of those Logical Processors

CPU C3/C6 Report

Allows you to determine whether to let the CPU enter C3/C6 mode in system halt state. When enabled, the CPU core frequency and voltage will be reduced during system halt state to decrease power consumption. The C3/C6 state is a more enhanced power-saving state than C1. Auto lets the BIOS automatically configure this setting.
Options available for CPU C3 Report: ACPI C2/ACPI C3/Disabled. Default setting is ACPI C2.
Options available for CPU C6 Report: Enabled/Disabled. Default setting is Enabled.

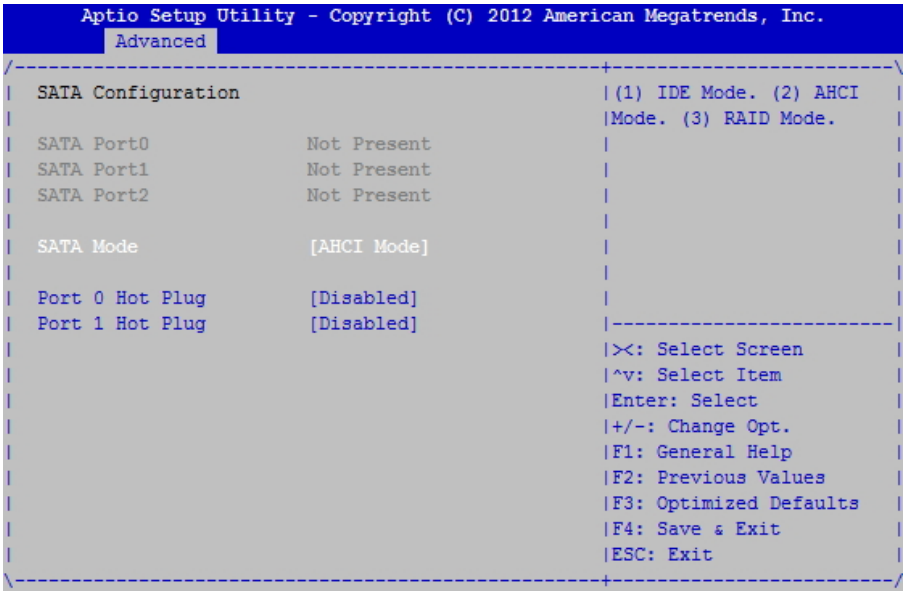
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Package C State Limit

Configure state for the C-State package limit. Options available: C0/C1/C6/C7/No Limit. Default setting is No Limit.

4.3.4SATA Configuration

You can use this screen to select options for the SATA Configuration Settings. An example of the *SATA Configuration* screen is shown below.



SATA Mode

The SATA can be configured as a legacy **IDE, AHCI** and **RAID** mode.

Port 0/1 Hot Plug

This item specifies whether Serial--ATA Port 0/1 support Hot Plug.The settings are Disabled and Enable .

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4.3.5USB Configuration

You can use this screen to select options for the USB Configuration Settings. Use the up and down < Arrow > keys to select an item. Use the < + > and < - > keys to change the value of the selected option. A description of the selected item appears on the right side of the screen. The settings are described on the following pages. An example of the *USB Configuration* screen is shown below.

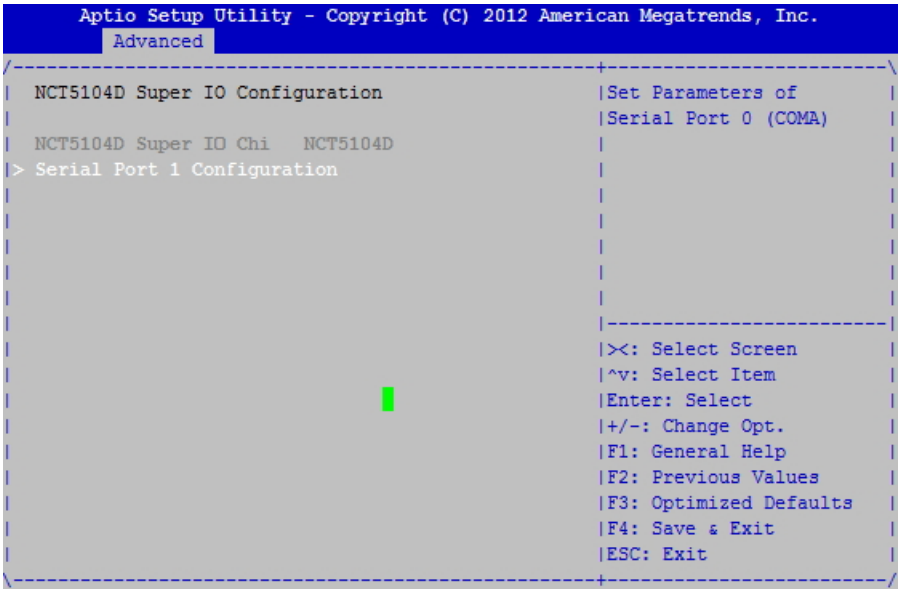


Legacy USB Support

Enables legacy USB support. Auto option disables legacy support if no USB devices are connected. The disable option will keep USB devices available only for EFI applications. Set this value to **Enabled/Disabled/Auto.**

4.3.6NCT5104D Super IO Configuration

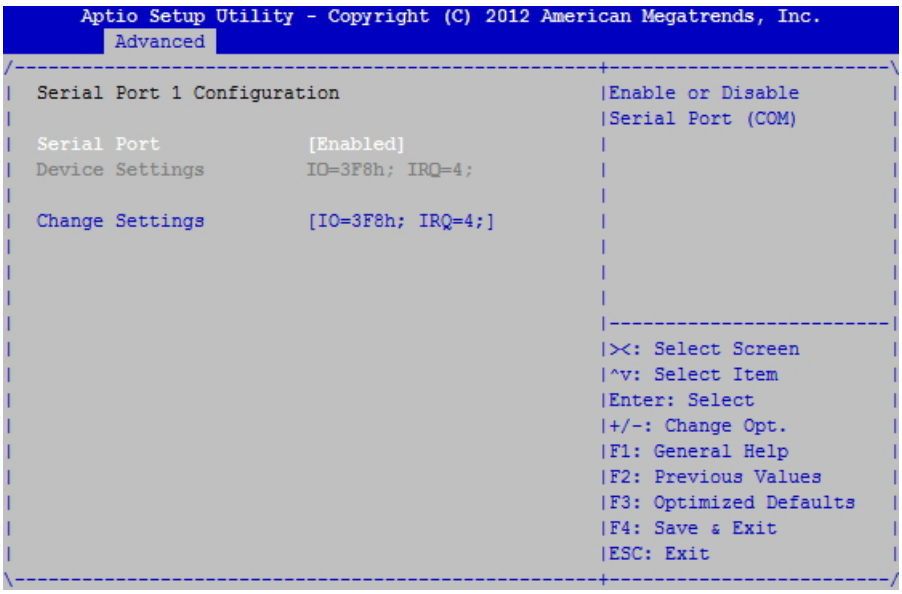
You can use this screen to select options for the Super IO settings. Use the up and down < Arrow > keys to select an item. Use the < + > and < - > keys to change the value of the selected option. The settings are described on the following pages. The screen is shown below.



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Serial Port 1 Configuration

Set parameters of Serial Port 1 (COM A). Set this value to Enabled/Disabled. The screen is shown below.



Serial Port

Enable or disable Serial Port 1.

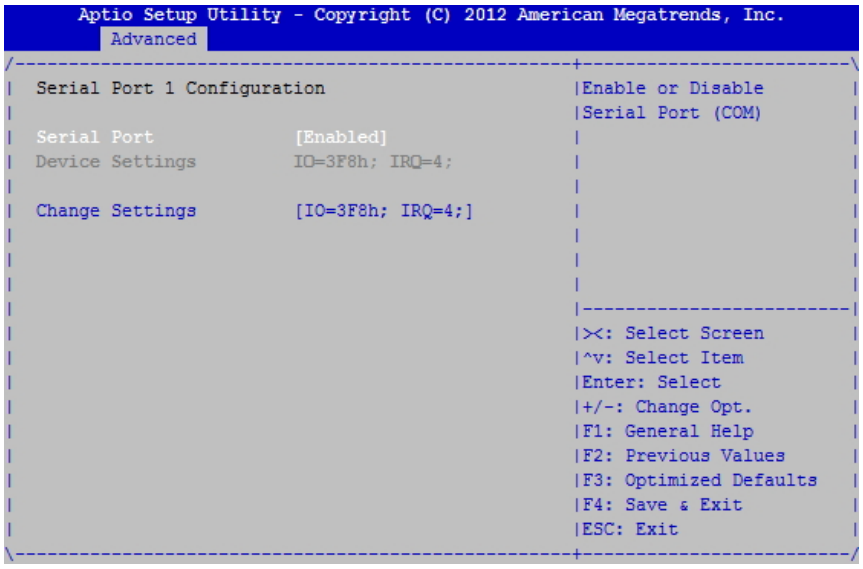
Device Settings

This option specifies the base I/O port address and interrupt request address of serial port 1,.

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4.3.7Serial Port Console Redirection

You can use this screen to select options for the serial port console redirection settings. Use the up and down < Arrow > keys to select an item. Use the < + > and < - > keys to change the value of the selected option. A description of the selected item appears on the right side of the screen. The settings are described in the following pages. An example of the *Serial Port Console Redirection* screen is shown below.



Console Redirection

The BIOS Console Redirection feature is here. Set this value to **Enabled/Disabled.**

Console Redirection Settings

The settings specify how the host computer and the remote computer (which the user is using) will exchange data. Both computers should have the same or compatible settings. The screen is shown below.

Terminal Type

VT100+ is the preferred terminal type for out-of-band management. Configuration options are**: VT100, VT100+, VT-UTF8, ANSI.**

Bits per second

Select the bits per second you want the serial port to use for console redirection. The options are **115200, 57600, 38400, 19200**, **and 9600**.

Data Bits

Select the data bits you want the serial port to use for console redirection. Set this value to **7, 8**.

Parity

Set this option to select Parity for console redirection. The settings for this value are **None, Even, Odd, Mark, and Space.**

Stop Bits

Stop bits indicate the end of a serial data packet. (A start bit indicates the beginning). The standard setting is 1 stop bit. Communication with slow devices may require more than 1 stop bit. Set this value to **1** and **2**.

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Flow Control

Set this option to select Flow Control for console redirection.
The settings for this value are **None and Hardware RTS/CTS**.

VT-UTF8 Combo Key Support

Enable VT-UTF8 Combination Key support for ANSI/VT100 terminals.
The settings for this value are **Enabled and Disabled.**

Recorder Mode

When this mode is enabled, only text will be sent. This is to capture terminal data.
Set this value to **Enabled/Disabled.**

Resolution 100x31

Set this option to extended terminal resolution. Set this value to **Enabled/Disabled.**

Legacy OS Redirection

On Legacy OS, the number of rows and columns support redirection. Set this value to **80x24, 80x25**.

Putty KeyPad

Select function key and keypad on putty. Set this value to **VT100, LINUX, XTERMR6, SCO, ESCN, VT400**.

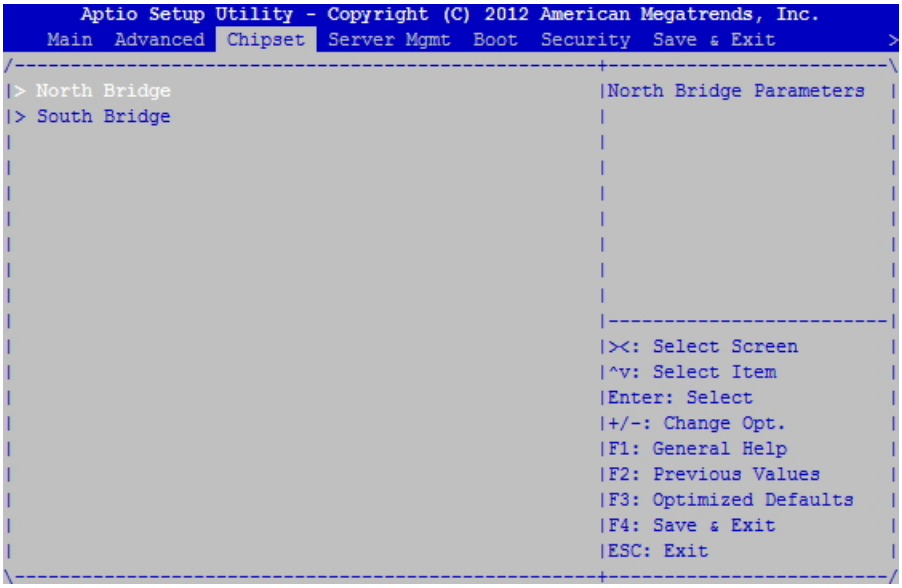
Redirection After BIOS POST

The settings specify if BootLoader is selected then legacy console redirection is disabled before booting to legacy OS. Default value is Always Enable which means legacy console redirection is enabled for legacy OS. Set this value to **Always Enable, BootLoader**.

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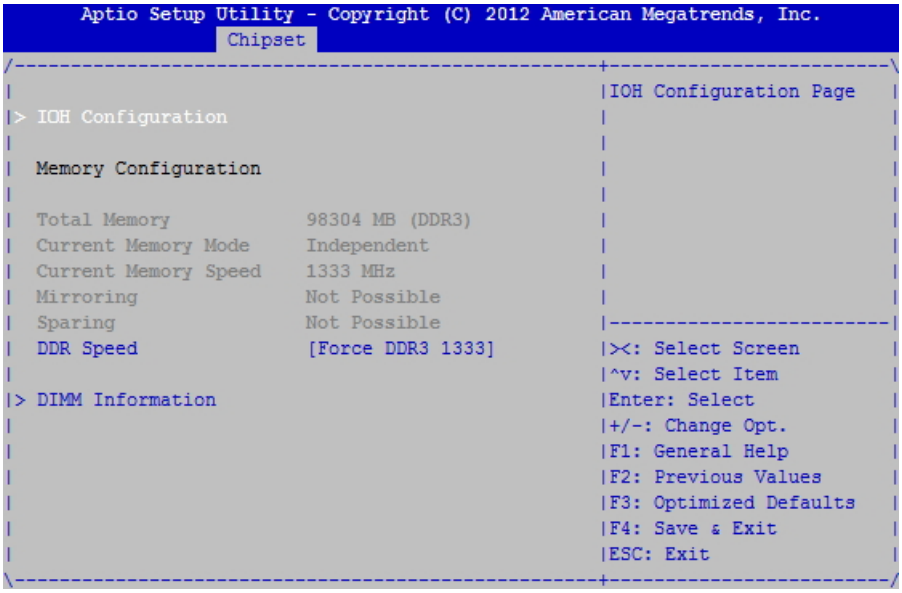
4.4 Chipset Setup

Select the Chipset tab from the setup screen to enter the Chipset BIOS Setup screen. You can select any of Chipset BIOS Setup options by highlighting an option using the < Arrow > keys. The Chipset BIOS Setup screen is shown below.



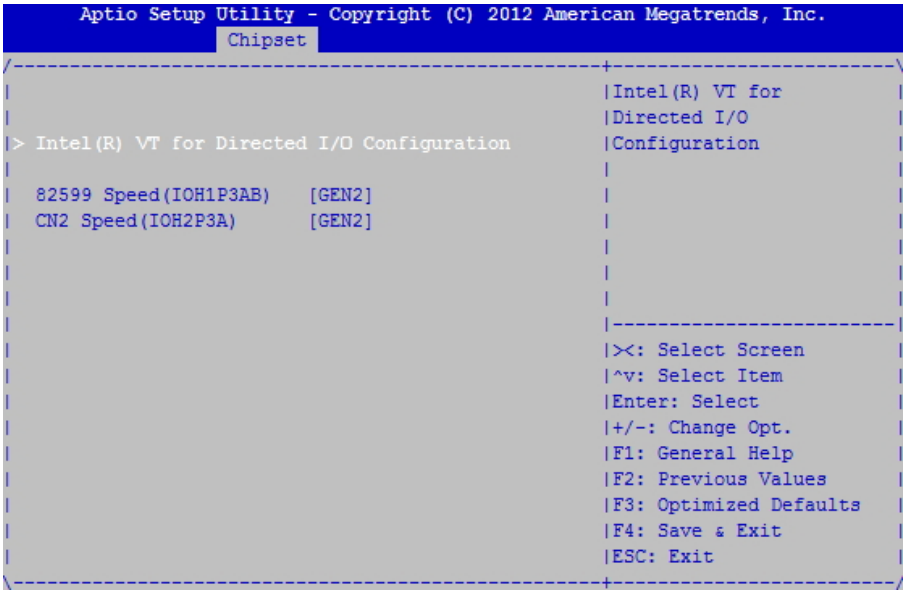
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4.4.1North Bridge Configuration



IOH Configuration

Select the Intel(R) VT for Directed I/O Configuration. Options: Enabled/Disabled.



Intel(R) VT-d

Intel® Virtualization Technology for Directed I/O. Options: Enabled/Disabled.

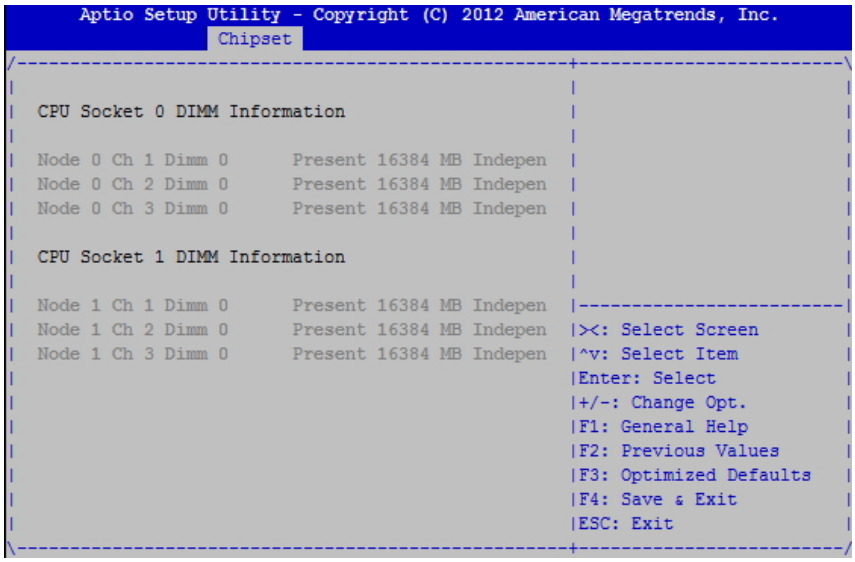
82599 Speed(IOH1P3AB)/CN2 Speed(IOH2P3A)

This item is for configuring the link speed for 82599 and CN2 device

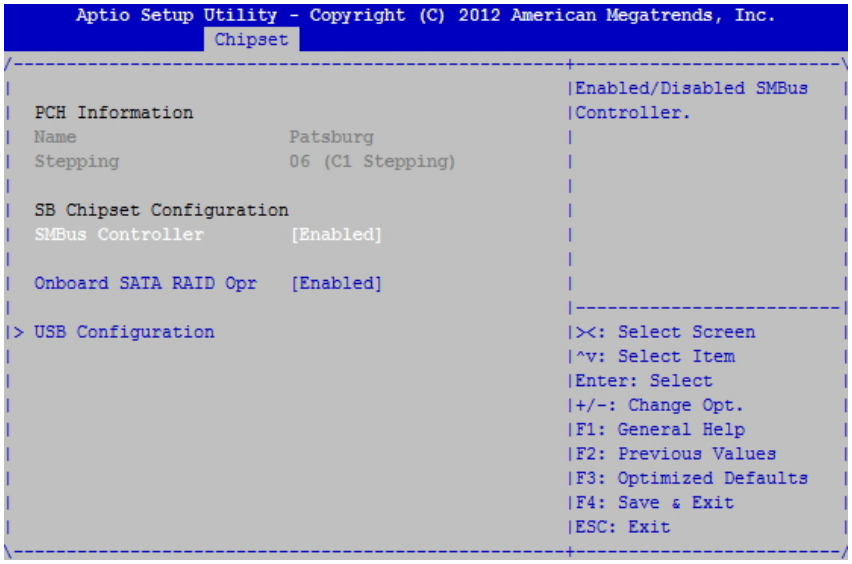
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DIMM Information

Display DIMM presence and size information.



4.4.2 South Bridge Configuration



SMBus Controller

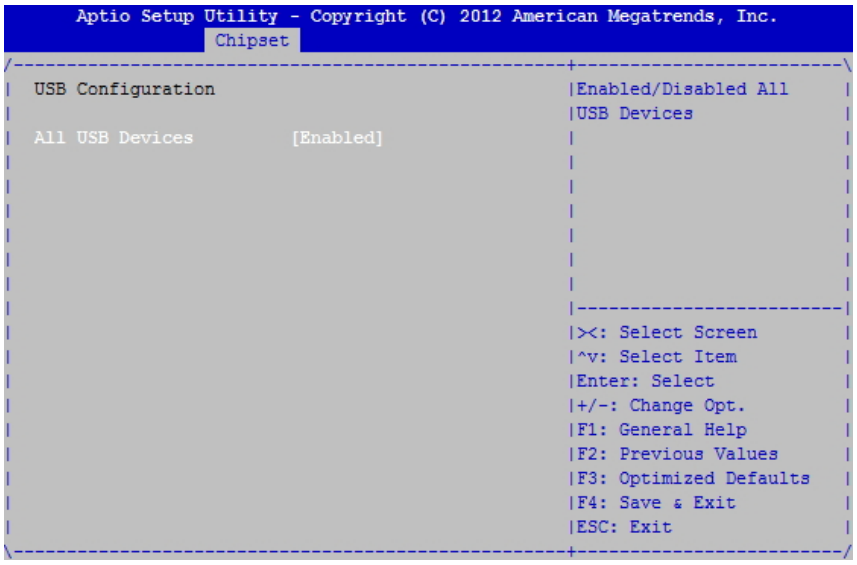
The SMBus controller. Options: Enabled/Disabled.

Onboard SATA RAID OpROM

Onboard SATA RAID OpROM if launch storage OpROM is enabled. Options: Enabled/Disabled.

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4.4.2.1 USB Configuration



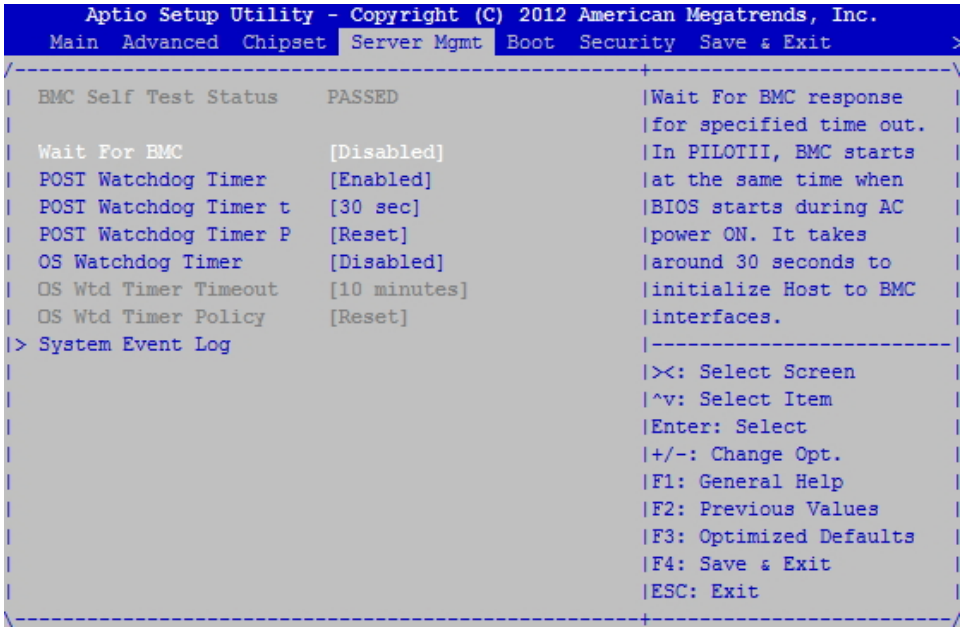
All USB Devices

Enable/Disable all USB devices. Options: Enabled/Disabled.

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4.5 Server Mgmt Setup

You can use this screen to specify options for the Server Management settings. Use the up and down <Arrow> keys to select an item. Use <+> and <-> keys to change the value of the selected option. The settings are described in the following pages. The screen is shown as below.



IOH Configuration

Select the Intel(R) VT for Directed I/O Configuration. Options: Enabled/Disabled.

Wait for BMC

It is for enabling or disabling the interface to communicate with BMC.

Post Watchdog Timer

It is for enabling or disabling Post timer.

Post Watchdog Timer timeout

It can select the value between 20 to 55 sec for Post timer expiration value.

Post Watchdog Timer policy

Configure how the system should respond if the Post Watchdog Timer expires. Not available if Timer is disable.

OS Watchdog Timer

If enabled, starts a BIOS timer which can only be shut off by Intel Management software after the OS loads.

OS WD Timer Timeout

If is for configuring the length of the OS boot watchdog timer. Not available if OS boot watchdog timer is disabled.

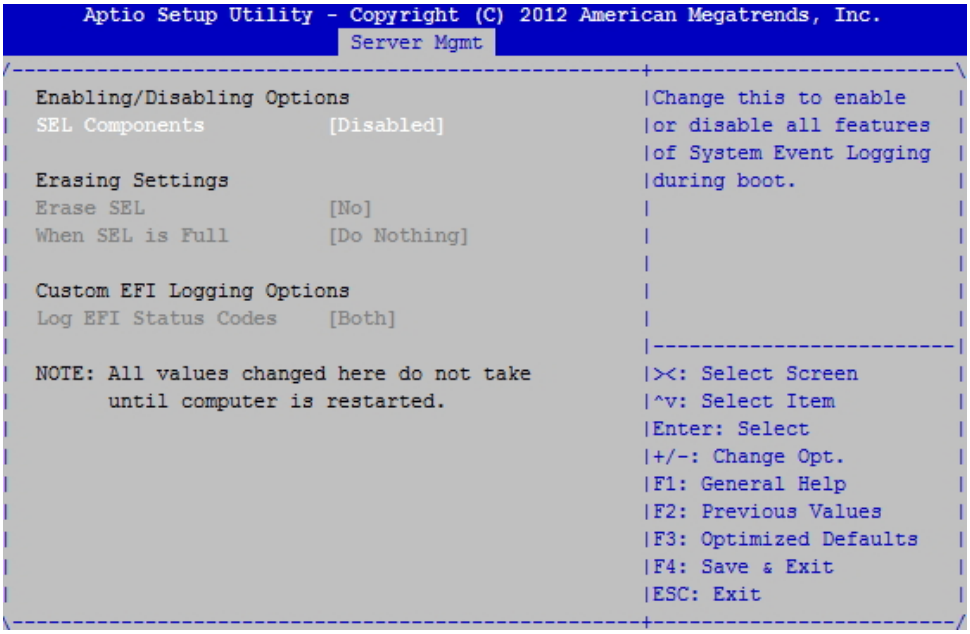
OS Watchdog Timer policy

Configure how the system should respond if the OS Watchdog Timer expires. Not available if Timer is disable.

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4.5.1System Event Log

You can use this screen to specify options for the System Event Log settings. Use the up and down <Arrow> keys to select an item. Use <+> and <-> keys to change the value of the selected option. The settings are described in the following pages. The screen is shown as below.



Enabling/Disabling Options

SEL Components

Designed for enabling or disabling all features of system event logging during boot.

Erasing Settings

Erase SEL

Used for enabling or disabling SEL erasing.

When SEL is Full

Used for configuring the action if SEL reaches full condition.

Custom EFI Logging Options

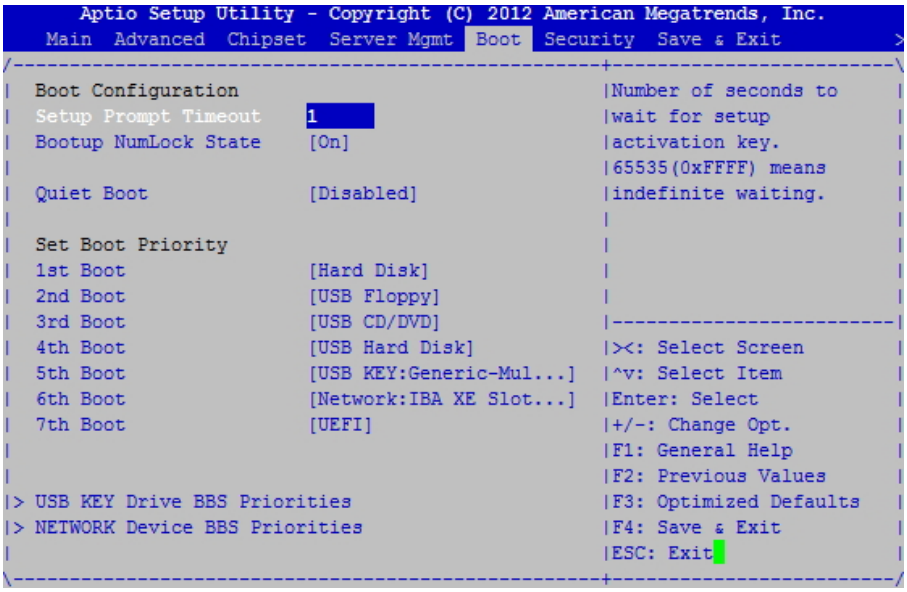
Log EFI Status Codes

Used for disable the logging of EFI status codes or log only error code or only progress code or both.

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4.6 Boot Setup

Select the Boot tab from the setup screen to enter the Boot BIOS Setup screen. You can select any of the items in the left frame of the screen, such as Boot Device Priority, to go to the sub menu for that item. You can display a Boot BIOS Setup option by highlighting it using the < Arrow > keys. The Boot Settings screen is shown below:



Setup Prompt Timeout

Set the number of seconds that the system will wait for the setup activation key. The number of 65535(0xFFFF) means indefinite waiting.

Bootup NumLOck State

Select the keyboard NumLock state. Set this value to **On, Off.**

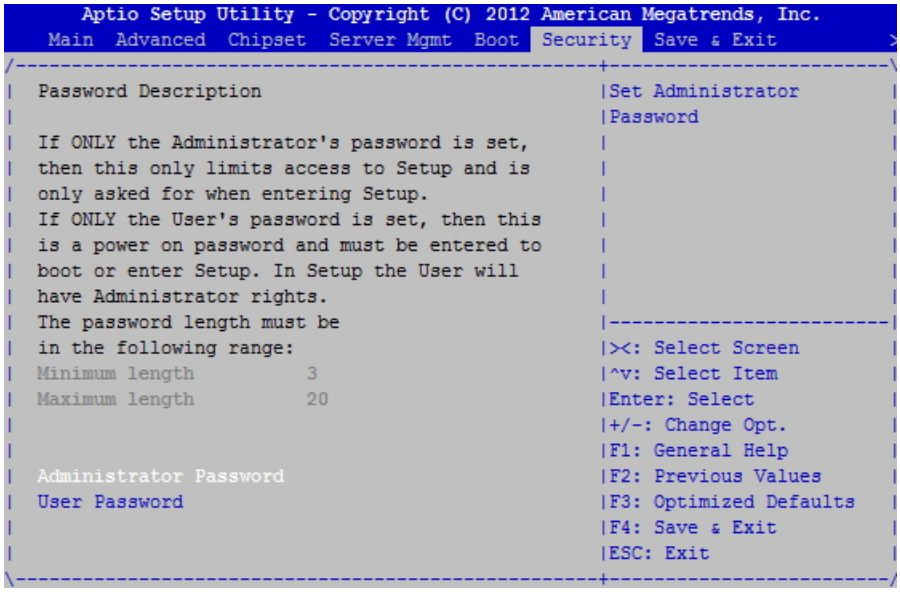
Quiet Boot

Disabled - Set this value to allow the computer system to display the POST messages.

Enabled - Set this value to allow the computer system to display the OEM logo.

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4.7 Security Setup



Administrator / User Password

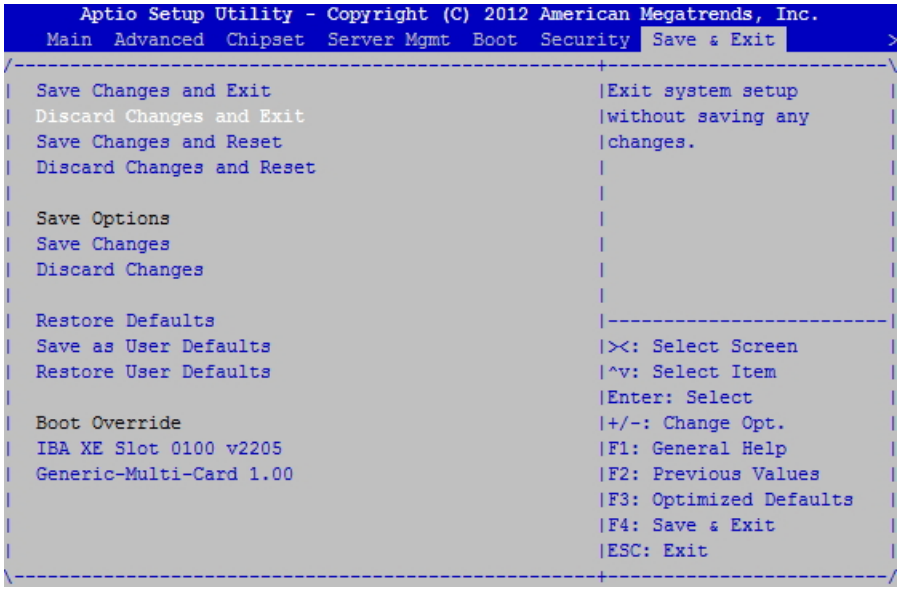
If only the administrator's password is set, then this limits access to setup and is only asked for when entering setup.

If only the user's password is set, then this is a power on password and must be entered to boot or enter setup. In setup the user will have administrator rights.

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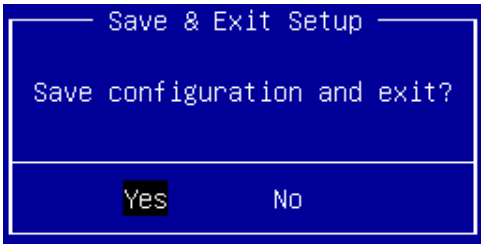
4.8 Save & Exit Menu

Select the *Exit* tab from the setup screen to enter the Exit BIOS Setup screen. You can display an Exit BIOS Setup option by highlighting it using the < Arrow > keys. The Exit BIOS Setup screen is shown below.



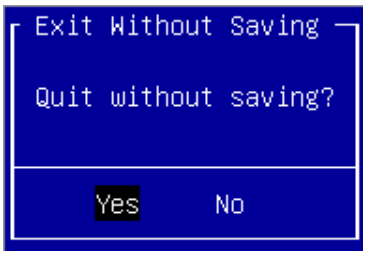
Save Changes and Exit

Exit system setup after saving the changes.



Discard Changes and Exit

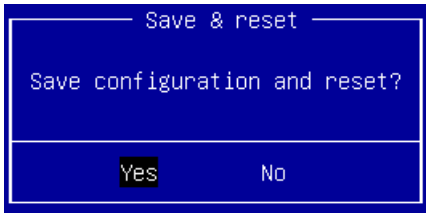
Exit system setup without saving any changes.



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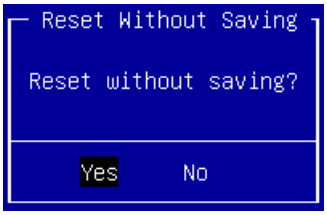
Save Changes and Reset

Reset the system after saving the changes.



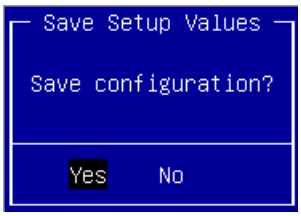
Discard Changes and Reset

Reset system setup without saving any changes.



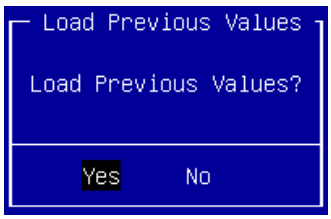
Save Changes

Save changes done so far to any of the setup options.



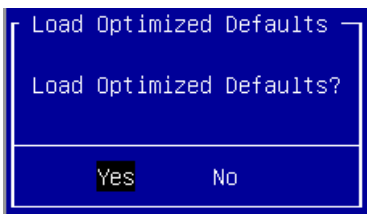
Discard Changes

Discard Changes done so far to any of the setup options.



Restore Defaults

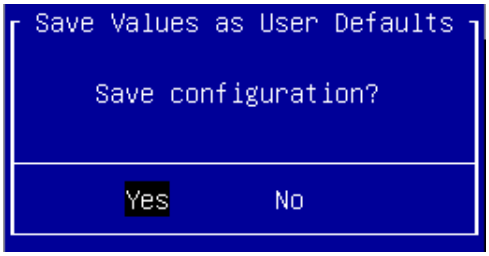
Restore/Load Defaults values for all the setup options.



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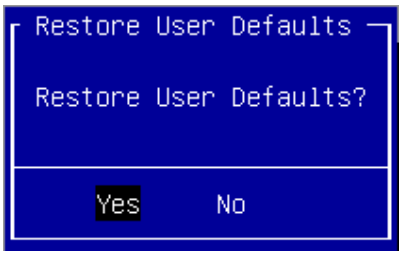
Save as User Defaults

Save the changes done so far as user defaults.



Restore User Defaults

Restore the user defaults to all the setup options.

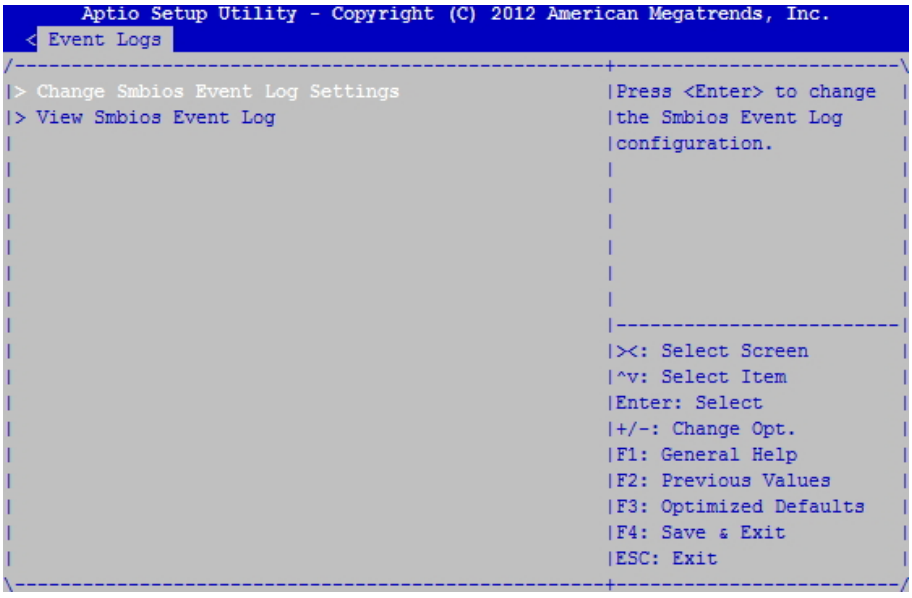


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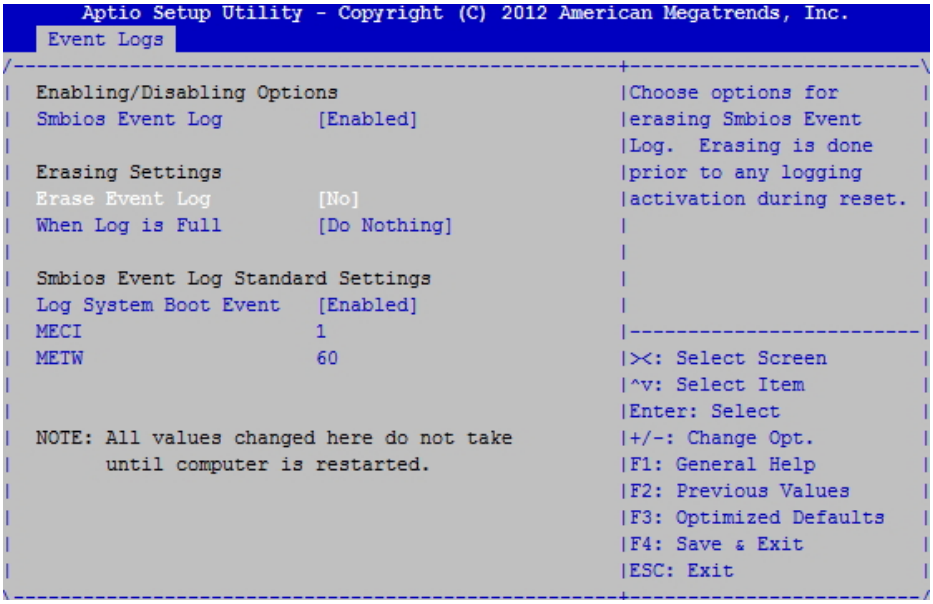
4.9 Event Logs Menu

You can use this screen to specify options for the Event Log settings. Use the up and down <Arrow> keys to select an item. Use <+> and <-> keys to change the value of the selected option. The settings are described in the following pages. The screen is shown as below.

Note: To access this menu, continue to press the <Right Arrow> key after you have reached the **Save & Exit** menu.



4.9.1Change SMBIOS Event Log Settings



Enabling/Disabling Options

SMBIOS Erase Event Log

Change this item to enable or disable all features of the SMBIOS Event Logging during system boot. The options are Enabled and Disabled.

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Erasing Settings

Erase Event Log

If No is selected, data stored in the event log will not be erased. Select Yes, Next Reset, data in the event log will be erased upon next system reboot. Select Yes, Every Reset, data in the event log will be erased upon every system reboot. The options are No, Yes, Next reset, and Yes, Every reset.

When Log is Full

Select Erase Immediately for all messages to be automatically erased from the event log when the event log memory is full. The options are Do Nothing and Erase Immediately.

SMBIOS Event Long Standard Settings

Log System Boot Event

This option toggles the System Boot Event logging to enabled or disabled. The options are Disabled and Enabled.

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Safety Instructions

For user safety, please read and follow all **instructions**, **WARNINGS**, **CAUTIONS,** and **NOTES** marked in this manual and on the associated equipment before handling/operating the equipment.

1. Read these safety instructions carefully.
2. Keep this user's manual for future reference.
3. Read the specifications section of this manual for detailed information on the operating environment of this equipment.
4. The equipment can be operated at an ambient temperature of 55°C.
5. When installing/mounting or uninstalling/removing equipment:
   - Turn off power and unplug any power cords/cables.
6. To avoid electrical shock and/or damage to equipment:
   - Keep equipment away from high heat or high humidity;
   - Make sure to use recommended voltage and power source settings;
   - Always install and operate equipment near an easily accessible electrical socket-outlet;
   - Secure the power cord (do not place any object on/over the power cord);
   - Only install/attach and operate equipment on stable surfaces and/or recommended mountings;
   - If the equipment will not be used for long periods of time, turn off and unplug the equipment from its power source.
7. Never attempt to fix the equipment. Equipment should only be serviced by qualified personnel.
8. A Lithium-type battery may be provided for uninterrupted, backup or emergency power.
   CAUTION! Risk of explosion if battery is replaced with one of an incorrect type. Please dispose of used batteries appropriately.
9. Equipment must be serviced by authorized technicians when:
   - The power cord or plug is damaged;
   - Liquid has penetrated the equipment;
   - It has been exposed to high humidity/moisture;
   - It is not functioning or does not function according to the user's manual;
   - It has been dropped and/or damaged; and/or,
   - It has an obvious sign of breakage.
10. Please pay strict attention to all warnings and advisories appearing on the device, to avoid injury or damage.
11. The equipment may have more than one power supply input. To reduce the risk of electrical shock, trained personnel should disconnect all power supply inputs before servicing.
    CAUTION! Disconnect all power supply inputs before servicing.

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Consignes de Sécurité Importantes

Pour assurer la sécurité de l'utilisateur, veuillez lire et suivre toutes les **directives**, ainsi que les **AVERTISSEMENTS**, **MISES EN GARDE** et **REMARQUES** de ce manuel et indiqués sur l'équipement associé avant de manipuler ou utiliser l'équipement.

1. Veuillez lire attentivement ces instructions de sécurité avec soin.
2. Veuillez conserver ce manuel pour référence future.
3. Veuillez lire la section des spécifications de ce manuel pour avoir des informations détaillées sur l'environnement d'exploitation de cet équipement.
4. L'équipement peut être utilisé à une température ambiante de 55°C.
5. Lors de l'installation ou du montage et de la désinstallation:
   - Coupez l'alimentation et débranchez les cordons et les câbles d'alimentation.
6. Pour éviter un risque d'électrocution et pour éviter d'endommager l'équipement :
   - Éloignez l'équipement de toute source de chaleur ou d'humidité élevée;
   - Veillez à utiliser la tension recommandée et les réglages adéquats pour la source d'alimentation;
   - Veuillez toujours installer et exploiter l'équipement à proximité d'une prise de courant facilement accessible;
   - Assurez-vous que le cordon d'alimentation est acheminé de manière sécuritaire (ne déposez aucun objet dessus);
   - Installez, fixez et utilisez l'équipement sur des surfaces stables ou sur les fixations recommandées uniquement;
   - Si l'équipement n'est pas utilisé pendant une longue période, éteignez-le et débranchez-le de sa source d'alimentation.
7. N'essayez jamais de réparer l'équipement. L'équipement ne doit être réparé que par du personnel qualifié.
8. Une pile au lithium peut être installée pour assurer l'alimentation de secours ou d'urgence en continu.
   ATTENTION! Risque d'explosion si la pile est remplacée par une autre de type incorrect. Veuillez jeter les piles usagées de façon appropriée.
9. L'équipement doit être entretenu par des techniciens agréés lorsque :
   - le cordon d'alimentation est endommagé ou lorsque la fiche électrique est endommagée;
   - du liquide a pénétré à l'intérieur de l'équipement;
   - l'équipement a été exposé à un taux d'humidité élevé;
   - l'équipement ne fonctionne pas ou ne fonctionne pas conformément au manuel de l'utilisateur;
   - l'équipement est tombé ou lorsqu'il a été endommagé;
   - l'équipement présente un signe évident de défaillance.
10. Veuillez porter une attention rigoureuse à tous les avertissements et à tous les avis figurant sur l'appareil, pour éviter des blessures ou des dommages.
11. **ATTENTION!** L'équipement peut avoir plus d'une entrée d'alimentation. Pour réduire le risque d'électrocution, le personnel qualifié devrait déconnecter toutes les entrées d'alimentation avant de procéder à l'entretien.

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Getting Service

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