

UEFI Development PC Setup User Manual

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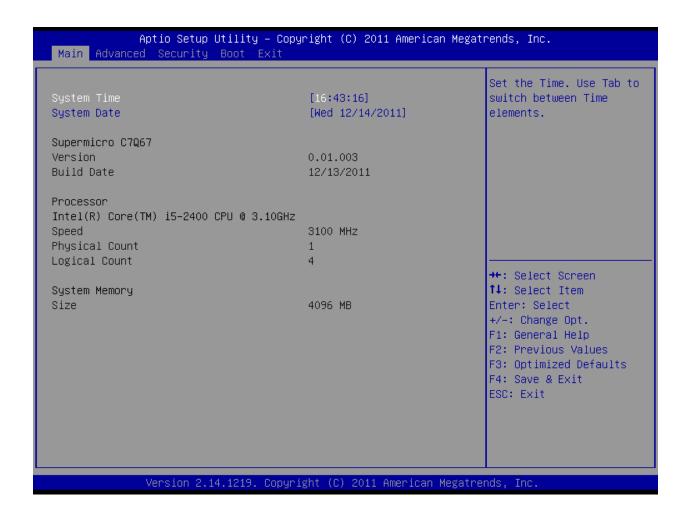


Date	Rev	Description
Dec 15, 2011	1.00	Initial Internal Release
Dec 19, 2011	1.01	Added overview, introduction and installation sections
Jan 26, 2012	1.02	Added graphics and appendix
Jun 4, 2012	1.03	Edited sections



Chapter 1 Main Setup

When you first enter the AMI BIOS Setup Utility, you will enter the Main setup screen. You can always return to the Main setup screen by selecting the Main tab on the top of the screen. The Main BIOS Setup screen is shown below.



System Overview: The following BIOS information will be displayed:

System Time/System Date

Use this option to change the system time and date. Highlight System Time or System Date using the arrow keys. Enter new values through the keyboard. Press the <Tab> key or the arrow keys to move between fields. The date must be entered in Day 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 P.M. appears as 17:30:00

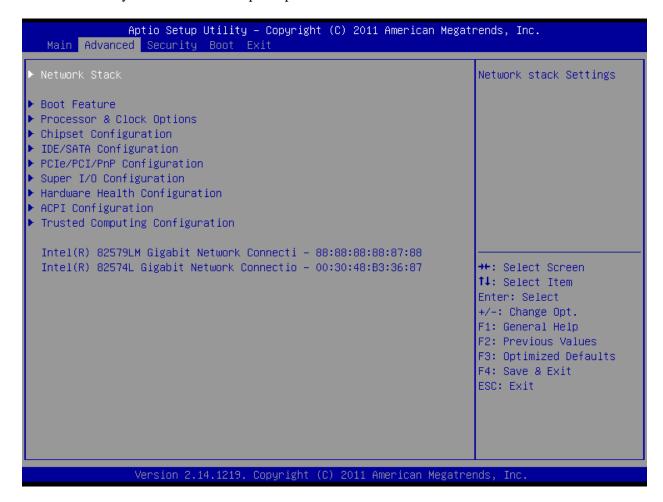


The following BIOS items will also be displayed:
Supermicro C7Q67
Version
Build Date
Processor
The AMI BIOS will automatically display the status of the processor used in the motherboard as shown below
Type of Processor
Speed
Physical Count
Logical Count
System Memory
This displays the size of memory available in the system: -
Size



Chapter 2 Advanced Configuration

Use the arrow keys to select Boot Setup and press <Enter> to access the submenu items:



Network Stack

Network Stack

Use this feature to enable or disable the network stack. The options are Enable, and **Disable Link**

Boot Feature

Quiet Boot



Use this feature to select the screen display between POST messages or the OEM logo at bootup. Select Disabled to display the POST messages. Select Enabled to display the OEM logo instead of the normal POST messages. The options are **Enabled** and Disabled.

CSM Support

Use this feature to set the compatibility Option ROM. The options are Enabled, and Disabled. Disabled is the default option..

AddOn ROM Display Mode

Use this feature to set the display mode for Option ROM. The options are **Force BIOS** and Keep Current.

Bootup Num-Lock

This feature selects the Power-on state for the Numlock key. The options are Off and **On**.

Wait For 'F1' if Error

This forces the system to wait until the 'F1' key is pressed if an error occurs. The options are Disabled and **Enabled**.

Interrupt 19 Capture

Interrupt 19 is the software interrupt that handles the boot disk function. When this item is set to enabled, the ROM BIOS of the host adaptors will "capture" interrupt 19 at bootup and allow the drives that are attached to these host adaptors to function as bootable disks. If this item is set to Disabled, the ROM BIOS of the host adaptors will not capture Interrupt 19, and the drives attached to these adaptors will not function as bootable devices. The options are **Enabled** and Disabled.

Power Configuration

Power Button Function

This feature controls how the system shuts down when the power button is pressed. Select 4_Seconds_Override for the user to power off the system after pressing and holding the power button for 4 seconds or longer. Select instant Off to instantly power off the system as soon as the user presses the power button. The options are 4 Second Override and Instant Off.

Restore on AC Power Loss

Use this feature to set the power state after a power outage. Select Power-Off for the system power to remain off after a power loss. Select Power-On for the system power to be turned on after a power loss.



Select Last State to allow the system to resume its' last power state before a power lost. The options are Power-On, Power-Off and **Last State**.

Processor & Clock Options

Warning! Take Caution when changing the Advanced settings. An incorrect value, a very high DRAM frequency or an incorrect DRAM timing setting may cause system to become unstable. When this occurs, revert to the setting to its manufacture default setting.

Clock Spread Spectrum

If set to Auto, the system will configure with optimal settings. The options are **Disabled** and Enabled.

Hardware Prefetcher (Available when supported by the CPU)

If set to Enabled, the hardware prefetcher will prefetch streams of data and instructions from the main memory to the L2 cache to improve CPU performance. The options are Disabled and **Enabled**.

Adjacent Cache Line Prefetch (Available when supported by' the CPU)

Select Enabled for the CPU to prefetch both cache lines for 128 bytes as comprised. Select Disabled for the CPU to prefetch both cache lines for 64 bytes. The options are Disabled and **Enabled**.

Intel® Virtualization Technology (Available when supported by the CPU)

Select Enabled to use the Intel Virtualization Technology to allow one platform to run multiple operating systems and applications in independent partitions, creating multiple "virtual" systems in one physical computer. The options are **Enabled** and Disabled.

Note: If there is any change to this setting, you will need to power off and restart the system for the change to take effect. Please refer to Intel's web site for detailed information.

Execute-Disable Bit Capability (Available when supported by the OS and the CPU)

Set to Enabled to enable the Execute Disable Bit which will allow the processor to designate areas in the system memory where an application code can execute and where it cannot, thus preventing a worm or a virus from flooding illegal codes to overwhelm the processor or damage the system during an attack. The default is **Enabled**. (Refer to Intel and Microsoft Web Sites for more information.)

Intel(R) AES-NI

Set to Enabled to enable the processor Advanced Encryption Standard Feature. The options are **Disabled**, and Enabled

Intel® Hyper Threading Technology (Available when supported by the OS and the CPU)



Select Enabled to enable Hyper_Threading support to increase CPU performance. The options are **Enabled** and Disabled.

Active Processor Cores

Set to Enabled to use a processor's Second Core and beyond. (Please refer to Intel's web site for more information.) The options are **All**, 1, 2 and 3.

Power Technology

Use this feature to select a power-saving scheme for the motherboard. The options are Disabled, Energy Efficient and Custom. If Custom is selected, the following options become available:

EIST

EIST (Enhanced Intel SpeedStep Technology) allows the system to automatically adjust processor voltage and core frequency in an effort to reduce power consumption and heat dissipation. **Please refer to Intel's web site for detailed information**. The options are **Disabled** and Enabled.

P-STATE Coordination

This feature selects the type of coordination for the P-State of the processor. P-State is a processor operational state that reduces the processor's voltage and frequency. This makes the processor more energy efficient, resulting in further energy gains. The options are **HW_ALL**, SW_ALL and SW-ANY.

CPU C3 Report

Select Enabled for the CPU to report C3 (ACPI C2) state to the operating system. The options are **Disabled** and Enabled.

CPU C6 Report

Select Enabled for the CPU to report C6 (ACPI C3) state to the operating system. The options are Disabled and **Enabled**.

Package C-State limit

Select Auto for the AM! BIOS to automatically set the limit on the C-State package register. The options are **C0**, C1, C6, C7 and No Limit.

Turbo Boost Technology (Available when Intel® EIST technology is Enabled)

This feature allows processor cores to run faster than marked frequency in specific conditions.

Factory Long Duration Power Limit

This feature displays the value of the processor power consumption limit (in Watts) set by the manufacturer for a long duration time window.



Long Duration Power Limit

Use this feature to set the processor power consumption limit (in Watts) value for a long duration time window.

Factory Long Duration Maintained

"This feature displays the manufacture-preset time value in milliseconds when the Long Duration Power Limit is maintained.

Long Duration Maintained

Use this feature to set the time value when the Long Duration Power Limit is maintained.

Recommended Short Duration Power Limit

The system's power consumption may exceed the processor's default power setting and the Short Duration Power Limit when operating in the turbo mode. This feature displays the Short Duration Power Limit value recommended by the manufacturer for turbo mode operation. By increasing this value, the processor can provide better performance for a short duration operation. The default setting is **1.25* Long Duration** (that means, 1.25 times the value of Long Duration Power Limit indicated above.)

Short duration power limit

The system's power consumption may exceed the processor's default power setting and the Short Duration Power Limit when operating in the turbo mode. By increasing this value, the processor can provide better performance for a short duration operation.

Chipset Configuration

Warning! Setting the wrong values in the following sections may cause the system to malfunction.

CPU Bridge Configuration

This item displays the current CPU Revision, Current CPU1 Memory Frequency, Memory Type and Memory Reference Code Revision.

Memory Frequency

This feature allows the user to select the memory speed. Under normal conditions, please set this to Auto. The options are Auto, Force DDR-800, Force DDR—1066, and Force DDR-1333.

System Agent Configuration

This item displays the current North Bridge Revision.

VT-d



Select Enabled to enable Intel's \/irtualization Technology support for Direct I/O VT-d by reporting the I/O device assignments to VMM through the DMAR ACPI Tables. This feature offers fully-protected I/O resource sharing across the Intel platforms, providing the user with greater reliability, security and availability in networking and data-sharing. The settings are Enabled and **Disabled**.

PCI Express Port

This feature allows support for PCI Express Ports. The options are Disabled, Enabled, and Auto.

PEG Force Gen1

This feature forces Gen1 support on the PCI Express Graphics (PEG) port. The options are **Disabled**, and Enabled.

Detect Non-Compliant Device

This feature enables or disables the detection of a non-compliant device that is attached to the PCI Express Graphics (PEG) port. The options are **Disabled**, and Enabled.

Initiate Graphics Adapter

This feature selects which graphics controller to use as a boot device. The options are IGD, PEG/IGD, PCI/PEG, PEG/IGD and PEG/PCI. .

Note: IGD = Integrated Graphics Device.

IGD Memory

This feature selects the amount of memory for the Integrated Graphics Device (IGD). The options are Disabled, 32M, **64M** and 128M.

Warning! Don't Change to Disabled, when there is no Off Board Video Card and Secure Boot is enabled.

Render Standby

This feature enables or disables render standby by the Internal Graphics Device (IGD). The options are Disabled and **Enabled**.

IGD Multi-Monitor

This feature enables or disables multi-monitor support by the Internal Graphics Device (IGD). The options are Disabled and **Enabled**.



South Bridge Configuration

This item displays the current South Bridge Revision.

GbE Controller

Select Enabled to enable the onboard gigabit Ethernet controller. The settings are **Enabled** and Disabled.

Wake on LAN from S5

Select Enabled to enable the capability to 'wake-up' the system from the S5~power state (Soft Off State) through the Ethernet controller. The settings are **Enabled** and Disabled.

USB Functions

This feature enables support for USB function parameters The options are **Enabled**, and Disabled.

Legacy USB Support

This feature enables support for legacy USB devices. Select Auto to disable legacy support if USB devices are not present. Select Disable to have USB devices available only for EFI applications. The options are **Enabled**, Disabled and Auto.

Port 60/64 Emulation

This feature enables or disables I/O port 60h/64h emulation support. This should be enabled for complete USB keyboard legacy support for non-USB-aware Operating Systems. The options are Disabled and **Enabled**.

BIOS EHCI Hand-Off

This item is for Operating Systems that does not support Enhanced Host Controller Interface (EHCI) hand-off. When enabled, EHCI ownership change will be claimed by the EHCl driver. The settings are **Enabled** and Disabled.

Azalia HD Audio

Select Enabled to enable the Azalia High Definition Audio feature. The settings are **Enabled** and Disabled.

Azalia internal HDMI Codec

Select Enabled to enable the internal HDMI CODEC (Coder-Decoder) for Azalia. The settings are **Enabled** and Disabled.



Frontside Audio Mode

This feature selects the type of audio output on the frontside audio header/interface. Select **HD Audio** for High Definition, otherwise select AC '97 for legacy audio.

Deep Sx

Select Enabled to enable Deep Sleep State support. The settings are Enabled and **Disabled**.

On Board Chip Configuration

This item displays the current South Bridge Revision.

USB 3.0 Legacy Support

Select Enabled to enable the USB 3.0 ports to support legacy devices. The settings are Enabled and Disabled.

XHCI Hand-off

Select Enabled for Operating Systems without XHCI hand-off support. The XHCI ownership change will be claimed by the XHCI driver. The settings are Enabled and Disabled.

IDE/SATA Configuration

When this submenu is selected, the AMI BIOS automatically detects the presence of the IDE Devices and displays the following items:

SATA Mode

This item selects the mode for the installed drives. The options are Disabled, IDE Mode, **AHCI Mode** and RAID Mode.

AHCI Mode

The following items are displayed when AHCI Mode is selected:

Aggressive Link Power Management

This feature Enables or Disables Aggressive Link Power Management support for Cougar Point BO stepping and later. The options are **Enabled** and Disabled.

SATA Port0~Port5

This item displays the information detected. on the installed SATA drives on the particular SATA port.



Staggered Spin Up

Set this item to Enabled to enable Staggered Spin-up support. The options are Enabled and Disabled.

Hot Plug

Set this item to Enabled to enable hot-plugging. The options are Enabled and **Disabled**.

IDE Mode

The following items are displayed when IDE Mode is selected:

Serial-ATA Controller 0-1

This feature is used to activate/deactivate the SATA controller, and sets the compatibility mode. The options are Enhanced and Compatible. The default of Serial-ATA Controller 1 is Enhanced.

SATA Port0-Port5

This item displays the information detected on the installed SATA drives on the particular SATA port.

PCIe/PCI/PnP Configuration

This feature allows the user to set the PCI/PnP configurations for the following items:

PCI ROM Priority

This feature specifies what PCI option ROM to launch. The options are Legacy ROM, and **EFI Compatible ROM**.

PCI Latency Timer

This feature sets the latency Timer of each PCI device installed on a PCI bus. Select 64 to set the PCI latency to 64 PCI bus clock cycles. The options are 32 PCI Bus Clocks, **64 PCI Bus Clocks**, 96 PCI Bus Clocks, 128 PCI Bus Clocks, 160 PCI Bus Clocks, 192 PCI Bus Clocks, 224 PCI Bus Clocks and 248 PCI Bus Clocks.

Active State Power Management

Select Enabled to enable Active-State Power Management for signal transactions between LO and L1 Links on the PCI Express Bus in order to maximize power saving and transaction speeds. The options are Enabled and **Disabled**.

PCle Max Read Request Size



This item manually sets the maximum read request size of the PCI Express device or allows the system BIOS to choose the value (Auto). The options are **Auto**, 128 Bytes, 256 Bytes, 512 Bytes, 1024 Bytes, 2048 Bytes and 4096 Bytes.

PCI-E Slot 4, 5, 6, & 7 OPROM

Use this feature to enable or disable PCI slot Option ROMs. The options are Disabled and Enabled.

Onboard LAN1/LAN2 Option ROM

This feature enables or disables the onboard ROM option for LAN1 and LAN2. The options are **Disabled** and Enabled.

Super IO Device Configuration

Serial Port 1 / Serial Port 2 / Serial Port 3 / Serial Port 4

Select Enabled to enable the onboard serial port. The options are **Enabled** and Disabled.

Serial Port 1 - 4 Settings

This option specifies the base I/O port address and the interrupt Request address of Serial Port $1 \sim 4$. Select Auto to let the BIOS automatically assign the base I/O and IRQ address.

The options for Serial Port 1 are **Auto**, (IO=3F8h; IRQ=4), (IO=3F8h; IRQ=4, 10, 11), (IO=2F8h; IRQ=3, 10, 11), (IO=3E8h; IRQ=4, 10, 11) and (IO=2E8h; IRQ=3, 10, 11).

The options for Serial Port 2 are **Auto**, (IO=2F8h; IRQ=3), (IO=3F8h; IRQ=4, 10, 11), (IO=2F8h; IRQ=3, 10, 11), (IO=3E8h; IRQ=4, 10, 11) and (IO=2E8h; IRQ=3, 10, 11).

The options for Serial Port 3 are **Auto**, (|O=3E8h; lRQ=10), (lO=3F8h; lRQ=4, 10, 11), (lO=2F8h; lRQ=3, 10, 11), (lO=3E8h; lRQ=4, 10, 11) and (lO=2E8h; lRQ=3, 10, 11).

The options for Serial Port 4 are **Auto**, (IO=2E8h; IRQ=11), (IO=3F8h; IRQ=4, 10, 11), (IO=2F8h; IRQ=3, 10, 11), (IO=3E8h; IRQ=4, 10, 11) and (IO=2E8h; IRQ=3, 10, 11).

Hardware Health Configuration

Fan Speed Control Mode

This feature allows the user to decide how the system controls the speeds of the onboard fans. The CPU temperature and the fan speed are correlative. When the CPU on-die temperature increases, the fan speed will also increase for effective system cooling. Select "Full Speed" to allow the onboard fans to run at full speed (of 100% Pulse Width Modulation Duty Cycle) for maximum cooling. This setting is recommended for special system configuration or debugging. Select "Standard" for the onboard fans to run at 50% of the Initial PWM Cycle in order to balance the needs between system cooling and power saving. This setting is recommended for regular systems with normal hardware configurations. The options are Full Speed (@100% of PWM Cycle), and Standard (@50% of PWM Cycle).



CPU Temperature

This feature displays the CPU temperature detected by DTS (i.e., $+34^{\circ}$ C) or temperature status in text ("Low", "Medium" or "High"). The options are **Text Mode** or DTS.

If Text Mode is selected, the CPU Temperature Display Mode will show the CPU temperature status as follows:

Low - This level is considered as the 'normal' operating state. The CPU temperature is well below the

CPU 'Temperature Tolerance'. The motherboard fans and CPU will run normally as configured in the BIOS (Fan Speed Control).

User intervention: No action required.

Medium - The processor is running warmer. This is a 'precautionary' level and generally means that there may be factors contributing to this condition, but the CPU is still within its normal operating state and below the CPU 'Temperature Tolerance'. The motherboard fans and CPU will run normally as configured in the BIOS. The fans may adjust to a faster speed depending on the Fan Speed Control settings.

User intervention: No action is required. However, consider checking the CPU fans and the chassis ventilation for blockage.

High - The processor is running hot. This is a 'caution' level since the CPU's 'Temperature Tolerance' has been reached (or has been exceeded) and may activate an overheat alarm:

The information provided above is for your reference only. For more information on thermal management, please refer to Intel's Web site at www.lntel.com.

System Temperature / Peripheral Temperature

This feature displays the temperature readings from the system sensor (chassis) and peripheral devices.

Fan 1 ~ Fan 4 Reading

This feature displays the fan speed readings from fan interfaces Fan1 through Fan4 and FanA.

VCORE, 12V, VDIMM, 5VCC, VTT_CPU, AVCC, 3.3VCC, VSB, VBAI

This feature displays the current voltages of the above voltage monitors.

ACPI Configuration

Use this feature to configure Advanced Configuration and Power Interface (ACPI) power management settings for your system.

High Precision Event Timers



Select Enabled to activate the High Performance Event Timer (HPET) that produces periodic interrupts at a much higher frequency than a Real-time Clock (RTC) does in synchronizing multimedia streams, providing smooth playback and reducing the de pendency on other timestamp calculation devices, such as an x86 RDTSC instruction embedded in the CPU. The High Performance Event Timer is used to replace the 8254 Programmable Interval Timer. The options are **Enabled** and Disabled.

Suspend Mode

This setting allows you to configure the ACPI (Advanced Configuration and Power interface) sleep state for your system when it is in the Suspend mode. The options are Suspend Disabled, S1 (POS), and S3 (STR). S3 (STR) is the deepest sleep state in these options.

PS2 KBIMS Wake up

This feature is used to awaken the system from Standby mode by a PS/2 mouse or PS/2 keyboard. This must be enabled in the system level and Operating System (O/S) as well, if supported.

S1 (OS Control) - Enables system wake up from S1 (default).

S5 (OS Control) - Enables system wake up from S1/S3/S4/S5.

Force Enable - Wake up support is always enabled regardless whether it is disabled in the OIS.

Force Disable - Wake up support is always disabled regardless whether it is enabled in the OIS.

Trusted Computing Configuration

TPM Support

Select Enabled to activate support for trusted platforms (TPM 1.1/1.2) and allow the BIOS to automatically download the drivers needed to provide support for the platforms specified. The options are Disable and **Enable**.

TPM State

This feature changes the TPM State. The options are Disable and **Enable**. Note: The system will restart to change the TPM State.

Pending TPM operation

Displays any TPM-related operation by the system.

The following are informational status messages that indicate the current TPM State:

TPM Enabled Status

TPM Active Status

TPM Owner Status



Intel® TXT (LT) Configuration

Secure Mode Extensions (SMX)

This feature can be configured if it is supported by the processor. Enable this feature to activate Intel TXT, below. The options are Enabled and **Disabled**.

Intel TXT (LT) Support

Intel TXT (Trusted Execution Technology) helps protect against software-based attacks and ensures protection, confidentiality and integrity of data stored or created on the system. The options are Enabled and **Disabled**.

AMT Configuration

AMT

This option enables Intel AMT support. The options are **Enabled** and Disabled.

Watch Dog Timer

Allows AMT to reset or power down the system if the operating system or BIOS hangs or crashes. The options are

Disabled, and Enabled.

OS WatchDog Timer / BIOS WatchDog Timer

These options appear if Watch Dog Timer (above) is enabled. This is a timed delay in seconds, before a system power down or reset after a BIOS or operating system failure is detected. Directly enter the value, in seconds.

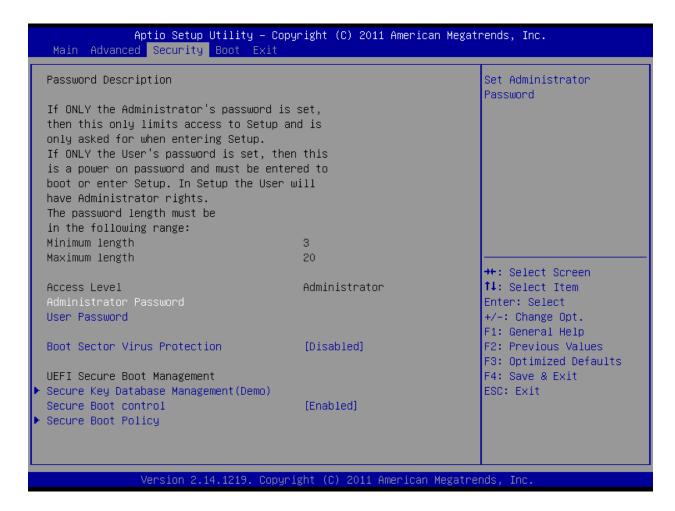
Offboard Cards with UEFI option ROM

Offboard cards with UEFI option ROM may publish HII setup pages. For example

Intel (R) 82579LM Gigabit Network



Chapter 3 Security Settings



- If the Administrator password is defined ONLY this controls access to the BIOS setup ONLY.
- If the User's password is defined ONLY this password will need to be entered during each system startup or boot, and will also have Administrator rights in the setup.
- Passwords must be at least 3 and up to 20 characters long.

Administrator Password

Press Enter to create a new, or change an existing Administrator password.

User Password:

Press Enter to create a new, or change an existing User password.

Boot Sector Virus Protection



When Enabled, the BIOS displays a warning when any program (or virus) issues a Disk Format command, or attempts to write to the boot sector of the hard disk drive. The options are Enabled and **Disabled**.

Secure Boot Control

When Enabled, Secure boot is enabled from the UEFI firmware. Secure Boot is possible only if the system runs in User Mode. (Refer Security Key Database Management Demo). Disabled to Turn off the UEFI Secure Boot feature. OpROM from Off Board cards are note launch when Secure Boot is enabled.

Secure Boot Policy

The following options set the Image Execution Policy on Security Violation. Allows to decide the when secure boot is enabled, which kind of Images executed/Denied

Internal FV

The option is Always Execute.

Option ROM

The options are Always Execute, Always Deny, Allow Execute, Defer Execute, Deny Execute, and Query User.

Removable Media

The options are Always Execute, Always Deny, Allow Execute, Defer Execute, Deny Execute, and Query User.

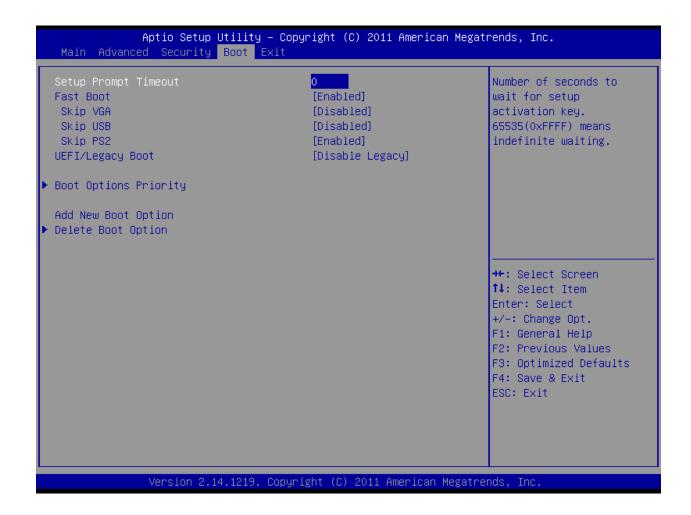
Fixed Media

The options are Always Execute, Always Deny, Allow Execute, Defer Execute, Deny Execute, and Query User.

**If additional information is needed regarding Security Settings, please contact AMI to acquire it under Non-Disclosure Agreement (NDA)



Chapter 4 Boot Settings



Setup Prompt Timeout

Number of seconds to wait for setup activation key. Enter 65535 (OXFFFF) to wait indefinitely.

Fast Boot

This feature allows booting with initialization with a minimal set of devices required to launch an active boot option. The options are Disabled, and **Enabled**.

Skip VGA

This feature allows the BIOS to skip EFI VGA driver. The options are **Disabled**, and Enabled.



Skip USB

If enabled USB devices will not be available until after OS Boot. Otherwise, USB devices will be available before OS boot. The options are **Disabled**, and Enabled.

Skip PS2

This option allows PS2 devices to be skipped. The options are Disabled, and **Enabled**.

Boot Options Priority

This feature allows the user to specify which devices are boot devices and the order of priority from which the systems boots from during startup.

Boot Option #1, Boot option #2, Boot Option #3, etc.

The settings are **Built-in EFI Shell**, [any detected boot device] and Disabled.

Network Devices

Boot Option #1, Boot option #2, Boot Option #3, etc.

Hard Disk Drives

Boot Option #1, Boot option #2, Boot Option #3, etc.

Delete Boot Option

This feature allows the removal of a boot device and the order of priority from which the systems boots from during startup.



Chapter 5 Exit Options



Select the Exit tab from the BIOS Setup Utility screen to enter the Exit BIOS Setup screen.

Save Changes and Exit

When you have completed the system configuration changes, select this option to leave the BIOS Setup Utility and reboot the computer, so the new system configuration parameters can take effect. Select Save Changes and Exit from the Exit menu and press <Enter>.

Discard Changes and Exit

Select this option to quit the BIOS Setup without making any permanent changes to the system configuration, and reboot the computer. Select Discard Changes and Exit from the Exit menu and press <Enter>.

Discard Changes

Select this option and press <Enter> to discard all the changes and return to the AMI BIOS Utility Program.



Restore Defaults

To set this feature, select Restore Defaults from the Exit menu and press <Enter>. These are factory settings designed for maximum system stability, but not for maximum performance.

Save As User Defaults

To set this feature, select Save as User Defaults from the Exit menu and press <Enter>. This enables the user to save any changes to the BIOS setup for future use.

Restore User Defaults

To set this feature, select Restore User Defaults from the Exit menu and press <Enter>. Use this feature to retrieve user-defined settings that were saved previously.

Boot Override

Set this feature to override a previously defined boot device. The available Boot Options will be listed below.

Launch EFI Shell from filesystem device

This feature when initiated, will attempt to launch an EFI shell application (shellx64.efi) from one of the available file system devices. Press <Enter> to activate.



Appendix

BIOS Flash Instructions

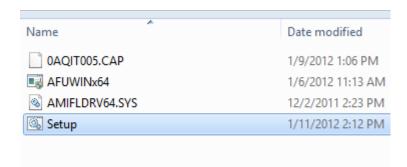
In order to flash the BIOS on the platform, you will download an updated BIOS .ROM image for your platform from AMI's support website or receive the image from AMI support.

Before flashing a new image onto the system, it is recommended that the current BIOS image be backed up to a file. Double-click on the AFUWINx64 or any other version of the AFU application:

```
C:\Users\AMITester\Desktop\afuwin64\AFUWINx64.EXE
       AMI Firmware Update Utility v3.00.00
Copyright (C)2011 American Megatrends Inc. All Rights Reserved.
 Usage: AFUWINx64.EXE <ROM File Name> [Option 1] [Option 2]...
          AFUWINx64.EXE <Input or Output File Name> <Command>
          or
AFUWINx64.EXE <Command>
  Commands:
                 Save current ROM image to file
                                          given ROM File without flashing BIOS.
                     ification
                            Options:
  /CLNEUNLOG
                                      /CLNEUNLOG
  Options:
                 Don't Check ROM
                 Compare ROM file's data with Systems is different or not, if not then cancel related update.
Press any key to continue>
```

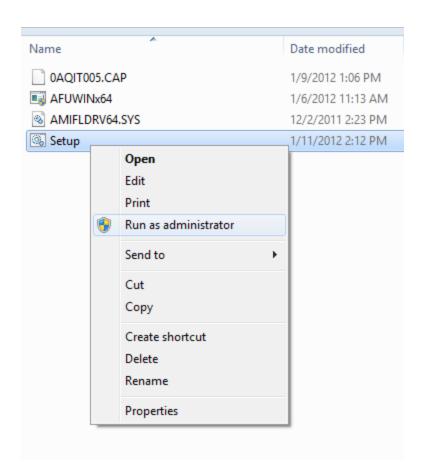
Issue the command AFUWINx64.EXE <ROM_File_Name> /O where ROM_File_Name can be any .ROM file like old.rom to backup the existing image on the system. Now, flash the new BIOS image to the system:

Select the Setup batch file to begin the BIOS update



Right click on the Setup batch file and select Run as administrator from the drop down menu





This will launch the batch file and update the BIOS on the system as seen below:

```
C:\windows\System32\cmd.exe

C:\windows\system32\cd /d D:\BiosUpdate005\

D:\BiosUpdate005\afuwinx64 0AQII005.CAP /p /b /n

AMI Firmware Update Utility v3.00.00

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Reading flash ........ done
Secure Flash enabled, recalculate ROM size with signature...

- FFS checksums ...... ok
Loading capsule to secure memory buffer ... done
Erasing BootBlock ... done
Updating BootBlock ... done
Uperifying BootBlock ... done
Uerifying Main BIOS ... done
Uprifying Main BIOS ... done
Uprifying Main BIOS ... done
Uprifying NURAM ... done
Updating NURAM ... done
Uptating NURAM ... done
Uprifying NURAM ... done
BIOS Update finished. Please Reboot your system.
Press any key to continue . . . _
```



Once the batch file has executed, restart the system for the BIOS update changes to take effect.