



IMB-153

User Manual

Version 1.0

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- (2) this device must accept any interference received, including interference that may cause undesired operation.

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Chapter 1 Introduction

Thank you for purchasing ASRock IMB-153 motherboard, a reliable motherboard produced under ASRock's consistently stringent quality control. It delivers excellent performance with robust design conforming to ASRock's commitment to quality and endurance.

In this manual, Chapter 1 and 2 contains the introduction of the motherboard and step-by-step installation guides. Chapter 3 contains the configuration guide of the BIOS setup.



Because the motherboard specifications and the BIOS software might be updated, the content of this documentation will be subject to change without notice. In case any modifications of this documentation occur, the updated version will be available on ASRock's website without further notice. If you require technical support related to this motherboard, please visit our website for specific information about the model you are using. You may find the latest VGA cards and CPU support list on ASRock's website as well. ASRock website <http://www.asrock.com>.

1.1 Package Contents

- ASRock IMB-153 Motherboard (Mini-ITX Form Factor)
- ASRock IMB-153 Jumpers and Headers Setting Guide
- ASRock IMB-153 Support CD
- 1 x I/O Panel Shield

1.2 Specifications

Platform • Mini-ITX Form Factor

CPU • Intel® Quad-Core Processor J1900 (2 GHz)

Memory • Dual Channel DDR3/DDR3L Memory Technology
• 2 x DDR3/DDR3L SO-DIMM Slots
• Supports DDR3/DDR3L 1333/1066 non-ECC, un-buffered memory
• Max. capacity of system memory: 16GB (see CAUTION)

Expansion Slot • 1 x PCI Express 2.0 x1 Slot

Graphics • Intel® 7th generation (Gen 7) graphics
• DirectX 11.0, Pixel Shader 5.0
• Dual graphics output: Support HDMI and D-Sub ports by independent display controllers
• Supports HDMI Technology with max. resolution up to 1920x1200 @ 60Hz
• Supports D-Sub with max. resolution up to 1920x1200 @ 60Hz
• Supports Auto Lip Sync, Deep Color (12bpc), xvYCC and HBR (High Bit Rate Audio) with HDMI Port (Compliant HDMI monitor is required)
• Supports HDCP with HDMI Port
• Supports Full HD 1080p Blu-ray (BD) playback with HDMI Port

Audio • 5.1 CH HD Audio (Realtek ALC662 Audio Codec)
• Supports Surge Protection (ASRock Full Spike Protection)

LAN • PCIE x1 Gigabit LAN 10/100/1000 Mb/s
• Realtek RTL8111GR
• Supports Wake-On-WAN
• Supports Wake-On-LAN

- Supports Lightning/ESD Protection (ASRock Full Spike Protection)
- Supports LAN Cable Detection
- Supports Energy Efficient Ethernet 802.3az
- Supports PXE

Rear Panel I/O

- 1 x PS/2 Mouse Port
- 1 x PS/2 Keyboard Port
- 1 x Serial Port: COM1
- 1 x D-Sub Port
- 1 x HDMI Port
- 3 x USB 2.0 Ports (Supports ESD Protection (ASRock Full Spike Protection))
- 1 x USB 3.0 Port (Supports ESD Protection (ASRock Full Spike Protection))
- 1 x RJ-45 LAN Port with LED (ACT/LINK LED and SPEED LED)
- HD Audio Jacks: Front Speaker / Microphone

Storage

- 2 x SATA2 3.0 Gb/s Connectors, support NCQ, AHCI and Hot Plug

Connector

- 1 x System Panel Header
- 1 x Chassis Speaker Header
- 1 x 3W Audio AMP Output Wafer Header
- 1 x COM Port Header
- 1 x TPM Header
- 1 x Chassis Intrusion Header
- 1 x CPU Fan Connector (3-pin)
- 1 x Chassis Fan Connector (3-pin)
- 1 x 24 pin ATX Power Connector
- 1 x Power Loss Header
- 1 x Front Panel Audio Connector
- 1 x USB 2.0 Header (Supports 2 USB 2.0 ports) (Supports ESD Protection (ASRock Full Spike Protection))
- 1 x Clear CMOS Jumper
- 1 x ATX/AT Mode Jumper

**BIOS
Feature**

- 64Mb AMI UEFI Legal BIOS with GUI support
- Supports Plug and Play
- ACPI 1.1 compliant wake up events
- Supports jumperfree
- SMBIOS 2.3.1 support

**Hardware
Monitor**

- CPU/Chassis temperature sensing
- CPU/Chassis Fan Tachometer
- CPU/Chassis Quiet Fan (Auto adjust chassis fan speed by CPU temperature)
- CPU/Chassis Fan multi-speed control
- CASE OPEN detection
- Voltage monitoring: +12V, +5V, +3.3V, CPU Vcore

OS

- Microsoft® Windows® 8.1 32-bit / 8.1 64-bit / 8 32-bit / 8 64-bit / 7 32-bit / 7 64-bit

**Certifica-
tions**

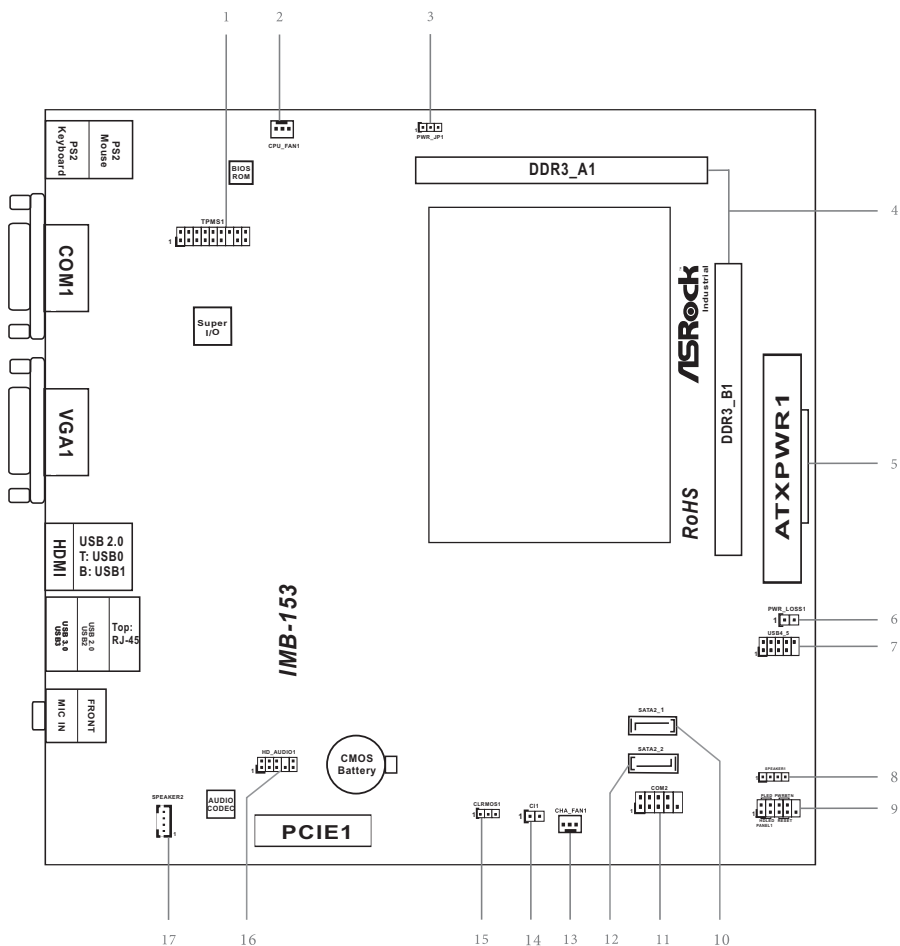
- FCC, CE, WHQL
- ErP/EuP Ready (ErP/EuP ready power supply is required)

* For detailed product information, please visit our website: <http://www.asrock.com>



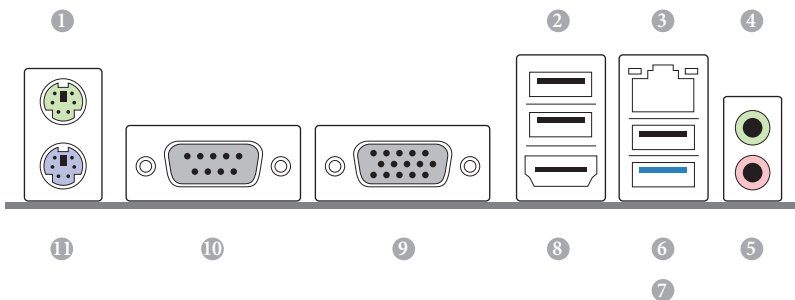
Due to limitation, the actual memory size may be less than 4GB for the reservation for system usage under Windows® 32-bit operating systems. Windows® 64-bit operating systems do not have such limitations. You can use ASRock XFast RAM to utilize the memory that Windows® cannot use.

1.3 Motherboard Layout



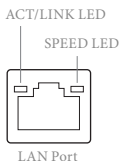
No.	Description
1	TPM Header (TPMS1)
2	CPU Fan Connector (CPU_FAN1)
3	ATX/AT Mode Jumper (PWR_JP1)
4	2 x 204-pin DDR3/DDR3L SO-DIMM Slots (DDR3_A1, DDR3_B1)
5	ATX Power Connector (ATXPWR1)
6	Power Loss Header (PWR_LOSS1)
7	USB 2.0 Header (USB4_5)
8	Chassis Speaker Header (SPEAKER1)
9	System Panel Header (PANEL1)
10	SATA2 Connector (SATA2_1)
11	COM Port Header (COM2)
12	SATA2 Connector (SATA2_2)
13	Chassis Fan Connector (CHA_FAN1)
14	Chassis Intrusion Header (CI1)
15	Clear CMOS Jumper (CLRCMOS1)
16	Front Panel Audio Header (HD_AUDIO1)
17	3W Audio AMP Output Wafer Header (SPEAKER2)

1.4 I/O Panel



No.	Description	No.	Description
1	PS/2 Mouse Port	7	USB 3.0 Port (USB3)
2	USB 2.0 Ports (USB01)	8	HDMI Port
3	LAN RJ-45 Port*	9	D-Sub Port
4	Front Speaker (Lime)	10	COM Port
5	Microphone (Pink)	11	PS/2 Keyboard Port
6	USB 2.0 Port (USB2)		

* There are two LEDs on each LAN port. Please refer to the table below for the LAN port LED indications.



Activity / Link LED		Speed LED	
Status	Description	Status	Description
Off	No Link	Off	10Mbps connection
Blinking	Data Activity	Orange	100Mbps connection
On	Link	Green	1Gbps connection

Chapter 2 Installation

This is an Mini-ITX form factor motherboard. Before you install the motherboard, study the configuration of your chassis to ensure that the motherboard fits into it.

Pre-installation Precautions

Take note of the following precautions before you install motherboard components or change any motherboard settings.

- Make sure to unplug the power cord before installing or removing the motherboard. Failure to do so may cause physical injuries to you and damages to motherboard components.
- In order to avoid damage from static electricity to the motherboard's components, NEVER place your motherboard directly on a carpet. Also remember to use a grounded wrist strap or touch a safety grounded object before you handle the components.
- Hold components by the edges and do not touch the ICs.
- Whenever you uninstall any components, place them on a grounded anti-static pad or in the bag that comes with the components.
- When placing screws to secure the motherboard to the chassis, please do not over-tighten the screws! Doing so may damage the motherboard.

2.1 Installing Memory Modules (SO-DIMM)

This motherboard provides two 204-pin DDR3/DDR3L (Double Data Rate 3) SO-DIMM slots.

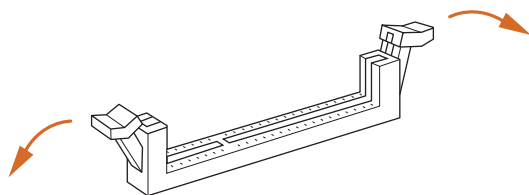


It is not allowed to install a DDR or DDR2 memory module into a DDR3/DDR3L slot; otherwise, this motherboard and SO-DIMM may be damaged.

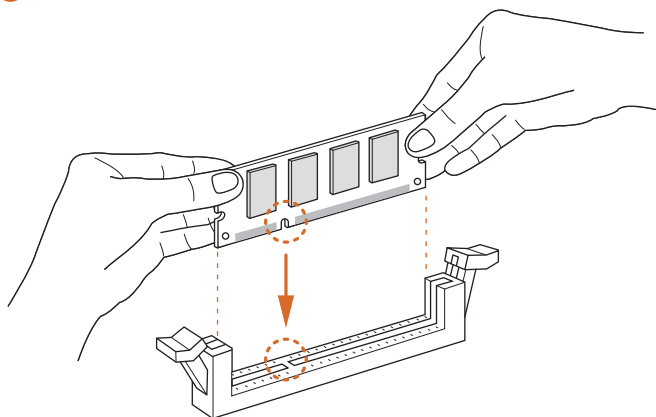


The SO-DIMM only fits in one correct orientation. It will cause permanent damage to the motherboard and the SO-DIMM if you force the SO-DIMM into the slot at incorrect orientation.

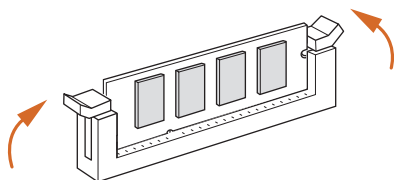
1



2



3



2.2 Expansion Slot (PCI Express Slot)

There is 1 PCI Express slot on this motherboard.



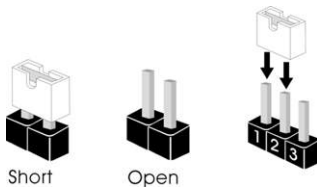
Before installing an expansion card, please make sure that the power supply is switched off or the power cord is unplugged. Please read the documentation of the expansion card and make necessary hardware settings for the card before you start the installation.

PCIe slots:

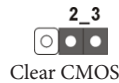
PCIE1 (PCIe 2.0 x1 slot) is used for PCI Express cards with x1 lane width cards.

2.3 Jumpers Setup

The illustration shows how jumpers are setup. When the jumper cap is placed on the pins, the jumper is “Short”. If no jumper cap is placed on the pins, the jumper is “Open”. The illustration shows a 3-pin jumper whose pin1 and pin2 are “Short” when a jumper cap is placed on these 2 pins.



Clear CMOS Jumper
(CLRCMOS1)
(see p.5, No. 15)

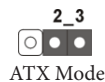


CLRCMOS1 allows you to clear the data in CMOS. To clear and reset the system parameters to default setup, please turn off the computer and unplug the power cord from the power supply. After waiting for 15 seconds, use a jumper cap to short pin2 and pin3 on CLRCMOS1 for 5 seconds. However, please do not clear the CMOS right after you update the BIOS. If you need to clear the CMOS when you just finish updating the BIOS, you must boot up the system first, and then shut it down before you do the clear-CMOS action. Please be noted that the password, date, time, and user default profile will be cleared only if the CMOS battery is removed.



If you clear the CMOS, the case open may be detected. Please adjust the BIOS option “Clear Status” to clear the record of previous chassis intrusion status.

ATX/AT Mode Jumper
(PWR_JP1)
(see p.5, No. 3)

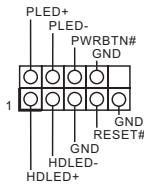


2.4 Onboard Headers and Connectors



Onboard headers and connectors are NOT jumpers. Do NOT place jumper caps over these headers and connectors. Placing jumper caps over the headers and connectors will cause permanent damage to the motherboard.

System Panel Header
(9-pin PANEL1)
(see p.5, No. 9)



Connect the power switch, reset switch and system status indicator on the chassis to this header according to the pin assignments below. Note the positive and negative pins before connecting the cables.



PWRBTN (Power Switch):

Connect to the power switch on the chassis front panel. You may configure the way to turn off your system using the power switch.

RESET (Reset Switch):

Connect to the reset switch on the chassis front panel. Press the reset switch to restart the computer if the computer freezes and fails to perform a normal restart.

PLED (System Power LED):

Connect to the power status indicator on the chassis front panel. The LED is on when the system is operating. The LED keeps blinking when the system is in S1/S3 sleep state. The LED is off when the system is in S4 sleep state or powered off (S5).

HDLED (Hard Drive Activity LED):

Connect to the hard drive activity LED on the chassis front panel. The LED is on when the hard drive is reading or writing data.

The front panel design may differ by chassis. A front panel module mainly consists of power switch, reset switch, power LED, hard drive activity LED, speaker and etc. When connecting your chassis front panel module to this header, make sure the wire assignments and the pin assignments are matched correctly.

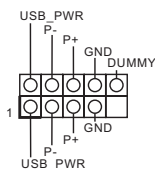
Serial ATA2 Connectors

(SATA2_1:
see p.5, No. 10)
(SATA2_2:
see p.5, No. 12)



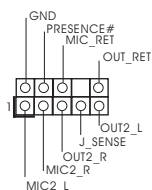
These two SATA2 connectors support SATA data cables for internal storage devices with up to 3.0 Gb/s data transfer rate.

USB 2.0 Header
(9-pin USB4_5)
(see p.5, No. 7)



Besides three USB 2.0 ports on the I/O panel, there is one header on this motherboard. This USB 2.0 header can support two ports.

Front Panel Audio Header
(9-pin HD_AUDIO1)
(see p.5, No. 16)

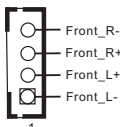


This header is for connecting audio devices to the front audio panel.



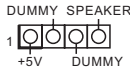
1. High Definition Audio supports Jack Sensing, but the panel wire on the chassis must support HDA to function correctly. Please follow the instructions in our manual and chassis manual to install your system.
2. If you use an AC'97 audio panel, please install it to the front panel audio header by the steps below:
 - A. Connect Mic_IN (MIC) to MIC2_L.
 - B. Connect Audio_R (RIN) to OUT2_R and Audio_L (LIN) to OUT2_L.
 - C. Connect Ground (GND) to Ground (GND).
 - D. MIC_RET and OUT_RET are for the HD audio panel only. You don't need to connect them for the AC'97 audio panel.
 - E. To activate the front mic, go to the "FrontMic" Tab in the Realtek Control panel and adjust "Recording Volume".

3W Audio AMP Output
Wafer Header
(4-pin SPEAKER2)
(see p.5, No. 17)



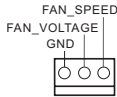
Please connect the chassis speaker to this header.

Chassis Speaker Header
 (4-pin SPEAKER1)
 (see p.5, No. 8)



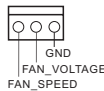
Please connect the chassis speaker to this header.

Chassis Fan Connector
 (3-pin CHA_FAN1)
 (see p.5, No. 13)



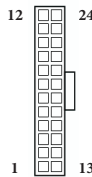
Please connect fan cable to the fan connector and match the black wire to the ground pin.

CPU Fan Connectors
 (3-pin CPU_FAN1)
 (see p.5, No. 2)



Please connect the CPU fan cable to the connector and match the black wire to the ground pin.

ATX Power Connector
 (24-pin ATXPWR1)
 (see p.5, No. 5)



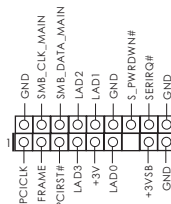
This motherboard provides a 24-pin ATX power connector. To use a 20-pin ATX power supply, please plug it along Pin 1 and Pin 13.

Chassis Intrusion Header
 (2-pin CII)
 (see p.5, No. 14)



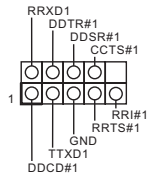
This motherboard supports CASE OPEN detection feature that detects if the chassis cover has been removed. This feature requires a chassis with chassis intrusion detection design.

TPM Header
 (17-pin TPMS1)
 (see p.5, No. 1)



This connector supports Trusted Platform Module (TPM) system, which can securely store keys, digital certificates, passwords, and data. A TPM system also helps enhance network security, protects digital identities, and ensures platform integrity.

Serial Port Header
(9-pin COM2)
(see p.5, No. 11)



This COM2 header supports a serial port module.

Power Loss Header
(2-pin PWR_LOSS1)
(see p.5, No. 6)



Open: Power Loss

Close: no Power Loss

Chapter 3 BIOS SETUP UTILITY

3.1 Introduction

This section explains how to use the BIOS SETUP UTILITY to configure your system. You may run the BIOS SETUP UTILITY by pressing <F2> or right after you power on the computer, otherwise, the Power-On-Self-Test (POST) will continue with its test routines. If you wish to enter the BIOS SETUP UTILITY after POST, restart the system by pressing <Ctl> + <Alt> + <Delete>, or by pressing the reset button on the system chassis. You may also restart by turning the system off and then back on.



Because the BIOS software is constantly being updated, the following BIOS setup screens and descriptions are for reference purpose only, and they may not exactly match what you see on your screen.

3.1.1 BIOS Menu Bar

The top of the screen has a menu bar with the following selections:

Main	For setting system time/date information
Advanced	For advanced system configurations
H/W Monitor	Displays current hardware status
Security	For security settings
Boot	For configuring boot settings and boot priority
Exit	Exit the current screen or the BIOS Setup Utility

3.1.2 Navigation Keys

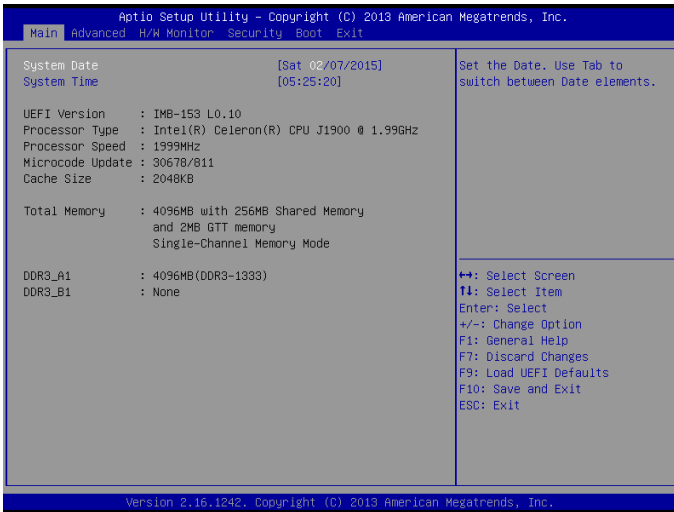
Use <←> key or <→> key to choose among the selections on the menu bar, and use <↑> key or <↓> key to move the cursor up or down to select items, then press <Enter> to get into the sub screen. You can also use the mouse to click your required item.

Please check the following table for the descriptions of each navigation key.

Navigation Key(s)	Description
+ / -	To change option for the selected items
<Tab>	Switch to next function
<PGUP>	Go to the previous page
<PGDN>	Go to the next page
<HOME>	Go to the top of the screen
<END>	Go to the bottom of the screen
<F1>	To display the General Help Screen
<F7>	Discard changes and exit the SETUP UTILITY
<F9>	Load optimal default values for all the settings
<F10>	Save changes and exit the SETUP UTILITY
<F12>	Print screen
<ESC>	Jump to the Exit Screen or exit the current screen

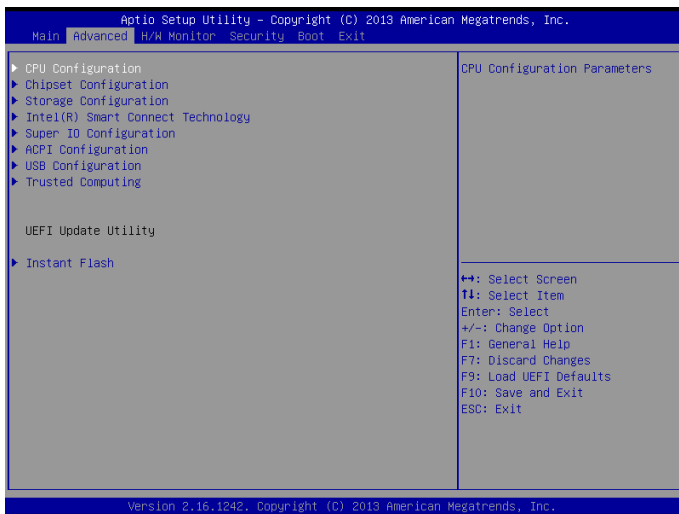
3.2 Main Screen

When you enter the BIOS SETUP UTILITY, the Main screen will appear and display the system overview.



3.3 Advanced Screen

In this section, you may set the configurations for the following items:
CPU Configuration, Chipset Configuration, Storage Configuration, Intel® Smart Connect Technology, Super IO Configuration, ACPI Configuration, USB Configuration and Trusted Computing.

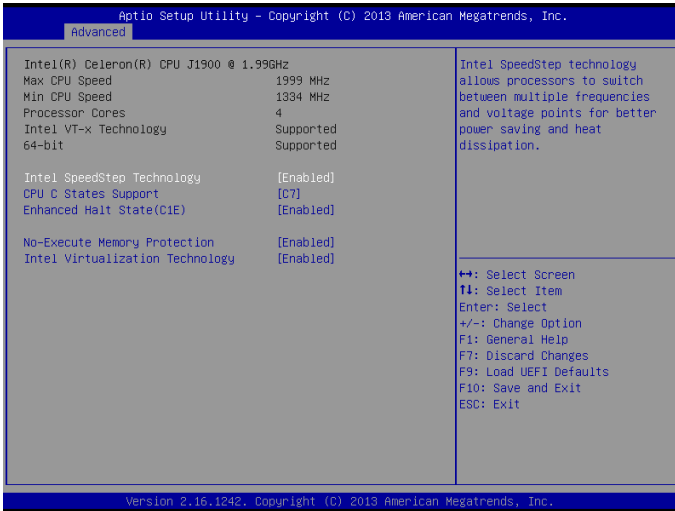


Setting wrong values in this section may cause the system to malfunction.

Instant Flash

Save BIOS files in your USB storage device and run Instant Flash to update your BIOS.

3.3.1 CPU Configuration



Intel SpeedStep Technology

Intel SpeedStep technology allows processors to switch between multiple frequencies and voltage points for better power saving and heat dissipation.

CPU C States Support

Enable CPU C States Support for power saving. It is recommended to keep C3, C6 and C7 all enabled for better power saving.

Enhanced Halt State (C1E)

Enable Enhanced Halt State (C1E) for lower power consumption.

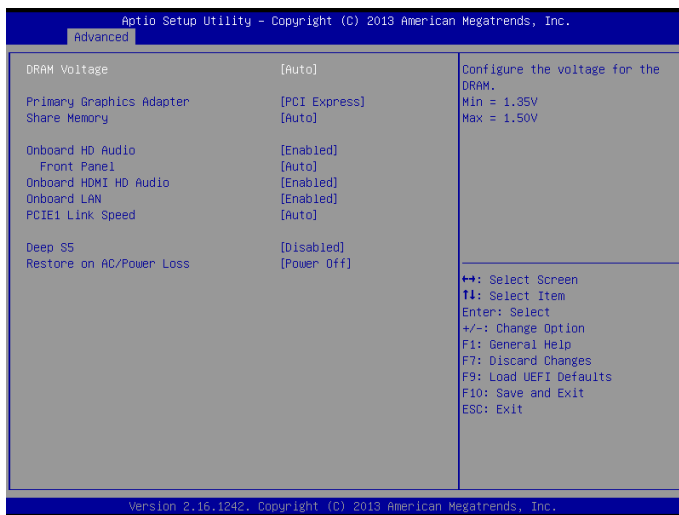
No-Execute Memory Protection

Processors with No-Execution Memory Protection Technology may prevent certain classes of malicious buffer overflow attacks.

Intel Virtualization Technology

Intel Virtualization Technology allows a platform to run multiple operating systems and applications in independent partitions, so that one computer system can function as multiple virtual systems.

3.3.2 Chipset Configuration



DRAM Voltage

Use this to configure DRAM Voltage.

Primary Graphics Adapter

Select a primary VGA.

Share Memory

Configure the size of memory that is allocated to the integrated graphics processor when the system boots up.

Onboard HD Audio

Enable/disable onboard HD audio. Set to Auto to enable onboard HD audio and automatically disable it when a sound card is installed.

Front Panel

Enable/disable front panel HD audio.

Onboard HDMI HD Audio

Enable audio for the onboard digital outputs.

Onboard LAN

Enable or disable the onboard network interface controller.

PCIe1 Link Speed

Select the link speed for PCIe1.

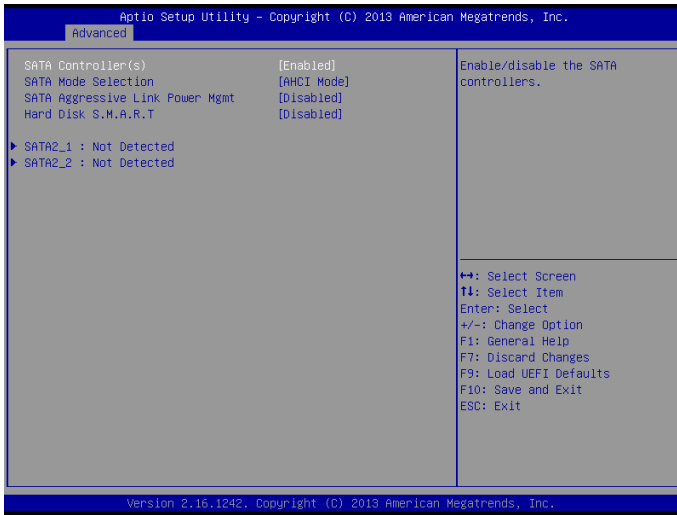
Deep S5

Configure deep sleep mode for power saving when the computer is shut down.

Restore on AC/Power Loss

Select the power state after a power failure. If [Power Off] is selected, the power will remain off when the power recovers. If [Power On] is selected, the system will start to boot up when the power recovers.

3.3.3 Storage Configuration



SATA Controller(s)

Enable/disable the SATA controllers.

SATA Mode Selection

IDE: For better compatibility.

AHCI: Supports new features that improve performance.



AHCI (Advanced Host Controller Interface) supports NCQ and other new features that will improve SATA disk performance but IDE mode does not have these advantages.

SATA Aggressive Link Power Management

SATA Aggressive Link Power Management allows SATA devices to enter a low power state during periods of inactivity to save power. It is only supported by AHCI mode.

Hard Disk S.M.A.R.T.

S.M.A.R.T stands for Self-Monitoring, Analysis, and Reporting Technology. It is a monitoring system for computer hard disk drives to detect and report on various indicators of reliability.

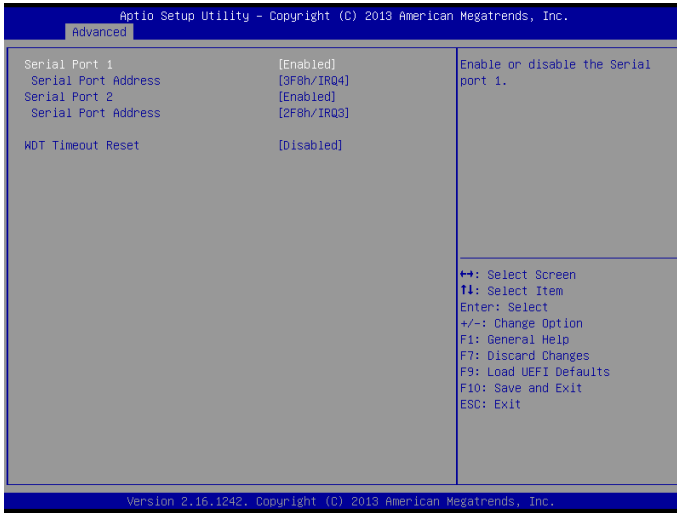
3.3.4 Intel® Smart Connect Technology



Intel® Smart Connect Technology

Intel® Smart Connect Technology automatically updates your email and social networks, such as Twitter, Facebook, etc. while the computer is in sleep mode.

3.3.5 Super IO Configuration



Serial Port 1

Enable or disable the Serial port 1.

Serial Port Address

Select the address of the Serial port.

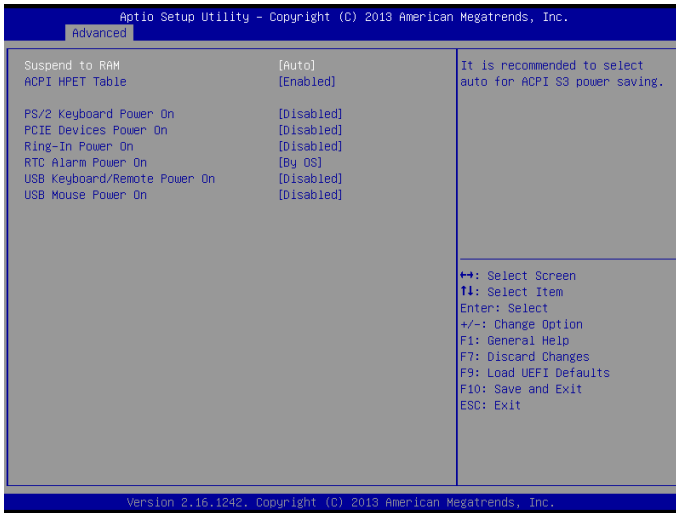
Serial Port 2

Enable or disable the Serial port 2.

WDT Timeout Reset

This allows users to enable/disable the Watch Dog Timer timeout to reset system. The default value is [Disabled].

3.3.6 ACPI Configuration



Suspend to RAM

Select disable for ACPI suspend type S1. It is recommended to select auto for ACPI S3 power saving.

ACPI HPET Table

Enable the High Precision Event Timer for better performance and to pass WHQL tests.

PS/2 Keyboard Power On

Allow the system to be waked up by a PS/2 Keyboard.

PCIE Device Power On

Allow the system to be waked up by a PCIE device and enable wake on LAN.

Ring-In Power On

Allow the system to be waked up by onboard COM port modem Ring-In signals.

RTC Alarm Power On

Allow the system to be waked up by the real time clock alarm. Set it to By OS to let it be handled by your operating system.

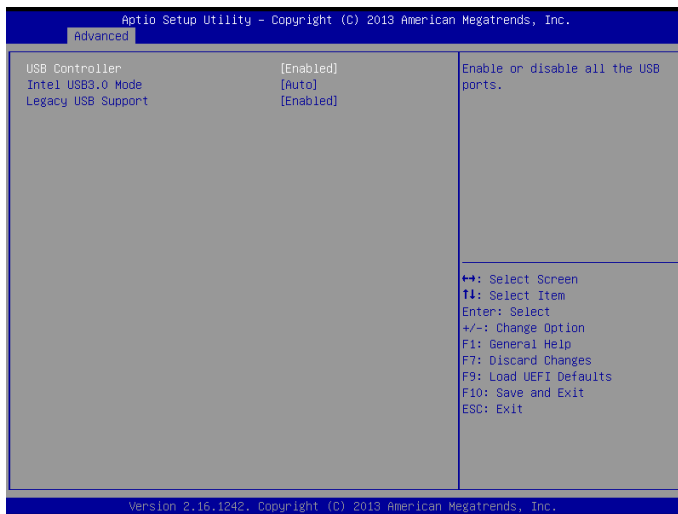
USB Keyboard/Remote Power On

Allow the system to be waked up by an USB keyboard or remote controller.

USB Mouse Power On

Allow the system to be waked up by an USB mouse.

3.3.7 USB Configuration



USB Controller

Enable or disable all the USB ports.

Intel USB 3.0 Mode

Select Intel® USB 3.0 controller mode. Set [Smart Auto] to keep the USB 3.0 driver enabled after rebooting (USB 3.0 is enabled in BIOS). Set [Auto] to automatically enable the USB 3.0 driver after entering the OS (USB 3.0 is disabled in BIOS). Set [Enabled] to keep the USB 3.0 driver enabled (Must install driver to use USB devices under Windows® 7). Set [Disabled] to disable the USB 3.0 ports.

Legacy USB Support

Enable or disable Legacy OS Support for USB 2.0 devices. If you encounter USB compatibility issues it is recommended to disable legacy USB support. Select BIOS Setup Only to support USB devices under the BIOS setup and Windows/Linux operating systems only.

3.3.8 Trusted Computing

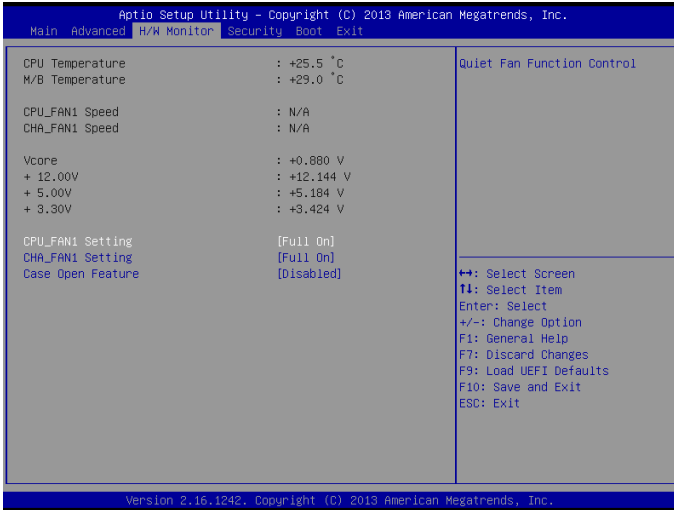


Security Device Support

Enable to activate Trusted Platform Module (TPM) security for your hard disk drives.

3.4 Hardware Health Event Monitoring Screen

This section allows you to monitor the status of the hardware on your system, including the parameters of the CPU temperature, motherboard temperature, fan speed and voltage.



CPU Fan 1 Setting

This allows you to set CPU fan 1's speed. Configuration options: [Full On] and [Automatic Mode]. The default value is [Full On].

Chassis Fan 1 Setting

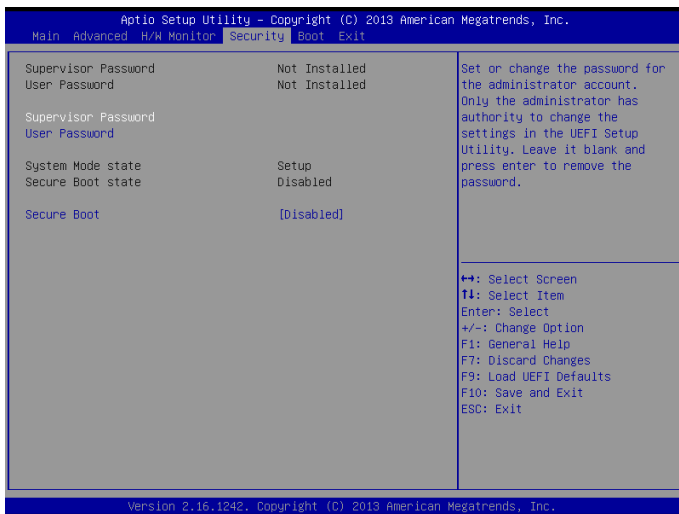
This allows you to set chassis fan 1's speed. Configuration options: [Full On], [Automatic Mode] and [Manual]. The default value is [Full On]

Case Open Feature

Enable or disable Case Open Feature to detect whether the chassis cover has been removed.

3.5 Security Screen

In this section you may set or change the supervisor/user password for the system. You may also clear the user password.



Supervisor Password

Set or change the password for the administrator account. Only the administrator has authority to change the settings in the BIOS Setup Utility. Leave it blank and press enter to remove the password.

User Password

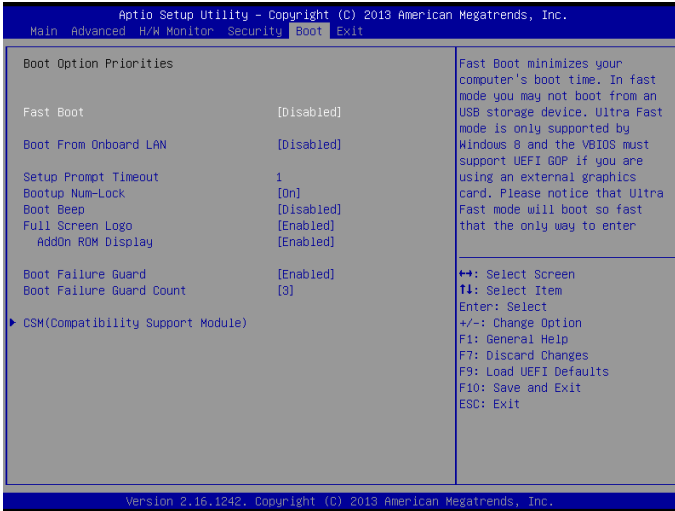
Set or change the password for the user account. Users are unable to change the settings in the BIOS Setup Utility. Leave it blank and press enter to remove the password.

Secure Boot

Enable to support Windows 8.1/8 Secure Boot.

3.6 Boot Screen

This section displays the available devices on your system for you to configure the boot settings and the boot priority.



Fast Boot

Fast Boot minimizes your computer's boot time. In fast mode you may not boot from an USB storage device. Ultra Fast mode is only supported by Windows 8.1/8 and the VBIOS must support BIOS GOP if you are using an external graphics card. Please notice that Ultra Fast mode will boot so fast that the only way to enter this BIOS Setup Utility is to Clear CMOS or run the Restart to BIOS utility in Windows.

Boot From Onboard LAN

Allow the system to be waked up by the onboard LAN.

Setup Prompt Timeout

Configure the number of seconds to wait for the setup hot key.

Bootup Num-Lock

Select whether Num Lock should be turned on or off when the system boots up.

Boot Beep

Select whether the Boot Beep should be turned on or off when the system boots up. Please note that a buzzer is needed.

Full Screen Logo

Enable to display the boot logo or disable to show normal POST messages.

AddOn ROM Display

Enable AddOn ROM Display to see the AddOn ROM messages or configure the AddOn ROM if you've enabled Full Screen Logo. Disable for faster boot speed.

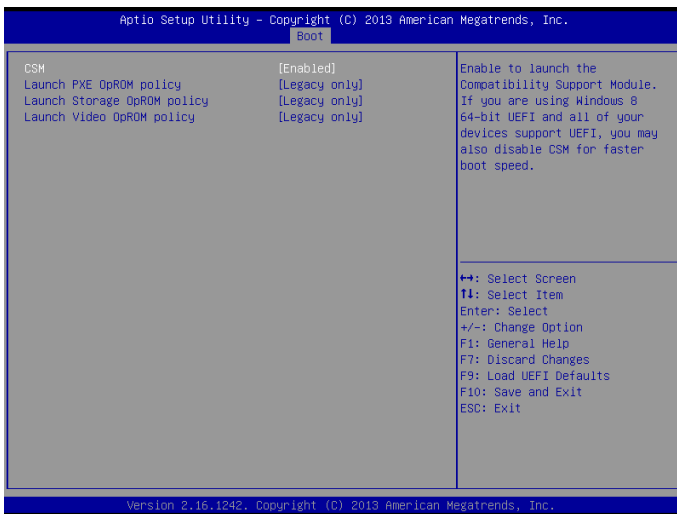
Boot Failure Guard

If the computer fails to boot for a number of times the system automatically restores the default settings.

Boot Failure Guard Count

Configure the number of attempts to boot until the system automatically restores the default settings.

CSM (Compatibility Support Module)



CSM

Enable to launch the Compatibility Support Module. Please do not disable unless you're running a WHCK test. If you are using Windows 8.1/8 64-bit and all of your devices support UEFI, you may also disable CSM for faster boot speed.

Launch PXE OpROM Policy

Select UEFI only to run those that support UEFI option ROM only. Select Legacy only to run those that support legacy option ROM only.

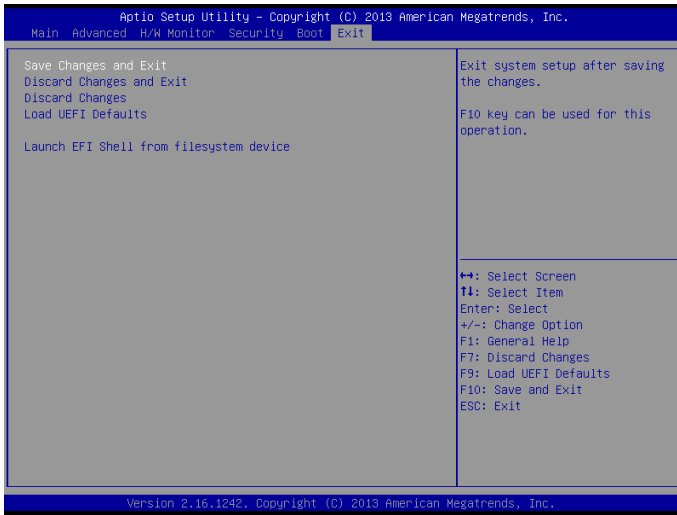
Launch Storage OpROM Policy

Select UEFI only to run those that support UEFI option ROM only. Select Legacy only to run those that support legacy option ROM only.

Launch Video OpROM Policy

Select UEFI only to run those that support UEFI option ROM only. Select Legacy only to run those that support legacy option ROM only.

3.7 Exit Screen



Save Changes and Exit

When you select this option the following message, “Save configuration changes and exit setup?” will pop out. Select [OK] to save changes and exit the BIOS SETUP UTILITY.

Discard Changes and Exit

When you select this option the following message, “Discard changes and exit setup?” will pop out. Select [OK] to exit the BIOS SETUP UTILITY without saving any changes.

Discard Changes

When you select this option the following message, “Discard changes?” will pop out. Select [OK] to discard all changes.

Load BIOS Defaults

Load BIOS default values for all options. The F9 key can be used for this operation.

Launch EFI Shell from filesystem device

Copy shellx64.efi to the root directory to launch EFI Shell.