PRIME H310I-PLUS R2.0
PRIME H310I-PLUS R2.0/
CSM

Motherboard

E15038
Revised Edition v2
November 2018

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Contents

Safety information

Electrical safety

- To prevent electrical shock hazard, disconnect the power cable from the electrical outlet before relocating the system.
- When adding or removing devices to or from the system, ensure that the power cables for the devices are unplugged before the signal cables are connected. If possible, disconnect all power cables from the existing system before you add a device.
- Before connecting or removing signal cables from the motherboard, ensure that all power cables are unplugged.
- Seek professional assistance before using an adapter or extension cord. These devices could interrupt the grounding circuit.
- Ensure that your power supply is set to the correct voltage in your area. If you are not sure about the voltage of the electrical outlet you are using, contact your local power company.
- If the power supply is broken, do not try to fix it by yourself. Contact a qualified service technician or your retailer.

Operation safety

- Before installing the motherboard and adding components, carefully read all the manuals that came with the package.
- Before using the product, ensure all cables are correctly connected and the power cables are not damaged. If you detect any damage, contact your dealer immediately.
- To avoid short circuits, keep paper clips, screws, and staples away from connectors, slots, sockets and circuitry.
- Avoid dust, humidity, and temperature extremes. Do not place the product in any area where it may be exposed to moisture.
- Place the product on a stable surface.
- If you encounter technical problems with the product, contact a qualified service technician or your retailer.

About this guide

This user guide contains the information you need when installing and configuring the motherboard.

How this guide is organized

This guide contains the following parts:

- **Chapter 1: Product introduction**

  This chapter describes the features of the motherboard and the new technology it supports. It includes descriptions of the switches, jumpers, and connectors on the motherboard.

- **Chapter 2: BIOS information**

  This chapter discusses changing system settings through the BIOS Setup menus. Detailed descriptions for the BIOS parameters are also provided.

Where to find more information

Refer to the following sources for additional information and for product and software updates.

1. **ASUS websites**

   The ASUS website provides updated information on ASUS hardware and software products. Refer to the ASUS contact information.

2. **Optional documentation**

   Your product package may include optional documentation, such as warranty flyers, that may have been added by your dealer. These documents are not part of the standard package.

Conventions used in this guide

To ensure that you perform certain tasks properly, take note of the following symbols used throughout this manual.

DANGER/WARNING: Information to prevent injury to yourself when completing a task.

CAUTION: Information to prevent damage to the components when completing a task

IMPORTANT: Instructions that you MUST follow to complete a task.

NOTE: Tips and additional information to help you complete a task.

Typography

Bold text	Indicates a menu or an item to select.
Italics	Used to emphasize a word or a phrase.
<Key>	Keys enclosed in the less-than and greater-than sign means that you must press the enclosed key.
	Example: <Enter> means that you must press the Enter or Return key.
<Key1> + <Key2> + <Key3>	If you must press two or more keys simultaneously, the key names are linked with a plus sign (+).

Package contents

Check your motherboard package for the following items.

Motherboard	ASUS PRIME H310I-PLUS R2.0 motherboard
Cables	2 x Serial ATA 6.0 Gb/s cables
Accessories	1 x I/O Shield 2 x M.2 Screw package
Application DVD	Support DVD
Documentation	User Guide

If any of the above items is damaged or missing, contact your retailer.

PRIME H310I-PLUS R2.0 specifications summary

CPU	LGA1151 socket for 8th Generation Intel® Core™, i7 / i5 / i3, Pentium®, and Celeron® Processors Supports Intel® 14nm CPU Supports Intel® Turbo Boost Technology 2.0* *** Intel® Turbo Boost Technology 2.0 support depends on the CPU types.** **** Refer to www.asus.com for Intel® CPU support list.**
Chipset	Intel® H310 Chipset
Memory	2 x DIMMs, maximum. 32GB DDR4 2666/2400/2133MHz, Non-ECC, un-buffered memory modules Dual-channel memory architecture Supports Intel® Extreme Memory Profile (XMP) *** Hyper DIMM support is subject to the physical characteristics of individual CPUs.** **** DDR4 2666MHz and higher memory modules will run at max. 2666MHz on Intel® 8th Gen. 6-core or higher processors.** ***** Refer to www.asus.com for the latest Memory QVL (Qualified Vendors List).**

Graphics	Integrated graphics processor - Intel® HD Graphics support
	Multi-VGA output support: HDMI/DVI-D/D-Sub ports
	  - Supports HDMI with maximum resolution 4096 x 2160@24Hz / 2560 x 1600@60Hz
	  - Supports DVI-D with maximum resolution of 1920 x 1200 @ 60Hz
	  - Supports D-Sub with maximum resolution of 1920 x 1200 @ 60Hz
	Supports up to 2 displays simultaneously
	Maximum shared memory of 1024 MB

Expansion slots	1 x PCI Express 3.0/2.0 x16 slot

Storage	Intel® H310 Chipset
	  - 4 x Serial ATA 6.0 Gb/s connectors (gray)
	  - 1 x M.2 Socket 3 with M key, type 2260/2280 storage devices support (both SATA* & PCIE x 4 mode)
	* When a SATA mode M.2 device is installed, the M.2 Socket shares bandwidth with the SATA6G_2 port.

LAN	Realtek® 8111H Gigabit LAN supports LANGuard

(continued on the next page)

PRIME H310I-PLUS R2.0 specifications summary

USB	Intel® H310 Chipset - 4 x USB 3.1 Gen1(up to 5Gbps) ports (2 ports at mid-board, 2 ports at back panel) - 4 x USB 2.0 ports (2 ports at mid-board, 2 ports at back panel)
Audio	Realtek® ALC887 8-channel* High Definition Audio CODEC - Supports jack-detection and front panel jack-retasking *** Use a chassis with HD audio module in the front panel to support an 8-channel audio output.**

ASUS unique features	**ASUS 5X Protection III**
	    - ASUS SafeSlot Core - Fortified PCIe Slot prevents damage
	    - ASUS LANGuard - Protects against LAN surges, lightning strikes and static-electricity discharges!
	    - ASUS Overvoltage Protection - World-class circuit-protecting power design
	    - ASUS Stainless-Steel Back I/O - 3X corrosion-resistance for greater durability
	    - ASUS DIGI+ VRM - 5 Phase digital power design
	
	Superb Performance
	
	M.2 onboard
	    - The latest transfer technologies with up to 20Gb/s data transfer speeds
	
	UEFI BIOS
	    - The most advanced options with a fast response time
	
	ASUS EPU
	    - EPU
	
	Easy PC DIY
	
	Safe motherboard mounting
	    - Component-free areas to minimize damage risk
	
	ASUS Exclusive Features
	    - ASUS Disk Unlocker featuring 3TB+ HDD support
	    - ASUS AI Charger
	    - ASUS AI Suite 3
	    - ASUS File Transfer
	
	UEFI BIOS EZ Mode
	    - Featuring a friendly graphics user interface
	    - ASUS CrashFree BIOS 3
	    - ASUS EZ Flash 3
	
	Q-Design
	    - ASUS Q-DIMM

(continued on the next page)

PRIME H310I-PLUS R2.0 specifications summary

Back Panel I/O ports	1 x PS/2 keyboard/mouse combo port
	1 x HDMI port
	1 x DVI-D port
	1 x D-Sub port
	1 x LAN (RJ-45) port
	2 x USB 2.0 ports
	2 x USB 3.1 Gen1(up to 5Gbps) ports
	3 x Audio jacks support 8-channel audio output
Internal I/O connectors	1 x USB 3.1 Gen1(up to 5Gbps) connector support additional 2 USB 3.1 Gen1(up to 5Gbps) ports
	1 x USB 2.0 connector support additional 2 USB 2.0 ports
	1 x M.2 Socket 3 for M Key, type 2260/2280 storage devices support (SATA mode & PCIE x 4 mode)
	1 x M.2 Socket 1 with E key, type 2230 for Wi-Fi/BT devices support PCIE/USB mode
	4 x SATA 6Gb/s connectors
	1 x 4-pin CPU Fan connector
	1 x 4-pin Chassis Fan connector for 4-pin PWM & DC mode
	1 x Front panel audio connector(s) (AAFP)
	1 x System panel connector
	1 x 24-pin EATX Power connector
	1 x 4-pin ATX 12V Power connector
	1 x Chassis Intrusion connector
	1 x Speaker connector
	1 x COM header
	1 x Clear CMOS jumper
	1 x 14-1 pin TPM header
	1 x S/PDIF out connector
BIOS features	128 Mb Flash ROM, UEFI AMI BIOS, PnP, SM BIOS 3.1, ACPI 6.1, Multi-language BIOS, ASUS EZ Flash 3, CrashFree BIOS 3, F6 Qfan Control, F3 My Favorites, Last Modified log, F12 PrintScreen, and ASUS DRAM SPD (Serial Presence Detect) memory information
Manageability	WOL by PME, PXE
Support DVD	Drivers
	ASUS utilities
	ASUS EZ Update
	Anti-virus software (OEM version)
Operating System Support	Windows® 10 (64-bit)
Form factor	Mini-ITX Form Factor, 6.7"x 6.7" (17cm x 17cm)

Specifications are subject to change without notice.

Product introduction

1

Motherboard overview

⚠️
- Unplug the power cord from the wall socket before touching any component.
- Before handling components, use a grounded wrist strap or touch a safely grounded object or a metal object, such as the power supply case, to avoid damaging them due to static electricity.
- Before you install or remove any component, ensure that the ATX power supply is switched off or the power cord is detached from the power supply. Failure to do so may cause severe damage to the motherboard, peripherals, or components.
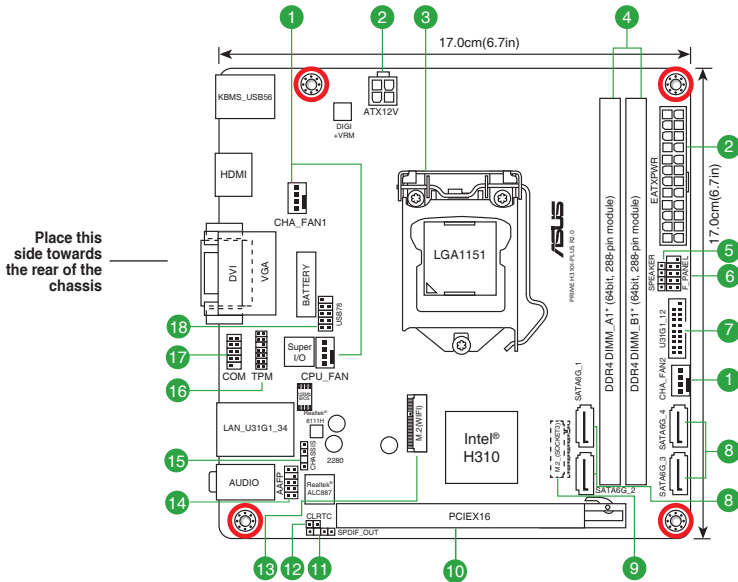
Scan the QR code to get the detailed pin definitions.

E15038_PRIME_H310I-PLUS_R2_UM_v2.indb   1

2018/11/20   9:21:20
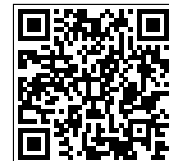
1 **CPU and chassis fan connectors (4-pin CPU_FAN, 4-pin CHA_FAN)**

Connect the fan cables to the fan connectors on the motherboard, ensuring that the black wire of each cable matches the ground pin of the connector.

> Do not forget to connect the fan cables to the fan connectors. Insufficient air flow inside the system may damage the motherboard components. These are not jumpers! Do not place jumper caps on the fan connectors! The CPU_FAN connector supports a CPU fan of maximum 1A (12 W) fan power.

2 **ATX power connectors (24-pin EATXPWR, 4-pin ATX12V)**

Correctly orient the ATX power supply plugs into these connectors and push down firmly until the connectors completely fit.

> • For a fully configured system, we recommend that you use a power supply unit (PSU) that complies with ATX 12V Specification 2.0 (or later version) and provides a minimum power of 350 W. This PSU type has 24-pin and 4-pin power plugs.
>
> • We recommend that you use a PSU with higher power output when configuring a system with more power-consuming devices or when you intend to install additional devices. The system may become unstable or may not boot up if the power is inadequate.
>
> • If you are uncertain about the minimum power supply requirement for your system, refer to the Recommended Power Supply Wattage Calculator at http://support.asus.com/PowerSupplyCalculator/PSCalculator.aspx?SLanguage=en-us for details.

3 **Intel® LGA1151 CPU socket**

Install Intel® LGA1151 CPU into this surface mount LGA1151 socket, which is designed for 8th Generation Intel® Core™ i7 / i5 / i3, Pentium®, and Celeron® processors.

> For more details, refer to **Central Processing Unit (CPU)**.

4 **DDR4 DIMM slots**

Install 2 GB, 4 GB, 8 GB, and 16 GB unbuffered non-ECC DDR4 DIMMs into these DIMM sockets.

> For more details, refer to **System memory**.

5 **Speaker connector (4-pin SPEAKER)**

This 4-pin connector is for the chassis-mounted system warning speaker. The speaker allows you to hear system beeps and warnings.

6 **System panel connector (10-1 pin F_PANEL)**

This connector supports several chassis-mounted functions.

7 **USB 3.1 Gen 1 (up to 5Gbps) connector (20-1pin U31G1_12)**

Connect a USB 3.1 Gen 1 module to this connector for additional USB 3.1 Gen 1 front or rear panel ports. This connector complies with USB 3.1 Gen 1 specifications and provides faster data transfer speeds of up to 5 Gbps, faster charging time for USB-chargeable devices, optimized power efficiency, and backward compatibility with USB 2.0.

**8** **Intel® H310 Serial ATA 6.0Gb/s connectors (7-pin SATA6G_1~4)**

These connectors connect to Serial ATA 6.0 Gb/s hard disk drives via Serial ATA 6.0 Gb/s signal cables.

9 **M.2 socket 3**

This socket allows you to install an M.2 (NGFF) SSD module.

M.2(SOCKET3)

- This M.2 socket supports M Key and 2260/2280 storage devices.
- When a device in SATA mode is installed on the M.2 socket, SATA_2 port can not be used.
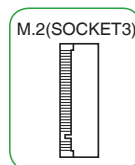
10 **PCI Express 3.0/2.0 x16 slot**

This motherboard has a PCI Express 3.0/2.0 x16 slot that supports PCI Express 3.0/2.0 x16 graphic cards complying with the PCI Express specifications.

11 **Digital audio connector (4-1 pin SPDIF_OUT)**

Connect the S/PDIF Out module cable to this connector, then install the module to a slot opening at the back of the system chassis.

PIN 1 +5V SPDIFOUT GND
SPDIF_OUT
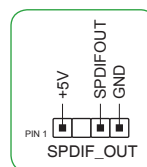
12 **Clear RTC RAM (2-pin CLRTC)**

This header allows you to clear the CMOS RTC RAM data of the system setup information such as date, time, and system passwords.

CLRTC
PIN 1 +3V_BAT GND

To erase the RTC RAM:

1. Turn OFF the computer and unplug the power cord.
2. Use a metal object such as a screwdriver to short the two pins.
3. Plug the power cord and turn ON the computer.
4. Hold down the <**Del**> key during the boot process and enter BIOS setup to re-enter data.
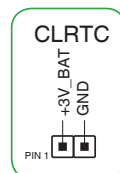
If the steps above do not help, remove the onboard battery and short the two pins again to clear the CMOS RTC RAM data. After clearing the CMOS, reinstall the battery.

13 **M.2 Wi-Fi Slot (E-key, type 2230)**

This connector allows you to connect a M.2 Wi-Fi module (E-key, type 2230)

14 **Front panel audio connector (10-1 pin AAFP)**

This connector is for a chassis-mounted front panel audio I/O module that supports HD Audio audio standard. Connect one end of the front panel audio I/O module cable to this connector.

- We recommend that you connect a high-definition front panel audio module to this connector to avail of the motherboard's high-definition audio capability.

- If you want to connect a high-definition front panel audio module to this connector, set the Front Panel Type item in the BIOS setup to [HD Audio]. By default, this connector is set to [HD Audio].

15 **Chassis intrusion header (4-1 pin CHASSIS)**

This header is for a chassis-mounted intrusion detection sensor or switch Connect one end of the chassis intrusion sensor or switch cable to this header. The chassis intrusion sensor or switch sends a high-level signal to this header when a chassis component is removed or replaced. The signal is then generated as a chassis intrusion event.

By default, the pin labeled "Chassis Signal" and "Ground" are shorted with a jumper cap. Remove the jumper caps only when you intend to use the chassis intrusion detection feature.

16 **TPM connector (14-1 pin TPM)**

This connector supports a 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.

17 **Serial port connector (10-1 pin COM)**

Connect the serial port module cable to this connector, then install the module to a slot opening at the back of the system chassis.
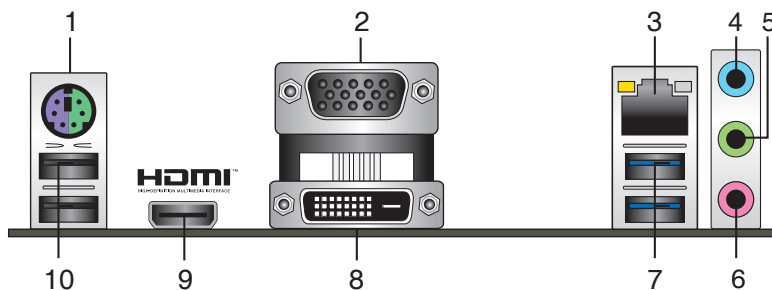
18 **USB 2.0 connectors (10-1 pin USB78)**

Connect a USB module cable to any of these connectors, then install the module to a slot opening at the back of the system chassis. These USB connectors comply with USB 2.0 specifications and supports up to 480Mbps connection speed.

Rear panel connectors

1. **PS/2 Mouse/Keyboard combo port.** This port connects to a PS/2 mouse or PS/2 keyboard.

2. **Video Graphics Adapter (VGA) port.** This 15-pin port is for a VGA monitor or other VGA-compatible devices.

3. **LAN (RJ-45) port.** This port allows Gigabit connection to a Local Area Network (LAN) through a network hub.

LAN port LED indications

Activity/Link LED		Speed LED	
Status	**Description**	**Status**	**Description**
Off	No link	OFF	10Mbps connection
Orange	Linked	ORANGE	100Mbps connection
Orange (Blinking)	Data activity	GREEN	1Gbps connection
Orange (Blinking then steady)	Ready to wake up from S5 mode		

Activity Link LED   Speed LED

LAN port
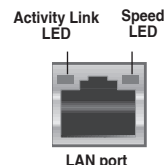
4. **Line In port (light blue).** This port connects to the tape, CD, DVD player, or other audio sources.

5. **Line Out port (lime).** This port connects to a headphone or a speaker. In the 4.1, 5.1and 7.1-channel configurations, the function of this port becomes Front Speaker Out.

6. **Microphone port (pink).** This port connects to a microphone.

Refer to the audio configuration table for the function of the audio ports in 2.1, 4.1, 5.1, or 7.1-channel configuration.

Audio 2.1, 4.1, 5.1 or 7.1-channel configuration

Port	Headset 2.1-channel	4.1-channel	5.1-channel	7.1-channel
Light Blue (Rear panel)	Line In	Rear Speaker Out	Rear Speaker Out	Rear Speaker Out
Lime (Rear panel)	Line Out	Front Speaker Out	Front Speaker Out	Front Speaker Out
Pink (Rear panel)	Mic In	Mic In	Bass/Center	Bass/Center
Lime (Front panel)	-	-	-	Side Speaker Out

> **To configure a 7.1-channel audio output:**
>
> Use a chassis with HD audio module in the front panel to support a 7.1-channel audio output.

7. **USB 3.1 Gen 1 (up to 5Gbps) ports.** These 9-pin Universal Serial Bus (USB) ports are for USB 3.1 Gen 1 devices.

> • USB 3.1 Gen 1 devices can only be used for data storage.
>
> • We strongly recommend that you connect USB 3.1 Gen 1 devices to USB 3.1 Gen 1 ports for faster and better performance from your USB 3.1 Gen 1 devices.
>
> • Due to the design of the Intel® 300 series chipset, all USB devices connected to the USB 2.0 and USB 3.1 Gen 1 ports are controlled by the xHCI controller. Some legacy USB devices must update their firmware for better compatibility.

8. **DVI-D port.** This port is for any DVI-D compatible device.

> DVI-D can not be converted to output from RGB Signal to CRT and is not compatible with DVI-I.

9. **HDMI port.** This port is for a High-Definition Multimedia Interface (HDMI) connector, and is HDCP compliant allowing playback of HD DVD, Blu-ray, and other protected content.

10. **USB 2.0 ports.** These 4-pin Universal Serial Bus (USB) ports are for USB 2.0 devices.

Central Processing Unit (CPU)

This motherboard comes with a surface mount LGA1151 socket designed for the 8th Generation Intel® Core™ i7 / Core™ i5 / Core™ i3, Pentium® and Celeron® processors.
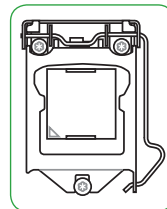
Unplug all power cables before installing the CPU.

- Ensure that you install the correct CPU designed for the LGA1151 socket only. DO NOT install a CPU designed for LGA1150, LGA1155 and LGA1156 sockets on the LGA1151 socket.

- Upon purchase of the motherboard, ensure that the PnP cap is on the socket and the socket contacts are not bent. Contact your retailer immediately if the PnP cap is missing, or if you see any damage to the PnP cap/socket contacts/motherboard components.

- Keep the cap after installing the motherboard. ASUS will process Return Merchandise Authorization (RMA) requests only if the motherboard comes with the cap on the LGA1151 socket.

- The product warranty does not cover damage to the socket contacts resulting from incorrect CPU installation/removal, or misplacement/loss/incorrect removal of the PnP cap.

Installing the CPU
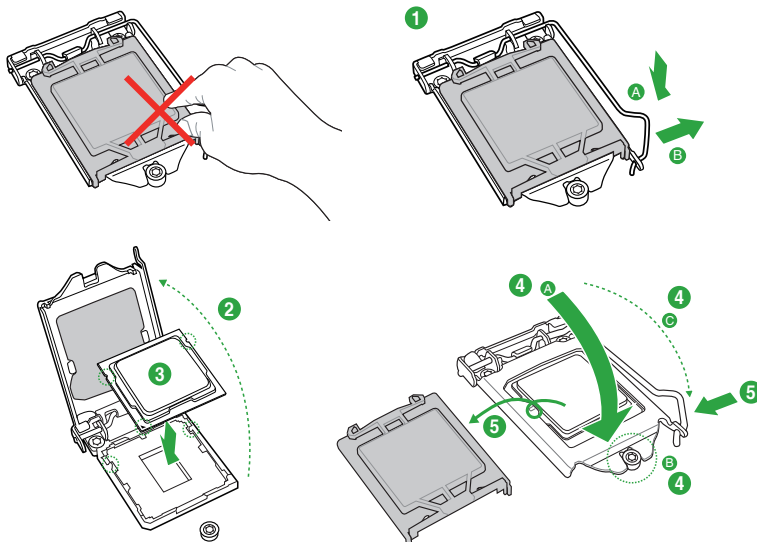
Apply the Thermal Interface Material to the CPU heatsink and CPU before you install the heatsink and fan if necessary.

System memory

Overview

This motherboard comes with two Double Data Rate 4 (DDR4) Dual Inline Memory Module (DIMM) sockets. A DDR4 module is notched differently from a DDR, DDR2, or DDR3 module. DO NOT install a DDR, DDR2, or DDR3 memory module to the DDR4 slot.
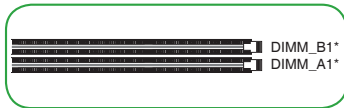
DIMM_B1*
DIMM_A1*

| Channel	Sockets
Channel A	DIMM_A1*
Channel B	DIMM_B1*

- You may install varying memory sizes in Channel A and Channel B. The system maps the total size of the lower-sized channel for the dual-channel configuration. Any excess memory from the higher-sized channel is then mapped for single-channel operation.

- Always install DIMMs with the same CAS latency. For optimal compatibility, we recommend that you install memory modules of the same version or date code (D/C) from the same vendor. Check with the retailer to get the correct memory modules.

- DDR4 2666MHz and higher memory modules will run at max. 2666MHz on Intel® 8th Gen. 6-core or higher processors.

- Memory modules with memory frequency higher than 2133 MHz and its corresponding timing or the loaded X.M.P. Profile is not the JEDEC memory standard. The stability and compatibility of these memory modules depend on the CPU's capabilities and other installed devices.

- The default memory operation frequency is dependent on its Serial Presence Detect (SPD), which is the standard way of accessing information from a memory module. Under the default state, some memory modules for overclocking may operate at a lower frequency than the vendor-marked value.

- Refer to www.asus.com for the latest Memory QVL (Qualified Vendors List)

Recommended memory configuration

DIMM_A1*
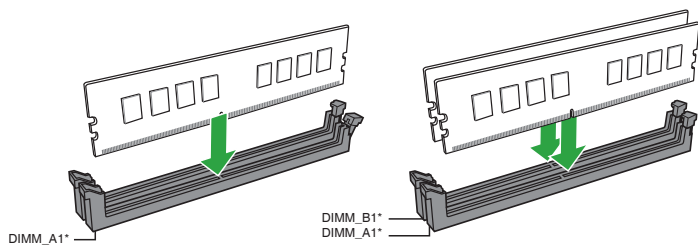
DIMM_B1*
DIMM_A1*

Installing a DIMM
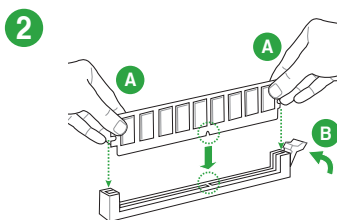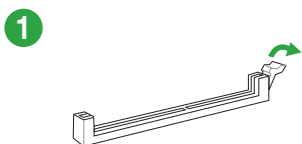
To remove a DIMM
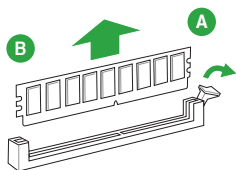
BIOS information 2

- Scan the QR code to view the BIOS update guide.
- Before using the ASUS CrashFree BIOS 3 utility, rename the BIOS file in the removable device into **PH310MCR.CAP**.
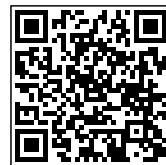
BIOS setup program

Use the BIOS Setup program to update the BIOS or configure its parameters. The BIOS screens include navigation keys and brief online help to guide you in using the BIOS Setup program.

Entering BIOS Setup at startup

To enter BIOS Setup at startup:

Press <Delete> or <F2> during the Power-On Self Test (POST). If you do not press <Delete> or <F2>, POST continues with its routines.

Entering BIOS Setup after POST

To enter BIOS Setup after POST:

Press <Ctrl>+<Alt>+<Del> simultaneously.

Press the reset button on the system chassis.

Press the power button to turn the system off then back on. Do this option only if you failed to enter BIOS Setup using the first two options.

> Using the power button, reset button, or the <Ctrl>+<Alt>+<Del> keys to force reset from a running operating system can cause damage to your data or system. We recommend you always shut down the system properly from the operating system.

> - The BIOS setup screens shown in this section are for reference purposes only, and may not exactly match what you see on your screen.
> - Visit the ASUS website at **www.asus.com** to download the latest BIOS file for this motherboard.
> - If the system becomes unstable after changing any BIOS setting, load the default settings to ensure system compatibility and stability. Select the **Load Optimized Defaults** item under the Exit menu or press hotkey F5.
> - If the system fails to boot after changing any BIOS setting, try to clear the CMOS and reset the motherboard to the default value. See section **Motherboard overview** for information on how to erase the RTC RAM.

BIOS menu screen

The BIOS setup program can be used under two modes: **EZ Mode** and **Advanced Mode**. Press <F7> to change between the two modes.

EZ Mode

By default, the EZ Mode screen appears when you enter the BIOS setup program. The EZ Mode provides you an overview of the basic system information, and allows you to select the display language, system performance mode, fan profile and boot device priority. To access the Advanced Mode, click **Advanced Mode(F7)** or press <F7>.
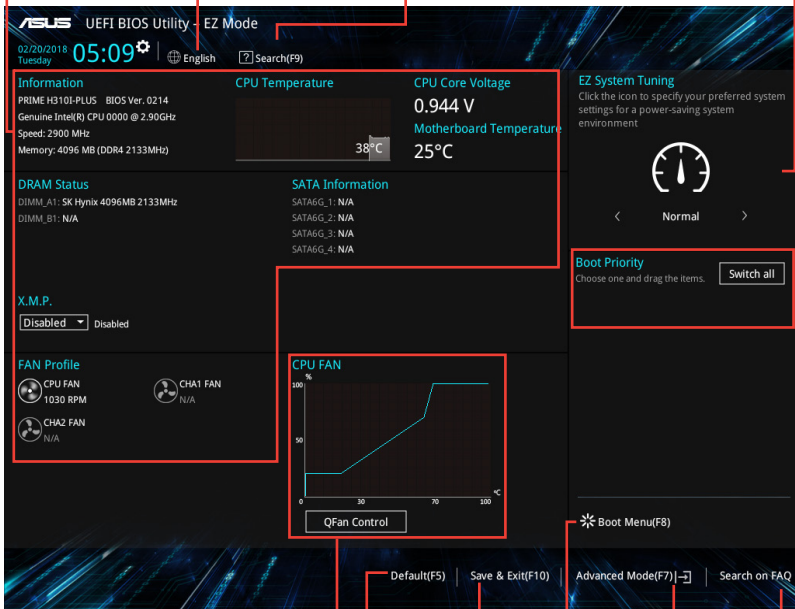
The default screen for entering the BIOS setup program can be changed. Go to the **Setup Mode** item under the **Boot** menu.

Displays the CPU/motherboard temperature, CPU voltage output, CPU/chassis fan speed, and SATA information

Displays the system properties of the selected mode. Click <Enter> to switch EZ System Tuning modes

Selects the display language of the BIOS setup program

Searches by BIOS item name, enter the item name to find the related item listing

UEFI BIOS Utility - EZ Mode

02/20/2018 Tuesday 05:09 ⚙ | ⊕ English | ? Search(F9)

Information
PRIME H310I-PLUS   BIOS Ver. 0214
Genuine Intel(R) CPU 0000 @ 2.90GHz
Speed: 2900 MHz
Memory: 4096 MB (DDR4 2133MHz)

CPU Temperature
38°C

CPU Core Voltage
0.944 V
Motherboard Temperature
25°C

EZ System Tuning
Click the icon to specify your preferred system settings for a power-saving system environment

Normal

DRAM Status
DIMM_A1: SK Hynix 4096MB 2133MHz
DIMM_B1: N/A

SATA Information
SATA6G_1: N/A
SATA6G_2: N/A
SATA6G_3: N/A
SATA6G_4: N/A

X.M.P.
Disabled ▾ Disabled

Boot Priority
Choose one and drag the items.   Switch all

FAN Profile
CPU FAN 1030 RPM
CHA1 FAN N/A
CHA2 FAN N/A

CPU FAN
%
100

50

0   30   70   100   °C

QFan Control

Boot Menu(F8)

Default(F5)   Save & Exit(F10)   Advanced Mode(F7) →   Search on FAQ

Displays the CPU Fan's speed. Click the button to manually tune the fans

Shows the bootable devices

Displays the Advanced mode menus

Loads optimized default settings

Saves the changes and resets the system

Search on FAQs

Selects the boot device priority

The boot device options vary depending on the devices you installed to the system.

Advanced Mode

The Advanced Mode provides advanced options for experienced end-users to configure the BIOS settings. The figure below shows an example of the **Advanced Mode**. Refer to the following sections for the detailed configurations.

To access the EZ Mode, click **EzMode(F7)** or press <F7>.

Menu bar

Language

MyFavorite

Q-Fan control

Search

Scroll bar

Sub-menu items

General help

Menu items

Configuration fields

Last modified settings

Goes back to EZ Mode

Hot Keys

Searches FAQ

Displays the CPU temperature, CPU and memory voltage output

Pop-up window

Search on FAQ

Move your mouse over this button to show a QR code. Scan this QR code with your mobile device to connect to the ASUS BIOS FAQ web page. You can also scan the QR code below.

Exit menu

The Exit menu items allow you to load the optimal default values for the BIOS items, and save or discard your changes to the BIOS items.
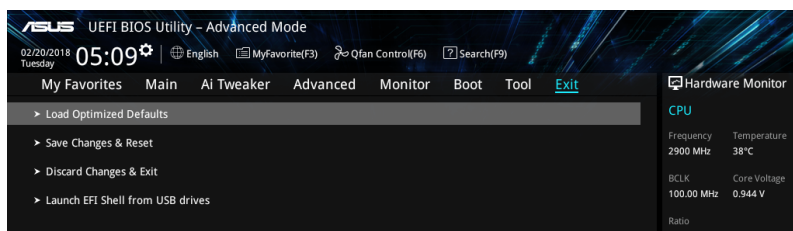
Load Optimized Defaults

This option allows you to load the default values for each of the parameters on the Setup menus. When you select this option or if you press <F5>, a confirmation window appears. Select OK to load the default values.

Save Changes & Reset

Once you are finished making your selections, choose this option from the Exit menu to ensure the values you selected are saved. When you select this option or if you press <F10>, a confirmation window appears. Select OK to save changes and exit.

Discard Changes & Exit

This option allows you to exit the Setup program without saving your changes. When you select this option or if you press <Esc>, a confirmation window appears. Select OK to discard changes and exit.

Launch EFI Shell from USB drives

This option allows you to attempt to launch the EFI Shell application (shellx64.efi) from one of the available USB devices.

Appendix

Notices

FCC Compliance Information

Responsible Party:	Asus Computer International
Address:	48720 Kato Rd., Fremont, CA 94538, USA
Phone / Fax No:	(510)739-3777 / (510)608-4555

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

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

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

Compliance Statement of Innovation, Science and Economic Development Canada (ISED)

This device complies with Innovation, Science and Economic Development Canada licence exempt RSS standard(s). Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

CAN ICES-3(B)/NMB-3(B)

Déclaration de conformité de Innovation, Sciences et Développement économique Canada (ISED)

Le présent appareil est conforme aux CNR d'Innovation, Sciences et Développement économique Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes : (1) l'appareil ne doit pas produire de brouillage, et (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

CAN ICES-3(B)/NMB-3(B)

VCCI: Japan Compliance Statement

Class B ITE

この装置は、クラスＢ情報技術装置です。この装置は、家庭環境で使用することを目的としていますが、この装置がラジオやテレビジョン受信機に近接して使用されると、受信障害を引き起こすことがあります。

取扱説明書に従って正しい取り扱いをして下さい。

ＶＣＣＩ－Ｂ

KC: Korea Warning Statement

Ｂ급 기기 (가정용 방송통신기자재)
이 기기는 가정용(Ｂ급) 전자파적합기기로서 주로 가정에서 사용하는 것을 목적으로 하며, 모든 지역에서 사용할 수 있습니다.

REACH

Complying with the REACH (Registration, Evaluation, Authorisation, and Restriction of Chemicals) regulatory framework, we published the chemical substances in our products at ASUS REACH website at http://csr.asus.com/english/REACH.htm.

DO NOT throw the motherboard in municipal waste. This product has been designed to enable proper reuse of parts and recycling. This symbol of the crossed out wheeled bin indicates that the product (electrical and electronic equipment) should not be placed in municipal waste. Check local regulations for disposal of electronic products.

DO NOT throw the mercury-containing button cell battery in municipal waste. This symbol of the crossed out wheeled bin indicates that the battery should not be placed in municipal waste.

ASUS Recycling/Takeback Services

ASUS recycling and takeback programs come from our commitment to the highest standards for protecting our environment. We believe in providing solutions for you to be able to responsibly recycle our products, batteries, other components as well as the packaging materials. Please go to http://csr.asus.com/english/Takeback.htm for detailed recycling information in different regions.

Regional notice for California

⚠ WARNING

Cancer and Reproductive Harm -
www.P65Warnings.ca.gov

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English ASUSTeK Computer Inc. hereby declares that this device is in compliance with the essential requirements and other relevant provisions of related Directives. Full text of EU declaration of conformity is available at: www.asus.com/support

Français AsusTek Computer Inc. déclare par la présente que cet appareil est conforme aux critères essentiels et autres clauses pertinentes des directives concernées. La déclaration de conformité de l'UE peut être téléchargée à partir du site Internet suivant : www.asus.com/support

Deutsch ASUSTeK Computer Inc. erklärt hiermit, dass dieses Gerät mit den wesentlichen Anforderungen und anderen relevanten Bestimmungen der zugehörigen Richtlinien übereinstimmt. Der gesamte Text der EU-Konformitätserklärung ist verfügbar unter: www.asus.com/support

Italiano ASUSTeK Computer Inc. con la presente dichiara che questo dispositivo è conforme ai requisiti essenziali e alle altre disposizioni pertinenti con le direttive correlate. Il testo completo della dichiarazione di conformità UE è disponibile all'indirizzo: www.asus.com/support

Русский Компания ASUS заявляет, что это устройство соответствует основным требованиям и другим соответствующим условиям соответствующих директив. Подробную информацию, пожалуйста, смотрите на www.asus.com/support

Български С настоящото ASUSTeK Computer Inc. декларира, че това устройство е в съответствие със съществените изисквания и другите приложими постановления на свързаните директиви. Пълният текст на декларацията за съответствие на ЕС е достъпна на адрес: www.asus.com/support

Hrvatski ASUSTeK Computer Inc. ovim izjavljuje da je ovaj uređaj sukladan s bitnim zahtjevima i ostalim odgovarajućim odredbama vezanih direktiva. Cijeli tekst EU izjave o sukladnosti dostupan je na: www.asus.com/support

Čeština Společnost ASUSTeK Computer Inc. tímto prohlašuje, že toto zařízení splňuje základní požadavky a další příslušná ustanovení souvisejících směrnic. Plné znění prohlášení o shodě EU je k dispozici na adrese: www.asus.com/support

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Eesti Käesolevaga kinnitab ASUSTeK Computer Inc, et see seade vastab asjakohaste direktiivide oluliste nõuetele ja teistele asjassepuutuvatele sätetele. EL vastavusdeklaratsiooni täielik tekst on saadaval järgmisel aadressil: www.asus.com/support

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Ελληνικά Με το παρόν, η AsusTek Computer Inc. δηλώνει ότι αυτή η συσκευή συμμορφώνεται με τις θεμελιώδεις απαιτήσεις και άλλες σχετικές διατάξεις των Οδηγιών της ΕΕ. Το πλήρες κείμενο της δήλωσης συμβατότητας είναι διαθέσιμο στη διεύθυνση: www.asus.com/support

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Português A ASUSTeK Computer Inc. declara que este dispositivo está em conformidade com os requisitos essenciais e outras disposições relevantes das Diretivas relacionadas. Texto integral da declaração da UE disponível em: www.asus.com/support

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Srpski ASUSTeK Computer Inc. ovim izjavljuje da je ovaj uređaj u saglasnosti sa osnovnim zahtevima i drugim relevantnim odredbama povezanih Direktiva. Pun tekst EU deklaracije o usaglašenosti je dostupan da adresi: www.asus.com/support

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Slovenščina ASUSTeK Computer Inc. izjavlja, da je ta naprava skladna z bistvenimi zahtevami in drugimi ustreznimi določbami povezanih direktiv. Celotno besedilo EU-izjave o skladnosti je na voljo na spletnem mestu: www.asus.com/support

Español Por la presente, ASUSTeK Computer Inc. declara que este dispositivo cumple los requisitos básicos y otras disposiciones pertinentes de las directivas relacionadas. El texto completo de la declaración de la UE de conformidad está disponible en: www.asus.com/support

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Bosanski ASUSTeK Computer Inc. ovim izjavljuje da je ovaj uređaj usklađen sa bitnim zahtjevima i ostalim odgovarajućim odredbama vezanih direktiva. Cijeli tekst EU izjave o usklađenosti dostupan je na: www.asus.com/support

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