

**ASUS**<sup>®</sup>

# Motherboard

**ROG STRIX X570-E  
GAMING WIFI II**



**Copyright © 2021 ASUSTeK COMPUTER INC. All Rights Reserved.**

No part of this manual, including the products and software described in it, may be reproduced, transmitted, transcribed, stored in a retrieval system, or translated into any language in any form or by any means, except documentation kept by the purchaser for backup purposes, without the express written permission of ASUSTeK COMPUTER INC. ("ASUS").

Product warranty or service will not be extended if: (1) the product is repaired, modified or altered, unless such repair, modification or alteration is authorized in writing by ASUS; or (2) the serial number of the product is defaced or missing.

ASUS PROVIDES THIS MANUAL "AS IS" WITHOUT WARRANTY OF ANY KIND, EITHER EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE IMPLIED WARRANTIES OR CONDITIONS OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. IN NO EVENT SHALL ASUS, ITS DIRECTORS, OFFICERS, EMPLOYEES OR AGENTS BE LIABLE FOR ANY INDIRECT, SPECIAL, INCIDENTAL, OR CONSEQUENTIAL DAMAGES (INCLUDING DAMAGES FOR LOSS OF PROFITS, LOSS OF BUSINESS, LOSS OF USE OR DATA, INTERRUPTION OF BUSINESS AND THE LIKE), EVEN IF ASUS HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES ARISING FROM ANY DEFECT OR ERROR IN THIS MANUAL OR PRODUCT.

SPECIFICATIONS AND INFORMATION CONTAINED IN THIS MANUAL ARE FURNISHED FOR INFORMATIONAL USE ONLY, AND ARE SUBJECT TO CHANGE AT ANY TIME WITHOUT NOTICE, AND SHOULD NOT BE CONSTRUED AS A COMMITMENT BY ASUS. ASUS ASSUMES NO RESPONSIBILITY OR LIABILITY FOR ANY ERRORS OR INACCURACIES THAT MAY APPEAR IN THIS MANUAL, INCLUDING THE PRODUCTS AND SOFTWARE DESCRIBED IN IT.

Products and corporate names appearing in this manual may or may not be registered trademarks or copyrights of their respective companies, and are used only for identification or explanation and to the owners' benefit, without intent to infringe.

# Contents

Safety information.....	v
About this guide.....	vi
ROG STRIX X570-E GAMING WIFI II specifications summary.....	vii
Package contents.....	xii
Installation tools and components.....	xiii

## Chapter 1: Product Introduction

1.1 Before you proceed.....	1-1
1.2 Motherboard layout.....	1-2

## Chapter 2: Basic Installation

2.1 Building your PC system.....	2-1
2.1.1 CPU installation.....	2-1
2.1.2 Cooling system installation.....	2-2
2.1.3 DIMM installation.....	2-5
2.1.4 M.2 installation.....	2-6
2.1.5 Motherboard installation.....	2-9
2.1.6 ATX power connection.....	2-10
2.1.7 SATA device connection.....	2-11
2.1.8 Front I/O connector.....	2-12
2.1.9 Expansion card installation.....	2-13
2.1.10 Wi-Fi antenna installation.....	2-14
2.2 BIOS update utility.....	2-15
2.3 Motherboard rear and audio connections.....	2-17
2.3.1 Rear I/O connection.....	2-17
2.3.2 Audio I/O connections.....	2-18
2.4 Starting up for the first time.....	2-21
2.4 Turning off the computer.....	2-21

## Chapter 3: BIOS and RAID Support

3.1 Knowing BIOS.....	3-1
3.2 BIOS setup program.....	3-2
3.3 ASUS EZ Flash 3.....	3-3
3.4 ASUS CrashFree BIOS 3.....	3-4
3.5 RAID configurations.....	3-5

## Appendix

Q-Code table.....	A-1
Notices.....	A-5
Warranty.....	A-12

**ASUS contact information..... A-14**  
**Service and Support ..... A-14**

# 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 devices on it, 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 become wet.
- Place the product on a stable surface.
- If you encounter technical problems with the product, contact a qualified service technician or your retailer.
- Your motherboard should only be used in environments with ambient temperatures between 0°C and 40°C.

## 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 description of the switches, jumpers, and connectors on the motherboard.
- **Chapter 2: Basic Installation**  
This chapter lists the hardware setup procedures that you have to perform when installing system components.
- **Chapter 3: BIOS and RAID Support**  
This chapter tells how to boot into the BIOS, upgrade BIOS using the EZ Flash Utility and support on RAID.

## Where to find more information

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

1. **ASUS website**  
The ASUS website ([www.asus.com](http://www.asus.com)) provides updated information on ASUS hardware and software products.
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.



**CAUTION:** Information to prevent damage to the components and injuries to yourself when trying to complete a task.



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



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

## ROG STRIX X570-E GAMING WIFI II specifications summary

<b>CPU</b>	<p><b>AMD AM4 Socket for AMD Ryzen™ 5000, 3000 and 2000 Series/ 5000, 4000, 3000 and 2000 G-Series Desktop Processors*</b></p> <p>* Refer to <a href="http://www.asus.com">www.asus.com</a> for CPU support list.</p>
<b>Chipset</b>	AMD X570 Chipset
<b>Memory</b>	<p><b>AMD Ryzen™ 5000 Series/ 3000 Series Desktop Processors</b></p> <p>- 4 x DIMM, Max. 128GB, DDR4 4600(O.C.)/4400(O.C.)/4266(O.C.)/4133(O.C.)/4000(O.C.)/3866(O.C.)/3733(O.C.)/3600(O.C.)/3466(O.C.)/3400(O.C.)/3200/3000/2933/2800/2666/2400/2133, un-buffered memory</p> <p><b>AMD Ryzen™ 5000 and 4000 G-Series Processors</b></p> <p>- 4 x DIMM, Max. 128GB, DDR4 5100(O.C.)/4800(O.C.)/4600(O.C.)/4466(O.C.)/4400(O.C.)/4266(O.C.)/4133(O.C.)/4000(O.C.)/3866(O.C.)/3600(O.C.)/3466(O.C.)/3200/3000/2800/2666/2400/2133, un-buffered memory</p> <p><b>AMD Ryzen™ 2000 Series Desktop Processors</b></p> <p>- 4 x DIMM, max. 128GB, DDR4 3600(O.C.)/3466(O.C.)/3400(O.C.)/3200(O.C.)/3000(O.C.)/2933/2800/2666/2400/2133, un-buffered memory</p> <p><b>AMD Ryzen™ 2000 and 3000 G-Series Desktop Processors</b></p> <p>- 4 x DIMM, max. 128GB, DDR4 3200(O.C.)/3000(O.C.)/2933/2800/2666/2400/2133, un-buffered memory</p> <p>Dual Channel Memory Architecture</p> <p>* ECC Memory (ECC mode) support varies by CPU.</p> <p>* Refer to <a href="http://www.asus.com">www.asus.com</a> for the Memory QVL (Qualified Vendors Lists), and memory frequency support depends on the CPU types..</p>
<b>Graphics</b>	<p>1 x DisplayPort</p> <p>1 x HDMI® port</p> <p>- Supports HDMI® 2.0b with maximum resolution of 4096 x 2160 @60Hz</p> <p>- Supports DisplayPort 1.2 with maximum resolution of 4096 x 2160 @60Hz</p> <p>* VGA resolution support depends on processors' or graphic cards' resolution. For more details about the video input and output settings, please refer to the user manual.</p>
<b>Expansion slots</b>	<p><b>AMD Ryzen™ 5000 Series/ 3000 Series Desktop Processors</b></p> <p>2 x PCIe 4.0 x16 (x16 or dual x8)*</p> <p><b>AMD Ryzen™ 5000 G Series/ 4000 G-Series/ 2000 Series Processor</b></p> <p>2 x PCIe 3.0 x16 (x16 or dual x8)*</p> <p><b>AMD Ryzen™ 2000 G-Series/ 3000 G-Series Processor</b></p> <p>1 x PCIe 3.0 x16 (x8 mode)*</p> <p><b>AMD X570 Chipset</b></p> <p>1 x PCIe 4.0 x16 (supports x4 mode)</p> <p>2 x PCIe 4.0 x 1 slots</p> <p>* PCIe x16_3 slot shares bandwidth with PCIe x1_2.</p>
<b>Storage</b>	<p><b>Total supports 2 x M.2 slots and 8 x SATA 6Gb/s ports</b></p> <p><b>AMD Ryzen™ 5000 Series/ 3000 Series Desktop Processors</b></p> <p>- M.2_1 slot (Key M), type 2242/2260/2280/22110 (supports PCIe 4.0 x4 &amp; SATA modes)</p>

(continued on the next page)

# ROG STRIX X570-E GAMING WIFI II specifications summary

<p><b>Storage</b></p>	<p><b>AMD Ryzen™ 5000 G-Series/ 4000 G-Series/ 3000 G-Series/ 2000 G-Series/ 2000 Series Processors</b></p> <ul style="list-style-type: none"> <li>- M.2_1 slot (Key M), type 2242/2260/2280/22110 (supports PCIe 3.0 x4 &amp; SATA modes)</li> </ul> <p><b>AMD X570 Chipset</b></p> <ul style="list-style-type: none"> <li>- M.2_2 slot (Key M), type 2242/2260/2280/22110 (supports PCIe 4.0 x4 &amp; SATA modes)</li> <li>- 8 x SATA 6.0 Gb/s ports</li> <li>- Supports RAID 0,1,10</li> </ul>
<p><b>Ethernet</b></p>	<ul style="list-style-type: none"> <li>1 x Realtek 2.5Gb Ethernet</li> <li>1 x Intel® 1Gb Ethernet</li> <li>Anti-surge LANGuard</li> <li>ROG GameFirst Technology</li> </ul>
<p><b>Wireless &amp; Bluetooth</b></p>	<p>Wi-Fi 6E</p> <ul style="list-style-type: none"> <li>- 2 x 2 Wi-Fi 6E (802.11 a/b/g/n/ac/ax)</li> <li>- Supports 2.4/5/6GHz frequency band*</li> </ul> <p>Bluetooth v5.2</p> <p>* WiFi 6E 6GHz regulatory may vary between countries, and function will be ready in Windows 11 or later.</p>
<p><b>USB</b></p>	<p><b>AMD Ryzen™ 5000, 5000 G-Series, 4000 G-Series, and 3000 Series Desktop Processors</b></p> <ul style="list-style-type: none"> <li>- 4 x USB 3.2 Gen 2 ports (4 ports at back panel, Type-A)</li> </ul> <p><b>AMD Ryzen™ 3000 G-Series, 2000, and 2000 G-Series Desktop Processors</b></p> <ul style="list-style-type: none"> <li>- 4 x USB 3.2 Gen 1 ports (4 ports at back panel, Type-A)</li> </ul> <p><b>AMD X570 chipset</b></p> <ul style="list-style-type: none"> <li>- 1 x USB 3.2 Gen 2 front panel connector</li> <li>- 4 x USB 3.2 Gen 2 (at back panel, 3x Type-A, 1x Type-C®)</li> <li>- 2 x USB 3.2 Gen 1 ports (at front panel)</li> <li>- 4 x USB 2.0 ports (at front panel)</li> </ul>
<p><b>Audio</b></p>	<p><b>Realtek S1220A 7.1 Surround Sound High Definition Audio CODEC*</b></p> <ul style="list-style-type: none"> <li>- Impedance sense for front and rear headphone outputs</li> <li>- Internal audio Amplifier to enhance the highest quality sound for headphone and speakers</li> <li>- Supports: Jack-detection, Multi-streaming, Front Panel Jack-retasking</li> <li>- High quality 120 dB SNR stereo playback output and 113 dB SNR recording input (Line-in)</li> <li>- Supports up to 32-Bit/192 kHz playback*</li> </ul> <p><b>Audio Features</b></p> <ul style="list-style-type: none"> <li>- SupremeFX Shielding Technology</li> <li>- Gold-plated audio jacks</li> <li>- Rear optical S/PDIF out port</li> <li>- Premium audio capacitors</li> </ul>

(continued on the next page)

# ROG STRIX X570-E GAMING WIFI II specifications summary

Audio	<ul style="list-style-type: none"> <li>- Audio cover</li> <li>* Due to limitations in HDA bandwidth, 32-Bit/192kHz is not supported for 7.1 Surround Sound audio.</li> </ul>
Back Panel I/O Ports	<ul style="list-style-type: none"> <li>8 x USB 3.2 Gen 2 ports (7 x Type-A; 1 x USB Type-C®)</li> <li>1 x DisplayPort</li> <li>1 x HDMI® port</li> <li>1 x Wi-Fi Module</li> <li>1 x Intel® 1Gb I211-AT Ethernet port</li> <li>1 x Realtek 2.5Gb Ethernet port</li> <li>5 x Gold-plated audio jacks</li> <li>1 x Optical S/PDIF out port</li> <li>1 x BIOS FlashBack™ button</li> </ul>
Internal I/O Connectors	<p><b>Fan and Cooling related</b></p> <ul style="list-style-type: none"> <li>1 x 4-pin CPU Fan header</li> <li>1 x 4-pin CPU OPT Fan header</li> <li>1 x 4-pin AIO Pump header</li> <li>2 x 4-pin Chassis Fan headers</li> <li>1 x 4-pin M.2 Fan header</li> <li>1 x W_PUMP+ header</li> </ul> <p><b>Power related</b></p> <ul style="list-style-type: none"> <li>1 x 24-pin Main Power connector</li> <li>1 x 8-pin +12V Power connector</li> <li>1 x 4-pin +12V Power connector</li> </ul> <p><b>Storage related</b></p> <ul style="list-style-type: none"> <li>2 x M.2 slots (Key M)</li> <li>8 x SATA 6Gb/s ports</li> </ul> <p><b>USB</b></p> <ul style="list-style-type: none"> <li>1 x USB 3.2 Gen 2 connector (supports USB Type-C®)</li> <li>1 x USB 3.2 Gen 1 header supports additional 2 USB 3.2 Gen 1 ports</li> <li>2 x USB 2.0 headers support additional 4 USB 2.0 ports</li> </ul> <p><b>Miscellaneous</b></p> <ul style="list-style-type: none"> <li>2 x Addressable Gen 2 headers</li> <li>2 x AURA RGB headers</li> <li>1 x Clear CMOS header</li> <li>1 x Front Panel Audio header (AAFP)</li> <li>1 x SPI TPM header (14-1pin)</li> <li>1 x Speaker header</li> <li>1 x 10-1 pin System Panel header</li> <li>1 x Thermal Sensor header</li> </ul>
Special Features	<p><b>Extreme Engine Digi+</b></p> <ul style="list-style-type: none"> <li>- 5K Black Metallic Capacitors</li> </ul> <p><b>ASUS Q-Design</b></p> <ul style="list-style-type: none"> <li>- M.2 Q-Latch</li> </ul>

(continued on the next page)

# ROG STRIX X570-E GAMING WIFI II specifications summary

<b>Special Features</b>	<ul style="list-style-type: none"><li>- Q-Code</li><li>- Q-DIMM</li><li>- Q-LED (CPU [red], DRAM [yellow], VGA [white], Boot Device [yellow green])</li><li>- Q-Slot</li></ul> <b>ASUS Thermal Solution</b> <ul style="list-style-type: none"><li>- M.2 heatsink</li></ul> <b>ASUS EZ DIY</b> <ul style="list-style-type: none"><li>- BIOS FlashBack™ button</li><li>- BIOS FlashBack™ LED</li><li>- ProCool II</li><li>- Pre-mounted I/O shield</li><li>- SafeSlot</li></ul> <b>AURA Sync</b> <ul style="list-style-type: none"><li>- AURA RGB headers</li><li>- Addressable Gen 2 headers</li></ul>
<b>Software Features</b>	<b>ROG Exclusive Software</b> <ul style="list-style-type: none"><li>- RAMCache III</li><li>- ROG CPU-Z</li><li>- GameFirst V</li><li>- Sonic Studio III + Sonic Studio Virtual Mixer</li><li>- Sonic Radar III</li><li>- DTS® Sound Unbound</li><li>- Overwolf</li><li>- Anti-virus software</li></ul> <b>ASUS Exclusive Software</b> <p>Armoury Crate</p> <ul style="list-style-type: none"><li>- AIDA64 Extreme (60 days free trial)</li><li>- AURA Creator</li><li>- AURA Sync</li><li>- Two-Way AI Noise Cancelation</li></ul> <p>AI Suite 3</p> <ul style="list-style-type: none"><li>- 5-Way Optimization by Dual Intelligent Processors 5</li></ul> <p>TPU</p> <p>EPU</p> <p>DIGI+ VRM</p> <p>Fan Xpert 4</p> <p>Turbo app</p> <ul style="list-style-type: none"><li>- EZ update</li></ul> <p>DAEMON Tools</p> <p>WinRAR</p>

*(continued on the next page)*

# ROG STRIX X570-E GAMING WIFI II specifications summary

<b>Software Features</b>	<b>UEFI BIOS</b> ASUS EZ DIY - ASUS CrashFree BIOS 3 - ASUS EZ Flash 3 - ASUS UEFI BIOS EZ Mode Dynamic OC Switcher
<b>BIOS</b>	256 Mb Flash ROM, UEFI AMI BIOS
<b>Manageability</b>	WOL by PXE
<b>Operating System Support</b>	Windows® 11 64-bit, Windows® 10 64-bit
<b>Form Factor</b>	ATX Form Factor, 12"x 9.6" (30.5 cm x 24.4 cm)



Specifications are subject to change without notice.

## Package contents

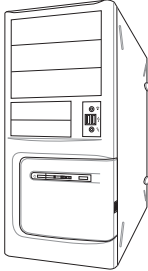
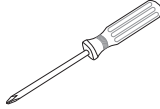

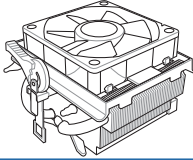
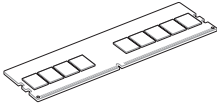
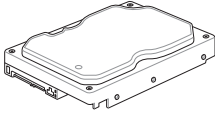
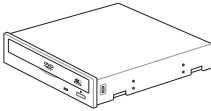
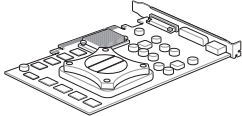
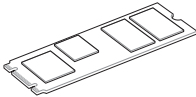

Check your motherboard package for the following items.

Motherboard	1 x ROG STRIX X570-E GAMING WIFI II motherboard
Cables	4 x SATA 6Gb/s cables
	1 x Thermistor cable pack
Miscellaneous	1 x ASUS Wi-Fi moving antennas
	1 x Cable ties pack
	1 x M.2 Rubber package
	1 x M.2 Q-Latch package
	1 x ROG key chain
	1 x ROG Strix stickers
Installation Media	1 x ROG Strix thank you card
	1 x Support DVD
	1 x User guide
Documentation	



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

# Installation tools and components

	
<p><b>PC chassis</b></p>	<p><b>Phillips (cross) screwdriver</b></p>
	
<p><b>AMD AM4 CPU</b></p>	<p><b>AMD AM4 compatible CPU Fan</b></p>
	
<p><b>DDR4 DIMM</b></p>	<p><b>SATA hard disk drive</b></p>
	
<p><b>SATA optical disc drive (optional)</b></p>	<p><b>Graphics card (optional)</b></p>
	
<p><b>M.2 SSD module (optional)</b></p>	<p><b>1 Bag of screws</b></p>



The tools and components in the table above are not included in the motherboard package.



# Product Introduction

# 1

## 1.1 Before you proceed

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



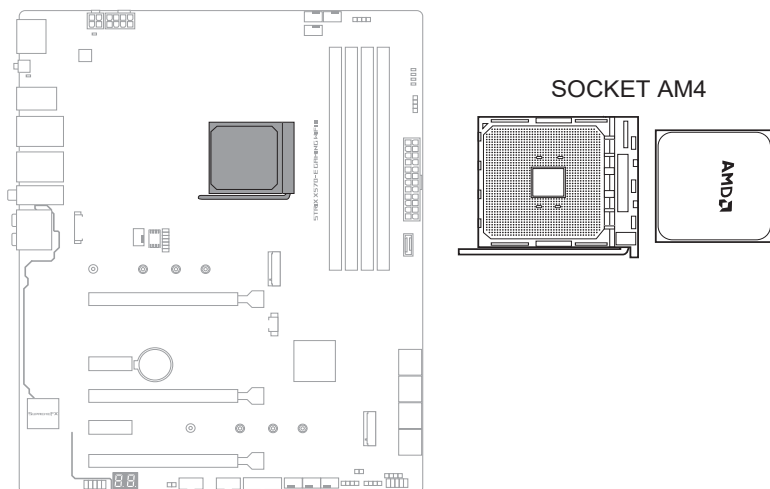
- 
- Unplug the power cord from the wall socket before touching any component.
  - Before handling components, use a grounded wrist strap or touch a safely grounded object or a metal object, such as the power supply case, to avoid damaging them due to static electricity.
  - Hold components by the edges to avoid touching the ICs on them.
  - Whenever you uninstall any component, place it on a grounded antistatic pad or in the bag that came with the component.
  - 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.
-



Layout contents	Page
1. CPU socket	1-4
2. DIMM slots	1-5
3. Expansion slots	1-7
4. Fan and Pump headers	1-8
5. Power connectors	1-9
6. M.2 slots	1-10
7. SATA 6 Gb/s ports	1-11
8. USB 3.2 Gen 2 Type-C® Front Panel connector	1-12
9. USB 3.2 Gen 1 header	1-12
10. USB 2.0 headers	1-13
11. Addressable Gen 2 headers	1-14
12. AURA RGB headers	1-15
13. Clear CMOS header	1-16
14. Front Panel Audio header	1-17
15. System Panel header	1-18
16. Thermal Sensor header	1-19
17. TPM header	1-19
18. Q-Code LED	1-20
19. Q-LEDs	1-20
20. BIOS FlashBack™ LED	1-21
21. 8-pin Power Plug LED	1-21

## 1. CPU socket

The motherboard comes with an AMD AM4 Socket for AMD Ryzen™ 5000, 3000 and 2000 Series/ 5000, 4000, 3000 and 2000 G-Series Desktop Processors.



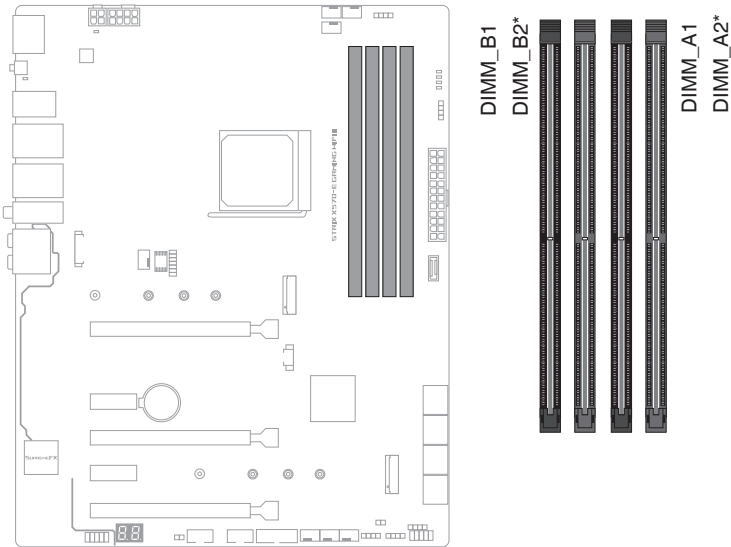
- The AM4 socket has a different pinout design. Ensure that you use a CPU designed for the AM4 socket.
- The CPU fits in only one correct orientation. **DO NOT** force the CPU into the socket to prevent bending the connectors on the socket and damaging the CPU.
- Ensure that all power cables are unplugged before installing the CPU.

## 2. DIMM slots

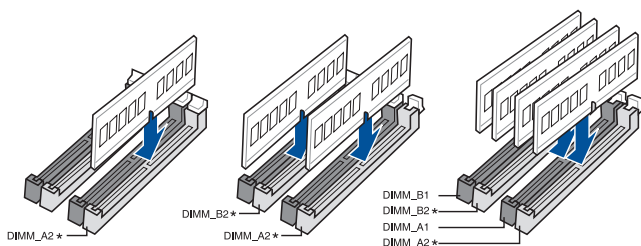
The motherboard comes with Dual Inline Memory Modules (DIMM) slots designed for DDR4 (Double Data Rate 4) memory modules.



A DDR4 memory 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.



## Recommended memory configurations



### Memory configurations

You may install 2 GB, 4 GB, 8 GB, 16 GB and 32GB unbuffered DDR4 DIMMs into the DIMM sockets.



---

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 quad-channel configuration. Any excess memory from the higher-sized channel is then mapped for single-channel operation.

---

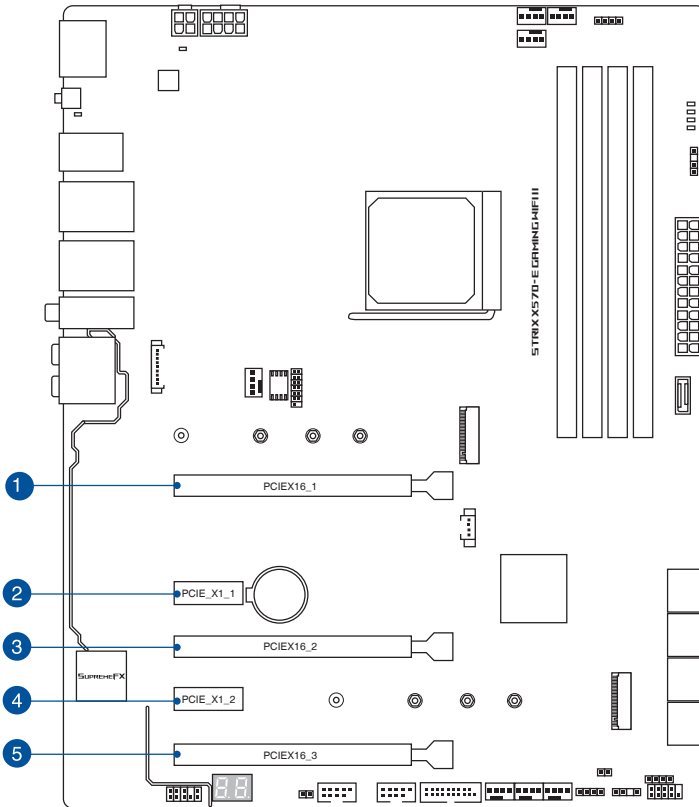


- The default memory operation frequency is dependent on its Serial Presence Detect (SPD), which is the standard way of accessing information from a memory module. Under the default state, some memory modules for overclocking may operate at a lower frequency than the vendor-marked value.
  - For system stability, use a more efficient memory cooling system to support a full memory load or overclocking condition.
  - Always install the DIMMS with the same CAS Latency. For an optimum compatibility, we recommend that you install memory modules of the same version or data code (D/C) from the same vendor. Check with the vendor to get the correct memory modules.
  - Visit the ASUS website for the latest QVL.
-

### 3. Expansion slots



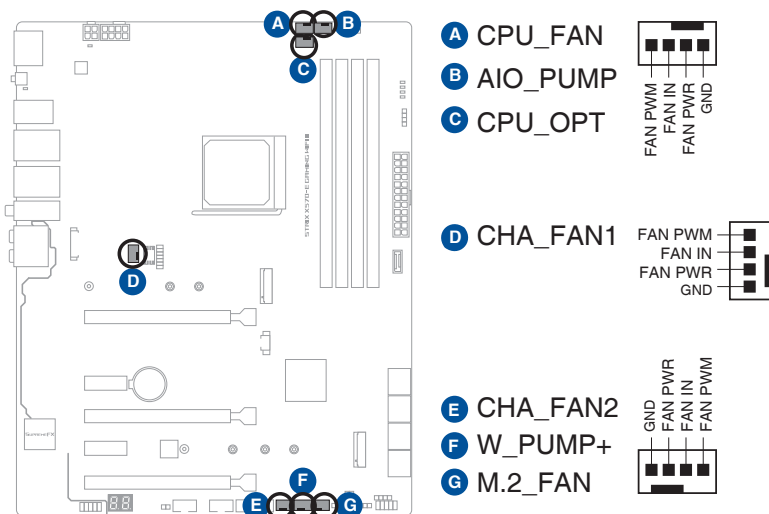
Unplug the power cord before adding or removing expansion cards. Failure to do so may cause you physical injury and damage motherboard components.



PCIe x16\_3 slot shares bandwidth with PCIe x1\_2.

#### 4. Fan and Pump headers

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



- DO NOT forget to connect the fan cables to the fan headers. Insufficient air flow inside the system may damage the motherboard components. These are not jumpers! Do not place jumper caps on the fan headers!
- Ensure to fully insert the 4-pin CPU fan cable to the CPU fan header.

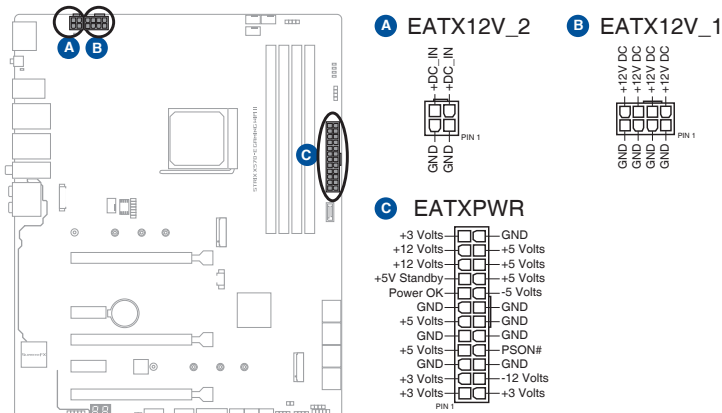


- Connect the pump cable from the all-in-one cooler (AIO cooler) to the AIO\_PUMP header, and connect the fan cables to the CPU\_FAN and/or CPU\_OPT header(s).
- W\_PUMP+ function support depends on water cooling device.

Header	Max. Current	Max. Power	Default Speed	Shared Control
CPU_FAN	1A	12W	Q-Fan Controlled	A
CPU_OPT	1A	12W	Q-Fan Controlled	A
CHA_FAN1	1A	12W	Q-Fan Controlled	-
CHA_FAN2	1A	12W	Q-Fan Controlled	-
AIO_PUMP	1A	12W	Full Speed	-
W_PUMP+	3A	36W	Full Speed	-
M.2_FAN	1A	12W	Q-Fan Controlled	-

## 5. Power connectors

These Power connectors allow you to connect your motherboard to a power supply. The power supply plugs are designed to fit in only one orientation. Find the proper orientation and push down firmly until the power supply plugs are fully inserted.



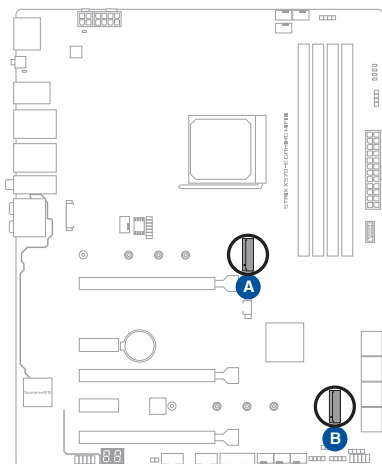
Ensure to connect the 8-pin power plug.



- 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 350W.
- We recommend that you use a PSU with a higher power output when configuring a system with more power-consuming devices. The system may become unstable or may not boot up if the power is inadequate.
- If you want to use two or more high-end PCI Express x16 cards, use a PSU with 1000W power or above to ensure the system stability.

## 6. M.2 slots (M.2\_1; M.2\_2)

These slots allow you to install M.2 SSD modules.



- A** M.2\_1(SOCKET3)
- B** M.2\_2(SOCKET3)



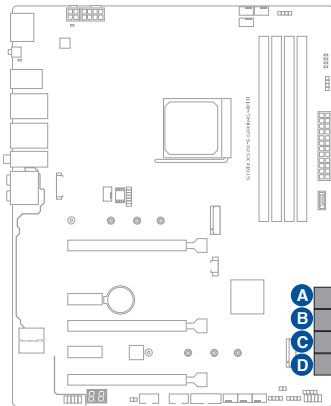
- **AMD Ryzen™ 5000 Series/ 3000 Series Desktop Processors:**  
M.2\_1 slot (Key M), type 2242/2260/2280/22110 (supports PCIe 4.0 x4 & SATA modes)
- **AMD Ryzen™ 5000 G-Series/4000 G-Series/3000 G-Series/2000 G-Series/2000 Series Processors:**  
M.2\_1 slot (Key M), type 2242/2260/2280/22110 (supports PCIe 3.0 x4 & SATA modes)
- **AMD X570 Chipset:**  
M.2\_2 slot (Key M), type 2242/2260/2280/22110 (supports PCIe 4.0 x4 & SATA modes)



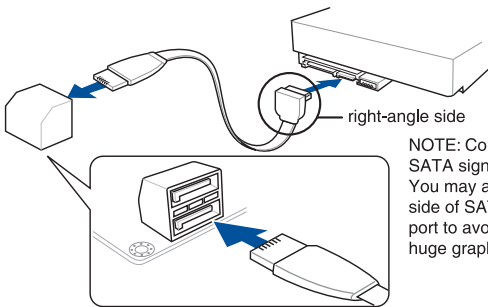
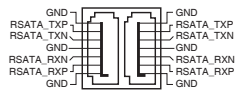
- The M.2 SSD module is purchased separately.

## 7. SATA 6Gb/s ports

The SATA 6Gb/s ports allow you to connect SATA devices such as optical disc drives and hard disk drives via SATA cables.



- A SATA6G\_1  
SATA6G\_2
- B SATA6G\_3  
SATA6G\_4
- C SATA6G\_5  
SATA6G\_6
- D SATA6G\_7  
SATA6G\_8



NOTE: Connect the right-angle side of SATA signal cable to SATA device. You may also connect the right-angle side of SATA cable to the onboard SATA port to avoid mechanical conflict with huge graphics cards.



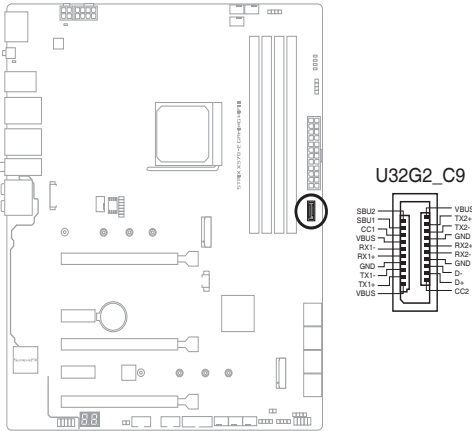
If you installed SATA storage devices, you can create a RAID 0, 1, and 10 configuration through the onboard AMD X570 chipset.



- These connectors are set to **[AHCI]** by default. If you intend to create a Serial ATA RAID set using these connectors, set the SATA Mode Selection item in the BIOS to **[RAID]**.
- Before creating a RAID set, refer to the **RAID Configuration Guide**. You can download the **RAID Configuration Guide** from the ASUS website.

## 8. USB 3.2 Gen 2 Type-C® Front Panel connector

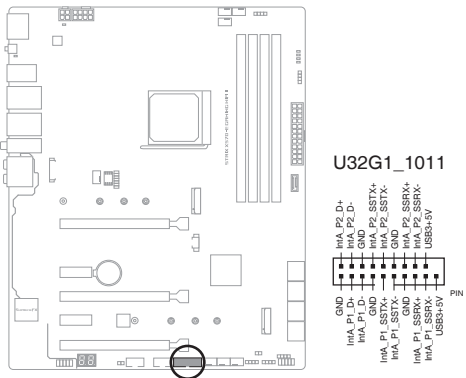
The USB 3.2 Gen 2 Type-C® Front Panel connector allows you to connect a USB 3.2 Gen 2 Type-C® module for additional USB 3.2 Gen 2 Type-C® ports. The USB 3.2 Gen 2 Type-C® connector provides data transfer speeds of up to 10 Gb/s.



The USB 3.2 Gen 2 module is purchased separately.

## 9. USB 3.2 Gen 1 header

The USB 3.2 Gen 1 header allows you to connect a USB 3.2 Gen 1 module for additional USB 3.2 Gen 1 ports. The USB 3.2 Gen 1 header provides data transfer speeds of up to 5 Gb/s.



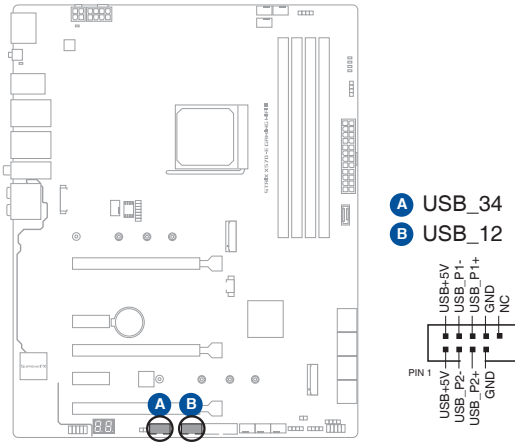
The USB 3.2 Gen 1 module is purchased separately.



The plugged USB 3.2 Gen 1 device may run on xHCI or EHCI mode depending on the operating system's setting.

## 10. USB 2.0 headers

The USB 2.0 headers allow you to connect USB modules for additional USB 2.0 ports. The USB 2.0 headers provide data transfer speeds of up to 480 Mb/s.



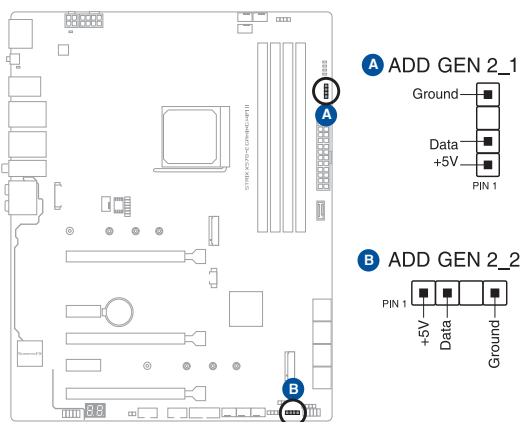
DO NOT connect a 1394 cable to the USB connectors. Doing so will damage the motherboard!



The USB 2.0 module is purchased separately.

## 11. Addressable Gen 2 headers

The Addressable Gen 2 headers allow you to connect individually addressable RGB WS2812B LED strips or WS2812B based LED strips.



The Addressable Gen 2 header supports WS2812B addressable RGB LED strips (5V/Data/Ground), with a maximum power rating of 3A (5V) and the addressable headers on this board can handle a combined maximum of 500 LEDs.



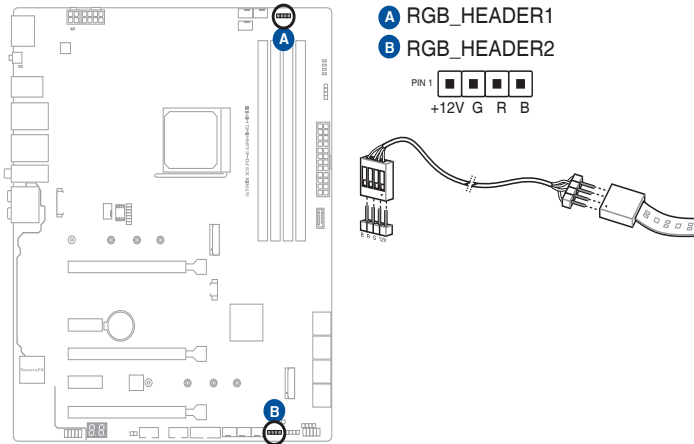
Before you install or remove any component, ensure that the power supply is switched off or the power cord is detached from the power supply. Failure to do so may cause severe damage to the motherboard, peripherals, or components.



- Actual lighting and color will vary with LED strip.
- If your LED strip does not light up, check if the addressable RGB LED strip is connected in the correct orientation, and the 5V connector is aligned with the 5V header on the motherboard.
- The addressable RGB LED strip will only light up when the system is powered on.
- The addressable RGB LED strip is purchased separately.

## 12. AURA RGB headers

The RGB headers allow you to connect RGB LED strips.



The RGB header supports 5050 RGB multi-color LED strips (12V/G/R/B), with a maximum power rating of 3A (12V).



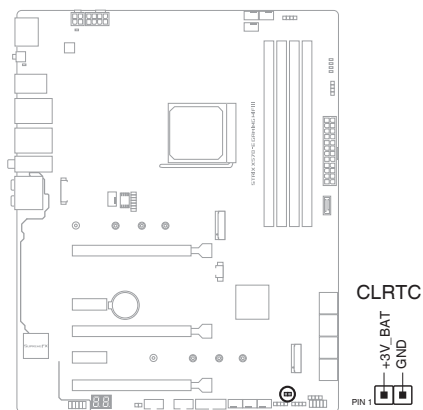
Before you install or remove any component, ensure that the power supply is switched off or the power cord is detached from the power supply. Failure to do so may cause severe damage to the motherboard, peripherals, or components.



- Actual lighting and color will vary with LED strip.
- If your LED strip does not light up, check if the RGB LED extension cable and the RGB LED strip is connected in the correct orientation, and the 12V connector is aligned with the 12V header on the motherboard.
- The LED strip will only light up when the system is powered on.
- The LED strip is purchased separately.

### 13. Clear CMOS header

The Clear CMOS header allows you to clear the Real Time Clock (RTC) RAM in the CMOS, which contains the date, time, system passwords, and system setup parameters.



#### 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.



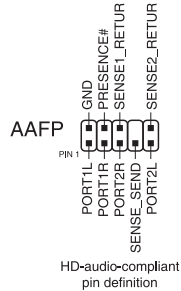
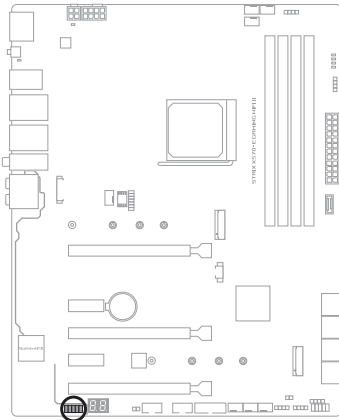
DO NOT short-circuit the pins except when clearing the RTC RAM. Short-circuiting or placing a jumper cap will cause system boot failure!



If the steps above do not help, remove the onboard button cell battery and move the jumper again to clear the CMOS RTC RAM data. After clearing the CMOS, reinstall the button cell battery.

#### 14. Front Panel Audio header

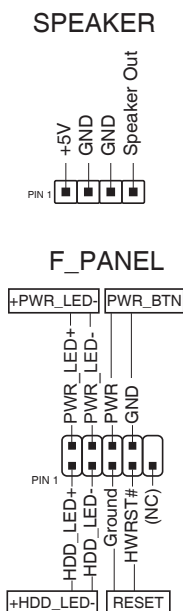
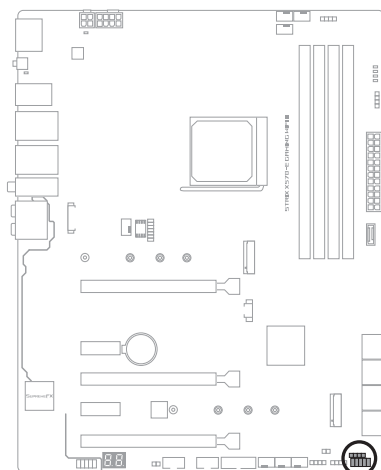
The front panel audio header is for a chassis-mounted front panel audio I/O module that supports HD Audio. Connect one end of the front panel audio I/O module cable to this header.



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.

## 15. System Panel header

The System Panel header supports several chassis-mounted functions.



- **System Power LED header (PWR\_LED)**

The 2-pin and/or 3-1 pin headers allow you to connect the System Power LED. The System Power LED lights up when the system is connected to a power source, or when you turn on the system power, and blinks when the system is in sleep mode.

- **Storage Device Activity LED header (HDD\_LED)**

The 2-pin header allows you to connect the Storage Device Activity LED. The Storage Device Activity LED lights up or blinks when data is read from or written to the storage device or storage device add-on card.

- **System Warning Speaker header (SPEAKER)**

The 4-pin header allows you to connect the chassis-mounted system warning speaker. The speaker allows you to hear system beeps and warnings.

- **Power Button/Soft-off Button header (PWR\_BTN)**

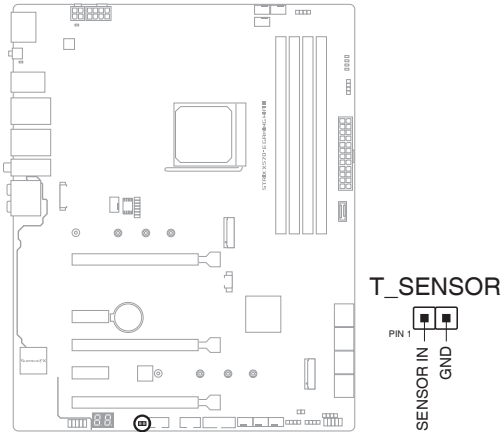
The 3-1 pin header allows you to connect the system power button. Press the power button to power up the system, or put the system into sleep or soft-off mode (depending on the operating system settings).

- **Reset button header (RESET)**

The 2-pin header allows you to connect the chassis-mounted reset button. Press the reset button to reboot the system.

## 16. Thermal Sensor header

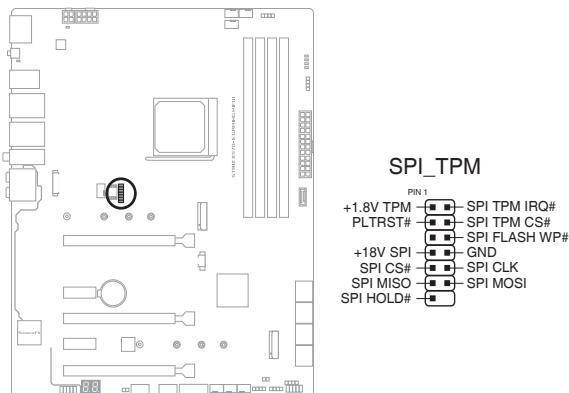
The Thermal Sensor header allows you to connect a sensor to monitor the temperature of the devices and the critical components inside the motherboard. Connect the thermal sensor and place it on the device or the motherboard's component to detect its temperature.



The thermal sensor is purchased separately.

## 17. TPM header

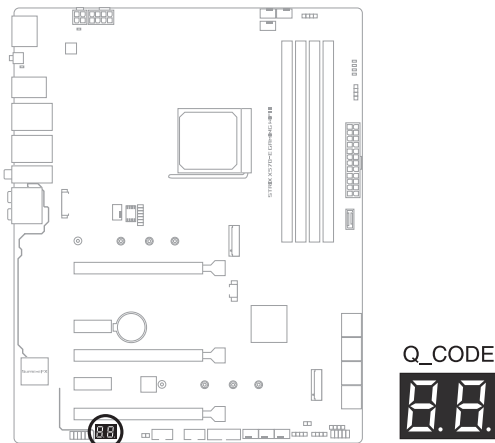
The TPM header allows you to connect a TPM module, which securely stores keys, digital certificates, passwords, and data. A TPM system also helps enhance network security, protect digital identities, and ensures platform integrity.



The TPM module is purchased separately.

## 18. Q-Code LED

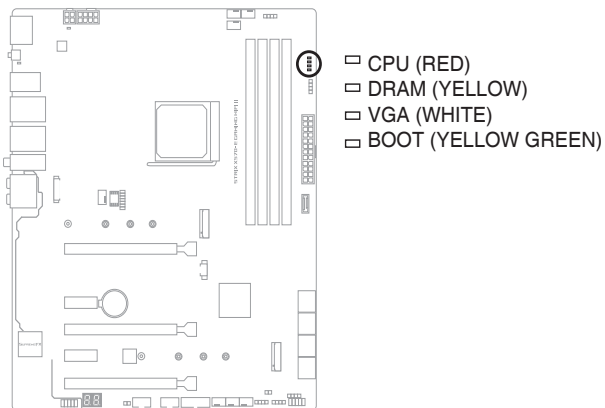
The Q-Code LED design provides you with a 2-digit error code that displays the system status.



- The Q-Code LEDs provide the most probable cause of an error code as a starting point for troubleshooting. The actual cause may vary from case to case.
- Please refer to the Q-Code table in the **Appendix** section for more details.

## 19. Q-LEDs

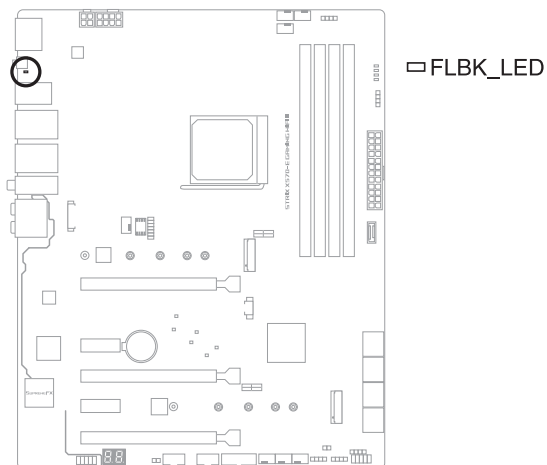
The Q-LEDs check key components (CPU, DRAM, VGA, and booting devices) during the motherboard booting process. If an error is found, the critical component's LED stays lit up until the problem is solved.



The Q-LEDs provide the most probable cause of an error code as a starting point for troubleshooting. The actual cause may vary from case to case.

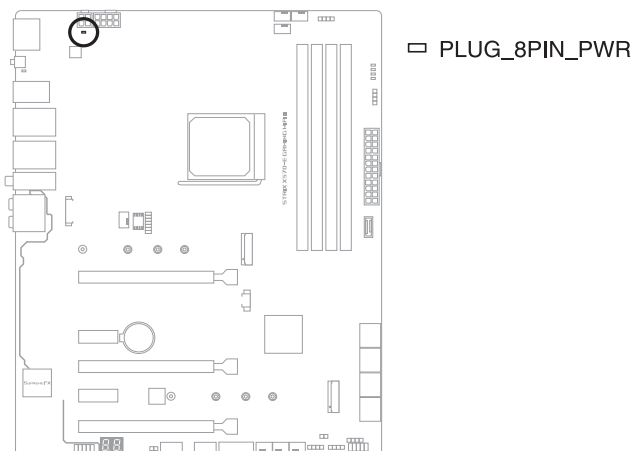
## 20. BIOS FlashBack™ LED

The FlashBack™ LED lights up or blinks to indicate the status of the BIOS FlashBack™ LED.



## 21. 8-pin Power Plug LED

The 8-pin Power Plug LED lights up to indicate that the 8-pin power plug is not connected.



# Basic Installation

# 2

## 2.1 Building your PC system



The diagrams in this section are for reference only. The motherboard layout may vary with models, but the installation steps are the same for all models.

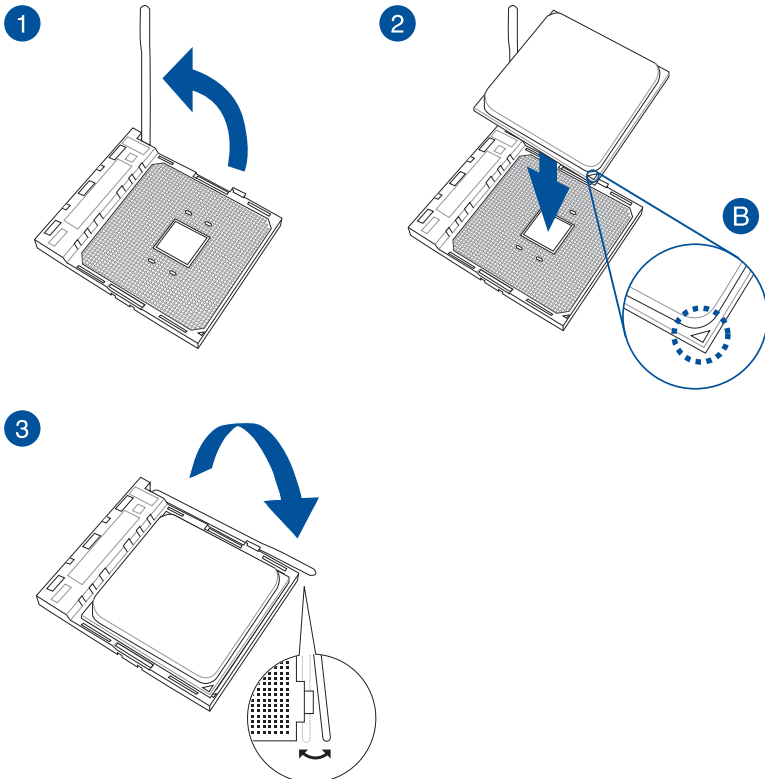
### 2.1.1 CPU installation



The AMD AM4 socket is compatible with AMD AM4 processors. Ensure you use a CPU designed for the AM4 socket. The CPU fits in only one correct orientation. **DO NOT** force the CPU into the socket to prevent bending the connectors on the socket and damaging the CPU!



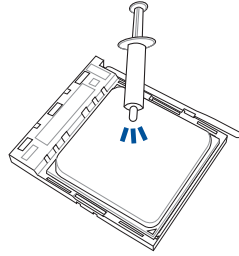
Unplug all power cables before installing the CPU.



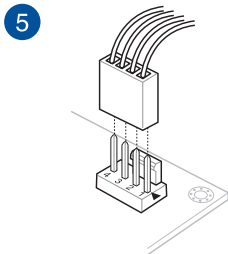
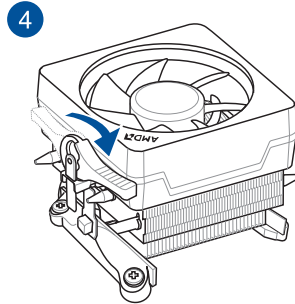
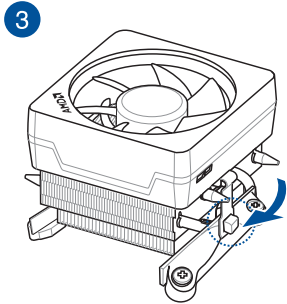
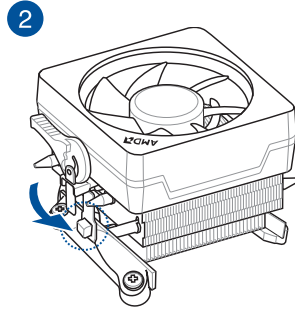
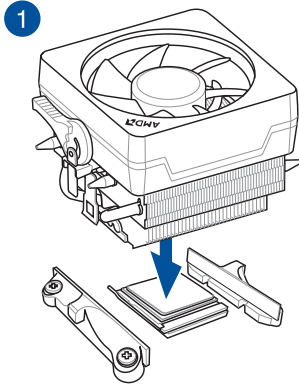
## 2.1.2 Cooling system installation



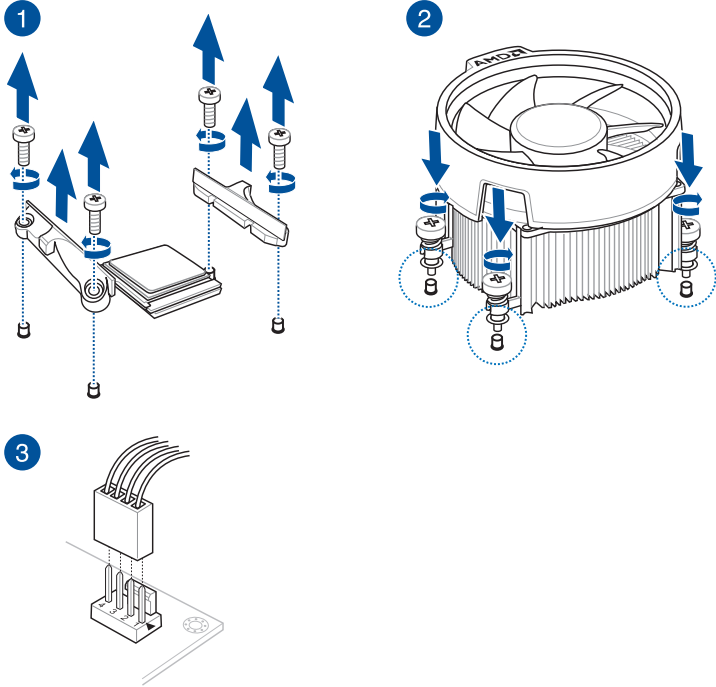
Apply the Thermal Interface Material to the CPU cooling system and CPU before you install the cooling system, if necessary.



### CPU heatsink and fan assembly Type 1



## CPU heatsink and fan assembly Type 2



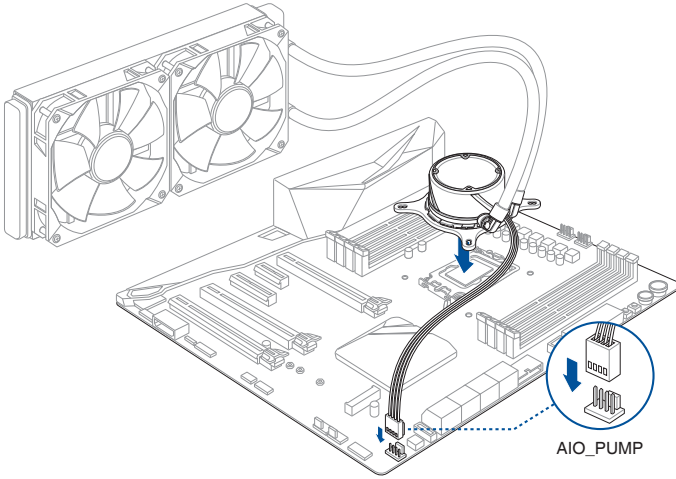
When using this type of CPU fan, remove the screws and the retention module only. Do not remove the plate on the bottom.

## To install an AIO cooler

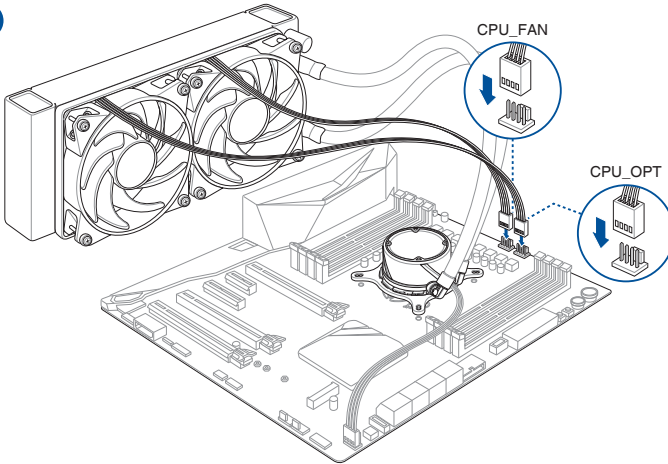


If you wish to install an AIO cooler, we recommend installing the AIO cooler after installing the motherboard into the chassis.

1

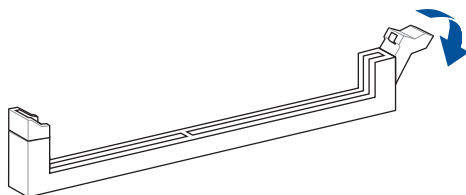


2

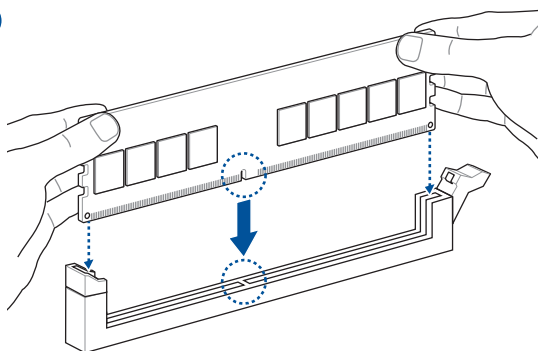


### 2.1.3 DIMM installation

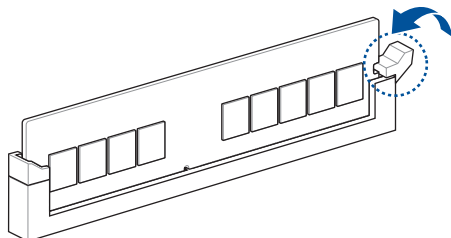
1



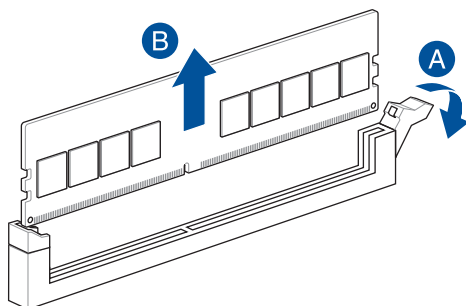
2



3



To remove a DIMM



## 2.1.4 M.2 installation

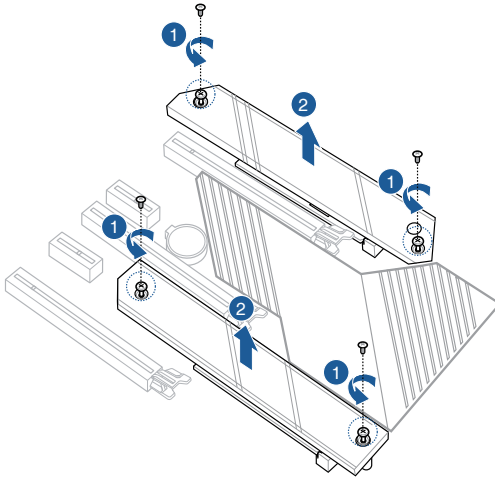


Supported M.2 type varies per motherboard.



- The illustrations only show the installation steps for a single M.2 slot, the steps are the same for the other M.2 slots if you wish to install an M.2 to another M.2 slot.
- Use a Phillips screwdriver when removing or installing the screws or screw stands mentioned in this section.
- The M.2 is purchased separately.

1. Loosen the screws from the M.2 heatsinks.
2. Lift and remove the heatsinks.



3. Install your M.2 to your M.2 slot. The steps may differ between installing M.2 of different lengths, please refer to the different types and their installation steps below:
  - **To install an M.2 to M.2\_1 and M.2\_2 slot**

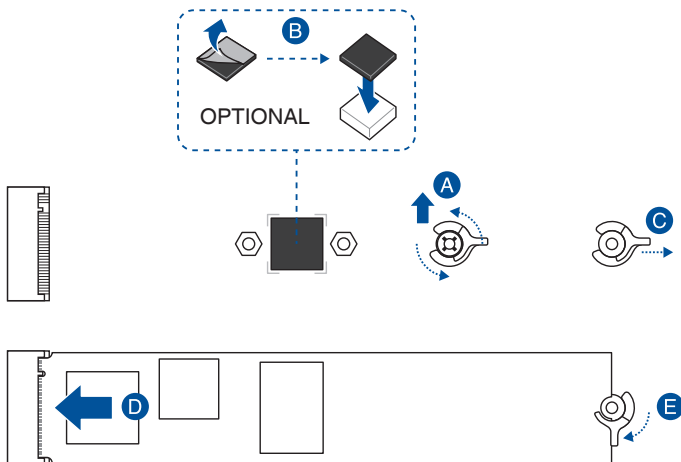
For 2280, 22110 length

- A. (optional) Remove the pre-installed removable M.2 Q-Latch screw at the 2280 length screw hole.



Follow step A only when you wish to install an 22110 length M.2 to M.2\_1.

- B. (optional) Install the bundled M.2 rubber pad if you are installing a single sided M.2 storage device. DO NOT install the bundled M.2 rubber pads when installing a double-sided M.2 storage device. The rubber pad installed by default is compatible with double sided M.2 storage devices.
- C. Rotate and adjust the M.2 Q-latch so that the handle points away from the M.2 slot.
- D. Install your M.2 to the M.2 slot.
- E. Rotate the M.2 Q-Latch clockwise to secure the M.2 in place.



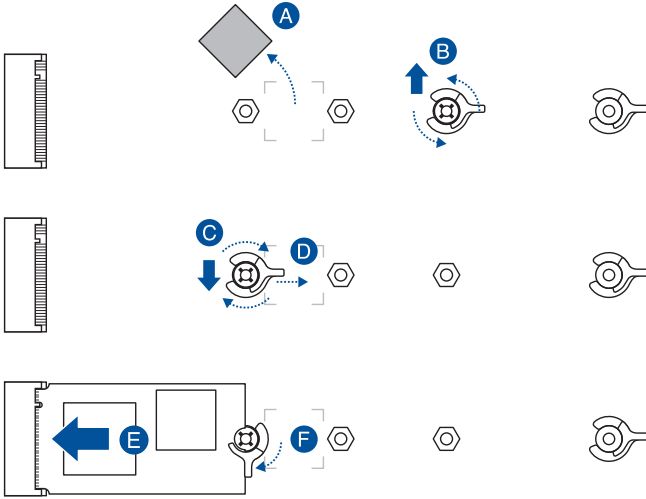
#### For 2242, 2260 length

- A. (optional) Remove the M.2 rubber pad.

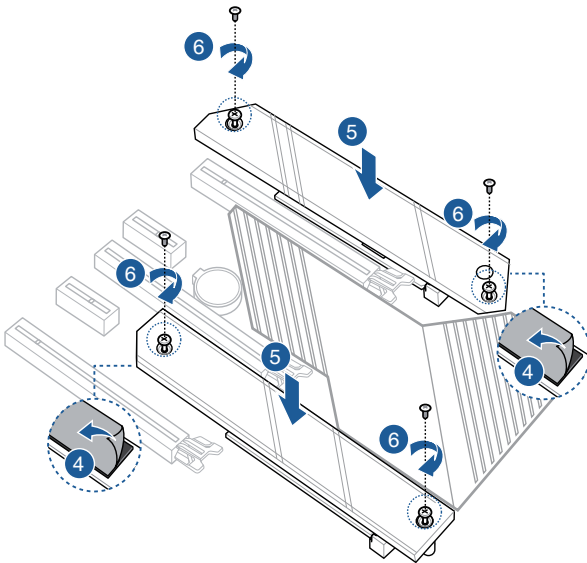
Follow this step only if you wish to install an M.2 to type 2242.

- B. (optional) If required, remove the pre-installed removable M.2 Q-Latch screw at the 2280 length screw hole.
- C. Install the M.2 Q-Latch to the M.2 length screw hole you wish to install your M.2 to.
- D. Rotate and adjust the M.2 Q-latch so that the handle points away from the M.2 slot.
- E. Install your M.2 to the M.2 slot.
- F. Rotate the M.2 Q-Latch clockwise to secure the M.2 in place.



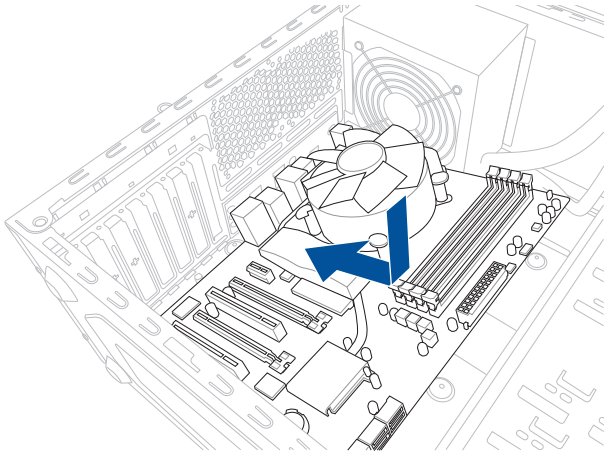


4. Remove the plastic film from the thermal pad on the bottom of the heatsink.
5. Replace the heatsink.
6. Secure the heatsink using the screws on the heatsink.

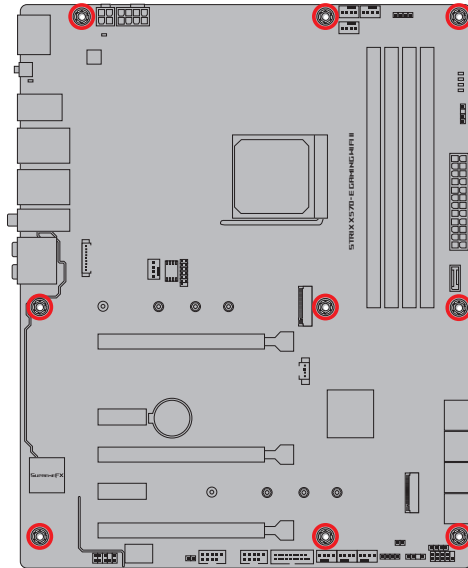
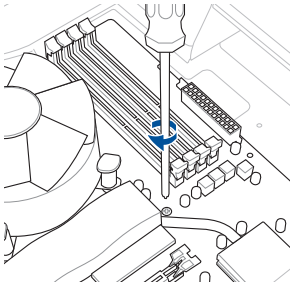


## 2.1.5 Motherboard installation

1. Place the motherboard into the chassis, ensuring that its rear I/O ports are aligned to the chassis' rear I/O panel.

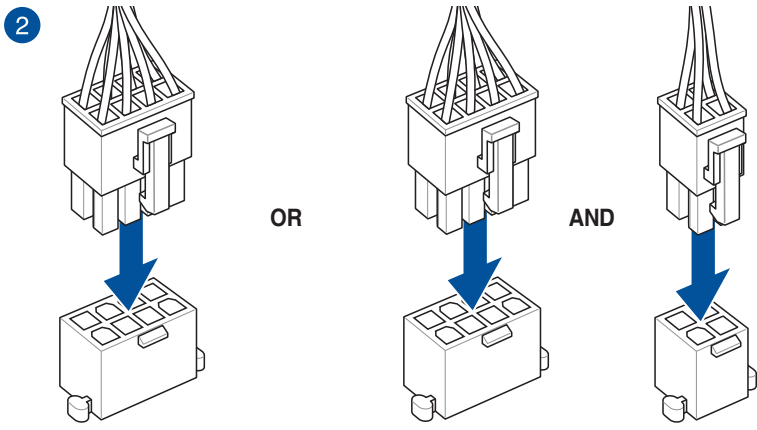
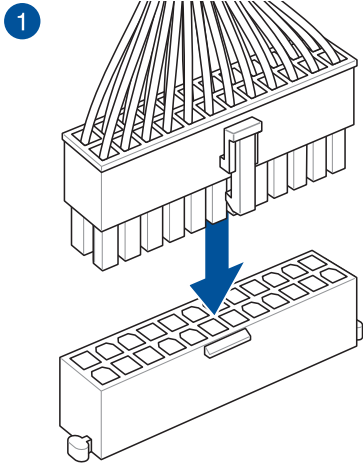


2. Place nine (9) screws into the holes indicated by circles to secure the motherboard to the chassis.



DO NOT over tighten the screws! Doing so can damage the motherboard.

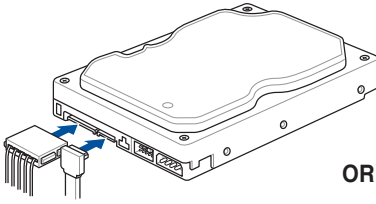
### 2.1.6 ATX power connection



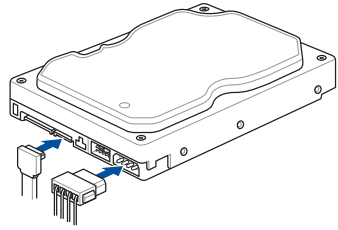
Ensure to connect the 8-pin power plug.

## 2.1.7 SATA device connection

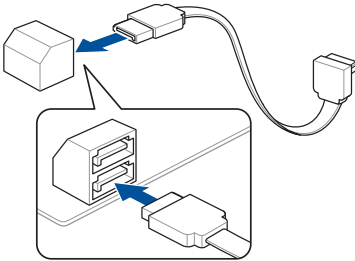
1



OR

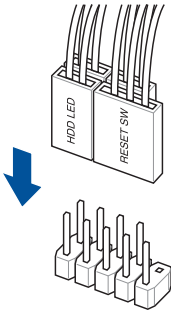


2

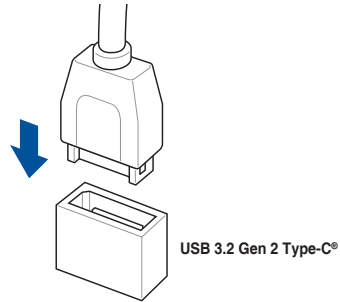


## 2.1.8 Front I/O connector

To install front panel connector

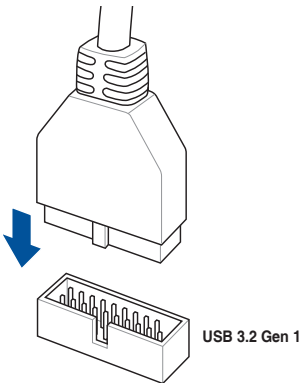


To install USB 3.2 Gen 2 Type-C®  
Front Panel connector

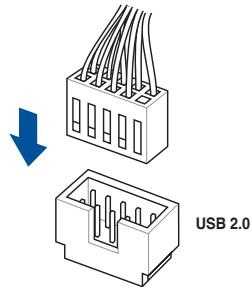


This connector will only fit in one orientation. Push the connector until it clicks into place.

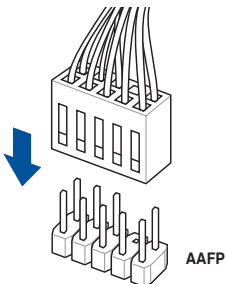
To install USB 3.2 Gen 1 connector



To install USB 2.0 connector

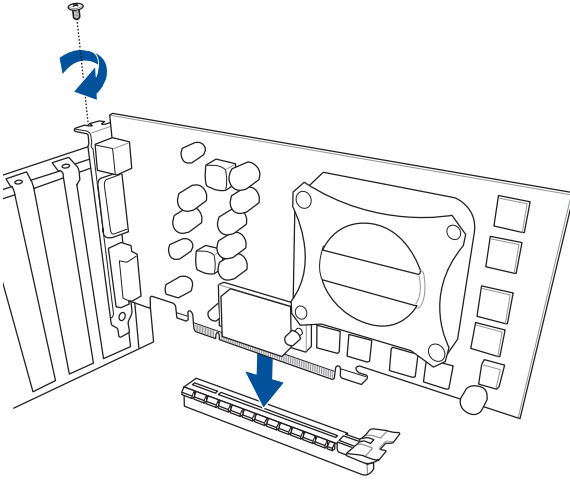


To install front panel audio connector

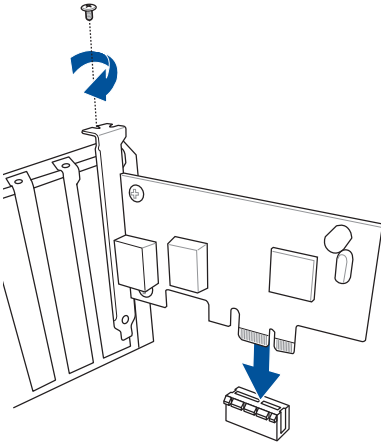


## 2.1.9 Expansion card installation

To install PCIe x16 cards



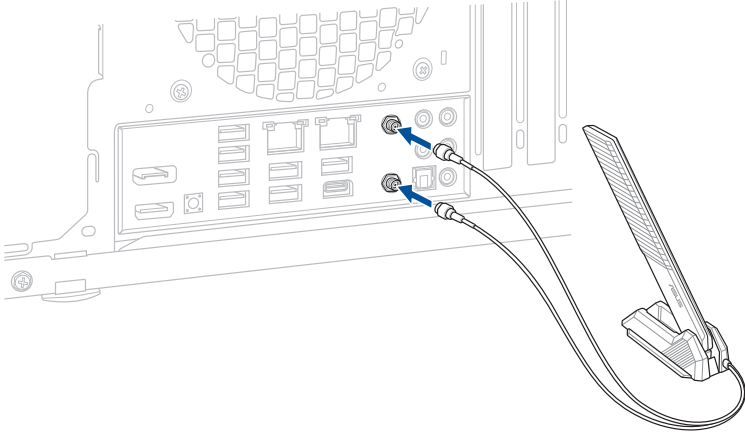
To install PCIe x1 cards



## 2.1.10 Wi-Fi antenna installation

### Installing the ASUS Wi-Fi moving antenna

Connect the bundled ASUS Wi-Fi moving antenna connectors to the Wi-Fi ports at the back of the chassis.



- Ensure that the ASUS Wi-Fi moving antenna is securely installed to the Wi-Fi ports.
- Ensure that the antenna is at least 20 cm away from all persons.



The illustration above is for reference only. The I/O port layout may vary with models, but the Wi-Fi antenna installation procedure is the same for all models.

## 2.2 BIOS update utility

### BIOS FlashBack™

BIOS FlashBack™ allows you to easily update the BIOS without entering the existing BIOS or operating system.

#### To use BIOS FlashBack™:

1. Insert a USB storage device to the BIOS FlashBack™ port.



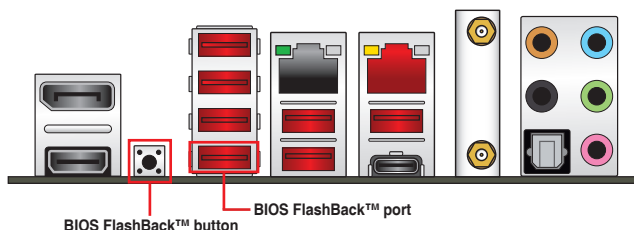
We recommend you to use a USB 2.0 storage device to save the latest BIOS version for better compatibility and stability.

2. Visit <https://www.asus.com/support/> and download the latest BIOS version for this motherboard.
3. Manually rename the file as **SX570E2.CAP**, or launch the **BIOSRenamer.exe** application to automatically rename the file, then copy it to your USB storage device.



The **BIOSRenamer.exe** application is zipped together with your BIOS file when you download a BIOS file for a BIOS FlashBack™ compatible motherboard.

4. Shut down your computer.
5. Press the BIOS FlashBack™ button for three (3) seconds until the BIOS FlashBack™ LED blinks three times, indicating that the BIOS FlashBack™ function is enabled.



6. Wait until the light goes out, indicating that the BIOS updating process is completed.



For more BIOS update utilities in BIOS setup, refer to the section **Updating BIOS** in Chapter 3.



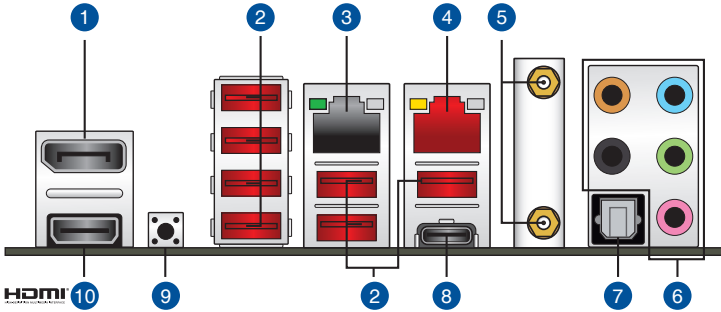
- Do not unplug portable disk or power system while BIOS update is ongoing, otherwise update will be interrupted. In case of interruption, please follow the steps again.
- If the light flashes for five seconds and turns into a solid light, this means that the BIOS FlashBack™ is not operating properly. This may be caused by improper installation of the USB storage device and filename/file format error. If this scenario happens, please restart the system to turn off the light.
- Updating BIOS may have risks. If the BIOS program is damaged during the process and results to the system's failure to boot up, please contact your local ASUS Service Center.

For more information on using the BIOS FlashBack™ feature, please refer to <https://www.asus.com/support/>, or by scanning the QR code below.



## 2.3 Motherboard rear and audio connections

### 2.3.1 Rear I/O connection



Rear panel connectors	
1.	DisplayPort
2.	USB 3.2 Gen 2 ports 1~4
3.	Realtek 2.5Gb Ethernet
4.	Intel® I211-AT 1Gb Ethernet
5.	Wi-Fi 6E, Bluetooth V5.2
6.	Audio I/O ports**
7.	Optical S/PDIF OUT port
8.	USB 3.2 Gen 2 Type-C® port C8
9.	BIOS Flashback™ button
10.	HDMI® port

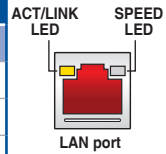
\* and \*\*: Refer to the tables on the next page for LAN port LEDs, and audio port definitions.



We strongly recommend that you connect your devices to ports with matching data transfer rate. Please connect your USB 3.2 Gen 1 devices to USB 3.2 Gen 1 ports and your USB 3.2 Gen 2 devices to USB 3.2 Gen 2 ports for faster and better performance for your devices.

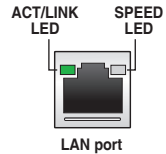
**\* LAN port LED indications**

Activity Link LED		Speed LED	
Status	Description	Status	Description
OFF	No link	OFF	10 Mbps connection
ORANGE	Linked	ORANGE	100 Mbps connection
BLINKING	Data activity	GREEN	1 Gbps connection



**Realtek RTL8125-CG 2.5G LAN port LED indications**

Activity Link LED		Speed LED	
Status	Description	Status	Description
OFF	No link	OFF	100 Mbps connection
GREEN	Linked	GREEN	2.5 Gbps connection
BLINKING	Data activity	ORANGE	1 Gbps / 100 Mbps / 10 Mbps connection

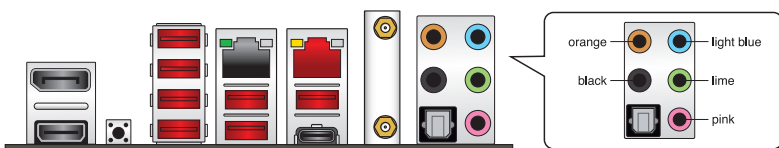


**\*\* Audio 2, 4, 5.1 or 7.1-channel configuration**

Port	Headset 2-channel	4-channel	5.1-channel	7.1-channel
Light Blue	Line In	Line In	Line In	Side Speaker Out
Lime	Line Out	Front Speaker Out	Front Speaker Out	Front Speaker Out
Pink	Mic In	Mic In	Mic In	Mic In
Orange	–	–	Center/Sub woofer	Center/Sub woofer
Black	–	Rear Speaker Out	Rear Speaker Out	Rear Speaker Out

**2.3.2 Audio I/O connections**

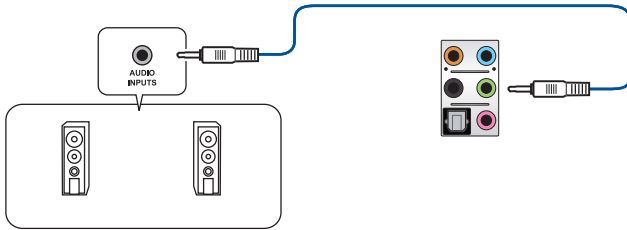
**Audio I/O ports**



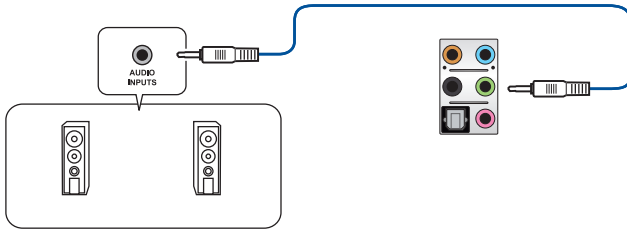
### Connect to Headphone and Mic



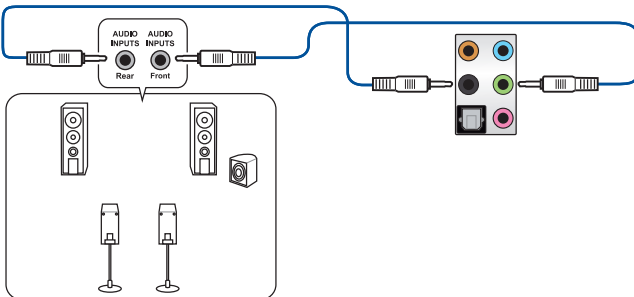
### Connect to Stereo Speakers



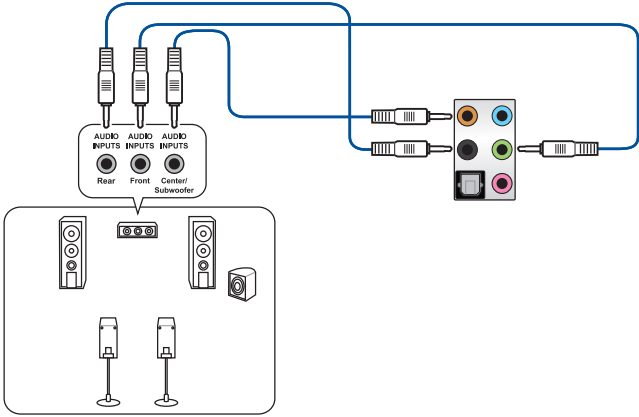
### Connect to 2-channel Speakers



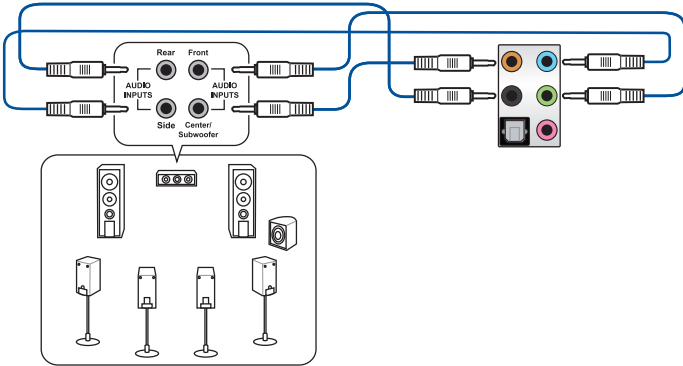
### Connect to 4-channel Speakers



## Connect to 5.1-channel Speakers



## Connect to 7.1-channel Speakers



## 2.4 Starting up for the first time

1. After making all the connections, replace the system case cover.
2. Ensure that all switches are off.
3. Connect the power cord to the power connector at the back of the system chassis.
4. Connect the power cord to a power outlet that is equipped with a surge protector.
5. Turn on the devices in the following order:
  - a. Monitor
  - b. External storage devices (starting with the last device on the chain)
  - c. System power
6. After applying power, the system power LED on the system front panel case lights up. For systems with ATX power supplies, the system LED lights up when you press the ATX power button. If your monitor complies with the “green” standards or if it has a “power standby” feature, the monitor LED may light up or change from orange to green after the system LED turns on.

The system then runs the power-on self tests (POST). While the tests are running, the BIOS beeps (refer to the BIOS beep codes table) or additional messages appear on the screen. If you do not see anything within 30 seconds from the time you turned on the power, the system may have failed a power-on test. Check the jumper settings and connections or call your retailer for assistance.

BIOS Beep	Description
One short beep	VGA detected Quick boot set to disabled No keyboard detected
One continuous beep followed by two short beeps then a pause (repeated)	No memory detected
One continuous beep followed by three short beeps	No VGA detected
One continuous beep followed by four short beeps	Hardware component failure

7. At power on, hold down the <Delete> key to enter the BIOS Setup. Follow the instructions in Chapter 3.

## 2.4 Turning off the computer

While the system is ON, press the power button for less than four seconds to put the system on sleep mode or soft-off mode, depending on the BIOS setting. Press the power button for more than four seconds to let the system enter the soft-off mode regardless of the BIOS setting.



# BIOS and RAID Support

# 3



---

For more details on BIOS and RAID configurations, please refer to [www.asus.com/support](http://www.asus.com/support).

---

## 3.1 Knowing BIOS



---

The new ASUS UEFI BIOS is a Unified Extensible Interface that complies with UEFI architecture, offering a user-friendly interface that goes beyond the traditional keyboard-only BIOS controls to enable a more flexible and convenient mouse input. You can easily navigate the new UEFI BIOS with the same smoothness as your operating system. The term "BIOS" in this user guide refers to "UEFI BIOS" unless otherwise specified.

---

BIOS (Basic Input and Output System) stores system hardware settings such as storage device configuration, overclocking settings, advanced power management, and boot device configuration that are needed for system startup in the motherboard CMOS. In normal circumstances, the default BIOS settings apply to most conditions to ensure optimal performance. **DO NOT change the default BIOS settings** except in the following circumstances:

- An error message appears on the screen during the system bootup and requests you to run the BIOS Setup.
- You have installed a new system component that requires further BIOS settings or update.



---

Inappropriate BIOS settings may result in instability or boot failure. **We strongly recommend that you change the BIOS settings only with the help of a trained service personnel.**

---



---

BIOS settings and options may vary due to different BIOS release versions. Please refer to the latest BIOS version for settings and options.

---



---

For more information on BIOS configurations, please refer to <https://www.asus.com/support>, or download the BIOS manual by scanning the QR code.

---

## 3.2 BIOS setup program

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

### Entering BIOS 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>+<Delete> 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.

After doing either of the three options, press <Delete> key to enter BIOS.



- 
- Ensure that a USB mouse is connected to your motherboard if you want to use the mouse to control the BIOS setup program.
  - 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.
  - The BIOS setup program does not support Bluetooth devices.
- 

### BIOS menu screen

The BIOS Setup program can be used under two modes: **EZ Mode** and **Advanced Mode**. You can change modes from **Setup Mode** in **Boot menu** or by pressing the <F7> hotkey.

### 3.3 ASUS EZ Flash 3

The ASUS EZ Flash 3 feature allows you to update the BIOS without using an OS-based utility.



---

Ensure to load the BIOS default settings to ensure system compatibility and stability. Select the **Load Optimized Defaults** item under the **Exit** menu or press hotkey <F5>.

---

#### To update the BIOS:



- 
- This function can support devices such as a USB flash disk with FAT 32/16 format and single partition only.
  - DO NOT shut down or reset the system while updating the BIOS to prevent system boot failure!
- 

1. Insert the USB flash disk that contains the latest BIOS file to the USB port.
2. Enter the Advanced Mode of the BIOS setup program. Go to the **Tool** menu to select **ASUS EZ Flash 3 Utility** and press <Enter>.
3. Press the Left/Right arrow keys to switch to the **Drive** field.
4. Press the Up/Down arrow keys to find the USB flash disk that contains the latest BIOS, and then press <Enter>.
5. Press the Left/Right arrow keys to switch to the **Folder** field.
6. Press the Up/Down arrow keys to find the BIOS file, and then press <Enter> to perform the BIOS update process. Reboot the system when the update process is done.

## 3.4 ASUS CrashFree BIOS 3

The ASUS CrashFree BIOS 3 utility is an auto recovery tool that allows you to restore the BIOS file when it fails or gets corrupted during the updating process. You can restore a corrupted BIOS file using a USB flash drive that contains the BIOS file.

### Recovering the BIOS

1. Download the latest BIOS version for this motherboard from <https://www.asus.com/support/>.
2. Rename the BIOS file as **ASUS.CAP** or **SX570E2.CAP** and copy the renamed BIOS file to a USB flash drive.
3. Turn on the system.
4. Insert the USB flash drive containing the BIOS file to a USB port.
5. The utility automatically checks the devices for the BIOS file. When found, the utility reads the BIOS file and enters ASUS EZ Flash 3 automatically.
6. The system requires you to enter BIOS Setup to recover the BIOS setting. To ensure system compatibility and stability, we recommend that you press <F5> to load default BIOS values.



---

DO NOT shut down or reset the system while updating the BIOS! Doing so can cause system boot failure!

---

## 3.5 RAID configurations

The motherboard comes with the RaidXpert2 Configuration Utility that supports Volume, RAIDABLE, RAID 0, RAID 1, and RAID 10 (depends on system licensing) configurations.



---

For more information on configuring your RAID sets, please refer to the **RAID Configuration Guide** which you can find at <https://www.asus.com/support>, or by scanning the QR code.

---



### RAID definitions

**Volume** provides the ability to link-together storage from one or several disks, regardless of the size of the space on those disks. This configuration is useful in scavenging space on disks unused by other disks in the array. This configuration does not provide performance benefits or data redundancy, disk failure will result in data loss.

**RAIDABLE** arrays (also known as RAID Ready) are a special type of Volume (JBOD) that allows the user to add more storage space or create a redundant array after a system is installed. RAIDABLE arrays are created using Option ROM, UEFI, or rcadm.



---

The ability to create RAIDABLE arrays may vary per system.

---

**RAID 0 (Data striping)** optimizes two identical hard disk drives to read and write data in parallel, interleaved stacks. Two hard disks perform the same work as a single drive but at a sustained data transfer rate, double that of a single disk alone, thus improving data access and storage. Use of two new identical hard disk drives is required for this setup.

**RAID 1 (Data mirroring)** copies and maintains an identical image of data from one drive to a second drive. If one drive fails, the disk array management software directs all applications to the surviving drive as it contains a complete copy of the data in the other drive. This RAID configuration provides data protection and increases fault tolerance to the entire system. Use two new drives or use an existing drive and a new drive for this setup. The new drive must be of the same size or larger than the existing drive.

**RAID 10** is data striping and data mirroring combined without parity (redundancy data) having to be calculated and written. With the RAID 10 configuration you get all the benefits of both RAID 0 and RAID 1 configurations. Use four new hard disk drives or use an existing drive and three new drives for this setup.



# Appendix

## Q-Code table

Code	Description
00	Not used
01	Power on. Reset type detection (soft/hard).
02	AP initialization before microcode loading
03	System Agent initialization before microcode loading
04	PCH initialization before microcode loading
06	Microcode loading
07	AP initialization after microcode loading
08	System Agent initialization after microcode loading
09	PCH initialization after microcode loading
0B	Cache initialization
0C – 0D	Reserved for future AMI SEC error codes
0E	Microcode not found
0F	Microcode not loaded
10	PEI Core is started
11 – 14	Pre-memory CPU initialization is started
15 – 18	Pre-memory System Agent initialization is started
19 – 1C	Pre-memory PCH initialization is started
2B – 2F	Memory initialization
30	Reserved for ASL (see ASL Status Codes section below)
31	Memory Installed
32 – 36	CPU post-memory initialization
37 – 3A	Post-Memory System Agent initialization is started
3B – 3E	Post-Memory PCH initialization is started
4F	DXE IPL is started
50 – 53	Memory initialization error. Invalid memory type or incompatible memory speed
54	Unspecified memory initialization error
55	Memory not installed
56	Invalid CPU type or Speed
57	CPU mismatch
58	CPU self test failed or possible CPU cache error
59	CPU micro-code is not found or micro-code update is failed
5A	Internal CPU error
5B	Reset PPI is not available
5C – 5F	Reserved for future AMI error codes

*(continued on the next page)*

## Q-Code table

Code	Description
E0	S3 Resume is started (S3 Resume PPI is called by the DXE IPL)
E1	S3 Boot Script execution
E2	Video repost
E3	OS S3 wake vector call
E4 – E7	Reserved for future AMI progress codes
E8	S3 Resume Failed
E9	S3 Resume PPI not Found
EA	S3 Resume Boot Script Error
EB	S3 OS Wake Error
EC – EF	Reserved for future AMI error codes
F0	Recovery condition triggered by firmware (Auto recovery)
F1	Recovery condition triggered by user (Forced recovery)
F2	Recovery process started
F3	Recovery firmware image is found
F4	Recovery firmware image is loaded
F5 – F7	Reserved for future AMI progress codes
F8	Recovery PPI is not available
F9	Recovery capsule is not found
FA	Invalid recovery capsule
FB – FF	Reserved for future AMI error codes
60	DXE Core is started
61	NVRAM initialization
62	Installation of the PCH Runtime Services
63 – 67	CPU DXE initialization is started
68	PCI host bridge initialization
69	System Agent DXE initialization is started
6A	System Agent DXE SMM initialization is started
6B – 6F	System Agent DXE initialization (System Agent module specific)
70	PCH DXE initialization is started
71	PCH DXE SMM initialization is started
72	PCH devices initialization
73 – 77	PCH DXE Initialization (PCH module specific)
78	ACPI module initialization
79	CSM initialization
7A – 7F	Reserved for future AMI DXE codes

*(continued on the next page)*

## Q-Code table

Code	Description
90	Boot Device Selection (BDS) phase is started
91	Driver connecting is started
92	PCI Bus initialization is started
93	PCI Bus Hot Plug Controller Initialization
94	PCI Bus Enumeration
95	PCI Bus Request Resources
96	PCI Bus Assign Resources
97	Console Output devices connect
98	Console input devices connect
99	Super IO Initialization
9A	USB initialization is started
9B	USB Reset
9C	USB Detect
9D	USB Enable
9E – 9F	Reserved for future AMI codes
A0	IDE initialization is started
A1	IDE Reset
A2	IDE Detect
A3	IDE Enable
A4	SCSI initialization is started
A5	SCSI Reset
A6	SCSI Detect
A7	SCSI Enable
A8	Setup Verifying Password
A9	Start of Setup
AA	Reserved for ASL (see ASL Status Codes section below)
AB	Setup Input Wait
AC	Reserved for ASL (see ASL Status Codes section below)
AD	Ready To Boot event
AE	Legacy Boot event
AF	Exit Boot Services event
B0	Runtime Set Virtual Address MAP Begin
B1	Runtime Set Virtual Address MAP End
B2	Legacy Option ROM Initialization
B3	System Reset

*(continued on the next page)*

## Q-Code table

Code	Description
B4	USB hot plug
B5	PCI bus hot plug
B6	Clean-up of NVRAM
B7	Configuration Reset (reset of NVRAM settings)
B8– BF	Reserved for future AMI codes
D0	CPU initialization error
D1	System Agent initialization error
D2	PCH initialization error
D3	Some of the Architectural Protocols are not available
D4	PCI resource allocation error. Out of Resources
D5	No Space for Legacy Option ROM
D6	No Console Output Devices are found
D7	No Console Input Devices are found
D8	Invalid password
D9	Error loading Boot Option (LoadImage returned error)
DA	Boot Option is failed (StartImage returned error)
DB	Flash update is failed
DC	Reset protocol is not available

### ACPI/ASL Checkpoints (under OS)

Code	Description
03	System is entering S3 sleep state
04	System is entering S4 sleep state
05	System is entering S5 sleep state
30	System is waking up from the S3 sleep state
40	System is waking up from the S4 sleep state
AC	System has transitioned into ACPI mode. Interrupt controller is in PIC mode.
AA	System has transitioned into ACPI mode. Interrupt controller is in APIC mode.

## 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.

### RF exposure warning

This equipment must be installed and operated in accordance with provided instructions and the antenna(s) used for this transmitter must be installed to provide a separation distance of at least 20 cm from all persons and must not be co-located or operating in conjunction with any other antenna or transmitter. End-users and installers must be provided with antenna installation instructions and transmitter operating conditions for satisfying RF exposure compliance.

### HDMI Compliance Statement

The terms HDMI, HDMI High-Definition Multimedia Interface, and the HDMI Logo are trademarks or registered trademarks of HDMI Licensing Administrator, Inc.

## 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.

Operation in the band 5150–5250 MHz is only for indoor use to reduce the potential for harmful interference to co-channel mobile satellite systems.

CAN ICES-003(B)/NMB-003(B)

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

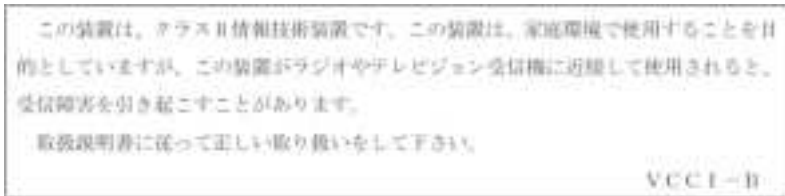
Le présent appareil est conforme aux CNR d'Innovation, Sciences et Développement économique Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes : (1) l'appareil ne doit pas produire de brouillage, et (2) l'utilisateur de l'appareil doit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

La bande 5150–5250 MHz est réservée uniquement pour une utilisation à l'intérieur afin de réduire les risques de brouillage préjudiciable aux systèmes de satellites mobiles utilisant les mêmes canaux.

CAN ICES-003(B)/NMB-003(B)

## VCCI: Japan Compliance Statement

### Class B ITE



## Japan JATE

本製品は電気通信事業者（移動通信会社、固定通信会社、インターネットプロバイダ等）の通信回線（公衆無線LANを含む）に直接接続することができません。本製品をインターネットに接続する場合は、必ずルーター等を経由し接続してください。

## KC: Korea Warning Statement

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

\*당해 국전선력은 전파통신 기능성이 있으므로 인명안전과 관련된 서비스는 할 수 없습니다.

## Google™ License Terms

Copyright© 2021 Google Inc. All Rights Reserved.

Licensed under the Apache License, Version 2.0 (the "License"); you may not use this file except in compliance with the License. You may obtain a copy of the License at:

<http://www.apache.org/licenses/LICENSE-2.0>

Unless required by applicable law or agreed to in writing, software distributed under the License is distributed on an "AS IS" BASIS, WITHOUT WARRANTIES OR CONDITIONS OF ANY KIND, either express or implied.

See the License for the specific language governing permissions and limitations under the License.

## NCC: Taiwan Wireless Statement

經型式認證合格之低功率射頻電機，非經許可，公司、商號或使用者均不得擅自變更頻率、加大功率或變更原設計之特性及功能。低功率射頻電機之使用不得影響飛航安全及干擾合法通信；經發現有干擾現象時，應立即停用，並改善至無干擾時方得繼續使用。前項合法通信，指依電信法規定作業之無線電通信。低功率射頻電機須忍受合法通信或工業、科學及醫療用電波輻射性電機設備之干擾。

應避免影響附近雷達系統之操作。

## Japan RF Equipment Statement

### 屋外での使用について

本製品は、5GHz帯域での通信に対応しています。電波法の定めにより5.2GHz、5.3GHz帯域の電波は屋外で使用が禁じられています。

### 法律および規制遵守

本製品は電波法及びこれに基づく命令の定めるところに従い使用してください。日本国外では、その国の法律または規制により、本製品の使用ができないことがあります。このような国では、本製品を運用した結果、罰せられることがあります。当社は一切責任を負いかねますのでご了承ください。

## Précautions d'emploi de l'appareil :

- Soyez particulièrement vigilant quant à votre sécurité lors de l'utilisation de cet appareil dans certains lieux (les avions, les aéroports, les hôpitaux, les stations-service et les garages professionnels).
- Évitez d'utiliser cet appareil à proximité de dispositifs médicaux implantés. Si vous portez un implant électronique (stimulateurs cardiaques, pompes à insuline, neurostimulateurs...), veuillez impérativement respecter une distance minimale de 15 centimètres entre cet appareil et l'implant pour réduire les risques d'interférence.
- Utilisez cet appareil dans de bonnes conditions de réception pour minimiser le niveau de rayonnement. Ce n'est pas toujours le cas dans certaines zones ou situations, notamment dans les parkings souterrains, dans les ascenseurs, en train ou en voiture ou tout simplement dans un secteur mal couvert par le réseau.
- Tenez cet appareil à distance du ventre des femmes enceintes et du bas-ventre des adolescents.

## Declaration of compliance for product environmental regulation

ASUS follows the green design concept to design and manufacture our products, and makes sure that each stage of the product life cycle of ASUS product is in line with global environmental regulations. In addition, ASUS disclose the relevant information based on regulation requirements.

Please refer to <http://csr.asus.com/Compliance.htm> for information disclosure based on regulation requirements ASUS is complied with:

### EU REACH and Article 33

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>.

### EU RoHS

This product complies with the EU RoHS Directive. For more details, see <http://csr.asus.com/english/article.aspx?id=35>

### India RoHS

This product complies with the “India E-Waste (Management) Rules, 2016” and prohibits use of lead, mercury, hexavalent chromium, polybrominated biphenyls (PBBs) and polybrominated diphenyl ethers (PBDEs) in concentrations exceeding 0.1% by weight in homogenous materials and 0.01% by weight in homogenous materials for cadmium, except for the exemptions listed in Schedule II of the Rule.

### Vietnam RoHS

ASUS products sold in Vietnam, on or after September 23, 2011, meet the requirements of the Vietnam Circular 30/2011/TT-BCT.

Các sản phẩm ASUS bán tại Việt Nam, vào ngày 23 tháng 9 năm 2011 trở về sau, đều phải đáp ứng các yêu cầu của Thông tư 30/2011/TT-BCT của Việt Nam.

### Turkey RoHS

AEEE Yönetmeliğine Uygundur

### 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.



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.

#### Simplified UKCA Declaration of Conformity

ASUSTek Computer Inc. hereby declares that this device is in compliance with the essential requirements and other relevant provisions of The Radio Equipment Regulations 2017 (S.I. 2017/1206). Full text of UKCA declaration of conformity is available at <https://www.asus.com/support/>.

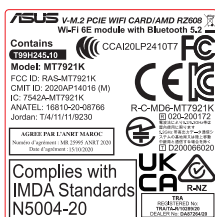
The WiFi operating in the band 5150-5350MHz shall be restricted to indoor use for countries listed in the table below:

# UK

#### UKCA RF Output table (The Radio Equipment Regulations 2017)

MediaTek Wi-Fi 6E MT7921K (Model: MT7921K):

Function	Frequency	Maximum Output Power (EIRP)
WiFi	2412-2472MHz	18.86 dBm
	5150-5350MHz	18.92 dBm
	5470-5725MHz	15.79 dBm
	5725-5850MHz	10.29 dBm
Bluetooth	2402-2480MHz	13.29 dBm





### Supaprastinta ES atitikties deklaracija

Šiame dokumente bendrovė „ASUSTek Computer Inc.“ pareiškia, kad šis prietaisas atitinka pagrindinius reikalavimus ir kitas susijusias Direktyvos 2014/53/ES nuostatas. Visas ES atitikties deklaracijos tekstas pateikiamas čia: <https://www.asus.com/support/>

Toliau nurodytose šalyse „WiFi“ ryšiu, veikiančiu 5 150-5 350 MHz dažnio juostoje, galima naudotis tik palaipose:

### Förenklett EU-samsvarserklæring

ASUSTek Computer Inc. erklærer herved at denne enhet er i samsvar med hovedsakelige krav og andre relevante forskrifter i direktivet 2014/53/EU. Fullstendig tekst for EU-samsvarserklæringen finnes på: <https://www.asus.com/support/>

Wi-Fi-området 5150–5350 MHz skal begrenses til innendørs bruk for landene som er oppført i tabellen:

### Uproszczone deklaracja zgodności UE

Firma ASUSTek Computer Inc. niniejszym oświadcza, że urządzenie to jest zgodne z zasadniczymi wymogami i innymi właściwymi postanowieniami dyrektywy 2014/53/UE. Pełny tekst deklaracji zgodności UE jest dostępny pod adresem <https://www.asus.com/support/>

W krajach wymienionych w tabeli działanie sieci Wi-Fi w paśmie 5150–5350 MHz powinno być ograniczone wyłącznie do pomieszczeń:

### Declaração de Conformidade Simplificada da UE

A ASUSTek Computer Inc. declara que este dispositivo está em conformidade com os requisitos essenciais e outras disposições relevantes da Diretiva 2014/53/UE. O texto integral da declaração de conformidade da UE está disponível em <https://www.asus.com/support/>

A utilização das frequências WiFi de 5150 a 5350MHz está restrita a ambientes interiores nos países apresentados na tabela:

### Declaratie de conformitate UE, versiune simplificată

Prin prezenta, ASUSTek Computer Inc. declară că acest dispozitiv este în conformitate cu regulamentele esențiale și cu celelalte prevederi relevante ale Directivei 2014/53/UE. Textul complet al declarației de conformitate UE este disponibil la adresa <https://www.asus.com/support/>

Pentru țările listate în tabelul de mai jos, rețeaua WiFi care funcționează în banda de frecvență de 5.150-5.350 MHz trebuie utilizată doar în interior:

### Pojednostavljena Deklaracija o usaglasenosti EU

ASUSTek Computer Inc. ovim izjavljuje da je ovaj uređaj usaglasan sa osnovnim zahtevima i drugim relevantnim odredbama Direktive 2014/53/UE. Ceo tekst Deklaracije o usaglasenosti EU dostupan je na lokaciji <https://www.asus.com/support/>

WiFi koji radi u frekventnom opsegu od 5150 MHz do 5350 MHz ograničen je isključivo na upotrebu u zatvorenom prostoru za zemlje navedene u tabeli ispod:

### Zjednodušené vyhlásenie o zhode platné pre EÚ

Spoločnosť ASUSTek Computer Inc. týmto vyhlasuje, že toto zariadenie je v súlade so základnými požiadavkami a ďalšími príslušnými ustanoveniami smernice č. 2014/53/EÚ. Plné znenie vyhlásenia o zhode pre EÚ je k dispozícii na lokalite <https://www.asus.com/support/>

Činnosť WiFi v pásme 5150 - 5350 MHz bude obmedzená na použitie vo vnútornom prostredí pre krajiny uvedené v tabuľke nižšie:

### Poenostavljena izjava EU o skladnosti

ASUSTek Computer Inc. tukaj izjavlja, da je ta naprava skladna s temeljnimi zahtevami in drugimi relevantnimi določili Direktive 2014/53/UE. Polno besedilo izjave EU o skladnosti je na voljo na <https://www.asus.com/support/>

WiFi, ki deluje v pasovnem območju 5150-5350 MHz, mora biti v državah, navedenih v spodnjem seznamu, omejen na notranjo uporabo:

### Declaración de conformidad simplificada para la UE

Por la presente, ASUSTek Computer Inc. declara que este dispositivo cumple los requisitos básicos y otras disposiciones pertinentes de la directiva 2014/53/UE. En <https://www.asus.com/support/> está disponible el texto completo de la declaración de conformidad para la UE.

La conexión WiFi con una frecuencia de funcionamiento de 5150-5350 MHz se restringirá al uso en interiores para los países enumerados en la tabla:

### Förenklad EU-försäkran om överensstämmelse

ASUSTek Computer Inc. deklarerar härmed att denna enhet överensstämmer med de grundläggande kraven och andra relevanta bestämmelser i direktiv 2014/53/UE. Fullständig text av EU-försäkran om överensstämmelse finns på <https://www.asus.com/support/>

WiFi som används 5150-5350 MHz kommer att begränsas för användning inomhus i de länder som anges i tabellen:

### ประกาศเกี่ยวกับความสอดคล้องของสหภาพยุโรปแบบย่อ

ASUSTek Computer Inc. ขอประกาศในที่นี้ว่าอุปกรณ์นี้มีความสอดคล้องกับ

ข้อกำหนดที่จำเป็นและเงื่อนไขที่เกี่ยวข้องอื่น ๆ ของบทบัญญัติข้อกำหนด 2014/53/UE เกี่ยวกับคุณสมบัติของประกาศความสอดคล้องกับ EU มีอยู่ที่ <https://www.asus.com/support/>

การใช้งานของ WiFi ที่ 5150-5350MHz ถูกจำกัดใช้ในอาคารสำหรับประเทศที่แสดงในตาราง

### Basitleştirilmiş AB Uyumluk Bildirimi

ASUSTek Computer Inc., bu aygıtın 2014/53/UE Yönergesinin temel gereksinimleri ve diğer ilgili hükümlerine uygun olduğunu bildirir. AB uyumluk bildirimini tam metni şu adreste bulabilirsiniz: <https://www.asus.com/support/>

5150-5350 MHz aralındaki WiFi çalışması, tabloda listelenen ülkeler için iç mekân kullanımla kısıtlanacaktır.

### Спрощена декларація про відповідність нормам ЄС

ASUSTek Computer Inc. заявляє, що цей пристрій відповідає основним вимогам та іншим відповідним вимогам Директиви 2014 / 53 / UE. Повний текст декларації відповідності нормам ЄС доступний на <https://www.asus.com/support/>

Робота Wi-Fi на частоті 5150-5350 МГц обмежується використанням у приміщенні для країн, поданих у таблиці нижче:



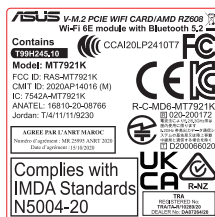
AT	BE	BG	CZ	DK	EE	FR
DE	IS	IE	IT	EL	ES	CY
LV	LI	LT	LU	HU	MT	NL
NO	PL	PT	RO	SI	SK	TR
FI	SE	CH	HR	UK(NI)		

### CE RED RF Output table (Directive 2014/53/UE)

MediaTek Wi-Fi 6E MT7921K (Model: MT7921K):

Function	Frequency	Maximum Output Power (EIRP)
WiFi	2412-2427MHz	18.86 dBm
	5150-5350MHz	18.92 dBm
	5470-5725MHz	15.79 dBm
	5725-5850MHz	10.29 dBm
Bluetooth	2402-2480MHz	13.29 dBm

For the standard EN 300 440, if this device operates in 5725-5875 MHz, it will be considered as a receiver category 2.



# Warranty

## EN: ASUS Guarantee Information

- ASUS offers a voluntary manufacturer's Commercial Guarantee.
- ASUS reserves the right to interpret the provisions of the ASUS Commercial Guarantee.
- This ASUS Commercial Guarantee is provided independently and in addition to the statutory Legal Guarantee and in no way affects or limits the rights under the Legal Guarantee.

For all the guarantee information, please visit <https://www.asus.com/support>.

## FR: Garantie ASUS

- ASUS fournit une garantie commerciale en tant que garantie volontaire du fabricant.
- ASUS se réserve le droit d'interpréter et de clarifier les informations relatives à la garantie commerciale ASUS.
- Cette garantie commerciale ASUS est fournie indépendamment et parallèlement à la garantie légale, elle n'affecte ou ne limite d'aucune façon les droits acquis par la garantie légale.

Pour plus d'informations sur la garantie, consultez le site <https://www.asus.com/fr/support/>.

## G: ASUS Garantieinformation

- ASUS bietet eine freiwillige Warengarantie des Herstellers an.
- ASUS behält sich das Recht zur Auslegung der Bestimmungen in der ASUS Warengarantie vor.
- Diese ASUS Warengarantie wird unabhängig und zusätzlich zur rechtmäßigen gesetzlichen Garantie gewährt und beeinträchtigt oder beschränkt in keiner Weise die Rechte aus der gesetzlichen Garantie.

Die vollständigen Garantieinformationen finden Sie unter <https://www.asus.com/de/support/>.

## I: Informativa sulla Garanzia ASUS

- ASUS offre una Garanzia Commerciale volontaria del produttore.
- ASUS si riserva il diritto di interpretare le disposizioni della Garanzia Commerciale ASUS.
- La presente Garanzia Commerciale ASUS viene fornita in modo indipendente e in aggiunta alla Garanzia Legale prevista per legge e non pregiudica o limita in alcun modo i diritti previsti dalla Garanzia Legale.

Per tutte le informazioni sulla garanzia, visitare <https://www.asus.com/it/support>.

## R: Информация о гарантии ASUS

- ASUS предлагает добровольную гарантию от производителя.
- ASUS оставляет за собой право интерпретирования положений гарантии ASUS.
- Настоящая гарантия ASUS никоим образом не ограничивает Ваши права, предусмотренные локальным законодательством.

Для получения полной информации о гарантии посетите <https://www.asus.com/ru/support/>.

## DA: ASUS garantioplysninger

- ASUS tilbyder en valgfri handelsmæssig garanti.
- ASUS forbeholder sig retten til at fortolke bestemmelserne i ASUS' handelsmæssige garanti.
- Denne handelsmæssige garanti fra ASUS tilbydes uafhængigt, som en tilføjelse til den lovbestemte juridiske garanti og den påvirker eller begrænser på ingen måde rettighederne i den juridiske garanti.

Alle garantioplysningerne kan findes på <https://www.asus.com/dk/support/>.

## BG: Информация за гаранцията от ASUS

- ASUS предлага доброволна търговска гаранция от производителя.
- ASUS си запазва правото да тълкува условията на търговската гаранция на ASUS.
- Тази търговска гаранция на ASUS се предлага независимо от и в допълнение на законната гаранция. Тя по никакъв начин не оказва влияние върху правата на потребителя в законната гаранция и по никакъв начин не ги ограничава.

За цялостна информация относно гаранцията, моля, посетете <https://www.asus.com/bg/support>.

## CZ: Informace o záruce společnosti ASUS

- Společnost ASUS nabízí dobrovolnou komerční záruku výrobce.
- Společnost ASUS si vyhrazuje právo vykládat ustanovení komerční záruky společnosti ASUS.
- Tato komerční záruka společnosti ASUS je poskytována nezávisle a jako doplněk zákonné záruky a žádným způsobem neovlivňuje ani nemezuje práva vyplývající ze zákonné záruky.

Všechny informace o záruce najdete na adrese <https://www.asus.com/cz/support/>.

## CR: Informacije o ASUS jamstvu

- ASUS dragovaljno nudi komercijalno proizvođačko jamstvo.
- ASUS zadržava prava na tumačenje odredbi ASUS komercijalnog jamstva.
- Ovo ASUS komercijalno jamstvo daje se neovisno i kao dodatak zakonskom jamstvu i ni na koji način ne ograničuje prava iz okvira zakonskog jamstva.

Sve informacije o jamstvu potražite na <https://www.asus.com/support>.

## DU: ASUS-garantie-informatie

- SUS biedt een vrijwillige commerciële garantie van de fabrikant.
- ASUS behoudt zich het recht voor om de bepalingen van de commerciële garantie van ASUS uit te leggen.
- Deze commerciële garantie van ASUS wordt onafhankelijk en als aanvulling op de statutaire Wettelijke garantie geboden en beïnvloedt of beperkt in geen geval de rechten onder de wettelijke garantie.

Voor alle informatie over de garantie, gaat u naar <https://www.asus.com/nl/support/>.

## EE: Teave ASUS-e garantii kohta

- ASUS pakub vabatahtlikku tasulist tootjagarantiid.
- ASUS jätab endale õiguse tõlgendada ASUS-e tasulise garanti tingimusi.
- See ASUS-e tasuline garanti on sõltumatu lisagaranti seadusega kehtestatud garantiile ega mõjuta mingil määral seadusega kehtestatud garantiid ning seadusega kehtestatud garanti piiranguid.

Vaadake garantiga seotud teavet veebisaidil <https://www.asus.com/ee/>.

## GK: Πληροφορίες εγγύησης ASUS

- Η ASUS προσφέρει μια εθελοντική Εμπορική εγγύηση κατασκευαστή.
- Η ASUS διατηρεί το δικαίωμα ερμηνείας των διατάξεων της Εμπορικής εγγύησης ASUS.
- Αυτή η Εμπορική εγγύηση ASUS παρέχεται ανεξάρτητα και επιπροσθέτως της θεσμικής Νομικής εγγύησης και σε καμία περίπτωση δεν επηρεάζει ή περιορίζει τα δικαιώματα βάσει της Νομικής εγγύησης.

Για όλες τις πληροφορίες εγγύησης, επισκεφθείτε τη διεύθυνση <https://www.asus.com/gr-el/>.

## HUG: ASUS garanciális információk

- Az ASUS önkéntes gyártói kereskedelmi garanciát kínál.
- Az ASUS fenntartja magának a jogot, hogy értelmezze az ASUS kereskedelmi garanciára vonatkozó rendelkezéseket.
- Ezt a kereskedelmi garanciát az ASUS függetlenül és a törvényes garancia mellett nyújtja és semmilyen módon nem befolyásolja, vagy korlátozza a jogi garancia nyújtottá jogokat.

A garanciára vonatkozó teljes körű információkért látogasson el a <https://www.asus.com/hu/support/oldala>.

## LV: ASUS garantijas informācija

- ASUS piedāvā brīvprātīgu ražotāja komerciālo garantiju.
- ASUS patur tiesības interpretēt ASUS komerciālās garantijas noteikumus.
- Šī ASUS komerciālā garantija tiek piedāvāta neatkarīgi un papildus likumā noteiktajai juridiskajai garantijai, un tā nekādā neietekmē vai neierobežo juridiskajā garantijā noteiktās tiesības.

Lai iegūtu informāciju par garantiju, apmeklējiet vietni <https://www.asus.com/lt/>.

## LT: Informacija apie ASUS garantiją

- ASUS siūlo savanorišką komercinę gamintojo garantiją.
- ASUS pasilieka teisę savo nuožūria aiškinti šios komercinės ASUS garantijos nuostatas.
- Ši komercinė ASUS garantija suteikiama nepriklausoma, be įstatyminės teisinės garantijos, ir jokiu būdu nepaveikia ar neapriboja teisinės garantijos suteikiamų teisių.

Norėdami gauti visą informaciją apie garantiją, apsilankykite <https://www.asus.com/lt/>.

## PL: Informacje o gwarancji firmy ASUS

- Firma ASUS oferuje dobrowolną gwarancję handlową producenta.
- Firma ASUS zastrzeżę sobie prawo do interpretacji warunków gwarancji handlowej firmy ASUS.
- Niniejsza gwarancja handlowa firmy ASUS jest udzielana niezależnie, jako dodatek do wymaganej ustawowo gwarancji prawnej i w żaden sposób nie wpływa na prawa przysługujące na mocy gwarancji prawnej ani ich nie ogranicza.

Wszelkie informacje na temat gwarancji można znaleźć na stronie <https://www.asus.com/pl/support>.

**PG: Informações de Garantia ASUS**

- A ASUS oferece uma Garantia Comercial voluntária do fabricante.
- A ASUS reserva o direito de interpretar as disposições da Garantia Comercial da ASUS.
- Esta Garantia Comercial da ASUS é fornecida de forma independente além da Garantia Legal estatutária e não afeta nem limita de qualquer forma os direitos estabelecidos na Garantia Legal.

Para consultar todas as informações sobre a garantia, visite <https://www.asus.com/pt/support/>.

**RO: Informații despre garanția ASUS**

- ASUS oferă o garanție comercială voluntară a producătorului.
- ASUS își rezervă dreptul de a interpreta prevederile garanției comerciale ASUS.
- Această garanție comercială ASUS este oferită independent și în plus față de garanția obligatorie legală și nu afectează sau limitează în niciun fel drepturile acordate conform garanției legale.

Pentru toate informațiile legate de garanție, vizitați <https://www.asus.com/ro/support>.

**SL: Informacije o garanciji ASUS**

- ASUS ponuja prostovoljno tržno garancijo proizvajalca.
- ASUS si pridržuje pravico do razlage določb tržne garancije družbe ASUS.
- Ta tržna garancija družbe ASUS je na voljo neodvisno in kot dodatek zakonsko predpisani pravni garanciji ter na noben način ne vpliva na pravice, ki jih zagotavlja pravna garancija, oziroma jih omejuje.

Vse informacije o garanciji najdete na spletnem mestu

<https://www.asus.com/support>.

**SK: Informácie o záruke ASUS**

- ASUS ponúka dobrovoľnú obchodnú záruku výrobcu.
- ASUS si vyhradzuje právo interpretovať ustanovenia obchodnej záruky ASUS.
- Táto obchodná záruka ASUS je poskytnutá nezávisle a navyše k zákonnej záruke a v žiadnom prípade neovplyvňuje ani neobmedzuje tieto práva podľa tejto zákonnej záruky.

Všetky další informace o záruce najdete na <https://www.asus.com/sk/support>.

**ES: Información de garantía de ASUS**

- ASUS ofrece una garantía comercial voluntaria del fabricante.
- ASUS se reserva el derecho de interpretar las disposiciones de esta garantía comercial de ASUS.
- Esta garantía comercial de ASUS se proporciona de forma independiente y adicional a la garantía estatutaria y de ninguna manera afecta a los derechos bajo la garantía legal ni los limita.

Para obtener toda la información sobre la garantía, visite

<https://www.asus.com/ES/support/>.

**TR: ASUS Garanti Bilgileri**

- ASUS, gönüllü olarak Üretici Ticari Garantisi sunar.
- ASUS, ASUS Ticari Garantisinin hükümlerini yorumlama hakkını saklı tutar.
- Bu ASUS Ticari Garantisi, bağımsız olarak ve hukuki Yasal Garanti'ye ek olarak sağlanır ve hiçbir şekilde Yasal Garanti kapsamındaki hakları etkilemez veya sınırlamaz.

Tüm garanti bilgileri için lütfen <https://www.asus.com/tr/support> adresini ziyaret edin.

**FI: ASUS-takuutiedot**

- ASUS tarjoaa vapaaehtoisena valmistajan kaupallisen takuun.
- ASUS pidättää oikeuden tulkita ASUS-kaupallisen takuun ehdot.
- Tämä ASUS-kaupallinen takuu tarjotaan itsenäisesti lakisääteisen oikeudellisen takuun lisäksi eikä se vaikuta millään tavoin laillisen takuun oikeuksiin tai rajoita niitä.

Saadaksesi kaikki takuutiedot, siirry osoitteeseen

<https://www.asus.com/fi/support>.

**NW: Informasjon om ASUS-garanti**

- ASUS tilbyr som produsent en frivillig kommersiell garanti.
- ASUS forbeholder seg retten til å tolke bestemmelsene i ASUS sin kommersielle garanti.
- ASUS sin kommersielle garanti gis uavhengig og i tillegg til den lovbestemte juridiske garantien, og verken påvirker eller begrenser rettighetene under den juridiske garantien på noen måte.

Du finner fullstendig informasjon om garanti på

<https://www.asus.com/no/support/>.

**SB: Informacije o ASUS garanciji**

- ASUS nudi dobrovoljnu proizvođačku komercijalnu garanciju.
- ASUS zadržava pravo da tumači odredbe svoje ASUS komercijalne garancije.
- Ova ASUS komercijalna garancija daje se nezavisno, kao dodatak zakonskoj pravnoj garanciji, i ni ka koji način ne utiče na i ne ograničava prava data pravnom garancijom.

Za sve informacije o garanciji, posetite

<https://www.asus.com/support/>.

**SW: ASUS garantiinformation**

- ASUS erbjuder en frivillig kommersiell tillverkningsgaranti.
- ASUS förbehåller sig rätten att tolka bestämmelserna i ASUS kommersiella garanti.
- Denna kommersiella garanti från ASUS tillhandahålls separat och som tillägg till den lagstadgade garantin, och påverkar eller begränsar på intet sätt rättheterna under den lagstadgade garantin.

För all garantiinformation, besök <https://www.asus.com/se/support/>.

**UA: Інформація про Гарантію ASUS**

- ASUS пропонує добровільну Комерційну Гарантію виробника.
- ASUS застерігає за собою право тлумачити положення Комерційної Гарантії ASUS
- Цю Комерційну Гарантію надано незалежно і на додаток до обов'язкової Законової Гарантії; вона жодним чином не впливає на права за Законовою гарантією і не обмежує їх.

Всі інформацію про гарантію подано тут:

<https://www.asus.com/ua/support>.

**MX: Garantía y Soporte**

Esta Garantía aplica en el país de compra. Usted acepta que en esta garantía:

- Los procedimientos de servicio pueden variar en función del país.
- Algunos servicios y/o piezas de reemplazo pudieran no estar disponibles en todos los países.
- Algunos países pueden tener tarifas y restricciones que se apliquen en el momento de realizar el servicio, visite el sitio de soporte de ASUS en <https://www.asus.com/mx/support/> para ver más detalles.
- Si tiene alguna queja o necesidad de un centro de reparación local o el periodo de garantía del producto ASUS, por favor visite el sitio de Soporte de ASUS en <https://www.asus.com/mx/support/> para mayores detalles.

**Información de contacto ASUS**

Esta garantía está respaldada por: ASUSTek Computer Inc. Centro de Atención ASUS +52 (55) 1946-3663

**BP: Informações de garantia ASUS**

Esta garantia aplica-se ao periodo definido pela garantia legal (90 dias) mais o periodo de garantia comercial oferecido pela ASUS. Por exemplo: 12M significa 12 meses de garantia no total (3 meses de garantia legal mais 9 meses de garantia contratual), 24 meses significa 24 meses de garantia no total (3 meses de garantia legal mais 21 meses de garantia contratual) e 36 meses significa 36 meses de garantia no total (3 meses de garantia legal e 33 de garantia contratual) a contar da data da garantia declarada (Data de Inicio da Garantia).

Para todas as informações de garantia, visite

<https://www.asus.com/br/support/>.

**ID: Informasi Garansi ASUS**

Garansi ini berlaku di negara tempat pembelian.

Periode Garansi tertera pada kemasan/kotak dari Produk dan Masa Garansi dimulai sejak tanggal pembelian Produk ASUS dengan kondisi baru.

Silahkan pindai Kode QR di bagian bawah halaman terakhir untuk Kartu Garansi versi Web dalam format PDF untuk lebih informasi jelas mengenai jaminan garansi Produk ASUS.

- Informasi Dukungan ASUS, silakan kunjungi <https://www.asus.com/id/support>.
- Informasi Lokasi Layanan, silakan kunjungi <https://www.asus.com/id/support/Service-Center/Indonesia>.
- Layanan Call Center: 1500128

**VI: Thông tin đảm bảo của ASUS**

- ASUS cung cấp Bảo hành thương mại tự nguyện của nhà sản xuất.
- ASUS bảo lưu quyền giải thích các điều khoản của Bảo hành thương mại của ASUS.
- Bảo hành thương mại này của ASUS được cung cấp độc lập và ngoài Bảo đảm pháp lý theo luật định và không có cách nào ảnh hưởng đến hoặc giới hạn các quyền theo Bảo lãnh pháp lý. Để biết tất cả các thông tin bảo hành, vui lòng truy cập

<https://www.asus.com/vn/support>



## **ASUS contact information**

### **ASUSTeK COMPUTER INC.**

Address: 1F., No. 15, Lide Rd., Beitou Dist., Taipei City 112, Taiwan

### **ASUS COMPUTER INTERNATIONAL (America)**

Address: 48720 Kato Rd., Fremont, CA 94538, USA

### **ASUS COMPUTER GmbH (Germany and Austria)**

Address: Harkortstrasse 21-23, 40880 Ratingen, Germany

### **ASUSTeK (UK) LIMITED**

Address: 1st Floor, Sackville House, 143-149 Fenchurch Street, London, EC3M 6BL,  
England, United Kingdom

## **Service and Support**

Visit our multi-language website at <https://www.asus.com/support>.

