

**ProArt
X870E-
CREATOR
WIFI**

ASUS

Motherboard

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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 10°C and 35°C.

Button/Coin Batteries Safety Information

1. Remove and immediately recycle or dispose of used batteries according to local regulations and keep out of reach of children. Do not incinerate or dispose of batteries in household trash.
2. If ingested or inserted inside any part of the body, call a local poison control center for treatment information. Even used batteries may cause serious injury or death.
3. This product uses CR2032 type batteries with a nominal voltage of 3V.
4. Do not attempt to recharge non-rechargeable batteries.
5. Do not forcibly discharge, recharge, disassemble, heat above the battery manufacturer's specified temperature rating, or incinerate. Doing so may result in injury or chemical burns caused by venting, leakage, or explosion.
6. This product contains non-replaceable batteries.

⚠ WARNING	
<ul style="list-style-type: none">• INGESTION HAZARD: This product contains a button cell or coin battery.• DEATH or serious injury can occur if ingested.• A swallowed button cell or coin battery can cause Internal Chemical Burns in as little as 2 hours.• KEEP new and used batteries OUT OF REACH of CHILDREN.• Seek immediate medical attention if a battery is suspected to be swallowed or inserted inside any part of the body.	

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 includes descriptions for each part of the motherboard.
- **Chapter 2: Basic Setup**
This chapter lists the basic setup procedures for setting up your motherboard.
- **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) 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.
3. **Motherboard Installation Guide**
Please visit <https://www.asus.com/support> for more information on the Motherboard Installation Guide.



4. Driver and Utilities FAQ

Please visit <https://www.asus.com/support> for more information on downloading and installing drivers and utilities for your motherboard.



5. RAID Configuration Guide

Please visit <https://www.asus.com/support> for more information on the RAID Configuration Guide.



6. BIOS FlashBack™ Feature

Please visit <https://www.asus.com/support> for more information on the BIOS FlashBack™ Feature.



Conventions used in this guide

To ensure that you perform certain tasks properly, take note of the following notes used throughout this user guide.

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.

ProArt X870E-CREATOR WIFI specifications summary

CPU	AMD Socket AM5 for AMD Ryzen™ 9000 & 8000 & 7000 Series Desktop Processors* * Refer to www.asus.com for CPU support list.
Chipset	AMD X870E
Memory	4 x DIMM slots, max. 192GB, DDR5 supports up to 8000+ MT/s(OC) with Ryzen™ 9000 Series Processors, 8000+ MT/s(OC) with Ryzen™ 8000 Series Processors, 8000+ MT/s(OC) with Ryzen™ 7000 Series Processors, ECC and Non-ECC, Un-buffered Memory* Dual Channel Memory Architecture Supports AMD Extended Profiles for Overclocking (EXPO™) ASUS Enhanced Memory Profile (AEMP) * Adjustments will be made based on the specifications of mass-produced memory products available on the market. * Supported memory types, data rate (speed), and number of DRAM modules vary depending on the CPU and memory configuration, for more information please refer to CPU/Memory Support list under the Support tab of product information site or visit https://www.asus.com/support/ . * Non-ECC, Un-buffered DDR5 Memory supports On-Die ECC function.
Graphics	1 x HDMI™ port** 2 x USB4® (40Gbps) ports support USB Type-C® display outputs*** * Graphics specifications may vary between CPU types. Please refer to AMD CPU specifications. ** Support 4K@60Hz as specified in HDMI 2.1. *** Supports max. 8K@60Hz as specified in DisplayPort 1.4. **** VGA resolution support depends on processors' or graphic cards' resolution.
Expansion Slots	AMD Ryzen™ 9000 & 7000 Series Desktop Processors* 2 x PCIe 5.0 x16 slots with Q-Release Slim (supports x16 or x8/x8** or x8/x4/x4 modes***) AMD Ryzen™ 8700 & 8600 & 8400 Series Desktop Processors* 1 x PCIe 4.0 x16 slots with Q-Release Slim (only supports PCIe16(G5)_1 & total bandwidth of x8, PCIe16(G5)_2 will be disabled) AMD Ryzen™ 8500 & 8300 Series Desktop Processors* 1 x PCIe 4.0 x16 slots with Q-Release Slim (only supports PCIe16(G5)_1 & total bandwidth of x4, PCIe16(G5)_2 will be disabled) AMD X870E Chipset 1 x PCIe 4.0 x16 slot (supports x4 mode)** * Please check PCIe bifurcation table on support site (https://www.asus.com/support/FAQ/1037507/). ** When you use both PCIe16(G5)_1 and PCIe16(G5)_2, they will run at x8 each. *** PCIe16(G5)_2 shares bandwidth with M.2_2 slot. When M.2_2 is enabled, PCIe16(G5)_1 will run x8, and PCIe16(G5)_2 will run at x4. **** To ensure compatibility of the device installed, please refer to https://www.asus.com/support/ for the list of supported peripherals.

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ProArt X870E-CREATOR WIFI specifications summary

Storage	Supports 4 x M.2 slots and 4 x SATA 6Gb/s ports* AMD Ryzen™ 9000 & 7000 Series Desktop Processors - M.2_1 slot (Key M), type 2242/2260/2280 (supports PCIe 5.0 x4 mode) - M.2_2 slot (Key M), type 2242/2260/2280 (supports PCIe 5.0 x4 mode)** AMD Ryzen™ 8000 Series Desktop Processors - M.2_1 slot (Key M), type 2242/2260/2280 (supports PCIe 4.0 x4 mode) - M.2_2 slot is not supported AMD X870E Chipset - M.2_3 slot (Key M), type 2242/2260/2280 (supports PCIe 4.0 x4 mode) - M.2_4 slot (Key M), type 2242/2260/2280/22110 (supports PCIe 4.0 x4 mode) - 4 x SATA 6Gb/s ports * AMD RAIDXpert2 Technology supports both PCIe RAID 0/1/5/10 and SATA RAID 0/1/5/10. RAID 5 Function is only supported by AMD Ryzen™ 9000 series CPU. ** PCIe16(G5)_2 slot shares bandwidth with M.2_2.
Ethernet	1 x Marvell® AQtion 10Gb Ethernet 1 x Intel® 2.5Gb Ethernet ASUS LANGuard
Wireless & Bluetooth®	Wi-Fi 7* 2x2 Wi-Fi 7 (802.11be)** Supports 2.4/5/6GHz frequency band*** Support Wi-Fi 7 320MHz bandwidth, up to 6.5Gbps transfer rate. Bluetooth® v5.4**** * Wi-Fi features may vary depending on the operating system - For Windows 11, Wi-Fi 7 will require 24H2 or later version for full functions, Windows 11 21H2/22H2/23H2 only support Wi-Fi 6E. - For Windows 10, please note that no driver is available, please refer to the Wi-Fi chipset vendor's website for details. ** Wi-Fi 6GHz frequency band and bandwidth regulatory may vary between countries. *** The Bluetooth® version may vary, please refer to the Wi-Fi module manufacturer's website for the latest specifications.
USB	Rear USB (Total 11 ports) 2 x USB4® (40Gbps) ports (2 x USB Type-C®) 1 x USB 20Gbps port (1 x USB Type-C®) 7 x USB 10Gbps ports (7 x Type-A) 1 x USB 2.0 port (1 x Type-A) Front USB (Total 9 ports) 1 x USB 20Gbps connector (supports USB Type-C® with up to 30W PD/QC4+)** 1 x USB 5Gbps header supports 2 additional USB 5Gbps ports 3 x USB 2.0 headers support 6 additional USB 2.0 ports * USB Type-C® power delivery output: 5V/3.0A ** USB Type-C® power delivery output: 5V/9V max. 3.0A, 12V max. 2.5A, 15V max. 2.0A

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ProArt X870E-CREATOR WIFI specifications summary

Audio	<p>Realtek ALC1220P 7.1 Surround Sound High Definition Audio CODEC*</p> <ul style="list-style-type: none"> - Impedance sense for front and rear headphone outputs - Internal audio Amplifier to enhance the highest quality sound for headphone and speakers - Supports: Jack-detection, Multi-streaming, Front Panel Jack-retasking - High quality 120 dB SNR stereo playback output and 113 dB SNR recording input (Line-in) - Supports up to 32-Bit/192 kHz playback* <p>Audio Features</p> <ul style="list-style-type: none"> - Audio Shielding - Premium audio capacitors - Dedicated audio PCB layers - Unique de-pop circuit <p>* Due to limitations in HDA bandwidth, 32-Bit/192 kHz is not supported for 7.1 Surround Sound audio.</p> <p>** A chassis with an HD audio module in the front panel is required to support 7.1 Surround Sound audio output.</p>
Back Panel I/O Ports	<p>2 x USB4® (40Gbps) ports (2 x USB Type-C®)</p> <p>1 x USB 20Gbps port (1 x USB Type-C®)</p> <p>7 x USB 10Gbps ports (7 x Type-A)</p> <p>1 x USB 2.0 port (1 x Type-A)</p> <p>1 x DisplayPort (Input only)</p> <p>1 x HDMI™ port</p> <p>1 x Wi-Fi Module</p> <p>1 x Marvell® AQtion 10Gb Ethernet</p> <p>1 x Intel® 2.5Gb Ethernet</p> <p>3 x Audio jacks</p> <p>1 x BIOS FlashBack™ button</p> <p>1 x Clear CMOS button</p>
Internal I/O connectors	<p>Fan and Cooling related</p> <p>1 x 4-pin CPU Fan header</p> <p>1 x 4-pin CPU OPT Fan header</p> <p>1 x 4-pin AIO Pump header</p> <p>5 x 4-pin Chassis Fan headers</p> <p>Power related</p> <p>1 x 24-pin Main Power connector</p> <p>2 x 8-pin +12V CPU Power connector</p> <p>Storage related</p> <p>4 x M.2 slots (Key M)</p> <p>4 x SATA 6Gb/s ports</p> <p>USB</p> <p>1 x USB 20Gbps connector (support USB Type-C® with up to 30W PD/QC4+)</p> <p>1 x USB 5Gbps header supports 2 additional USB 5Gbps ports</p> <p>3 x USB 2.0 headers support 6 additional USB 2.0 ports</p>

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ProArt X870E-CREATOR WIFI specifications summary

Internal I/O connectors	<p>Miscellaneous</p> <p>3 x Addressable Gen 2 headers</p> <p>1 x Chassis Intrusion header</p> <p>1 x COM Port header</p> <p>1 x CPU Over Voltage jumper</p> <p>1 x Front Panel Audio header (F_AUDIO)</p> <p>1 x 10-1 pin Front Panel System header</p> <p>1 x Thermal Sensor header</p>
Special Features	<p>ASUS 5X PROTECTION III</p> <ul style="list-style-type: none"> - DIGI+ VRM (- Digital power design) - Enhanced DRAM Overcurrent Protection - ESD Guards - LANGuard - Overvoltage Protection - Safeslot - Stainless-Steel Back I/O <p>ASUS Q-Design</p> <ul style="list-style-type: none"> - M.2 Q-Latch - M.2 Q-Release - M.2 Q-Slide - PCIe Slot Q-Release Slim (with PCIe SafeSlot) - Q-Antenna - Q-Connector - Q-DIMM - Q-LED (CPU [red], DRAM [yellow], VGA [white], Boot Device [yellow green]) - Q-Slot <p>ASUS Thermal Solution</p> <ul style="list-style-type: none"> - M.2 heatsink backplate - M.2 heatsinks - VRM heatsink design <p>ASUS EZ DIY</p> <ul style="list-style-type: none"> - BIOS FlashBack™ button - BIOS FlashBack™ LED - ProCool - Pre-mounted I/O shield - SafeSlot - SafeDIMM <p>AURA Sync</p> <ul style="list-style-type: none"> - Addressable Gen 2 headers <p>Bespoke Motherboard Design & Business Focused Features</p> <ul style="list-style-type: none"> - 24/7 Reliability - Overcurrent Protection

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ProArt X870E-CREATOR WIFI specifications summary

Special Features	Front Panel USB 20Gbps with Quick Charge 4+ Support - Support: up to 30W fast charging and USB Wattage Watcher - Output: 5V/9V max. 3.0A, 12V max 2.5A, 15V max 2.0A. - Compatible with PD3.0
Software Features	ASUS Exclusive Software Armoury Crate - Aura Creator - Aura Sync - Fan Xpert 4 with AI Cooling II - Power Saving ASUS DriverHub ASUS GlideX USB Wattage Watcher TurboV Core ASUS CPU-Z ProArt Creator Hub CreationFirst Adobe Creative Cloud (Free Trial) Norton 360 Deluxe (60 Days Free Trial) WinRAR (40 Days Free Trial) UEFI BIOS ASUS EZ DIY - ASUS CrashFree BIOS 3 - ASUS EZ Flash 3 - ASUS UEFI BIOS EZ Mode FlexKey
Remote Management Features	IT Management software supported - ASUS Control Center Express(ACCE)
BIOS	256 Mb Flash ROM, UEFI AMI BIOS
BIOS CAP Filename	ProArt X870E-CREATOR WIFI: A5560.cap
Manageability	WOL by PME, PXE
Operating System	Windows® 11
Form Factor	ATX Form Factor 12 inch x 9.6 inch (30.5 cm x 24.4 cm)

NOTE: Specifications are subject to change without notice. Please refer to the ASUS website for the latest specifications.

Package contents

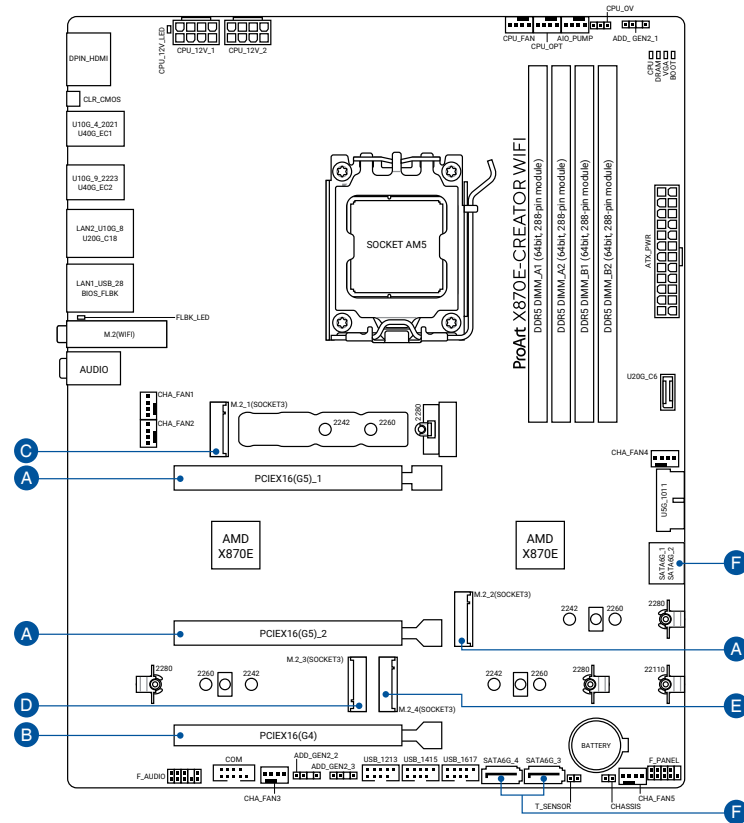
Check your motherboard package for the following items.

Motherboard	1 x ProArt X870E-CREATOR WIFI motherboard
Cables	1 x DisplayPort cable 4 x SATA 6Gb/s cables
Additional Cooling Kit	1 x Thermal pad for M.2 22110
Miscellaneous	1 x ASUS WiFi Q-Antenna 1 x Q-connector 1 x M.2 Q-Latch package 1 x M.2 Q-Latch Q-Slide package for M.2 backplate 2 x Rubber Packages for M.2 1 x ProArt ruler
Documentation	1 x Quick start guide 1 x ACC Express Activation Key Card

NOTE:

- If any of the above items is damaged or missing, contact your retailer.
- Items not listed in the Package contents list above are purchased separately and do not come bundled with your motherboard package.

Connectors with shared bandwidth



Configuration	1	2	3
PCIEX16(G5)_1 (5.0)	x16	x8	x8
A PCIEX16(G5)_2 (5.0)	-	x8	x4
M.2_2 (5.0)	-	-	x4
Configuration	1		
B PCIEX16(G4) (4.0)		x4	
Configuration	1		
C M.2_1 (5.0)		x4	
Configuration	1		
D M.2_3 (4.0)		x4	
Configuration	1		
E M.2_4 (4.0)		x4	
Configuration	1		
F SATA6G_1-4		V	

Product Introduction

1.1 Before you proceed

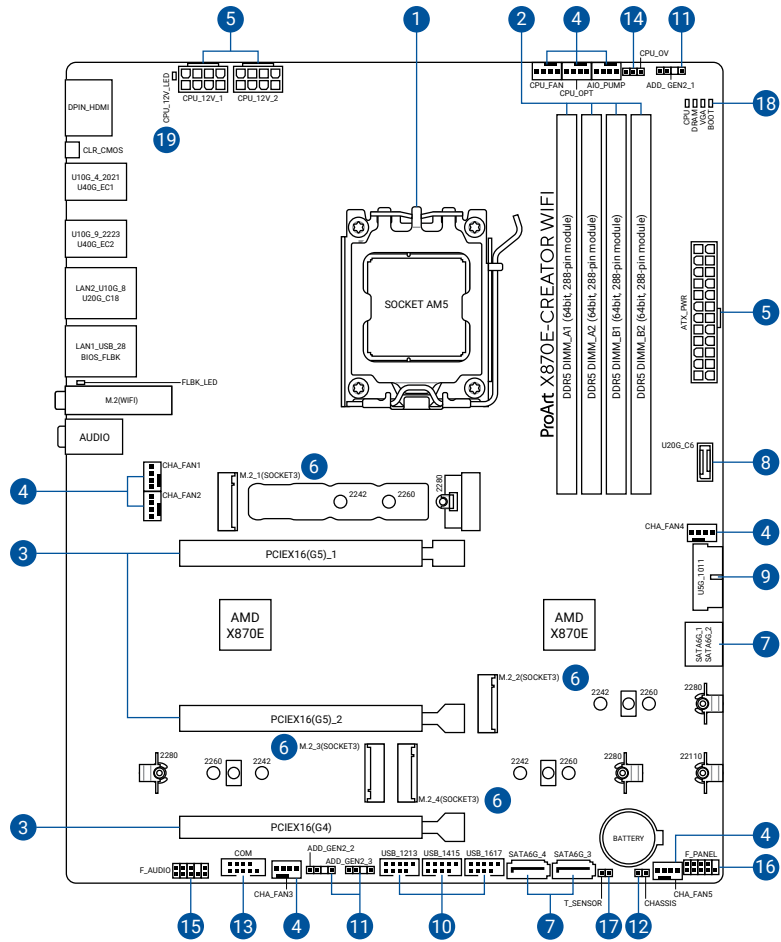
Take note of the following precautions before you install motherboard components or change any motherboard settings.

CAUTION!

- 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 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.

NOTE: The pin definitions in this chapter are for reference only. The pin names depend on the location of the header/jumper/connector.

1.2 Motherboard layout

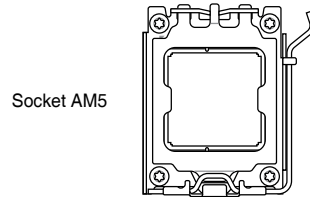


Layout contents

1. CPU socket
2. DIMM slots
3. Expansion slots
4. Fan and Pump headers
5. Power connectors
6. M.2 slot
7. SATA 6Gb/s port
8. USB 20Gbps Type-C® Front Panel connector
9. USB 5Gbps header
10. USB 2.0 header
11. Addressable Gen 2 header
12. Chassis Intrusion header
13. COM Port connector
14. CPU Over Voltage jumper
15. Front Panel Audio header
16. Front Panel System header
17. Thermal Sensor header
18. Q-LEDs
19. 8-pin CPU Power Plug LED

1. CPU socket

The motherboard comes with a Socket AM5 designed for AMD Ryzen™ 9000 & 8000 & 7000 Series Desktop Processors.

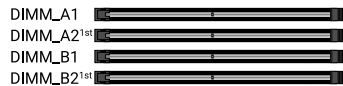


CAUTION!

- The AM5 socket has a different pinout design. Ensure that you use a CPU designed for the AM5 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.
- Upon purchase of the motherboard, ensure that the PnP cap is on the socket and the socket contacts are not bent. Contact your retailer immediately if the PnP cap is missing, or if you see any damage to the PnP cap/socket contacts/motherboard components. ASUS will shoulder the cost of repair only if the damage is shipment/transit-related.
- Keep the cap after installing the motherboard. ASUS will process Return Merchandise Authorization (RMA) requests only if the motherboard comes with the cap on the AM5 socket.
- The product warranty does not cover damage to the socket contacts resulting from incorrect CPU installation/removal, or misplacement/loss/incorrect removal of the PnP cap.

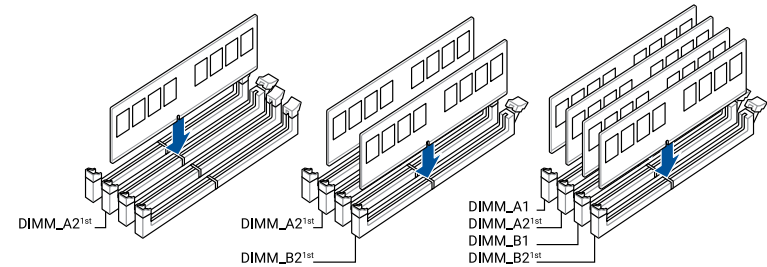
2. DIMM slots

The motherboard comes with Dual Inline Memory Modules (DIMM) slots designed for DDR5 (Double Data Rate 5) memory modules.



CAUTION! A DDR5 memory module is notched differently from a DDR, DDR2, DDR3, or DDR4 module. DO NOT install a DDR, DDR2, DDR3, or DDR4 memory module to the DDR5 slot.

Recommended memory configurations



Memory configurations

You may install ECC or Non-ECC DDR5 DIMMs into the DIMM sockets.

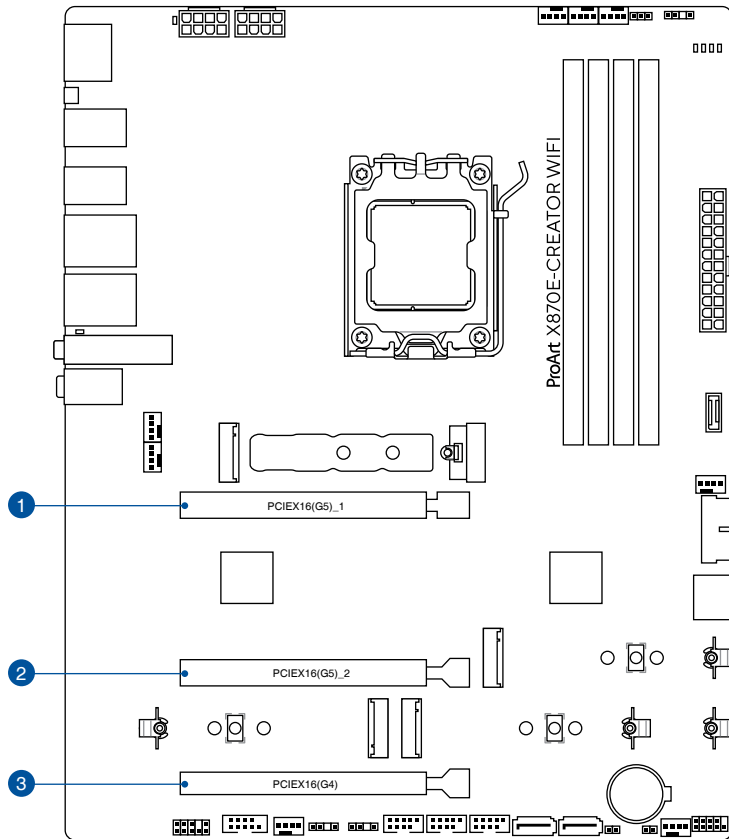
NOTE:

- 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

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

NOTE: To install a PCIe expansion card, please refer to the **Motherboard Installation Guide** on the ASUS support site.



NOTE:

- When you use both PCIEX16(G5)_1 and PCIEX16(G5)_2, they will run at x8 each.
- PCIEX16(G5)_2 shares bandwidth with M.2_2 slot. When M.2_2 is enabled, PCIEX16(G5)_1 will run x8, and PCIEX16(G5)_2 will run at x4.

Please refer to the following table for Hyper M.2 configuration.

PCIe bifurcation in PCIe x16 slots (from CPU)

Slot Description	Quantity of identifiable M.2 SSD (pcs)		
	Situation 1	Situation 2	Situation 3
1 PCIEX16(G5)_1	4 (x4+x4+x4+x4)	2 (x4+x4)	2 (x4+x4)
2 PCIEX16(G5)_2	0	2 (x4+x4)	2 (x4)
3 PCIEX16(G4)	1(x4)		

NOTE:

- Additional PCIe bifurcation and M.2 settings for RAID function are also supported when a Hyper M.2 x16 series card is installed.
- For full details on the PCIe bifurcation, you may visit the support site at <https://www.asus.com/support/FAQ/1037507/>.
- The Hyper M.2 X16 series card is sold separately.
- Adjust the PCIe bifurcation under BIOS settings.
- PCIEX16(G5)_2 slot shares bandwidth with M.2_2.

IMPORTANT! PCIe bifurcation only applies to AMD Ryzen™ 9000 & 7000 Series Desktop Processors.

Using the Q-Release Slim PCIe slot

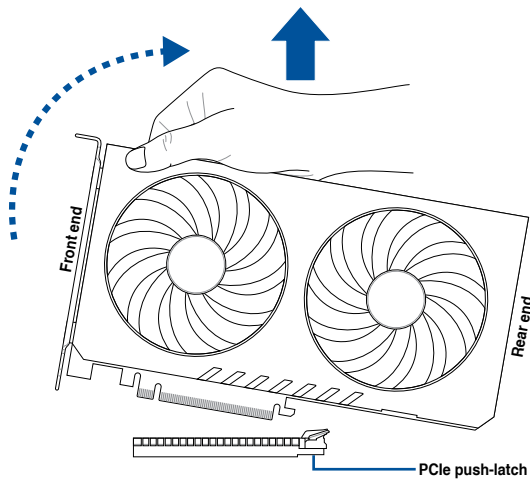
The PCIe slots on this motherboard feature the Q-Release slim feature allowing you to easily remove an expansion card installed to this PCIe slot, even when the expansion card may be blocking the PCIe push-latch, such as a graphics card. You may also remove an expansion card by pushing down on the PCIe push-latch.

To release an expansion card on a Q-Release Slim PCIe slot:

Pull the front end of the expansion card upwards, this should release the expansion card from the Q-Release Slim PCIe slot, allowing you to remove the expansion card from the Q-Release Slim PCIe slot.

NOTE: The illustration below is for reference only. The motherboard and Q-Release Slim PCIe slot may differ between models, but the steps for using the Q-Release Slim PCIe slot remain the same.

CAUTION! Do not try to remove the expansion card by pulling the rear end of the expansion card upwards without pushing down on the PCIe push-latch first. Doing so with excessive force may cause damages to the motherboard.



4. Fan and Pump headers

The Fan and Pump headers allow you to connect fans or pumps to cool the system.

CPU_FAN	CHA_FAN2	
CPU_OPT	CHA_FAN3	
AIO_PUMP	CHA_FAN4	
CHA_FAN1	CHA_FAN5	

CAUTION!

- 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 the cable is fully inserted into the header.

IMPORTANT! For water cooling kits, connect the pump connector to the **AIO_PUMP** header.

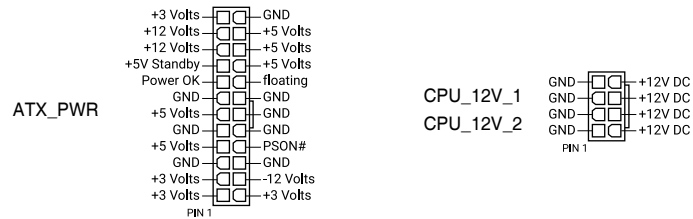
NOTE:

- When connecting a single CPU fan, you may connect it to either the **CPU_FAN** or **CPU_OPT** header.
- When connecting two CPU fans, ensure to connect the fans to the **CPU_FAN** and the **CPU_OPT** header, and make sure both fans are the same brand and model.

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	-
CHA_FAN3	1A	12W	Q-Fan Controlled	-
CHA_FAN4	1A	12W	Q-Fan Controlled	-
CHA_FAN5	1A	12W	Q-Fan Controlled	-
AIO_PUMP	1A	12W	Full Speed	-

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.



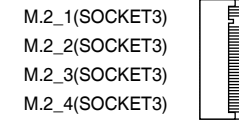
CAUTION! Ensure to connect the 8-pin power plug, or connect both the 8-pin power plugs.

NOTE:

- 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, we recommend using a PSU with 900W~1200W power or above to ensure the system stability.
- PSU input: AC 100-240V, 6A/3A, 50/60Hz

6. M.2 slot

The M.2 slot allows you to install M.2 devices such as M.2 SSD modules.

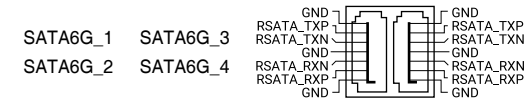


NOTE:

- **AMD Ryzen™ 9000 & 7000 Series Desktop Processors:**
 - M.2_1 slot (Key M), type 2242/2260/2280 (supports PCIe 5.0 x4 mode)
 - M.2_2 slot (Key M), type 2242/2260/2280 (supports PCIe 5.0 x4 mode)
- **AMD Ryzen™ 8000 Series Desktop Processors:**
 - M.2_1 slot (Key M), type 2242/2260/2280 (supports PCIe 4.0 x4 mode)
 - M.2_2 slot is not supported
- **AMD X870E Chipset:**
 - M.2_3 slot (Key M), type 2242/2260/2280 (supports PCIe 4.0 x4 mode)
 - M.2_4 slot (Key M), type 2242/2260/2280/22110 (supports PCIe 4.0 x4 mode)
- PCIe16(G5)_2 slot shares bandwidth with M.2_2.

7. SATA 6Gb/s port

The SATA 6Gb/s port allows you to connect SATA devices such as optical disc drives and hard disk drives via a SATA cable.

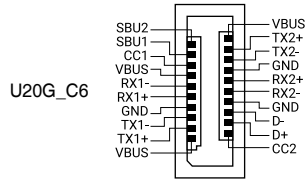


NOTE:

- If you installed SATA storage devices to the **SATA6G_1-4** ports, you can create RAID configurations through the onboard AMD X870E chipset.
- To install a SATA device, please refer to the **Motherboard Installation Guide** on the ASUS support site.
- Before creating a RAID set, refer to the **RAID Configuration Guide**. You can download the **RAID Configuration Guide** from the ASUS website.

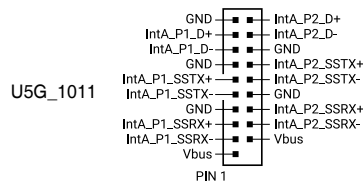
8. USB 20Gbps Type-C® Front Panel connector

The USB 20Gbps Type-C® connector allows you to connect a USB 20Gbps Type-C® module for additional USB 20Gbps ports on the front panel. The USB 20Gbps Type-C® connector provides data transfer speeds of up to 20 Gb/s and PD 3.0 support for up to DC 12V/2.5A 30W fast charging technology.



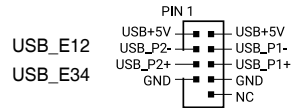
9. USB 5Gbps header

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



10. USB 2.0 header

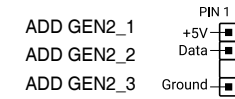
The USB 2.0 header allows you to connect a USB module for additional USB 2.0 ports. The USB 2.0 header provides data transfer speeds of up to 480 Mb/s.



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

11. Addressable Gen2 header

The Addressable Gen2 header allows you to connect individually addressable RGB (ARGB) WS2812B LED strips or WS2812B based LED strips.



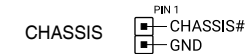
CAUTION! Before you install or remove any component, ensure that the power supply is switched off or the power cord is detached from the power supply. Failure to do so may cause severe damage to the motherboard, peripherals, or components.

NOTE:

- The Addressable Gen2 header supports addressable RGB LED strips (5V/Data/Ground), with a maximum power rating of 3A (5V). Additionally, the addressable header on this board can support up to 120 LEDs per header in Gen1 mode, or a combined maximum of 500 LEDs in Gen2 mode.
- 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.

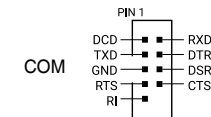
12. Chassis Intrusion header

The Chassis Intrusion header allows you to connect an intrusion sensor or microswitch for the chassis intrusion detection feature. When you remove any chassis component, the sensor or microswitch triggers and sends a high level signal and records a chassis intrusion event.



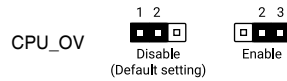
13. COM Port connector

The COM (Serial) Port connector allows you to connect a COM port module. Connect the COM port module cable to this connector, then install the module to a slot opening on the system chassis.



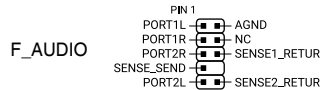
14. CPU Over Voltage jumper

The CPU Over Voltage jumper allows you to set a higher CPU voltage for a flexible overclocking system (depending on the type of the installed CPU). Set to pins 2-3 to increase the CPU voltage setting, or set to pins 1-2 to use the default CPU voltage setting.



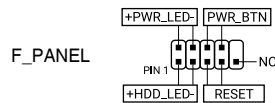
15. Front Panel Audio header

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.



16. System Panel header

The System Panel header supports several chassis-mounted functions.



- **System Power LED header (+PWR_LED-)**

The 2-pin header allows 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)**

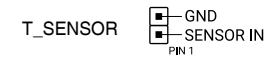
The 3-1 pin header allows you to connect the system power button. Press the power button to power up the system, or put the system into sleep or soft-off mode (depending on the operating system settings).

- **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.

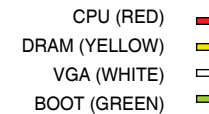
17. Thermal Sensor header

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.



18. Q-LEDs

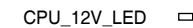
The Q-LEDs check key components (CPU, DRAM, VGA, and booting devices) during the motherboard booting process. If an error is found, the critical component's LED stays lit up until the problem is solved.



NOTE: 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.

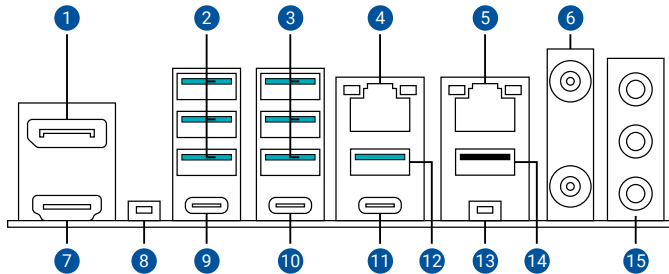
19. 8-pin CPU Power Plug LED

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



1.3 Motherboard rear and audio connections

1.3.1 Rear I/O connection



Rear panel connectors	
1.	DisplayPort
2.	USB 10Gbps (Teal) Type-A ports 4, 20, and 21
3.	USB 10Gbps (Teal) Type-A ports 9, 22, and 23
4.	Marvell® AQtion 10Gb Ethernet port*
5.	Intel® 2.5Gb Ethernet port*
6.	Wi-Fi module
7.	HDMI™ port
8.	Clear CMOS button (CLR_CMOS). Press this button to clear the BIOS setup information only when the systems hangs due to overlocking.
9.	USB 40Gbps (USB4®) with ASMedia ASM4242 controller port EC1
10.	USB 40Gbps (USB4®) with ASMedia ASM4242 controller port EC2
11.	USB 20Gbps Type-C® port C18
12.	USB 10Gbps (Teal) Type-A port 8
13.	BIOS FlashBack™ button
14.	USB 2.0 port 28
15.	Gold-plated audio jacks**

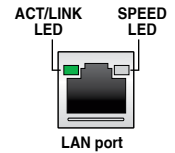
* and **: Refer to the tables under LAN port LEDs, and Audio I/O connections sections.

NOTE: We strongly recommend that you connect your devices to ports with matching data transfer rate. For example connecting your USB 5Gbps devices to USB 5Gbps ports for faster and better performance for your devices.

1.3.2 LAN port LEDs

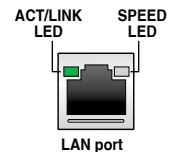
Marvell® AQtion 10Gb Ethernet port LED indications

Activity Link LED		Speed LED	
Status	Description	Status	Description
OFF	No link	OFF	No link
GREEN	Linked	GREEN	10 Gbps
BLINKING	Data activity	ORANGE	5 Gbps/ 2.5 Gbps/ 1Gbps/ 100 Mbps connection



Intel® 2.5Gb Ethernet port LED indications

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



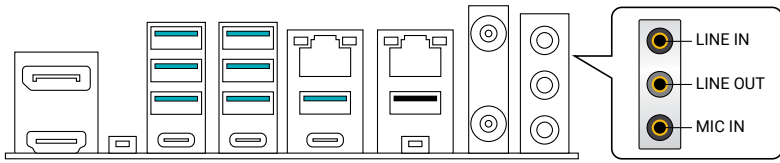
1.3.3 Audio I/O connections

Audio 2, 4, 5.1 or 7.1-channel configuration

Port	2-channel	4-channel	5.1-channel	7.1-channel
Rear panel				
LINE IN	-	-	-	Side Speaker Out
LINE OUT	Front Speaker Out	Front Speaker Out	Front Speaker Out	Front Speaker Out
MIC IN	-	-	Center/ Subwoofer	Center/ Subwoofer
Front panel				
HEADPHONE (Lime)	-	-	-	-
MIC IN (Pink)	-	Rear Speaker Out	Rear Speaker Out	Rear Speaker Out

NOTE:

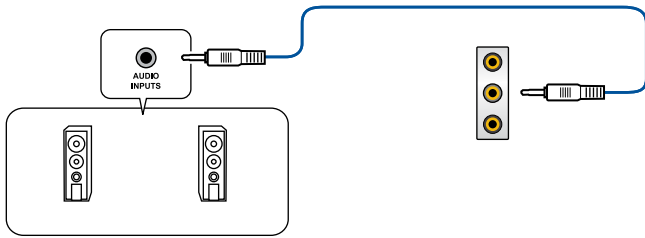
- Due to limitations in HDA bandwidth, 32-Bit/192 kHz is not supported for 7.1 Surround Sound audio.
- A chassis with an HD audio module in the front panel is required to support 7.1 Surround Sound audio output.



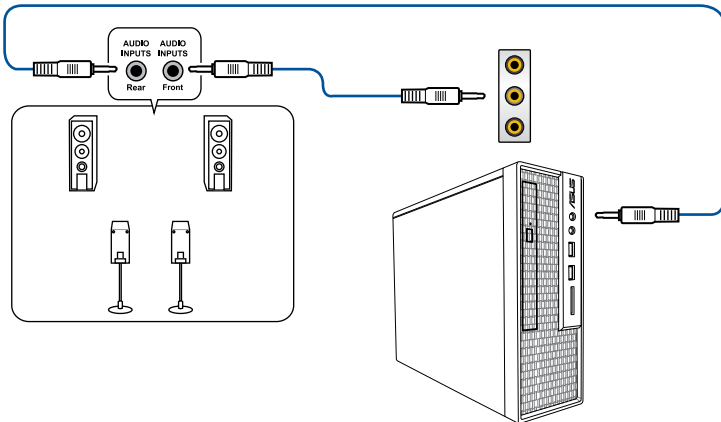
Connect to Headphone and Mic



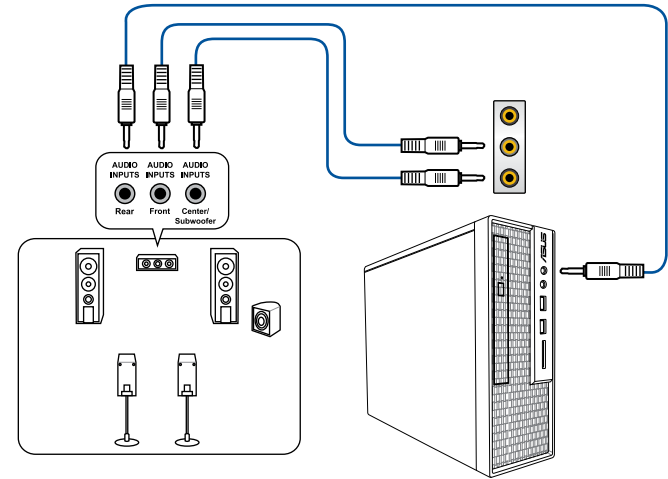
Connect to 2-channel Speakers



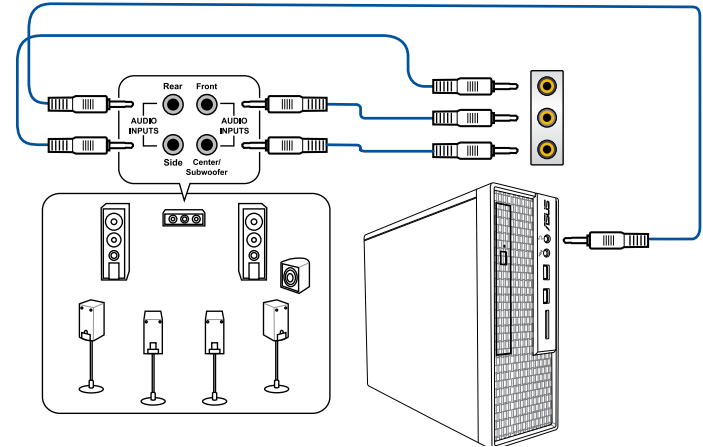
Connect to 4-channel Speakers



Connect to 5.1-channel Speakers



Connect to 7.1-channel Speakers



Basic Setup

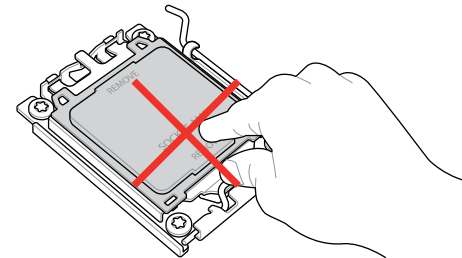
NOTE: The installation diagrams in this section are for reference only. The motherboard layout may vary with models, but the installation steps are the same for all models.

2.1 CPU installation

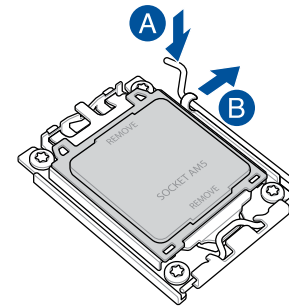
CAUTION!

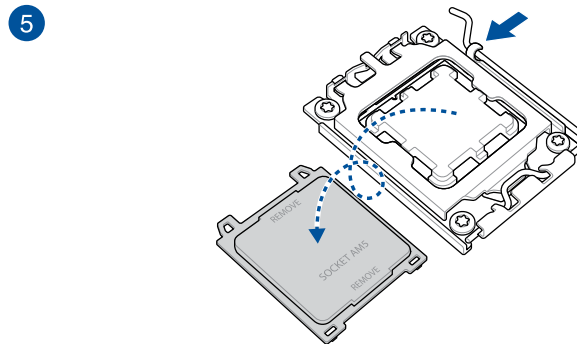
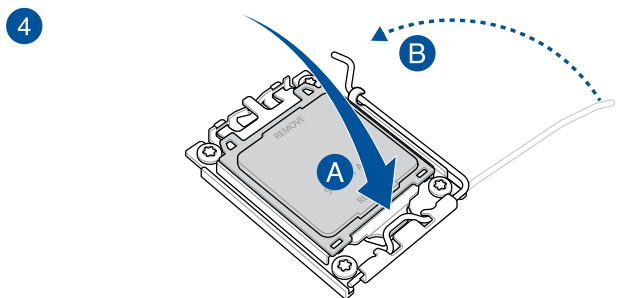
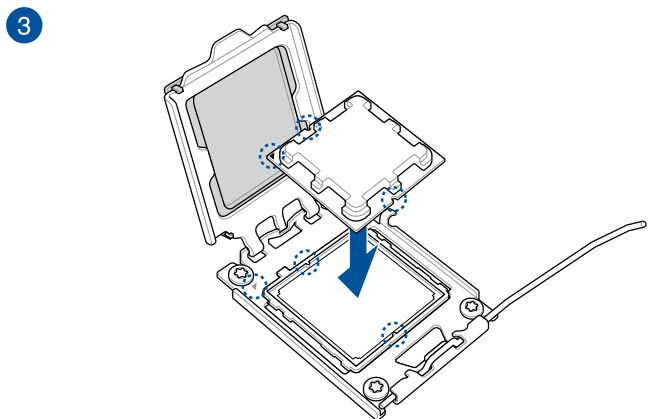
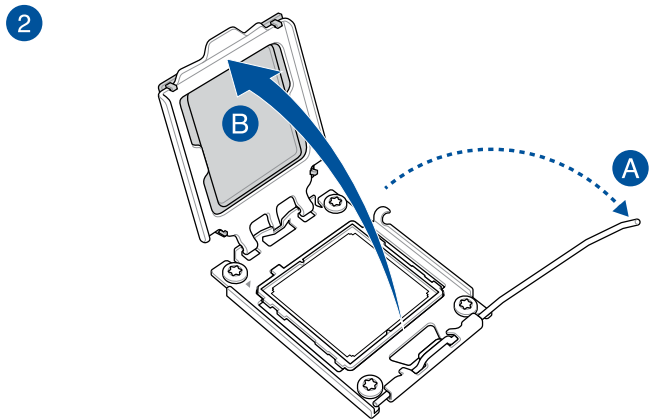
- Ensure that you use a CPU designed for the AM5 socket. The CPU fits in only one correct orientation. DO NOT force the CPU into the socket to prevent bending the pins and damaging the CPU
- Ensure that all power cables are unplugged before installing the CPU.
- Upon purchase of the motherboard, ensure that the PnP cap is on the socket and the socket contacts are not bent. Contact your retailer immediately if the PnP cap is missing, or if you see any damage to the PnP cap/socket contacts/motherboard components. ASUS will shoulder the cost of repair only if the damage is shipment/transit-related.

IMPORTANT! Install a heatsink or AIO cooler after installing the CPU. Please refer to the **Motherboard Installation Guide** on the ASUS support site, or to the user manual of the heatsink/AIO cooler for steps on installing the heatsink/AIO cooler.



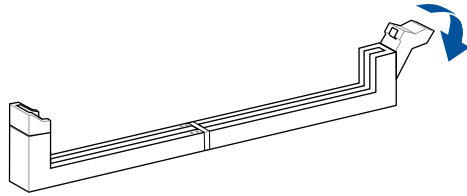
1



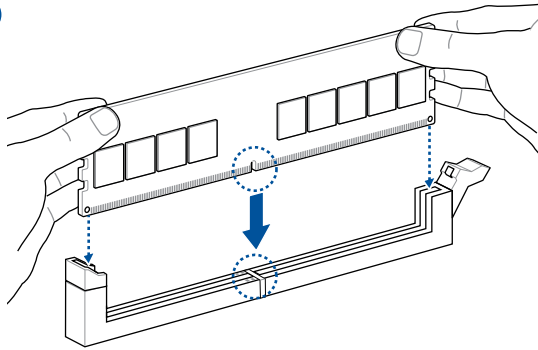


2.2 DIMM installation

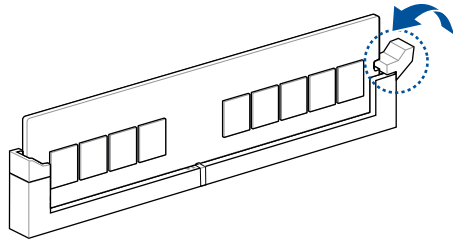
1



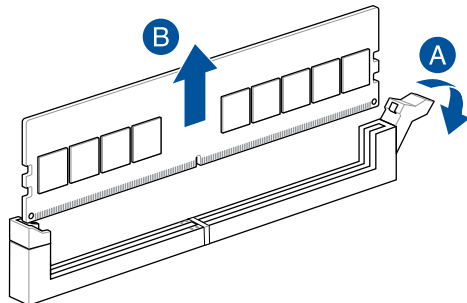
2



3



DIMM removal

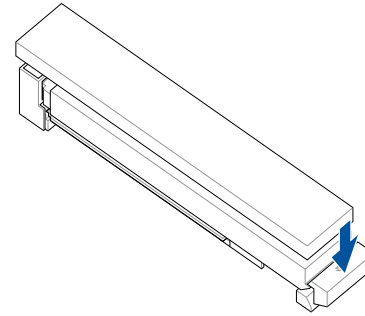


2.3 M.2 module installation

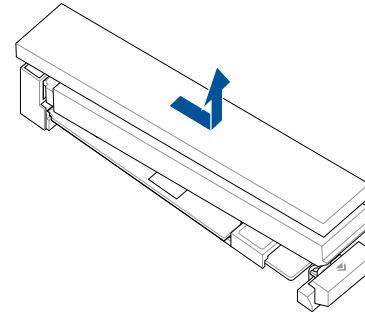
NOTE:

- The illustrations only show the installation steps for selected M.2 slots, the steps are the same for the other M.2 slots.
- Use a Phillips screwdriver when removing or installing the screws or screw stands mentioned in this section.
- If the thermal pad on the M.2 heatsink becomes damaged, we recommend replacing it with the bundled thermal pad or a thermal pad with a thickness of 1.25mm.
- Supported M.2 type varies per motherboard.

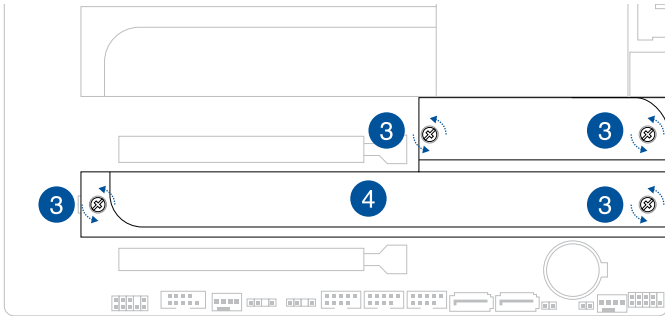
1. Press the tab downwards on the M.2 Q-Release to release the heatsink.



2. Pull the heatsink slightly outwards towards the tab, then lift and remove the heatsink.



3. Loosen the screws from the other M.2 heatsink(s).
4. Lift and remove the heatsink(s).

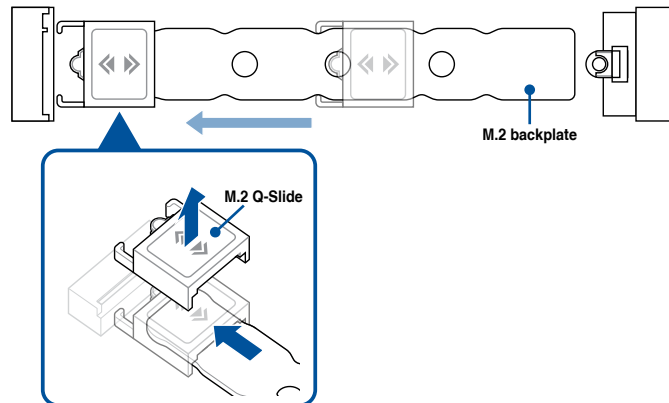


5. Install your M.2 module to your M.2 slot. The steps may differ between the different M.2 slots, please refer to the different installation steps below:

Installing an 22110 M.2 module to 22110 length M.2 slot with backplate or 2280 M.2 module to 2280 length M.2 slot with backplate

- A. (optional) If required, remove the pre-installed M.2 Q-Slide by pushing the M.2 Q-Slide all the way towards the M.2 slot then removing it from the M.2 backplate.

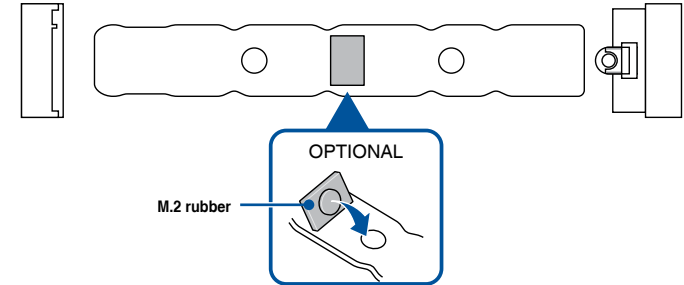
NOTE: Only 22110 length M.2 backplates come pre-installed with the M.2 Q-Slide.



- B. (optional) Install the bundled M.2 rubber if you are installing a single sided M.2 module. DO NOT install the bundled M.2 rubber when installing a double-sided M.2 module.

NOTE:

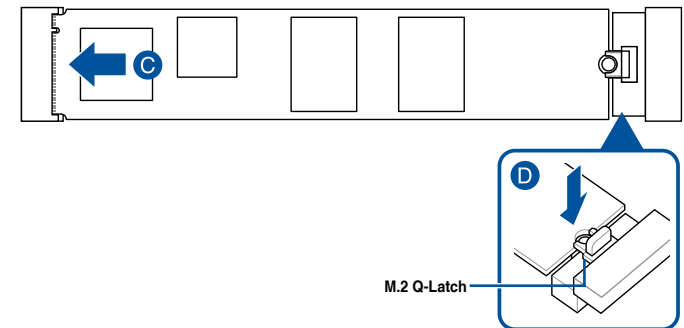
- Only follow this step when the M.2 rubber comes bundled with your motherboard package.
- Install the bundled M.2 rubber to the 2260 M.2 length screw hole.



- C. Install your M.2 module to the M.2 slot.

IMPORTANT! Ensure that there is nothing obstructing your M.2 module when installing the M.2 module to the M.2 slot.

- D. Push the M.2 module down until it is secured by the M.2 Q-Latch.



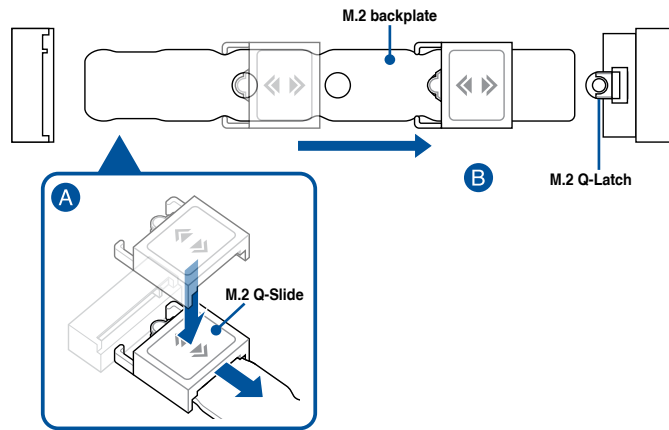
Installing an 2280/2260/2242 M.2 module to M.2 slot with 22110 length M.2 backplate or 2260/2242 M.2 module to M.2 slot with 2280 length M.2 backplate

- A. (optional) If required, install the bundled M.2 Q-Slide by attaching the M.2 Q-Slide to the end of the M.2 backplate closest to the M.2 slot, then pushing it along the M.2 backplate towards the M.2 Q-Latch.

NOTE: Only follow this step when:

- a. The M.2 Q-Slide comes bundled with your motherboard package.
- b. The M.2 Q-Slide is not pre-installed to the M.2 backplate.

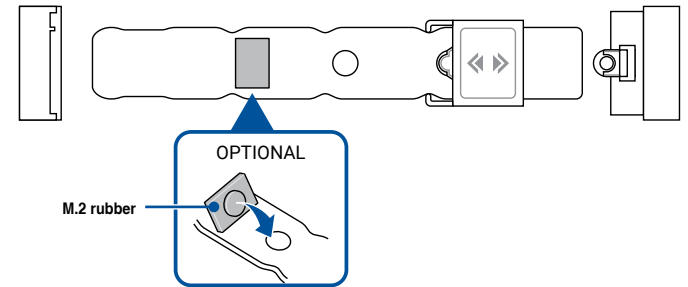
- B. Push the M.2 Q-Slide to the M.2 length screw hole you wish to install your M.2 module to..



- C. (optional) Install the bundled M.2 rubber if you are installing a single sided M.2 module. DO NOT install the bundled M.2 rubber when installing a double-sided M.2 module.

NOTE:

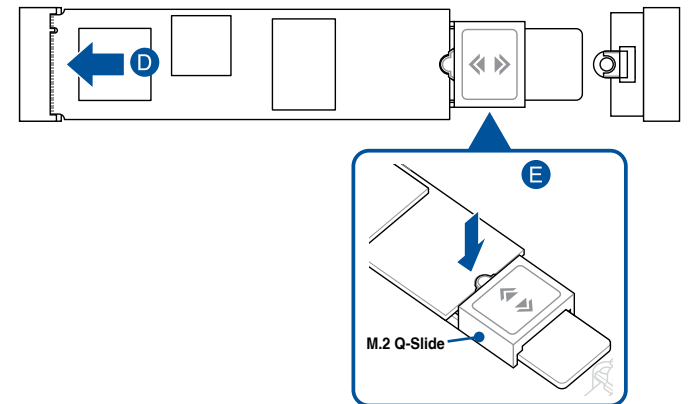
- Only follow this step when:
 - a. Installing a 2280 or 2260 length M.2 module and
 - b. When the M.2 rubber comes bundled with your motherboard package.
- Install the bundled M.2 rubber to the:
 - a. 2260 M.2 length screw hole when installing a 2280 length M.2 module.
 - b. 2242 M.2 length screw hole when installing a 2260 length M.2 module.



- D. Install your M.2 module to the M.2 slot.

IMPORTANT! Ensure that there is nothing obstructing your M.2 module when installing the M.2 module to the M.2 slot.

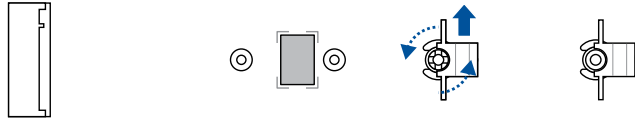
- E. Push the M.2 module down onto the M.2 Q-Slide until the M.2 module clicks into place and is secured by the M.2 Q-Slide.



Installing an M.2 module to M.2 slot without M.2 backplate

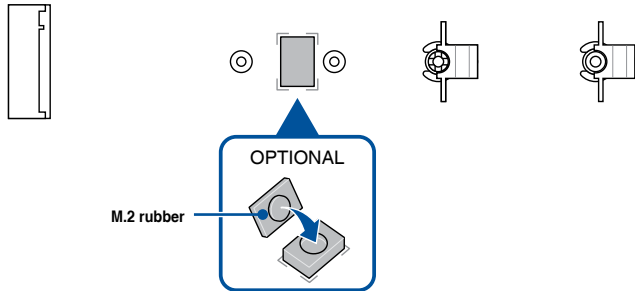
- A. (optional) If required, remove the pre-installed removable M.2 Q-Latch screw at the 2280 length screw hole.

NOTE: Only follow this step if a removable M.2 Q-Latch screw is pre-installed at the 2280 length screw hole and can be removed.



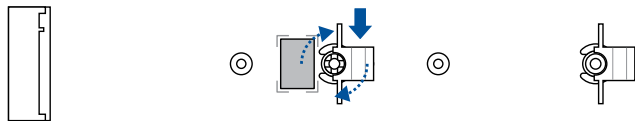
- B. (optional) Install the bundled M.2 rubber if you are installing a single sided M.2 module. DO NOT install the bundled M.2 rubber when installing a double-sided M.2 module. The rubber installed by default is compatible with double sided M.2 modules.

NOTE: Only follow this step if installing a 22110 or 2280 length M.2 module and when the M.2 rubber comes bundled with your motherboard package.



- C. (optional) Install the M.2 Q-Latch to the M.2 length screw hole you wish to install your M.2 module to.

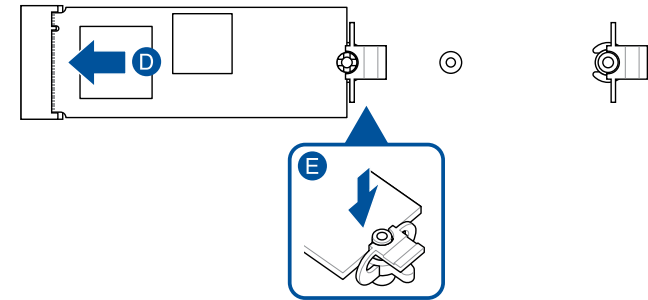
NOTE: You can use a bundled M.2 Q-Latch screw or a pre-installed removable M.2 Q-Latch screw.



- D. Install your M.2 module to the M.2 slot.

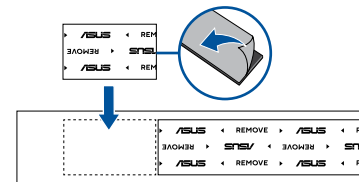
IMPORTANT! Ensure that there is nothing obstructing your M.2 module when installing the M.2 module to the M.2 slot.

- E. Push the M.2 module down until it is secured by the M.2 Q-Latch.



6. (optional) Remove the plastic film from one side of the bundled thermal pad for 22110 heatsink, then stick it onto the designated location on the bottom of the 22110 heatsink.

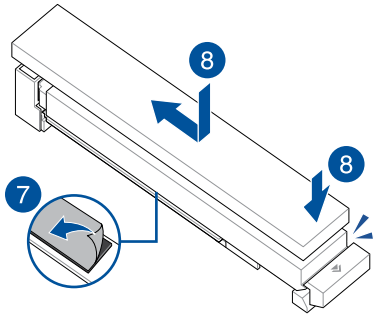
NOTE: Only follow this step if installing 22110 length heatsink and when the thermal pad for 22110 heatsink comes bundled with your motherboard package.



7. Remove the plastic film from the thermal pads on the bottom of the heatsink.

NOTE: If the thermal pad on the M.2 heatsink becomes damaged, we recommend replacing it with the bundled thermal pad or a thermal pad with a thickness of 1.25mm.

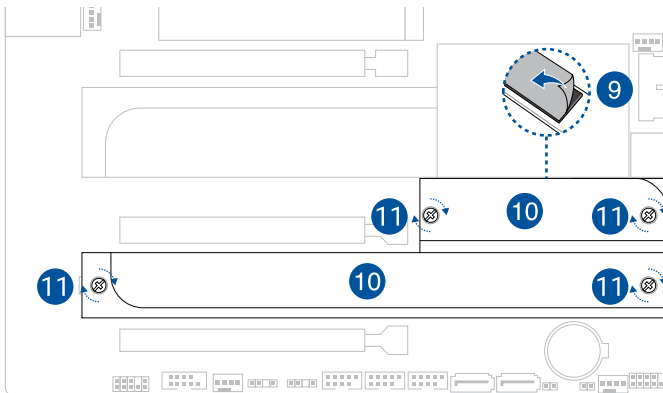
8. Slide the heatsink into the slot on the end with the M.2 slot, then press the heatsink down until it clicks into place and is secured.



9. Remove the plastic film from the thermal pads on the bottom of the other heatsink(s).

NOTE: If the thermal pad on the M.2 heatsink becomes damaged, we recommend replacing it with the bundled thermal pad or a thermal pad with a thickness of 1.25mm.

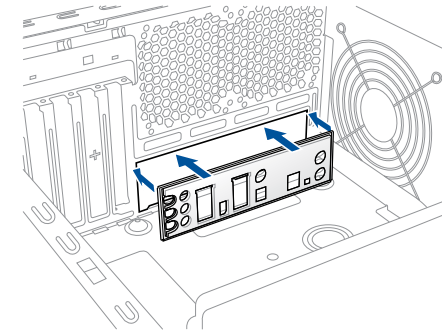
10. Replace the heatsink(s).
11. Secure the heatsink(s) using the screws on the heatsink(s).



2.4 Motherboard installation

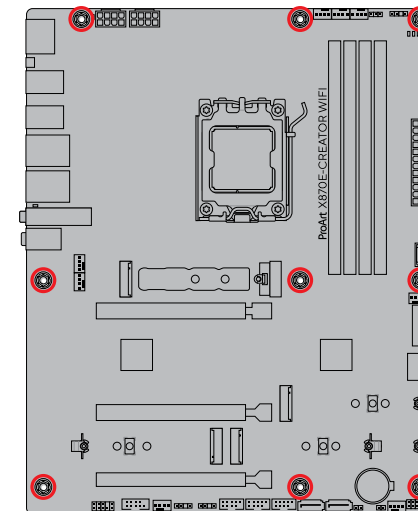
1. (on selected models) Install the bundled I/O Shield to the chassis rear I/O panel.

NOTE: Only install the I/O Shield if your motherboard does not have a pre-installed I/O shield.



2. Place the motherboard into the chassis, ensuring that its rear I/O ports are aligned to the chassis' rear I/O panel.
3. Place nine (9) screws into the holes indicated by circles to secure the motherboard to the chassis.

NOTE: This instruction is for reference only, please place the amount of screws according to your installation situation.



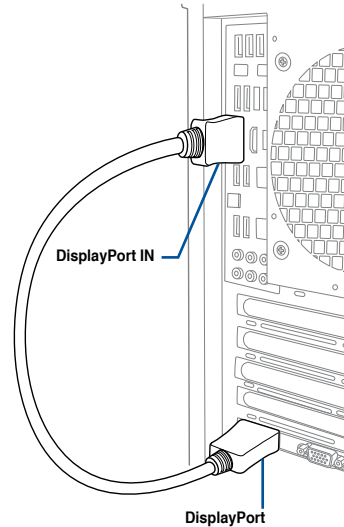
CAUTION! DO NOT over tighten the screws! Doing so can damage the motherboard.

2.5 USB4® monitor connection

NOTE: Refer to the **USB4® and DisplayPort configuration** section on the next page for more details on the configurations available using the DP IN and USB4® Type-C® ports.

1. Connect the bundled ASUS DisplayPort cable to the DisplayPort on a discrete graphic card and to the DisplayPort IN port on the motherboard.

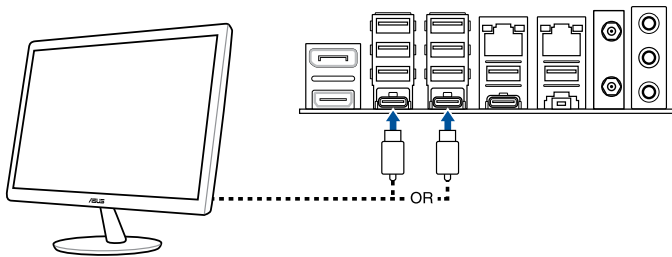
NOTE: Refer to section **Rear I/O connection** for the location of the DisplayPort IN port.



2. Connect a video capable USB Type-C® cable to a USB4® Type-C® port (USB Type-C® EC1 or USB Type-C® EC2) on the motherboard and to a monitor featuring a USB Type-C® port.

IMPORTANT!

- The USB4® port features the ASMedia ASM4242 controller and can support up to 10 Gb/s when USB10Gbps devices are connected.
- Ensure to use a video capable USB Type-C® when connecting a monitor featuring a USB Type-C® port.



NOTE: USB4® Type-C® port can be connected to any USB Type-C® compatible display or device.

USB4® and DisplayPort configuration

NOTE: If you have a CPU with integrated graphics and wish to only use a single USB4® output with DisplayPort 1.4, we recommend you connect the external graphics card to the **DisplayPort IN** port and connect the compatible display to the **USB4® Type-C® port EC1** port for optimal performance.

The tables below will list the different USB4® and DisplayPort configurations for different scenarios.

1. DisplayPort IN input to USB4® Type-C® output (Using a CPU with integrated graphics)

		USB4® Type-C® port EC1	USB4® Type-C® port EC2	Details
A	DP-IN no input	V	V	Both USB4® Type-C® port EC1 and USB4® Type-C® port EC2 has output using the CPU integrated graphics.
B	DP-IN with input	V	V	USB4® Type-C® port EC1 output standards depend on the external graphics card. USB4® Type-C® port EC2 output uses CPU integrated graphics.

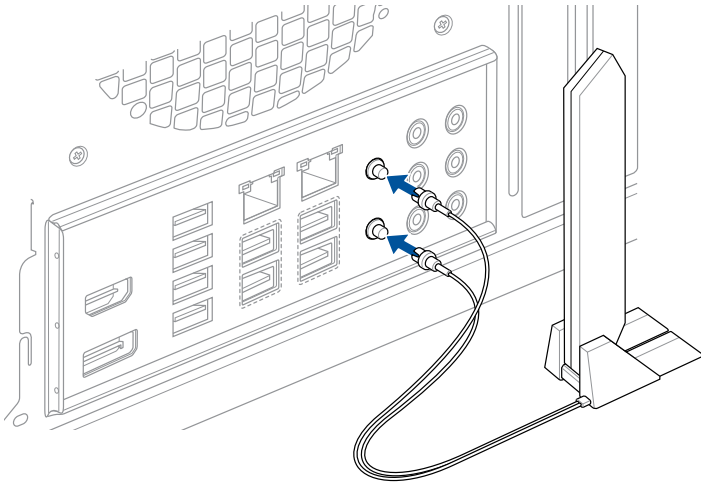
2. DisplayPort IN input to USB4® Type-C® output (Using a CPU without integrated graphics)

		USB4® Type-C® port EC1	USB4® Type-C® port EC2	Details
A	DP-IN no input	-	-	Not supported
B	DP-IN with input	V	-	Only USB4® Type-C® port EC1 has output. Output standards depend on the external graphics card

2.6 ASUS WiFi Q-Antenna installation

Installing the ASUS WiFi Q-Antenna

Connect the bundled ASUS WiFi Q-Antenna connector to the Wi-Fi ports at the back of the chassis.



CAUTION!

- Ensure to hold tightly onto the connector when removing the antenna connector from the Wi-Fi ports, and refrain from attempting to remove the antenna connector from the Wi-Fi ports by pulling on the antenna connector cable.
- The antenna can only be extended to a right angle (90°). Do not force the antenna into an angle more than 90°, doing so may cause damages to the ASUS WiFi Q-Antenna.

IMPORTANT!

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

NOTE: The illustration above is for reference only. The I/O port layout may vary with models, but the WiFi Q-Antenna installation procedure is the same for all models.

Using ASUS WiFi Q-Antenna functions

The ASUS WiFi Q-Antenna features a variety of wireless functions, you can learn more about these feature and how to use them in the **ASUS WiFi Q-Antenna** tab in Armoury Crate.

NTOE: The ASUS WiFi Q-Antenna function in Armoury Crate is only supported on the bundled antenna and Wi-Fi module.

2.7 BIOS FlashBack™

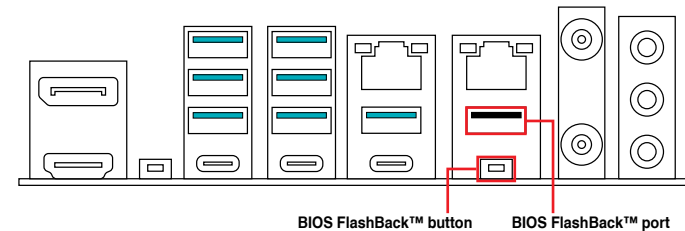
BIOS FlashBack™ allows you to easily update the BIOS without entering the existing BIOS or operating system.

To use BIOS FlashBack™:

1. Visit <https://www.asus.com/support/> and download the latest BIOS version for this motherboard.
2. Launch the **BIOSRenamer.exe** application to automatically rename the file or manually rename the file to the BIOS CAP filename specified in the **Specifications summary** section, then copy it to your USB storage device.

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

3. Plug the 24-pin power connector to the motherboard and turn on the power supply (no need to power on the system). Insert the USB storage device to the USB port with BIOS FlashBack™ function.
4. 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.



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

NOTE: For more BIOS update utilities in BIOS setup, refer to **BIOS and RAID Support** section.

CAUTION!

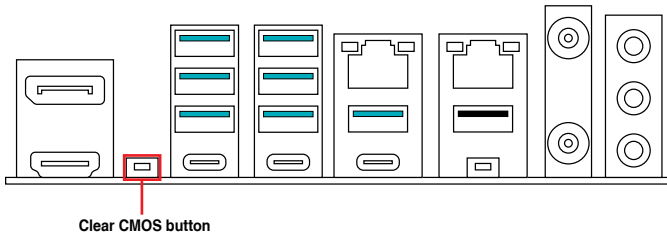
- Do not unplug portable disk, power system, press the Clear CMOS button, or short the CLRRTC header while BIOS update is ongoing, otherwise update will be interrupted. In case of interruption, please follow the steps again.
- If the light flashes for five seconds and turns into a solid light, this means 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.

2.8 Clear CMOS button

The Clear CMOS button located on the rear I/O 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. Press the Clear CMOS button.



3. Plug the power cord and turn ON the computer.
4. Hold down the key during the boot process and enter BIOS setup to re-enter data.

CAUTION! DO NOT press the Clear CMOS button except when clearing the RTC RAM, doing so will cause system boot failure!

2.9 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, 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.
7. At power on, hold down the <Delete> key to enter the BIOS Setup. Follow the instructions in Chapter 3.

2.10 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

NOTE: For more details on BIOS and RAID configurations, please refer to Manual & Document under the Support tab of the product information site, or visit <https://www.asus.com/support>.

3.1 Knowing UEFI BIOS

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.

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

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

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.

IMPORTANT!

- 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 the <F5> hotkey.
- 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.

3.2 ASUS EZ Flash 3

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

IMPORTANT! 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 the <F5> hotkey.

To update the BIOS:

CAUTION!

- 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 arrow key 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 Right arrow key 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.

3.3 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 file using one of the following methods:
 - Launch the **BIOSRenamer.exe** application to automatically rename the file.
 - Manually rename the file to the BIOS CAP filename specified in the **Specifications summary** section.
 - Manually rename the file to **ASUS.CAP**.
3. Copy the renamed file to your USB storage device.
4. Turn on the system.
5. Insert the USB flash drive containing the BIOS file to a USB port.
6. 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.
7. The system requires you to enter BIOS Setup to recover the BIOS setting. To ensure system compatibility and stability, we recommend that you press the <F5> hotkey to load default BIOS values.

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

3.4 RAID configurations

The motherboard supports RAID configurations.

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.

NOTE: 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 5 stripes both data and parity information across three or more hard disk drives. Among the advantages of RAID 5 configuration include better HDD performance, fault tolerance, and higher storage capacity. The RAID 5 configuration is best suited for transaction processing, relational database applications, enterprise resource planning, and other business systems. Use a minimum of three identical hard disk drives for this setup.

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

General 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.

HDMI Trademark Notice

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

HDMI™
HIGH-DEFINITION MULTIMEDIA INTERFACE

安全上のご注意

付属品は当該専用品です。他の機器には使用しないでください。機器の破損もしくは、火災や感電の原因となることがあります。

VCCI: Japan Compliance Statement

Class B ITE

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

取扱説明書に従って正しい取り扱いをして下さい。

V C C I - B

Japan JATE

本製品は電気通信事業者（移动通信会社、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。

Australia statement notice

From 1 January 2012 updated warranties apply to all ASUS products, consistent with the Australian Consumer Law. For the latest product warranty details please visit <https://www.asus.com/support/>. Our goods come with guarantees that cannot be excluded under the Australian Consumer Law. You are entitled to a replacement or refund for a major failure and compensation for any other reasonably foreseeable loss or damage. You are also entitled to have the goods repaired or replaced if the goods fail to be of acceptable quality and the failure does not amount to a major failure.

If you require assistance please call ASUS Customer Service 1300 2787 88 or visit us at <https://www.asus.com/support/>.

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 <https://esg.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 <https://esg.asus.com/Compliance.htm>.

EU RoHS

This product complies with the EU RoHS Directive. For more details, see <https://esg.asus.com/Compliance.htm>

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.

Türkiye 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 <https://esg.asus.com/en/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.

France sorting and recycling information



Notices for Wi-Fi model

FCC RF Caution Statement

WARNING: Any changes or modifications not expressly approved by the party responsible for compliance could void your authority to operate the equipment.

FCC Wi-Fi Caution Statement

Operation of transmitters in the 5.925-7.125 GHz band is prohibited for control of or communications with unmanned aircraft systems.

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 provide with antenna installation instructions and transmitter operating conditions for satisfying RF exposure compliance.

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)

ISED Wi-Fi Caution Statement (RLAN devices)

Devices shall not be used for control of or communications with unmanned aircraft systems.

Les dispositifs ne doivent pas être utilisés pour commander des systèmes d'aéronef sans pilote ni pour communiquer avec de tels systèmes.

KC: Korea Warning Statement

B급 기기 (가정용 방송통신기자재)

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

*당해 무선설비는 전파혼신 가능성이 있으므로 인명안전과 관련된 서비스는 할 수 없습니다.

NCC: Wireless Statement

取得審驗證明之低功率射頻器材，非經核准，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。低功率射頻器材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。前述合法通信，指依電信管理法規定作業之無線電通信。低功率射頻器材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、及び6GHz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.

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 the country listed below:

UK

UKCA RF Output table (The Radio Equipment Regulations 2017)

Model: MT7927

- Low power indoor (LPI) Wi-Fi 5.945-6.425 GHz devices:
The device is restricted to indoor use only when operating in the 5925 to 6425 MHz frequency ranges in the UK.
- Very Low Power (VLP) Wi-Fi 5.945-6.425 GHz devices (portable devices):
The device is not permitted to be used on Unmanned Aircraft Systems (UAS) when operating in the 5925 to 6425 MHz frequency range in the UK.

Function	Frequency	Maximum Output Power EIPR (mW)
WiFi	2.4 - 2.4835 GHz	<100
	5.15 - 5.35 GHz	<200
	5.47 - 5.725 GHz	<200
	5.725 - 5.875 GHz*	<25
Bluetooth	5.925 - 6.425 GHz	<200
	2.4 - 2.4835 GHz	<100

Receiver category 1

* Non-Intel modules: 5.725 - 5.85 GHz



Simplified EU Declaration of Conformity

ASUSTek Computer Inc. hereby declares that this device is in compliance with the essential requirements and other relevant provisions of Directive 2014/53/EU. Full text of EU declaration of conformity is available at <https://www.asus.com/support/>.

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

- Low power indoor (LPI) Wi-Fi 5.945-6.425 GHz devices:
The device is restricted to indoor use only when operating in the 5945 to 6425 MHz frequency range in Austria (AT), Belgium (BE), Bulgaria (BG), Cyprus (CY), Czech Republic (CZ), Estonia (EE), France (FR), Germany (DE), Iceland (IS), Ireland (IE), Latvia (LV), Luxembourg (LU), Netherlands (NL), Norway (NO), Romania (RO), Slovakia (SK), Slovenia (SI), Spain (ES), Switzerland (CH)
- Very Low Power (VLP) Wi-Fi 5.945-6.425 GHz devices (portable devices):
The device is not permitted to be used on Unmanned Aircraft Systems (UAS) when operating in the 5945 to 6425 MHz frequency range in Austria (AT), Belgium (BE), Bulgaria (BG), Cyprus (CY), Czech Republic (CZ), Estonia (EE), France (FR), Germany (DE), Iceland (IS), Ireland (IE), Latvia (LV), Luxembourg (LU), Netherlands (NL), Norway (NO), Romania (RO), Slovakia (SK), Slovenia (SI), Spain (ES), Switzerland (CH)

Déclaration de conformité simplifiée de l'UE

ASUSTEK COMPUTER INC. déclare par la présente que cet appareil est conforme aux critères essentiels et autres clauses pertinentes de la directive 2014/53/UE. La déclaration de conformité de l'UE peut être téléchargée à partir du site internet suivant : <https://www.asus.com/fr/support/>.

Dans la plage de fréquences 5150-5350 MHz, le WiFi est restreint à une utilisation en intérieur dans les pays listés ci-dessous :

- Pour les appareils WiFi LPI (Low Power Indoor) dans la plage 5,945-6,425 GHz :
L'appareil est limité à une utilisation en intérieur uniquement lorsqu'il fonctionne dans la plage de fréquences 5945-6425 MHz en Autriche (AT), Belgique (BE), Bulgarie (BG), Chypre (CY), République tchèque (CZ), Estonie (EE), France (FR), Allemagne (DE), Islande (IS), Irlande (IE), Lettonie (LV), Luxembourg (LU), Pays-Bas (NL), Norvège (NO), Roumanie (RO), Slovaquie (SK), Slovénie (SI), Espagne (ES), Suisse (CH).
- Pour les appareils portables WiFi VLP (Very Low Power) dans la plage 5,945-6,425 GHz :
L'appareil n'est pas autorisé à être utilisé sur des systèmes d'aéronefs sans pilote (UAS) lorsqu'il fonctionne dans la plage de fréquences 5945-6425 MHz en Autriche (AT), Belgique (BE), Bulgarie (BG), Chypre (CY), République tchèque (CZ), Estonie (EE), France (FR), Allemagne (DE), Islande (IS), Irlande (IE), Lettonie (LV), Luxembourg (LU), Pays-Bas (NL), Norvège (NO), Roumanie (RO), Slovaquie (SK), Slovénie (SI), Espagne (ES), Suisse (CH).

Vereinfachte EU-Konformitätserklärung

ASUSTek Computer Inc. erklärt hiermit, dass dieses Gerät mit den wesentlichen Anforderungen und anderen relevanten Bestimmungen der Richtlinie 2014/53/EU übereinstimmt. Der gesamte Text der EU-Konformitätserklärung ist verfügbar unter: <https://www.asus.com/support/>.

Der WLAN-Betrieb im Band von 5150-5350 MHz ist für die in der unteren Tabelle aufgeführten Länder auf den Innenbereich beschränkt:

- Low Power Indoor (LPI) Wi-Fi 5,945 bis 6,425 GHz-Geräte:
Das Gerät ist auf den Innenbereich beschränkt, wenn es im Frequenzbereich von 5945 MHz bis 6425 MHz in Österreich (AT), Belgien (BE), Bulgarien (BG), Zypern (CY), der Tschechischen Republik (CZ), Estland (EE), Frankreich (FR), Deutschland (DE), Island (IS), Irland (IE), Lettland (LV), Luxemburg (LU), den Niederlanden (NL), Norwegen (NO), Rumänien (RO), der Slowakei (SK), Slowenien (SI), Spanien (ES) und der Schweiz (CH) betrieben wird.
- Very Low Power (VLP) Wi-Fi 5,945 bis 6,425 GHz-Geräte (tragbare Geräte):
Das Gerät darf nicht auf unbemannten Luftfahrzeugsystemen (UAS) verwendet werden, wenn es im Frequenzbereich von 5945 MHz bis 6425 MHz in Österreich (AT), Belgien (BE), Bulgarien (BG), Zypern (CY), der Tschechischen Republik (CZ), Estland (EE), Frankreich (FR), Deutschland (DE), Island (IS), Irland (IE), Lettland (LV), Luxemburg (LU), den Niederlanden (NL), Norwegen (NO), Rumänien (RO), der Slowakei (SK), Slowenien (SI), Spanien (ES) und der Schweiz (CH) betrieben wird.

Dichiarazione di conformità UE semplificata

ASUSTek Computer Inc. con la presente dichiara che questo dispositivo è conforme ai requisiti essenziali e alle altre disposizioni pertinenti con la direttiva 2014/53/UE. Il testo completo della dichiarazione di conformità UE è disponibile all'indirizzo: <https://www.asus.com/support/>.

L'utilizzo della rete Wi-Fi con frequenza compresa nell'intervallo 5150-5350MHz deve essere limitato all'interno degli edifici per i paesi presenti nella seguente tabella:

- Dispositivi LPI (Low Power Indoor) Wi-Fi 5.945-6.425 GHz:
Il dispositivo è limitato all'uso in ambienti interni quando funziona nella gamma di frequenza da 5945 a 6425 MHz in Austria (AT), Belgio (BE), Bulgaria (BG), Cipro (CY), Repubblica Ceca (CZ), Estonia (EE), Francia (FR), Germania (DE), Islanda (IS), Irlanda (IE), Lettonia (LV), Lussemburgo (LU), Paesi Bassi (NL), Norvegia (NO), Romania (RO), Slovacchia (SK), Slovenia (SI), Spagna (ES), Svizzera (CH).
- Dispositivi VLP (Very Low Power) Wi-Fi 5.945-6.425 GHz (dispositivi portatili):
Il dispositivo non può essere utilizzato su Unmanned Aircraft Systems (UAS) quando opera nella gamma di frequenza da 5945 a 6425 MHz in Austria (AT), Belgio (BE), Bulgaria (BG), Cipro (CY), Repubblica Ceca (CZ), Estonia (EE), Francia (FR), Germania (DE), Islanda (IS), Irlanda (IE), Lettonia (LV), Lussemburgo (LU), Paesi Bassi (NL), Norvegia (NO), Romania (RO), Slovacchia (SK), Slovenia (SI), Spagna (ES), Svizzera (CH).

Изделие соответствует основным требованиям директив ЕС

Настоящим, ASUSTEK COMPUTER INC., заявляет, что устройство соответствует основным требованиям и другим соответствующим условиям директивы 2014/53/UE. Полный текст декларации соответствия ЕС доступен на <https://www.asus.com/ru/support/>.

Работа WiFi в диапазоне частот 5150-5350 должна быть ограничена использованием в помещениях для стран, перечисленных в таблице ниже:

- Устройства Wi-Fi 5,945–6,425 ГГц для помещений с низким энергопотреблением (LPI): Устройство предназначено для использования внутри помещений только при работе в диапазоне частот от 5945 до 6425 МГц в Австрии (AT), Бельгии (BE), Болгарии (BG), Кипре (CY), Чехии (CZ), Эстонии (EE), Франции (FR), Германии (DE), Исландии (IS), Ирландии (IE), Латвии (LV), Люксембурге (LU), Нидерландах (NL), Норвегии (NO), Румынии (RO), Словакии (SK), Словении (SI), Испании (ES), Швейцарии (CH)
- Устройства Wi-Fi с очень низким энергопотреблением (VLP) 5,945–6,425 ГГц (портативные устройства): Устройство не разрешается использовать в беспилотных авиационных системах (БАС) при работе в диапазоне частот от 5945 до 6425 МГц в Австрии (AT), Бельгии (BE), Болгарии (BG), Кипре (CY), Чехии (CZ), Эстонии (EE), Франции (FR), Германии (DE), Исландии (IS), Ирландии (IE), Латвии (LV), Люксембурге (LU), Нидерландах (NL), Норвегии (NO), Румынии (RO), Словакии (SK), Словении (SI), Испании (ES), Швейцарии (CH)

Опростена декларация за съответствие на ЕС

С настоящото ASUSTek Computer Inc. декларира, че това устройство е в съответствие със съществени изисквания и другите приложими постановления на свързаната Директива 2014/53/ЕС. Пълният текст на ЕС декларация за съвместимост е достъпен на адрес <https://www.asus.com/support/>.

WiFi, работеща в диапазон 5150-5350MHz, трябва да се ограничи до употреба на закрито за страните, посочени в таблицата по-долу:

- Ниско захранване на закрито (LPI) Wi-Fi 5,945-6,425 GHz устройства:
Устройството е ограничено до употреба само на закрито, когато работи в честотния диапазон от 5945 до 6425 в Австрия (AT), Белгия (BE), България (BG), Кипър (CY), Чехия (CZ), Естония (EE), Франция (FR), Германия (DE), Исландия (IS), Ирландия (IE), Латвия (LV), Люксембург (LU), Нидерландия (NL), Норвегия (NO), Румъния (RO), Словакия (SK), Словения (SI), Испания (ES), Швейцария (CH).
- Много ниско захранване (VLP) Wi-Fi 5,945-6,425 GHz устройства (преносими устройства):
Устройството не е разрешено за употреба в беспилотни летателни средства (UAS) при работа в честотния диапазон от 5945 до 6425 MHz в Австрия (AT), Белгия (BE), България (BG), Кипър (CY), Чехия (CZ), Естония (EE), Франция (FR), Германия (DE), Исландия (IS), Ирландия (IE), Латвия (LV), Люксембург (LU), Нидерландия (NL), Норвегия (NO), Румъния (RO), Словакия (SK), Словения (SI), Испания (ES), Швейцария (CH).

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 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

VN: 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 מידע על אחריות:HB

- ASUS מציעה אחריות מסחרית של יצרן מוצג.
- ASUS שמרת לעצמה את הזכות לפרש את הוראות הערבות המסחרית של ASUS.
- אחריות מסחרית זו של ASUS ניתנת באופן עצמאי ובנוסף לערבות המשפטית הסטטוטורית ואינה משפיעה או מגבילה בשום אופן את הזכויות במסגרת הערבות המשפטית.

למידע אודות האחריות, אנא בקר ב
<https://www.asus.com/support>



Warranty Card (Online)

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<https://qr.asus.com/ProductSafety>

Service and support

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



Product register

Log in and register your device for better product support.



