

# GEEKOM

# Mini PC

## Air12 Series

Applicable Model: Mini Air12

## User Manual

## Revision History

| Revised Version | Revision History                                                    | Date           |
|-----------------|---------------------------------------------------------------------|----------------|
| 1.0             | Initial release of the GEEKOM Mini PC Mini Air12 Series User Manual | September 2024 |
|                 |                                                                     |                |

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## About This User Manual

This user manual provides an overview of the hardware settings and software features of the Mini PC. It is organized into the following chapters:

### **Chapter 1: Getting to Know Your Mini PC**

This chapter introduces the hardware components of the Mini PC.

### **Chapter 2: Using Your Mini PC**

This chapter covers the basic operations of the Mini PC.

### **Chapter 3: Upgrading Your Mini PC**

This chapter provides information on upgrading the memory module, wireless module, and hard drive/solid-state drive of your Mini PC

### **Chapter 4: TPM**

This chapter explains the relevant information about TPM.

### **Appendix**

This chapter includes the statements and safety instructions of the Mini PC.

## Prompt Description

The instructions for use of specific icons and information in the manual are as follows:

---

**Important!** This information contains important information that must be followed to complete the task.

---

---

**Note:** This information contains additional tips and helpful information to assist in completing the task.

---

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**Warning!** This information contains vital information that must be followed to ensure user safety and avoid damage to the Mini PC's data or components.

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## Package Box Contents

Your Mini PC package box should include the following items:



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**Notes:**

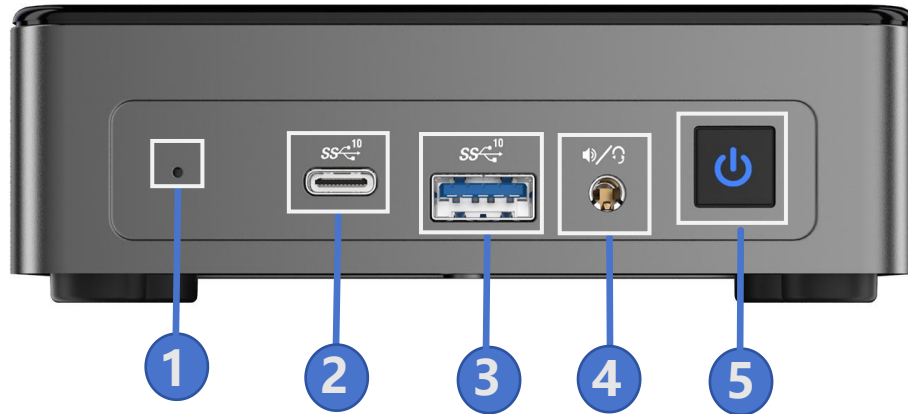
- Please visit <https://www.geekompc.com> to download the latest and most accurate product specifications.
  - Images are for reference only. The actual product may vary by region. Please refer to the product you purchased.
  - \*The included power adapter may vary depending on the model and region.
  - Accessories included with your Mini PC may differ based on the model. For detailed accessory information, please refer to the user manual of the specific model.
  - During the warranty period, if the product or its accessories experience any fault under normal usage conditions, please contact a GEEKOM-authorized service center with your warranty card and the faulty product.
-

# 1

## **Getting to Know Your Mini PC**

# Appearance Overview

## Front View



1

### Power-on Status Indicator



This indicator provides a visual indication of your MiniPc's boot progress and helps diagnose boot problems.

2

### USB 3.2 Gen2 Type-C Port



This USB 3.2 Gen2 Type-C® port provides the following functions:

- It provides up to 10 Gbit/s transfer rate for USB 3.2 Gen 2 devices.
- Downward compatibility with USB 3.1 and USB 2.0.
- USB power transmission provides a maximum current output of 5V/3A.

3

### USB 3.2 Gen2 TYPE-A Port



This USB 3.2 Gen2 (Universal Serial Bus) port provides a transfer speed of up to 10Gbit/s.

4

#### **Headphone/Headset/Microphone Output Port (Optional)**



This port is used to connect audio output devices such as speakers or headphones. It can also be used to connect external microphones or other audio output devices.

5

#### **Power Button**



This power button is used to turn the Mini PC on or off. You can also use it to put the Mini PC into sleep mode or press and hold it for approximately four seconds to force the Mini PC off.

## Left View



1

### SD Card Slot

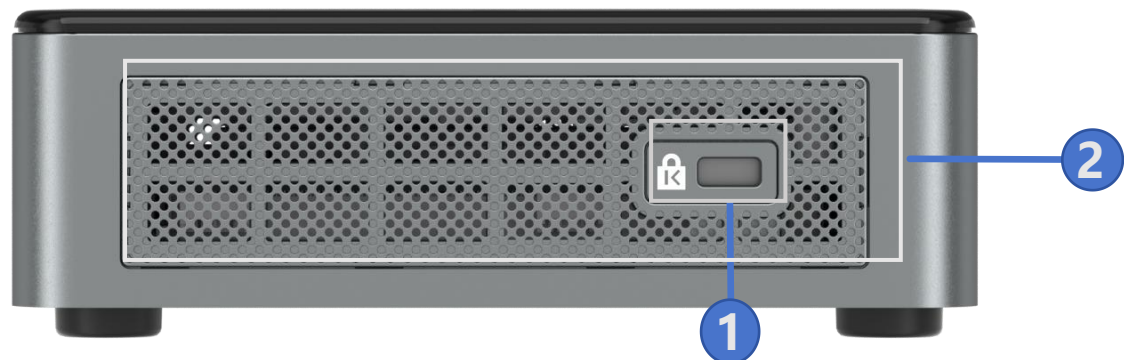
This slot is designed to accommodate an SD card.

---

Note: The SD card is optional and must be purchased separately.

---

## Right View



1

### Kensington Security Slot

The Kensington security slot allows you to secure your Mini PC with a compatible anti-theft lock.

2

### Ventilation Holes (Air Inlet)

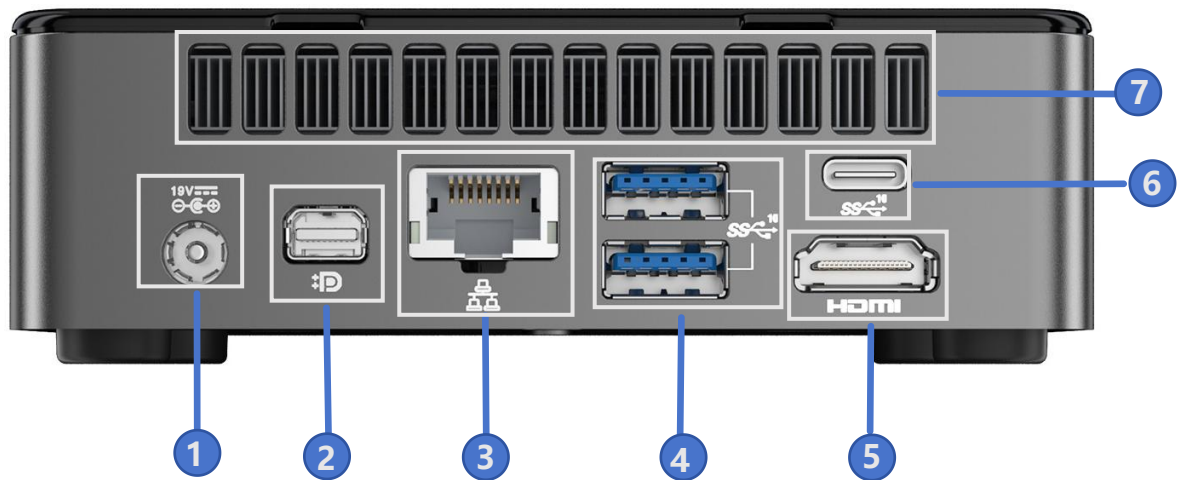
This heat emission hole allows cool air to enter the Mini PC case.

---

Important! Do not block the ventilation holes with paper, books, clothing, cables, or any other objects to avoid overheating the device.

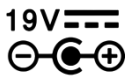
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## Back View



1

### Power Input Port



The power adapter converts AC power to DC power, which is supplied to your Mini PC via this port. To avoid damaging your Mini PC, always use the included power adapter.

---

Important! The power adapter may heat up during operation. Please ensure it is not covered by any objects and keep it away from your body.

---

Note:

The power adapter may vary depending on the model and region. Refer to the following information for details:  
45W power adapter: +19V DC——2.36A,45W

---

2

### MINI DP1.4



This DP1.4 is mainly used to connect video sources with devices such as monitors, and also supports carrying audio, USB and other forms of data.

**3**

### Ethernet Port



This 8-pin network port supports a standard Ethernet cable to connect to a LAN. It also supports WI-FI 6 (network data rates of 0-1000 Mbps) and Bluetooth 5.2 pairing.

**4**

### USB3.2 Gen2 TYPE-A Port



This USB 3.2 Gen2 (Universal Serial Bus) port provides a transfer speed of up to 10Gbit/s.

**5**

### HDMI Port



The HDMI (High-Definition Multimedia Interface) port can connect to Full-HD display devices for an enhanced viewing experience, such as LCD monitors or screens.

---

Note: The maximum resolution for this port, when used as a display output source, supports up to 4096x2304@60 Hz. Resolution may vary depending on the cable and output device.

---

**6**

### USB 3.2 Gen2 Type-C Port



This USB 3.2 Gen2 Type-C® port provides the following functions:

- Input and output multipurpose port (resolution 5120x2160@60Hz)
- It provides up to 10 Gbit/s transfer rate for USB 3.2 Gen 2 devices.
- Downward compatibility with USB 3.1 and USB 2.0.
- USB power transmission provides a maximum current output of 5V/3A.

## 7

### Ventilation Holes (Air Outlet)

These ventilation holes allow warm air to exit the Mini PC.

---

Important! Do not block the ventilation holes with paper, books, clothing, cables, or any other objects to avoid overheating the device.

---

# 2

## Using Your Mini PC

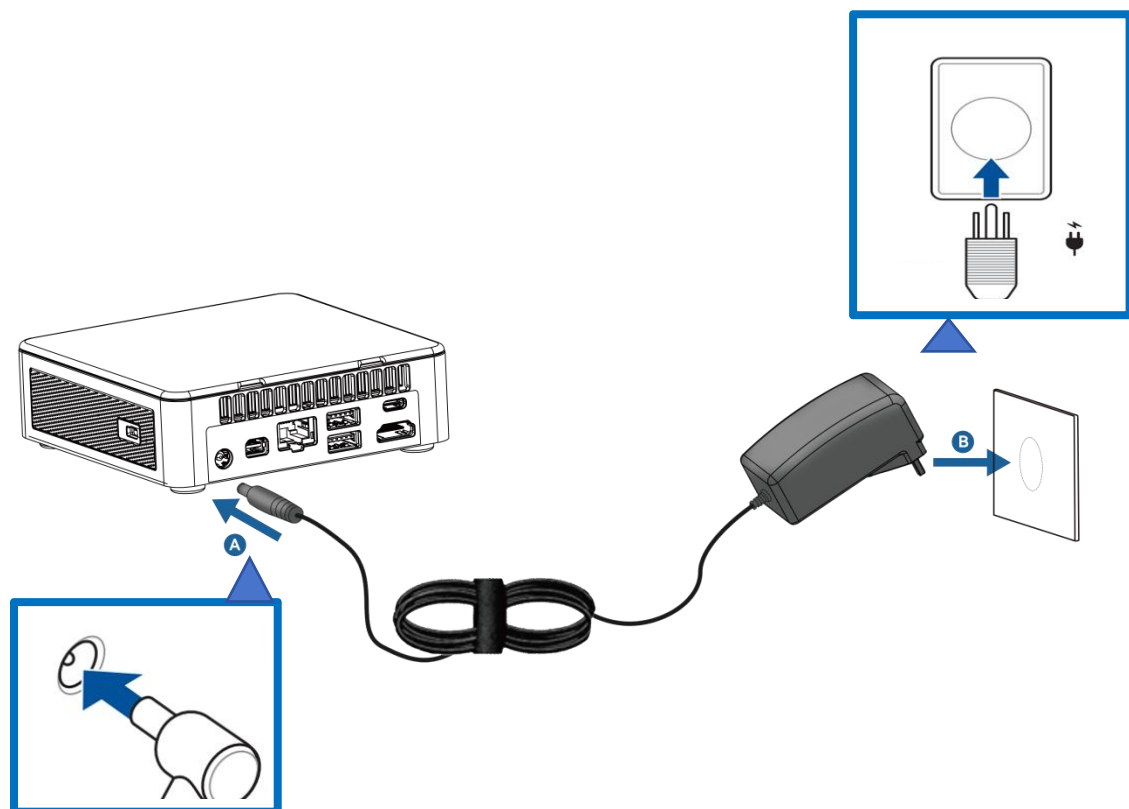
## Before You Start

### Connecting the Power Adapter to Your Mini PC

Follow the steps below to connect the power adapter to your Mini PC:

- A. Insert the DC power plug into the DC power jack on the Mini PC.
- B. Plug the AC power adapter into a 100V~240V power outlet.

Note: The appearance of the adapter may vary depending on the model and region.



---

**Note:**

The power adapter may vary depending on the model and region. Refer to the following information for details:

45W power adapter

- Input voltage: 100-240V AC
  - Input frequency: 50-60Hz
  - Output current (power): 2.36A(45W)
  - Output voltage: 19V
-

## Connecting a Screen to Your Mini PC

Your Mini PC features the following ports for connecting screens or projectors:

- 1xHDMI port
- 1xUSB 3.2 TYPE-C input and output multipurpose port
- 1xMini DP 1.4 input and output multipurpose port

---

Notes:

- Depending on the model and optional configurations, you can connect and display up to 3 monitors simultaneously\*.
- When the following ports are used exclusively for display output, the maximum supported resolutions are as follows:\*\*

- HDMI port

Resolution up to 4096x2304@60Hz°

-USB3.2 TYPE-C input and output multipurpose port

Resolution up to 5120x2160@60Hz°.

-Mini DP1.4 input and output multipurpose port

Resolution up to 2560x1600@60Hz°.

\* The product ports may vary by model. Please refer to the chapter Appearance Overview for port details.

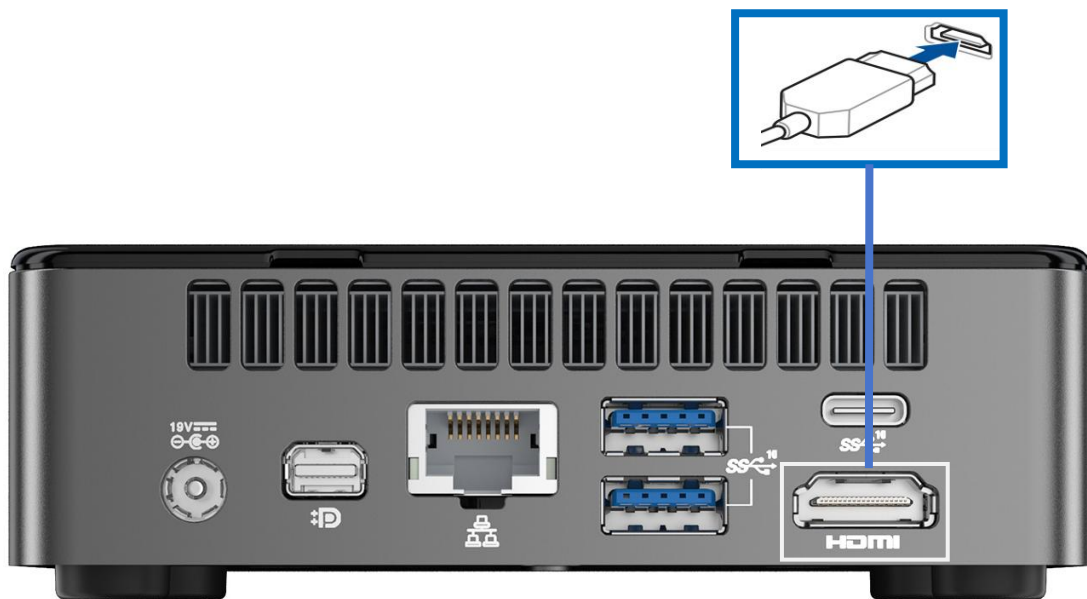
\*\* Maximum resolution may vary depending on the cable and output device.

---

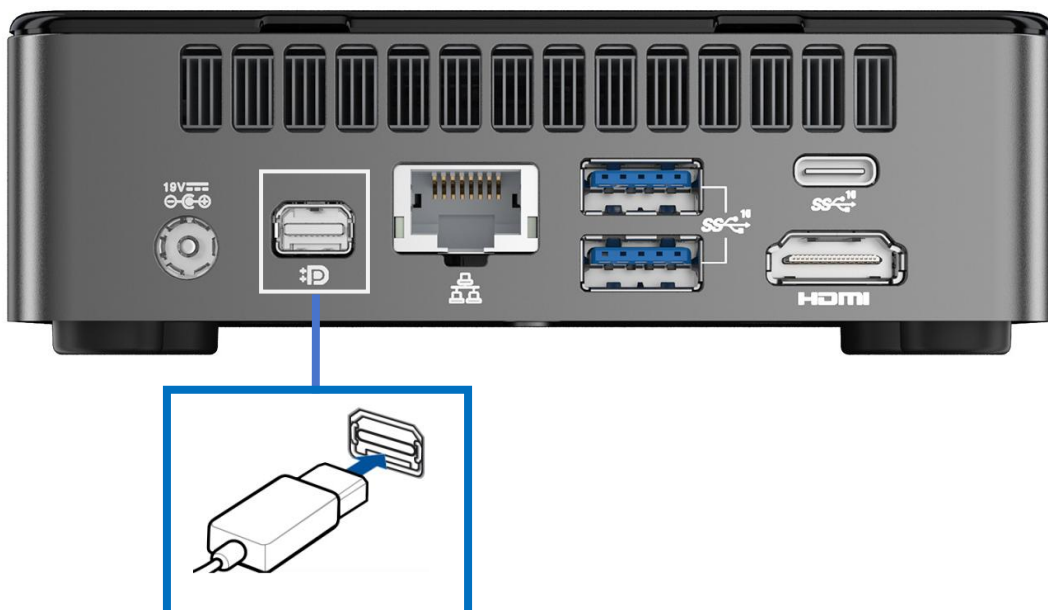
Please follow the instructions below to connect the screen to your **Mini PC**:

Connect one end of the HDMI, USB Type-C or Mini DP1.4 port cables to the display screen and the other end to the corresponding port on your Mini PC.

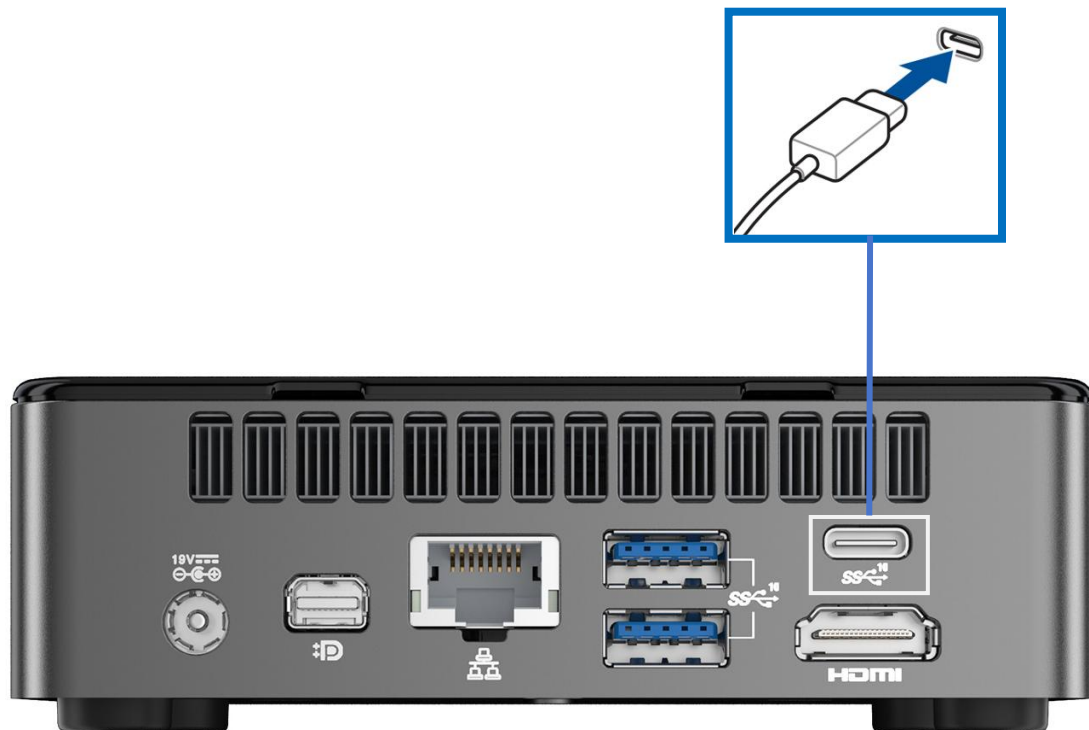
Connect a screen via HDMI port



Connect the screen via DP1.4 input and output multipurpose port



Connect the screen via USB 3.2 TYPE-C (rear) input and output multipurpose port



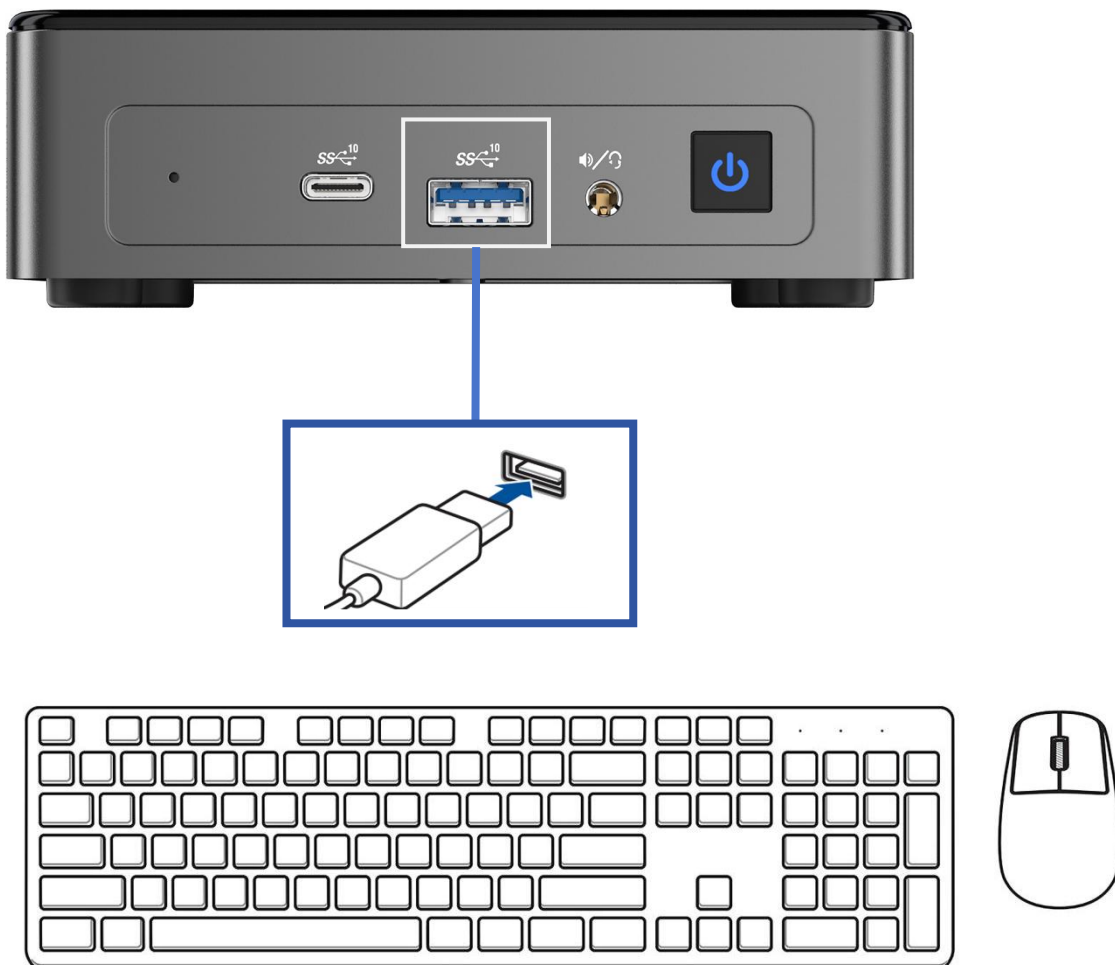
## Connecting a USB Keyboard or Mouse

You can connect any USB keyboard or mouse to your Mini PC. Alternatively, you can connect a USB receiver to a wireless keyboard and mouse set.

Please follow the instructions below to connect the keyboard and mouse to your Mini PC:

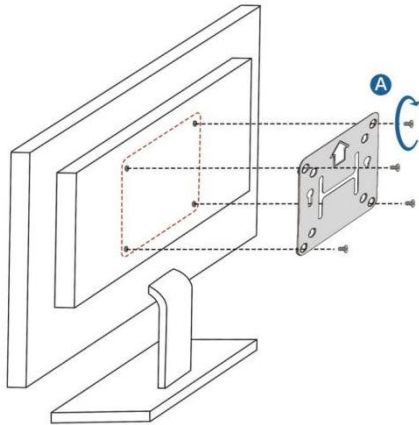
Connect the USB cable from your keyboard or mouse to any USB port on your Mini PC.

Note: Keyboard designs may vary depending on the region. Refer to the product you purchased.



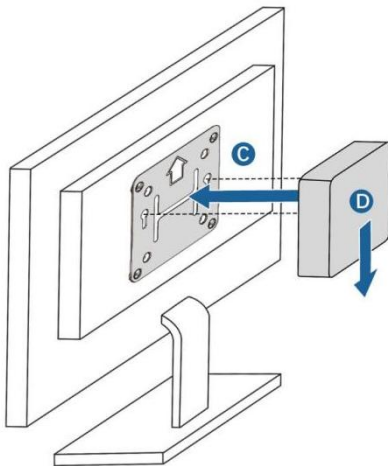
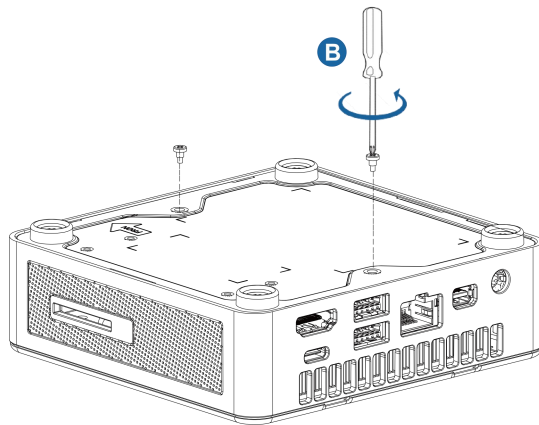
## Attached VESA Installation

Attach the VESA bracket (included in the package box) to the back of a monitor. This allows you to securely hang the Mini PC on the back of the monitor, keeping your workspace tidy.



A. Install the VESA mount bracket on the back of the monitor with a VESA hole

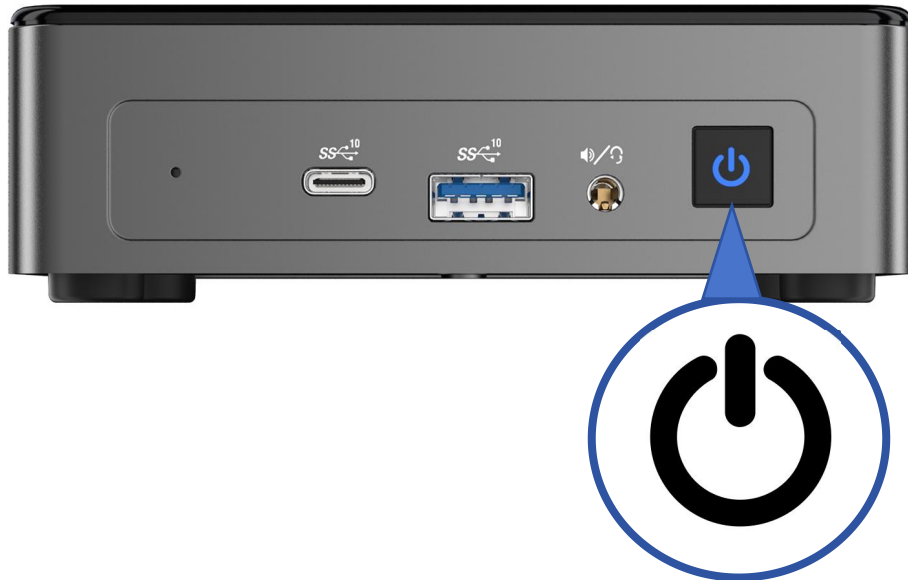
B. Screw the attached fixing screws into the corresponding holes of the bottom cover



C. Hang the product into the cut-out in the middle of the VESA mount bracket

## Powering On

Press the power button to start your Mini PC



## Turning off Your Mini PC

If your Mini PC becomes unresponsive, press and hold the power button for at least 4 seconds to force a shutdown.

## Putting Your Mini PC into Sleep Mode

Please enter Control Panel in the Windows search bar, then click Hardware and Sound > Power Options > Choose what the power button does. Select When I press the power button to Sleep to set the Mini PC to enter sleep mode with a single press of the power button.

## Entering the BIOS Settings

The BIOS (Basic Input/Output System) contains the hardware configuration settings necessary for starting your Mini PC.

Under normal circumstances, the default BIOS settings are sufficient to ensure optimal system performance. You should only modify the BIOS settings in the following scenarios:

- An error message appears during startup, prompting you to access the BIOS settings.
- You need to configure or update the BIOS after installing new system components.

---

Warning! Improper BIOS settings may result in system instability or failure to boot. It is strongly recommended to make changes to BIOS settings only under the guidance of trained professionals.

---

## Loading Default BIOS Settings

Please follow the instructions below to load the default BIOS settings;

1. During the startup process, repeatedly press Del or ESC key on your keyboard to enter the BIOS settings.
  2. When options are prompted, select NO option, and navigate to Exit menu.
  3. Select Load Optimized Defaults option or press <F3> on your keyboard.
  4. Select OK to load the default BIOS settings.

# 3

## Upgrading Your Mini PC

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### Important!

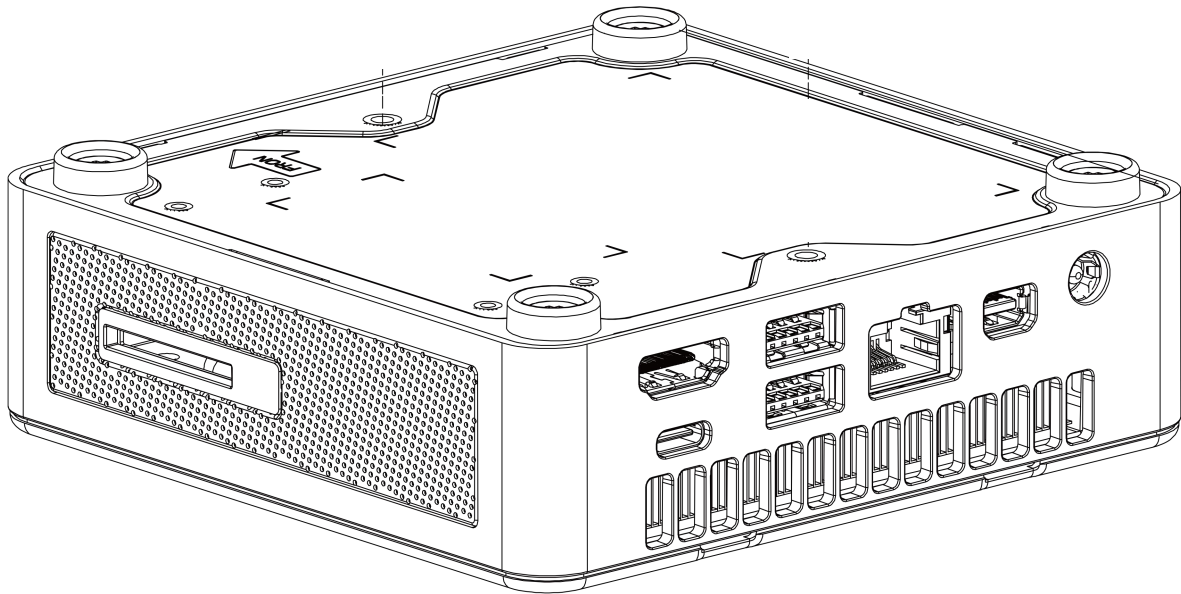
- It is recommended that you install or upgrade memory modules, wireless network cards, and solid-state drives (SSD) under professional supervision. Visit a GEEKOM-authorized service center for further assistance.
  - Before starting any installation, ensure your hands are dry. Before installation, wear an anti-static wrist strap or touch a grounded object or metal surface to prevent static damage to components.
- 

Note: The illustrations in this chapter are for reference only. The appearance of slots may vary depending on the model.

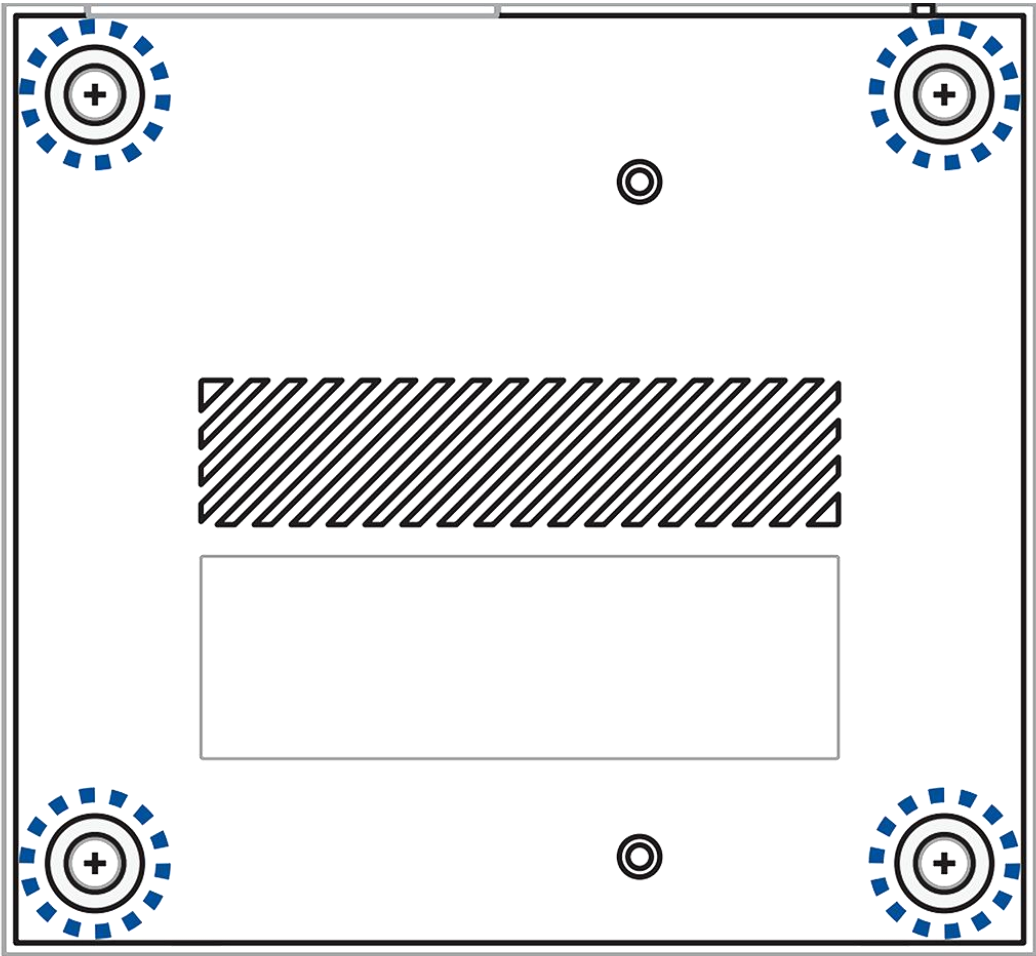
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## Removing the Bottom Cover

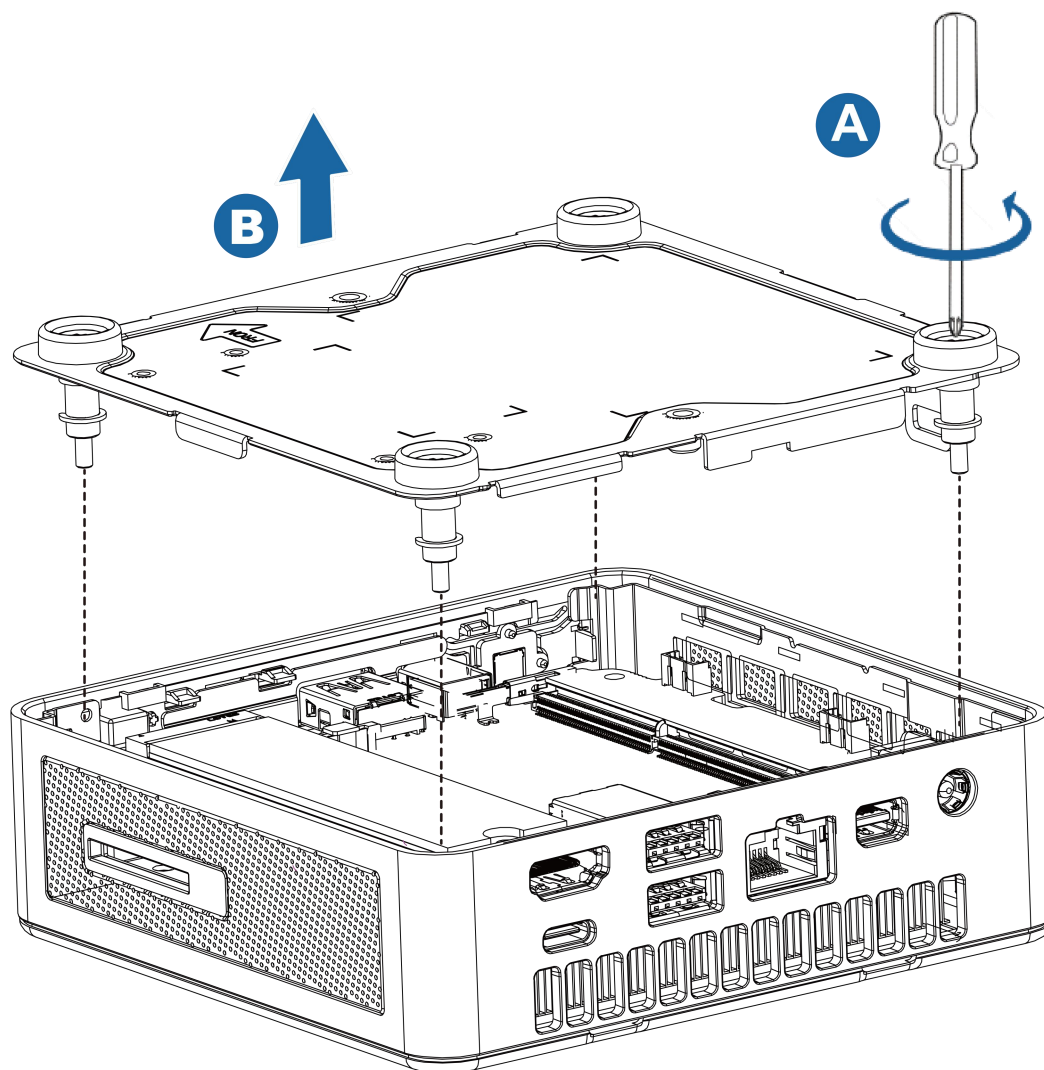
1. Turn off your Mini PC and disconnect all cables and devices.
2. Place the Mini PC on a stable, flat surface with the top of the device facing downward.



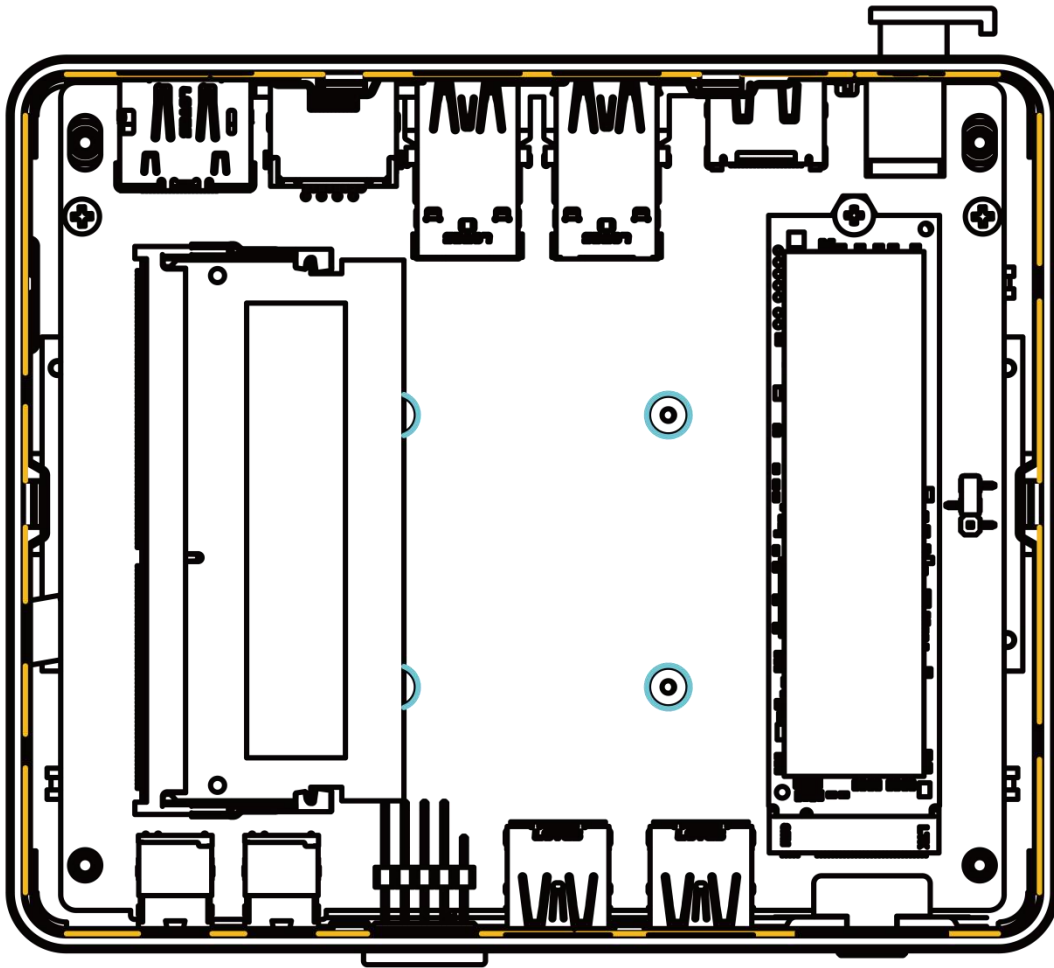
3. Loosen the four screws on the bottom cover.



4. Please hold two captive screws on the diagonal and gently lift the bottom cover upward until it separates from the chassis to remove it.

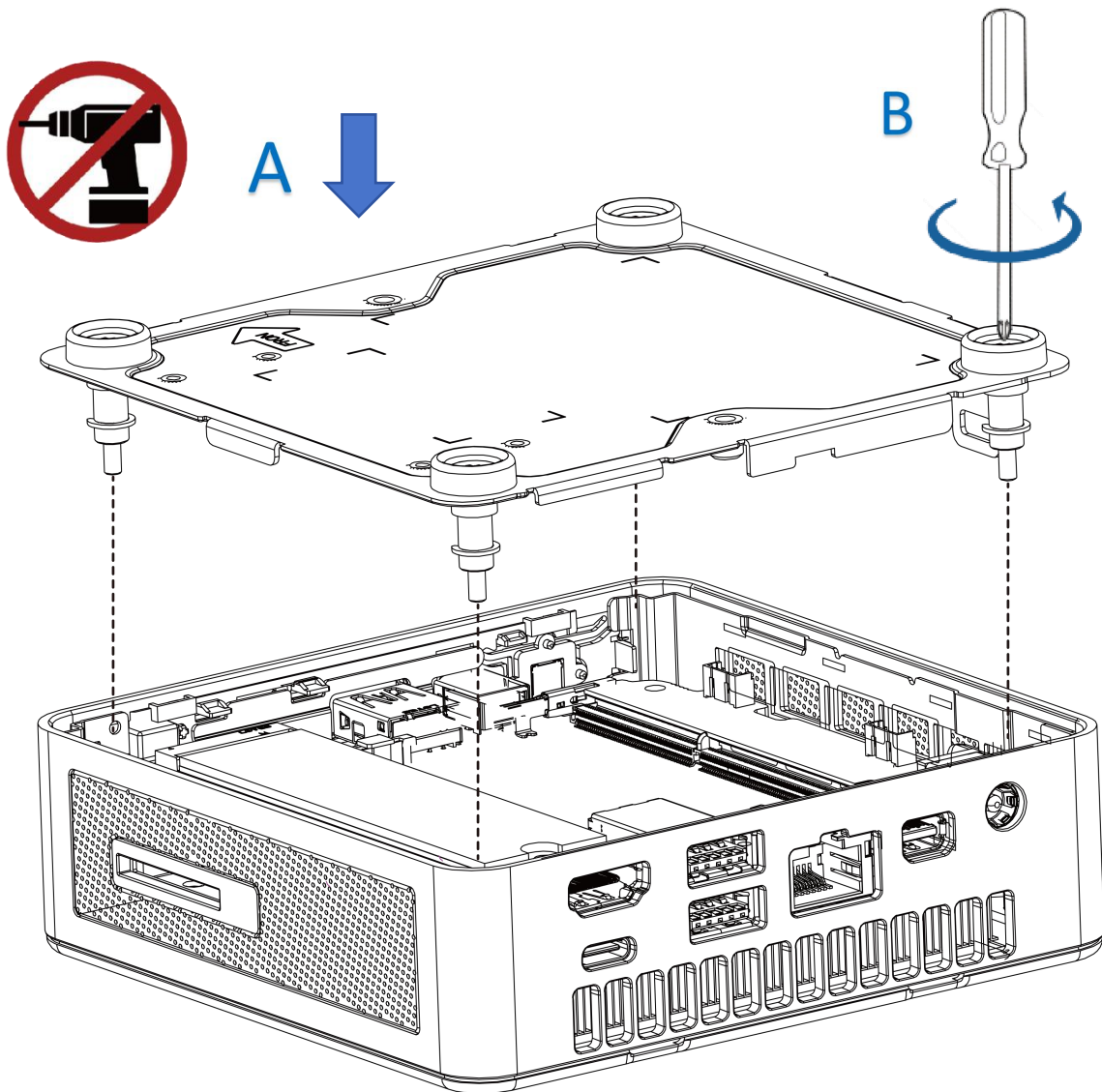


5. Remove the bottom cover, the internal product components are as shown in the figure below.

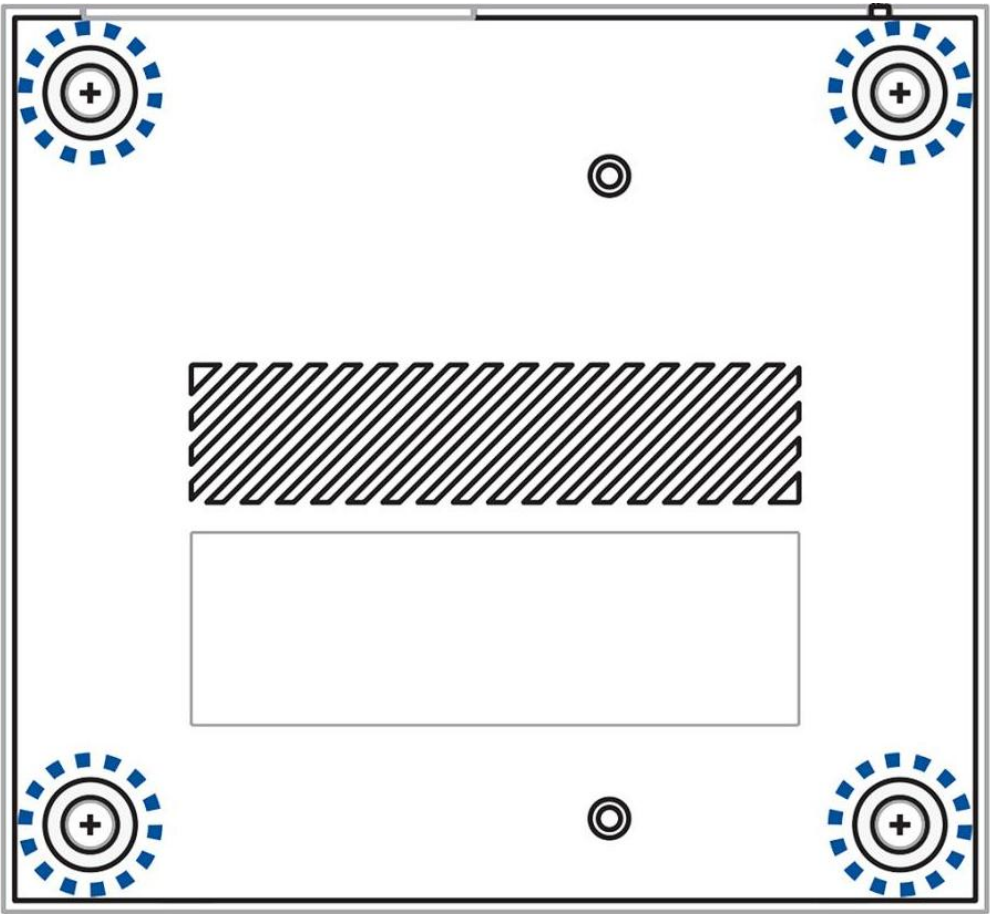


## Restoring the Bottom Cover

1. Place the bottom cover back on the chassis.



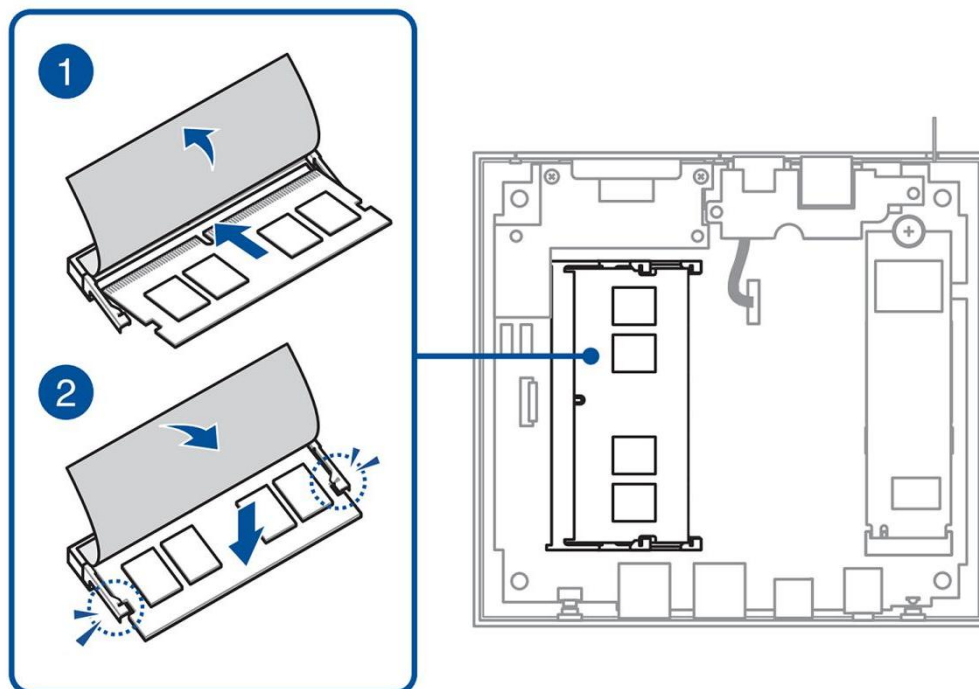
2. Tighten the four captive screws to secure the bottom cover in place.



## Installing Memory Modules

Your Mini PC is equipped with one SO-DIMM slots, allowing the installation of up to one DDR5 SO-DIMM memory modules.

1. Peel back the protective film covering the memory slots. Align the memory module with the slot and insert it.
2. Press the memory module down gently until it clicks into place, then replace the protective film to its original position.



## Installing M.2 SSDs

Your Mini PC features one M.2 slots inside the chassis.

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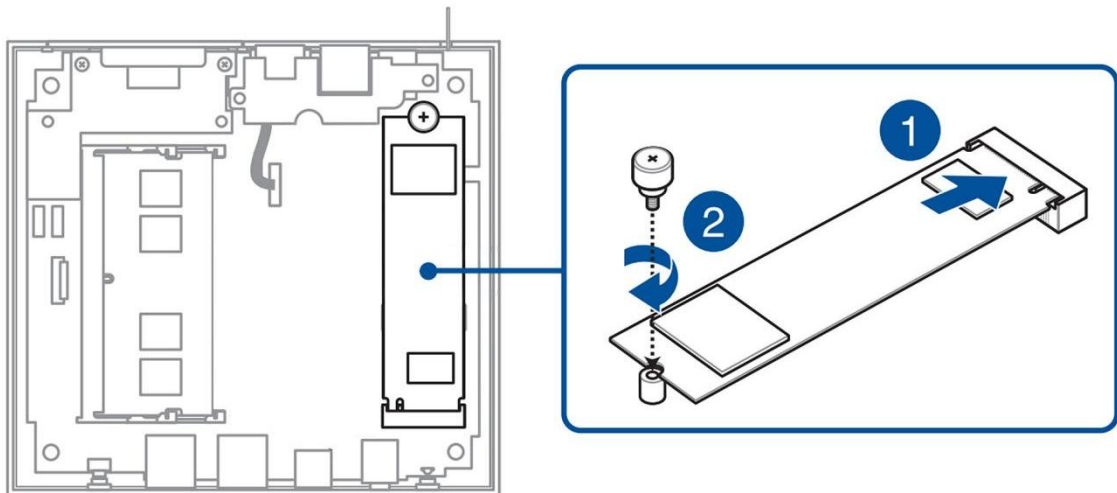
Note:M.2 SSD specifications that can be Supported:

1 x M.2 2280 PCIe Gen3\*4 SSD

---

Install the M.2 SSD to the chassis:

1. Align the 2280 M.2 SSD with slots and insert it.
2. Gently push the 2280 M.2 SSD downward onto the standoff, then use one of the included thumb screws to secure it.



4

TPM

## About TPM

This system defaults to supporting the fTPM option: Firmware TPM (fTPM).

---

Notes:

- fTPM is supported by default, but it may not be activated.  
You can check if your system supports fTPM using the following methods:
  - Use Windows Security App:
    - a. Click **Start > Settings > Update & Security > Windows Security > Device Security**.
    - b. Verify if there is a **Security Processor** menu on the screen. If the **Security Processor** menu is absent, it means the system does not have TPM or the TPM function is disabled.
  - Use Microsoft Management Console:
    - a. Click **Start > Run** or press **Windows Key +R**.
    - b. Enter **tpm.msc** and click **OK**.
    - c. If you see a message indicating that TPM is available, it means TPM is enabled and functional. If you see the message **Compatible TPM cannot be found**, it means the system does not have TPM or the TPM function is disabled.
-

# Appendix

## Security Notes

Before you start using this product, please thoroughly read the following operational precautions to avoid potential system damage or personal injury due to human error.

## Operational Precautions

- Before using this product, please carefully read the relevant information provided in this manual.
- Dust, moisture, and extreme temperature changes can affect the lifespan of this product, so avoid placing it in such environments.
- Do not place the product on uneven or unstable surfaces. Please use this product with a special footstand.
- When using this product, be sure to maintain adequate clearance around it for proper ventilation to facilitate heat dissipation. Avoid letting small items like paper shreds, screws, or wire ends come near the connectors, slots, or openings, to prevent short circuits or poor connections. Do not insert any objects into the product's internal components to avoid short circuits or damage to the circuits.
- This product should only be used in environments with temperatures between 0°C and 35°C.
- Please use the correct power adapter according to the product's power rating label. Using an incorrect power adapter may damage internal components.
- When installing or operating this product, please maintain a distance of at least 20cm between the heatsink and your body.

## Usage Precautions

- Before use, please check that all components are functioning properly and that the power cable is not damaged or improperly connected.
- Keep the product in a dry environment. Rain, moisture, and liquids containing minerals can corrode the electronic circuits.
- To avoid potential electric shock damage, always unplug all power cables from the power socket before cleaning or moving the product.

If you encounter any of the following issues, or any technical problems while using the product, please contact your authorized distributor.

- Damaged power cable or charger.
- The computer or accessories have been exposed to water.
- The computer does not operate normally despite following the instructions.
- The computer has been dropped or the chassis is damaged.
- The computer's performance is abnormal.

## Lithium Battery Safety Warning

Replacing the battery incorrectly could cause an explosion. Please follow the manufacturer's instructions and use the same type or model of battery. Also, dispose of used batteries according to the manufacturer's instructions.

## Do Not Disassemble or Reassemble Yourself Warning

Do not disassemble or repair the product yourself. Any unauthorized disassembly will void the warranty.



WEEE Mark: The crossed-out bin symbol indicates that this product (electrical/electronic equipment) should not be disposed of as regular waste. Please dispose of it in accordance with local regulations for electronic waste disposal.

## **Service and Support**

Please visit our multilingual websites:

<https://service.geekompc.com/>