see the world

User Manual

Thunderbolt™ 4 Triple Display Docking Station

Model: ThunderDock Elite

@WavlinkOfficial

@WavlinkTechSupport

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About This Guide

This guide serves as a companion to the Quick Installation Guide for your wired USB product. The Quick Installation Guide provides essential steps for immediate setup, while this document offers detailed explanations of product features and advanced configuration options.

Please note that product functionality may vary slightly depending on your specific model, software version, geographic region, language, and connected devices. Screenshots, parameters, and descriptions in this guide are for illustrative purposes only.

Conventions

In this guide the following conventions are used :

Convention	Description
Underlined	Underlined words or phrases are hyperlinks. You can click to redirect to a website or a specific section.
Teal	The content and text that needs to be emphasized on the web page is the theme color `#1D428A` , including menus, items, buttons, etc.
Note:	Critical reminders to prevent operational errors or functionality issues.
Tips:	Best practices or optimization suggestions for enhanced performance.

More Info

The latest driver, firmware and utilities are available from the Download Center at **WAVLINK SUPPORT** .

Included in your product packaging or available digitally via the link above.

If you encounter any issues, please don’t hesitate to email **contact@wavlink.com**/**techsupport@wavlink.com**/**postsales@wavlink.com** to provide feedbacks or contact online customer service, thank you !

Performance Disclaimer

The maximum transfer speeds stated for this product are based on theoretical limits of USB specifications (e.g., USB 2.0/3.0/3.1 Gen 1/Gen 2). Actual performance may vary due to:

Device limitations: Host system performance, driver compatibility, and connected device capabilities.

Environmental factors: USB cable quality, length, electromagnetic interference, and port power delivery.

Network/software conditions: Operating system overhead, background processes, and concurrent data transfers.

Wired connections are generally more stable than wireless alternatives, but performance is not guaranteed and depends on the factors listed above.

Information in this document is subject to change without notice.The manufacturer does not make any representations or warranties (implied or otherwise) regarding the accuracy and completeness of this document and shall in no event be liable for any loss of profit or any commercial damage,including but not limited to special, incidental, consequential, or other damage.

Safety Instructions

Always read the safety instructions carefully.

Keep this Quick Start Guide for future reference.

Keep this equipment away from humidity.

If any of the following situation arises, get the equipment checked by a service technician:

The equipment has been exposed to moisture.

The equipment has been dropped and damaged.

The equipment has an obvious sign of breakage.

The equipment has not been working well or you cannot get it work according to Quick start Guide.

Copyright Statement

No part of this publication may be reproduced in any form by any means without the prior written permission.

Other trademarks or brand names mentioned herein are trademarks or registered trademarks of their respective companies.

WEEE Directive & Product Disposal

At the end of its serviceable life, this product should not be treated as household or general waste. It should be handed over to the applicable collection point for the recycling of electrical and electronic eauipment, or returned to the supplier for disposal.

Chapter 1 Overview

This chapter contains the following sections :

• Package Content

• System Requirement

• Product Overview

Package Content

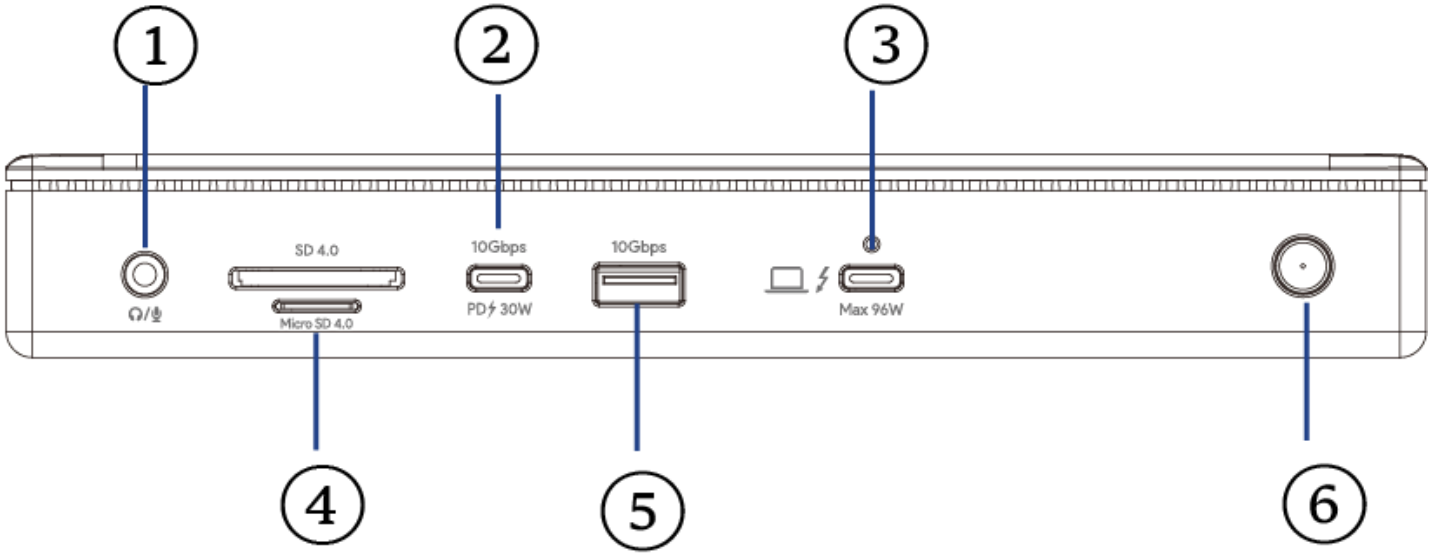
This Thunderbolt™ 4 display docking station includes the following items, please check it before using.

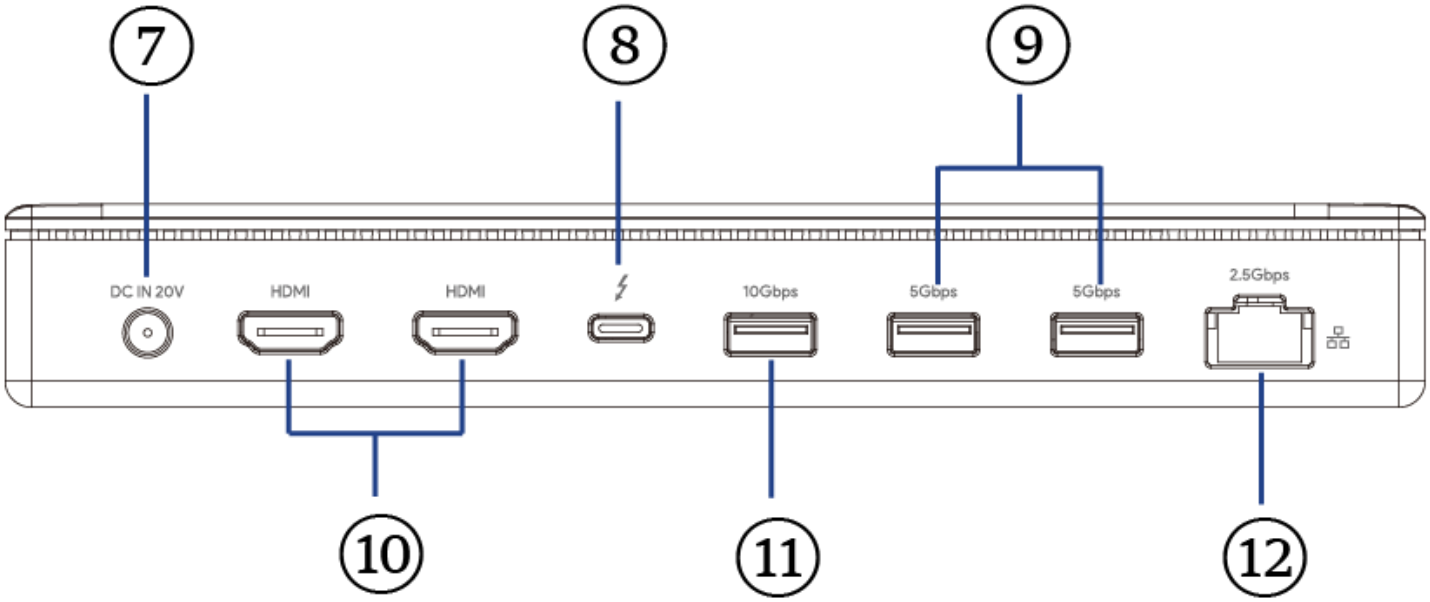
- 1×Thunderbolt™ 4 Triple Display Docking Station
- 1×0.8M Thunderbolt 4 Cable
- 1×Cable Holder
- 1×160W Power Adapter
- 1×AC Power Cable
- 1×Quick Start Guide

System Requirement

- PC with Thunderbolt™ 4 Windows 10/11
- Mac with Thunderbolt™ 3 Mac OS 11 or later
- Compatible with Other USB4 and MFDP Hosts(Full-functional USB-C, supports DisplayPort+USB3.1+Power Delivery)

Product Overview





①Audio/Mic

②USB-C(10Gbps, PD30W)

③Thunderbolt 4 Upstream(40Gb/s, 96W)

④SD/TF Card Reader(312MB/s)

⑤USB-A(10Gbps)

⑥Power Switch&Status LED

⑦DC 20V/8A 160W

⑧Thunderbolt 4 Downstream(40Gb/s, PD15W, 8K@60Hz/4K@120Hz)

⑨USB-A(5Gbps)

⑩HDMI 2.1(8K@60Hz/4K@120Hz)

⑪USB-A(10Gbps)

⑫RJ45 2.5G Ethernet

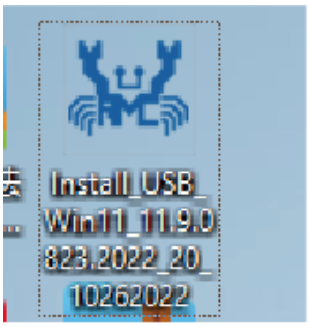
Chapter 2 Driver Installation

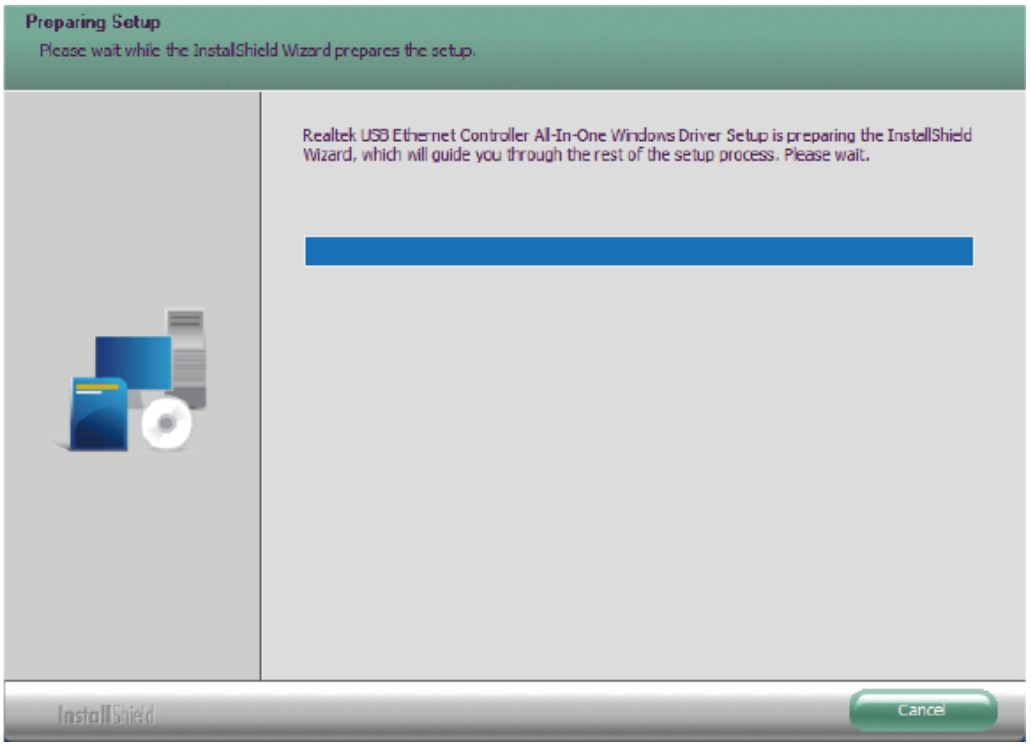
RealTek Network Driver Installation

The docking station is plug-and-play, but in case the network card does not work, please download the latest Driver file, found here: **www.wavlink.com > Support > Driver > WL-UTD45**, or enter www.wavlink.com/en_us/ThunderDock-Elite.

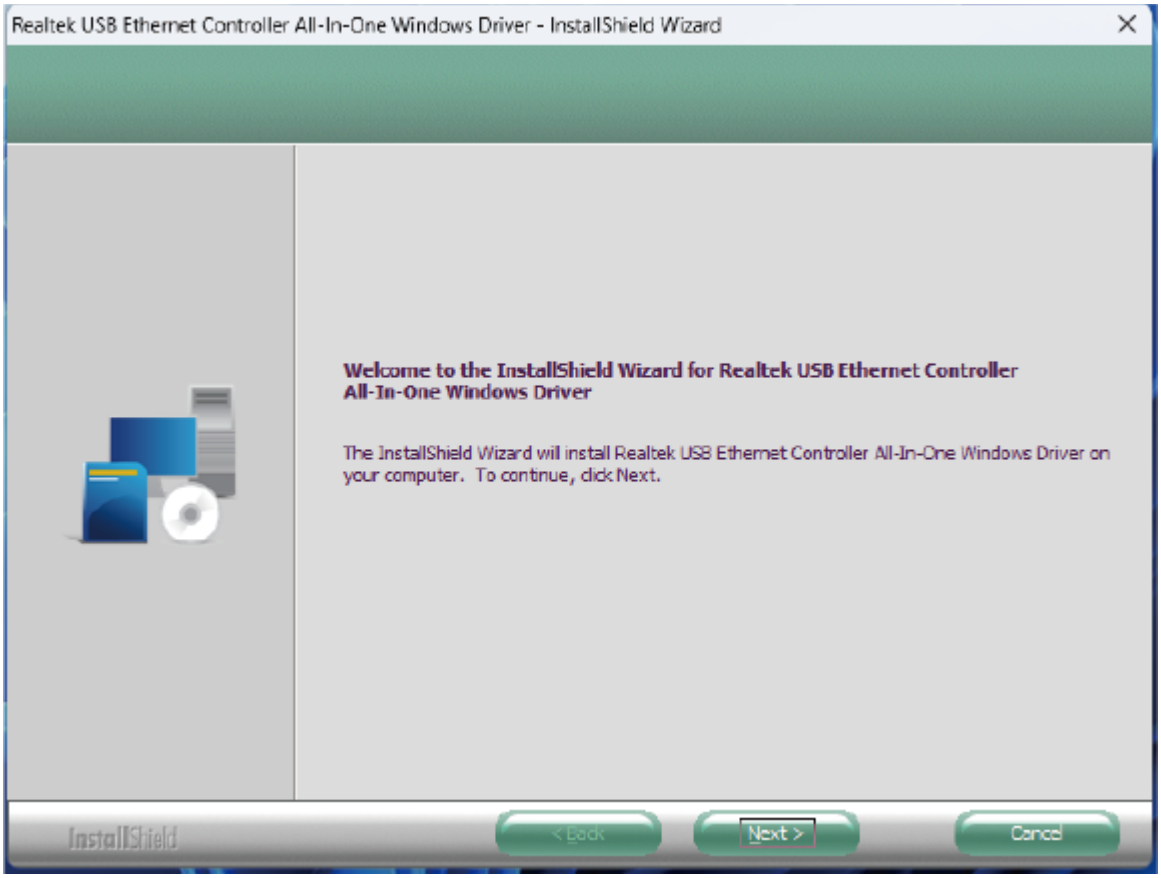
For Windows OS

1. Locate the downloaded folder and unzip the file to the desktop, please select **Yes** if your computer asks your permission, then double-click the Driver icon on the desktop.

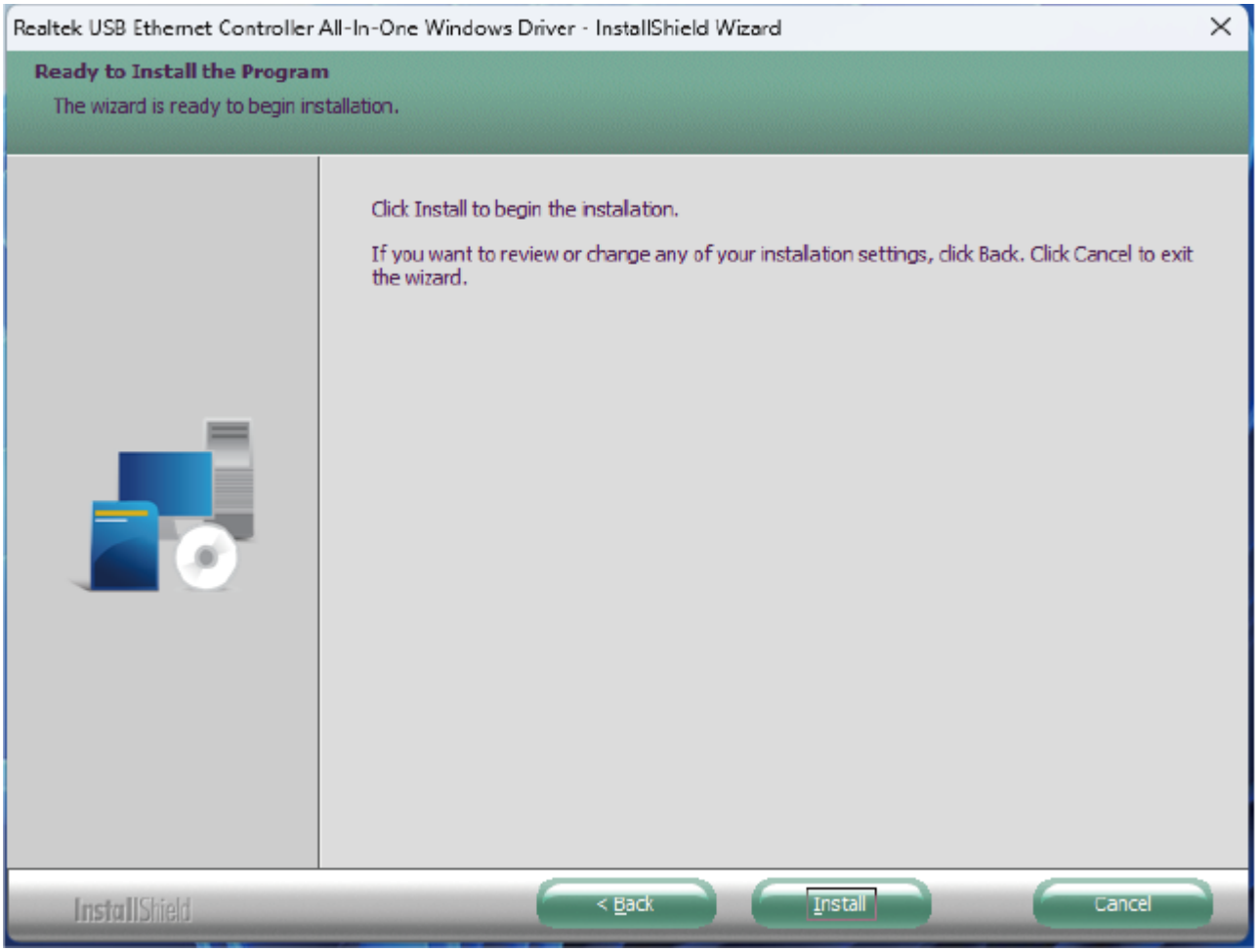


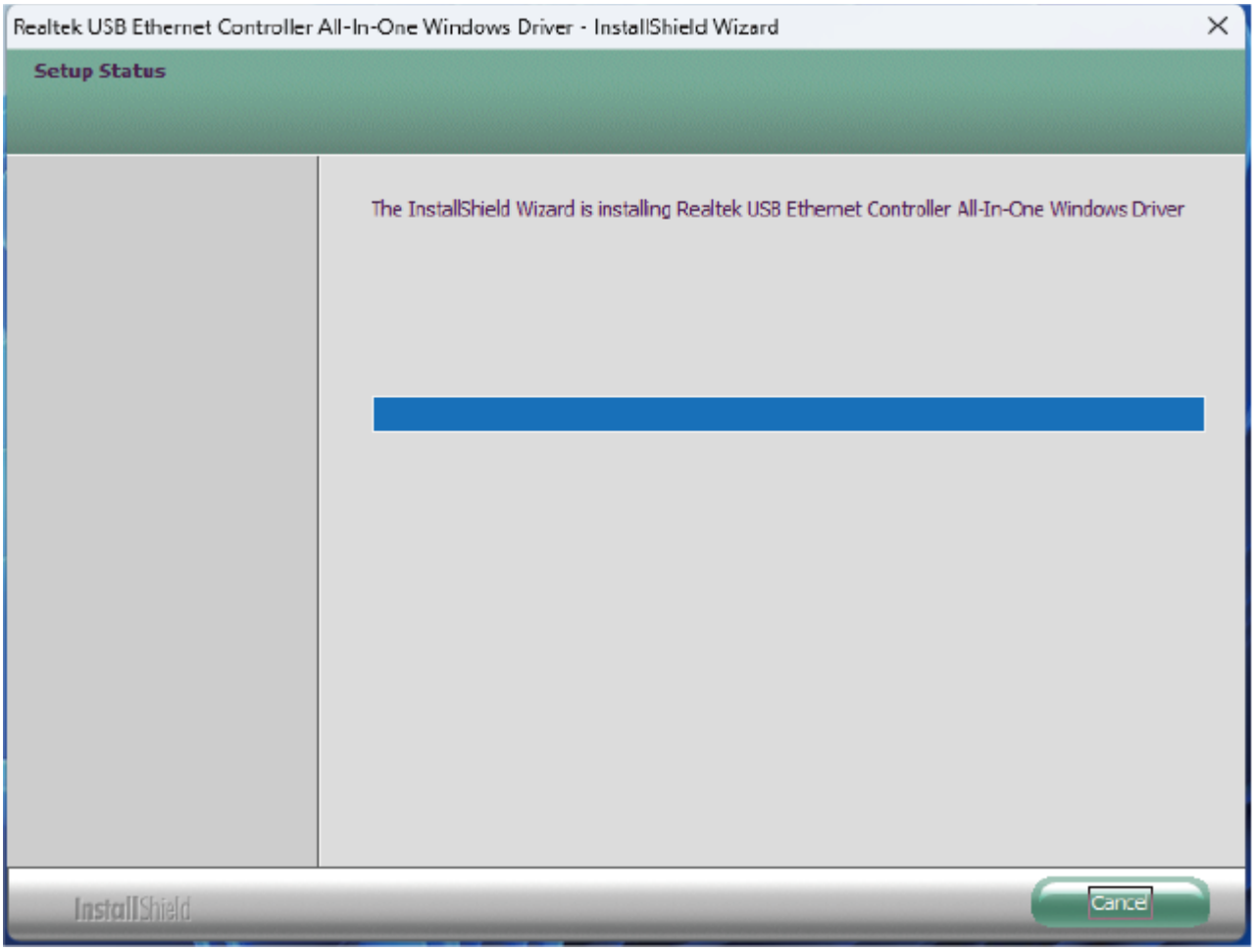


2. Click **Next** to continue the installation process.

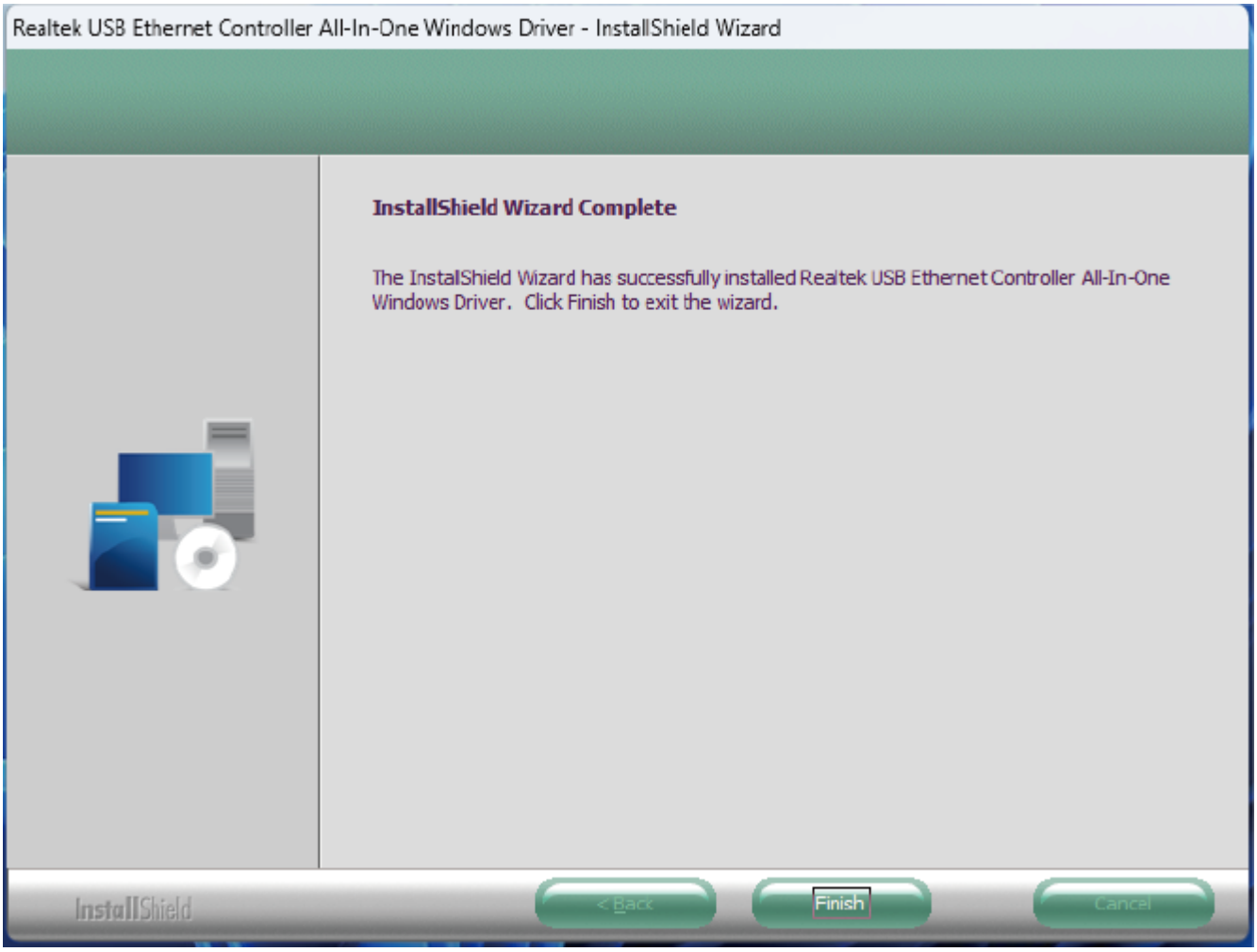


3. Select **Install** to begin the installation. If you want to review or change any of your installation settings, click **Back** or **Cancel** to exit the wizard.



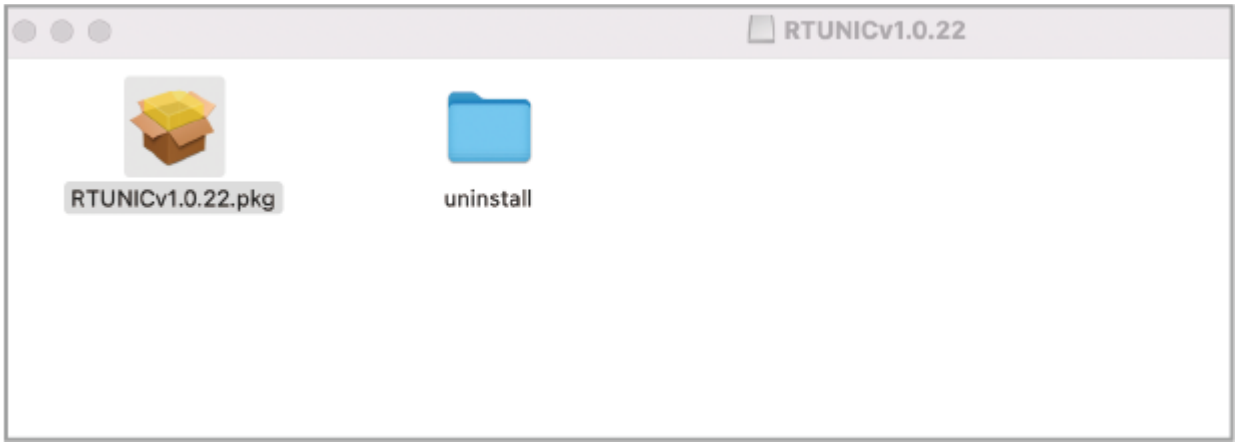


4. After the Driver is successfully installed, select **Finish** to exit the wizard.

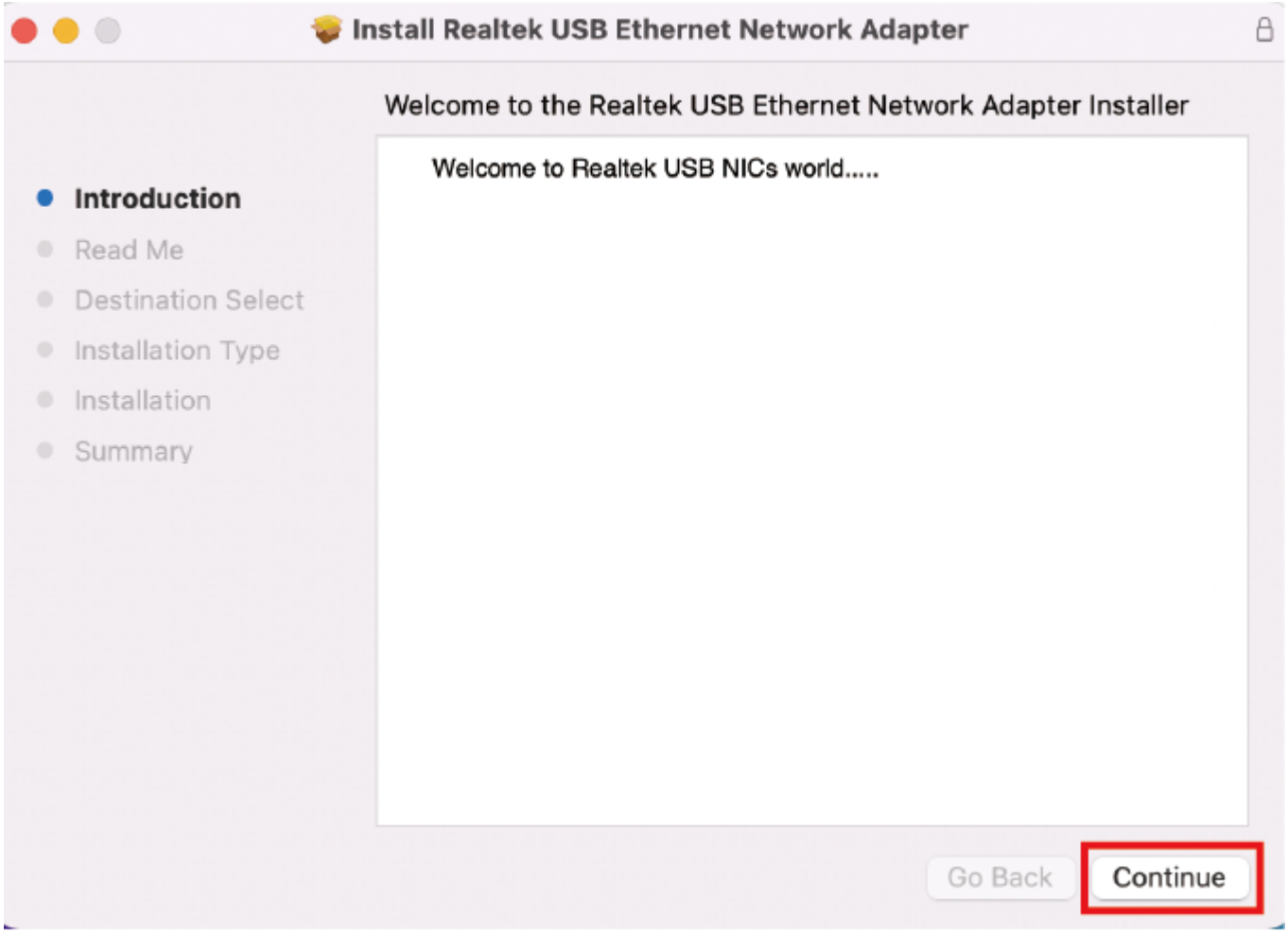


For Mac OS

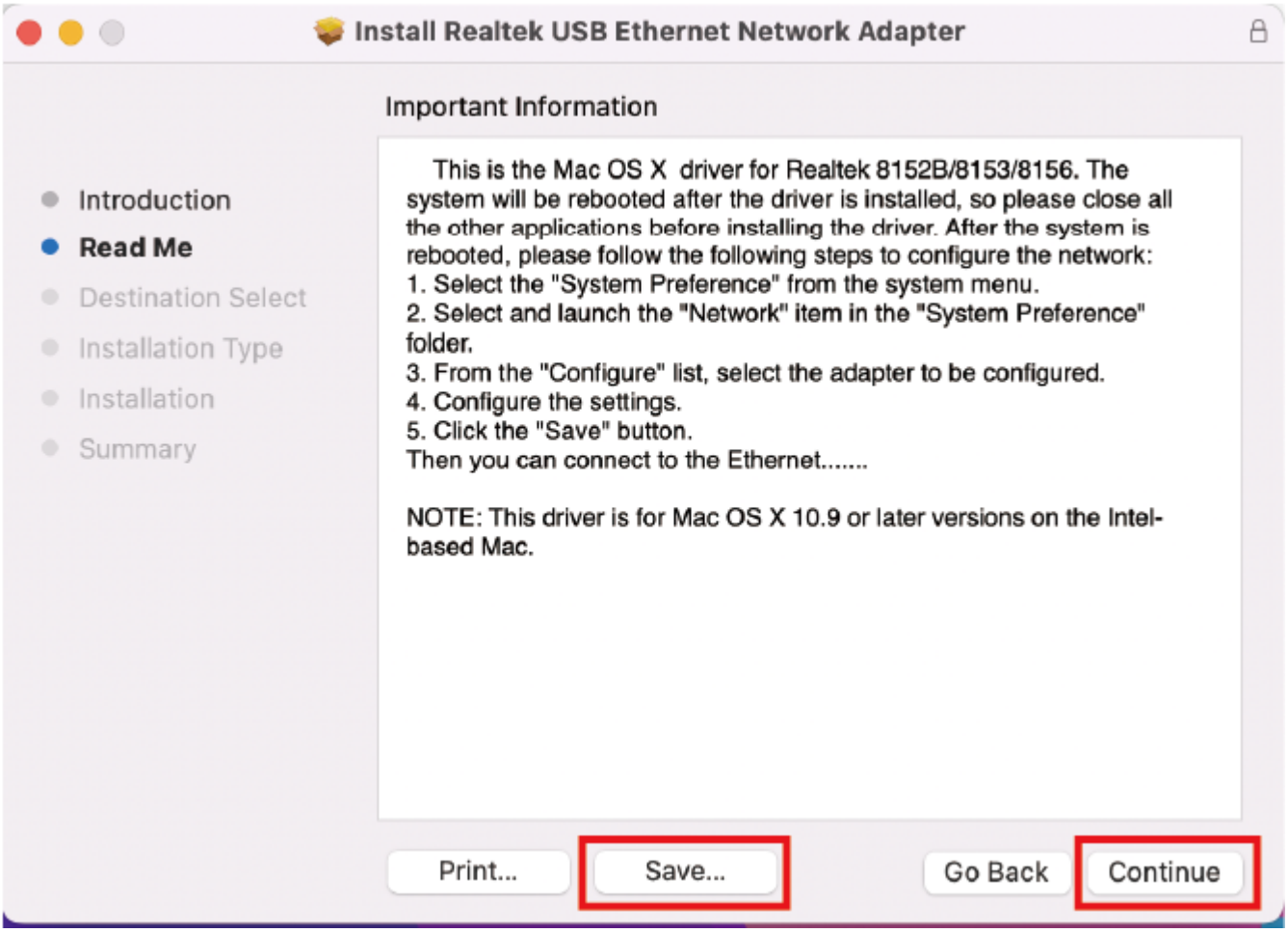
1. Locate the downloaded folder and double dick the icon on the desktop.
2. Double-dlick the icon to open the file.



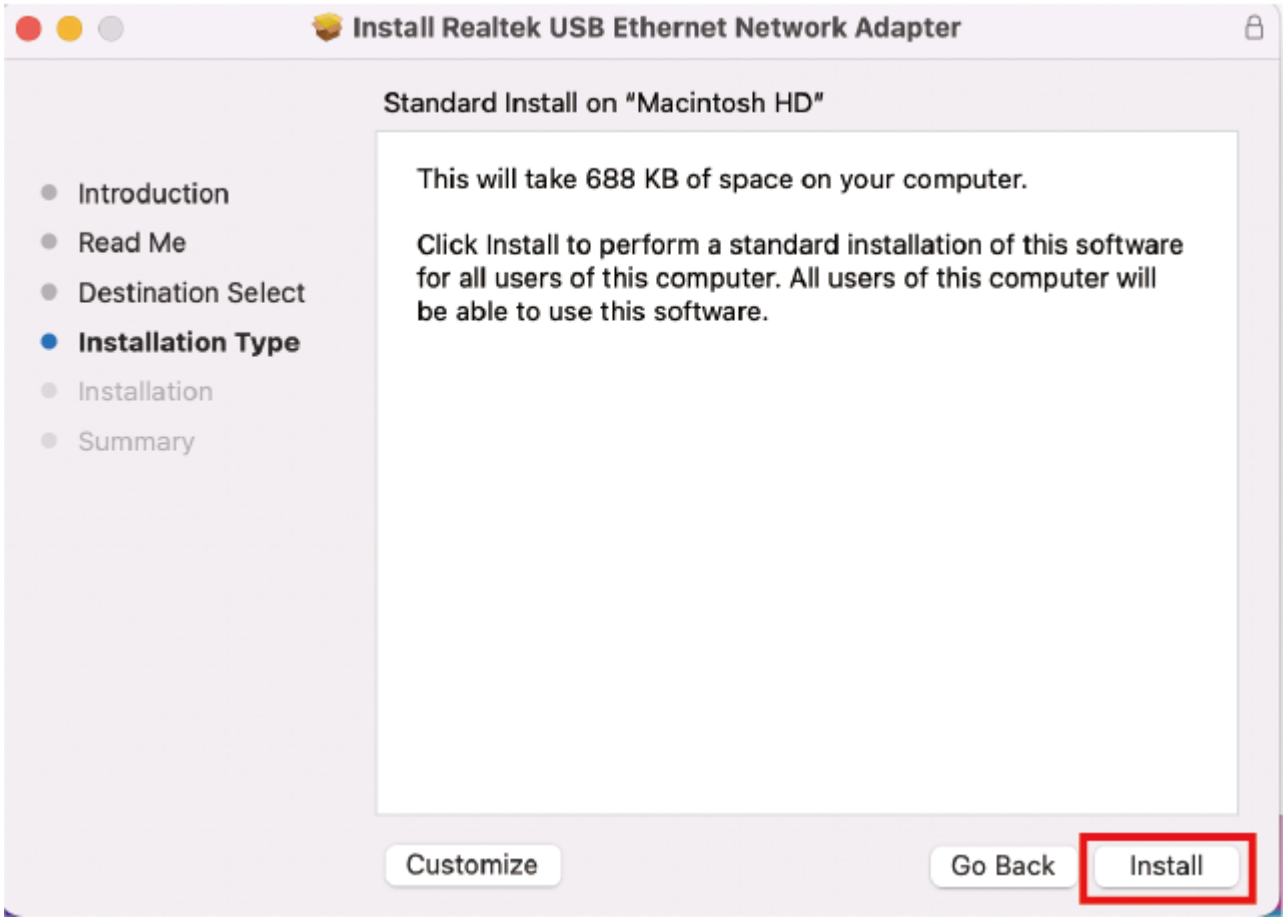
3. Navigate to the wizard window, and click **Continue** to the next step.



4. Read the **Important Information** carefully and click **Save**, then click **Continue**.



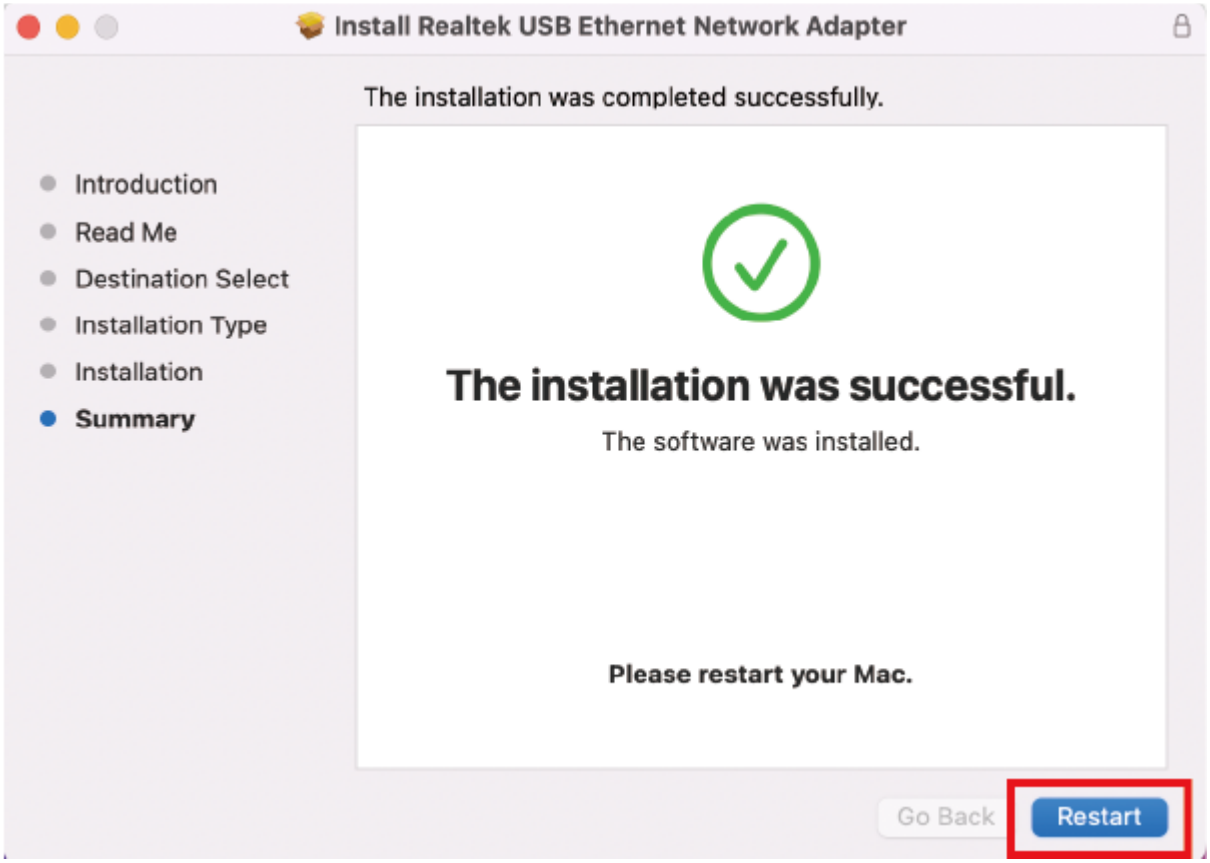
5. Click **Install** to perform a standard installation of this Network Adapter.



6. Select **Use Password** or use Touch ID to allow the software installation.

7. Select **Install Software** after entering the screen password.

8. Please wait patiently for the installation to complete, then click **Restart**.



9. Please restart your Mac.

Chapter 3 Connection and Resolution

This chapter contains the following sections :

• Connection

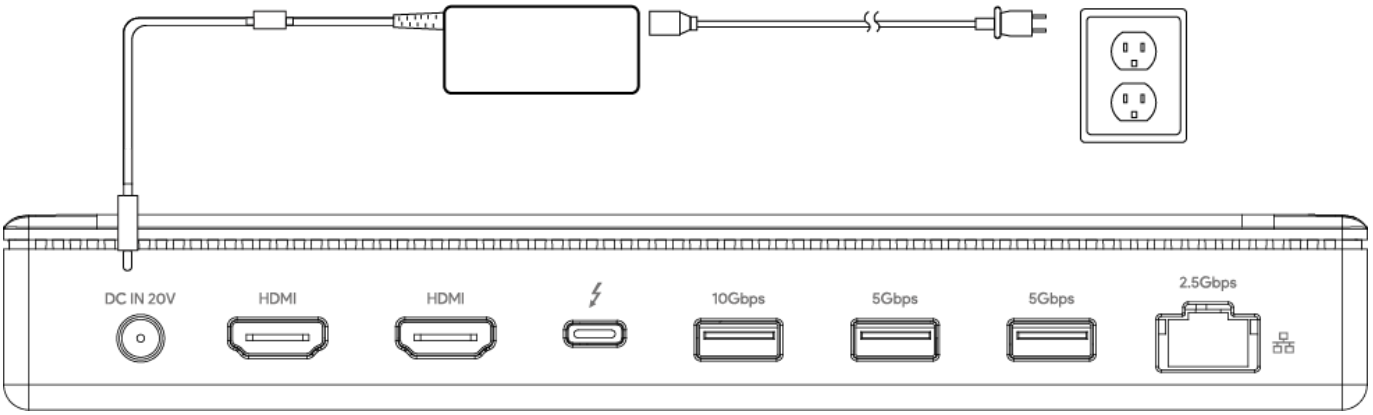
• Resolution

Connection

Before connecting to use, please ensure the host laptop has installed the corresponding drivers.

Power on Your Dock

1. Plug one end of the included Power Adapter into this Thunderbolt™ 4 Dock's DC IN 20V port and the other end into the power outlet.

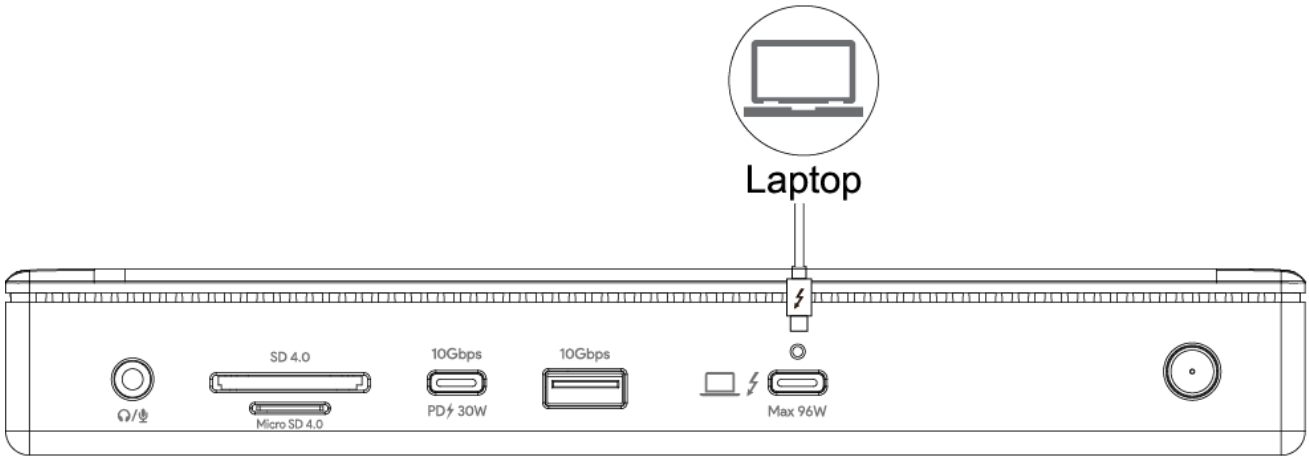


Connecting to the Host

1. Connect the Thunderbolt 4 upstream port on the docking station to the Thunderbolt 4 port on your laptop via the provided Thunderbolt 4 cable. This docking station not only enables data transfer but also provides smart power charging for your laptop with a maximum of 96W.
2. The power switch on the docking station is used to turn on/off the dock.
3. In the initial state, when there is no host connected, the power indicator light on the docking station will display red.

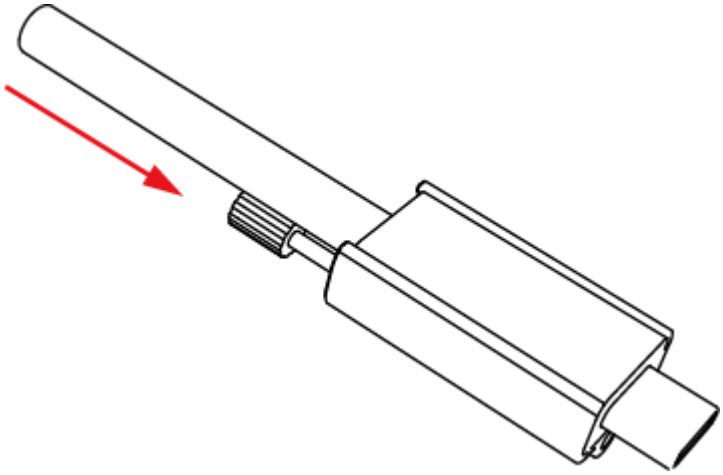
NOTE

- This product can intelligently adjust the charging power of the host based on the power situation of the devices connected to the downstream USB4 port, the power range for the upstream host is 81W-96W.
- To ensure a successful connection and normal operation of the docking station, confirm the cable is securely plugged in and ensure that the docking station is correctly connected to your laptop.

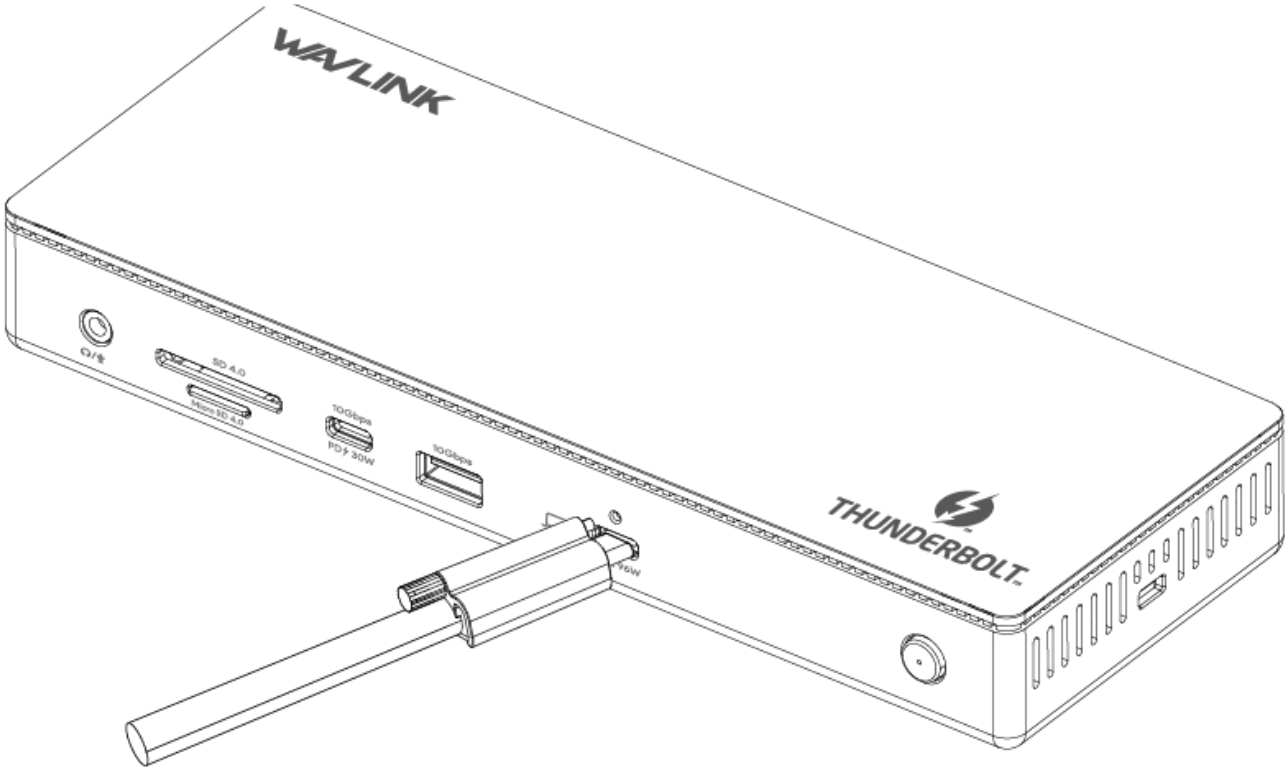


Note for Cable Holder Connection: The cable holder is designed to tighten the Thunderbolt™ 4 cable for the upstream Thunderbolt™ 4 port. If you are worried that the Thunderbolt™ 4 cable might loosen, please follow the following steps to install the cable holder to the dock.

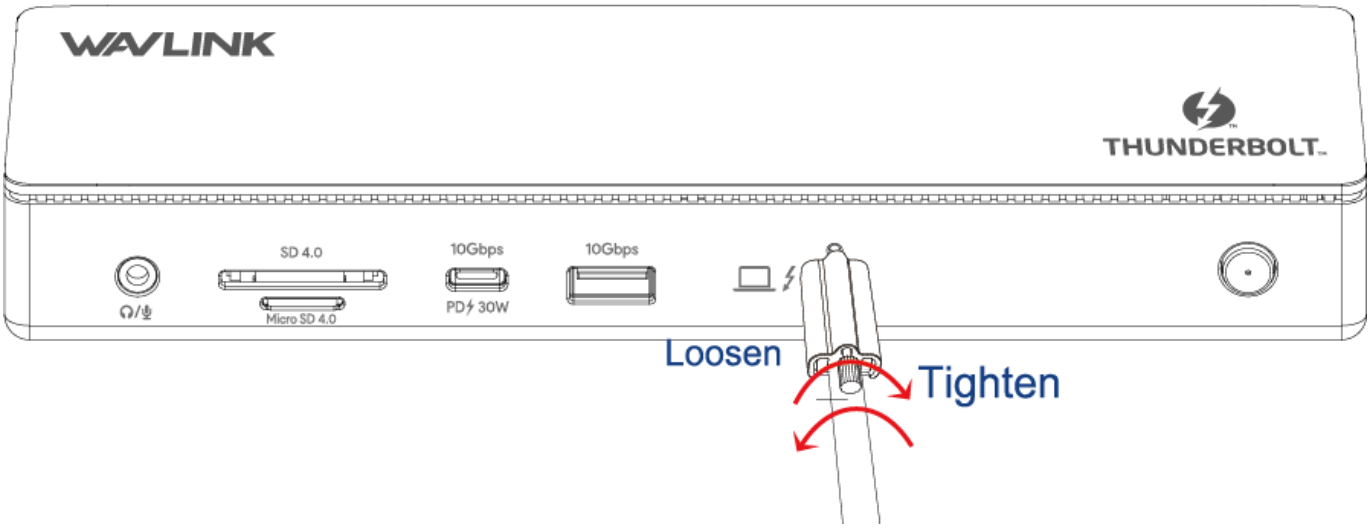
1. Insert the cable into the cable holder according to the arrow direction.



2. Align the bolt with the fixing hole, then please connect it to the upstream Thunderbolt™ 4 port.



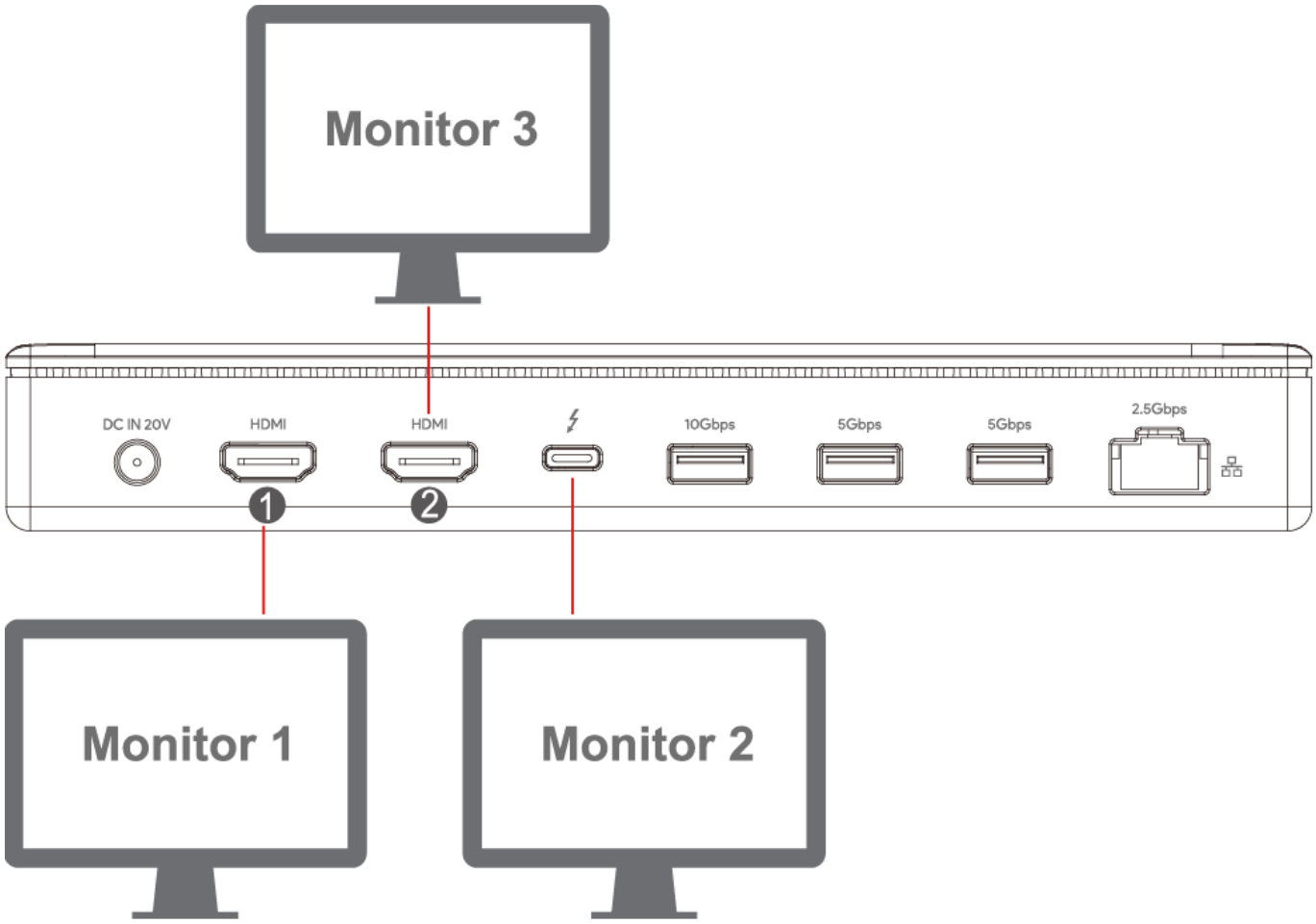
3. Fasten the bolt and fix the connectivity between the cable and the dock. Tighten the screw clockwise when you are assembling it. Please loosen the screw counterclockwise if you need to disassemble it.



4. After assembling it, please do not pull it hard to avoid damage to the interface. Please follow the above instructions if you need to disassemble it.

Connecting Monitor to the Dock

This Thunderbolt™ 4 dock can connect up to 3 displays.



Resolution

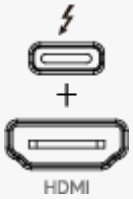
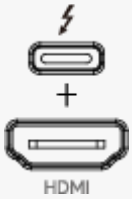
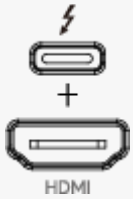
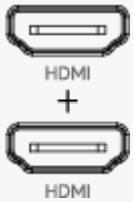
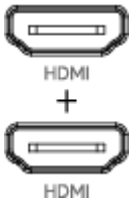
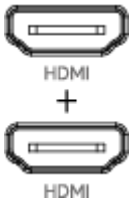
Single Display

Windows TBT4 PC(DP1.4 with DSC)	Windows USB-C MFDP PC(DP1.4 with DSC)	Mac OS TBT3/TBT4
7680×4320(8K)@60Hz	7680×4320(8K)@30Hz	3840×2160(4K)@60Hz

NOTE

Single 8K@60Hz is enabled for computers with DP1.4 or higher and DSC.

Dual Display

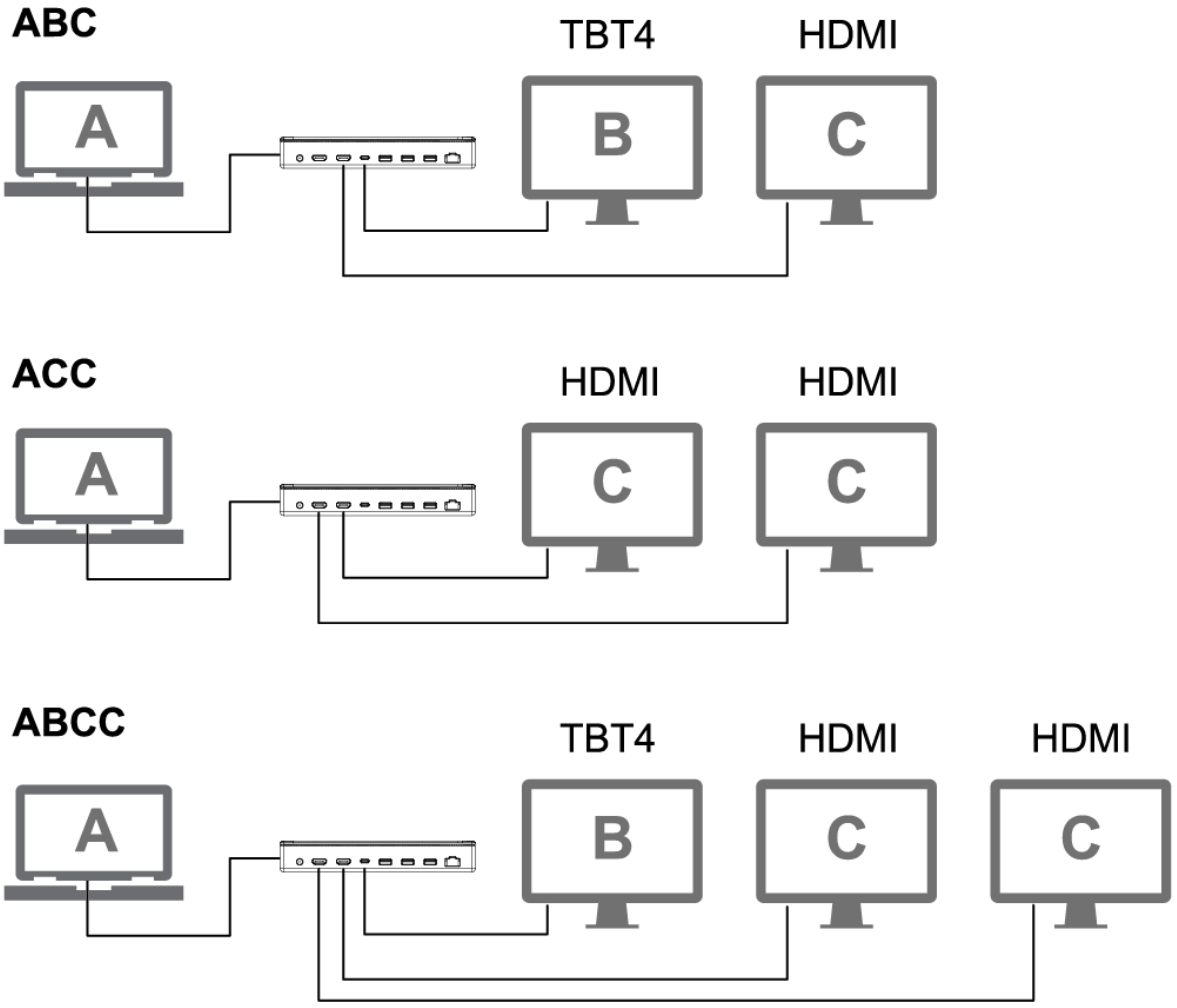
Windows TBT4 PC(DP1.4 with DSC)	Windows USB-C MFDP PC(DP1.4 with DSC)	Mac OS TBT3/TBT4(ABC)	Mac OS TBT3/TBT4(ACC)
3840×2160(4K)@60Hz	3840×2160(4K)@60Hz	3840×2160(4K)@60Hz	3840×2160(4K)@60Hz
			
		/	/

Triple Display

Windows TBT4 PC(DP1.4 with DSC)	Windows USB-C MFDP PC(DP1.4 with DSC)	Mac OS TBT3/TBT4
3840×2160(4K)@60Hz	3840×2160(4K)@30Hz	3840×2160(4K)@60Hz(ABCC)

Note:

1. The resolution provided above are based on factory testing and may slightly vary depending on the specification of your PC and Monitors.
2. On Thunderbolt/USB4 hosts, the system cannot simultaneously enable Display Stream Compression (DSC) for both Thunderbolt 4 and HDMI interfaces. The first connected display device will claim DSC support priority.
3. **For MacOS Users:** When connecting multiple displays via two HDMI ports, your system will default to mirror mode—both monitors will show same content. The diagram below shows the details:



4. **For Macs with M1/M2:** Only one display can be extended—choose either Thunderbolt 4 or HDMI.

Chapter 4 Display Setting

This chapter contains the following sections :

• For Windows OS

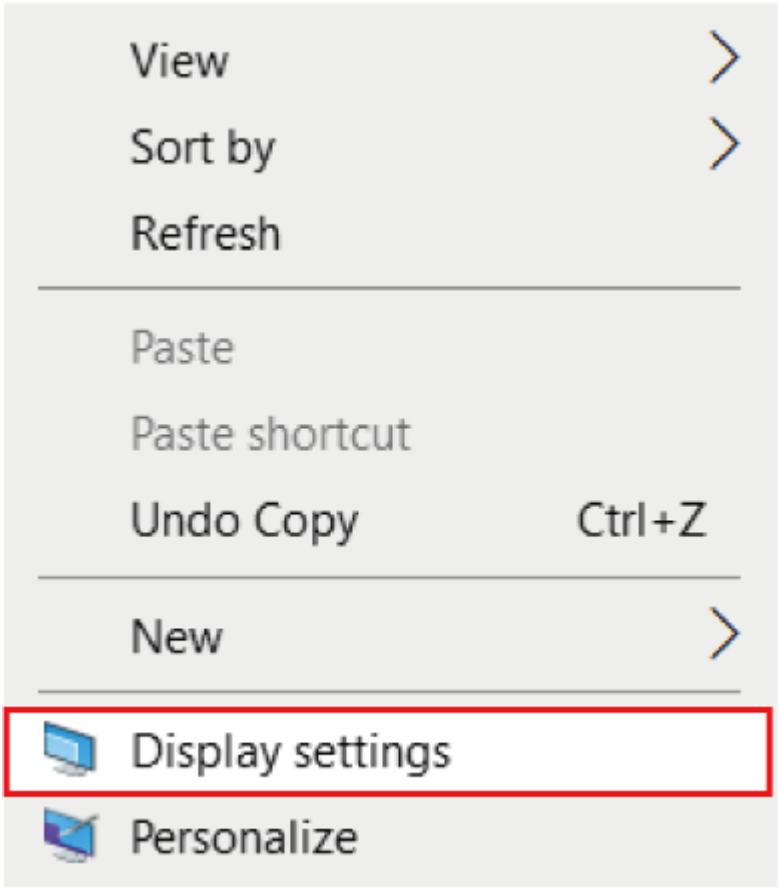
• For Mac OS

• For Mac OS X13

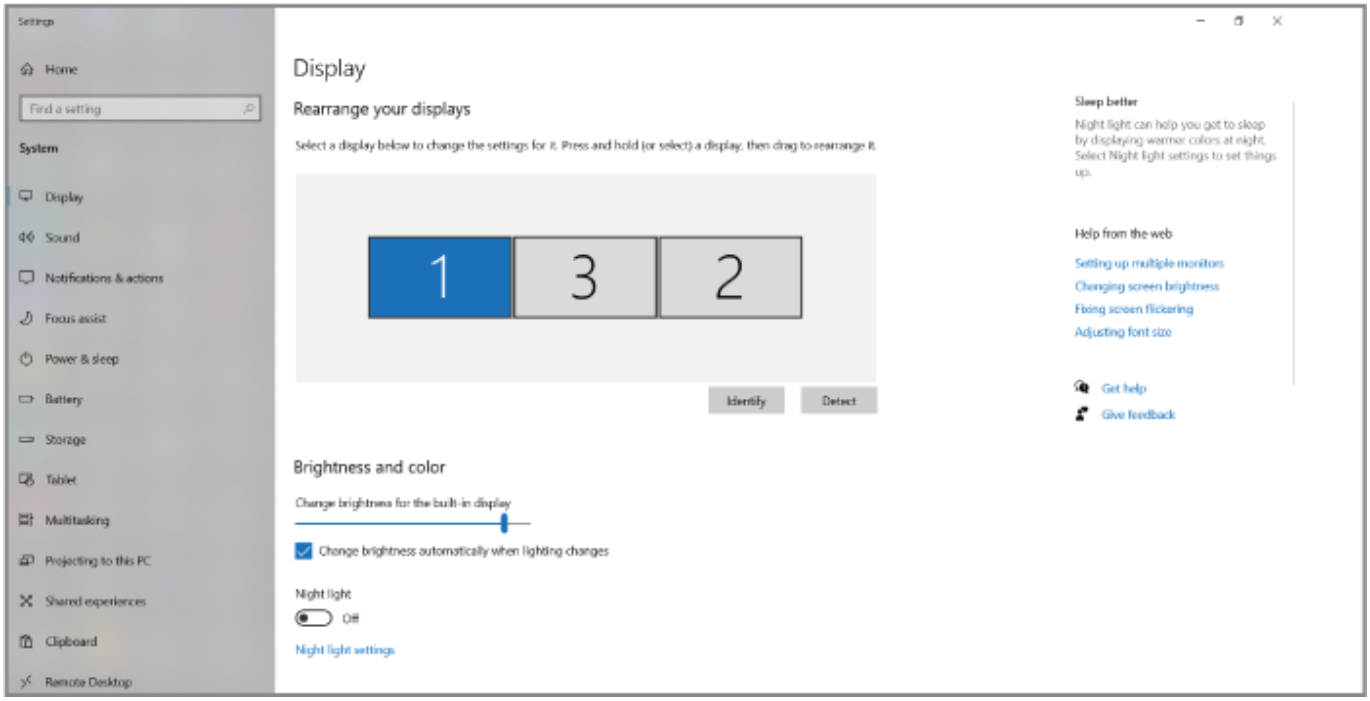
Before configuring the settings, please make sure this docking station has been connected to your laptop and monitors correctly.

For Windows OS

1. Right-click and select **Display settings**.

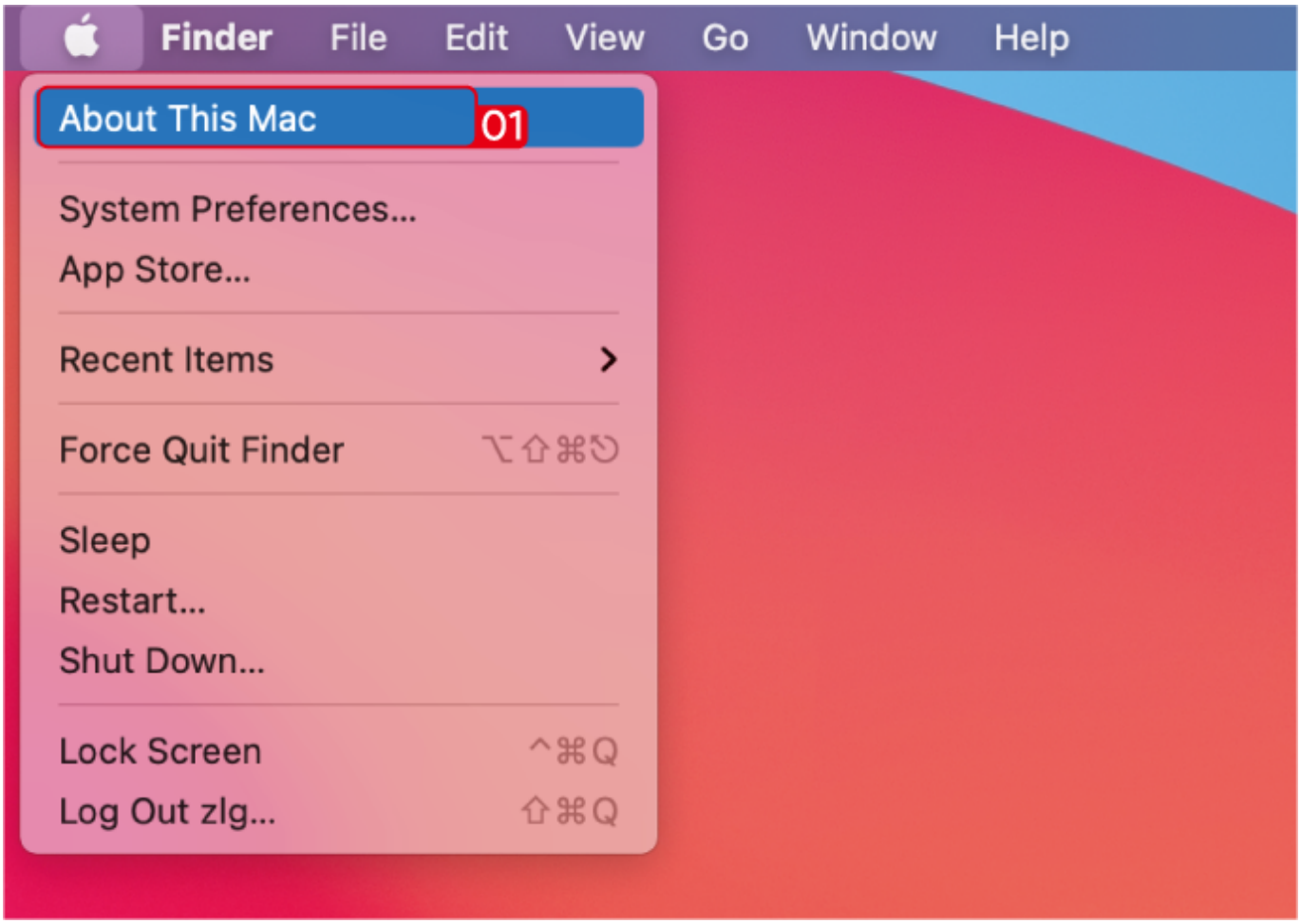


2. In **Display**, you can enjoy different operations of duplicating, extending and rotating on your monitors.

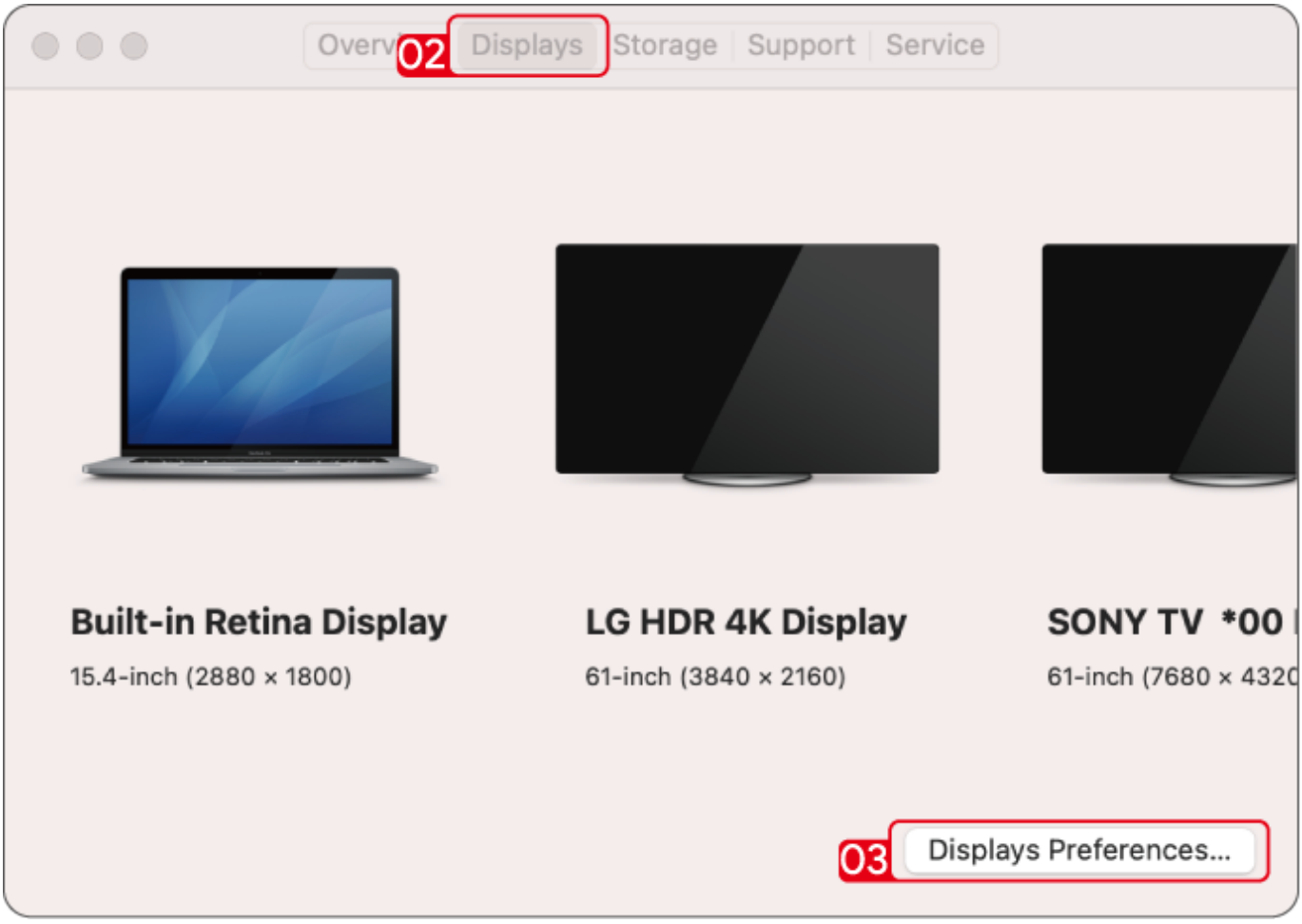


For Mac OS

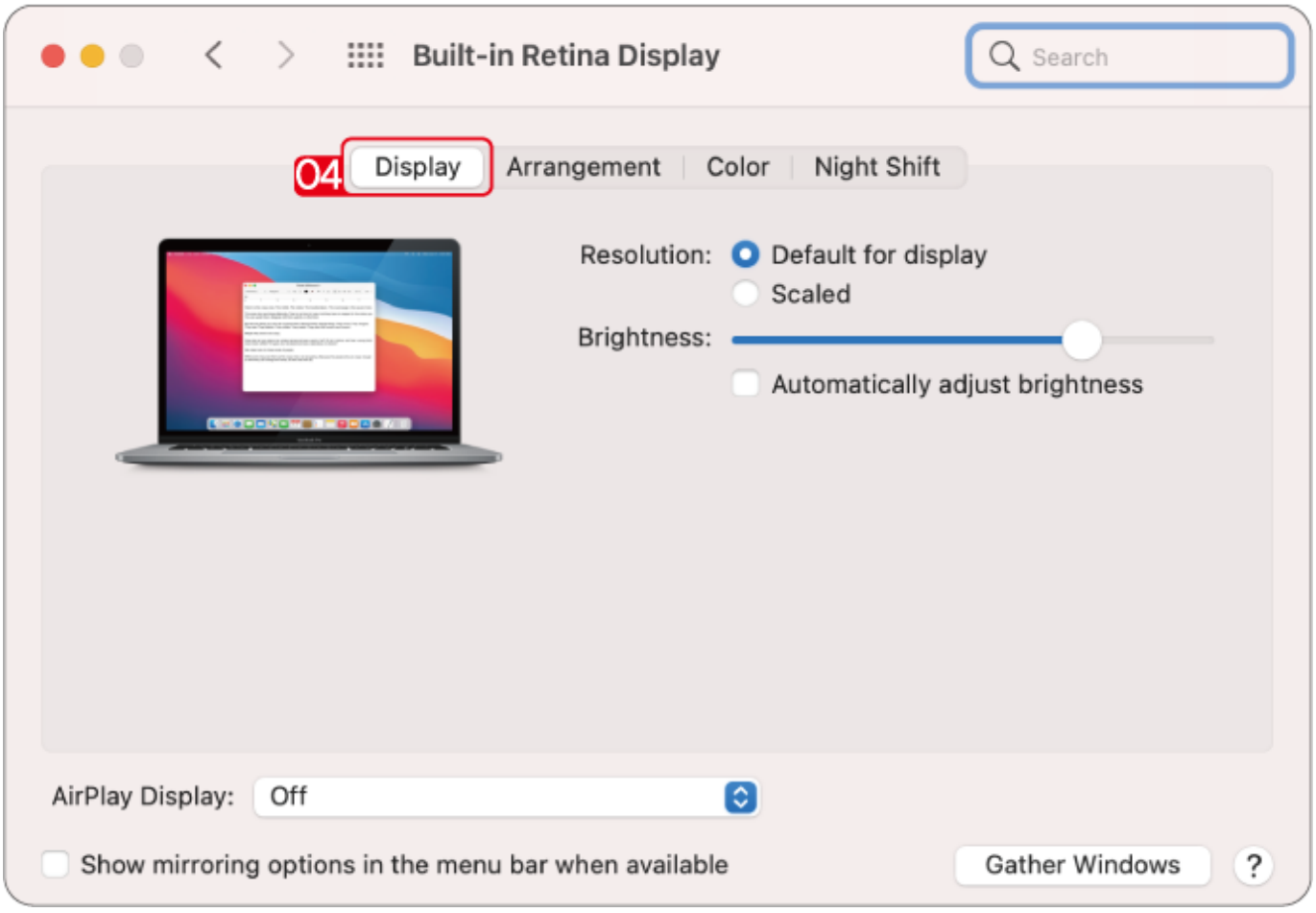
1. Click **Apple** icon, then select **About This Mac**.



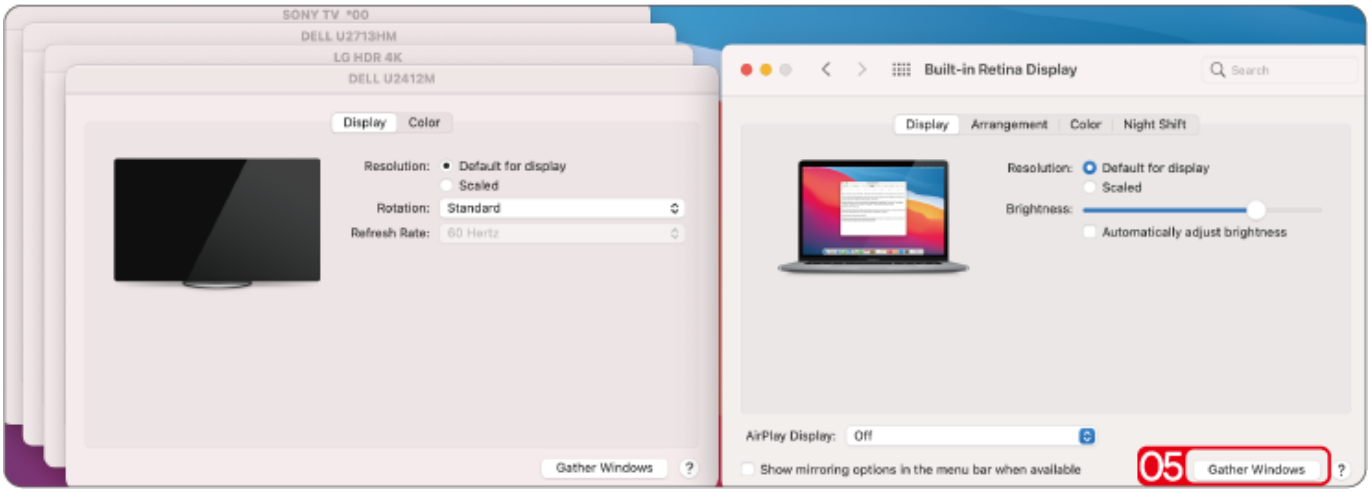
2. Click **Displays**, then select **Displays Preferences**.



3. Select **Displays** from the list, then you can enjoy different operations of mirroring, expanding and rotating on your monitors.

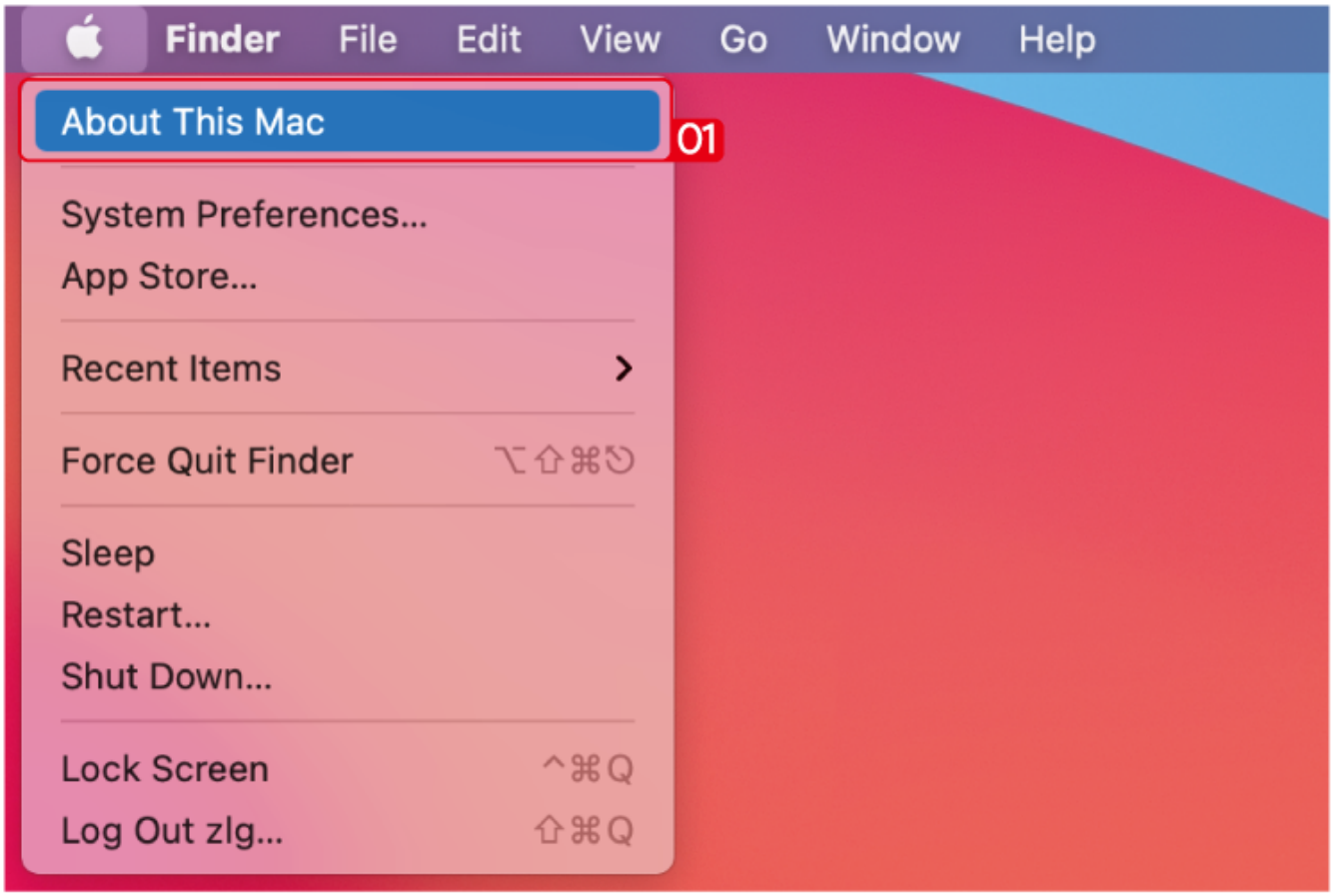


4. Or click **Gather Windows** to gather all connected displays and make separate settings.

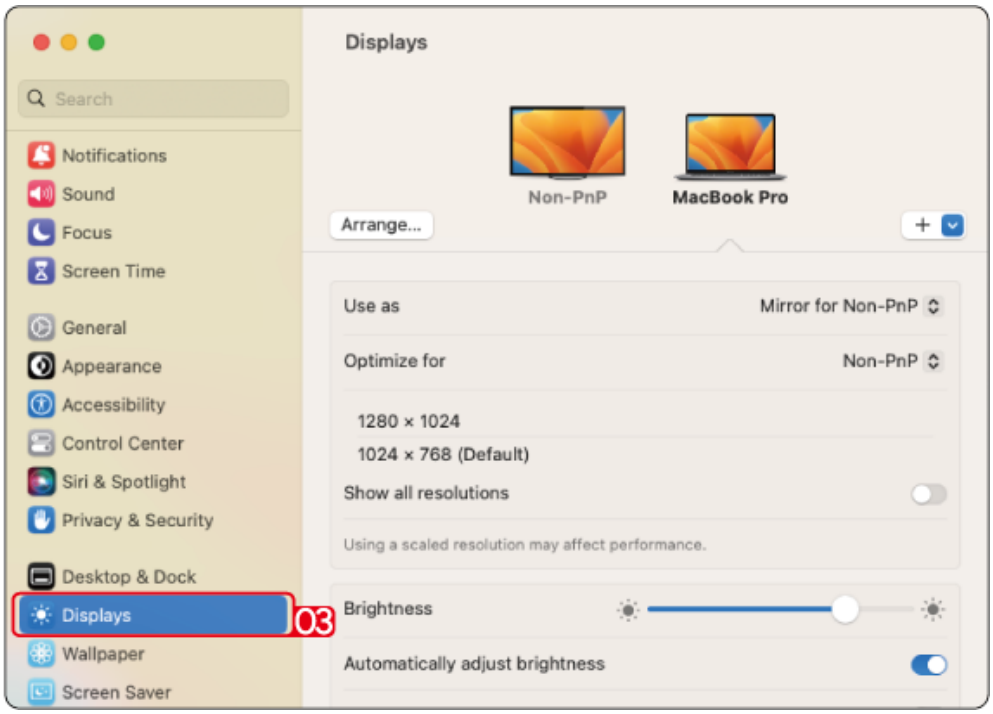


For Mac OS X13

1. Click **Apple** icon, then select **About This Mac**.



2. Click **More Info...**.
3. Select **Displays** from the list, then you can enjoy different operations of mirroring, expanding and rotating on your monitors.



Chapter 5 FAQ and After-sale Service

This chapter contains the following sections :

- FAQ
- After-sale Service

FAQ

Q1. Why is this Thunderbolt 4 dock not working properly on my Thunderbolt 3 Windows computer?

A1: Thunderbolt 4 technology is a relatively new innovation, it may have some issues about compability if TBT 4 devices were used in Thunderbolt 3 hosts. It is recommended to use the recommended configuration simultaneously while using this TBT 4 Dock, and it will work properly in common MFDP hosts, but only one of the Thunderbolt downstream ports will have video output.

Q2. Why can't the Thunderbolt downstream ports of this Dock reach 8K resolution when the TBT 4 Dock works with my computer?

A2: This TBT4 Dock can reach up to 8K resolution, and the resolution and refresh rate of the Dock's Thunderbolt downstream ports depends on the graphics card capability of your computer.

Q3. Why does the Thunderbolt downstream ports just support one video output when the TBT 4 Dock works with my computer?

A3. That's because every computer has different hardware and software design. For example, some computers such as TBT 3 computers, M1 Apple MAC, and MFDP computers, their Thunderbolt interfaces only support one video stream output.

Q4. Why does my dock get hot when I use it?

A4. This is what it's supposed to be like when the dock is working and we suggest that you put the dock in a relatively open area for a better heat dissipation.

Q5: Why is there no display after I connect the dock to the USB-C port of my laptop?

A5. You should make sure that your computer supports Thunderbolt 3/4 technology, and you should upgrade the GPU/Thunderbolt 4/5 Driver and BIOS to the latest.

Q6. What should I do if the dock cannot deliver power to my host laptop?

A6. Please make sure that your laptop supports USB-C power delivery.

Q7. Why doesn't the 2.5Gbps Ethernet port achieve its full 2500Mbps speed?

A7. Due to the bandwidth limitation of Intel Thunderbolt, the maximum speed is limited about 1300-2000Mbps.

Q8. When multiple monitors are connected to the Windows computer, why does only one monitor extend while the other either doesn't doesn't display or shows the same content?

A8. For computers with NVIDIA graphics cards, connecting two HDMI ports to 8K monitors may result in mirrored displays or one monitor failing to show any output. In such cases, you must disconnect the 8K monitors and restart the computer. If you need to configure multi-screen extended mode on a Windows PC with an NVIDIA graphics card while using 8K monitors, avoid the HDMI+HDMI setup. Instead, we recommend using a Thunderbolt 4 (TBT4) + HDMI combination for optimal performance.

Q9. What is DSC(Display Stream Compression)?

A9. DSC (Display Stream Compression) is an image compression technology that allows high-resolution images to be transmitted over limited bandwidth, enabling DSC can reduce data transmission while maintaining high resolution, providing clearer and more detailed image quality.However, some computers may not support or have DSC functionality enabled, which can result in a significant decrease in display resolution.

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