



Thunderbolt™ 4 Docking Station

Model 107054



HDMI®

User Manual

Download the user manual at:

www.cablematters.com/dl/107054

support@cablematters.com

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1. INTRODUCTION

1.1 Introduction

Thank you for your purchase from Cable Matters® Inc., the 'Reliable Connectivity' company. This User Manual provides an overview of the features and installation of your new:

Thunderbolt™ 4 Docking Station

Please read these instructions carefully before connecting, operating or configuring this product. Please keep this manual for future reference.

Contact support@cablematters.com for questions or product support.

1.2 Copyright and Trademarks

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USB Type-C® and USB-C® are registered trademarks of USB Implementers Forum.

Windows® is a registered trademark of Microsoft Corporation in the U.S. and other countries.

1.3 FCC Compliance Statement

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

1) This device must not cause harmful interference, and 2) this device must accept any interference received, including interference that may cause undesired operation.

2. PRODUCT OVERVIEW

2.1 Package Contents

Please check that the following items are contained in the package:

Thunderbolt™ 4 Docking Station

Thunderbolt™ 4 40Gbps USB-C® Cable

AC Power Adapter

User Manual (available in a PDF from cablematters.com)

2.2 Product Description

The Cable Matters® Thunderbolt™ 4 Docking Station supports four 4K DisplayPort™ or HDMI® monitors, USB peripherals, 2.5 Gigabit Ethernet networking, and SD cards over a single Thunderbolt 4 40Gbps cable. This innovative docking station uses the Intel® Goshen Ridge chipset for compatibility with a computer with only USB-C® connectivity.

2.3 Product Features

- Connects to any Thunderbolt 4 or USB-C® computer port and provides up to 98W of Power Delivery charging to the host computer
- Supports up to four 4K monitors at 60Hz in Thunderbolt 4 Mode (with DSC enabled) . Support two monitors up to 8K@30Hz for each (see details in on page 4)
- Provides 3x USB-A 10Gbps ports, 2x USB-A 5Gbps ports, 1x USB2.0 port with 5V@1.5A BC1.2 charging support, and 1x USB-C 10Gbps port with 5V@1.5A PD charging support
- Connect USB peripherals with six USB-A ports and one USB-C port
- Audio support for a speaker or headset with a microphone
- Connect to a wired 2.5 Gigabit Ethernet network
- Supports microSD or SD cards at 300MB/s speeds

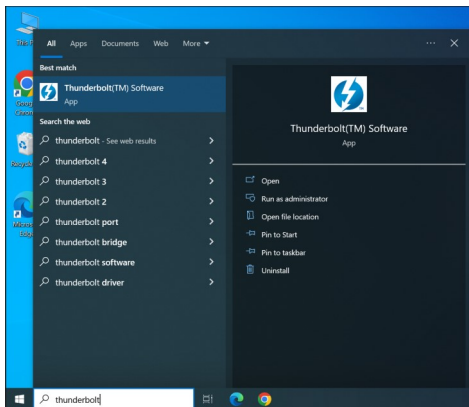
2.4 System Requirements

Computer Compatibility	Thunderbolt 3/4 host(Thunderbolt mode) USB-C host(MFDP mode), USB4, USB3.2 Gen1/Gen2
Note:	Computers with ChromeOS are NOT compatible
OS Compatibility	macOS 10.13 and up Windows 10 and up
External Displays	DisplayPort and/or HDMI monitors and cables
Ethernet Networking	LAN or router with RJ45 and an Ethernet cable (Cat 6 for 2.5 Gigabit Ethernet)
USB Connectivity	Compatible USB-A or USB-C devices and cables. To achieve 10Gbps speed on 10Gbps ports, 10Gbps-compatible devices and cables are required
SD Cards	Compatible microSD or SD Card
Audio Port	3.5mm TRS or TRRS headset or microphone cable
Power Port	Use only the power adapter included with the Dock

3. Connection and Operating Instructions

3.1 Installation Checklist

- ✓ A Windows PC may need Thunderbolt updates to function properly over Thunderbolt 4
For more information, go to kb.cablematters.com
- ✓ Check that your Thunderbolt port is wired for 40Gbps to support four 4K monitors
- ✓ A computer with USB-C rated for 10Gbps supports dual or single monitors. Resolutions depend on host capabilities
- ✓ If you want the network port on this dock to reach a speed of 2.5Gbps, it is crucial to ensure that your router's Ethernet port supports 2.5Gbps
- ✓ Use the included Thunderbolt 4 cable to connect to the Dock for the best performance
Longer active Thunderbolt 4 cable up to 2m are available
(Cable Matters Model 107022)
USB-C only computers must use a passive Thunderbolt 4 cable up to 1m
(Cable Matters Model 107032)
- ✓ macOS computers do not require any additional external software
- ✓ For additional troubleshooting information, go to kb.cablematters.com and search for 107054.
- ✓ Check that the Intel Thunderbolt™ Software is installed. Search for it in Windows



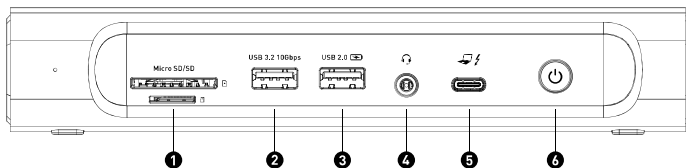
3.2 USB-C or Thunderbolt 4 External Display Chart

Thunderbolt 4 hosts support four 4K displays. The display support of USB-C hosts depends on the DP Alt Mode and Display Stream Compression (DSC) support of the host.

Computer		Single display	Dual Displays	Three Displays	Four Displays
Windows Thunderbolt 3/4 hosts	HBR3/HBR2(2 DP stream) with DSC enabled	8K@30Hz	2x 8K@30Hz ⁽¹⁾ or 2x 4K@60Hz ⁽²⁾	2x 4K@60Hz ⁽²⁾ and 1x 8K@30Hz	4x 4K@60Hz
	HBR3/HBR2 (2 DP stream)	4K@60Hz	2x 4K@30Hz ⁽²⁾ or 2x 4K@60Hz ⁽¹⁾	2x 4K@30Hz ⁽²⁾ and 1x 4K@60Hz	4x 4K@30Hz
	HBR3/HBR2 (1 DP stream)	4K@60Hz	2x 4K@30Hz	2x 4K@30Hz ⁽¹⁾ and 1x 1080P@60Hz	4x 1080P@60Hz
Windows Non-Thunderbolt hosts	HBR3/HBR2(2 Lanes) with DSC enabled	4K@60Hz	1x 4K@60Hz and 1x 4K@30Hz	3x 1440P@60Hz	4x 1080P@60Hz
	HBR3/HBR2 (2 Lanes)	4K@30Hz	2x 1080P@60Hz	3x 1600x900@60Hz	4x 1366x768@60Hz
Mac Thunderbolt 3/4 hosts	HBR3/HBR2(2 DP Stream) with DSC enabled	4K@60Hz	2x 4K@60Hz ⁽³⁾	3x 4K@60Hz ⁽³⁾	4x 4K@60Hz ⁽³⁾
	HBR3/HBR2 (2 DP stream)	4K@60Hz	2x 4K@60Hz ⁽³⁾	3x 4K@60Hz ⁽³⁾	4x 4K@60Hz ⁽³⁾
	M1 and M2 Chip (1 DP stream)	4K@60Hz	2x 4K@60Hz ⁽²⁾	Doesn't support this feature ⁽⁴⁾	Doesn't support this feature ⁽⁴⁾

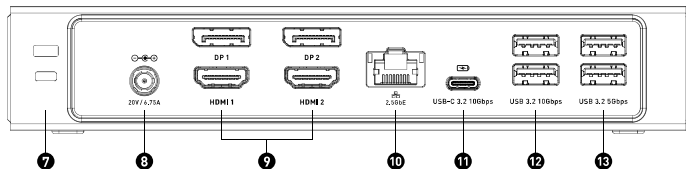
- (1) The two monitors should be connected in one of these ways:
 - A. DP1 and DP2
 - B. DP1 and HDMI2
 - C. HDMI1 and DP2
 - D. HDMI1 and HDMI2
- (2) The two monitors should be connected in one of these ways:
 - A. DP1 and HDMI1
 - B. DP2 and HDMI2
- (3) DP1 and HDMI1 are mirrored monitors, DP2 and HDMI2 are mirrored monitors
- (4) The M1/M2 chip Mac only supports up to two external mirrored monitors
- (5) 8K means 7680x4320, 4K means 3840x2160, 1440P means 2560x1440, 1080P means 1920x1080

3.3 Front Panel Diagram



- 1) SD and microSD card slots
- 2) USB-A 3.2 Gen 2 10Gbps port
- 3) USB 2.0 port with 5V@1.5A BC1.2 charging
- 4) 3.5mm TRRS combo headphones/mic port
- 5) Thunderbolt 4 40Gbps / USB-C host connector port
- 6) Power button

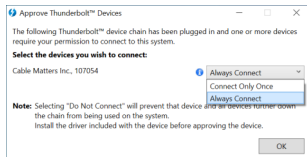
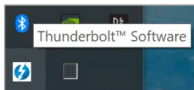
3.4 Rear Panel Diagram



- 7) K-Lock slot
- 8) DC power port
- 9) Display connectors – HDMI and DisplayPort
- 10) 2.5 Gigabit Ethernet RJ45 connector
- 11) USB-C 3.2 Gen 2 10Gbps port with PD 5V/1.5A charging support
- 12) 2x USB-A 3.2 Gen 2 10Gbps ports
- 13) 2x USB-A 3.2 Gen 1 5Gbps ports

3.5 Connecting the Docking Station

- 1) Connect the Dock to an AC power outlet
- 2) Connect the included cable to the Thunderbolt 4 or USB-C port on the computer
- 3) A computer equipped with Power Delivery should indicate that it is charging
- 4) Wait up to 20 seconds while USB drivers are automatically installed
- 5) Check that an LED in the RJ45 port is lit
- 6) Windows may request the user to approve the Dock
- 7) Check the status of connected Thunderbolt devices from the Thunderbolt software in Windows

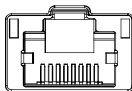


Troubleshooting Tips

- Reboot the computer and check that the Dock has power
- Check with the computer maker for BIOS updated and latest graphics drivers for Windows
- Avoid rapidly disconnecting and reconnecting the dock from your computer
- Connect the Thunderbolt 4 cable to the host port located on the front panel of the dock, rather than the USB-C DFP port on the back
- Connect the dock to your computer's Thunderbolt 4 port or USB-C port with video feature, rather than the charging port or a port that only supports data transfer.

3.6 Connecting to a LAN or Router

- 1) Connect an RJ45 patch cable to the Dock (Cat 6 recommended for 2.5 Gigabit Ethernet)
- 2) Connect the patch cable to a LAN or router port
- 3) Check the documentation of your LAN or router to configure network access
- 4) Link and Status LEDs should blink to indicate a live connection



2.5GbE

Troubleshooting Tips

- Check that the Link and Status LEDs are lit
- Test by turning off all wireless connections on the computer
- Test the patch cable with a different device or try another Ethernet port
- Maximum connection speed is limited by the network equipment and the Internet speed

3.7 Connecting an Audio Device

- 1) Connect a headset or microphone to the 3.5mm audio port (3 pole TRS or 4 pole TRRS)
- 2) Configure the audio settings from the computer



Windows 10

- 1) *Device Manager* > Click on *Sound, video and game controllers* > *Realtek USB2.0 Audio*
- 2) Click on *Audio inputs and output* > Select *Microphone* or *Speakers*



macOS 10.13 and up

- 1) *System Information* > *Hardware* > *USB* > *USB 3.0 Bus* > *Realtek USB2.0 Audio*
- 2) Select the audio in *System Preferences* > *Sound* > Select the *Output* or *Input*

3.8 Connecting External Monitors

- 1) Connect monitors to the DP ports and HDMI Ports.
- 2) Select the desired video input from each monitor's menu
- 3) Select the audio output from the computer, if needed



DP 1



DP 2



HDMI 1



HDMI 2

Windows 10: Press *Windows Logo* + *P* or launch the *Intel HD Graphics Control Panel* from the search bar

macOS 10.13 and up: Select *System Preferences* > *Displays* > Click the *Arrangement* tab

Troubleshooting Tips

- Test the video cables with other equipment
- Check that your computer supports 4 external monitors
- Check the resolution chart on Page 4 to verify display and resolution host device support
- Base-level M1/M2 Mac computers only support up to 2 monitors and they will be in mirrored mode in DP1/HDMI1 or DP2/HDMI2. All other Macs support up to 4 monitors, DP1/HDMI1 in mirrored mode, and DP2/HDMI2 in mirrored mode.
- To connect multiple monitors, it is recommended to visit the official website of Intel and update your graphics card driver to the latest version. This will ensure compatibility and optimal performance
- If you want to connect four 4K@60Hz monitors, it is recommended to use monitors with the highest resolution that supports 4K@60Hz

3.9 Connecting a USB-A or USB-C Device

FRONT PANEL

USB 3.2 10Gbps



USB 2.0



- 1) Connect a USB-A or USB-C device or cable to the Dock
- 2) The device should be recognized after downloading any needed USB drivers
- 3) The USB3.2 port supports data transfer up to 10Gbps. The USB-A 2.0 port supports up to 480Mbps data transfer and 5V1.5A BC1.2 charging.
- 4) Use *Safely Remove* or *Eject* when disconnecting, if needed

REAR PANEL



USB-C 3.2 10Gbps



USB 3.2 10Gbps



USB 3.2 5Gbps

- 1) Connect a USB-A 2.0 or USB 3.0 device or cable to the Dock
- 2) The device should be recognized after downloading any needed USB drivers
- 3) Data transfer only is supported
- 4) Use *Safely Remove* or *Eject* when disconnecting, if needed
- 5) The USB-C 3.2 port supports data transfer up to 10Gbps and 5V/1.5A PD charging. The two USB3.2 ports on the left supports data transfer up to 10Gbps and the two USB3.2 ports on the right support data transfer up to 5Gbps.

Troubleshooting Tips

- A USB external hard drive may require more power than the USB port provides. If the external hard drive has an external power adapter, connect it to the hard drive
- Test the USB cable or device with a different port
- Data transfer speed is limited by the Thunderbolt 4 or USB-C host port and the connected device
- Thunderbolt displays, devices or external drives are NOT compatible
- USB-C displays are NOT compatible

3.10 Connecting SD Cards

Micro SD/SD



- 1) Connect an SD card to the SD card slot, and/or a microSD card to the microSD card slot
- 2) The card should be recognized automatically
- 3) Data transfer up to 300MB/s is supported
- 4) Use *Safely Remove* or *Eject* before removing SD cards

Troubleshooting Tips

- Make sure the card is formatted for use. Try backing up data and reformatting a new or used card
- Test the card in another device
- Data transfer speed is limited by the Thunderbolt 4 or USB-C host port, connected devices, and card type

4. TECHNICAL SPECIFICATIONS

Thunderbolt 4 /USB-C (host)	Thunderbolt 4 40Gbps / USB-C
Included Host Cable	Thunderbolt 4 40Gbps passive
2.5 Gigabit Ethernet Network Port	RJ45
USB-A 3.2 (front panel)	1x USB-A 3.2 10Gbps
USB-A 2.0 (front panel)	1x USB-A 2.0 480bps with 5V1.5A BC1.2 charging
USB-A 3.2 (rear panel)	2x USB-A 3.2 5Gbps for data transfer only
USB-A 3.2 (rear panel)	2x USB-C 3.2 10Gbps for data transfer only
USB-C 3.2 (rear panel)	1x USB-C 3.2 10Gbps with 5V1.5A PD charging
Displays	2x DisplayPort 1.4, 2x HDMI 2.1
Audio	3.5mm TRRS Combo Audio Port / 2 Ch audio
SD Card	1x microSD card slot, 1x SD card slot—300MB/s
Power	Input: AC 100/240V Output: 20V/6.75A US Standard
Operation/Storage Temperature	32-104°F / -4-158°F
OS Support	Windows 10 64-bit, macOS 10.13 and up
Maximum Resolution Support	Up to 7680 x 4320 @ 30Hz
Dock Housing (LxWxH)	7.7 x 4.1 x 1.4 in (195 x 104 x 36 mm)
Dock Weight	22 oz (625g)
Compliance	C E, FCC, RoHS
Warranty	Limited One-Year

Note: Specifications are subject to change without notice

5. WARRANTY & SUPPORT INFORMATION

5.1 Customer Support and Contact Information

Cable Matters offers lifetime technical support as an integral part of our commitment to provide industry leading solutions. Contact us with any questions at support@cablematters.com.

5.2 Warranty Information

This product is backed by a limited one-year warranty. The warranty covers parts and labor costs only. Cable Matters does not warrant its products from defects or damages arising from misuse, abuse, or normal wear.

5.3 Limitation of Liability

In no event shall Cable Matters Inc. (including their officers, directors, employees or agents) be liable for any damages (whether direct or indirect, special, punitive, incidental, consequential, or otherwise), loss of profits, loss of data, loss of business, or any pecuniary loss, arising out of, or related to the use of this product exceeding the actual price paid for the product (as allowed by state law).

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