

Thunderbolt 3 Dual-4K Docking Station

TB3DK2DHV

TB3DK2DHVUE



*actual product may vary from photos

FR: Guide de l'utilisateur - fr.startech.com

DE: Bedienungsanleitung - de.startech.com

ES: Guía del usuario - es.startech.com

NL: Gebruiksaanwijzing - nl.startech.com

PT: Guia do usuário - pt.startech.com

IT: Guida per l'uso - it.startech.com

JP: 取扱説明書 - jp.startech.com

For the latest information, technical specifications, and support for this product, please visit www.StarTech.com

FCC Compliance Statement

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

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.

Changes or modifications not expressly approved by StarTech.com could void the user's authority to operate the equipment.

Industry Canada Statement

This Class B digital apparatus complies with Canadian ICES-003.

Cet appareil numérique de la classe [B] est conforme à la norme NMB-003 du Canada.

CAN ICES-3 (B)/NMB-3(B)

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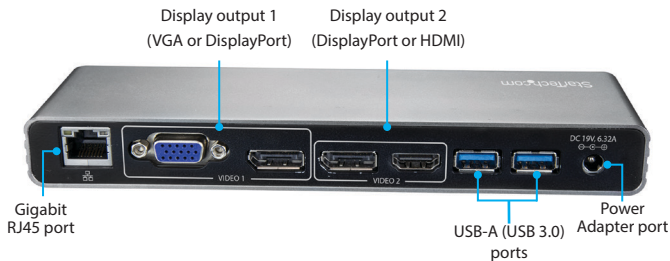
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Product diagram

Front view



Back view



Package contents

- 1 x docking station
- 1 x Thunderbolt 3 cable
- 1 x universal power adapter
- 2 x power cords (NA/JP and ANZ for TB3DK2DPPD) (EU and UK for TB3DK2DPPDUE)
- 1 x instruction manual

Requirements

- A host laptop with an available Thunderbolt 3 port (your laptop's Thunderbolt 3 port must support USB Power Delivery in order to power and charge your laptop).
- An available AC electrical outlet.
- Two displays with cabling (VGA or DisplayPort for Display output 1 and DisplayPort or HDMI for Display output 2).
- For 4K x 2K (4096 x 2160p, 3840x2160p) resolution, a 4K-capable display is required.
- Any of the following operating systems:
 - Windows 10® (32-bit or 64-bit)
 - Windows 8 / 8.1 (32-bit or 64-bit)
 - Windows 7 (32-bit or 64-bit)
 - macOS 10.12 (Sierra)
 - macOS 10.13 (High Sierra)

Requirements are subject to change. For the latest requirements, please visit www.StarTech.com/TB3DK2DHV or www.StarTech.com/TB3DK2DHVUE.

About Thunderbolt 3

Thunderbolt 3 technology uses the USB-C connector, with a bandwidth of up to 40Gbps. It supports USB 3.1, DisplayPort 1.2, and PCI Express 3.0.

Thunderbolt technology supports both video and data throughput. However, it prioritizes video bandwidth to help ensure seamless display performance. The performance of the remaining dock functions depends on your display configuration.

Thunderbolt 3 products must be used with Thunderbolt 3 cables.

Your computer's Thunderbolt 3 ports might not function properly until you update one or more of the following on your computer:

- BIOS
- Thunderbolt firmware
- Thunderbolt 3 controller drivers
- Thunderbolt 3 software

The required updates will vary depending on your computer.

For an up-to-date list of affected computers and instructions, visit <http://thunderbolttechnology.net/updates>. If your computer's manufacturer isn't listed on the Thunderbolt website, contact the manufacturer directly.

USB Power Delivery

This docking station supports USB Power Delivery, which means it delivers up to 85 watts of power to the host laptop (your laptop's Thunderbolt 3 port must support Power Delivery). USB Power Delivery is a specification that allows power to be sent over a USB-C or Thunderbolt 3 cable that supports the specification.

Thunderbolt operating temperature

Due to the high performance of Thunderbolt technology, Thunderbolt products sometimes generate more heat than traditional hardware. Therefore, it's normal for the docking station to warm up when in use. It's recommended that you don't place your laptop on the docking station's surface, as doing so will result in even higher temperatures.

These higher temperatures do not represent a safety hazard to users or to hardware.

About USB 3.0 and USB 3.1 Gen 1

USB 3.0 is also known as USB 3.1 Gen 1. This connectivity standard offers speeds up to 5Gbps. Any mention of USB 3.0 in this manual or on the StarTech.com website for TB3DK2DHSV or TB3DK2DHSVUE refers to the 5Gbps USB 3.1 Gen 1 standard.

The USB-A (USB 3.0) ports on the rear panel of the docking station are standard USB 3.0 throughput ports. When the dock is connected to a host laptop, these ports provide a standard USB 3.0 power output to power and charge your devices.

Install the docking station

The docking station will automatically detect and install the required drivers when connected to a Thunderbolt 3 port on your host laptop. Follow the instructions below to install the docking station.

Power the docking station

1. Select the appropriate power cord for your region and connect it to the Universal power adapter.
2. Connect the power adapter to an AC electrical outlet and to the docking station's Power adapter port.

Connect the docking station

Notes:

- The dock features two display channels, a VGA and a DisplayPort on Display output 1 and a DisplayPort and HDMI on Display output 2. Each channel can only support a single display.
 - If two displays are connected to the same channel, only the DisplayPort output will function.
1. Connect your peripherals to the docking station (e.g. USB devices, RJ 45 network, etc.).
 2. Connect each of your display(s) to each of the dock's display channels.
 3. Connect the provided Thunderbolt 3 cable to a Thunderbolt 3 port on your host laptop and to the Thunderbolt 3 host port on the docking station.

Driver installation

When the docking station is powered and you connect it to your laptop, the required drivers are installed automatically.

You may see a pop-up message requesting permission to allow the docking station to connect to your computer. If a pop-up message appears, do the following:

1. Click on the pop-up message.
2. Click **Always Connect**.
3. Click **OK**.
4. Follow any other on-screen instructions to complete the installation.

Display configuration

Use your operating system video settings to adjust display settings for each of your monitors.

Note: Your laptop must support dual external displays through its Thunderbolt 3 port.

Connect an active adapter to the DisplayPort port

You can also connect a display adapter to the docking station's DisplayPort port to connect a different type of monitor.

Note: This port does not support Multimode DisplayPort so an active adapter is required.

Type of Display	Adapter Needed (sold separately)
HDMI	DisplayPort to HDMI 4K Audio / Video Converter (DP2HD4KS)
DVI	DisplayPort to DVI Adapter (DP2DVIS)
VGA	DisplayPort to VGA Adapter (DP2VGA2)

Visit www.StarTech.com for a range of active DisplayPort video adapters and cables.

Supported video resolutions

Thunderbolt technology supports both video and data throughput. However, it prioritizes video bandwidth to help ensure seamless display performance. The performance of the remaining docking station functions depends entirely on the display configuration you used.

The docking station supports the following maximum resolutions:

Number of Displays	Ports	Maximum Resolution
1	DisplayPort (CH. 1 or 2)	4096 x 2160p (60Hz)
1	VGA (CH. 1)	1920x1200 (60Hz)
1	HDMI (CH. 2)	4096 x 2160p (60Hz)
2	DisplayPort (CH. 1) + DisplayPort (CH. 2)	4096 x 2160p (60Hz)
2	DisplayPort (CH. 1) + HDMI (CH. 2)	4096 x 2160p (60Hz)
2	VGA (CH. 1) + DisplayPort (CH. 2)	1920 x 1200 (60Hz) / 4096 x 2160p (60Hz)
2	VGA (CH. 1) + HDMI (CH 2.)	1920 x 1200 (30Hz) / 4096 x 2160p (60Hz)

- Depending on the configuration and the supported resolutions of your connected monitor(s), the docking station can support video resolutions lower than specified.
- Video output capabilities are dependent on the video card and hardware specifications of your connected host laptop.

Video and download bandwidth allocation

Thunderbolt technology carries video and data bandwidth, and it prioritizes video bandwidth to help ensure seamless display performance. The performance of the remaining docking station ports (e.g. the USB 3.0 ports) depends entirely on the display and I/O (input and output) configuration that you have used.

When multiple high-resolution displays are connected, the docking station needs to allocate additional bandwidth to the displays, and the extra bandwidth is reallocated from the other I/O ports on the docking station. In this situation there is less bandwidth available for the remaining ports (e.g. the USB 3.0 ports).

The amount of download bandwidth allocated depends on several variables including the number, type, resolution, and refresh rate of your connected display(s):

Video and I/O Configuration	Video Channel 1 Resolution	Video Channel 2 Resolution	I/O Bandwidth Remaining
Data only (No displays)	N/A	N/A	Download: 22Gbps Upload: 22Gbps
Single display - 4K	4096 x 2160p (4K)	N/A	Download: 22Gbps Upload: 22Gbps
Dual display - 4K	4096 x 2160p (4K)	4096 x 2160p (4K)	Download: 8Gbps Upload: 22Gbps

Troubleshooting

If you are experiencing device detection issues, there are some quick tests that you can complete to narrow down the source of the issue.

Update your computer to use Thunderbolt 3

Visit <http://thunderbolttechnology.net/updates> and look for your computer in the list of affected computers. If your computer is listed, then you must update your computer for its Thunderbolt 3 ports to function properly. To update your computer, follow the instructions on the website or contact your computer's manufacturer.

Verify that your components are Thunderbolt compliant

- A 50 cm StarTech.com cable is included in the box. However, if you're using a different cable, make sure that you are using a Thunderbolt 3 certified cable.
- Make sure that the port on your computer is Thunderbolt 3 compliant. Thunderbolt 3 uses the USB-C connector type, but not all USB-C connectors are compatible with Thunderbolt 3. If you are using a USB-C port that is not Thunderbolt 3 compliant, switch to a port that is Thunderbolt 3 compliant.
- Make sure that your peripheral is Thunderbolt compliant. If you're not sure, check with the manufacturer.

Test the Thunderbolt peripheral

- Use a second Thunderbolt peripheral, and see if it works. Ideally, the second peripheral is one that you know works in other setups. If the second peripheral works in the current setup, then there is probably an issue with the first Thunderbolt peripheral.
- Use the Thunderbolt peripheral with a second setup. If it works in the second setup, then there is probably an issue with the first setup.

Verify USB Power Delivery support

- Your laptop's Thunderbolt 3 port must support USB Power Delivery 2.0 in order to power and charge your laptop.
- Your laptop's USB Power Delivery draw must be equal to or less than 85 watts of power.

Technical support

StarTech.com's lifetime technical support is an integral part of our commitment to provide industry-leading solutions. If you ever need help with your product, visit www.startech.com/support and access our comprehensive selection of online tools, documentation, and downloads.

For the latest drivers/software, please visit www.startech.com/downloads

Warranty information

This product is backed by a three-year warranty.

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