

Thunderbolt 3 Dual-4K Docking Station



Actual product may vary from photos

User Manual

SKU#: TB3DK2DHV/TB3DK2DHSVUE

For the latest information and specifications visit
www.startech.com/TB3DK2DHV
www.startech.com/TB3DK2DHSVUE

Compliance Statements

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

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)

Use of Trademarks, Registered Trademarks, and other Protected Names and Symbols

This manual may make reference to trademarks, registered trademarks, and other protected names and/or symbols of third-party companies not related in any way to StarTech.com. Where they occur these references are for illustrative purposes only and do not represent an endorsement of a product or service by StarTech.com, or an endorsement of the product(s) to which this manual applies by the third-party company in question. Regardless of any direct acknowledgement elsewhere in the body of this document, StarTech.com hereby acknowledges that all trademarks, registered trademarks, service marks, and other protected names and/or symbols contained in this manual and related documents are the property of their respective holders.

Safety Statements

Safety Measures

- Wiring terminations should not be made with the product and/or electric lines under power.
- Cables (including power and charging cables) should be placed and routed to avoid creating electric, tripping or safety hazards.

Mesures de sécurité

- Les terminaisons de câblage ne doivent pas être effectuées lorsque le produit et/ou les câbles électriques sont sous tension.
- Les câbles (y compris les câbles d'alimentation et de chargement) doivent être placés et acheminés de façon à éviter tout risque électrique, de chute ou de sécurité

安全対策

- 電源が入っている状態の製品または電線の終端処理を行わないでください。
- ケーブル(電源ケーブルと充電ケーブルを含む)は、適切な配置と引き回しを行い、電気障害やつまづきの危険性など、安全上のリスクを回避するようにしてください。

Misure di sicurezza

- I terminali dei fili elettrici non devono essere realizzate con il prodotto e/o le linee elettriche sotto tensione.
- I cavi (inclusi i cavi di alimentazione e di ricarica) devono essere posizionati e stesi in modo da evitare pericoli di inciampo, rischi di scosse elettriche o pericoli per la sicurezza.

Säkerhetsåtgärder

- Montering av kabelavslutningar får inte göras när produkten och/eller elledningarna är strömförda.
- Kablar (inklusive elkablar och laddningskablar) ska dras och placeras på så sätt att risk för snubblingsolyckor och andra olyckor kan undvikas.

Table of Contents

Compliance Statements	1
Safety Statements	2
Product Diagram	4
Front View	4
Rear View	4
Product Information	5
Package contents	5
Requirements	5
USB Power Delivery	6
Thunderbolt Operating Temperature	6
Installation	6
Powering the Docking Station	6
Connecting the Docking Station	7
Driver installation	8
Display Configuration	8
Connecting an Active Adapter	8
Supported video resolutions	9
Video and download bandwidth allocation	11
Troubleshooting	13

Product Diagram

Front View



1 Thunderbolt 3 Host Port

Rear View



1	RJ45 Port	5	HDMI Port
2	VGA Port	6	USB-A Ports x 2
3	DisplayPort Port 1	7	Power Adapter Port
4	DisplayPort Port 2		

Product Information

Package contents

- Docking Station x 1
- Thunderbolt 3 Cable x 1
- Universal Power Adapter x 1
- Power Cords (NA/JP and ANZ for TB3DK2DPPD) (EU and UK for TB3DK2DPPDUE) x 2
- User Manual x 1

Requirements

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

- Host Computer with an available Thunderbolt 3 Port

Note: *The 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).

Note: *For 4K x 2K (4096 x 2160p, 3840x2160p) resolution, a 4K-capable display is required.*

Operating System

- Windows® 10, 8, 8.1 or 7.
- macOS 10.14, 10.13 or 10.12.

USB Power Delivery

This docking station supports USB Power Delivery, which means it delivers up to 85 watts of power to the Host Computer (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.

Installation

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

Powering the Docking Station

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

3. Connect the provided Thunderbolt 3 Cable to a Thunderbolt 3 Port on the on the docking station and the other end to a Thunderbolt 3 port on the Host Computer.

Connecting the Docking Station

1. Connect a USB Peripheral Device to either the USB-A Ports or Thunderbolt 3 Port on the back of the Docking Station. Devices may include USB peripherals, headset, microphone, etc.

Notes: *The USB-A Ports located at the back of the docking station are standard USB 3.0 throughput ports. When the dock is connected to a Host Computer, these ports provide a trickle charge to a connected device.*

2. Connect a CAT6/5e Cable to the RJ45 Port on the Docking Station and the other end to a Network Device.
3. Connect a VGA Cable to the VGA Port on the Docking Station and to a VGA port on a Display Device.

- or -

Connect a DisplayPort Cable to the DisplayPort Port on the Docking Station and to a DisplayPort port on a Display Device.

4. For a second display, connect a DisplayPort Cable to the DisplayPort Port on the Docking Station and the other end to a Display Device.

- or -

Connect an HDMI Cable to the HDMI Port on the Docking Station and the other end to a Display Device.

Notes: Video output capabilities are dependent on the video card and hardware specifications of your connected Host Computer.

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 on **Always Connect**.
3. Click on the **OK** button.
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: The Host Computer must support dual external displays through its Thunderbolt 3 port.

Connecting an Active Adapter

You can also connect a display adapter to the Docking Station's DisplayPort Port to connect a different type of Monitor.

Note: *The DisplayPort Port does not support Multimode DisplayPort.*

Type of Display	Adapter (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:

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	Video Channel 1	Video Channel 2	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. 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.

Warranty Information

This product is backed by a three-year warranty.

For further information on product warranty terms and conditions, please refer to www.startech.com/warranty.

Limitation of Liability

In no event shall the liability of StarTech.com Ltd. and StarTech.com USA LLP (or their officers, directors, employees or agents) for any damages (whether direct or indirect, special, punitive, incidental, consequential, or otherwise), loss of profits, loss of business, or any pecuniary loss, arising out of or related to the use of the product exceed the actual price paid for the product.

Some states do not allow the exclusion or limitation of incidental or consequential damages. If such laws apply, the limitations or exclusions contained in this statement may not apply to you.

Hard-to-find made easy. At StarTech.com, that isn't a slogan. It's a promise.

StarTech.com is your one-stop source for every connectivity part you need. From the latest technology to legacy products — and all the parts that bridge the old and new — we can help you find the parts that connect your solutions.

We make it easy to locate the parts, and we quickly deliver them wherever they need to go. Just talk to one of our tech advisors or visit our website. You'll be connected to the products you need in no time.

Visit www.startech.com for complete information on all StarTech.com products and to access exclusive resources and time-saving tools.

StarTech.com is an ISO 9001 Registered manufacturer of connectivity and technology parts. StarTech.com was founded in 1985 and has operations in the United States, Canada, the United Kingdom and Taiwan servicing a worldwide market.

Reviews

Share your experiences using StarTech.com products, including product applications and setup, what you love about the products, and areas for improvement.

StarTech.com Ltd.

45 Artisans Cres.
London, Ontario
N5V 5E9
Canada

FR: startech.com/fr

DE: startech.com/de

StarTech.com LLP

4490 South Hamilton
Road
Groveport, Ohio
43125
U.S.A.

ES: startech.com/es

NL: startech.com/nl

StarTech.com Ltd.

Unit B, Pinnacle
15 Gowerton Rd.,
Brackmills
Northampton
NN4 7BW
United Kingdom

IT: startech.com/it

JP: startech.com/jp