

## Thunderbolt 3 Dual-4K Docking Station for Laptops - Windows Only

TB3DK2DPW

TB3DK2DPWUE



\*actual product may vary from photos

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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

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# Introduction

The TB3DK2DPW and TB3DK2DPWUE integrate Thunderbolt™ 3 technology to offer throughput at speeds up to 40Gbps. It lets you connect dual-4K monitors (60Hz) to your Windows® based laptop. Plus, the dock offers a range of input and output ports, such as DisplayPort, Gigabit Ethernet, USB fast-charge, USB 3.0, USB-C™, headphone, microphone, and Thunderbolt 3.

## Packaging contents

- 1 x Thunderbolt 3 dual-4K docking station for laptops
- 1 x Thunderbolt 3 cable - 40Gbps - 0.5 m
- 1 x universal power adapter
- 1 x power cord (NA) - 2 x power cords (UK/EU) for TB3DK2DPWUE
- 1 x quick start guide

## System requirements

- Host laptop with an available Thunderbolt 3 port
- Available AC electrical outlet
- DisplayPort equipped display(s) with cable(s) as needed (for additional external display)
- Thunderbolt 3 equipped display(s) with cable(s) as needed (for additional external display)

**Note:** To connect a second display, you must use one of the docking station's Thunderbolt 3 USB-C ports. Additional adapter purchases might be required to use the docking station with HDMI, DVI, or VGA displays. See the **Configure a display device** section for further details.

- A 4K-capable display is required to achieve 4096 x 2160p resolution (4K is also known as 4K x 2K)
- A 5K-capable display is required to achieve 5120 x 2880p resolution
- 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)

### Notes:

- The docking station only supports Windows operating systems.

- Video output capabilities are dependent on the video card and hardware specifications of your connected host laptop.

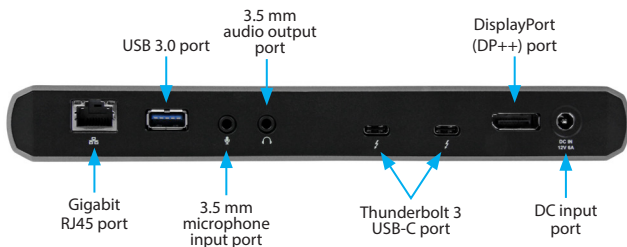
Operating system requirements are subject to change. For the latest requirements, please visit [www.startech.com/TB3DK2DPW](http://www.startech.com/TB3DK2DPW) or [www.startech.com/TB3DK2DPWUE](http://www.startech.com/TB3DK2DPWUE).

# Product diagram

## Front view



## Rear view



# About Thunderbolt 3

Thunderbolt 3 technology uses the USB-C connector, with bandwidth up to 40Gbps. It supports USB 3.1, DisplayPort 1.2, PCI Express 3.0, Thunderbolt 2, first-generation Thunderbolt, and increased power delivery to connected devices.

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 entirely on your display configuration.

Thunderbolt 3 products must be used with Thunderbolt 3 cables.

## About DP alt mode (DisplayPort alternative mode)

DP alt mode is a specification that allows a DisplayPort video signal to transfer over USB-C. It enables the use of the USB-C interface for DisplayPort signals. Thunderbolt 3 supports the full USB-C standard, including support for DP alt mode. Because the docking station supports DP alt mode, you can connect Thunderbolt 3 or USB-C based video devices, cables, or adapters to the secondary Thunderbolt 3 port on the rear of the docking station.

## About USB power delivery 2.0

USB power delivery 2.0 is a specification that allows power (up to 100 watts) to be sent over a USB-C or Thunderbolt 3 cable that supports the specification.

The docking station supports USB power delivery 2.0 profile 1, delivering up to 15 watts of power to each Thunderbolt 3 USB-C port.

## Thunderbolt 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. As such, 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 TB3DK2DPW or TB3DK2DPWUE refers to the 5Gbps USB 3.1 Gen 1 standard. Any mention of USB 3.1 Gen 2 refers to the 10Gbps Gen 2 standard.



# About the docking station's USB-C ports

Not all USB-C ports support the full functionality of the USB Type-C™ standard. Some ports might only provide data transfer, and might not support video (DP alt mode) or USB power delivery 2.0.

The docking station includes two USB-C ports:

- **Front-panel USB-C port:** This is not a Thunderbolt 3 port. It's a USB-C port that lets you connect peripherals using USB 3.0 (5Gbps) technology. This port supports data throughput only. The port does not support DP alt mode or USB power delivery 2.0.
- **Rear panel Thunderbolt 3 USB-C port(s):** These USB-C ports are Thunderbolt 3 ports with a USB-C connector. One port is for connection to a host laptop, while the second can be used as a Thunderbolt 3 port or a USB-C port. When used as a USB-C port, it lets you connect peripherals using USB 3.1 Gen 2 (10Gbps) technology. This port supports DP alt mode, and USB power delivery 2.0 profile 1, up to 15 W.

**Note:** Either of the Thunderbolt 3 USB-C ports on the docking station can be used to connect to your host laptop.

## About the docking station ports

The USB-A (USB 3.0) port located at the back of the docking station is a standard USB 3.0 throughput port. When the dock is connected to a host laptop, this port provides a trickle charge to a selection of USB-charged devices.

The front USB-A (USB 3.0) port is compliant with Battery Charging Specification Revision 1.2 (BC1.2), which means that you can use the port to connect and charge a device faster than you can using a traditional standard USB 3.0 port.

This front USB 3.0 port can fast-charge a connected device even when the dock isn't connected to a host laptop. When the docking station is connected to a host laptop, the front USB 3.0 port functions as a Charging Downstream Port (CDP), which has simultaneous charge and sync capabilities.

The provided power adapter must always be connected to the docking station in order to charge a device using the front-panel USB fast-charge port.

## Install the docking station

The docking station is natively supported when connected to a compatible operating system (see the **System requirements** section for supported operating systems). It should automatically detect and install the required drivers once connected to a Thunderbolt 3 port on your host laptop.

## Power the docking station

When the docking station is plugged in and powered, you can use USB power delivery to power and charge your laptop through its Thunderbolt 3 USB-C port. The docking station cannot receive power from the host laptop, so the power adapter must always be connected to the docking station.

The docking station is configured to USB power delivery profile 1, providing approximately 15 watts to each Thunderbolt 3 port. The rate at which the docking station charges your laptop depends entirely on how much power the laptop typically draws using its included power adapter.

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 **DC IN** (power input) port. The docking station should now be receiving power.

## Connect the docking station

1. Connect your external display(s) to the docking station (example, DisplayPort or Thunderbolt 3 displays).

**Note:** See the **Configure a display device** section for dual-display configuration requirements.

2. Connect your peripherals to the docking station (example, USB devices, RJ 45 network).
3. Connect the provided Thunderbolt 3 cable to a Thunderbolt 3 port on your host laptop and to one of the **Thunderbolt 3 USB-C** ports on the docking station.

**Note:** Either of the Thunderbolt 3 USB-C ports on the docking station can be used to connect to your host laptop.

## Install the drivers

Once the docking station is powered and connected to your host laptop, the required drivers should automatically install.

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

1. Click on the pop-up message.
2. On the following prompt, select **Always Connect** from the drop-down list.
3. Click **OK**. If required, follow any other on-screen instructions to complete the installation.

The drivers can also be found under the **Support** tab on our website at [www.startech.com/TB3DK2DPW](http://www.startech.com/TB3DK2DPW) or [www.startech.com/TB3DK2DPWUE](http://www.startech.com/TB3DK2DPWUE).

# Charge a device

If you're only using the front USB 3.0 port to charge a device, a connection to a host laptop isn't required.

- To charge a device, connect it to the USB 3.0 port located on the front of the docking station.

**Note:** This front USB 3.0 port can only fast-charge connected devices that comply with USB Battery Charging Specification Revision 1.2.

# Configure a display device

Use your Windows operating system to adjust display settings for multiple monitors. Your laptop hardware must support dual external displays through its Thunderbolt 3 port.

## Connect a display to the DisplayPort port

The docking station's DisplayPort connection supports DisplayPort 1.2, as well as DP++. Because the port supports DP++, you can use passive adapters or cables to connect different types of monitors to the DisplayPort port.

Type of Display	Adapter Needed (sold separately)
DisplayPort	None
HDMI display	<a href="#">DisplayPort to HDMI Adapter</a> (DP2HDMIADAP)
DVI display	<a href="#">DisplayPort to DVI Adapter</a> (DP2DVI)
VGA display	<a href="#">DisplayPort to VGA Adapter</a> (DP2VGA2)

## Connect a display to the Thunderbolt 3 USB-C port

You can also connect a display (or a display adapter) to one of the docking station's **Thunderbolt 3 USB-C** ports. One of the docking station's Thunderbolt 3 ports must remain connected to your host laptop.

Visit [www.StarTech.com](http://www.StarTech.com) for a range of USB-C video adapters and cables.

**Note:** The docking station lets you connect two 4K displays, or a single 5K display.

Video adapters sometimes limit the maximum available resolution. Check the documentation of the video adapter to determine its maximum supported resolution.

## Connect multiple Thunderbolt 3 displays in a daisy chain

You can also set up dual displays using multiple Thunderbolt 3 displays in a daisy-chain configuration.

**Example:** You can connect a Thunderbolt 3 display to the **Thunderbolt 3 USB-C port** on the docking station. You can then connect another Thunderbolt 3 device, such as a second Thunderbolt 3 display, through the first Thunderbolt 3 display.

## 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 dock functions depends entirely on the display configuration you used.

The docking station supports the follow maximum resolutions:

Number of Displays	Ports	Maximum Resolution
1	DisplayPort port	4096 x 2160p (60Hz)
1	Thunderbolt 3 USB-C port	5120p x 2880p (60Hz)
2	DisplayPort port and Thunderbolt 3 USB-C port	4096 x 2160p (60Hz) and 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 above.
- In a multi-display configuration, set the refresh rates on each of your connected monitors to the same values, otherwise your monitors might not properly display.
- Video output capabilities are dependent on the video card and hardware specifications of your connected host laptop.



# Technical support

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For the latest drivers/software, please visit [www.startech.com/downloads](http://www.startech.com/downloads)

## Warranty information

This product is backed by a two-year warranty.

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