

Thunderbolt™ 3 Dual-4K Docking Station for Laptops - PCIe M.2 SSD - SD 4.0



Actual product may vary from photos

User Manual

SKU#: TB3DK2DPM2

For the latest information and specifications visit
www.startech.com/TB3DK2DPM2

Manual Revision: 08/23/2018

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

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)

This device complies with Industry Canada licence-exempt RSS standard(s).

Operation is subject to the following two conditions:

- (1) This device may not cause interference, and
- (2) This device must accept any interference, including interference that may cause undesired operation of the device.

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence.

L'exploitation est autorisée aux deux conditions suivantes:

- (1) l'appareil ne doit pas produire de brouillage, et
- (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

Safety Statements

Safety Measures

- Wiring terminations should not be made with the product and/or electric lines under power.
- Product installation and/or mounting should be completed by a certified professional as per the local safety and building code guidelines.
- 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.
- L'installation et/ou le montage du produit doit être réalisé par un professionnel certifié et dans le respect des normes locales et du code de construction local.
- 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。
- 製品の設置やマウントは、使用地域の安全ガイドラインおよび建築基準に従い、有資格の専門業者が行うようにしてください。
- 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、電気障害やつまつきの危険性など、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.
- L'installazione e/o il montaggio dei prodotti devono essere eseguiti da un tecnico professionale certificato che conosca le linee guida locali sulle norme edilizie e sulla sicurezza.
- 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.
- Installation och/eller montering får endast göras av behöriga yrkespersoner och enligt gällande lokala förordningar för säkerhet och byggnormer.
- Kablar (inklusive elkablar och laddningskablar) ska dras och placeras på så sätt att risk för snubblingsolyckor och andra olyckor kan undvikas.

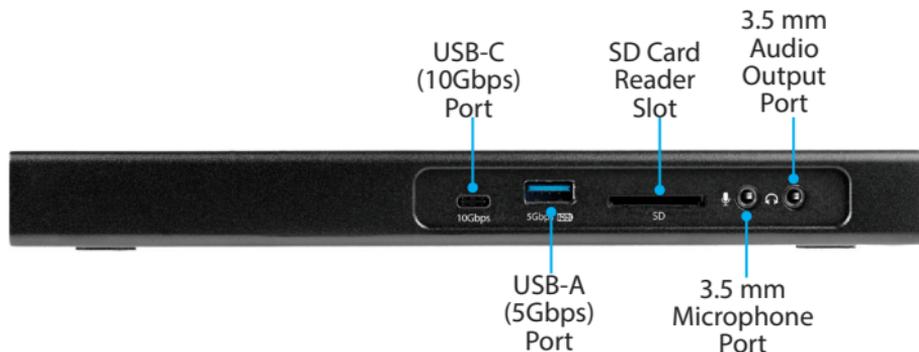
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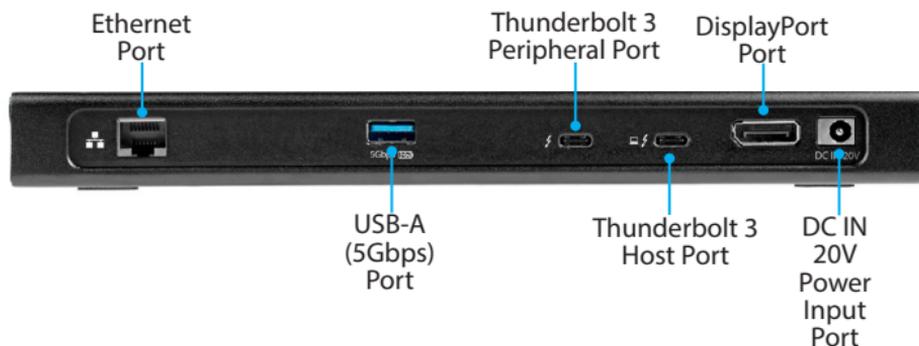
Product Diagram

Actual product may vary from photos

Front View



Rear View



To view manuals, videos, drivers, downloads, technical drawings, and more visit www.startech.com/support

Bottom View



Product Information

Package Contents

- Docking Station x 1
- Thunderbolt 3 Cable x 1
- Universal Power Adapter x 1
- Power Cords (NA/JP, EU, UK, ANZ) x 4
- Instruction Manual x 1

Requirements

For the latest requirements, please visit www.startech.com/TB3DK2DPM2.

Power:

- Available AC electrical outlet

Laptop:

- 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) x 1

Display:

- DisplayPort Equipped Display x 1
- DisplayPort Cable (for an additional external display) x 1
- USB Type-C or Thunderbolt 3 Equipped Display x 1
- Thunderbolt 3 Cable (for an additional external display) x 1
- Note:** For dual-display configurations: Use the Docking Station's Thunderbolt 3 Peripheral Port. You may need to purchase a separate adapter to connect an HDMI, a DVI, or VGA display.
- Note:** For 4K x 2K (4096 x 2160p) resolution, a 4K - capable display is required
- (Optional) Active DisplayPort to HDMI/DVI/VGA Video Adapter x 1
- (Optional) USB-C to HDMI/DVI/VGA/DisplayPort Video Adapter x 1

USB Peripherals:

- (Optional) Keyboard, Mouse, Flash Drive, Printer, Webcam, Drive Enclosure, Display Adapter, Mobile Phone, or Tablet, etc. x 2
- (Optional) USB-A to USB-B Cable x 2
- (Optional) USB-C to USB-C Cable x 2

Thunderbolt 3 Peripherals:

- Thunderbolt 3 Enabled Peripheral Devices x 1
- Thunderbolt 3 Cable x 1

SD Card:

- SD, SDHC™ (Secure Digital High Capacity), or SDXC™ (Secure Digital Extended Capacity) Card x 1

M.2 Drive:

- M-key connector type, 22 x 80 mm (2280) M.2 Drive x 1

Audio:

- Microphone-Enabled Audio Device x 1
- Speaker-Enabled Audio Device (or Headphones) x 1
- 3.5 mm Audio Cable x 2

Operating Systems:

- Windows 7® (32-bit or 64-bit)
- Windows 8.1® (32-bit or 64-bit)
- Windows 10® (32-bit or 64-bit)
- macOS 10.12
- macOS 10.13

Installation

Connecting

Front Ports

USB-C (10Gbps) Port

The USB-C (10Gbps) Port on the front panel is not a Thunderbolt 3 port. You can use this port to connect peripherals using USB 3.0 (10Gbps) technology. This port supports data throughput only. The port does not support DP Alt Mode or USB Power Delivery.

Note: This USB-C Port will charge at up to 3A when the Docking Station is connected to Host Laptop through the Thunderbolt 3 Host Port.

1. Connect a USB-C cable to the USB-C (10Gbps) Port on the front of the Docking Station.
2. Connect the other end of the USB-C cable to a USB-C port on your compatible device.

USB-A (5Gbps) Port

The USB-A (5Gbps) Port on the front of the Docking Station can be used to

connect compatible USB devices. These ports can be used to connect media devices (External Media Drive) or can be used to connect peripheral devices for use with the connected Host (e.g. Keyboard, Mouse, Web Camera, etc.).

The USB-A (5Gbps) Fast-Charge and Sync Port on the front panel of the Docking Station is compliant with USB Battery Charging Specification Revision 1.2 (BC 1.2), which means that you can use the USB-A (5Gbps) Port to connect and charge a device faster than you can using a traditional standard USB 3.0 port.

1. Connect a USB-A cable into the USB-A Port on the front on the Docking Station.
2. Connect the other end of the USB-A cable into a USB port on your compatible device.

SD Card Reader Slot

Installation

1. Gently insert your memory card into the SD Card Reader Slot, with the label side facing upward.
Note: The card does not need to be forced into place.
2. Your computer system will automatically detect the card and install the required driver software.
3. To access the content on the SD Card, follow the instructions specific to the OS that you're running.

SD Card Removal

Windows

1. On your desktop, click the Safely Remove Hardware icon.
2. In the list that appears, click the SD Card.
3. When a message appears saying that it's safe to do so, remove the SD Card from the Docking Station by gently pulling it out of the SD Card Reader Slot.
Caution! If you remove the SD Card before it's safe to do so, you could experience lost or corrupted data on your memory card.

macOS

1. Close any open windows that list the contents of the SD Card.
2. On your desktop, click and drag the USB storage icon to the trash can icon.
3. Wait ten seconds and then remove the SD Card from the Docking Station by gently pulling it out of the SD Card Reader Slot.
Caution! If you remove the SD Card before it is safe to do so, you could experience lost or corrupted data on your memory card.

3.5 mm Microphone Port

1. Connect a 3.5 mm Audio Cable to the 3.5 mm Microphone Port on the Docking Station.
2. Connect the other end of the 3.5 mm Audio Cable to your Microphone.

3.5 mm Audio Output Port

1. Connect the 3.5 mm Audio Cable from your Speakers, Headphones, etc. to the 3.5 mm Audio Output Port on the Docking Station.

Rear Ports

USB-A Port

The USB-A port on the rear of the Docking Station can be used to connect compatible USB devices. These ports can be used to connect media devices (External Media Drive) or can be used to connect peripheral devices for use with the connected Host (e.g. Keyboard, Mouse, Web Camera, etc.).

The USB-A (5Gbps) Fast-Charge and Sync Port on the rear panel of the Docking Station is compliant with USB Battery Charging Specification Revision 1.2 (BC 1.2), which means that you can use the USB-A (5Gbps) Port to connect and charge a device faster than you can using a traditional standard USB 3.0 port.

1. Connect a USB-A cable to the USB-A port on the rear of the Docking Station.
2. Connect the other end of the USB-A cable to a USB port on your compatible device.

Ethernet Port

1. Connect a CAT5e/CAT6 cable's RJ-45 connector to the Ethernet Port on the rear side of the Docking Station.
2. Connect the other RJ45 connector to an RJ45 port on your compatible Network Device.

Thunderbolt 3 Peripheral Port

The USB-C ports on the rear panel are Thunderbolt 3 ports with a USB-C connector. The Thunderbolt 3 Peripheral Port can be used to connect a second display through the Thunderbolt 3 port or a USB-C port. When used as a USB-C port, you can connect peripherals using USB 3.1 Gen 2 (10Gbps) technology. This port supports DP Alt Mode and USB Power Delivery with up to 15 Watts of power.

1. Connect a USB-C Cable or Thunderbolt 3 Cable to the Thunderbolt 3 Peripheral Port on the rear of the Docking Station.
2. Connect the other end of the USB-C or Thunderbolt 3 Cable to a USB port on your compatible device.

Thunderbolt 3 Host Port

The USB-C ports on the rear panel are Thunderbolt 3 ports with a USB-C connector. This port will function as the Host Port for connecting to your Computer. This port supplies up to 85 Watts of power.

Note: This port is recommended for charging as it outputs more power.

1. Connect a USB-C Thunderbolt 3 Cable to the Thunderbolt 3 Host Port on the rear of the Docking Station.
Note: Ensure you are connecting to the Host Port. This port is indicated by the small computer icon next to the Thunderbolt 3 icon.
2. Connect the other end of the USB-C Thunderbolt 3 Cable to a Thunderbolt 3 Port on your Computer.

DisplayPort Port

This DisplayPort Port (DisplayPort Revision 1.2) is designed to be used with a

second Display for the Docking Station.

1. Connect a DisplayPort (male to male) cable to the DisplayPort Port on the rear of the Docking Station.
2. Connect the other end of the DisplayPort Cable to the DisplayPort port on your DisplayPort Enabled Display Device.

Power Input Port

See **Powering** section for more details.

Ports on the Bottom

M.2 SSD Slot

The M.2 SSD Slot will house an NVMe PCIe 3.0 internal Solid State Drive. The M-key connector type is compatible with a 22 x 80 mm (2280) M.2 Drive.

Note: SSD Drives require careful handling. If you are not careful with your SSD Drive, lost data may result. Always handle your drive with caution. Be sure that you are properly grounded or discharge yourself of any static electricity build-ups by touching a large grounded metal surface for several seconds before handling your M.2 Drive.

1. Turn the Docking Station upside down.
2. Remove the panel on the bottom of the Docking Station:
 - Remove the two screws using a Phillips Head Screwdriver.
 - Carefully flip the Docking Station to release the panel.
3. Remove the Holding Screw for the M.2 Drive using a Phillips Head Screwdriver.
4. Slide your M.2 Drive into the M-key socket at a 45 degree angle.
Note: Ensure your drive is properly seated, with the pins making full contact, before proceeding to the next step. (*figure 1*)

figure 1



5. Gently press down on the M.2 drive until the notch on your M.2 Drive is aligned with the hole for the Holding Screw. Hold the drive in place.
6. Secure your M.2 Drive in place by replacing the Holding Screw that was removed in step 3, using a Phillips Head Screwdriver. (figure 2)

figure 2



7. Replace the panel that was removed in step 1 by placing the panel back onto the Docking Station.
8. Screw in the two screws that were removed in step one, using a Phillips Head Screwdriver.

Powering

1. Connect the Power Cord to the DC IN 20V Power Input Port.
2. Connect the other end of the Power Cord to the Universal Power Adapter.
3. Connect the Universal Power Adapter to an appropriate power source.

Driver Installation

Install Drivers in Windows 7/8.1/10

When the Docking Station is powered and connected to your laptop, and your laptop has established a network connection, the required drivers will install 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.

(Optional) Install Ethernet drivers

1. Download the latest driver. Use a web browser and navigate to www.StarTech.com/TB3DK2DPM2.
2. Click the **Support** tab.
3. Download the **Network Card** driver.

4. When the download is complete, extract the contents of the compressed file that you downloaded.
5. Navigate to the location where you extracted the driver contents, and open the **Windows** folder.
6. Double-click the **Setup.exe** file and follow the on-screen instructions to complete the Ethernet driver installation process.

Display Configuration

Connect HDMI, DVI and VGA Displays

Notes:

- Connect an active adapter to the DisplayPort Port.
- This port does not support Multimode DisplayPort so an active adapter is required.
- The Docking Station lets you connect two 4K displays.
- The maximum available resolution may be limited if your display is connected through a video adapter. Check the documentation of the video adapter to determine its maximum supported resolution.

You can use adapters to connect HDMI, DVI, or VGA displays to the Thunderbolt 3 Peripheral Port and USB Type-C Port:

Connect Multiple Thunderbolt 3 Displays

You can also set up dual displays using multiple Thunderbolt 3 Enabled Displays in a daisy-chain configuration. For example, you can connect a Thunderbolt 3 Enabled Display to the Thunderbolt 3 Peripheral Port on the Docking Station. You can then connect another Thunderbolt 3 device, such as a second Thunderbolt 3 Enabled Display, through the first Thunderbolt 3 Enabled Display.

Note: A maximum of 2 Displays can be used with each Thunderbolt 3 Port.

Configure Displays

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.

Supported Video Resolutions

The Docking Station supports the following maximum resolutions:

Number of Displays	Ports	Maximum Resolution
1	DisplayPort Port	4096 x 2160p
1	Thunderbolt 3 Peripheral Port	4096 x 2160p (60Hz)
2	DisplayPort Port and Thunderbolt 3 Peripheral Port	4096 x 2160p

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

Video Resolution and 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 dock ports (for example, 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 (for example, the USB 3.0 ports).

The bandwidth allocation table outlines the approximate download bandwidth allocation values. The allocation amount depends on the number and the resolution of your connected displays.

- The bandwidth values are approximate and depend on several variables including the number, type, resolution, and refresh rate of your connected display(s).
- When connecting a display to one of the Thunderbolt 3 Ports, a USB-C video adapter may be required, depending on the input of your display.

Video and I/O Configuration	DisplayPort Resolution	Thunderbolt 3 USB-C Resolution	I/O Bandwidth Remaining
Data only (No Displays)	N/A	N/A	Download: 22Gbps Upload: 22Gbps
DisplayPort (Single Display - 4K)	4096 x 2160p (4K)	N/A	Download: 22Gbps Upload: 22Gbps
Thunderbolt 3 USB-C (Single Display - 4K)	N/A	4096 x 2160p (4K - 60Hz)	Download: 22Gbps Upload: 22Gbps
DisplayPort and Thunderbolt 3 USB-C (Two Displays - Dual-4K)	4096 x 2160p (4K)	4096 x 2160p (4K)	Download: 8Gbps Upload: 22Gbps

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Operation

LED Indicators

Power:

Solid LED (White)

- Indicates that the Docking Station is active (the Power Cord is correctly connected to an AC Electrical Outlet).

LED Off

- Indicates that the Power Cord is not correctly connected to an AC Electrical Outlet or the Docking Station is not receiving power.

Charge a Device

If you're only using the front USB-A (5Gbps) Port to charge a device, a connection to a Host Laptop isn't required.

- To charge a device, connect it to the USB-A Port on the front or rear of the Docking Station.
- The Thunderbolt 3 Peripheral Port will also support battery charging up to 15W.

Note: This front and rear USB-A (5Gbps) Ports can only fast-charge connected devices that comply with USB Battery Charging Specification Revision 1.2.

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