

ThinkPad USB-C Dock Gen 2 User Guide

ThinkPad



Lenovo

 <https://www.lenovo.com/safety>

Note: Before using this documentation and the product it supports, ensure that you read and understand the warranty information in the documentation that comes with the product.

First Edition (March 2019)

© Copyright Lenovo 2019.

LIMITED AND RESTRICTED RIGHTS NOTICE: If data or software is delivered pursuant to a General Services Administration "GSA" contract, use, reproduction, or disclosure is subject to restrictions set forth in Contract No. GS-35F-05925.

Contents

Chapter 1. About the dock 1

| | |
|--|---|
| Product description | 1 |
| Operating system requirement | 1 |
| In the box | 1 |
| Product overview | 2 |

Chapter 2. Set up the dock 5

| | |
|-----------------------------------|---|
| Install the dock | 5 |
| Install the dock driver | 5 |

Chapter 3. Use the dock. 7

| | |
|---|---|
| Use the video output connectors | 7 |
|---|---|

| | |
|---|---|
| Supported resolution | 7 |
| Configure the external displays | 7 |
| Use the Ethernet connector | 8 |
| Use the audio connector | 8 |

Chapter 4. Troubleshooting 9

Appendix A. Accessibility information. 11

Appendix B. Trademarks 13

Chapter 1. About the dock

Product description

The dock is an expansion module. You can use it to connect your compatible computer to a local area network (LAN) and multiple devices, such as a headset, external displays, and Universal Serial Bus (USB) devices.

To view the compatible computers,

1. Go to <https://support.lenovo.com/us/en/solutions/accs-guide>.
2. Select **ThinkPad, ThinkCentre, ThinkStation, Ideapad and Ideacentre Option Compatibility Matrix**. Then follow the on-screen instructions.

Operating system requirement

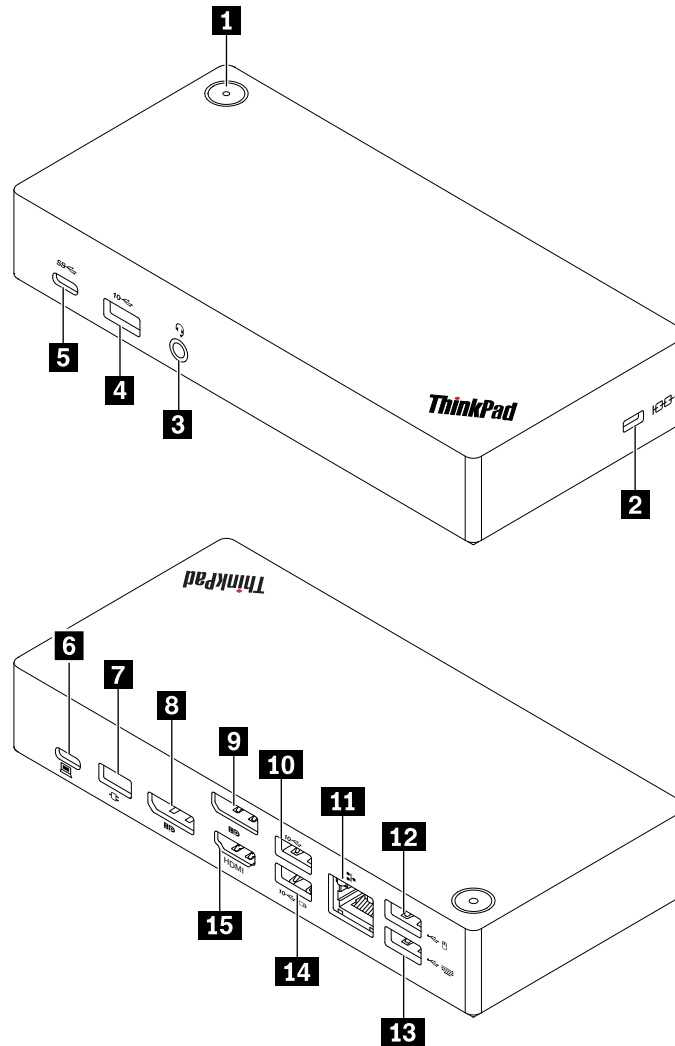
- Microsoft® Windows® 7
- Microsoft Windows 10

In the box

- ThinkPad USB-C Dock Gen 2
- ac power adapter
- Power cord
- USB-C™ cable
- Documentation

Contact your place of purchase if any item is missing or damaged. Ensure that you retain your proof of purchase and packing material. They might be required to receive warranty service.

Product overview



- When the dock is connected to ac power but not your computer, press the dock power button to turn off or turn on the dock. The indicator on the dock power button shows the dock status:
 - **Amber:** The dock is on.
 - **Off:** The dock is off.
- When the dock is connected to both your computer and the ac power adapter, the indicator on the dock power button shows the computer status:
 - **Solid white:** The computer is on.
 - **Blinking white:** The computer is in sleep mode.
 - **Off:** The computer is off or in hibernation mode.

1 Power button

2 Security-lock slot

Lock the dock to a desk, table, or other fixture through a compatible security cable lock.

3 Audio connector

Connect a headphone or a headset with a 3.5-mm (0.14-inch) and 4-pole plug.

4 10 USB 3.1 connector Gen 2

Connect a USB-compatible device to transfer data at USB 3.1 speed, up to 10 Gbps.

5 USB-C connector (USB 3.1 Gen 2)

Connect a USB-C compatible device to transfer data at USB 3.1 speed, up to 10 Gbps.

| | |
|--|---|
| 6 USB-C connector (for connecting computer) | Connect to your computer with the accompanying USB-C cable. |
| 7 Power connector | Connect to ac power with the accompanying ac power adapter and power cord. |
| 8 9 DisplayPort® connector | Connect to an external display with a DisplayPort cable. |
| 11 Ethernet connector | Connect to a LAN with an Ethernet cable. |
| 12 13 USB 2.0 connector | Connect a USB-compatible device, such as a USB keyboard or a USB mouse. Note: For optimal data transfer, connect a USB 3.1 device to a USB 3.1 connector Gen 2 instead of a USB 2.0 connector. |
| 14 Always On USB 3.1 connector Gen 2 | <ul style="list-style-type: none"> • When the dock is connected to ac power (no matter the dock is connected to your computer or not), charge a USB-compatible device with the output voltage and current of up to 5 V and 3 A. • Connect a USB-compatible device to transfer data at USB 3.1 speed, up to 10 Gbps. |
| 15 HDMI™ connector | Connect to an external display with a High-Definition Multimedia Interface (HDMI) cable. |

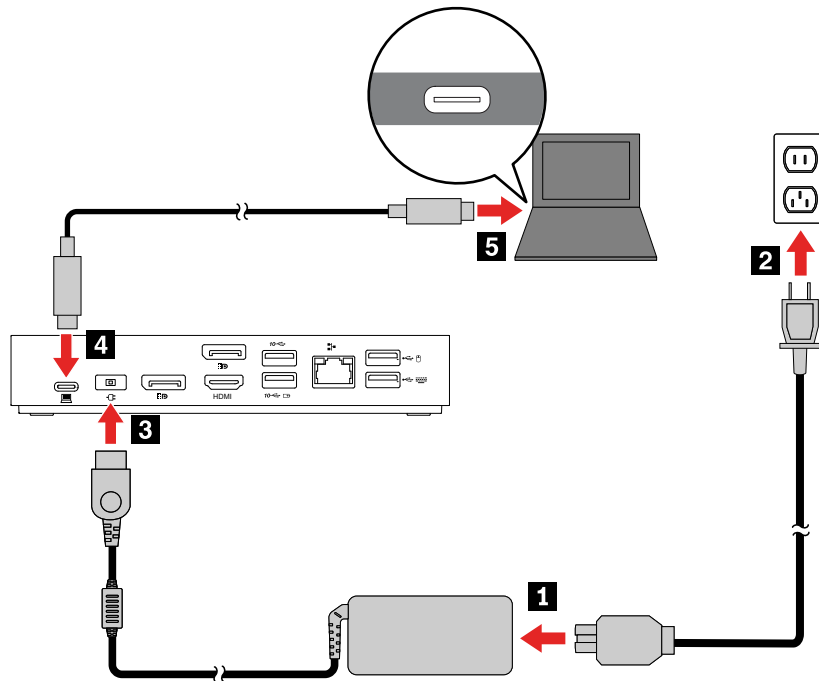
Notice on USB transfer rate

Depending on many factors such as the processing capability of the host and peripheral devices, file attributes, and other factors related to system configuration and operating environments, the actual data transfer rate will be slower than 10 Gbit/s on USB 3.1 Gen 2 connectors.

Chapter 2. Set up the dock

Install the dock

Use the accompanying ac power adapter, power cord, and USB-C cable to install the dock. The dock supplies power to the computer when the dock is connected to ac power and your computer.



Install the dock driver

The dock driver is preinstalled on compatible computers and the dock is ready for use after you connect it to ac power and computer.

You also can download the latest dock driver from the Lenovo Web site by doing the following:

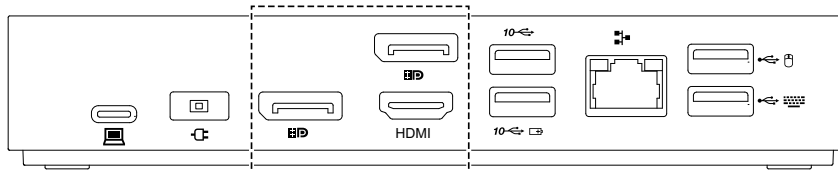
1. Go to <https://www.lenovo.com/support/docks>.
2. Select the entry for the dock and then follow the on-screen instructions.

Chapter 3. Use the dock

Use the video output connectors

The dock has three video output connectors to support up to three external displays:

- Two DisplayPort connectors (support DisplayPort 1.4)
- One HDMI connector (supports HDMI 2.0)



Supported resolution

Depending on the USB-C connector or Thunderbolt 3 connector on your computer, the dock supports the following display resolutions:

- If the USB-C connector or Thunderbolt 3 connector supports DisplayPort 1.4,
 - One video output connector: up to 3840 x 2160 pixels / 60 Hz
 - Two video output connectors: up to 3840 x 2160 pixels / 30 Hz
 - Three video output connectors: up to 1920 x 1080 pixels / 60 Hz
- If the USB-C connector or Thunderbolt 3 connector supports DisplayPort 1.2,
 - One video output connector: up to 3840 x 2160 pixels / 30 Hz
 - Two video output connectors: up to 1920 x 1080 pixels / 60 Hz

Note: Do not connect three external displays to the dock, because the display resolution is low.

For the maximum display matrix, go to <https://support.lenovo.com/us/zh/solutions/pd029622#USB-C%20dock> and select the entry for the dock.

Configure the external displays

You can configure the external displays connected to your dock:

- Set the display mode: extend, mirror or duplicate, or single display
- Set the orientation, brightness, resolution, color, and more.

To configure the external displays:

1. Right-click a blank area on the desktop and select **Screen resolution** (Windows 7) or **Display settings** (Windows 10).
2. Select the display that you want to configure.
3. Configure display settings of your preference.

For more information, see the Windows help information.

Use the Ethernet connector

You can use the Ethernet connector on the dock to connect your computer to a standard 10 Mbps, 100 Mbps, or 1000 Mbps network with an Ethernet cable.

The Ethernet connector has two network status indicators. When the green indicator is on, the computer is connected to a LAN. When the yellow indicator blinks, data is being transmitted.

Depending on your computer, some of the following functions are available when the dock is connected to a LAN.

- Preboot eXecution Environment
- MAC address Pass Through
- Wake on LAN
- Wake on LAN from Dock

To view the functions supported by your computer, go to <https://support.lenovo.com/us/en/solutions/accs-guide>. Select **Network function support – Option Compatibility Matrix**. Then follow the on-screen instructions.

Use the audio connector

To use the audio connector on the dock, ensure that the dock is the default audio device of your computer.

To set the dock as the default audio device:

1. Right-click the speaker icon in the Windows notification area and select **Playback devices**. The Sound window is displayed.
2. On the **Playback** tab, select **ThinkPad USB-C Dock Gen2 USB Audio**. Then click **Set Default**.
3. Click the **Recording** tab. Select **ThinkPad USB-C Dock Gen2 USB Audio**. Then click **Set Default**.
4. Click **OK**.

Note: You might need to restart the application that is using the audio devices to apply the changes.

Chapter 4. Troubleshooting

General

1. The dock does not work after connected to my computer.

Ensure that:

- You use the accompanying ac power adapter, power cord, and USB-C cable.
- The dock is powered by its power adapter. The dock always needs an external power adapter for operation because it is not powered by the USB-C cable attached to your computer.
- The dock driver is installed on your computer.
- The USB-C connector on your computer works well.

2. The function of wireless keyboard or mouse (2.4 GHz) is interrupted. The mouse pointer lags or does not move. Some characters are lost when I input by the keyboard.

Connect the wireless device receiver to a USB 2.0 connector on the dock.

3. The mouse or keyboard cannot wake up my computer when connected to the Always On USB 3.1 connector Gen 2 on the dock.

Connect the mouse or keyboard to a USB 2.0 connector on the dock.

4. The charging speed for my device, such as a smartphone, is slow.

Connect your device to the Always On USB 3.1 connector Gen 2 on the dock.

5. My computer cannot be charged by the dock.

Ensure that:

- You use the accompanying ac power adapter, power cord, and USB-C cable to set up the dock.
- The USB-C connector on your computer supports ac input.

Audio

I cannot hear anything through the headphone or headset connected to the dock.

Enable the audio connector on the dock. See “Use the audio connector” on page 8.

Video output

1. The external display is blank.

- Ensure that:
 - Your computer is running correctly and is not in sleep or hibernation mode. When the computer is in sleep or hibernation mode, the external display is always blank.
 - The dock is securely connected to ac power, computer, and external display.
 - The dock driver is installed on your computer.
- Reduce the resolution of the external display.

If the problem persists, disconnect all cables from the dock, and uninstall the dock driver. Then, reinstall the dock driver and reconnect all cables to the dock. See Chapter 2 “Set up the dock” on page 5.

2. I cannot play back videos on the external display but can play them back on the computer screen.

Some computers do not support High-bandwidth Digital-content Copy Protection (HDCP), so you cannot play back protected videos on the external display connected to the dock.

To play back videos on the external display, connect the external display to a DisplayPort or HDMI connector on your computer. Then, set the display mode into extend mode or single-display mode from your computer. See “Configure the external displays” on page 7.

3. The images on the external display flutter.

- Ensure that the display cable is securely connected to the dock.
- Disconnect and reconnect the display cable.

4. The colors of the images on the external display are not correct.

- Ensure that the display cable is securely connected to the dock.
- Adjust color settings of the external display. See “Configure the external displays” on page 7.

5. The computer can play back flash content. However, when I drag the window to the external display and maximize the window, the playback stops.

Update your Adobe Flash Player program to the latest version.

Appendix A. Accessibility information

Documentation in accessible formats

Lenovo provides electronic documentation in accessible formats, such as properly tagged PDF files or HyperText Markup Language (HTML) files. Lenovo electronic documentation is developed to ensure that visually impaired users can read the documentation through a screen reader. Each image in the documentation also includes adequate alternative text to explain the image so that visually impaired users can understand the image when they use a screen reader.

To open and view PDF files, your computer must have the Adobe Reader program installed. The Adobe Reader program also is available for download at:

<http://www.adobe.com>

Appendix B. Trademarks

TLENOVO, LENOVO logo, THINKPAD®, and THINKPAD logo are trademarks of Lenovo.

Microsoft and Windows are trademarks of the Microsoft group of companies.

DisplayPort is a trademark of the Video Electronics Standards Association.

The terms HDMI and HDMI High-Definition Multimedia Interface are trademarks or registered trademarks of HDMI Licensing LLC in the United States and other countries.

USB-C is a trademark of USB Implementers Forum.

All other trademarks are the property of their respective owners. © 2019 Lenovo.



Part Number: SP40T02168

Printed in China

(1P) P/N: SP40T02168

