



# ThinkPad Hybrid USB-C with USB-A Dock User Guide

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

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

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## Chapter 1. About the dock

This chapter provides product information about the ThinkPad Hybrid USB-C with USB-A Dock (referred to as dock).

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### Product description

The dock is a portable expansion module. It can easily connect your compatible computer to the Ethernet and multiple devices, such as a headset, a monitor, and a Universal Serial Bus (USB) device. For the compatible computer list, go to <http://www.lenovo.com/support/docks> and select the entry for the dock.

After setting up the dock, you can connect multiple devices to the dock and configure the dock on your computer. Then, you can use the multiple devices each time you connect your computer to the dock.

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### Operating system requirement

The dock is supported on the following operating systems:

- Microsoft® Windows® 7
- Microsoft Windows 10

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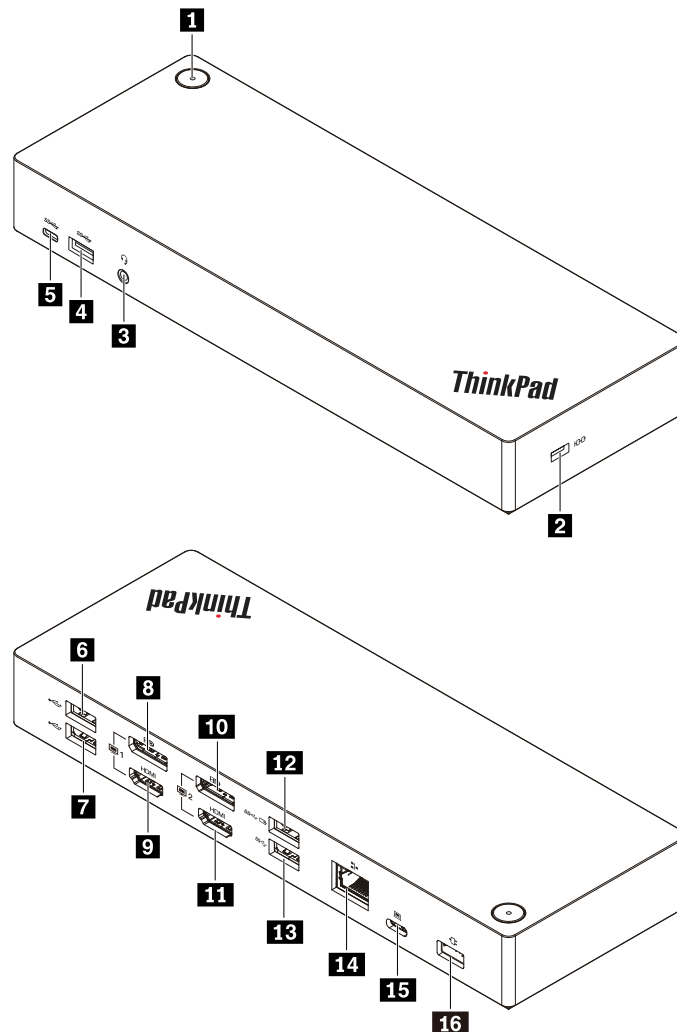
### In the box

Your option package includes the following:

- ThinkPad Hybrid USB-C with USB-A Dock
- ThinkPad USB-C Cable with USB-A Converter (referred to as USB-C™ cable)
- ac power adapter and power cord
- 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.

## Dock controls, connectors, and indicator



<b>1</b> Power button with indicator	<b>2</b> Security-lock slot
<b>3</b> Audio connector	<b>4</b> USB 3.1 connector Gen 2
<b>5</b> USB-C connector (for connecting USB-C compatible devices)	<b>6</b> USB 2.0 connector
<b>7</b> USB 2.0 connector	<b>8</b> DisplayPort® connector 1
<b>9</b> HDMI™ connector 1	<b>10</b> DisplayPort connector 2
<b>11</b> HDMI connector 2	<b>12</b> Always On USB 3.1 connector Gen 2
<b>13</b> USB 3.1 connector Gen 2	<b>14</b> Ethernet connector
<b>15</b> USB-C connector (for connecting computer)	<b>16</b> Power connector

**1 Power button with indicator:** The dock power button works differently in the following situations:

- When the dock is connected only to ac power but not the computer, press the dock power button to turn off and turn on the dock. The indicator in the dock power button shows the dock status:
  - Amber:** The dock is on.

- **Off:** The dock is off.
- When the dock is connected to the USB-C connector on your computer, the dock power button functions as your computer power button. You can press the dock power button to turn on, turn off, wake up the computer, or put the computer to sleep or hibernation mode after you define what the computer power button does on your computer. To change what the computer power button does, do the following:
  1. Go to Control Panel.
    - **For Windows 7:** Click the **Start** button to open the Start menu and click **Control Panel**.
    - **For Windows 10:** Click the **Start** button to open the Start menu and click **Windows System → Control Panel**.
  2. View Control Panel by Large icons or Small icons.
  3. Click **Power Options → Choose what the power buttons do**.
  4. Follow the instructions on the screen.

The indicator in the dock power button shows the computer status:

- **Solid white:** The computer is on.
- **White, blinking:** The computer is in sleep mode.
- **Off:** The computer is off or in hibernation mode.
- When the dock is connected to the USB 3.1 connector on your computer, the indicator in the dock power button shows the dock status:
  - **Solid white:** The dock is on.
  - **Amber or off:** For dock connectors, only the Always On USB 3.1 connector Gen 2 is working. Press the dock power button to turn off the dock.

**Note:** The USB 3.1 connector on your computer has different power settings under different computer status. Therefore, the indicator in the dock power button will not show the computer status.

**2 Security-lock slot:** To protect your dock from theft, lock your dock to a desk, table, or other fixture through a security cable lock designed to fit the security-lock slot on your dock.

**Note:** You are responsible for evaluating, selecting, and implementing the locking device and security feature. Lenovo makes no comments, judgments, or warranties about the function, quality, or performance of the locking device and security feature. Cable locks for your product are available from Lenovo at <https://www.lenovoquickpick.com/>.

**3 Audio connector:** Connect headphones or a headset with a 3.5-mm (0.14-inch), 4-pole plug.

**4 13 USB 3.1 connectors Gen 2:** With greater data transfer rate, the USB 3.1 connector Gen 2 is used to connect USB-compatible devices, such as a USB keyboard, a USB mouse, a USB storage device, or a USB printer.

**5 USB-C connector (for connecting USB-C compatible devices):** Use the connector to transfer data or charge your device. This connector can supply power up to 5 V 3 A during the charging process.

**6 7 USB 2.0 connectors:** Connect USB-compatible devices, such as a USB keyboard, a USB mouse, a USB storage device, or a USB printer.

#### Notes:

- It is recommended that you connect the keyboard or mouse to the USB 2.0 connector on the dock.
- 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 on the dock.

**8 10 DisplayPort connectors:** Connect a high-performance monitor, a direct-drive monitor, or other devices that use a DisplayPort connector.

**9 11 HDMI connectors:** The High-Definition Multimedia Interface (HDMI) connector is a digital audio and video interface. It enables you to connect the dock to a compatible digital audio device or video monitor, such as an HDTV.

**Note:** The video output connectors of the same group do not support video output at the same time:

- Group 1: DisplayPort connector 1 **8** and HDMI connector 1 **9**
- Group 2: DisplayPort connector 2 **10** and HDMI connector 2 **11**

**12 Always On USB 3.1 connector Gen 2:** With greater data transfer rate and charging speed, the Always On USB 3.1 connector Gen 2 is used to connect USB-compatible devices and charge some mobile digital devices and smartphones when the dock is connected to the power supply. This connector can supply power up to 2.4 A during the charging process.

**14 Ethernet connector:** Connect an Ethernet cable to an Ethernet local area network (LAN).

**15 USB-C connector (for connecting computer):** Connect the USB-C cable to the computer.

**16 Power connector:** Connect the ac power adapter.

## Statement 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 transfer rate using the various USB connectors on this device will vary and will be slower than the data rate listed below for each corresponding device.

USB device	Data rate (Gbit/s)
3.1 Gen 2	10



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## Chapter 2. Setting up the dock

This chapter provides information about setting up the dock.

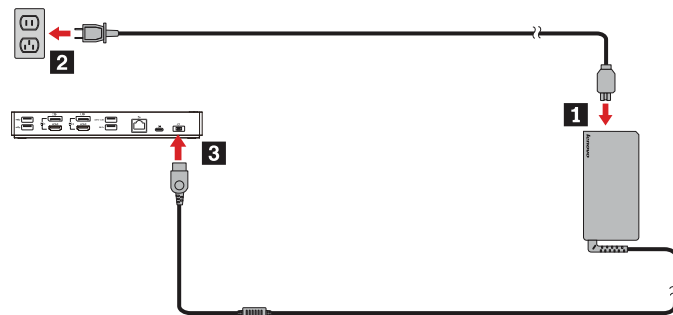
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### Connecting the dock to your computer

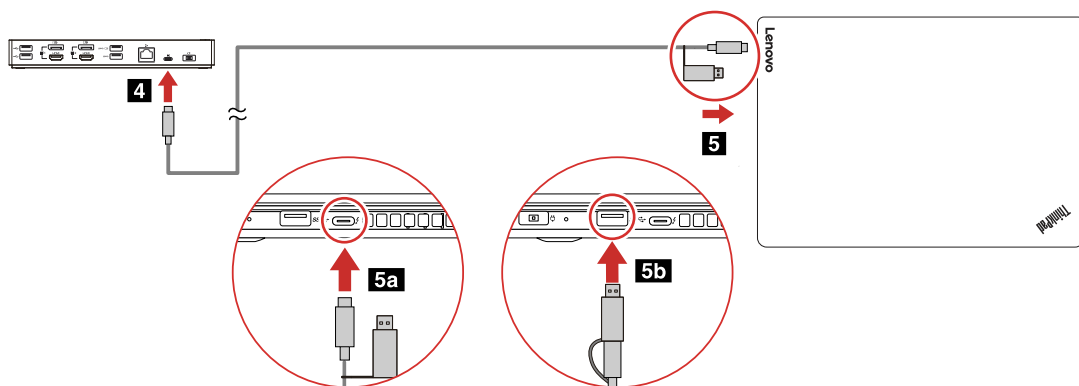
To connect the dock to your computer, do the following:

**Note:** Ensure that you use the USB-C cable, the ac power adapter, and the power cord that come with the dock.

1. Connect the power cord to the ac power adapter.
2. Connect the power cord to an electrical outlet.
3. Connect the ac power adapter to the power connector on the dock.



4. Connect one end of the USB-C cable to the USB-C connector (for connecting computer) on the dock.
5. Connect the other end of the USB-C cable to the computer by doing one of the following:
  - Connect the USB-C cable to the USB-C connector on the computer **5a**. The dock supplies power to the computer.
  - Connect the USB-C connector of the cable to the USB converter. Then connect the USB converter to the USB 3.1 connector on the computer **5b**. The dock does not supply power to the computer.



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### Installing and uninstalling the device driver

Ensure that the device driver for the dock is installed on your computer before using the dock.

The device driver is preinstalled on all supported Lenovo computers and the dock is ready for use after you connect it to an ac power source and your computer. For the supported computer model information, go to <http://www.lenovo.com/support/docks> and select the entry for the dock.

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

1. Go to <http://www.lenovo.com/support/docks>.
2. Select the entry for the dock.
3. Follow the instructions on the screen to download and install the device driver.

To uninstall the device driver, do the following:

1. Go to Control Panel and view by Category.
2. Click **Uninstall a program**.
3. Right-click **DisplayLink Graphics Driver** to select **Uninstall**.
4. Right-click **ThinkPad USB Ethernet Adapter Driver** to select **Uninstall**.
5. Right-click **ThinkPad Hybrid USB-C Dock Driver** to select **Uninstall**.
6. Follow the instructions on the screen to uninstall the device driver.
7. Restart your computer.

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## Chapter 3. Using the dock

This chapter provides information about using the dock.

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### Using the audio connector

After setting up the dock, the audio connector on the dock is enabled and the audio connector on the computer is disabled by default. Depending on your needs, you can manually enable the audio connector on the dock or on the computer.

To enable an audio connector manually, do the following:

1. Right-click the speaker icon in the Windows notification area.
2. Click **Playback devices**. The Sound window is displayed.
3. Click the **Playback** tab to select an audio line-out device and then click **Set Default**.
4. Click the **Recording** tab to select an audio line-in device and then click **Set Default**.
5. Click **OK**.

**Note:** To apply your configuration, restart the applications that are using the audio devices. The current configuration will be saved until you change it the next time.

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### Using the Ethernet connector

To use the Ethernet connector on the dock, connect the dock to a standard 10 Mbps, 100 Mbps, or 1000 Mbps network using an Ethernet cable.



**To avoid the risk of electrical shock, do not connect the telephone cable to the Ethernet connector. You can only connect an Ethernet cable to this connector.**

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.

The following functions are available on supported computers when the dock is connected to both the computer and the LAN. For the supported computer information, refer to the document *Network function support – Option Compatibility Matrix* available at [www.lenovo.com/accessoriesguide](http://www.lenovo.com/accessoriesguide).

- Preboot eXecution Environment

The Preboot eXecution Environment (PXE) technology makes the computer more manageable by enabling the computer to start from a server.

- MAC address Pass Through

After enabling the MAC address Pass Through function, your dock MAC address is the same as that of your computer.

- Wake on LAN

The network administrator can turn on a computer from a management console by using the Wake on LAN feature.

When the Wake on LAN function is enabled, many operations, such as data transfer, software updates, and flash updates of the UEFI BIOS, can be done remotely without remote attendance. The updating process can perform after normal working hours and on weekends, so that the users are not interrupted during work, and the LAN traffic is kept to a minimum. It saves time and increases productivity.

- **Wake on LAN from Dock**

Enable the Wake on LAN from Dock feature from the computer when the dock is connected to the computer. Then you can realize the Wake on LAN feature.

**Note:** To use the Wake on LAN feature to wake the computer from hibernation mode or turn on the computer, ensure that the dock is connected to the USB-C connector on the computer.

You can enable the Wake on LAN feature or the Wake on LAN from Dock feature through configuring the BIOS on your computer by doing the following:

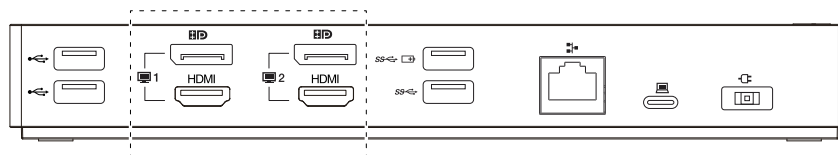
1. Restart the computer. When the logo screen is displayed, press F1 to start the ThinkPad Setup program.
2. Select **Config** → **Network**. The **Network** submenu is displayed.
3. Select a corresponding option for the Wake on LAN feature.
4. Press F10 to save the settings and exit.

**Note:** For more information about configuring the BIOS, refer to the user guide that comes with your computer.

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## Using the video output connectors

The dock has four video output connectors as shown to support up to two external displays. To use the video output connectors on the dock, connect an external display to the connector using a corresponding cable.



### Notes:

- The video output connectors of the same group do not support video output at the same time.
- The external displays connected to the dock will not be on until your computer enters the Windows operating system.
- Do not connect one external display to another external display that is connected to the dock. The dock does not support this Daisy Chain connection.
- The dock does not support High-bandwidth Digital Content Protection (HDCP). Therefore, the video output connectors on the dock do not support the playback of protected contents on the external display.

## Maximum resolutions

The dock supports the following maximum resolution for the external displays if they also support that resolution:

- 5120 x 2880 pixels / 60 Hz, with an external display connected to both DisplayPort connectors with the DisplayPort cables that come with the external display
- 4096 x 2160 pixels / 60 Hz, with an external display connected to one DisplayPort or HDMI connector

- 3840 x 2160 pixels / 60 Hz, with two external displays connected to the following video output connectors:
  - DisplayPort 1 and DisplayPort 2
  - DisplayPort 1 and HDMI 2
  - HDMI 1 and DisplayPort 2
  - HDMI 1 and HDMI 2

For more information about the external displays, see the manuals that come with them.

## Supported resolutions

The dock supports the following resolutions and refresh rates for external displays:

**Note:** The dock does not support display resolutions with interlaced scanning, such as 1080i.

Resolution (pixels)	Refresh rate (Hz)
640 x 480	60, 67, 72, 75, 85
720 x 400	70, 85, 88
720 x 480	50, 60
768 x 576	50, 60
800 x 600	56, 60, 72, 75, 85
832 x 624	75
800 x 480	60
848 x 480	60
1024 x 600	60
1024 x 768	60, 70, 75, 85
1152 x 864	75
1152 x 870	75
1280 x 720	50, 60
1280 x 768	60, 75, 85
1280 x 800	60
1280 x 960	60, 85
1280 x 1024	60, 75
1360 x 768	60
1366 x 768	50, 60
1368 x 768	60
1400 x 1050	60, 75, 85
1440 x 900	60
1600 x 900	60
1600 x 1200	60
1680 x 1050	60
1920 x 1080	50, 60

Resolution (pixels)	Refresh rate (Hz)
1920 x 1200	60
2048 x 1080	60
2048 x 1152	60
2048 x 1280	60
2048 x 1536	60
2560 x 1440	50, 60
2560 x 1600	60
3440 x 1440	30
3840 x 2160	30, 60
4096 x 2160	60
5120 x 2880	60

## System requirements

Your computer requirements for the resolutions of 3840 x 2160 pixels or 4096 x 2160 pixels are as follows:

Minimum requirements (for viewing documents and Web sites)	Minimum requirements (for full-screen video playback)
<p><b>Processor:</b> Intel® Core™ i3 2+GHz / Intel Core M / AMD® Trinity or better</p> <p><b>Memory:</b> 4 GB</p> <p><b>Graphics card:</b> Intel HD 4000, ATI Radeon HD 7xxx, NVIDIA® GeForce® 5xxM or better, with drivers released specifically for the Windows version</p> <p><b>USB:</b> USB 2.0 or USB 3.1 (recommended)</p>	<p><b>Processor:</b> Intel SkyLake i3 or Intel Core i7 2+GHz / AMD Richland A10-575x / AMD Kaveri A10-7400P or better</p> <p><b>Memory:</b> 8 GB</p> <p><b>Graphics card:</b> Intel HD 4000, ATI Radeon HD 8650, NVIDIA GeForce 7xxM or better, with drivers released specifically for the Windows version</p> <p><b>USB:</b> USB 3.1</p> <p><b>Disk:</b> 7200 rounds per minute (RPM) of hard disk drive or solid-state drive</p> <p><b>Note:</b> To play back videos with the resolution of 3840 x 2160 pixels, ensure that your computer is capable of decoding the videos in the Graphic Processing Unit (GPU).</p>

## Configuring the external displays

You can perform the following configurations for the external displays connected to your dock to meet your needs:

- Choosing a display mode: extend mode, mirror mode, or single-display mode
- Rotating the external displays
- Setting the resolution of the external displays
- Setting the color quality of the external displays

To configure the external displays, do the following:

1. Right-click on the desktop and select **Screen resolution** (Windows 7) or **Display settings** (Windows 10).

2. Follow the instructions on the screen to complete the configuration.

For more information, see the Windows help information system.





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## Chapter 4. Troubleshooting

This chapter provides information about what to do if you experience problems with the dock.

### General

**1. The dock does not work after connected to a computer with the provided USB-C cable.**

- Ensure that you use the ac power adapter, power cord, and USB-C cable that come with the dock. Disconnect and reconnect each one to ensure that they work well. The dock always needs an external power adapter for operation, because it does not take power from your computer.
- Ensure that the computer connector (USB-C or USB 3.1 connector) that the dock is connected to works well.
- Ensure that the device driver of the dock is correctly installed on your computer; if not, install the device driver and restart the computer.

**2. The 2.4 GHz wireless keyboard or 2.4 GHz wireless mouse function is interrupted. The mouse pointer lags or it cannot move. Some characters are lost when you input by the keyboard.**

Ensure that you connect the 2.4 GHz device receiver to the USB 2.0 connector on the dock.

**3. The charging speed becomes slow after I connect my device (such as a mobile phone) to the dock for charging.**

Ensure that you connect your device to the Always On USB 3.1 connector Gen 2. Disconnect the dock from the computer and the charging speed might become faster.

**4. My mobile phones or other USB devices cannot be charged with the Always On USB 3.1 connector Gen 2 on the dock.**

It is recommended that you disconnect the dock from the computer and then you can charge the mobile phones or other USB devices.

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

Ensure that your mouse or keyboard is connected to another USB connector (USB 2.0 connector recommended) on the dock instead of the Always On USB 3.1 connector Gen 2.

**6. The dock does not supply power to my computer after being connected to the computer with the provided USB-C cable.**

Ensure that you use the ac power adapter and the power cord that come with the dock.

### Video output

**1. The external display is blank.**

- Ensure that the computer connected to the dock 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.
- Ensure that you connect no more than two external displays at a time.
- Ensure that the device driver of the dock is correctly installed.
- Ensure that the following connections are correct:
  - The connection between the dock, the USB-C cable, and the computer
  - The connection between the dock, the ac power adapter, the power cord, and the electrical outlet
  - The connection between the dock, your video cable, and the external display

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

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

Some computers do not support the Certified Output Protection Protocol (COPP), so you cannot play back the protected videos on the external display connected to the dock.

To play back videos on the external display, connect the external display to an available DisplayPort or HDMI connector on your computer. Then extend the video output from your computer display to the external display. For more information, see “Configuring the external displays” on page 10.

**3. The images on the external display flutter.**

Check the resolution of the external display and ensure that you use the recommended resolution. For more information, see “Configuring the external displays” on page 10.

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

Check the color quality of the external display and adjust it to meet your needs. For more information, see “Configuring the external displays” on page 10.

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

To solve the problem, update your Adobe Flash Player program to the latest version.

## **Audio**

### **I cannot hear anything through my computer speakers or I cannot use the audio connector on the computer.**

By default, Lenovo computers use the audio connector on the dock and disable the built-in audio connector on the computer when the dock is connected. However, you can manually enable the built-in audio connector on the computer. For more information, see “Using the audio connector” on page 7.

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## 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>



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## Appendix B. Trademarks

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