

User Guide

Lenovo
ThinkCentre



ThinkCentre X AIO

About this documentation

This documentation applies to the Lenovo product models listed below.

Model name	Machine types (MT)
ThinkCentre X AIO	13H4, 13H5, 13H6, 13H7, 13HQ

Before using this documentation and the product it supports, ensure that you read and understand the following:

- *Safety and Warranty Guide*
- *Generic Safety and Compliance Notices*
 - For computers purchased in mainland China: https://iknow.lenovo.com.cn/detail/dc_191404.html
 - For computers purchased outside mainland China: https://pcsupport.lenovo.com/docs/generic_notices
- *Setup Guide (if provided with your computer)*

Notes:

- Illustrations in this documentation may look slightly different from your product model.
- For more compliance information, refer to:
 - For computers purchased in mainland China
Generic Safety and Compliance Notices at https://iknow.lenovo.com.cn/detail/dc_191404.html
 - For computers purchased outside mainland China
Regulatory Notice at https://support.lenovo.com/docs/common_commercial_rn and *Generic Safety and Compliance Notices* at <https://www.lenovo.com/compliance>
- Depending on the model, some optional accessories, features, and software programs might not be available on your computer.
- Depending on the version of the operating systems and programs, some user interface instructions might not be applicable to your computer.
- Documentation content is subject to change without notice. Lenovo makes constant improvements to the documentation of your computer, including this *User Guide*. To get the latest documentation, go to:
 - For computers purchased in mainland China: <https://newsupport.lenovo.com.cn>
 - For computers purchased outside mainland China: <https://pcsupport.lenovo.com>
- Microsoft® makes periodic feature changes to the Windows® operating system through Windows Update. As a result, some information in this documentation might become outdated. Refer to Microsoft resources for the latest information.

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HEVC standard

This product supports digital video coding under certain versions of the HEVC (High Efficiency Video Coding) standard and is covered by patents at <https://accessadvance.com/advance-patent-list/>.



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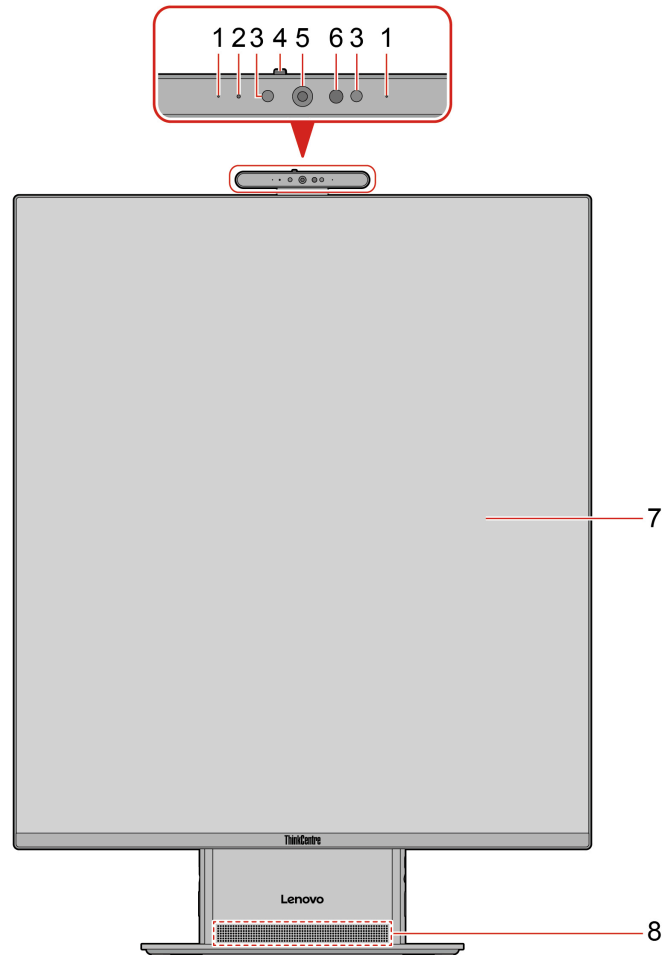
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Chapter 1. Meet your computer

Front



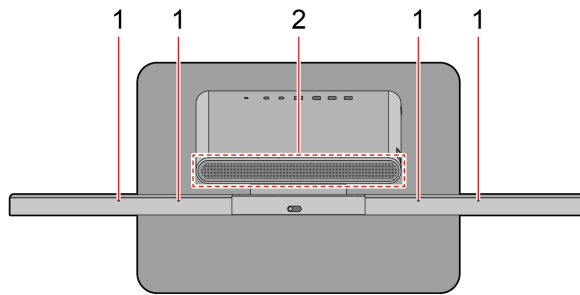
Item	Description	Item	Description
1	Microphones*	2	Camera activity indicator
3	Infrared LED*	4	Camera shutter
5	AI camera or Integrated camera	6	Infrared (IR) camera*
7	Screen	8	Speakers

* for selected models

Related topics

- “Adjust the computer stand” on page 10.
- “Face authentication (for selected models)” on page 11.

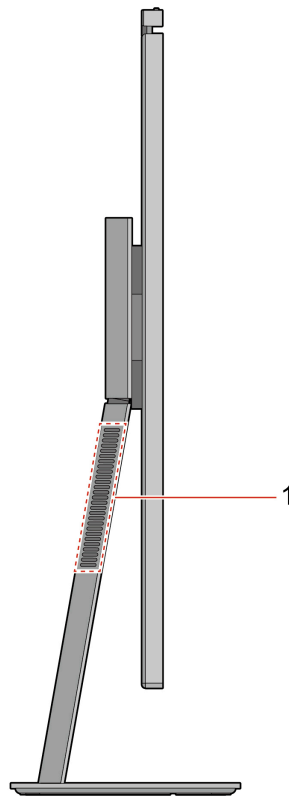
Top



Item	Description	Item	Description
1	Microphones*	2	Speakers

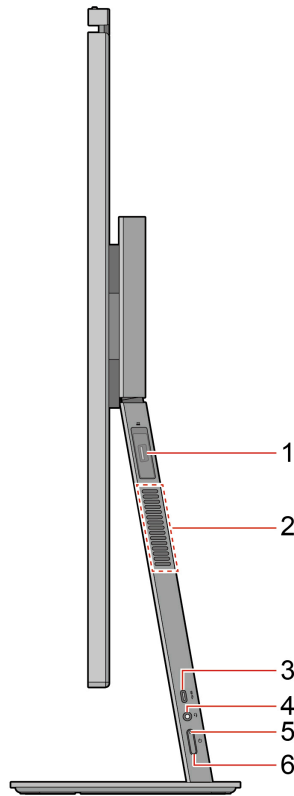
* for selected models

Left



Item	Description
1	Air vents

Right



Item	Description	Item	Description
1	USB-A connector (Hi-Speed USB) with smart power-on feature	2	Air vents
3	USB-C connector (USB 10Gbps)	4	Headset connector
5	Power indicator	6	Power button

USB-A connector (Hi-Speed USB) with smart power-on feature

The USB-A connector is reserved for a hidden keyboard and mouse dongle. The connected keyboard and mouse support the following features:

- Smart power-on: Start up or wake up the computer from hibernation mode by pressing alt+P on the keyboard. You can enable or disable the smart power-on feature, see “Smart power-on feature” on page 13.
- On-screen display (OSD) settings: Press the lower-left alt key twice on the keyboard to open the OSD settings menu. After the OSD settings menu is displayed, use the mouse to adjust the settings. For more information, see “OSD menu” on page 36.

Power indicator

Show the system status of your computer.

- **Blinking for three times:** The computer is initially connected to power.
- **On:** The computer is starting up or working.

- **Off:** The computer is off or in hibernation mode.
- **Blinking rapidly:** The computer is entering hibernation mode.
- **Blinking slowly:** The computer is in sleep mode.

Headset connector

The headset connector is compatible with:

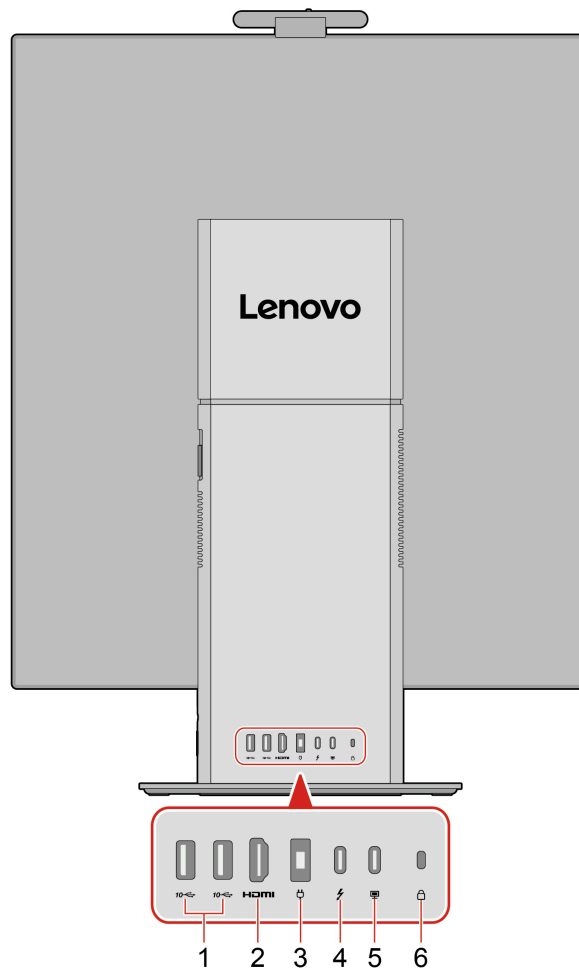
- Headphones or earphones with a 3.5mm (0.14 inch), TRS (3-pole) plug
- Headsets with a 3.5mm (0.14 inch), CTIA-compliant TRRS (4-pole) plug

Note: This headset connector does not support standalone external microphones with a TRS (3-pole) plug or headsets with an OMTP-compliant TRRS (4-pole) plug.

Related topics


- “USB specifications” on page 7.
- “Smart power-on feature” on page 13.
- “All ports” on page 38.

Rear



Item	Description	Item	Description
1	USB-A connector (USB 10Gbps)	2	HDMI™ out 2.1 TMDS connector (4K/60Hz)
3	Power cord connector	4	USB-C® connector (Thunderbolt™ 4) (8K/60Hz or dual 4K/60Hz)
5	USB-C connector (USB 10Gbps)	6	Security-lock slot

Notes:

- You can connect a laptop to the USB-C connector (USB 10Gbps) (with an icon  next to it) and cast its screen to the AIO.
- For more information about the USB connector name update, see Appendix A “Supplementary information” on page 65.
- The actual resolution of external displays may vary by the connected display device and the cable being used.

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 in the connector name or below for each corresponding device.

USB device	Data rate (Gbit/s)
Thunderbolt 3	40
Thunderbolt 4	40

Related topics

- “USB specifications” on page 7.
- “Change display settings” on page 11.
- “Lock the computer” on page 13.
- “All ports” on page 38.

Specifications

Specification	Description
Dimensions	<ul style="list-style-type: none">• Width: 480.86 mm (18.93 inches)• Height: 633.92 mm (24.96 inches)• Depth:<ul style="list-style-type: none">– 20.9 mm (0.82 inches) (without stand base)– 191 mm (7.52 inches) (with stand base)
Weight (without packaging)	Maximum configuration as shipped: 7.37 kg (16.25 lb)
Hardware configuration	Type Device Manager in the Windows search box and then press Enter. Type the administrator password or provide confirmation, if prompted.
Power supply	170-watt automatic voltage-sensing power supply
Electrical input	<ul style="list-style-type: none">• Input voltage: From 100 V ac to 240 V ac• Input frequency: 50/60 Hz
Memory	Memory type: On-Board low power double data rate 5x (LPDDR5x) Maximum memory capacity: 32 GB
Storage device	M.2 solid-state drive To view the storage drive capacity of your computer, type Disk Management in the Windows search box and then press Enter. Note: The storage drive capacity indicated by the system is less than the nominal capacity.
Video features	<ul style="list-style-type: none">• Brightness control• Color display with Thin Film Transistor (TFT) technology• Color display with In-Plane Switching (IPS) or Twisted Nematic (TN) technology• Display size: 701.04 mm (27.6 inches)• Display resolution: 2560 x 2880 pixels• The integrated graphics card supports the following connectors:<ul style="list-style-type: none">– HDMI out connector– USB-C connector
Network features	<ul style="list-style-type: none">• Bluetooth• Ethernet LAN (1000M)• Wireless LAN

Operating environment

Maximum altitude (without pressurization)

- Operating: From 0 m (0 ft) to 3048 m (10 000 ft)
- Storage: From 0 m (0 ft) to 12192 m (40 000 ft)

Temperature

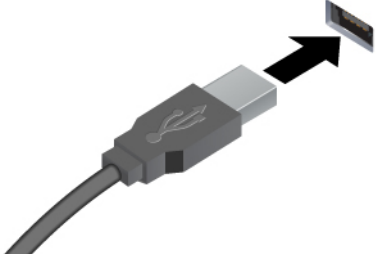


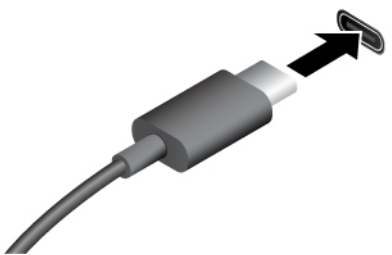


- Operating: From 5°C (41°F) to 35°C (95°F)
- Storage:
 - For common desktop computers: From -40°C (-40°F) to 60°C (140°F)
 - For all-in-one desktop computers: From -20°C (-4°F) to 60°C (140°F)

Relative humidity

- Operating: 20%-80% (non-condensing)
- Storage: 10%-90% (non-condensing)

USB specifications

Note: Depending on the model, some USB connectors might not be available on your computer.

Connector name	Description
 <ul style="list-style-type: none"> •  USB-A connector (Hi-Speed USB) •  USB-A connector (USB 10Gbps) 	<p>Connect USB-A compatible devices, such as a USB-A keyboard, USB-A mouse, USB-A storage device, or USB-A printer.</p>
 <ul style="list-style-type: none"> •  USB-C connector (USB 10Gbps) •  USB-C connector (Thunderbolt 4) 	<ul style="list-style-type: none"> • Charge the device with the input voltage and current of up to: <ul style="list-style-type: none"> – 20 V and 5 A (when one USB-C connector is in use), or – 20 V and 5 A, plus 5 V and 3 A (both USB-C connectors are in use) • Connect to USB-C accessories to help expand your computer functionality. To purchase USB-C accessories, go to https://www.lenovo.com/accessories.

The Vantage app

The Vantage app is a customized one-stop solution to help you maintain your computer with automated updates and fixes, configure hardware settings, and get personalized support.

To access the Vantage app, type **Vantage** in the Windows search box.

Notes:

- The available features vary depending on the computer model.

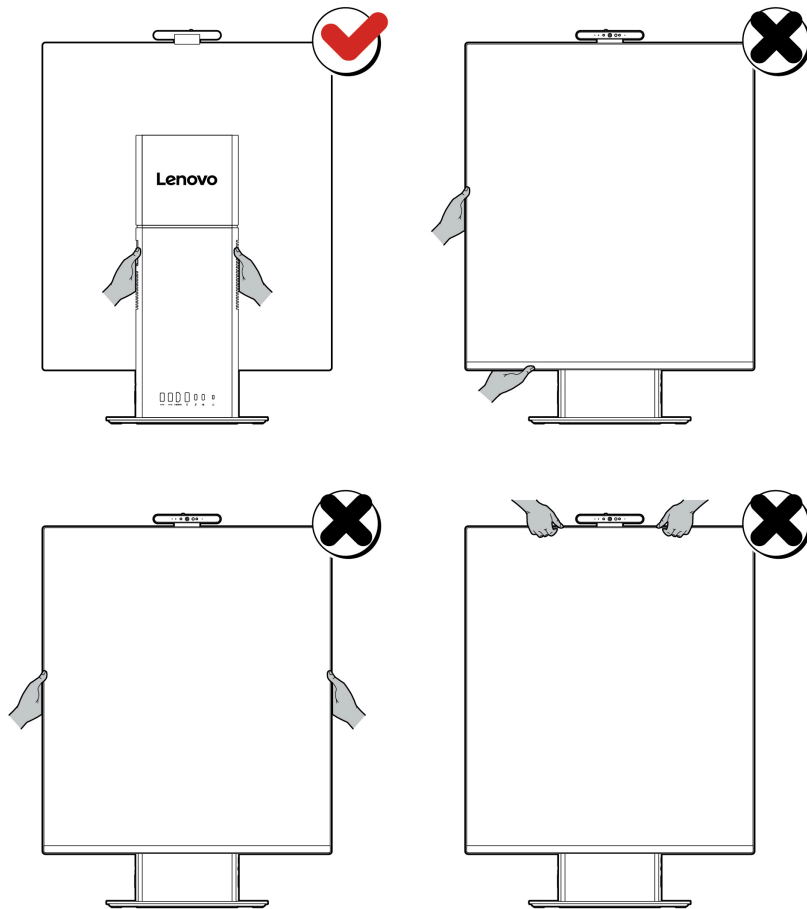
- The Vantage app makes periodic updates of the features to keep improving your experience with your computer. The description of features might be different from that on your actual user interface. You can download the latest version of Vantage app from Microsoft Store.

The Vantage app enables you to:

- Know the device status easily and customize device settings.
- Download and install UEFI BIOS, firmware, and driver to keep your computer up-to-date.
- Monitor your computer health, and secure your computer against outside threats.
- Scan your computer hardware and diagnose hardware problems.
- Look up warranty status (online).
- Access *User Guide* and helpful articles.

Chapter 2. Get started with your computer

Carry the computer



Notes:

- Hold the computer firmly while carrying it.
- Keep the computer upright.

Set up the computer

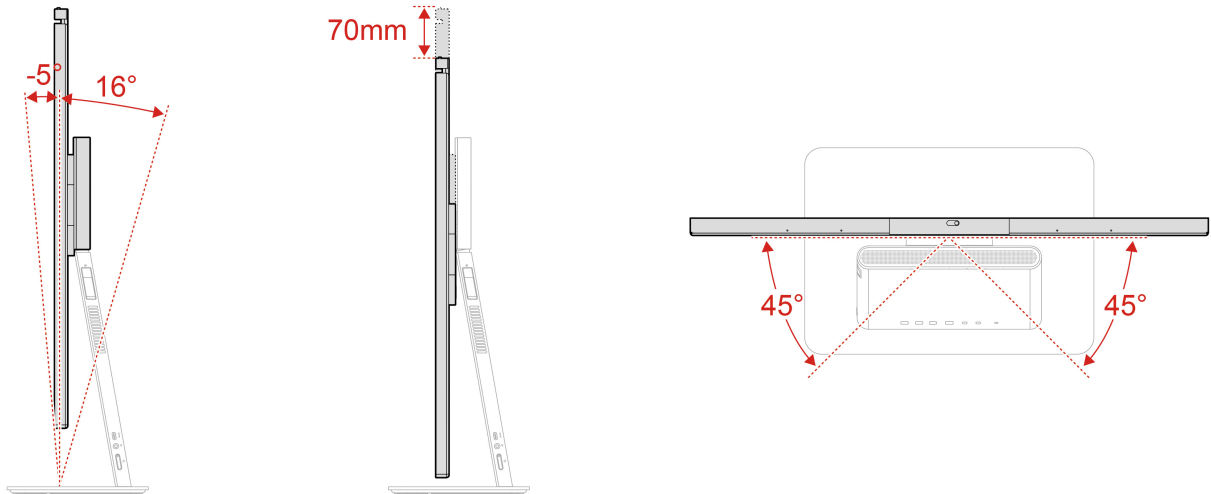
Step 1. Connect the following peripheral devices on the computer if any.

- Keyboard and mouse
- Dust shield
- Air deflector
- Vertical stand

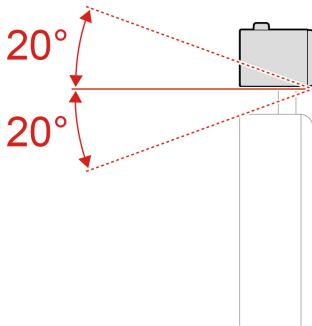
Step 2. Connect the ac power adapter to the power cord, connect the power cord to the power cord connector on the computer, and then connect the ac power adapter to a properly-grounded electrical outlet.

- Step 3. Press the power button to turn on the computer.
- Step 4. Follow the on-screen instructions to complete the setup procedures.

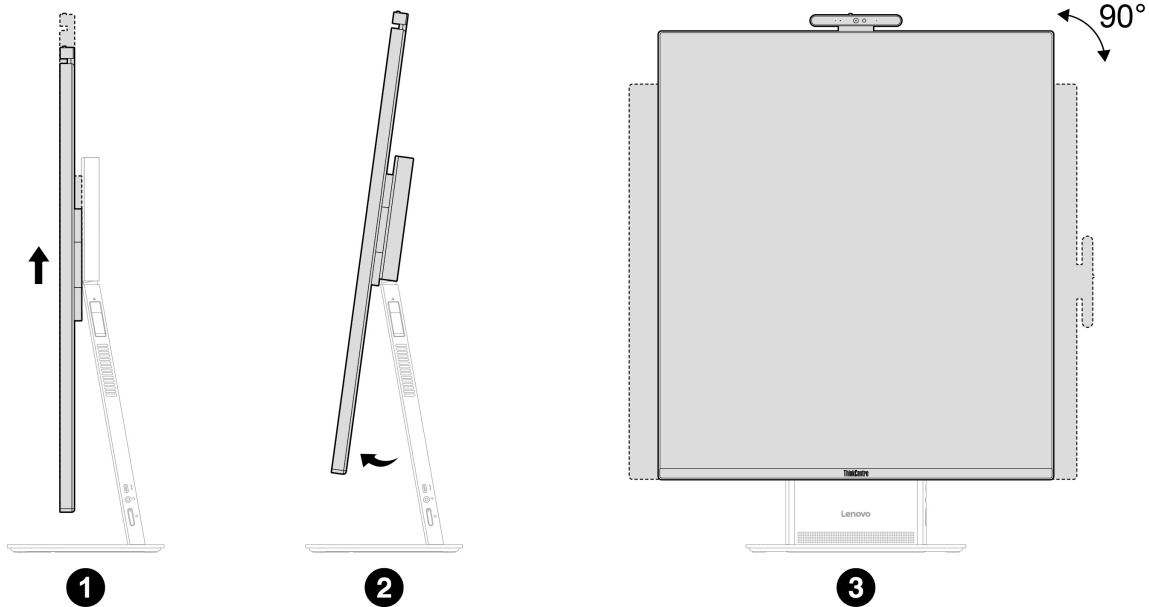
Adjust the computer stand



Adjust the tiltable camera (for selected models)






Rotate the monitor



Shut down the computer

To prevent damage to hardware/software systems or loss of data, do not arbitrarily use the power button to shut down the computer. Instead, shut down the computer as follows.

1. Click  →  →  **Shut down**.
2. Wait for the computer to shut down and then turn off the monitor and other peripheral devices.

Note: After you turn off the system, please wait at least 20 seconds before turning the computer back on to avoid hardware faults.

Change display settings

1. Right-click a blank area on the desktop and select display settings.
2. Select the display that you want to configure and change display settings of your preference.

Face authentication (for selected models)

Create your face ID and unlock your computer by scanning your face:

1. Type **Sign-in options** in the Windows search box and then press Enter.
2. Select the face ID setting and then follow the on-screen instruction to create your face ID.

Connect to a Bluetooth device

You can connect all types of Bluetooth-enabled devices to your computer, such as a keyboard, a mouse, a smartphone, or speakers. To ensure successful connection, place the devices at most 10 meters (33 feet) from the computer.

Conventional pair

This topic helps you connect to a Bluetooth device by conventional pair.

- Step 1. Type **Bluetooth** in the Windows search box and then press Enter.
- Step 2. Turn on both the Bluetooth on your computer and the Bluetooth device. Make sure the device is discoverable.
- Step 3. Select the device when it is displayed on the **Add a device** list, and then follow the on-screen instructions.

Notes: If the Bluetooth connection failed, do the following:

1. Type **Device Manager** in the Windows search box and then press Enter.
2. Locate the Bluetooth adapter. Right-click and select **Update driver**.
3. Select **Search automatically for drivers**, and then follow the on-screen instructions.

Swift pair

This topic helps you connect to a Bluetooth device by swift pair.

If your Bluetooth device supports swift pair, do the following:

- Step 1. Enable swift pair notification on Bluetooth settings page.
- Step 2. Turn on both the Bluetooth on your computer and the Bluetooth device. Make sure the device is discoverable.
- Step 3. Click **Connect** when a swift pair notification appears on your computer.

Notes: If the Bluetooth connection failed, do the following:

1. Type **Device Manager** in the Windows search box and then press Enter.
2. Locate the Bluetooth adapter. Right-click and select **Update driver**.
3. Select **Search automatically for drivers**, and then follow the on-screen instructions.

ICE performance mode

The ICE performance mode helps you adjust the acoustic and thermal performance of your computer. Three options are available:

- **Balance mode:** The computer works at the balance mode with balanced noise and better performance.
- **Performance mode** (default setting): The computer works at the best performance with normal acoustic level.

Note: The term “best” only refers to the best effect among different settings of the product itself.

- **Full Speed:** All fans in the computer will run at full speed.

Change the ICE performance mode

To change the ICE performance mode:

- Step 1. Restart the computer. When the logo screen is displayed, press F1 or Fn+F1.
- Step 2. Select **Power → Intelligent Cooling** and press Enter.
- Step 3. Select **Performance Mode** and press Enter.

- Step 4. Set the performance mode as desired.
- Step 5. Press F10 or Fn+F10 to save the changes and exit.

Smart power-on feature

The smart power-on feature helps you start up or wake up the computer from the hibernation mode simply by pressing alt+P.

Note: Ensure that the keyboard is connected to a USB connector supporting the smart power-on feature.

Enable or disable the smart power-on feature

To enable or disable the smart power-on feature:

- Step 1. Restart the computer. When the logo screen is displayed, press F1 or Fn+F1.
- Step 2. Select **Power → Smart Power On** and press Enter.
- Step 3. Enable or disable the feature as desired.
- Step 4. Press F10 or Fn+F10 to save the changes and exit.

Set the power plan

For ENERGY STAR® compliant computers, the following power plan takes effect when your computers have been idle for a specified duration:

- Turn off the display: After 10 minutes
- Put the computer to sleep: After 10 minutes

To awaken the computer from Sleep mode, press any key on your keyboard.

To set the power plan:

1. Type Power Options in the Windows search box and then press Enter.
2. Choose or customize a power plan of your preference.

Security

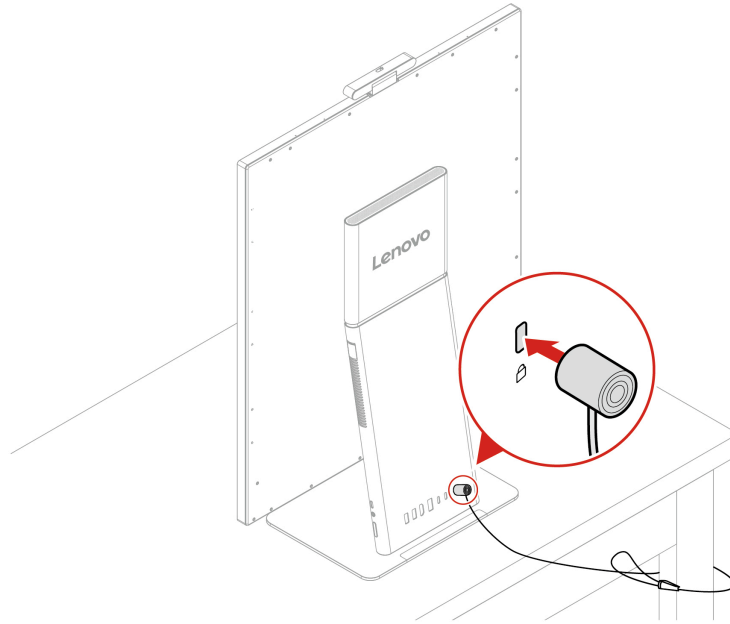
This computer offers a wealth of security measures to protect both the device and data safety.

Lock the computer

Note: Lenovo makes no comments, judgments, or warranties about the function, quality, or performance of the locking device and security feature. You can purchase computer locks from Lenovo.

Security lock

Lock your computer to a desk, table, or other fixtures through a security lock.



Use software security solutions

The following software solutions help secure your computer and information.

- **Windows Security**

Windows Security is a software built-in to the operating system. It continually scans for malicious software, viruses, and other security threats. Besides, Windows updates are downloaded automatically to help keep your computer safe. Windows Security also enables you to manage tools including firewall, account protection, application and browser control, and so on.

- **Antivirus programs (for selected models)**

Lenovo preinstalls a full-version antivirus software on selected models of computer. It helps defend the computer against viruses, safeguard your identity, and keep your personal information secured.

Note: For more information about how to use these software solutions, refer to their help systems respectively.

Use BIOS security solutions

This section provides BIOS solutions to secure your computer and information.

Wipe the storage drive data (for selected models)

It is recommended that you wipe the storage drive data before recycling the storage drive or the computer.

To wipe the storage drive data:

1. Restart the computer. When the logo screen is displayed, press F1 or Fn+F1.
2. Select **Security** → **secure wipe** → **Enabled**.
3. Press F10 or Fn+F10 to save the changes and exit.
4. Restart the computer. When the logo screen is displayed, press F12 or Fn+F12.
5. Select **App Menu** → **secure wipe** and press Enter.
6. Select the storage drive you will wipe and click **NEXT**.

7. Select the entire storage drive or partition to wipe as desired.
8. Select the method as desired and click **NEXT**.
9. Click **Yes** to confirm your option when the prompting window is displayed.
10. If you have set a storage password for the storage drive, enter the password. Otherwise, set a temporary password following the on-screen instructions. Then, click **NEXT**. The wiping process begins.

Note: Duration of the wiping process varies depending on the storage drive capacity.

11. Click **Reboot** when you are prompted to reset the system, and then one of the following will happen:
 - If the system storage drive data is wiped, you will be prompted that no operating system is found.
 - If the non-system storage drive data is wiped, the computer restarts automatically.

Erase all storage drive data (for selected models)

It is recommended that you erase all storage drive data before recycling a storage drive or the computer.

To erase all storage drive data:

1. Set a storage password for the storage drive you will recycle. See “UEFI BIOS passwords” on page 16.
2. Restart the computer. When the logo screen is displayed, press F1 or Fn+F1.
3. Select **Security** → **Storage Password** → **Security Erase HDD Data** and press Enter.
4. Select the storage drive you will recycle and press Enter.
5. A message is displayed, prompting you to confirm the operation. Select **Yes** and press Enter. The erasing process begins.

Note: During the erasing process, the power button and the keyboard are disabled.

6. After the erasing process is completed, a message is displayed, prompting you to reset the system. Select **Continue**.

Note: Depending on the storage drive capacity, the erasing process will take half an hour to three hours.

7. After the resetting process is completed, one of the following will happen:
 - If the data on the system storage drive is erased, you will be prompted that no operating system is available.
 - If the data on the non-system storage drive is erased, the computer restarts automatically.

Cover presence switch (for selected models)

The cover presence switch prevents the computer from logging in to the operating system when the computer cover is not properly installed or closed.

To enable or disable the cover presence switch on the system board:

1. Restart the computer. When the logo screen is displayed, press F1 or Fn+F1.
2. Select **Security** → **Cover Tamper Detected** and press Enter.
3. Select **Enabled** or **Disabled** and press Enter.
4. Press F10 or Fn+F10 to save the changes and exit.

If the cover presence switch is enabled and the computer cover is not correctly installed or closed, an error message will be displayed when you turn on the computer. To bypass the error message and log in to the operating system:

1. Properly install or close the computer cover.
2. Enter the BIOS menu, save and then exit.

Intel BIOS guard

The Intel® BIOS Guard module cryptographically verifies all BIOS updates. This hardware-based security helps prevent software and malware attacks on the computers BIOS.

Smart USB Protection

The Smart USB Protection function is a security function that helps prevent data from being copied from the computer to USB storage devices connected to the computer. You can set the Smart USB Protection function to one of the following modes:

- **Disabled** (default setting): You can use the USB storage devices without limitation.
- **Read Only**: You cannot copy data from the computer to the USB storage devices. However, you can access data on the USB storage devices.
- **No Access**: You cannot access the USB storage devices from the computer.

To configure the Smart USB Protection function:

1. Restart the computer. When the logo screen is displayed, press F1 or Fn+F1.
2. Select **Security** → **Smart USB Protection** and press Enter.
3. Select the desired setting and press Enter.
4. Press F10 or Fn+F10 to save the changes and exit.

Absolute Persistence

Absolute Persistence technology is embedded in BIOS. It detects changes that happen on the hardware, software, or the call-in location. It keeps you always knowing what condition the computer is in. To activate the technology, you have to purchase a subscription to Absolute.

UEFI BIOS passwords

You can set passwords in UEFI (Unified Extensible Firmware Interface) BIOS (Basic Input/Output System) to strengthen the security of your computer.

Password types

You can set a power-on password, supervisor password, system management password, or storage password in UEFI BIOS to prevent unauthorized access to your computer. However, you are not prompted to enter any UEFI BIOS password when your computer resumes from sleep mode.

- Power-on password

When a power-on password is set, you are prompted to enter a valid password each time the computer is turned on.

- Supervisor password

Setting a supervisor password deters unauthorized users from changing configuration settings. If you are responsible for maintaining the configuration settings of several computers, you might want to set a supervisor password.

When a supervisor password is set, you are prompted to enter a valid password each time you try to enter the BIOS menu.

If both the power-on password and supervisor password are set, you can enter either password. However, you must use your supervisor password to change any configuration settings.

- Storage password (for selected models)

Setting a storage password prevents unauthorized access to the data on the storage drive. When a storage password is set, you are prompted to enter a valid password each time you try to access the storage drive.

Note: After you set a storage password, your data on the storage drive is protected even if the storage drive is removed from one computer and installed in another.

- System management password (for selected models)

You can enable the system management password to have the same authority as the supervisor password to control security related features. To customize the authority of the system management password through the UEFI BIOS menu:

1. Restart the computer. When the logo screen is displayed, press F1 or Fn+F1.
2. Select **Security** → **System Management Password Access Control**.
3. Follow the on-screen instructions.

If you have set both the supervisor password and the system management password, the supervisor password overrides the system management password.

Set, change, and remove a password

Before you start, print these instructions.

1. Restart the computer. When the logo screen is displayed, press F1 or Fn+F1.
2. Select **Security**.
3. Depending on the password type, select **Set Supervisor Password**, **Set Power-On Password**, **Set System Management Password**, or **Storage Password** and press Enter.
4. Follow the on-screen instructions to set, change, or remove a password.
5. Press F10 or Fn+F10 to save the changes and exit.

You should record your passwords and store them in a safe place. If you forget the passwords, contact a Lenovo-authorized service provider.

Note: If the storage password is forgotten, Lenovo cannot remove the password or recover data from the storage drive.

Chapter 3. Intelligent features

Lenovo PCs are continuously developing convenient and intelligent features to enhance users' computing experiences. This section explores the intelligent features and software that may be available on your computer.

Next Gen AI PC

Overview

An AI PC is a next-generation personal computer designed to deliver advanced artificial intelligence capabilities directly on the device. Unlike traditional PCs, AI PCs combine powerful hardware, optimized software, and intelligent design to accelerate AI-driven tasks, enhance user experience, and enable smarter workflows without relying solely on cloud services.

What is an AI PC

An AI PC is more than just a computer—it is a personal assistant built into your device. Powered by advanced artificial intelligence, it learns your habits, anticipates your needs, and helps you every work smarter and faster—whether you are working, creating, or just having fun. An AI PC is designed to save you time and make life simpler. It's not just a PC—it's your personal assistant.

Core performance

Your AI PC is equipped with specialized processors that are optimized for handling AI workloads. These include:

- **CPU (Central Processing Unit):** Executes general computing tasks. Integrates instructions optimized for AI acceleration.
- **GPU (Graphics Processing Unit):** Handles parallel processing for multimedia and visual AI tasks. Supports neural network inference and image processing.
- **NPU (Neural Processing Unit) — the core of AI PC capabilities:** Dedicated chip designed specifically for AI. Runs on-device AI tasks with high efficiency and low power consumption. Enables real-time processing without relying on cloud services.

Together, these components allow the device to run AI features quickly, efficiently, and privately—directly on your PC.

AI-powered assistant on your AI PC

- **Qira:** Helps you organize files, summarize documents, generate content, and even adjust system settings—all while protecting your data. It is your intelligent companion for work, creativity, and everyday tasks. For more information, see
 - “Productivity” on page 24
 - “Personalization” on page 26
- **Microsoft Copilot:** Helps you work smarter by understanding natural language and turning ideas into action. Whether you're writing, analyzing data, creating presentations, or searching the web. For more details, visit the official Microsoft website.

AI-Powered features on your AI PC

- **Smart Share** for seamless file transferring. For more information, see “Effortless cross-device file sharing & editing with Share Zone” on page 24.
- **Split View** can intelligently arrange windows. For more information, see “Intelligent Split View layout for multi-task synchronization (for selected models)” on page 24.
- **Lenovo AI Turbo Engine** enhances the audio and video experience. For more information, see “Get a unique meeting experience with Lenovo AI Turbo Engine (for selected models)” on page 26.
- **AI Smart Camera** can transfer your paper sketches into digital files. For more information, see “Transform Sketches into Digital Assets in a Snap with AI Smart Camera (for selected models)” on page 25.

Lenovo Qira

What is Lenovo Qira

Lenovo Qira is a personal ambient intelligence that supports live voice or text interactions and can generate outputs such as text, images, summaries, and transcriptions based on your prompts. It supports multiple processing modes, including both on-device processing and hybrid processing that may use secure cloud-based services. The mode used depends on your settings, the feature requirements, and device capabilities.

Lenovo Qira is integrated into the system and works with supported apps and services. If you use multiple Lenovo devices and sign in with the same Lenovo ID, you can enjoy a consistent experience across supported Lenovo PCs, Lenovo tablets, and Motorola smartphones. This allows you to switch between devices and maintain continuity of your tasks, subject to feature availability, permissions, and your settings.

Notes:

- Lenovo Qira receives periodic updates to enhance functionality. Features may change as updates are installed.
- Lenovo Qira may generate inaccurate, incomplete or biased information. It is not a substitute for professional advice or independent judgement, and may not be suitable for some minors. You should review and verify the outputs before use. If you share unverified content, clearly label it as “generated by artificial intelligence”. For more information, refer to the [Lenovo AI Acceptable Use Policy](#).
- Lenovo Qira follows strict, regulatory-compliant consent rules and does not share your data without your explicit permission.

Upgrade Lenovo AI Now to Lenovo Qira

Depending on the manufacturing date, your PC may come pre-installed with Lenovo AI Now, the predecessor to Lenovo Qira. Lenovo Qira succeeds Lenovo AI Now by providing an updated and enhanced AI experience.

To help eligible devices upgrade smoothly, Lenovo has deployed an online upgrade program. If your PC qualifies, you will receive an on-screen upgrade prompt.



Select **Learn More** to view upgrade details and then select **Update** to begin the upgrade process.

Note: The upgrade may take some time to complete. Before starting, make sure your PC is plugged in and connected to a stable internet connection.

Learn about Lenovo Qira

Launch Lenovo Qira


Type Qira in the Windows search box and select the matching result.

Set up Lenovo Qira

To begin using Lenovo Qira, you must first sign in and configure your preferred interaction settings.

Sign in to Lenovo Qira

After launching the Lenovo Qira prompt bar, a sign-in webpage automatically appears. Follow the on-screen instructions to sign in with your Lenovo ID.

Alternatively, hover over the prompt bar, select the Lenovo Qira icon  to open the main window, and navigate to **Settings** → **Account**.


Configure Lenovo Qira

In the Lenovo Qira window, access the **Settings** menu to customize your preferences.

Table 1. Lenovo Qira settings

Setting	Description
Language	Choose the response language.
Launch Options	Enable or disable the wake word feature, which allows you to invoke Lenovo Qira by saying “Hey, Qira.” Note: The wake word feature requires microphone permission. To manage this, go to Start → Settings → Privacy & security → Microphone under App permissions , and ensure Lenovo Qira is allowed to access the microphone.
Voice	<ul style="list-style-type: none"> Set up the voiceprint recognition and select the voice tone. Voiceprint recognition is used only to identify your voice on the device. Select whether Lenovo Qira responds using audio or text.
Sync Data	Enable or disable data synchronization.
Processing Mode	Choose how requests are processed: <ul style="list-style-type: none"> Hybrid Mode: Uses a combination of on-device AI and cloud-based services. Certain requests may be processed using cloud services. Local Mode: Uses on-device AI only. Some features may be limited or unavailable compared to Hybrid Mode.
Personalized Answers	Select whether Lenovo Qira is allowed to access your stored personal data to provide personalized and contextual responses.
Connectors	Select the apps, services, and device defaults that Lenovo Qira is permitted to connect to.
Close Behavior	Select whether Lenovo Qira is allowed to run in the background after it is closed.
Catch Me Up	Select the apps whose notifications you want summarized.

Invoke Lenovo Qira


When Lenovo Qira is minimized as a pill  on your desktop, you can invoke it by:

- Clicking the Lenovo Qira pill on your desktop.
- Saying “Hey, Qira” when the wake word feature and microphone permission are enabled.

Close Lenovo Qira

You can close Lenovo Qira as follows:

Table 2. How to close Lenovo Qira

Current view	Action to close
Prompt bar	<ol style="list-style-type: none"> 1. Hover over the prompt bar and select the Minus (–) button to minimize Lenovo Qira into a pill on the desktop. 2. Right-click the pill icon  and select Close.
Full window	Select the Close (X) button in the upper-right corner.

After closing, Lenovo Qira minimizes to the system tray and remains inactive until you launch it again.

If you want to fully exit Lenovo Qira:

- Right-click the Lenovo Qira icon in the system tray and select **Exit**.
- Open Task Manager, locate Lenovo Qira, and select **End task**.

Explore Lenovo Qira

Lenovo Qira is built around the following attributes:

- Presence: Lenovo Qira is easily accessible when you choose to use it.
- Actions: Lenovo Qira can assist with tasks such as drafting emails or editing documents, subject to your review and confirmation.
- Perceptions: When enabled and permitted by you, Lenovo Qira can analyze information from supported apps or device inputs to provide contextual assistance.

Table 3. Key features of Lenovo Qira

Feature	Description
Question answering	Responds to your prompts with helpful information.
Proactive suggestions (Next Move)	Provides suggestions based on your activity, supporting you with relevant guidance while you remain control of all actions.
Content generation & editing (Write for me)	Helps draft, rewrite, and edit content for emails, documents, messages, and notes, subject to your review and approval before anything is shared or saved.
Local Mode	Performs select tasks using on-device AI when Local Mode is enabled or the device is offline. Some features may be limited or unavailable.
Hybrid Mode	Combines on-device AI with cloud-based services to enable additional features and capabilities when Hybrid Mode is enabled and an internet connection is available. Certain requests may be processed using cloud services.
Live interaction (Live Mode)	Supports real-time voice conversations and camera-enabled interactions when you actively invoke Lenovo Qira and grant necessary microphone or camera permissions.

Table 3. Key features of Lenovo Qira (continued)

Feature	Description
Notifications summary (Catch Me Up)	Summarizes recent notifications from the apps you choose, helping stay informed while giving you full control over which apps are included and how notifications are synced.
Live recording (Pay Attention)	Supports meetings and conversations with transcriptions, optional translations, and summaries.
AI image creation (Creator Zone)	Creates AI-generated images in Creator Zone , a dedicated creative workspace with built-in safety checks and watermarking.
Knowledge base (Knowledge)	Helps you build and access a personal knowledge library by storing and recalling information you choose to save such as notes, documents, or meeting summaries.

Note: All features operate only when enabled by you, in accordance with your device settings and permissions.

Frequently asked questions

What should I do if saying “Hey, Qira” does not elicit a response

Try any of the following solutions to resolve the issue.

- In Lenovo Qira window, go to **Settings → Launch Options**, and ensure the wake word feature is enabled.
- Ensure your microphone is working properly and not muted.
- Make sure the volume on your PC is turned up.
- Exit and restart Lenovo Qira.
- In Windows Settings, go to **Start → Settings → Privacy & security → Microphone** under **App permissions**, and check if Lenovo Qira is permitted to access the microphone.
- Confirm you are using the latest version of Lenovo Qira.
- Restart your PC.
- Ensure that no other apps are using the microphone at the same time, as this may prevent Lenovo Qira from responding.
- Navigate to **Settings → Feedback** for assistance within the Lenovo Qira app.

If the issue persists, consult Lenovo support resources or forums for further assistance.

What should I do with Lenovo Qira transcription or translation quality issues

Try any of the following solutions to resolve the issue.

- Ensure the audio input is clear. Background noise may affect the accuracy.
- Keep your PC stable during live interaction.
- Confirm you are using the latest version of Lenovo Qira.
- Navigate to **Settings → Feedback** for assistance within the Lenovo Qira app.

If the issue persists, consult Lenovo support resources or forums for further assistance.

Productivity

With an AI PC, you can get more done in less time. Summarize documents, organize data, create content, and automate tasks—all without extra effort.

Intelligent Split View layout for multi-task synchronization (for selected models)

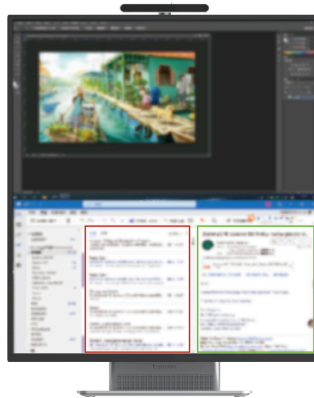
Split View is an intelligent window management feature that automatically organizes your screen into 1:1 split layout based on the applications you open. By detecting application types, it instantly arranges windows into a logical split-screen view.

Use this feature whenever you are working with multiple applications side-by-side and want a clean, productive workspace set up instantly.

- **To collaborate in meetings:** Keep your meeting window visible while taking notes or sharing a presentation.
- **To streamline creative projects:** Place your office or creative application next to your research materials or brief for easy reference.
- **To multitask efficiently:** Work on a document while keeping an eye on your messaging applications.

Use the Split View

1. Open the Lenovo Vision Split Pro or use the keyboard shortcut (Ctrl + Shift + A) to activate the 1:1 Auto Split function.
2. Then, any newly opened applications will be automatically arranged on the upper or lower half of the screen, based on the mode selected in the Lenovo Vision Split Pro.



Note: 1:1 Auto Split only supports portrait screen mode and single split-screen mode. The function is disabled in landscape screen mode.

Exit the Split View

Open the Lenovo Vision Split Pro or use the keyboard shortcut (Ctrl + Shift + A) to disable the 1:1 Auto Split function.

Effortless cross-device file sharing & editing with Share Zone

Share Zone is a feature that enables effortless file sharing and editing between your desktop and a connected notebook. It simplifies collaboration through intuitive window management and seamless data transfer, eliminating the cumbersome steps of traditional methods.

This feature enables multiple cross-device workflows. Typical examples include:

- **To transfer files instantly:** Easily copy and paste files between your desktop and notebook.
- **To control your notebook seamlessly:** Take smooth, responsive control of a notebook from your desktop. Share audio and use your keyboard, mouse, and monitor across both devices as if they were one.

Before You Begin

Before using Share Zone, ensure that:

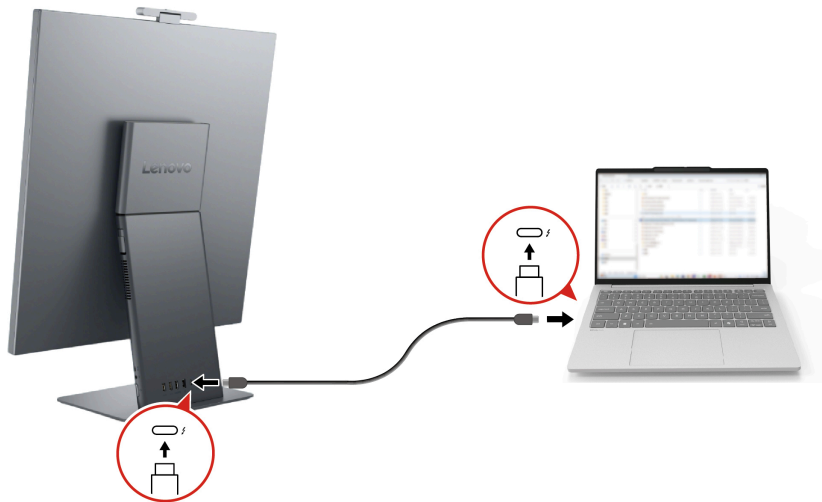
1. Both your desktop and notebook have at least one Thunderbolt™ connector.

Note: The connector should be Thunderbolt 4-enabled or above.

2. You are using a Thunderbolt cable.
3. The Intel® Thunderbolt Share software has been installed on both devices. Additionally, at least one of the two has a valid license. To download the Intel Thunderbolt Share, visit: <https://www.intel.com/content/www/us/en/download/822291>.

Use Thunderbolt Share to transfer files

1. Connect the notebook and the desktop with a Thunderbolt cable.
2. Open Thunderbolt Share on both devices.
3. On your desktop, select **Control Other Computer** in the Thunderbolt share. The notebook's screen will be displayed on the desktop.
4. To transfer files, simply copy and paste them from one side to the other.



Transform Sketches into Digital Assets in a Snap with AI Smart Camera (for selected models)

The **AI Smart Camera** combines high-definition imaging and advanced AI capabilities to rapidly transform paper sketches or manuscripts into high-quality digital 2D line drawings.

Key features

- **From Paper to Digital:** Convert hand-drawn sketches into clean, editable 2D line art or base images ready for further digital editing.

- **Gesture & Voice Controlled:** Utilize intuitive gestures to select content and voice commands to describe your creative intent, enabling a natural and efficient hands-free workflow.
- **Real-Time Processing:** See your ideas transform in real time, with immediate visual feedback in the application window.

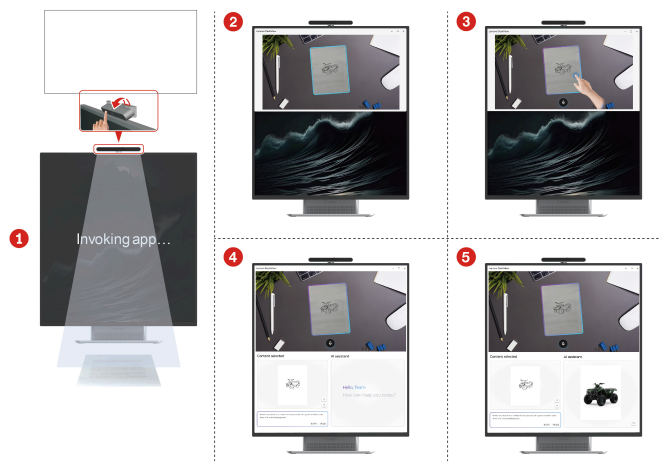
Before You Begin

To fully unlock the potential of AI Smart Camera, one step is crucial: Download and install Lenovo DeskView application on your desktop for the creative work.

Create with AI Smart Camera

1. Tilt the camera towards the desk to activate the Lenovo DeskView application. Meanwhile, the home screen will display real-time camera preview.
2. Place your paper sketch or handwritten notes within the camera's field of view.
3. Circle the specific sketch or text you want to digitize with your finger. This gesture triggers the AI.
4. The system will automatically enable voice input. You can describe what you want to create.
5. The AI-processed result will appear in the output window. You can then copy, save, or export it for use in other applications.

Note: When the AI Smart Camera detects that the user has left the screen area, the system automatically locks to ensure device and data security.




Personalization

Your AI PC learns your habits and preferences, offering tailored suggestions, personalized settings, and content that fits your style—making your experience truly yours.

Get a unique meeting experience with Lenovo AI Turbo Engine (for selected models)

Lenovo AI Turbo Engine is a smart audio and video enhancement software. Powered by plentiful sensing and computing adaption technologies, it can optimize your experience in video and audio capture and playback.

Access the app

- Use the Lenovo AI Turbo Engine icon  if present on the taskbar.
- Type the app name in the Windows search box and press Enter.

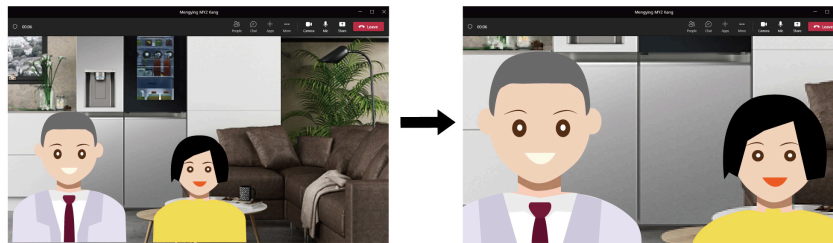
Video enhancement

- **Auto framing mode**

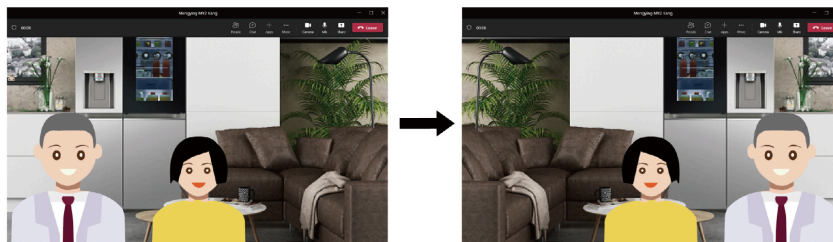
- **For a single person:** Automatically track and keep your face centered in the video.



- **For multiple persons:** Automatically crop the video to capture all persons' faces.

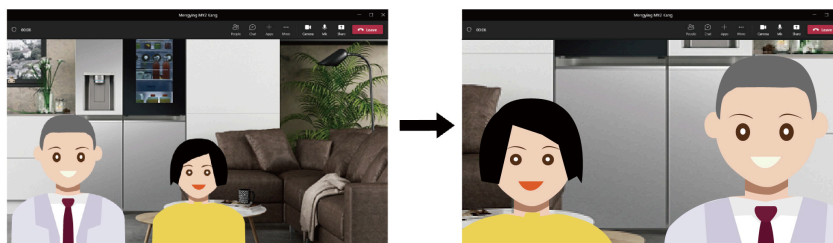


- **Video mirror:** Adjust the angle of the video background to deliver a more natural visual presentation.



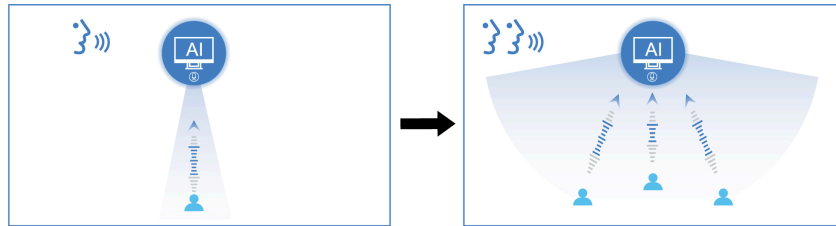
Usage recommendations:

During video conferences, you can enable **Auto framing mode** and **Video mirror** simultaneously to ensure that the output video is always natural and user-centered.



Audio enhancement

- **Adaptive capture effect:** The microphone capture scope can change based on the number of persons captured by the camera.



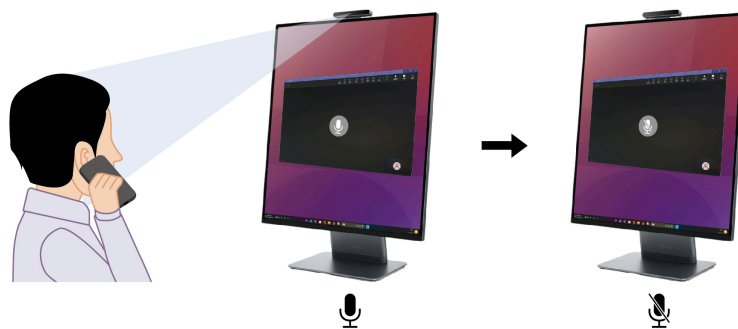
Note: You can also manually switch between personal, shared, or music modes based on your needs.

- **Adaptive playback effect:** The speaker playback effect can change depending on the audio type.



Note: You can also manually switch between voice, music, game, or movie modes based on your needs.

- **Smart call mute:** The microphone will be automatically muted if the camera detects that the user is on a phone call.



Usage recommendations:

In a meeting:

- Enable **Adaptive playback effect** when multiple participants share a single device to ensure optimal voice input quality.
- Enable **Adaptive playback effect** and select your preferred audio type to achieve optimal sound performance.
- Enable **Smart call mute** to avoid privacy leaks.

Notes:




- The available features vary depending on the computer models.
- This app might not be available in your country or region.
- This app makes periodic updates of the features. Explore this app on your actual user interface.

Lenovo Aura Edition features

Lenovo Aura Edition represents a premium series of AI PCs co-engineered by Lenovo and Intel. By integrating advanced hardware with intelligent, context-aware software, it delivers a flagship AI computing experience.

Built on deep hardware-software collaboration, the platform offers a highly personalized, efficient, and secure experience tailored to your needs through the intelligent features listed below.

Table 4. Lenovo Aura Edition features

Feature	Description	Access method
Smart Modes	Automatically detects your activity and optimizes performance, power settings, and system parameters accordingly. You get the optimal experience in any scenario without manual adjustment.	<ul style="list-style-type: none"> • Press mode (F9) to open the widget. • Select  in the widget for detailed configuration. <p>Note: Detailed settings are located under Device settings → Modes in Lenovo Vantage.</p>
Smart Share	Enables seamless connection between your PC and Bluetooth devices for easy file sharing, collaboration, and multi-device interaction. This feature saves time and enhances productivity through effortless device synergy.	<ul style="list-style-type: none"> • Tap to Launch: Press  (F11) to launch the Smart Connect app. • Tap to Pair: Tap a supported Bluetooth device against the left or right edge of the PC screen.
Smart Care	Provides premium, on-demand live support directly from your PC or phone, offering convenient and comprehensive assistance whenever needed.	Open Lenovo Vantage and select  Smart Care in the sidebar.

Smart Modes

Smart Modes is an intelligent, AI-powered feature that automatically optimizes your PC's performance and settings based on your current activity. It delivers a seamless, context-aware experience—allowing you to focus on your task without manual adjustments.

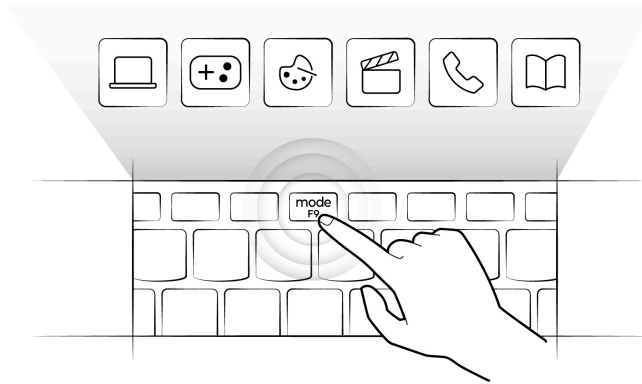


Figure 1. Smart Modes feature demonstration


Table 5. Available modes

Mode	Description
Working	Reduces distractions and optimizes system performance for focused productivity.
Gaming	Enhances immersion with boosted performance, responsive controls, and tailored audio.
Creating	Delivers a customized environment for creative tasks such as design, editing, and content creation.
Entertainment	Enables a relaxed viewing experience with features like Zero-Touch Video Playback.
Meeting	Improves call quality with AI noise cancellation and audio clarity.
Learning	Balances engagement and comfort with settings optimized for study and online courses.

Note: With Auto Mode enabled, your PC intelligently detects your activity and switches to the ideal mode automatically. You can also manually select a mode anytime via the Smart Modes widget or in Lenovo Vantage.

Configure mode settings in Lenovo Vantage

For a personalized experience, configure settings for each mode in Lenovo Vantage before first use.

- Step 1. Press **mode** (F9) to launch the Smart Modes widget.
- Step 2. Select  in the widget.
The Smart Modes settings page in Lenovo Vantage opens.
- Step 3. Select a mode (such as Gaming), and then configure the settings in the section below.
- Step 4. Repeat for other modes as needed.

Your configurations are saved and will apply whenever the corresponding mode is activated.

The Smart Modes widget

The Smart Modes widget provides quick access to the most frequently used functions of the Smart Modes feature.

Press **mode** (F9) to launch this widget.

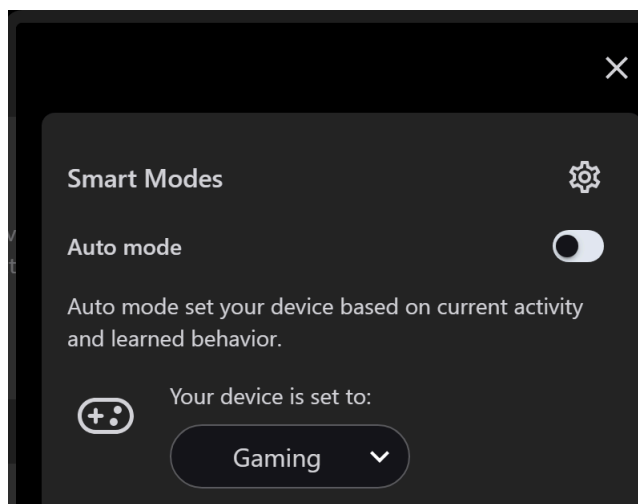


Figure 2. The Smart Modes widget

Within the widget, you can:

- Enable or disable Auto mode.
- Manually select a mode.
- Select  to open the detailed Smart Modes settings page in Lenovo Vantage.

Detailed settings page

The detailed settings page is located under **Device settings** → **Modes** in Lenovo Vantage. In addition to the quick access functions in the widget, this page allows you to configure and adjust the following parameters for the current mode:

- Attention timer
- Distracting domains
- Wifi Auto-Recovery
- Microphone Noise Cancelling
- Speaker Noise Cancelling
- Dolby Atmos
- Zero Touch Video Playback

It is recommended to configure these parameters for each mode before first use. You can return to this page anytime to adjust a parameter for any mode.

Note: Available parameters may vary by product model. The user interface may also be updated to improve the user experience.

Smart Share

Smart Share is an ecosystem feature that enhances productivity by enabling seamless connection and sharing between your PC and other Bluetooth devices.

Tap to Launch

Tap to Launch is a Smart Share function that supports fast and convenient photo sharing between your PC and smartphones (iOS and Android supported).

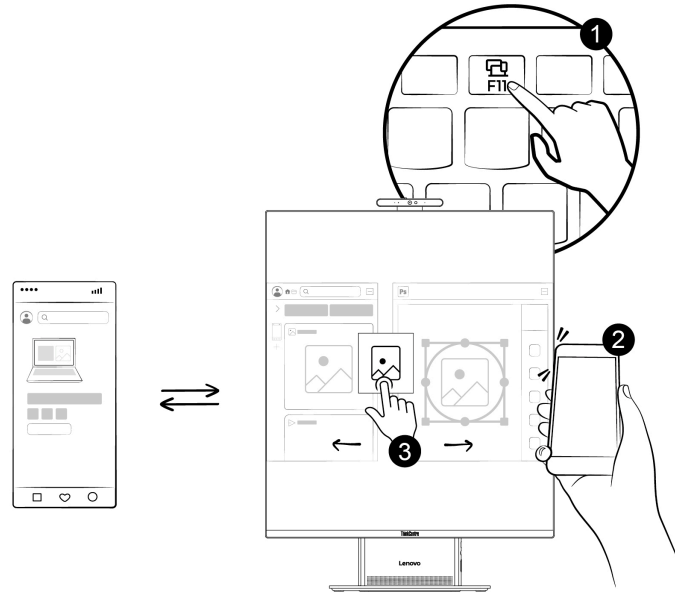


Figure 3. Tap to Launch function demonstration

Pair your PC and phone

Before pairing, ensure:

- The Smart Connect app is installed and running on both your PC and phone.

Note: Download it free from your device's app store if not pre-installed.

- Bluetooth is enabled on both devices.
- Both devices are connected to the same Wi-Fi network.

Step 1. In the PC's Smart Connect app, click the Plus (+) icon on the left. A QR code appears on your PC screen.

Step 2. Scan the QR code using the Smart Connect app on your phone.

Step 3. Follow the on-screen prompts to complete pairing.

You can pair multiple phones. To unpair, right-click the device name in the PC's Smart Connect app and select **Unpair device**.

Share photos

Ensure your devices are paired via the Smart Connect app, and the app is running on both devices.

Step 1. Tap your paired phone against the left or right edge of your PC display. Alternatively, select **Connect** in the Smart Connect app on either device. Your phone's gallery will sync to the paired PC.

Step 2. Follow the on-screen instructions on the app, and then drag and drop photos between your paired computer and phone for editing and sharing.

Tap to Pair

Tap to Pair enables quick, seamless pairing between your Aura Edition PC and supported Bluetooth accessories (earphones and mice), replacing the traditional Bluetooth connection process.

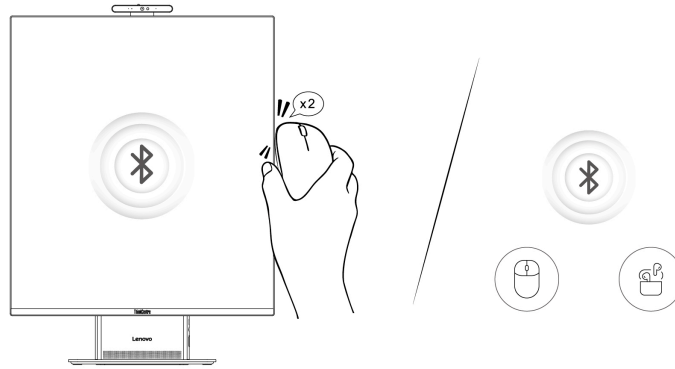


Figure 4. Tap to Pair function demonstration

Note: Depending on your product model, you may need to connect to the internet and complete an online update for this feature to work.

Pair a Bluetooth accessory with Tap to Pair

- Ensure Tap to Pair is enabled on your PC during Windows OOBE or in Lenovo Vantage.
- Supported accessories include earphones and mice.
- Tap to Pair is only supported in portrait mode.

- Step 1. Tap your Bluetooth accessory twice on the left or right edge of the PC screen.
A prompt appears asking you to confirm the pairing.
- Step 2. Select **Pair** in the prompt.
The accessory is paired with your PC.
- Step 3. Repeat to pair additional Bluetooth accessories if needed.

Smart Care

Smart Care is a unified support portal through the Lenovo Vantage app on your PC or the Smart Care app on your mobile device. It provides prompt assistance from Lenovo experts.

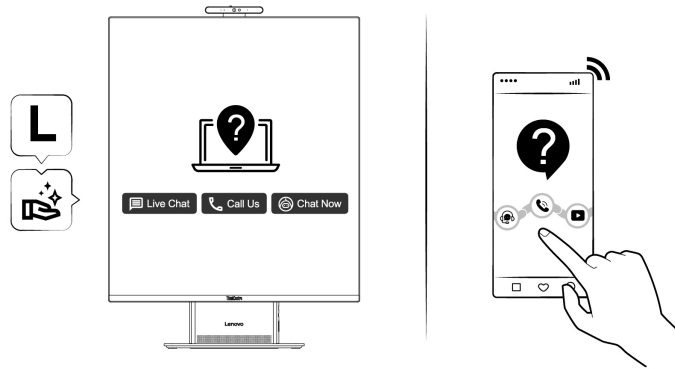


Figure 5. Smart Care feature demonstration

Use Smart Care whenever you need help. Example scenarios include:

- Quick troubleshooting: Get instant tips when an error occurs.
- OS issues: Schedule a callback for step-by-step recovery assistance if your operating system fails to boot.
- Finding user guides: Browse detailed guides in Explore Support to learn about new features.
- Checking repair status: Monitor the progress of a device repair.
- Remote assistance: Share a system snapshot during a remote session so a technician can verify specs without manual checks.


To access Smart Care, open Lenovo Vantage and select  **Smart Care** in the sidebar.

Notes:

- Smart Care requires Lenovo Vantage to be installed.
- This guide assumes use on a PC. For mobile use, see [Introductions to Smart Care on Mobile](#).
- Service availability depends on your warranty, country/region, and language.

Use live chat



Live chat lets you quickly get help from a Lenovo expert for simple hardware or software issues. You can share attachments or your screen.

- Step 1. Open Lenovo Vantage.
- Step 2. Select  **Smart Care** in the sidebar.
- Step 3. Select **Live chat**.
- Step 4. Follow the instructions to enter your contact information.
- Step 5. Select **Submit** to start a chat session.

Call support


For complex issues (e.g., fan or OS problems), you can request immediate support during business hours or schedule a callback.

- Step 1. Open Lenovo Vantage.

- Step 2. Select  **Smart Care** in the sidebar.
- Step 3. Select  **(Call support)**.
- Step 4. Enter your details (phone number, preferred language, etc.).
- Step 5. Select **Submit** to initiate the call or schedule a callback.


Explore support

Explore Support is a self-service resource pool containing user guides, popular articles, videos, and troubleshooting tools.

- Step 1. Open Lenovo Vantage.
- Step 2. Select  **Smart Care** in the sidebar.
- Step 3. Scroll down to the Explore Support section.
- Step 4. Browse or search topics to find solutions and learn about your product.


Contact customer services

Contact Customer Services is the central entry point for all support options, including chat, call, callback scheduling, ticket submission, repair status checks, and warranty management.

- Step 1. Open Lenovo Vantage.
- Step 2. Click  **Smart Care** in the sidebar.
- Step 3. Scroll down to Contact Customer Services.
- Step 4. Follow the on-screen instructions to access the specific service you need.

Share a device snapshot

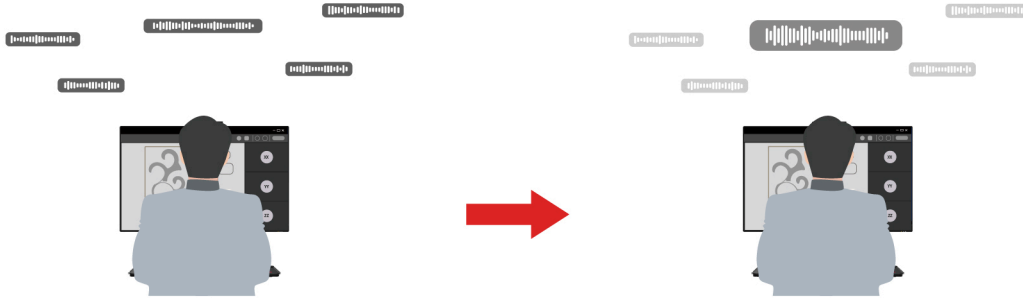
The Device Snapshot tool captures a snapshot of your system information (BIOS, OS version, driver details) to assist support experts with diagnostics or repair.

- Step 1. Open Lenovo Vantage.
- Step 2. Select  **Smart Care** in the sidebar.
- Step 3. Scroll down to the bottom of the page.
- Step 4. Select **Device Snapshot**.
- Step 5. Save or share the generated report as an attachment with Lenovo support.

Smart noise cancellation

Smart noise cancellation is a noise reduction feature. By filtering out input and output noises, it enhances your audio experience. Smart noise cancellation is available in:

- For ThinkCentre series computers: Realtek Audio Console or Lenovo Audio Console
- For other desktop computers: Lenovo Smart Noise Cancellation



Function	Description
Microphone noise cancellation	<ul style="list-style-type: none"> • For ThinkCentre series computers <ul style="list-style-type: none"> – AI noise reduction: Your computer focuses on human voices and reduces ambient sounds. Note: When recording an instrument through microphones, it is recommended to disable this feature or switch to the music capture mode in the Lenovo AI Turbo Engine (if available). – Target Speaker Tracking: This option requires you to register your voice so that your computer captures this voice only and tries to eliminate other voices. – Far Field Pickup (FFP): Your computer can clearly pick up voice from a distance and you don't have to speak in front of the computer. • For other desktop computers <ul style="list-style-type: none"> – Private mode: Your computer only captures the speaker's voice at a certain angle and eliminates ambient noises and speakers' voices at other angles. – Shared mode: Your computer captures all speakers' voices and eliminates ambient noises. – Off: Your computer captures all the sounds in the environment. – Echo cancellation: Your computer cancels the acoustic echo that occurs when sound from the speakers travels through the air and is picked up by the microphones.
Speaker noise cancellation	<ul style="list-style-type: none"> • For ThinkCentre series computers <p>Your computer filters out other sounds to play only human voices during voice calls.</p> • For other desktop computers <ul style="list-style-type: none"> – On: Your computer filters out other sounds to play only human voices in a voice call. – Off: Your computer keeps all the sounds from the call participants.

Note: Depending on your hardware configuration, some of the features and options described above may not be supported.

OSD menu

The On-Screen Display (OSD) menu allows you to adjust monitor settings and manage multi-source display modes directly on the screen. This offers an intuitive interface for making changes without interrupting your workflow.

Access the OSD Menu

You can open the OSD menu in the following ways:

- **Automatically:** The menu pops up automatically to allow mode selection when:

- A new external video source is connected.
- The screen is rotated.
- Manually: Double-press the left alt key on the keyboard.

Display Mode

Display Mode allows you to switch the monitor’s primary operating mode. Eight distinct modes are available, represented by individual icons. The top row of icons is for Portrait screen orientations, and the bottom row is for Landscape orientations.

The modes include PC Mode, Monitor Mode, and various PxP (Picture-by-Picture/Picture-in-Picture) configurations.

KVM Setting

This menu manages the sharing of peripherals (keyboard, mouse, camera, speakers, and 3.5mm headphone) between the AIO and an externally connected source via the One Cable Link feature. In this menu, You can also adjust the overall audio volume.

Monitor control

Monitor control integrates basic monitor-related operations for quick display adjustment.

Table 6. Monitor control features

Feature	Description
Brightness	Adjusts screen brightness.
Contrast	Adjusts screen contrast.
Color mode	Selects a preset color temperature or create a custom profile.
PIP/PBP Source Swap	Swaps the screen positions of the two signal sources in a PxP (Picture-in-Picture/Picture-by-Picture) mode.
PIP Windows Size	Changes the size of the PIP window.

Menu settings

You can configure the behavior and display of the OSD menu in Menu settings.

Table 7. Menu settings features

Feature	Description
Information	Views monitor details such as model name, refresh rate, and firmware version.
Language	Sets the OSD menu language.
OSD timeout	Sets the idle time before the OSD menu automatically closes.
Factory reset	Reset all adjustable monitor settings.

Key features

All ports

Introduction

Your computer provides a comprehensive set of ports suitable for hybrid work environments. With all the necessary ports and additional features, you can easily connect peripherals, transfer files, charge devices, and connect monitors. This helps you work more efficiently with seamless multitasking.

Get your computer well-prepared

To ensure a seamless start with your computer, it is essential to understand the basic connections to ensure your desktop is ready for use.

Basic connections

- **Connect to power**

Power connector:

Use the power connector to connect your computer to a power source. Always use the power adapter and cable provided with the computer to ensure stable operation and optimal performance.

Notes:

- To reduce the risk of electric shock, fire, or equipment damage, it is recommended to use only the power adapter and cable provided for your specific computer model. Do not use damaged power cords or adapters.
- Ensure that the power outlet is properly grounded and matches the adapter's input voltage rating.

- **Connect to an external display**

Expand your workspace by using various video connectors, depending on the model:

- **HDMI out connector:**

Connects to HDMI-compatible monitors or projectors for video and audio output.

- **USB-C connector (with DisplayPort Alt Mode):**

Supports video output to compatible USB-C or Thunderbolt displays that require high-speed data transfers.

You can use one or more supported display connectors to extend or duplicate your desktop display, subject to system capabilities.

- **Connect to other peripherals**

To support everyday tasks, the product provides multiple connectors for peripheral devices:

- **USB-A connector:**

Connects devices such as keyboards, mice, printers, USB storage devices, webcams, and other USB-A accessories.

- **USB-C connector:**

Connects compatible peripherals such as docking stations, external storage devices, cameras, and other USB-C accessories.

- **Connect to network**

USB-C connector (USB-C to RJ45 dongle)

Provides a stable wired network connection for reliable data transmission in office and enterprise environments.

- **Connect to audio devices**

Headset connector:

Connects a headset with a microphone for calls, meetings, or multimedia use.

FAQ

My USB connector does not work

For solutions to this issue, you can refer to: [FAQ: My USB connector does not work.](#)

The external monitor is not functioning

For solutions to this issue, you can refer to: [FAQ: The external display does not work.](#)

Computer performance and connectivity

Responsiveness of your computer is key to productivity and efficiency. Factors such as processing performance, graphics, storage, and connectivity determine how fast your computer works.

Performance

The computing architect of your computer is responsible for system speed, responsiveness, and data throughput. Specifications and availability may vary by specific model and configuration.

CPU

The Central Processing Unit (CPU) executes instructions for all system and application tasks. Installed CPU depends on the specific configuration order.

- Intel® Panther Lake PTL-H12Xe U7 vPro®, up to 65 W
- Intel Panther Lake H404 U5, up to 45 W

Graphics

The Graphics Processing Unit (GPU) renders images, videos, and animations, and accelerates parallel computing tasks. Installed GPU depends on the specific configuration order.

Item	Value or specification
Integrated graphics	All systems include capable integrated graphics for driving displays, video playback, and basic graphical workloads.

NPU (for AI PCs only)

Neural Processing Unit (NPU) is a type of microprocessor designed to accelerate AI-related tasks. The Lenovo AI Turbo Engine incorporates industry-leading NPU to enhance audio, video, and security capabilities for elevated efficiency.

Memory

Memory (RAM) provides high-speed temporary storage for active data and applications. Installed memory cards depend on the specific configuration order.

Specification

Item	Value or specification
Technology	On-Board LPDDR5X (Low Power Double Data Rate 5X)
Capacities	32 GB

Storage

Storage devices hold the operating system, applications, and user files, with speed directly impacting boot, load, and transfer times. Installed storage drives depend on the specific configuration order.

Specification

Item	Value or specification
Max storage support	<ul style="list-style-type: none">• Up to 2 M.2 slots• Up to 2 TB M.2 solid-state drive each

Connectivity

High-speed ports and network interfaces ensure fast and reliable connections for all your peripheral devices. Constant and fast connectivity is essential to online meetings, transferring large files, and syncing with cloud services. Your computer provides versatile connectivity options to keep your workflow efficient.

USB connectors

Your computer feature a combination of USB connectors supporting different standards. Actual transfer rates will vary based on the host device, peripheral, cable, and system environment. View the connectors functions, see “USB specifications” on page 7.

Video outputs

Your computer features HDMI connector and USB-C connectors for video outputs.

Specification

Item	Value or specification
HDMI out connector	<ul style="list-style-type: none">• Up to 4K resolution @ 60 Hz• Support audio outputs
USB-C connector (Thunderbolt 4)	<ul style="list-style-type: none">• Up to 8K resolution @ 60 Hz or dual 4K resolution @ 60 Hz• Support audio outputs

Network features

Networks allow your devices to communicate, share resources, and access information seamlessly.

Item	Value or specification
Ethernet (USB-C to RJ45 dongle)	10/100/1000 Mbps
Wi-Fi	<ul style="list-style-type: none"> • 802.11a/b/g • 802.11n • 802.11ac • 802.11ax (Wi-Fi 6, Wi-Fi 6E) • 802.11be (Wi-Fi 7) <p>Note: Different Wi-Fi standards may operate on different frequency bands. In some countries or regions, certain frequency bands may be prohibited for unlicensed use or may require specific conditions. Wi-Fi 6E and Wi-Fi 7 on this PC are disabled in some countries or regions in accordance with local regulations.</p>
Bluetooth	Bluetooth 6.0

FAQ

External storage device is not recognized

What should I do if my computer does not recognize the external storage device? Please visit [FAQ: External storage device is not recognized](#).

My computer is too slow

For solutions to this issue, please visit [Why is My Computer Slow?](#).

Human presence detection

What is human presence detection?

Human presence detection (HPD) is a set of integrated features¹ in your computer, which includes lock on leave, wake on approach, adaptive dimming, and so on. By leveraging the human presence sensor that detects your presence when in front of your computer, HPD can help keep your computer secure, ensure comfortable interaction, and help you get back to work quickly.

¹The available HPD features vary depending on the computer model.

Key benefits of human presence detection

HPD allows the computer to accurately detect a human in close range and automatically trigger system protections or wake events based on user presence or absence. This modern technology brings an intelligent experience with extra security, efficiency, and convenience.

- **Enhanced security:**

HPD provides an additional layer of security in sensitive environments by dimming the screen and locking the system when you walk away.

- **Improved efficiency:**

By automating device actions like power on/off and brightness adjustment, HPD eliminates manual control, saving time and energy.

- **Greater user convenience:**

HPD offers seamless interactions by automatically adjusting settings based on the user's presence, elevating the interaction between users and their computers and creating a more intuitive user experience.

Explore human presence detection

Privacy protection

- **AI anti-peeping**

HPD can detect if other people are looking at your screen without permission with an AI anti-peeping sensor, shielding sensitive information on your screen. The system can then activate privacy features like screen dimming, system alert, or blurring the display.



- **Lock on leave**

When you are no longer actively present in front of the computer, HPD detects your absence and locks the computer within seconds, providing an extra layer of security by ensuring no one can access your data while you're away.



Lock on leave function is enabled by default. To change the settings:

1. Open the Vantage app, and then click **Device** → **Smart Assist**.
2. Slide the **Zero Touch Lock** switch to disable or enable the function.

Notes:

- The lock on leave function does not work if you set the power options to never turn off the display.
- If the Vantage app is uninstalled, this function will be enabled automatically. You can change the settings through the UEFI BIOS menu:
 1. Restart the computer. When the logo is displayed, press F1 to enter the UEFI BIOS menu.
 2. Select **Security** → **Intelligent Security**.
 3. Slide the **User Presence Sensing** switch to disable or enable the function.
- For some countries or regions, the lock on leave function might be disabled according to local regulations.

Meeting assistance

- **Adaptive privacy mode**

In meetings, HPD automatically controls your camera and microphone based on your activity, ensuring a seamless, secure experience during virtual interactions.

- **Auto face framing**

HPD enhances video conferencing experiences by automatically adjusting the camera to frame your face perfectly, ensuring you are always in focus and well-positioned during calls.



Daily use experience

- **Wake on approach**

With HPD, as you approach the device, it recognizes your face ID and automatically powers it on, even from a shutdown or modern standby state. This seamless, hands-free experience allows your device to wake up instantly and be ready for use without any manual input.

Note: Create your face ID in the system to enable wake on approach feature.

- **Adaptive brightness**

HPD can automatically adjust the screen brightness based on ambient light conditions and the user's proximity, providing optimal viewing experiences while conserving energy.

When the user is sitting in front of the device with the display on, and it is detected that the user is not attentive, the operating system will dim the display.

More features and scenarios

Adaptive dimming

The system can detect when users are not actively interacting with the device and automatically dim the display to save energy, or it can brighten when it detects presence, ensuring optimal visibility without user input.



Extended use scenarios

HPD technology enhances your work environment by integrating seamlessly with your computer, improving both security and comfort throughout your workday.

- **The interrupted task**

During a busy workday, you may need to step away from your desk, whether to collect documents or take a phone call. HPD's wake on approach feature makes sure your computer is always ready when you

return. As you approach your desk, the computer detects your presence and automatically powers on, so you can jump right back into your work without needing to manually wake it up or enter any credentials.

- **Working for a long time**

Spending long hours at your desk staring at a screen can lead to eye discomfort. HPD's adaptive brightness feature automatically adjusts the screen's brightness according to the surrounding light and your proximity to the computer. This helps reduce strain on your eyes, creating a more comfortable and healthier work environment.

- **Working on a confidential project**

When you're working on confidential material, it's important that your information remains private. HPD's AI anti-peeping feature can detect if someone is looking over your shoulder and automatically dim or lock your screen to protect your work. This helps safeguard sensitive data in environments where privacy might be at risk, ensuring that only authorized users can access the content on your computer.

FAQ

The sensor does not detect my presence

Problem: What should I do if the sensor does not detect my presence?

Solution: If the HPD sensor fails to detect your presence, ensure the sensor is unobstructed and within the specified range. Also, check if any settings or configurations that may need to be adjusted, such as sensor sensitivity or power settings. Besides, large metallic objects or other electronic devices may also influence the work of the sensor. You can also try restarting your computer to solve the problem.

If the problem persists, do not hesitate to contact Lenovo. For details, go to <https://pcsupport.lenovo.com/contact-us>.

Human presence detection safety

Problem: Is it safe to use human presence detection?

Solution: HPD technology is designed with privacy and security in mind. The sensors are built to ensure that personal data is not collected or shared without consent. All collected sensor data is processed locally, never stored or uploaded. The system only detects generic human presence—recognizing that you are there, not who you are—ensuring security without surveillance.

If the problem persists, do not hesitate to contact Lenovo. For details, go to <https://pcsupport.lenovo.com/contact-us>.

Durability and reliable performance

Durability

ThinkCentre X AIO is designed for longevity, meeting multiple durability certifications to operate reliably in extreme temperatures, high altitudes, and varying humidity. It also features robust security solutions to ensure a safe, private, and long-term user experience.

Hardware design for longevity

Durable hardware design protects your computer and requires simple maintenance, reducing the risk of damage during upgrades and operations in various environment. ThinkCentre X AIO features a full function monitor stand, suitable for different scenarios.

Full function monitor stand

- Tilt: -5 to 16 degrees

- Lift: 70 mm
- Pivot: 90 degrees clockwise
- Swivel: 90 degrees, 45 degrees left and right

Maintenance

ThinkCentre X AIO is designed with industry standards and high compatibility, using universal interfaces and replaceable components that are easy for you to maintain or upgrade the computer. You can also manage your device using the pre-installed management tools such as The Vantage App, reducing the risk of malware and cyber threats.

Warranty and protection

Lenovo offers various warranty options that provide comprehensive protection for your devices. You can extend or upgrade warranties according to your needs.

Warranty extensions

It is recommended to match service coverage duration with the expected lifecycle of your device. Minimize unplanned break/fix maintenance expenses and enjoy consistent service levels for multinational organizations, with in-region and local-language support.

Warranty upgrades

Depending on your hardware, you can upgrade your warranties to depot service and onsite service. It enables you to vary response time and level of service to match critical support needs.

Global service

Lenovo's global service system ensures standardized professional support, even for organizations with branches in multiple locations.

Certifications

ThinkCentre X AIO meets with numerous certifications for durability and reliable performance. Refer to the model configuration for specific information.

- 12 Mil-STD certification
- Anti-Dust certification
- Eye Safe 2.0
- Flicker Free
- Healthcare compliance (Partial of IEC 60601-1 / IEC 60601-1-2)
- Low noise certifications
- HW Low Blue Light
- IP55
- Zoom meeting certification

FAQ

Where can I purchase warranty?

For warranty extensions and upgrades, please visit [FAQ: Warranty Entitlement](#).

How to locate a repair center or service provider?

For repair centers and service providers list, please visit [Find A Lenovo Service Provider](#).

Sustainable design

Lenovo is committed to sustainable development. ThinkCentre X AIO uses advanced power management tools to optimize energy efficiency. Its packaging features plastic-free design and is made from recyclable materials.

Packaging and material

Self-locking bottom carton

Lenovo uses self-locking bottom carton for product shipping. This carton requires no tape, solving the problems that cartons sealed with plastic tape are difficult to recycle and cause environmental pollution. It locks automatically and bears a certain weight, reducing sealing time by over 70%.

Material

ThinkCentre X AIO may contain the following materials:

- 65% PCC ABS bezel
- 85% PCC ABS with brand closed-loop material in plastic in chassis
- 95% PCC ABS with brand closed-loop material in plastic in wired keyboard/mouse
- 95% PCC ABS wired USB keyboard/mouse top/bottom cover
- 90% PIC recycled plastic EPE cushion in packaging
- 30% OBP used in packaging
- FSC carton in packaging

Certifications

- ENERGY STAR 9.0
- EPEAT Gold
- TCO 10.0
- TCO edge
- GreenGuard
- Low Halogen
- RoHS compliant

Note: The listed items may not only refer to certification but also registration or self-declaration. For ESG & regulatory compliance documents, please visit <https://compliance.lenovo.com>.

Sustainability programs

Lenovo is committed to delivering smarter technology that contributes to a brighter, more sustainable future for all. In our product design and manufacturing processes, we manage a global supply chain through responsible procurement policies. We actively engage in Environmental, Social, and Governance (ESG) initiatives, ensuring sustainability is central to both our products and operations.

To learn more about our sustainability programs, please visit [Lenovo ESG Resources](#).

Chapter 4. UEFI BIOS

Enter the UEFI BIOS menu

Turn on or restart the computer. When the logo screen is displayed, press F1 or Fn+F1 to enter the UEFI BIOS menu.

Note: If you have set UEFI BIOS passwords, enter the correct passwords when prompted. You also can select **No** or press Esc to skip the password prompt and enter the UEFI BIOS menu. However, you cannot change the system configurations that are protected by passwords.

Navigate the UEFI BIOS menu

Follow the on-screen instructions to navigate in the UEFI BIOS menu.

The table below introduces the available settings of the UEFI BIOS menu. You can follow the on-screen instruction to navigate in the UEFI BIOS menu.

Note: The UEFI BIOS menu might vary depending on system configurations.

Menu	Introduction
Main	This category provides the general product-related and firmware information including system summary, machine type, product serial number, UUID number, etc.
Devices	This category introduces how to configure various devices such as USB ports and audio controllers.
Advanced	This category provides advanced information about the computer such as the CPU features.
Power	This category introduces power and thermal management solutions.
Security	This category introduces various passwords, locks, and software to protect your computer.
Startup	This category introduces how to set the boot priority order.
Exit	This category introduces how to exit as you prefer.

To explore the detailed settings:

- For computers purchased in mainland China
You can contact Lenovo Customer Support Center as shown at <https://newsupport.lenovo.com.cn/contacts.html>.
- For computers purchased outside mainland China
You can go to Lenovo BIOS Simulator Center <https://download.lenovo.com/bsco/index.html> to explore the detailed settings by your product name.

Note: The Lenovo BIOS Simulator Center makes periodic updates of the settings. The UEFI BIOS simulator interface and description of settings might be different from that on your actual user interface.

Enable or disable the ErP LPS compliance mode

Lenovo computers meet the eco-design requirements of the ErP Lot 3 regulation. Follow the instruction to enable or disable the ErP LPS compliance mode.

For more information about the eco-design requirements, go to: <https://www.lenovo.com/us/en/compliance/eco-declaration>.

You can enable the ErP LPS compliance mode to reduce the consumption of electricity when the computer is off. To enable or disable the ErP LPS compliance mode:

Step 1. Restart the computer. When the logo screen is displayed, press F1 or Fn+F1.

Step 2. Select **Power** → **Enhanced Power Saving Mode** and press Enter.

Step 3. Enable or disable the feature as desired.

Note: Please note that when the Enhanced Power Saving Mode is disabled, the power consumption might be increased when the computer is off.

Step 4. Press F10 or Fn+F10 to save the changes and exit.

When the ErP LPS compliance mode is enabled, you can wake up the computer by doing one of the following:

- Press the power button.
- Enable the Wake Up on Alarm feature to make the computer wake up at a set time.

To meet the off mode requirement of ErP compliance, you need to disable the Fast Startup function.

1. Go to **Control Panel** and view by large icons or small icons.
2. Click **Power Options** → **Choose what the power buttons do** → **Change settings that are currently unavailable**.
3. Clear the **Turn on fast startup (recommended)** option from the **Shutdown settings** list.

Update the UEFI BIOS

When you install a new program, device driver, or hardware component, you might need to update the UEFI BIOS.

Download and install the latest UEFI BIOS update package by one of the following methods:

From the Vantage app

Follow the instructions to update the UEFI BIOS from the Vantage app.

Step 1. Open the Vantage app, and then click **System Update**.

Step 2. If the latest UEFI BIOS update package is available, follow the on-screen instructions to download and install the package.

From the Lenovo Support Web site

Follow the instructions to update the UEFI BIOS from the Lenovo Support Web site.

For computers purchased in mainland China

1. Go to <https://newsupport.lenovo.com.cn>.
2. Click **Download drivers and software**, and select or search product.
3. Follow the on-screen instructions to download and install the latest UEFI BIOS update package.

For computers purchased outside mainland China

1. Go to <https://pcsupport.lenovo.com> and select the entry for your computer.

2. Click **Drivers & Software → Manual Update → BIOS/UEFI**.
3. Follow the on-screen instructions to download and install the latest UEFI BIOS update package.

From the Windows Update

Follow the instructions to update the UEFI BIOS from the Windows Update.

- Step 1. Type **Settings** in the Windows search box and press Enter.
- Step 2. Click **Windows Update → Check for Updates**.
- Step 3. If a BIOS update package appears in your update list, click **Download or Install** to initiate the update.

Chapter 5. CRU replacement

What is CRU

Important: For users in mainland China, the information provided in this chapter is for reference by professional maintenance service providers or technicians authorized by Lenovo only. Users shall not perform maintenance on their own. Any faults or damage due to improper operation, modification, or failure to use parts provided by Lenovo are not covered by the warranty for this product. For product warranty information, refer to the warranty document provided with the product or go to the official Lenovo website at <https://newsupport.lenovo.com.cn>.

Customer Replaceable Units (CRUs) are parts that can be replaced by the customer. Lenovo computers contain the following types of CRUs:

- **Self-service CRUs:** Refer to parts that can be replaced easily by customer themselves or by trained service technicians at an additional cost.
- **Optional-service CRUs:** Refer to parts that can be replaced by customers with a greater skill level. Trained service technicians can also provide service to replace the parts under the type of warranty designated for the customer's machine.

If you intend on installing the CRU, Lenovo will ship the CRU to you. CRU information and replacement instructions are shipped with your product and are available from Lenovo at any time upon request. You might be required to return the defective part that is replaced by the CRU. When return is required: (1) return instructions, a prepaid shipping label, and a container will be included with the replacement CRU; and (2) you might be charged for the replacement CRU if Lenovo does not receive the defective CRU within thirty (30) days of your receipt of the replacement CRU. For full details, see the Lenovo Limited Warranty documentation at:

https://www.lenovo.com/warranty/llw_02

CRU list

The following is the CRU list of your computer.

Self-service CRUs

- ac power adapter*
- Dongle
- Power cord*

Optional-service CRUs

- Base assembly
- Base screw cover
- Cover presence switch bracket*
- Lock bracket
- Lower rear cover
- M.2 solid-state drive
- Side I/O bracket
- Tweeter speakers
- Upper rear cover

- Woofer speakers

* for selected models

Lower rear cover

Prerequisite

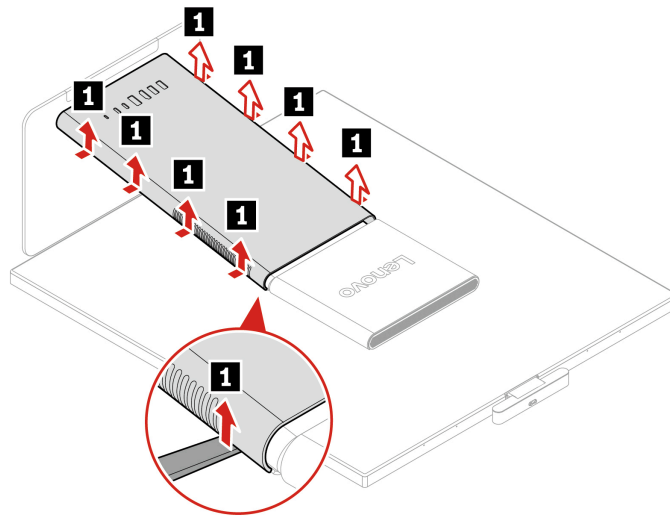
Before you start, read *Generic Safety and Compliance Notices*, and print the following instructions.

For access, do the following:

1. Turn off the computer and remove all connected devices and cables.
2. Disconnect the computer from ac power and all connected cables.
3. Place a soft, clean towel or cloth on the desk or surface. Hold the sides of your computer and gently lay it down so that the screen is against the surface and the computer cover is facing up.

Removal step

Insert the pry tool into the gap between the lower rear cover and the computer from the right side. Then, release all latches and lift the lower rear cover.



Upper rear cover

Prerequisite

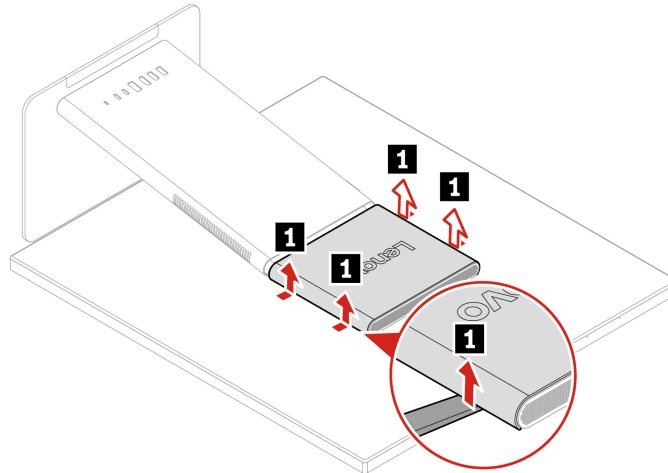
Before you start, read *Generic Safety and Compliance Notices*, and print the following instructions.

For access, do the following:

1. Turn off the computer and remove all connected devices and cables.
2. Disconnect the computer from ac power and all connected cables.
3. Place a soft, clean towel or cloth on the desk or surface. Hold the sides of your computer and gently lay it down so that the screen is against the surface and the computer cover is facing up.

Removal step

Insert the pry tool into the gap between the upper rear cover and the computer from the right side. Then, release all latches and lift the upper rear cover.



Base screw cover

Prerequisite

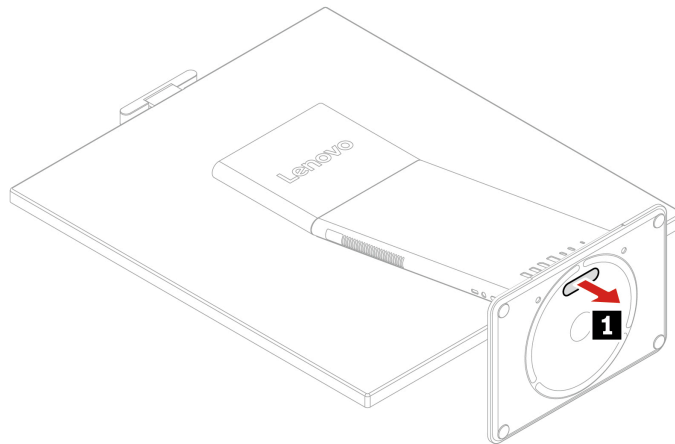
Before you start, read *Generic Safety and Compliance Notices*, and print the following instructions.

For access, do the following:

1. Turn off the computer and remove all connected devices and cables.
2. Disconnect the computer from ac power and all connected cables.
3. Place a soft, clean towel or cloth on the desk or surface. Hold the sides of your computer and gently lay it down so that the screen is against the surface and the computer cover is facing up.

Removal step

Remove the base screw cover outward.



Base assembly

Prerequisite

Before you start, read *Generic Safety and Compliance Notices*, and print the following instructions.

For access, remove these parts in order:

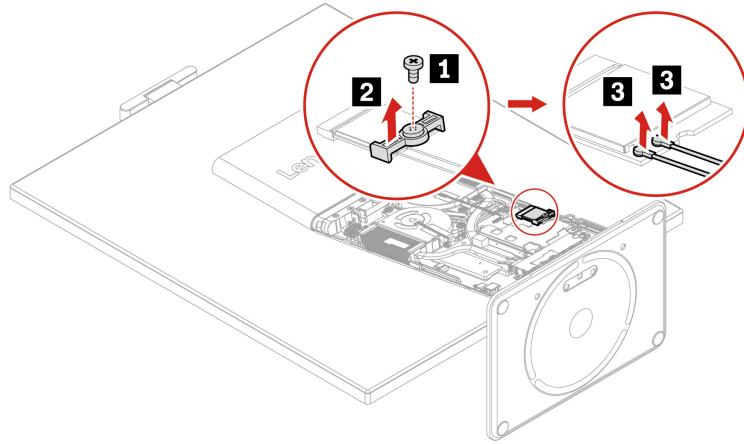
- “Lower rear cover” on page 51
- “Base screw cover” on page 52

Removal steps

1. Remove one screw which secure the Wi-Fi card bracket to the Wi-Fi card. Find screw specification like torque in the following screw table.

Location	Thread (mm)	Length (mm)	Torque (lbf-in)	Color	Quantity
1	M3	L6	3.25 ± 0.25	Silver	1

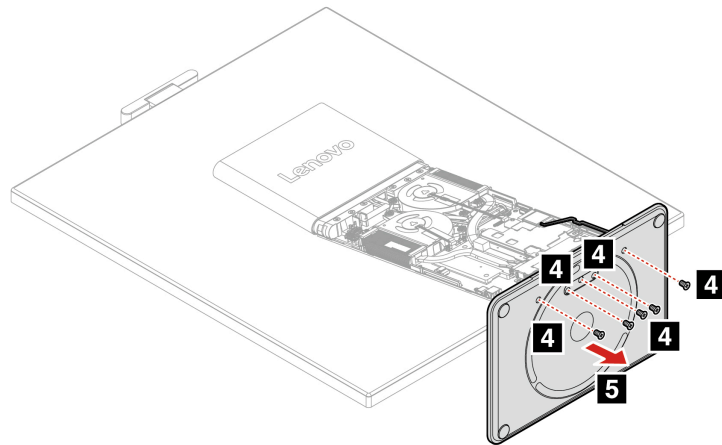
2. Remove the Wi-Fi card bracket.
3. Disconnect the Wi-Fi antennas from the Wi-Fi card.



- Remove the five screws which secure the base assembly to the computer. Find screw specification like torque in the following screw table.

Location	Thread (mm)	Length (mm)	Torque (lbf-in)	Color	Quantity
4	M4	L7	12.0 ± 0.5	Black	5

- Gently remove the base assembly.



M.2 solid-state drive

Prerequisite

Before you start, read *Generic Safety and Compliance Notices*, and print the following instructions.



The heat sink might be very hot. Before you open the computer cover, turn off the computer and wait several minutes until the computer is cool.

Attention:

- The internal storage drive is sensitive. Inappropriate handling might cause damage and permanent loss of data. When handling the internal storage drive, observe the following guidelines:
 - Replace the internal storage drive only for repair. The internal storage drive is not designed for frequent changes or replacement.
 - Before replacing the internal storage drive, make a backup copy of all the data that you want to keep.
 - Do not touch the contact edge of the internal storage drive. Otherwise, the internal storage drive might get damaged.
 - Do not apply pressure to the internal storage drive.
 - Do not make the internal storage drive subject to physical shocks or vibration. Put the internal storage drive on a soft material, such as cloth, to absorb physical shocks.

For access, remove these parts in order:

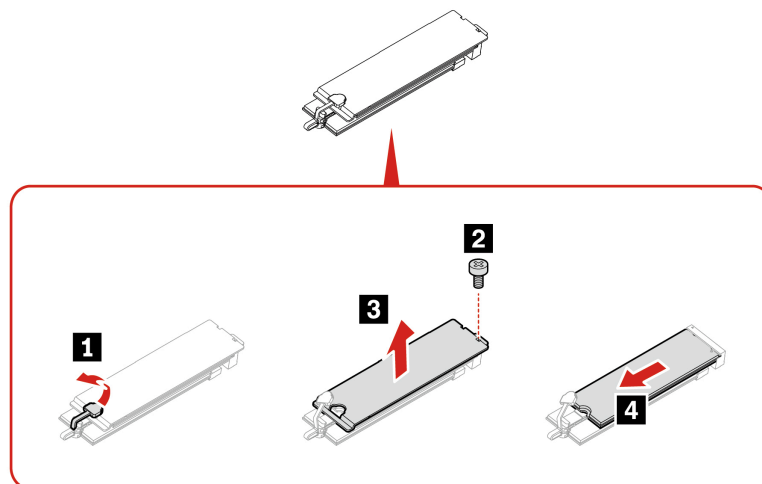
- “Lower rear cover” on page 51

Removal steps for PCIe Gen 4 M.2 solid-state drive

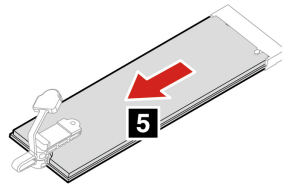
1. Open the latch of the M.2 solid-state drive heat sink.
2. Remove the screw which secures the M.2 solid-state drive heat sink to the system board. Find screw specification like torque in the following screw table.

Location	Thread (mm)	Length (mm)	Torque (lbf·in)	Color	Quantity
2	M3	L4	5.25 ± 0.25	Black	1

3. Remove the M.2 solid-state drive heat sink.
4. Remove the first M.2 solid-state drive and thermal pad depending on the computer model.



5. Remove the second M.2 solid-state drive and thermal pad (if any) depending on the computer model.



Removal steps for PCIe Gen 5 M.2 solid-state drive

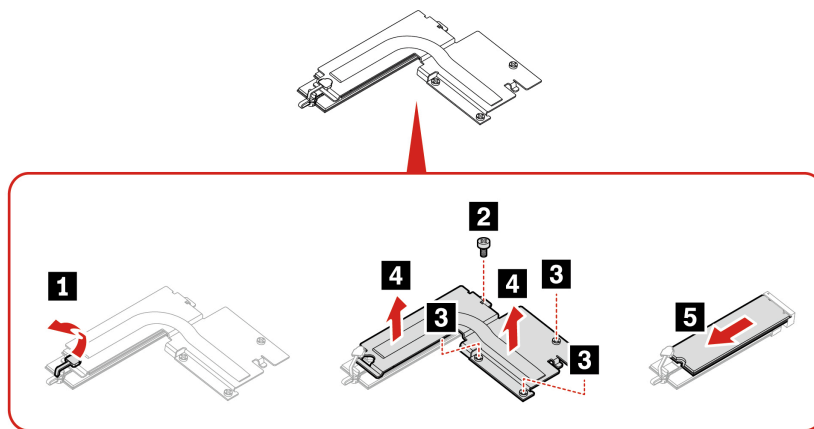
1. Open the latch to release the M.2 solid-state drive bracket.
2. Remove the screw which secures the M.2 solid-state drive heat sink to the system board. Find screw specification like torque in the following screw table.

Location	Thread (mm)	Length (mm)	Torque (lbf-in)	Color	Quantity
2	M3	L4	5.25 ± 0.25	Black	1

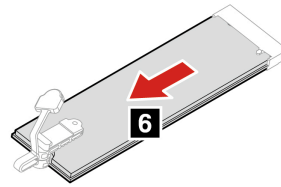
3. Loosen 3 screws which secure the M.2 solid-state drive heat sink to the system board.

Location	Thread (mm)	Length (mm)	Torque (lbf-in)	Color	Quantity
3	M2	L3	3.25 ± 0.25	Black	3

4. Remove the M.2 solid-state drive heat sink.
5. Remove the first M.2 solid-state drive and thermal pad depending on the computer model.



6. Remove the second M.2 solid-state drive and thermal pad (if any) depending on the computer model.



Notes:

- Remove the film that covers the thermal pad (if any) when installing the M.2 solid-state drive, heat sink, and thermal pad.
- When removing and installing the M.2 solid-state drive, be careful not to damage or press the antenna cable.

Lock bracket

Prerequisite

Before you start, read *Generic Safety and Compliance Notices*, and print the following instructions.

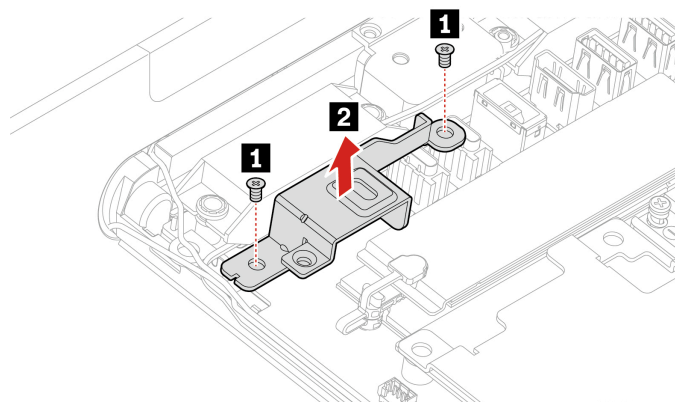
For access, remove the “Lower rear cover” on page 51.

Removal steps

1. Remove the two screws which secure the lock bracket to the computer. Find screw specification like torque in the following screw table.

Location	Thread (mm)	Length (mm)	Torque (lbf-in)	Color	Quantity
1	M3	L4	5.25 ± 0.25	Black	2

2. Remove the lock bracket.



Side I/O bracket

Prerequisite

Before you start, read *Generic Safety and Compliance Notices*, and print the following instructions.

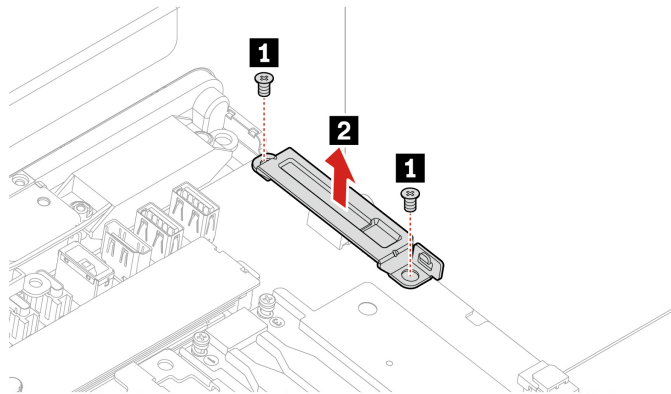
For access, remove the “Lower rear cover” on page 51.

Removal steps

1. Remove the two screws which secure the side I/O bracket to the computer. Find screw specification like torque in the following screw table.

Location	Thread (mm)	Length (mm)	Torque (lbf-in)	Color	Quantity
1	M3	L4	5.25 ± 0.25	Black	2

2. Remove the side I/O bracket.



Cover presence switch bracket

Prerequisite

Before you start, read *Generic Safety and Compliance Notices*, and print the following instructions.

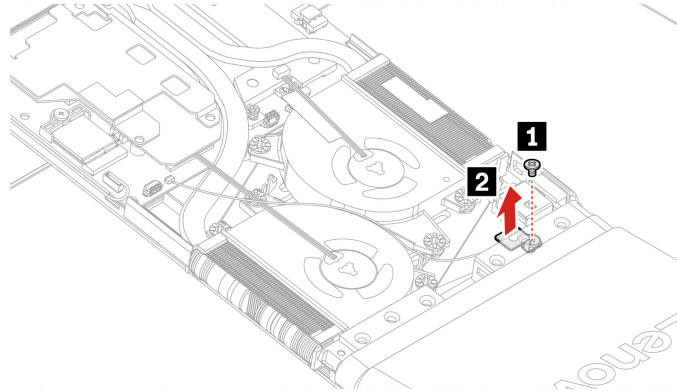
For access, remove the “Upper rear cover” on page 51.

Removal steps

1. Remove the screw which secures the cover presence switch bracket to the computer. Find screw specification like torque in the following screw table.

Location	Thread (mm)	Length (mm)	Torque (lbf-in)	Color	Quantity
1	M3	L4	5.25 ± 0.25	Black	1

2. Remove the cover presence switch bracket.



Tweeter speakers

Prerequisite

Before you start, read *Generic Safety and Compliance Notices*, and print the following instructions.

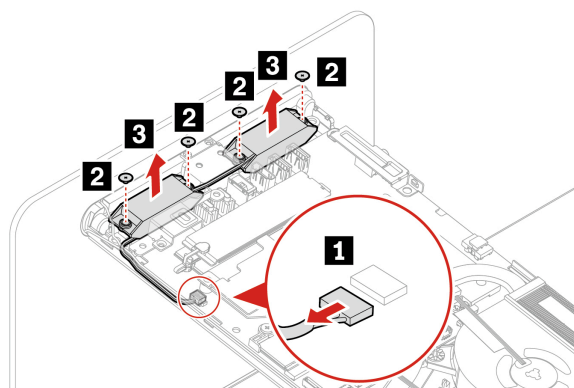
For access, remove the “Lower rear cover” on page 51.

Removal steps

1. Disconnect the tweeter speakers’ cable from the system board.
2. Remove four screws which secure the tweeter speakers to the computer. Find screw specification like torque in the following screw table.

Location	Thread (mm)	Length (mm)	Torque (lbf-in)	Color	Quantity
2	M2.5	L2.5	1.5 ± 0.25	Black	4

3. Remove the tweeter speakers.



Woofers speakers

Prerequisite

Before you start, read *Generic Safety and Compliance Notices*, and print the following instructions.

For access, remove these parts in order:

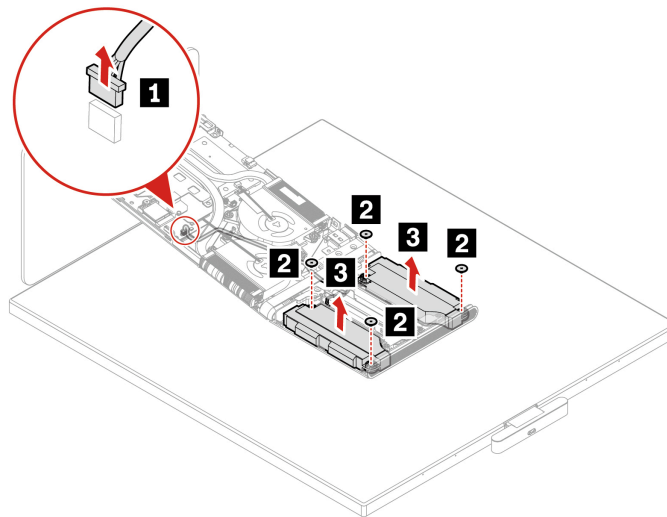
- “Lower rear cover” on page 51
- “Upper rear cover” on page 51

Removal steps

1. Disconnect the woofer speakers’ cable from the system board.
2. Remove four screws which secure the woofer speakers to the computer. Find screw specification like torque in the following screw table.

Location	Thread (mm)	Length (mm)	Torque (lbf-in)	Color	Quantity
2	M2.5	L3	3.25 ± 0.25	Silver	4

3. Remove the woofer speakers.



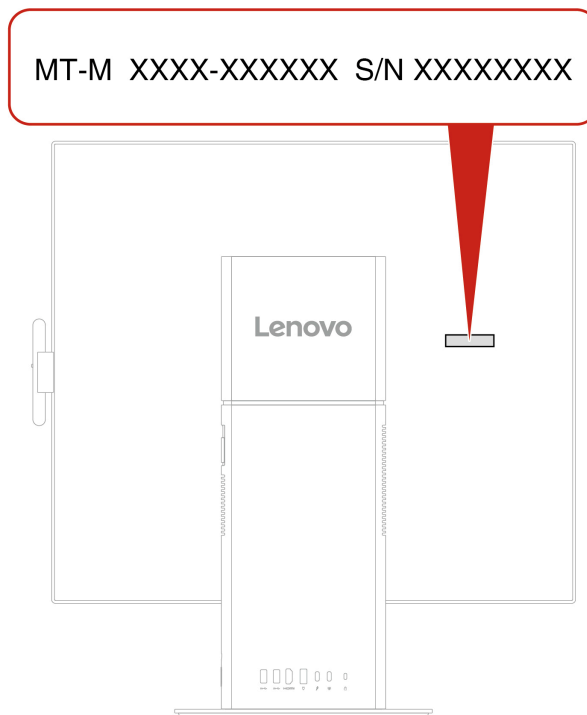
Chapter 6. Help and support

Find your serial number

This topic helps you find computer serial number.

You can find your serial number via:

- **Dashboard** or **Device** in the **Vantage** app
- The lower right corner of the base cover assembly of your computer (shown as below illustration)



Diagnose and troubleshoot your computer

This section provides introduction to a set of diagnostics and troubleshooting tools at Lenovo Support Web site and the Vantage app. They can help you diagnose common software and hardware issues.

The following table lists these diagnostics tools and the recommended conditions for each tool.

Diagnostics tool	Recommended scenario
Troubleshoot and diagnose at Lenovo Support Web site	You want to have an online troubleshooting or scan of hardware and drivers on your computer.
Hardware scan	<ul style="list-style-type: none">• Your computer is installed with the Vantage app.• You want to perform basic examinations of the hardware components.

Troubleshoot and diagnose at Lenovo Support Web site

Lenovo provides two different diagnosing solutions to help you identify and resolve problems on your computer.

For computers purchased in mainland China

1. Go to <https://newsupport.lenovo.com.cn/>.
2. Enter the troubleshooting section and find the question you are encountering.

For computers purchased outside mainland China

1. Go to <https://www.pcsupport.lenovo.com/> and enter your product name in the search box.
2. Click **Troubleshoot & Diagnose** and select the option that fits your need.

Notes:

- Before launching any automatic diagnosing process, a pop-up window will be prompted to install Lenovo Service Bridge. Lenovo Service Bridge helps to connect your computer with Lenovo diagnosing tools.
- Lenovo Support Web site makes periodic updates of the sections to keep improving your experience with your computer. The Web site interface and descriptions of sections might be different from that on your actual interface.
- If you are unaware of what problem your computer goes with, it is recommended that you select **Easy** and follow on-screen instructions to get your firmware updated and obtain the hardware status.
- If you have identified the problem on your computer, you can select **Custom** and follow on-screen instructions to resolve the problem.

If solutions can not resolve problems on your computer, you can follow on-screen instructions to submit an e-ticket or contact Lenovo for professional assistance.

Hardware scan

Hardware scan is an effective hardware testing tool to help you identify existing hardware issues.

To run the Hardware scan:

- Step 1. Type **Vantage** in the Windows search box and then press Enter.
- Step 2. Click **Hardware scan** or **Support → Hardware scan**.
- Step 3. Select **QUICK SCAN** or **CUSTOMIZE** and then follow the on-screen instructions to run the hardware scan.

Notes:

- The Quick Scan tool contains a pre-selected suite of tests that performs basic examinations of the hardware components found in the system. The Customize tool enables you to select one or several hardware components to perform the examinations.
- Before selecting **QUICK SCAN**, click **Refresh Modules** to ensure that the list of hardware components is the components currently available for the computer.

- Step 4. If any hardware failure is detected, the result varies depending on the warranty status and varies by country or region. Follow the on-screen instructions to resolve the issue.

Recover your Windows operating system

When you encounter some unexpected issues with your operating system, you can choose to recover your operating system by yourself or call Lenovo Customer Support Center.

Note: Microsoft constantly makes updates to the Windows operating system. Before installing a particular Windows version, check the compatibility list for the Windows version. For details, go to <https://support.lenovo.com/us/en/solutions/ht512575>.

For computers purchased in mainland China

Go to https://iknow.lenovo.com.cn/detail/199198_1.html.

For computers purchased outside mainland China

To recover your operating system to...	See.
Factory defaults	Refer to the instructions in https://support.lenovo.com/HowToCreateLenovoRecovery
A previous system point	Refer to the instructions in Popular Topics: https://support.lenovo.com/solutions/ht118590

Call Lenovo

If you have tried to correct the problem yourself and still need help, you can call Lenovo Customer Support Center.

Before you contact Lenovo

Prepare the needed information before you contact Lenovo.

1. Record the problem symptoms and details:
 - What is the problem? Is it continuous or intermittent?
 - Any error message or error code?
 - What operating system are you using? Which version?
 - Which software applications were running at the time of the problem?
 - Can the problem be reproduced? If so, how?
2. Record the system information:
 - Product name
 - Machine type and serial number.

Self-help resources

Use the following self-help resources to learn more about the computer and troubleshoot problems.

Resources	How to access?
Lenovo Support Web Site	<ul style="list-style-type: none">• For computers purchased in mainland China https://www.lenovo.com.cn• For computers purchased outside mainland China https://pcsupport.lenovo.com
Tips	<ul style="list-style-type: none">• For computers purchased in mainland China https://iknow.lenovo.com.cn• For computers purchased outside mainland China https://www.lenovo.com/tips

Resources	How to access?
Lenovo Community	<ul style="list-style-type: none"> For computers purchased in mainland China https://iknow.lenovo.com.cn For computers purchased outside mainland China https://forums.lenovo.com
Accessibility information (for computers purchased outside China)	https://www.lenovo.com/accessibility
Windows help information	<ul style="list-style-type: none"> Open the Start menu and click Get Help or Tips. Use Windows Search. Microsoft support Web site: https://support.microsoft.com

Purchase accessories or additional services

This topic provides instructions on how to purchase accessories or additional services.

Accessories

Lenovo has a number of hardware accessories and upgrades to help expand the functionalities of your computer. Accessories include memory modules, storage devices, network cards, power adapters, keyboards, mice, and so on.

To shop at Lenovo, go to:

- For computers purchased in mainland China
<https://www.lenovo.com.cn>
- For computers purchased outside mainland China
<https://www.lenovo.com/accessories>

Additional services

During and after the warranty period, you can purchase additional services from Lenovo at:

- For computers purchased in mainland China
<https://newsupport.lenovo.com.cn>
- For computers purchased outside mainland China
<https://pcsupport.lenovo.com/warrantyupgrade>

Service availability and service names might vary by country or region.

Accessibility features

Lenovo is committed to making information technology accessible to everyone, including individuals with hearing, vision, mobility, cognitive, or speech disabilities. To get the most up-to-date and detailed accessibility features information for the product, go to https://support.lenovo.com/docs/product_accessibility_features.

Appendix A. Supplementary information

This section contains the notice for USB connector name update. The USB Implementers Forum published a revision of the guideline for USB connector names in September, 2022. Lenovo follows the revised guideline and updates USB connector names accordingly. You can refer to the table below for naming update details.

Notice for USB connector name update

Current name	Previous name
USB-A connector (Hi-Speed USB)	USB-A 2.0 connector
USB-A connector (USB 5Gbps)	USB-A 3.2 Gen 1 connector
USB-A connector (USB 10Gbps)	USB-A 3.2 Gen 2 connector
USB-A connector (USB 5Gbps, Always On USB)	Always on USB-A 3.2 Gen 1 connector
USB-A connector (USB 10Gbps, Always On USB)	Always on USB-A 3.2 Gen 2 connector
USB-C connector (USB 5Gbps)	USB-C (3.2 Gen 1) connector
USB-C connector (USB 10Gbps)	USB-C (3.2 Gen 2) connector
USB-C connector (USB 20Gbps)	USB 3.2 Gen 2x2
USB-C connector (USB4 20Gbps)	USB 4 Gen 2x2
USB-C connector (USB4 40Gbps)	USB-C (USB 4) connector
USB-C connector (Thunderbolt 3)	USB-C (Thunderbolt 3) connector
USB-C connector (Thunderbolt 4)	USB-C (Thunderbolt 4) connector

Appendix B. Important notice for Quebec consumers

In regard to section 79.18 of Quebec's Regulation respecting the application of the Consumer Protection Act, Lenovo in no way guarantees the availability of (a) replacement parts; (b) repair services; and (c) information necessary to maintain or repair the goods. For up-to-date information on the technical support and parts available for your purchase, please consult <https://support.lenovo.com/ca/en>.

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Appendix C. Compliance statements

This appendix provides compliance statements that are applicable to your product and contains model-specific information, such as the model name and values determined as part of the conformity assessment procedures. Compliance statements relevant to your product that do not include model-specific information are available in a separate publication titled *General Safety and Compliance Notices*. The PDF version of this publication can be found on the Lenovo Support website.

Korea minimum energy performance standard (MEPS) value

모델명	컴퓨터 유형	연간소비 전력량 (kWh)	슬립모드 소비전력 (W)	오프모드 소비전력 (W)
ThinkCentre X AIO	D	21	2.82	0.59

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