

OVERVIEW



| | |
|----------------------------------|---------------------------------|
| 1. Smart card reader * | 6. HDMI |
| 2. Nano-SIM card slot * | 7. 2x Thunderbolt 4 |
| 3. USB-A (USB 5Gbps) | 8. USB-A (USB 5Gbps), Always On |
| 4. Ethernet (GbE RJ-45) | 9. Headphone jack (3.5mm) |
| 5. Kensington Nano Security Slot | |

- Notes:
- Items with * are only available on selected models

PERFORMANCE

Processor

Processor Family

Intel® H Series Core Ultra 5 / 7 / 9 Processor; supports up to 16 cores; up to 5.1GHz; TDP ratings of up to 55W

Processor**^[1]

| Processor Name | Cores | Threads | Base Frequency | Max Frequency | Cache | Processor Graphics | NPU |
|-------------------|---------------------------------------|---------|---|---|-------|----------------------|-----------------|
| Core Ultra 5 125H | 14 (4 P-core + 8 E-core + 2 LPE-core) | 18 | P-core 1.2GHz / E-core 700MHz / LPE-core 700MHz | P-core 4.5GHz / E-core 3.6GHz / LPE-core 2.5GHz | 18MB | Intel® Arc™ Graphics | Intel® AI Boost |
| Core Ultra 5 135H | 14 (4 P-core + 8 E-core + 2 LPE-core) | 18 | P-core 1.7GHz / E-core 1.2GHz / LPE-core 700MHz | P-core 4.6GHz / E-core 3.6GHz / LPE-core 2.5GHz | 18MB | Intel® Arc™ Graphics | Intel® AI Boost |
| Core Ultra 7 155H | 16 (6 P-core + 8 E-core + 2 LPE-core) | 22 | P-core 1.4GHz / E-core 900MHz / LPE-core 700MHz | P-core 4.8GHz / E-core 3.8GHz / LPE-core 2.5GHz | 24MB | Intel® Arc™ Graphics | Intel® AI Boost |
| Core Ultra 7 165H | 16 (6 P-core + 8 E-core + 2 LPE-core) | 22 | P-core 1.4GHz / E-core 900MHz / LPE-core 700MHz | P-core 5.0GHz / E-core 3.8GHz / LPE-core 2.5GHz | 24MB | Intel® Arc™ Graphics | Intel® AI Boost |
| Core Ultra 9 185H | 16 (6 P-core + 8 E-core + 2 LPE-core) | 22 | P-core 2.3GHz / E-core 1.8GHz / LPE-core 1GHz | P-core 5.1GHz / E-core 3.8GHz / LPE-core 2.5GHz | 24MB | Intel® Arc™ Graphics | Intel® AI Boost |

Notes:

^[1] Intel® Arc™ graphics only available on select H-series Intel® Core™ Ultra processor powered systems with at least 16GB of system memory in a dual-channel configurations, otherwise it will function as Intel® Graphics.

AI (Artificial Intelligence)

NPU

Integrated Intel® AI Boost, up to 11 TOPS

Operating System

Operating System

- Windows® 11 Pro
- Windows® 11 Home
- Windows® 11 Home Single Language
- Ubuntu Linux LTS^[1]
- Red Hat Enterprise Linux 9.2 (certified only, for detailed and latest information, please visit [Red Hat Certified Hardware](#))
- No preload operating system

Notes:

^[1] Ubuntu Linux LTS will be available after August 6th, 2024.

Graphics

Graphics

| Graphics | Type | Memory | TGP | Key Features |
|---|------------|-----------|---------------|--|
| Intel® Arc™ Graphics ^[1] | Integrated | Shared | Share CPU TDP | DirectX® 12.2 |
| Intel® Graphics | Integrated | Shared | Share CPU TDP | DirectX® 12.1 |
| NVIDIA® RTX 500 Ada Generation Laptop GPU | Discrete | 4GB GDDR6 | 35W | DirectX® 12 Ultimate, Vulkan Support, NVIDIA® FXAA / TXAA Anti-Aliasing, NVIDIA® RTX Desktop Manager |

Notes:

[1] Intel® Arc™ graphics only available on select H-series Intel® Core™ Ultra processor powered systems with at least 16GB of system memory in a dual-channel configurations, otherwise it will function as Intel® Graphics.

Monitor Support

Monitor Support

Supports up to 4 independent displays (native display and 3 external monitors via Thunderbolt™ 4 and HDMI®).
Max resolution for multiple external display:
• 3x 3840x2160@60Hz (Thunderbolt™ 4 and HDMI®)
Max resolution for single external display:
• Thunderbolt™ 4 supports up to 7680x4320@60Hz
• HDMI® supports up to 7680x4320@60Hz (with DSC)^[1]

Notes:

[1] 8K (7680x4320@60Hz) support needs 2 display pipes. That is, simultaneous display number will “-1” when 8K resolution displayed.

Chipset

Chipset

Intel® SoC (System on Chip) platform

Memory

Max Memory

Up to 96GB (2x 48GB DDR5 SO-DIMM)

Memory Slots

Two DDR5 SO-DIMM slots, dual-channel capable

Memory Type

DDR5-5600 non-ECC, maximum transfer speeds of up to 5600 MT/s

Storage

Storage Support^[1]

One drive, up to 2TB M.2 2280 SSD

Storage Slot

One M.2 2280 PCIe® 4.0 x4 slot

Storage Type**

| Disk Type | Interface | Offering | Security |
|--------------|---------------------------------------|---------------------|----------|
| M.2 2280 SSD | PCIe® NVMe®, PCIe® 4.0 x4 | 256GB / 512GB / 1TB | Opal 2.0 |
| M.2 2280 SSD | PCIe® NVMe®, PCIe® 4.0 x4 Performance | 512GB / 1TB / 2TB | Opal 2.0 |

Notes:

[1] The storage capacity supported is based on the test results with current Lenovo® storage offerings.

Removable Storage

Card Reader

No card reader

Multi-Media

Audio Chip

High Definition (HD) Audio, Realtek® ALC3287 codec

Speakers

Stereo speakers, 2W x2, Dolby Audio™

Microphone

Dual-microphone array, far-field, Dolby Voice®

Camera**

- 5.0MP + IR with privacy shutter and Ultrasonic Human Presence Detection, fixed focus, temporal noise reduction
- 5.0MP + IR with privacy shutter, fixed focus, temporal noise reduction
- 5.0MP with privacy shutter, fixed focus, temporal noise reduction

Battery

Battery**

- Integrated Li-Polymer 57Wh battery, supports Rapid Charge (charge up to 80% in 1hr)
- Integrated Li-Polymer 75Wh battery, supports Rapid Charge (charge up to 80% in 1hr)

Power Adapter

Power Adapter**^[1]

- 100W USB-C® slim (3-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
- 135W USB-C® slim (3-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
- No power adapter^[2]

Notes:

^[1] AC adapter offerings depend on the country.

^[2] No power adapter is for special bid only.

DESIGN

Display

Display**

| Size | Resolution | Touch | Type | Brightness | Surface | Aspect Ratio | Contrast Ratio | Color Gamut | Refresh Rate | Viewing Angle (L/R/U/D) | Key Features |
|------|--------------------|---------------------|------|------------|------------------------------|--------------|----------------|-------------|--------------|-------------------------|---|
| 16" | WUXGA (1920x1200) | None | IPS | 300nits | Anti-glare | 16:10 | 800:1 | 45% NTSC | 60Hz | 85° / 85° / 85° / 85° | 88% screen to body ratio, DC dimming |
| 16" | WUXGA (1920x1200) | On-cell multi-touch | IPS | 300nits | Anti-glare | 16:10 | 1000:1 | 45% NTSC | 60Hz | 85° / 85° / 85° / 85° | 88% screen to body ratio, Eyesafe® Certified 2.0, TÜV Low Blue Light, DC dimming |
| 16" | WUXGA (1920x1200) | None | IPS | 400nits | Anti-glare | 16:10 | 1200:1 | 100% sRGB | 60Hz | 89° / 89° / 89° / 89° | 88% screen to body ratio, Eyesafe® Certified 2.0, DC dimming |
| 16" | WQUXGA (3840x2400) | None | OLED | 400nits | Anti-reflection, anti-smudge | 16:10 | 100,000:1 | 100% DCI-P3 | 60Hz | 89° / 89° / 89° / 89° | 88% screen to body ratio, Eyesafe® Certified 2.0, TÜV Low Blue Light, Dolby Vision®, DisplayHDR™ True Black 500, X-Rite® Factory Color Calibration, PWM dimming |

Color Calibration

- X-Rite® factory color calibration (WQUXGA display)
- No color calibration

Touchscreen

- On-cell multi-touch, supports 10-point touch (selected WUXGA display)
- Non-touch

Input Device

Pen

No support

Keyboard

6-row, spill-resistant, multimedia Fn keys, numeric keypad, Copilot key

Keyboard Backlight

LED backlight

UltraNav™

3-button TrackPoint® pointing device and glass-like Mylar® surface multi-touch TrackPad, 67.6 x 115 mm (2.66 x 4.53 inches)

Mechanical

Dimensions (WxDxH)^[1]

361.5 x 248.6 x 21.13 mm (14.24 x 9.79 x 0.83 inches)

Weight^[2]

Starting at 1.82 kg (4.01 lbs)

Case Color

Black

Case Material

Aluminium (top), aluminium (bottom)

Notes:

[1] The system dimensions may vary depending on configurations.

[2] The system weight is approximate and based on results in Lenovo® lab, which varies depending on the source of component, variance of the distribution of each component, and manufacturing process. It may not be the exact weight for each specific model.

CONNECTIVITY

Network

Ethernet**

- Gigabit Ethernet, Intel® Ethernet Connection I219-LM (vPro® models), 1x RJ-45, supports Wake-on-LAN
- Gigabit Ethernet, Intel® Ethernet Connection I219-V (non-vPro® models), 1x RJ-45, supports Wake-on-LAN

WLAN + Bluetooth®

Intel® Wi-Fi® 6E AX211, 802.11ax 2x2 Wi-Fi® + Bluetooth® 5.3^[1]

WWAN

- Wireless WAN upgradable to 4G (with antenna ready)
- Quectel EM160R-GL, 4G LTE CAT16, M.2 card, with embedded eSIM functionality
- No support

SIM Card

No physical SIM card inbox

NFC

No support

Notes:

[1] Wi-Fi® 6E full features might be limited by country-level restrictions.

6GHz Wi-Fi® 6E operation is dependent on the support of the operating system, routers/APs/Gateways that support Wi-Fi® 6E, and the regional regulatory certifications & spectrum allocation.

Bluetooth® 5.3 operation requires Windows® 11. For more information please visit [General Bluetooth® Support Information on Microsoft®](#).

Ports^[1]

Standard Ports

- 1x USB-A (USB 5Gbps / USB 3.2 Gen 1)
- 1x USB-A (USB 5Gbps / USB 3.2 Gen 1), Always On
- 2x USB-C® (Thunderbolt™ 4 / USB4® 40Gbps), with USB PD 3.0 and DisplayPort™ 2.1
- 1x HDMI® 2.1, up to 4K/60Hz
- 1x Headphone / microphone combo jack (3.5mm)
- 1x Ethernet (RJ-45)
- 1x Security keyhole

Optional Ports

- 1x Smart card reader
- 1x Nano-SIM card slot (WWAN support models)

Notes:

[1] The transfer speed of the ports will vary and, depending on many factors, such as the processing speed of the host device, file attributes and other factors related to system configuration and your operating environment, will be slower than theoretical speed.

Docking**Docking**

Various docking solutions supported via Thunderbolt™ or USB-C®.

For more compatible docking solutions, please visit

[Docking for ThinkPad® P16s Gen 3](#)

SECURITY & PRIVACY**Security****Security Chip**

Discrete TPM 2.0, TCG certified, FIPS 140-2 certified

Physical Locks

Kensington® Nano Security Slot™, 2.5 x 6 mm

Smart Card Reader

- Smart card reader
- No smart card reader

Fingerprint Reader

Touch style fingerprint reader integrated in power button, match-on-chip

BIOS Security

- Supervisor password
- Power-on password
- NVMe® password
- Self-healing BIOS

Other Security

- (Optional) IR camera for Windows® Hello (facial recognition)
- (Optional) Ultrasonic Human Presence Detection for IR camera
- Camera privacy shutter
- Bottom cover tamper detection

MANAGEABILITY**System Management****System Management**

- Intel® vPro® Enterprise
- Non-vPro®

SERVICE**Warranty****Base Warranty****

- 1-year courier or carry-in service
- 1-year courier or carry-in with 2-year system board service (Korea only)
- 1-year limited onsite service
- 3-year (1-yr battery) courier or carry-in service
- 3-year (1-yr battery) limited onsite service
- No base warranty

ACCESSORIES

Bundled Accessories

Bundled Accessories***

- Lenovo® HDMI® to VGA Monitor Adapter
- Lenovo® USB-C® to DisplayPort™ Adapter
- Lenovo® USB-C® to Ethernet Adapter (1Gbps)
- Lenovo® USB-C® to VGA Adapter

OPERATING REQUIREMENTS

Operating Environment

Temperature^[1]

- Operating: 5°C (41°F) to 35°C (95°F)
- Storage and transportation in original shipping packaging: -20°C (-4°F) to 60°C (140°F)
- Storage without package: 5°C (41°F) to 43°C (109°F)

Relative Humidity

- Operating: 8% to 95% at wet-bulb temperature 23°C (73°F)
- Storage and transportation: 5% to 95% at wet-bulb temperature 27°C (81°F)

Altitude

Maximum altitude (without pressurization): 3048 m (10,000 ft)

Notes:

[1] When you charge the battery, its temperature must be no lower than 10°C (50°F).

ENVIRONMENTAL

Sustainability

Material^[1]

85% PCC recycled plastic used in key caps
98% PCC recycled plastic used in speaker enclosure
97% PCC recycled plastic used in the battery
90% PCC recycled plastic used in 100W and 135W adapters

Notes:

[1] PCC: Post Consumer Content, recycled materials from customers.
FSC: Forest Stewardship Council.

CERTIFICATIONS

Green Certifications^[1]

Green Certifications^[2]

- ENERGY STAR® 8.0
- EPEAT™ Gold Registered
- RoHS compliant
- TCO Certified 9.0

Notes:

[1] The items listed under the "Green Certifications" section may not only refer to certification but also registration or self-

declaration. For ESG & regulatory compliance documents, please visit <https://compliance.lenovo.com>.

[2] EPEAT™ registration and ENERGY STAR® certification are optional and only available on the models with preloaded OS. Please visit epeat.net and energystar.gov for more information.

Other Certifications

Mil-Spec Test

MIL-STD-810H military test passed

Other Certifications

- (Optional) Eyesafe® Certified 2.0
- TÜV Rheinland® Low Blue Light

ISV Certifications

ISV Certifications

Please visit [ISV certifications for Lenovo® Workstations](#)

- Feature with ** means that only one option listed under the feature can be configured on selected models. Please refer to the model configuration for specific information.
- Feature with *** means that one or more options listed under the feature can be configured on selected models. Please refer to the model configuration for specific information.
- Lenovo reserves the right to change specifications or other product information without notice. Lenovo is not responsible for photographic or typographical errors. LENOVO PROVIDES THIS PUBLICATION “AS IS,” WITHOUT WARRANTY OF ANY KIND, EITHER EXPRESS OR IMPLIED, INCLUDING THE IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. Some jurisdictions do not allow disclaimer of express or implied warranties in certain transactions, therefore this disclaimer may not apply to you.
- The specifications on this page may not be available in all regions, and may be changed or updated without notice.

