

OVERVIEW



| | |
|--|----------------------------------|
| 1. USB-C (USB 10Gbps), with PD 3.0 & DP 1.4 | 6. SD card reader |
| 2. USB-A (USB 5Gbps), Always On | 7. USB-A (USB 5Gbps) |
| 3. HDMI | 8. Ethernet (RJ-45) |
| 4. Thunderbolt 4 | 9. Kensington Nano Security Slot |
| 5. Headphone / microphone combo jack (3.5mm) | |

PERFORMANCE

Processor

Processor Family

- Intel® H Series Core Ultra 5 Processor (Series 1)
- Intel® U or H Series Core Ultra 5 / 7 Processor (Series 2)

Processor**

| Processor Name | Cores | Threads | Base Frequency | Max Frequency | Cache | Processor Graphics | NPU | Overall TOPS |
|-------------------|--|---------|--|--|-------------------------|--|--------------------------------|---------------|
| Core Ultra 5 135H | 14 (4 P-core + 8 E-core + 2 LP E-core) | 18 | P-core 1.7GHz / E-core 1.2GHz / LP E-core 700MHz | P-core 4.6GHz / E-core 3.6GHz / LP E-core 2.5GHz | 18MB Intel® Smart Cache | Intel® Arc™ Graphics ^[1] | Intel® AI Boost, up to 11 TOPS | Up to 33 TOPS |
| Core Ultra 5 225H | 14 (4 P-core + 8 E-core + 2 LP E-core) | 14 | P-core 1.7GHz / E-core 1.3GHz / LP E-core 700MHz | P-core 4.9GHz / E-core 4.3GHz / LP E-core 2.5GHz | 18MB Intel® Smart Cache | Intel® Arc™ 130T GPU, up to 63 TOPS ^[2] | Intel® AI Boost, up to 13 TOPS | Up to 83 TOPS |
| Core Ultra 5 225U | 12 (2 P-core + 8 E-core + 2 LP E-core) | 14 | P-core 1.5GHz / E-core 1.3GHz / LP E-core 700MHz | P-core 4.8GHz / E-core 3.8GHz / LP E-core 2.4GHz | 12MB Intel® Smart Cache | Intel® Graphics | Intel® AI Boost, up to 12 TOPS | - |
| Core Ultra 7 255H | 16 (6 P-core + 8 E-core + 2 LP E-core) | 16 | P-core 2.0GHz / E-core 1.5GHz / LP E-core 700MHz | P-core 5.1GHz / E-core 4.4GHz / LP E-core 2.5GHz | 24MB Intel® Smart Cache | Intel® Arc™ 140T GPU, up to 74 TOPS ^[3] | Intel® AI Boost, up to 13 TOPS | Up to 96 TOPS |

Notes:

[1], [2], [3] 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)

AI PC Category

AI PC^[1]

NPU

Integrated Intel® AI Boost, up to 13 TOPS

Notes:

[1] AI PCs have a NPU capable of 10+ TOPs to run the Copilot assistant by pressing the optional Microsoft® Copilot key or using Win + C.

Operating System

Operating System**^[1]

- Windows® 11 Pro
- Windows® 11 Home
- Windows® 11 Home Single Language
- No preload operating system

Notes:

[1] Windows® 11 Pro Education license can be requested for EMEA Education Customers only with limited specs. Any request please contact Lenovo® Sales Representative for more information.

Graphics

Graphics**

| Graphics | Type | Memory | TGP | Key Features |
|-------------------------------------|------------|--------|---------------|---------------|
| Intel® Arc™ 130T GPU ^[1] | Integrated | Shared | Share CPU TDP | DirectX® 12.2 |

| | | | | |
|-------------------------------------|------------|--------|---------------|---------------|
| Intel® Arc™ 140T GPU ^[2] | Integrated | Shared | Share CPU TDP | DirectX® 12.2 |
| Intel® Arc™ Graphics ^[3] | Integrated | Shared | Share CPU TDP | DirectX® 12.2 |
| Intel® Graphics | Integrated | Shared | Share CPU TDP | DirectX® 12.2 |

Notes:

[1], [2], [3] 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^[1]

Supports up to 4 independent displays (native display and 3 external monitors via HDMI®, USB-C® and Thunderbolt™)

- HDMI® supports up to 4096x2160@60Hz
- USB-C® supports up to 5120x2880@60Hz
- Thunderbolt™ supports up to 5120x2880@60Hz

Notes:

[1] Refresh rates >60hz also supported, however max resolution will be limited.

Chipset

Chipset

Intel® SoC (System on Chip) platform

Memory

Max Memory^[1]

Up to 64GB DDR5-5600

Memory Slots

Two DDR5 SODIMM slots, dual-channel capable

Memory Type

DDR5-5600

Notes:

[1] The max memory is based on the technical readiness of the system. Available memory to sell would vary.

Storage

Max Storage Support^[1]

Up to two drives, 2x M.2 SSD

- M.2 2280 SSD up to 2TB each

Storage Slot^[2]

Two M.2 2280 PCIe® 4.0 x4 slots

Storage Type

| Disk Type | Interface | Offering |
|--------------|---------------------------|---------------------|
| M.2 2242 SSD | PCIe® NVMe®, PCIe® 4.0 x4 | 256GB / 512GB / 1TB |

Notes:

[1] The system supports dual SSD via two M.2 slots, but Lenovo® offers only one SSD configuration with a second slot for user self-expansion.

The max storage capacity is only technical readiness and may be different from current Lenovo® storage offerings.

[2] The actual data transfer rate of the following PCIe® interface also depends on the capabilities of the connected PCIe® device. The listed values represent theoretical maximums.

PCIe® 3.0 (x2 / x4): 2 GB/s (16 Gbps) / 4 GB/s (32 Gbps);

PCIe® 4.0 (x2 / x4): 4 GB/s (32 Gbps) / 8 GB/s (64 Gbps);

PCIe® 5.0 (x2 / x4): 8 GB/s (64 Gbps) / 16 GB/s (128 Gbps).

Removable Storage

Card Reader

SD card reader

Multi-Media

Audio Chip

High Definition (HD) Audio, Realtek® ALC3287 codec

Speakers

Stereo speakers, 2W x2, Dolby Audio™

Microphone

Dual-microphone array with smart noise-cancelling

Camera**

- FHD 1080p + IR hybrid, with privacy shutter, fixed focus
- FHD 1080p, with privacy shutter, fixed focus

Battery

Battery**

- 45Wh Rechargeable Li-ion Battery, supports Rapid Charge Pro (charge up to 50% in 30min)
- 71Wh Rechargeable Li-ion Battery, supports Rapid Charge (charge up to 80% in 1hr) with 100W AC adapter

Max Battery Life^[1]

- Models with 45Wh battery:
MobileMark® 30@250nits: 7.7 hr
Local video (1080p) playback@150nits: 13.1 hr
- Models with 71Wh battery:
MobileMark® 30@250nits: 14 hr
Local video (1080p) playback@150nits: 19.5 hr

Notes:

[1] All battery life claims are approximate maximum and based on results using the MobileMark® 2014, MobileMark® 2018, MobileMark® 25, MobileMark® 30, JEITA 2.0, JEITA 3.0, continuous 1080p video playback (with 150nits brightness and default volume level) or Google Power Load Test (PLT) battery-life benchmark tests. Actual battery life will vary depending on many factors such as product configuration and usage, software use, wireless functionality, power management settings, and screen brightness. The maximum capacity of the battery will decrease with time and use.

Power Adapter

Power Adapter**^[1]

- 65W USB-C® (3-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
- 65W USB-C® slim (2-pin, wall-mount) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
- No power adapter

Notes:

[1] AC adapter offerings depend on the country.

Special Features

Special Features

Modern Standby

DESIGN

Display

Display**^[1]

| 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) | Multi-touch | IPS ^[2] | 300nits | Anti-glare | 16:10 | 1000:1 | 45% NTSC | 60Hz | 89° / 89° / 89° / 89° | TÜV Low Blue Light (Software) |
| 16" | WUXGA | Non- | IPS ^[3] | 300nits | Anti- | 16:10 | 1000:1 | 45% | 60Hz | 89° / 89° / | TÜV Low |

| | | | | | | | | | | | |
|-----|----------------------|-----------|--------------------|---------|------------|-------|--------|--------------|-------|--------------------------|------------------------------------|
| | (1920x1200) | touch | | | glare | | | NTSC | | 89° / 89° | Blue Light (Software) |
| 16" | WQXGA (2560x1600) | Non-touch | IPS ^[4] | 400nits | Anti-glare | 16:10 | 1200:1 | 100% sRGB | 120Hz | 89° / 89° / 89° / 89° | Eyesafe® Certified 2.0, TCON |

Touchscreen

- In-cell multi-touch, supports 10-point touch
- Non-touch

Screen-to-Body Ratio

90%

Color Calibration

- TCON (Timing Controller) color calibration
- No color calibration

Notes:

[1] WQXGA display is available exclusively in Korea.
[2], [3], [4] IPS (in-plane switching) technology may refer to IPS, PLS, ADS, AHVA, AAS.

Input Device

Pen

No support

Keyboard

6-row, spill-resistant, multimedia Fn keys, numeric keypad, key travel 1.5mm, Copilot key

Keyboard Backlight

- LED backlight
- Non-backlight

Touchpad

Buttonless Mylar® surface multi-touch touchpad, supports Precision TouchPad (PTP), 75 x 120 mm (2.95 x 4.72 inches)

Mechanical

Dimensions (WxDxH)^[1]

356 x 253.5 x 17.5 mm (14.01 x 9.98 x 0.69 inches)

Weight^[2]

Starting at 1.7 kg (3.75 lbs)

Case Color

Arctic grey, dual-tone design

Case Material

Aluminium (top), PC-ABS (bottom)

Surface Treatment

Anodizing sandblasting (top), texture (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

WLAN + Bluetooth®**^[1]

- Wi-Fi® 6, 802.11ax 2x2 Wi-Fi® + Bluetooth® 5.2, M.2 card
- Intel® Wi-Fi® 6 AX203, 802.11ax 2x2 Wi-Fi® + Bluetooth® 5.2, M.2 card
- Wi-Fi® 6E, 802.11ax 2x2 Wi-Fi® + Bluetooth® 5.3, M.2 card

- Intel® Wi-Fi® 6E AX211, 802.11ax 2x2 Wi-Fi® + Bluetooth® 5.3, M.2 card

WWAN

No support

Ethernet^[2]

Gigabit Ethernet, 1x RJ-45, supports Wake-on-LAN

Notes:

[1] Wi-Fi® operation (including Wi-Fi® 6, Wi-Fi® 6E, Wi-Fi® 7, etc.) is subject to the regulatory requirements of each country. Bluetooth® may operate at a lower version than hardware design depending on the factors such as operating system, driver, etc.

[2] Wake-on-LAN needs the power adapter plugged in.

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
- 1x USB-C® (USB 10Gbps / USB 3.2 Gen 2), with USB PD 3.0 and DisplayPort™ 1.4
- 1x 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 SD card reader

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 ThinkBook® 16 G8 IAL](#)

SECURITY & PRIVACY

Security

Security Chip

Firmware TPM 2.0 integrated in SoC

Physical Locks

Kensington® Nano Security Slot™, 2.5 x 6 mm

Fingerprint Reader

- Touch style fingerprint reader integrated in power button, match-on-chip
- No fingerprint reader

BIOS Security

- Hard disk password
- Power-on password
- Supervisor password
- User password
- Self-healing BIOS
- More BIOS security features, please visit [BIOS Simulator^{\[1\]}](#)

Other Security

- Camera privacy shutter
- (Optional) IR camera for Windows® Hello (facial recognition)

Notes:

[1] The BIOS simulator is just for reference. Default settings and some options may vary depending on the hardware, operating system and BIOS version.

MANAGEABILITY

System Management

System Management

Non-vPro®

SERVICE

Warranty

Base Warranty**

- 1-year courier or carry-in service
- 2-year (1-yr battery) courier or carry-in service
- No base warranty

ACCESSORIES

Bundled Accessories

Bundled Accessories^[1]

- Lenovo® 15.6" laptop casual toplayer, polyester
- None

Notes:

[1] For more compatible accessory solutions, please visit [Accessories for ThinkBook® 16 G8 IAL](#).

OPERATING REQUIREMENTS

Operating Environment

Temperature^[1]

- At altitudes up to 2438 m (8,000 ft)
 - Operating: 5°C to 35°C (41°F to 95°F)
 - Storage: 5°C to 43°C (41°F to 109°F)
- At altitudes above 2438 m (8,000 ft)
 - Maximum temperature when operating under the unpressurized condition: 31.3°C (88°F)

Relative Humidity

- Operating: 8% to 95% at wet-bulb temperature 23°C (73°F)
- Storage: 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]

15% PCC recycled plastic used in the cover frame
25% PCC recycled plastic used in the battery frame
50% PCC recycled plastic used in keycaps
30% PCC recycled plastic used in speaker
90% PCC recycled plastic used in standard 65W adapter
FSC certified content in carton box and accessory box
Dry pressed pulp cushion
Bamboo fiber bag (for NA / EMEA)
Bamboo fiber screen sheet

90% recycled content in OBP bag

Notes:

[1] PCC: Post Consumer Content, recycled materials from customers.

CERTIFICATIONS

Green Certifications^[1]

Green Certifications^[2]

- ENERGY STAR® 9.0
- EPEAT™ Gold Registered^[3]
- ErP Lot 6/26
- RoHS compliant
- TCO Certified, generation 10

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.

[3] EPEAT™ is registered where applicable, please visit epeat.net for registration status by country.

Other Certifications

Mil-Spec Test

MIL-STD-810H military test passed

Other Certifications

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

- 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.

- 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.

