OVERVIEW



1. SD card reader	5. Kensington Nano Security Slot
2. HDMI	6. USB-C 3.2 Gen 2
3. Power connector	7. Thunderbolt 4
4. 2x USB 3.2 Gen 2	8. Headphone / microphone combo jack (3.5mm)

ThinkBook 16p G4 IRH

PERFORMANCE

Processor

Processor Family

13th Generation Intel® Core™ i5 / i7 / i9 Processor

Processor**

Processor Name	Cores	Threads	Max Frequency	Cache	Processor Graphics
Core i5-13500H	12 (4 P-core + 8 E-core)	16	P-core 4.7GHz / E-core 3.5GHz	18MB	Intel Iris® Xe Graphics
Core i7-13700H	14 (6 P-core + 8 E-core)	20	P-core 5.0GHz / E-core 3.7GHz	24MB	Intel Iris Xe Graphics
Core i9-13900H	14 (6 P-core + 8 E-core)	20	P-core 5.4GHz / E-core 4.1GHz	24MB	Intel Iris Xe Graphics

Operating System

Operating System**[1]

- Windows[®] 11 Pro
- Windows 11 Home
- Windows 11 Home Single Language
- No operating system

Notes:

1. Some features may not be supported on the system with Linux preload, including but not limited to Intel RST RAID, MIPI computer vision camera, WWAN, Human Presence Detection, etc.

Graphics

Graphics**

Graphics	Туре	Memory	Boost Clock	TGP	Key Features
NVIDIA® GeForce RTX™ 4050 Laptop GPU	Discrete	6GB GDDR6	2370 MHz	115W	DLSS 3, Resizable BAR, Dynamic Boost 2.0, VR ready, DirectX® 12 Ultimate
NVIDIA GeForce RTX 4060 Laptop GPU ^[1]	Discrete	8GB GDDR6	2370 MHz	115W	Advanced Optimus, DLSS 3, Resizable BAR, Dynamic Boost 2.0, VR ready, DirectX 12 Ultimate

Notes:

1. The feature Advance Optimus only applies to the 3.2K display.

Monitor Support

Monitor Support

Supports up to 4 independent displays (native display and 3 external monitors via HDMI®, USB-C® and Thunderbolt™) • HDMI supports up to 7680x4320@60Hz

- USB-C supports up to 5120x3200@60Hz
- Thunderbolt supports up to 5120x3200@60Hz

Chipset

Chipset

Intel SoC (System on Chip) platform

Memory

Max Memory^[1]

Up to 32GB DDR5-5200 offering

Memory Slots

Two DDR5 SO-DIMM slots, dual-channel capable

Memory Type

DDR5-5200

Notes:

1. The max memory is based on the test results with current Lenovo® memory offerings. The system may support more memory as the

technology develops.

Storage

Storage Support^{[1][2]}

Up to two drives, 2x M.2 SSD

• M.2 2280 SSD up to 1TB

Storage Slot

Two M.2 slots

- One M.2 2242 PCIe® 4.0 x4 slot
- One M.2 2280 PCIe 4.0 x4 slot

Storage Type

Disk Type	Interface	Offering	
M.2 2280 SSD	PCIe NVMe®, PCIe 4.0 x4	512GB / 1TB	

Notes:

- 1. The storage capacity supported is based on the test results with current Lenovo storage offerings. The system may support larger storage as the technology develops.
- 2. The system supports dual SSD via two M.2 slots, but Lenovo only offers one SSD configuration, another SSD slot for user selfextension.

Removable Storage

Card Reader

SD Express 7.0 card reader

Multi-Media

Audio Chip

High Definition (HD) Audio, Realtek® ALC3306-CG codec

Speakers

Stereo speakers, 2W x2 woofers and 2W x2 tweeters, Dolby® Atmos®, sound by harman/kardon, Smart Amplifier (AMP)

Microphone

Dual-microphone array with noise-cancelling

Camera

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

Sensor

Sensors

Ambient light sensor (ALS)

Battery

Battery

Integrated Li-Polymer 80Wh battery, supports Rapid Charge Pro (charge up to 50% in 30min)

Max Battery Life^[1]

MobileMark® 2018: 10.5 hr Local video (1080p) playback@150nits: 18 hr

Notes:

1. All battery life claims are approximate maximum and based on results using the MobileMark 2014, MobileMark 2018, JEITA 2.0, 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 and depends 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]

230W slim tip (3-pin) AC adapter, 100-240V, 50-60Hz

Notes:

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1. AC adapter offerings depend on the country.

Special Features

Special Features

AI Chip: LA2-Q

DESIGN

Display

Display**[1]

Size	Resolution	Touch	Туре	Brightness	Surface	Aspect Ratio	Contrast Ratio	Color Gamut	Viewing Angle (L/R/U/D)	Key Features
16″	2.5K WQXGA (2560x1600)	None	IPS	400 nits	Anti- glare	16:10	1200:1	100% sRGB	89°/89°/89°/89°	Refresh rate 60Hz, smart sense panel, X-Rite® factory color calibration (average ∆E<2), Dolby Vision™, Eyesafe®
16″	3.2K (3200x2000)	None	IPS	430 nits	Anti- glare	16:10	1200:1	100% DCI-P3	89°/89°/85°/85°	Refresh rate 165Hz, Advanced Optimus, smart sense panel, X-Rite factory color calibration (average ΔE<2), Dolby Vision, Eyesafe

Color Calibration

X-Rite factory color calibration

Touchscreen

Non-touch

Notes:

 California Electronic Waste Recycling Fee In California USA, per state law, Lenovo charges an electronic waste recycling fee on this covered device at the time of sale of the product. For more information, please go to https://www.calrecycle.ca.gov/Electronics/Consumer

Input Device

Keyboard

6-row, spill-resistant, multimedia Fn keys, SMB Service Hot key, numeric keypad

Keyboard Backlight

Smart sense keyboard backlight

Touchpad

Buttonless glass surface multi-touch touchpad, supports Precision TouchPad (PTP), 80 x 135 mm (3.15 x 5.31 inches)

Mechanical

Dimensions (WxDxH)^[1]

354.6 x 255 x 19.9 mm (13.96 x 10.04 x 0.78 inches)

Weight^[2]

Around 2.2 kg (4.85 lbs)

Case Color

Storm grey, dual-tone design

Surface Treatment

Anodizing sandblasting

Case Material

Aluminium (top), aluminium (bottom)

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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

No onboard Ethernet

WLAN + Bluetooth®**[1][2]

- Wi-Fi[®] 6, 802.11ax 2x2 Wi-Fi + Bluetooth 5.1, M.2 card
- Wi-Fi 6E, 802.11ax 2x2 Wi-Fi + Bluetooth 5.1, M.2 card

Notes:

- 1. Bluetooth 5.2 is hardware ready but may run at a lower version due to OS limitations.
- 2. 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.

Ports^{III}

Standard Ports

- 2x USB 3.2 Gen 2
- 1x USB-C 3.2 Gen 2 (support data transfer, Power Delivery 3.0 and DisplayPort™ 1.4)
- 1x Thunderbolt 4 / USB4[®] 40Gbps (support data transfer, Power Delivery 3.0 and DisplayPort 1.4)
- 1x HDMI, up to 8K/60Hz
- 1x SD card reader
- 1x Headphone / microphone combo jack (3.5mm)
- 1x Power connector

Optional Ports

1x Magic Bay (pogo pin connector)

Notes:

- 1. The transfer speed of following 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. USB 2.0: 480 Mbit/s;
- USB 3.2 Gen 1 (SuperSpeed USB 5Gbps, formerly USB 3.0 / USB 3.1 Gen 1): 5 Gbit/s;
- USB 3.2 Gen 2 (SuperSpeed USB 10Gbps, formerly USB 3.1 Gen 2): 10 Gbit/s;
- USB4 20Gbps / USB 3.2 Gen 2x2 (SuperSpeed USB 20Gbps): 20 Gbit/s;
- USB4 40Gbps (USB 40Gbps): 40 Gbit/s;

Thunderbolt 3/4: 40 Gbit/s

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

BIOS Security

- Power-on password
- Supervisor password
- Hard disk password
- Self-healing BIOS

Other Security

- Camera privacy shutter
- IR camera for Windows Hello

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SERVICE

Warranty^[1]

Base Warranty**

- 1-year courier or carry-in service
- 2-year (1-yr battery) courier or carry-in service

Notes:

1. The warranty upgrades may be bundled with some models, please check the "Included upgrade" column in the specific model's configurations. For more service extensions, please go to <u>https://smartfind.lenovo.com/</u>. To learn more details of warranty policy, please access <u>https://pcsupport.lenovo.com/warranty</u>.

ENVIRONMENTAL

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)

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).

ACCESSORIES

Bundled Accessories

Bundled Accessories

- Lenovo Magic Bay Light
- None

CERTIFICATIONS

Green Certifications^{III}

Green Certifications^[2]

- FSC certified package
- EPEAT[™] Gold Registered
- ENERGY STAR® 8.0
- ErP Lot 6
- ErP Lot 26
- TCO Certified 9.0
- RoHS compliant
- Low-VOC

Notes:

The items listed under the "Green Certifications" section may not only refer to certification but also registration or self-declaration.
 EPEAT is registered where applicable, please see https://www.epeat.net for registration status by country.

Other Certifications

Mil-Spec Test

MIL-STD-810H military test passed

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Other Certifications

- Eyesafe Certified 2.0
- TÜV Rheinland[®] Low Blue Light (Hardware Solution)
- Feature with ** means that only one offering listed under the feature is configured on selected models.
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