## **OVERVIEW**



1. SD card reader	6. USB 3.2 Gen 1 (Always On)
2. USB 3.2 Gen 1	7. HDMI
3. Ethernet (RJ-45)	8. Thunderbolt 4
4. Kensington Nano Security Slot	9. Headphone / microphone combo jack (3.5mm)
5. USB-C 3.2 Gen 2	

## ThinkBook 16 G6 IRL

## PERFORMANCE

## Processor

### **Processor Family**

13th Generation Intel $^{\rm e}$  U, P or H Series Core i3 / i5 / i7 Processor

### Processor\*\*

Processor Name	Cores	Threads	Base Frequency	Max Frequency	Cache	Processor Graphics
Core i3-1315U	6 (2 P-core + 4 E- core)	8	P-core 1.2GHz / E-core 0.9GHz	P-core 4.5GHz / E-core 3.3GHz	10MB	Intel® UHD Graphics
Core i5-1335U	10 (2 P-core + 8 E-core)	12	P-core 1.3GHz / E-core 0.9GHz	P-core 4.6GHz / E-core 3.4GHz	12MB	Intel <sup>®</sup> Iris <sup>®</sup> Xe Graphics <sup>[1]</sup>
Core i5-1340P	40P 12 (4 P-core + 8 E-core) 16 P-core 1.9GHz / E-core 1.4GHz		P-core 4.6GHz / E-core 3.4GHz	12MB	Intel <sup>®</sup> Iris <sup>®</sup> Xe Graphics <sup>[2]</sup>	
Core i5- 13420H	8 (4 P-core + 4 E- core)	12	P-core 2.1GHz / E-core 1.5GHz	P-core 4.6GHz / E-core 3.4GHz	12MB	Intel® UHD Graphics
Core i5- 13500H	12 (4 P-core + 8 E-core) 16 P-core 2.6GHz / E-core 1.9GHz		P-core 2.6GHz / E-core 1.9GHz	P-core 4.7GHz / E-core 3.5GHz	18MB	Intel® Iris® Xe Graphics <sup>[3]</sup>
Core i7-1355U			P-core 1.7GHz / E-core 1.2GHz	/ E-core P-core 5.0GHz / E-core 3.7GHz		Intel® Iris® Xe Graphics <sup>[4]</sup>
Core i7-1360P	7-1360P 12 (4 P-core + 8 E-core) 16 P-core 2.2GHz / E-core 1.6GHz		P-core 5.0GHz / E-core 3.7GHz		Intel <sup>®</sup> Iris <sup>®</sup> Xe Graphics <sup>[5]</sup>	
Core i7- 13700H	14 (6 P-core + 8 E-core)			P-core 5.0GHz / E-core 3.7GHz	24MB	Intel® Iris® Xe Graphics <sup>[6]</sup>

Notes:

[1], [2], [3], [4], [5], [6] Intel<sup>®</sup> Iris<sup>®</sup> Xe Graphics capability requires system to be configured with dual-channel memory. On the system with single-channel memory, Intel<sup>®</sup> Iris<sup>®</sup> Xe Graphics will function as Intel<sup>®</sup> UHD Graphics.

## **Operating System**

#### **Operating System**\*\*

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

## Graphics

#### Graphics\*\*

Graphics	Туре	Memory	TGP	Key Features	
Intel <sup>®</sup> UHD Graphics	Integrated	Shared	Share CPU TDP	DirectX® 12.1	
Intel <sup>®</sup> Iris <sup>®</sup> Xe Graphics <sup>[1]</sup>	Integrated	Shared	Share CPU TDP	DirectX® 12.1	

Notes:

[1] Intel<sup>®</sup> Iris<sup>®</sup> Xe Graphics capability requires system to be configured with dual-channel memory. On the system with single-channel memory, Intel<sup>®</sup> Iris<sup>®</sup> Xe Graphics will function as Intel<sup>®</sup> UHD Graphics.

## **Monitor Support**

#### **Monitor Support**

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

- HDMI<sup>®</sup> supports up to 3840x2160@60Hz
- USB-C<sup>®</sup> supports up to 5120x3200@60Hz
  Thunderbolt<sup>™</sup> supports up to 5120x3200@60Hz

## Chipset

#### Chipset

Intel® SoC (System on Chip) platform

## Memory

Max Memory<sup>[1]</sup>

Up to 64GB DDR5-5200

#### **Memory Slots**

Two DDR5 SO-DIMM slots, dual-channel capable

#### Memory Type

DDR5-5200

Notes:

[1] Maximum memory is only to test technical readiness of notebook. Available memory to sell would vary.

## Storage

#### Storage Support<sup>[1]</sup>

Up to two drives, 2x M.2 SSD • M.2 2242 SSD up to 1TB • M.2 2280 SSD up to 2TB

Storage Slot

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

Notes:

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

## **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
- HD 720p, with privacy shutter, fixed focus

## Battery

## Battery\*\*

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

## Max Battery Life<sup>[1]</sup>

 Models with 45Wh battery: MobileMark® 2018: 9.15 hr MobileMark® 25: 8.0 hr Local video (1080p) playback@150nits: 14.43 hr

## ThinkBook 16 G6 IRL

 Models with 71Wh battery: MobileMark® 2018: 13.48 hr MobileMark® 25: 11.82 hr Local video (1080p) playback@150nits: 17.72 hr

#### Notes:

[1] All battery life claims are approximate maximum and based on results using the MobileMark<sup>®</sup> 2018, MobileMark<sup>®</sup> 25, 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<sup>®</sup> (3-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
- 65W USB-C<sup>®</sup> slim (wall-mount) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
- 100W USB-C<sup>®</sup> slim (3-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz

#### Notes:

[1] AC adapter offerings depend on the country.

#### **Special Features**

#### **Special Features**

Modern Standby

## DESIGN

### Display

Display\*\*[1]

Size	Resolution	Touch	Туре	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	1000:1	45% NTSC	60Hz	89° / 89° / 89° / 89°	TÜV Low Blue Light (Software)
16″	WUXGA (1920x1200)	None	IPS	300nits	Anti- glare	16:10	1200:1	100% sRGB	60Hz	89° / 89° / 89° / 89°	Eyesafe® Certified 2.0
16″	WUXGA (1920x1200)	Multi- touch	IPS	300nits	Anti- glare	16:10	1000:1	45% NTSC	60Hz	89° / 89° / 89° / 89°	TÜV Low Blue Light (Software)
16″	WQXGA (2560x1600)	None	IPS	350nits	Anti- glare	16:10	1200:1	100% sRGB	60Hz	89° / 89° / 89° / 89°	Eyesafe® Certified 2.0
16″	WQXGA (2560x1600)	None	IPS	350nits	Anti- glare	16:10	1200:1	100% sRGB	120Hz	89° / 89° / 89° / 89°	Eyesafe® Certified 2.0

#### Touchscreen

• On-cell multi-touch, supports 10-point touch

• Non-touch

Notes:

[1] 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

#### 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)<sup>[1]</sup>

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

#### Weight<sup>[2]</sup>

Starting at 1.7 kg (3.75 lbs)

#### Case Color

Arctic grey, dual-tone design

#### Surface Treatment

Anodizing sandblasting

#### Case Material

Aluminium (top), PC-ABS (bottom)

#### Notes:

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

[2] The system weight is approximate and based on results in Lenovo<sup>®</sup> 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\*\*[1]

- Gigabit Ethernet, Intel<sup>®</sup> Ethernet Connection I219-LM (vPro<sup>®</sup> 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®\*\*[2]

- Wi-Fi<sup>®</sup> 6, 802.11ax 2x2 Wi-Fi<sup>®</sup> + Bluetooth<sup>®</sup> 5.2, M.2 card<sup>[3]</sup>
- Wi-Fi<sup>®</sup> 6E, 802.11ax 2x2 Wi-Fi<sup>®</sup> + Bluetooth<sup>®</sup> 5.3, M.2 card<sup>[4]</sup>

#### WWAN

No support

#### Notes:

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

[2] Bluetooth® may operate at a lower version than hardware design depending on the factors such as operating system, driver, etc.

[3] Wi-Fi<sup>®</sup> 6 full features might be limited by country-level restrictions.

[4] Wi-Fi<sup>®</sup> 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.

## **Ports**

#### **Standard Ports**

- 1x USB 3.2 Gen 1
- 1x USB 3.2 Gen 1 (Always On)
- 1x USB-C<sup>®</sup> 3.2 Gen 2 (support data transfer, Power Delivery 3.0 and DisplayPort<sup>™</sup> 1.4)
- 1x Thunderbolt<sup>™</sup> 4 / USB4<sup>®</sup> 40Gbps (support data transfer, Power Delivery 3.0 and DisplayPort<sup>™</sup> 1.4)
- 1x HDMI<sup>®</sup> 2.1, up to 4K/60Hz
- 1x Headphone / microphone combo jack (3.5mm)
- 1x Ethernet (RJ-45)
- 1x SD card reader

## Docking

#### Docking

Various docking solutions supported via Thunderbolt™ or USB-C<sup>®</sup>. For more compatible docking solutions, please visit <u>Docking for ThinkBook<sup>®</sup> 16 G6 IRL</u>

## **SECURITY & PRIVACY**

## Security

#### Security Chip

Firmware TPM 2.0 integrated in SoC

#### **Physical Locks**

Kensington<sup>®</sup> Nano Security Slot<sup>™</sup>, 2.5 x 6 mm

#### Fingerprint Reader

Touch style fingerprint reader integrated in smart power button

#### **BIOS Security**

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

#### Other Security

- Camera privacy shutter
- (Optional) IR camera for Windows<sup>®</sup> Hello (facial recognition)

## MANAGEABILITY

## **System Management**

#### System Management

- Intel<sup>®</sup> vPro<sup>®</sup> Essentials<sup>[1]</sup>
- Non-vPro®

Notes:

[1] Intel<sup>®</sup> vPro<sup>®</sup> offers a superset of DASH's defined capabilities.

## 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<sup>[1]</sup>

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

Notes:

[1] For more compatible accessory solutions, please visit Accessories for ThinkBook® 16 G6 IRL.

# **OPERATING REQUIREMENTS**

## **Operating Environment**

#### Temperature<sup>[1]</sup>

- 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<sup>[1]</sup>

25% PCC recycled plastic used in the battery pack enclosure 50% PCC recycled plastic used in key caps 90% PCC recycled plastic used in standard 65W and 100W adapter 95% recycled content in PIC cushion 30% recycled content in OBP bag FSC certified content in carton box

Notes:

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

## CERTIFICATIONS

## **Green Certifications**<sup>III</sup>

#### Green Certifications<sup>[2]</sup>

- ENERGY STAR® 8.0
- EPEAT<sup>™</sup> Gold Registered<sup>[3]</sup>
- ErP Lot 6/26
- FSC certified package
- RoHS compliant
- TCO Certified 9.0<sup>[4]</sup>

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 <u>https://compliance.lenovo.com</u>.

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

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

[4] TCO certification is NOT available in India and Brazil.

## **Other Certifications**

#### Mil-Spec Test

MIL-STD-810H military test passed

#### **Other Certifications**

- (Optional) Intel® Evo™ Platform
- (Optional) Eyesafe® Certified 2.0
- (Optional) TÜV Rheinland® Low Blue Light (Hardware Solution)

## ThinkBook 16 G6 IRL

Lenovo

- (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.
- 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.
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