# **OVERVIEW**



1. Ethernet (RJ-45)	7. Headphone / microphone combo jack (3.5mm)
2. USB-C (USB 20Gbps), with USB PD 3.0 & DP 1.4	8. USB-A (Hi-Speed USB)
3. Thunderbolt 4	9. USB-A (USB 5Gbps)
4. HDMI	10. Kensington Nano Security Slot
5. USB-A (USB 5Gbps), Always On	11. Nano-SIM card slot (WWAN model) *
6. Smart card reader *	

Notes:

• Items with \* are only available on selected models

# ThinkPad L16 Gen 1 (Intel)

# **Product Specifications**

# PERFORMANCE

### **Processor**

#### **Processor Family**

Intel<sup>®</sup> U or H Series Core<sup>™</sup> Ultra 5 / 7 Processor (Series 1)

#### Processor\*\*

Processor Name	Cores	Threads	Base Frequency	Max Frequency	Cache	Processor Graphics	AI Engine
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 <sup>[1]</sup>	Intel® AI Boost
Core™ Ultra 5 125U	12 (2 P-core + 8 E-core + 2 LPE- core)	14	P-core 1.3GHz / E-core 800MHz / LPE-core 700MHz	P-core 4.3GHz / E-core 3.6GHz / LPE-core 2.1GHz	12MB	Intel® Graphics	Intel® AI Boost
Core™ Ultra 5 135U	12 (2 P-core + 8 E-core + 2 LPE- core)	14	P-core 1.6GHz / E-core 1.1GHz / LPE-core 700MHz	P-core 4.4GHz / E-core 3.6GHz / LPE-core 2.1GHz	12MB	Intel® 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 <sup>[2]</sup>	Intel® AI Boost
Core™ Ultra 7 155U	12 (2 P-core + 8 E-core + 2 LPE- core)	14	P-core 1.7GHz / E-core 1.2GHz / LPE-core 700MHz	P-core 4.8GHz / E-core 3.8GHz / LPE-core 2.1GHz	12MB	Intel® Graphics	Intel® AI Boost
Core™ Ultra 7 165U	12 (2 P-core + 8 E-core + 2 LPE- core)	14	P-core 1.7GHz / E-core 1.2GHz / LPE-core 700MHz	P-core 4.9GHz / E-core 3.8GHz / LPE-core 2.1GHz	12MB	Intel® Graphics	Intel® AI Boost

#### Notes:

[1], [2] Intel® Arc<sup>™</sup> Graphics only available on select H-series Intel® Core<sup>™</sup> Ultra processor powered systems with at least 16GB of system memory in a dual-channel configurations, otherwise it will function as Intel® Graphics.

# **Operating System**

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

- Windows<sup>®</sup> 11 Pro
- Windows® 11 Home
- Windows<sup>®</sup> 11 Home Single Language
- Windows® 11 DG Windows® 10 Pro 64<sup>[1]</sup>
- Linux<sup>[2]</sup>
- Ubuntu Linux<sup>[3]</sup>
- No preload operating system

Notes:

[1] Windows<sup>®</sup> 11 DG Windows<sup>®</sup> 10 Pro 64 is for special bid only.

[2], [3] 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	TGP	Key Features
Intel®	<sup>®</sup> Arc <sup>™</sup> Graphics <sup>[1]</sup>	Integrated	Shared	Share CPU TDP	DirectX® 12.1
Intel®	<sup>®</sup> Graphics	Integrated	Shared	Share CPU TDP	DirectX® 12.1

#### 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 HDMI®, USB-C® and Thunderbolt™)

- HDMI<sup>®</sup> supports up to 4K@60Hz
- USB-C<sup>®</sup> supports up to 5K@120Hz
- Thunderbolt™ supports up to 8K@60Hz

# Chipset

### Chipset

Intel<sup>®</sup> SoC (System on Chip) platform

### Memory

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

Up to 64GB DDR5-5600

#### **Memory Slots**

Two DDR5 SO-DIMM slots, dual-channel capable

### Memory Type

DDR5-5600

#### Notes:

[1] The max memory is based on the test results with current Lenovo® memory offerings.

# Storage

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

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	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, Senary SN6147 codec

Speakers

Stereo speakers, 2W x2, Dolby® Audio™

### Microphone

Dual-microphone array, far-field, Dolby<sup>®</sup> Voice<sup>®</sup>

#### Camera\*\*

- 5.0MP + IR discrete, with privacy shutter, fixed focus
- HD 720p, with privacy shutter, fixed focus

# **Battery**

#### Battery\*\*

• Integrated Li-Polymer 46.5Wh battery, supports Rapid Charge (charge up to 80% in 1hr) with 65W AC adapter

# ThinkPad L16 Gen 1 (Intel)

Lenovo Product Specifications Reference

PSREF

• Integrated Li-Polymer 57Wh battery, supports Rapid Charge (charge up to 80% in 1hr) with 65W AC adapter

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

Configuration 1 (max battery life) MobileMark® 25: up to 13.68 hr with 722 performance score @250nits JEITA-BAT 3.0 (Video/Idle): up to 12.56 hr / 24.65 hr @200nits Local video playback: up to 25.2 hr @150nits

Alternate configuration 2 MobileMark® 25: up to 12.3 hr with 625 performance score @250nits JEITA-BAT 3.0 (Video/Idle): up to 12.39 hr / 27.4 hr @200nits Local video playback: up to 22.91 hr @150nits

Alternate configuration 3 MobileMark® 25: up to 6.18 hr with 566 performance score @250nits JEITA-BAT 3.0 (Video/Idle): up to 6.23 hr / 13 hr @200nits Local video playback: up to 11.8 hr @150nits

#### Notes:

[1] Configuration 1 (max battery life): WUXGA (non-touch), Intel® Core™ Ultra 5 125U, 8GB DDR5, Win 11, 57Wh battery, best power efficiency power mode

Alternate configuration 2: WUXGA (non-touch), Intel® Core™ Ultra 5 125H, 8GB DDR5, Win 11, 57Wh battery, best power efficiency power mode

Alternate configuration 3: WUXGA (non-touch), Intel® Core™ Ultra 5 125H, 8GB+8GB DDR5, Win 11, 46.5Wh battery, best power efficiency power mode

All battery life claims are approximate maximum and based on results using <u>MobileMark® 25</u>, JEITA 3.0, continuous 1080p local video playback (using default Media Player in Fullscreen mode 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, software, wireless functionality, power management settings, and screen brightness.

The maximum capacity of the battery will decrease with time, ambient temperature and use.

Refer to Microsoft<sup>®</sup> link for more information about the Windows<sup>®</sup> Performance power slider.

### **Power Adapter**

#### Power Adapter\*\*[1]

- 45W USB-C<sup>®</sup> (2-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
- 45W USB-C<sup>®</sup> (3-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
- \* 65W USB-C  $^{\circ}$  (2-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
- 65W USB-C<sup>®</sup> (3-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
- 65W USB-C<sup>®</sup> slim (2-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
- 65W 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.

# DESIGN

# Display

### Display\*\*

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 <sup>[1]</sup>	300nits	Anti- glare	16:10	1000:1	45% NTSC	60Hz	89°/89°/89°/89°	-
16″	WUXGA (1920x1200)	Multi- touch	IPS <sup>[2]</sup>	300nits	Anti- glare	16:10	1500:1	45% NTSC	60Hz	89°/89°/89°/89°	Eyesafe® Certified 2.0
16″	WUXGA (1920x1200)	None	IPS <sup>[3]</sup>	400nits	Anti- glare	16:10	1500:1	100% sRGB	60Hz	89°/89°/89°/89°	Low power, Eyesafe®

					Certified
					2.0

#### Touchscreen

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

#### Notes:

[1], [2], [3] IPS (in-plane switching) technology may refer to IPS, PLS, ADS, AHVA, AAS.

### **Input Device**

#### Keyboard

6-row, spill-resistant, multimedia Fn keys with Unified Communications controls, numeric keypad

#### **Keyboard Backlight**

- LED backlight
- Non-backlight

#### UltraNav™

TrackPoint® pointing device, double-tap to open the TrackPoint® Quick Menu Mylar® surface multi-touch touchpad, 67.6 x 115 mm (2.66 x 4.53 inches)

### **Mechanical**

#### Dimensions (WxDxH)<sup>[1]</sup>

357.2 x 253.4 x 20.78 mm (14.06 x 9.98 x 0.82 inches)

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

Starting at 1.77 kg (3.90 lbs)

Case Color

Black

Case Material

PC-ABS (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\*\*

- 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®\*\*[1]

- Intel® Wi-Fi® 6E AX211, 802.11ax 2x2 Wi-Fi® + Bluetooth® 5.3<sup>[2]</sup>
- Intel<sup>®</sup> Wi-Fi<sup>®</sup> 7 BE200, 802.11be 2x2 Wi-Fi<sup>®</sup> + Bluetooth<sup>®</sup> 5.3 (Bluetooth<sup>®</sup> 5.4 hardware ready)<sup>[3]</sup>

#### WWAN\*\*

- Wireless WAN upgradable to 4G (with antenna ready)
- Quectel EM061K-GL, 4G LTE CAT6, M.2 Card, with embedded eSIM functionality
- No support

### SIM Card

No physical SIM card inbox

### NFC

- Near Field Communication
- No support

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Notes:

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

[2] 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.

Bluetooth<sup>®</sup> 5.3 operation requires Windows<sup>®</sup> 11. For more information please see <u>General Bluetooth<sup>®</sup> Support Information</u> <u>on Microsoft<sup>®</sup></u>.

[3] Wi-Fi<sup>®</sup> 7 is only enabled on Windows<sup>®</sup> 11 and operates as Wi-Fi<sup>®</sup> 6 with Windows<sup>®</sup> 10.

6GHz Wi-Fi® 7 operation is subject to the regulation rules in each country.

Bluetooth<sup>®</sup> 5.3 operation requires Windows<sup>®</sup> 11. For more information please see <u>General Bluetooth<sup>®</sup> Support Information</u> <u>on Microsoft<sup>®</sup></u>.

#### **Ports**<sup>III</sup>

#### **Standard Ports**

- 1x USB-A (Hi-Speed USB / USB 2.0)
- 2x USB-A (USB 5Gbps / USB 3.2 Gen 1), one Always On
- 1x USB-C<sup>®</sup> (USB 20Gbps / USB 3.2 Gen 2x2), with USB PD 3.0 and DisplayPort<sup>™</sup> 1.4
- 1x USB-C<sup>®</sup> (Thunderbolt<sup>™</sup> 4 / USB4<sup>®</sup> 40Gbps), with USB PD 3.0 and DisplayPort<sup>™</sup> 2.1
- 1x HDMI<sup>®</sup> 2.1, up to 4K/60Hz
- 1x Headphone / microphone combo jack (3.5mm)
- 1x Ethernet (RJ-45)

#### **Optional Ports**\*\*\*

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

#### 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<sup>®</sup> 20Gbps / USB 3.2 Gen 2x2 (SuperSpeed USB 20Gbps): 20 Gbit/s;

USB4<sup>®</sup> 40Gbps (USB 40Gbps): 40 Gbit/s;

Thunderbolt<sup>™</sup> 3/4: 40 Gbit/s.

### Docking

#### Docking

Various docking solutions supported via Thunderbolt™ or USB-C®. For more compatible docking solutions, please visit <u>Docking for ThinkPad® L16 Gen 1 (Intel®)</u>

# **SECURITY & PRIVACY**

### Security

#### Security Chip

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

#### Physical Locks

Kensington<sup>®</sup> 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
- No fingerprint reader

### **BIOS Security**

- Power-on password
- Supervisor password

# ThinkPad L16 Gen 1 (Intel)

- NVMe® password
- Self-healing BIOS

#### Other Security

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

# MANAGEABILITY

### System Management

#### System Management

- Intel<sup>®</sup> vPro<sup>®</sup> Enterprise<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
- 1-year courier or carry-in with 2-year system board service (Korea only)
- 3-year (1-yr battery) courier or carry-in service
- 3-year (1-yr battery) limited onsite service
- No base warranty

# ENVIRONMENTAL

### **Sustainability**

#### Material

50% recycled aluminium on top cover 60% PCC recycled on keyboard frame 50% PCC recycled on PC/ABS bottom cover 30% PCC recycled on PC/CF bottom cover 85% PCC recycled plastic used in key caps (backlight) 70% PCC recycled plastic used in key caps (non-backlight) 90% PCC recycled plastic used in speaker enclosure 90% PCC recycled plastic used in the battery pack enclosure 90% PCC recycled plastic used in the battery pack enclosure 90% PCC recycled plastic used in slim 65W adapters Low-temperature solder FSC Certified Plastic Free Packaging

### **Operating Environment**

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

- 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 packaging: 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).

# ACCESSORIES

## **Bundled Accessories**

#### Bundled Accessories\*\*\*[1]

- Lenovo<sup>®</sup> HDMI<sup>®</sup> to VGA Monitor Adapter
- Lenovo<sup>®</sup> USB-C<sup>®</sup> to DisplayPort<sup>™</sup> Adapter
- Lenovo<sup>®</sup> USB-C<sup>®</sup> to VGA Adapter
- None

#### Notes:

[1] For more compatible accessory solutions, please visit Accessories for ThinkPad® L16 Gen 1 (Intel®)

# 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
- ErP Lot 26
- 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 selfdeclaration.

[2] EPEAT<sup>™</sup> registration and ENERGY STAR<sup>®</sup> certification are dependent on system OS. Please visit <u>epeat.net</u> and <u>energystar.gov</u> for more information.

[3] EPEAT<sup>™</sup> is registered where applicable, please see <u>epeat.net</u> 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)
- Feature with \*\* means that only one offering listed under the feature is configured on selected models.
- Feature with \*\*\* means that one or more offerings listed under the feature could be configured on selected models.
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