## **OVERVIEW**



1. Speaker	4. HDMI
2. Thunderbolt 4	5. Thunderbolt 4
3. Headphone / microphone combo jack (3.5mm)	6. Speaker

# PERFORMANCE

## Processor

## **Processor Family**

Intel $^{\circ}$  V Series Core Ultra 5 / 7 Processor (Series 2)

## Processor\*\*

Processor Name	Cores	Threads	Base Frequency	Max Frequency	Cache	Processor Graphics	NPU
Core Ultra 5 226V	8 (4 P-core + 4 LPE-core)	8	P-core 2.1GHz / LPE-core 2.1GHz	P-core 4.5GHz / LPE-core 3.5GHz	8MB	Intel® Arc™ Graphics 130V, up to 53 TOPS	Intel® AI Boost
Core Ultra 5 228V	8 (4 P-core + 4 LPE-core)	8	P-core 2.1GHz / LPE-core 2.1GHz	P-core 4.5GHz / LPE-core 3.5GHz	8MB	Intel® Arc™ Graphics 130V, up to 53 TOPS	Intel® AI Boost
Core Ultra 5 238V	8 (4 P-core + 4 LPE-core)	8	P-core 2.1GHz / LPE-core 2.1GHz	P-core 4.7GHz / LPE-core 3.5GHz	8MB	Intel® Arc™ Graphics 130V, up to 53 TOPS	Intel® AI Boost
Core Ultra 7 258V	8 (4 P-core + 4 LPE-core)	8	P-core 2.2GHz / LPE-core 2.2GHz	P-core 4.8GHz / LPE-core 3.7GHz	12MB	Intel® Arc™ Graphics 140V, up to 64 TOPS	Intel® AI Boost
Core Ultra 7 268V	8 (4 P-core + 4 LPE-core)	8	P-core 2.2GHz / LPE-core 2.2GHz	P-core 5GHz / LPE- core 3.7GHz	12MB	Intel® Arc™ Graphics 140V, up to 66 TOPS	Intel® AI Boost

## Al (Artificial Intelligence)

### AI PC Category

Copilot+ PC<sup>[1]</sup>

#### Al Performance

Up to 118 overall TOPS

## NPU

Integrated Intel® AI Boost, up to 48 TOPS

Notes:

[1] The AI features of Copilot+ PC require Windows® 11 to be installed.

## **Operating System**

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

- Windows<sup>®</sup> 11 Pro
- Windows® 11 Home
- Ubuntu Linux<sup>[1]</sup>
- Linux<sup>[2]</sup>
- No preload operating system

Notes:

[1], [2] 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® Arc™ Graphics 130V	Integrated	Shared	Share CPU TDP	DirectX® 12.2	
Intel® Arc™ Graphics 140V	Integrated	Shared	Share CPU TDP	DirectX® 12.2	

## **Monitor Support**

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

Supports up to 3 independent displays (native display and 2 external monitors via HDMI<sup>®</sup> and Thunderbolt<sup>™</sup>)

• HDMI<sup>®</sup> supports up to 4K@60Hz

Thunderbolt<sup>™</sup> supports up to 8K@60Hz<sup>[2]</sup>

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Notes:

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

[2] 8K resolution 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

- 16GB soldered memory, not upgradable
- 32GB soldered memory, not upgradable

#### **Memory Slots**

Memory soldered to systemboard, no slots, dual-channel

**Memory Type** 

LPDDR5x-8533, MoP (Memory on Package) memory

### Storage

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

One drive, up to 2TB M.2 2242 SSD

#### **Storage Slot**

One M.2 2242 PCIe® 4.0 x4 slot

#### Storage Type

Disk Type	Interface	Offering	Security
M.2 2242 SSD	PCIe® NVMe®, PCIe® 4.0 x4	256GB / 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, Cirrus Logic® CS42L43

#### **Speakers**

Stereo speakers, 2W x2, Dolby Atmos®

#### Microphone

Dual-microphone array

### Camera\*\*

- FHD 1080p + IR discrete, with E-shutter, fixed focus, temporal noise reduction
- UHD 8.0MP with large sensor + IR discrete, with E-shutter, ToF sensor, MIPI, fixed focus, temporal noise reduction

## **Battery**

#### Battery

Rechargeable Li-ion 55Wh battery, supports Rapid Charge (charge up to 80% in 1hr)<sup>[1]</sup>

#### Battery Life<sup>[2]</sup>

MobileMark® 25: up to 15.63 hr with 776 performance score @250nits JEITA-BAT 3.0 (Video/Idle): up to 13.54 hr / 19.66 hr @200nits Local video playback: up to 25.26 hr @150nits

Notes:

[1] Rapid charge is only guaranteed when the computer is turned off or in standby mode or in hibernation mode. When the computer is powered on, the Charge Time will vary depending on system power consumption and AC adapter power.
[2] Configuration: WUXGA 400nits (non-touch), Intel<sup>®</sup> Core<sup>™</sup> Ultra 5 226V, 16GB LPDDR5x, Win 11, 55Wh 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 <u>Microsoft<sup>®</sup> link</u> for more information about the Windows<sup>®</sup> Performance power slider.

## **Power Adapter**

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

- 65W USB-C<sup>®</sup> nano GaN (2-pin, wall-mount) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
- 65W USB-C<sup>®</sup> nano GaN (3-pin, wall-mount) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
- 65W USB-C<sup>®</sup> slim GaN (2-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
- 65W USB-C<sup>®</sup> slim GaN (3-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
- No power adapter<sup>[2]</sup>

#### Notes:

[1] AC adapter offerings depend on the country.

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

## 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
14"	WUXGA (1920x1200)	None	OLED	400nits	Anti-glare	16:10	100,000:1	100% DCI- P3	60Hz	85° / 85° / 85° / 85°	DisplayHDR™ True Black 500, Dolby Vision®, Eyesafe® Certified 2.0, 90.9% screen to body ratio
14″	2.8K (2880x1800)	Multi- touch	OLED	500nits	Anti- reflection, anti- smudge	16:10	100,000:1	100% DCI- P3	30- 120Hz VRR	85° / 85° / 85° / 85°	DisplayHDR™ True Black 600, Dolby Vision®, Eyesafe® Certified 2.0, 90.9% screen to body ratio

Touchscreen

• OGM (One Glass Metal mesh) multi-touch, supports 10-point touch

• Non-touch

### **Input Device**

### Pen

- No pen (purchase separately)
- No support (non-touch display doesn't support pen input)

#### Keyboard

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

#### Keyboard Backlight

#### LED backlight

#### Touchpad

Buttonless glass surface multi-touch Haptic Touchpad, supports Precision TouchPad (PTP), 80 x 130 mm (3.15 x 5.12 inches)

## **Mechanical**

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

311.8 x 212.3 x 6.7 - 17.18 mm (12.28 x 8.36 x 0.26 - 0.68 inches)

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

Models	Weight
Models with multi-touch display	Starting at 1.27 kg (2.80 lbs)
Models with non-touch display	Starting at 1.21 kg (2.66 lbs)

#### Case Color

Grey

#### **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<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

No onboard Ethernet<sup>[1]</sup>

#### WLAN + Bluetooth®[2]

Intel® Wi-Fi® 7 BE201, 802.11be 2x2 Wi-Fi® + Bluetooth® 5.4<sup>[3]</sup>

#### WWAN

No support

#### SIM Card

No physical SIM card inbox

#### NFC

No support

Notes:

[1] Ethernet support via optional Lenovo® USB-C® to Ethernet Adapter.

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

[3] 6GHz Wi-Fi® 7 operation is subject to the regulation rules in each country.

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

#### Standard Ports

- 2x USB-C<sup>®</sup> (Thunderbolt<sup>™</sup> 4 / USB4<sup>®</sup> 40Gbps), with USB PD 3.0 and DisplayPort<sup>™</sup> 2.1
- $1x \text{ HDMI}^{\circ}$  2.1, up to 4K/60Hz
- 1x Headphone / microphone combo jack (3.5mm)

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™ / USB-C®. For more compatible docking solutions, please visit <u>Docking for ThinkPad® X9-14 Gen 1</u>

## **SECURITY & PRIVACY**

## Security

Security Chip

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

#### Smart Card Reader

No smart card reader

#### Fingerprint Reader

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

#### **BIOS Security**

- NVMe<sup>®</sup> password
- Power-on password
- Supervisor password
- System management password
- Certificate-based BIOS athentication
- FIDO (Fast Identity Online) authentication
- Self-healing BIOS
- More BIOS security features, please visit BIOS Simulator<sup>[1]</sup>

#### Other Security

- Ultrasonic Human Presence Detection (WUXGA models)
- ToF Human Presence Detection (2.8K models)
- E-shutter
- 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

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

Notes:

[1] Intel® vPro® 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)
- 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

## **Bundled Accessories**

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

- Lenovo<sup>®</sup> USB-C<sup>®</sup> to Ethernet Adapter (1Gbps)
- Lenovo<sup>®</sup> USB-C<sup>®</sup> to USB-A Adapter
- None

Notes:

[1] For more compatible accessory solutions, please visit Accessories for ThinkPad® X9-14 Gen 1.

## **OPERATING REQUIREMENTS**

## **Operating Environment**

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

- Operating: 5°C (41°F) to 35°C (95°F)
- Storage and transportation in original shipping package: -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<sup>[1]</sup>

50% recycled aluminium on top cover 50% recycled aluminium on keyboard frame 50% recycled aluminium on bottom cover 85% PCC recycled plastic used in keycaps 90% PCC recycled plastic used in speaker enclosure 100% recycled cobalt used in the 55Wh battery 90% PCC recycled plastic used in the battery frame 90% PCC recycled plastic used in standard 65W adapters Bamboo + sugarcane fiber standard / retail packaging

Notes:

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

## CERTIFICATIONS

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

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

- ENERGY STAR<sup>®</sup> 8.0
- EPEAT<sup>™</sup> Gold Registered<sup>[3]</sup>
- ErP Lot 6/26
- RoHS compliant
- TCO Certified 10.0

Notes:

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

### **Other Certifications**

#### Mil-Spec Test

MIL-STD-810H military test passed

#### **Other Certifications**

- Eyesafe® Certified 2.0
- (Optional) Intel<sup>®</sup> Evo<sup>™</sup> Platform
- 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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