

**OVERVIEW**



1. Smart card reader	6. Kensington Nano Security Slot
2. SD Express 7.0 card reader	7. HDMI
3. Nano-SIM card slot	8. 2x Thunderbolt 4
4. USB-A (USB 5Gbps)	9. USB-A (USB 5Gbps), Always On
5. Ethernet (GbE RJ-45)	10. Headphone jack (3.5mm)

## PERFORMANCE

### Processor

#### Processor Family

Intel® H Series Core Ultra 5 / 7 / 9 / X9 Processor (Series 3); supports up to 16 cores; up to 5.1GHz

#### Processor\*\*

Processor Name	Cores	Threads	Base Frequency	Max Frequency	Cache	Processor Graphics	NPU	Intel® vPro® Eligibility
Core Ultra 5 336H	12 (4 P-core + 4 E-core + 4 LP E-core)	12	P-core 1.9GHz / E-core 1.5GHz / LP E-core 1.5GHz	P-core 4.6GHz / E-core 3.4GHz / LP E-core 3.2GHz	18MB Intel® Smart Cache	Intel® Graphics, up to 37 TOPS	Up to 47 TOPS	Intel® vPro® Platform
Core Ultra 7 356H	16 (4 P-core + 8 E-core + 4 LP E-core)	16	P-core 1.9GHz / E-core 1.5GHz / LP E-core 1.5GHz	P-core 4.7GHz / E-core 3.5GHz / LP E-core 3.3GHz	18MB Intel® Smart Cache	Intel® Graphics, up to 40 TOPS	Up to 50 TOPS	-
Core Ultra 7 366H	16 (4 P-core + 8 E-core + 4 LP E-core)	16	P-core 2GHz / E-core 1.6GHz / LP E-core 1.6GHz	P-core 4.8GHz / E-core 3.6GHz / LP E-core 3.4GHz	18MB Intel® Smart Cache	Intel® Graphics, up to 40 TOPS	Up to 50 TOPS	Intel® vPro® Platform
Core Ultra 9 386H	16 (4 P-core + 8 E-core + 4 LP E-core)	16	P-core 2.1GHz / E-core 1.6GHz / LP E-core 1.6GHz	P-core 4.9GHz / E-core 3.7GHz / LP E-core 3.5GHz	18MB Intel® Smart Cache	Intel® Graphics, up to 40 TOPS	Up to 50 TOPS	Intel® vPro® Platform
Core Ultra X9 388H	16 (4 P-core + 8 E-core + 4 LP E-core)	16	P-core 2.1GHz / E-core 1.6GHz / LP E-core 1.6GHz	P-core 5.1GHz / E-core 3.8GHz / LP E-core 3.7GHz	18MB Intel® Smart Cache	Intel® Arc™ B390 GPU, up to 122 TOPS	Up to 50 TOPS	Intel® vPro® Platform

### AI (Artificial Intelligence)

#### AI PC Category

- AI-Ready Workstations
- Copilot+ PC

#### NPU

- Up to 47 TOPS (Core Ultra 5)
- Up to 50 TOPS (Core Ultra 7 / 9 / X9)

### Operating System

#### Operating System

- Windows® 11 Pro
- Windows® 11 Home
- Ubuntu Linux LTS
- Red Hat Enterprise Linux 10.2 (certified only, for detailed and latest information, please visit [Red Hat Certified Hardware](#))
- No preload operating system

### Graphics

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

Graphics	Type	Memory	AI TOPS (Peak)
Intel® Graphics	Integrated	Shared	40 TOPS (Int8, Core Ultra 7 / 9); 37 TOPS (Int8, Core Ultra 5)
Intel® Arc™ B390 GPU	Integrated	Shared	122 TOPS (Int8)
NVIDIA® RTX PRO 500 Blackwell Generation 6GB GDDR7 Laptop GPU	Discrete	6GB GDDR7	294 TOPS (FP4 TOPS with Sparsity)
NVIDIA® RTX PRO 1000 Blackwell Generation 8GB GDDR7 Laptop GPU	Discrete	8GB GDDR7	440 TOPS (FP4 TOPS with Sparsity)

NVIDIA® RTX PRO 2000 Blackwell Generation 8GB GDDR7 Laptop GPU	Discrete	8GB GDDR7	572 TOPS (FP4 TOPS with Sparsity)
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**Notes:**

[1] The numbers of TOPS are peak values measured under different methodologies and are not directly comparable across Intel® and NVIDIA® GPUs. Actual AI performance depends on the selected configuration, model support, and system workload.

## Monitor Support

**Monitor Support**

Supports up to 4 independent displays (native display and 3 external monitors via Thunderbolt™ 4 and HDMI®).

Max resolution for multiple external display:

- 2x 5120x3200@60Hz / 3840x2160@120Hz (Thunderbolt™ 4)
- 1x 3840x2160@60Hz (HDMI®)

Max resolution for single external display:

- Thunderbolt™ 4 supports up to 7680x4320@60Hz or 3840x2160@240Hz
- HDMI® supports up to 3840x2160@60Hz

## Chipset

**Chipset**

Intel® SoC (System on Chip) platform

## Memory

**Max Memory**

Up to 96GB (1x 96GB LPCAMM2), upgradable

**Memory Slots**

One LPCAMM2 connector, dual-channel

**Memory Type<sup>[1]</sup>**

LPDDR5X-8533, maximum transfer speeds of up to 7467 MT/s, 16GB / 32GB / 64GB / 96GB memory modules are available

**Notes:**

[1] Installed memory is actually LPDDR5X-8533 but runs as LPDDR5X-7467 due to platform limitation.

## Storage

**Max Storage Support<sup>[1]</sup>**

Up to one 2TB M.2 2280 Gen 5 Performance SSD

**Storage Slot<sup>[2]</sup>**

One M.2 2280 PCIe® 5.0 x4 slot

**Storage Type<sup>\*\*</sup>**

Disk Type	Interface	Offering	Security
M.2 2280 SSD	PCIe® NVMe®, PCIe® 4.0 x4	512GB / 1TB	Opal 2.0
M.2 2280 SSD	PCIe® NVMe®, PCIe® 5.0 x4 Performance	512GB / 1TB / 2TB	Opal 2.0

**Notes:**

[1] The storage capacity supported is based on the test results with 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 Express 7.0 card reader

## Multi-Media

**Audio Chip**

SoundWire®, Realtek® ALC722-CG codec

**Speakers**

Stereo speakers, 2W x2, Dolby Atmos®

**Microphone**

Dual-microphone array, 360° far-field, Dolby Voice®

**Camera\*\***

- 5.0MP + IR with Privacy Shutter, HDR and Computer Vision Human Presence Detection
- 5.0MP with privacy shutter, fixed focus, temporal noise reduction

**Battery**

**Battery\*\***

- 60Wh Rechargeable Li-ion Battery, supports Rapid Charge (charge up to 80% in 1hr)
- 90Wh Rechargeable Li-ion Battery, supports Rapid Charge (charge up to 80% in 1hr)

**Power Adapter**

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

- 100W USB-C® slim (3-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
- 140W USB-C® GaN (3-pin) AC adapter, supports PD 3.1, 100-240V, 50-60Hz
- No power adapter

Notes:

[1] AC adapter offerings depend on the country.

**DESIGN**

**Display**

**Display\*\***

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)	Non-touch	IPS	400nits	Anti-glare	16:10	800:1	45% NTSC	60Hz	89° / 89° / 89° / 89°	89% screen to body ratio, AICCP color calibration, DC dimming
16"	WUXGA (1920x1200)	Multi-touch	IPS	500nits	Anti-glare	16:10	1200:1	100% sRGB	30 - 60Hz VRR	89° / 89° / 89° / 89°	89% screen to body ratio, AICCP color calibration, UL Low Blue Light, UL Eyesafe® 2.0 Certified, DC dimming
16"	2.8K (2880x1800)	Non-touch	OLED	500nits	Anti-glare	16:10	100,000:1	100% DCI-P3	30 - 120Hz VRR	85° / 85° / 85° / 85°	89% screen to body ratio, X-Rite® Factory Color Calibration, DisplayHDR™ True Black 1000, Dolby Vision®, UL Low Blue Light, UL Eyesafe® 2.0



- Gigabit Ethernet, Intel® Ethernet Connection I219-V (non-vPro® models), 1x RJ-45, supports Wake-on-LAN

#### NFC

- Near Field Communication
- No support

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#### 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.

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

### Standard Ports

- 1x USB-A (USB 5Gbps / USB 3.2 Gen 1)
- 1x USB-A (USB 5Gbps / USB 3.2 Gen 1), Always On
- 2x Thunderbolt™ 4, with USB PD 3.1 and DisplayPort™ 2.1, 140W input / 15W output
- 1x HDMI® 2.1, up to 4K/60Hz
- 1x Headphone / microphone combo jack (3.5mm)
- 1x Ethernet (GbE RJ-45)
- 1x SD Express 7.0 card reader
- 1x Kensington® Nano Security Slot™

### Optional Ports\*\*\*

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

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#### 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.

Thunderbolt™ 5: 80 Gbit/s (bidirectional), up to 120 Gbit/s in bandwidth boost mode for video-intensive applications.

## SECURITY & PRIVACY

### Security

#### Security Chip\*\*

- Firmware TPM 2.0 integrated in SoC
- Discrete TPM 2.0, TCG certified, FIPS 140-2 certified

#### Physical Locks

Kensington® Nano Security Slot™, 2.5 x 6 mm

#### Smart Card Reader

- Smart card reader, supports ISO 7816 and EMV
- No smart card reader

#### Fingerprint Reader

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

#### BIOS Security

- NVMe® password
- Power-on password
- Supervisor password
- Self-healing BIOS

#### Other Security

- (Optional) Computer Vision-based Human Presence Detection
- Bottom cover tamper detection

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

## MANAGEABILITY

### System Management

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

- Intel® vPro® Enterprise
- Non-vPro®

Notes:

[1] Intel® vPro® platform require an eligible Intel® processor, a supported operating system, Intel® LAN and/or WLAN silicon, firmware enhancements, and other hardware and software necessary to deliver the manageability use cases, security features, system performance, and stability that define the platform. See [Intel® vPro® Platform](#) for details.

## 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

## ACCESSORIES

### Bundled Accessories

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

None

Notes:

[1] For more compatible accessory solutions, please visit [Accessories for ThinkPad® P16s Gen 5 \(Intel®\)](#).

## OPERATING REQUIREMENTS

### 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 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>**

85% PCC recycled plastic for non-backlit keycaps  
90% PCC recycled plastic used in speaker enclosure  
97% PCC recycled plastic used in the battery pack enclosure  
90% PCC recycled plastic used in 100W/140W adapter  
Plastic free packaging with 90% recycled and/ or FSC certified content

Notes:

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

## CERTIFICATIONS

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

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

- ENERGY STAR® 9.0
- EPEAT™ Gold Registered
- 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 [PEAT.net](http://PEAT.net) and [energystar.gov](http://energystar.gov) for more information.

### Other Certifications

**Mil-Spec Test**

MIL-STD-810H military test passed

**Other Certifications**

- (Optional) Eyesafe® Certified 2.0
- (Optional) UL Low Blue Light

### ISV Certifications

**ISV Certifications**

Please visit [ISV certifications for Lenovo® Workstations](#)

- 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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