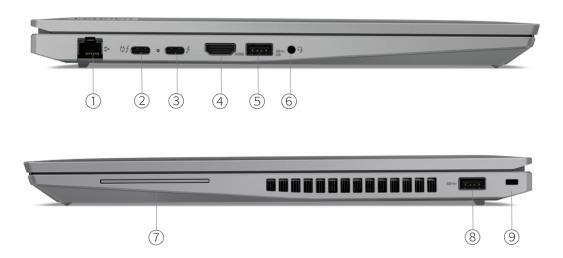


# **OVERVIEW**



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

## Notes:

• Items with \* are only available on selected models



# **PERFORMANCE**

# **Processor**

## **Processor Family**

13th Generation P series Intel® Core™ i5 / i7 processor, supports up to 14 cores, up to 5.2GHz

#### Processor\*\*

Processor Name	Cores	Threads	Base Frequency	Max Frequency	Cache	Processor Graphics
Core i5-1340P	Core i5-1340P 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 Iris® Xe Graphics
	core)		P-core 1.9GHz / E-core 1.4GHz	P-core 4.7GHz / E-core 3.5GHz	12MB	Intel Iris Xe Graphics
Core i7-1360P	12 (4 P-core + 8 E-core)	16	P-core 2.2GHz / E-core 1.6GHz	P-core 5.0GHz / E-core 3.7GHz	18MB	Intel Iris Xe Graphics
Core i7-1370P	14 (6 P-core + 8 E-core)	20	P-core 1.9GHz / E-core 1.4GHz	P-core 5.2GHz / E-core 3.9GHz	24MB	Intel Iris Xe Graphics

# **Operating System**

# Operating System\*\*

- Red Hat Enterprise Linux 9.1 (certified only, for detailed and latest information, please visit <u>Red Hat Certified Hardware</u>)
- Windows® 11 Pro
- Windows 11 Home
- Windows 11 Home Single Language
- Windows 11 DG Windows 10 Pro 64
- · No operating system

# **Graphics**

# Graphics\*\*

Graphics	Туре	Memory	TGP	Key Features
Intel Iris Xe Graphics[1]	Integrated	Shared	Share CPU TDP	DirectX® 12.1
NVIDIA® RTX A500 Laptop GPU	Discrete	4GB GDDR6	30W	DirectX 12 Ultimate, Vulkan Support, NVIDIA FXAA / TXAA Anti-Aliasing, NVIDIA RTX Desktop Manager

#### Notes:

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

# **Monitor Support**

#### **Monitor Support**

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

- HDMI supports up to 3840x2160@60Hz
- Thunderbolt supports up to 7680x4320@60Hz

# Chipset

## Chipset

Intel SoC (System on Chip) platform

# **Memory**

## **Max Memory**

- Models with 16GB LPDDR5x: 16GB soldered memory, not upgradable
- Models with 32GB LPDDR5x: 32GB soldered memory, not upgradable
- Models with 64GB LPDDR5x: 64GB soldered memory, not upgradable
- Models with DDR5 memory: up to 48GB (16GB soldered + 32GB SO-DIMM)

# **Memory Slots**



\*\*

- · Models with DDR5 memory: one memory soldered to systemboard, one DDR5 SO-DIMM slot, dual-channel capable
- · Models with LPDDR5x memory: memory soldered to systemboard, no slots, dual-channel

#### Memory Type\*\*

- DDR5-5600 non-ECC (for integrated graphics models)[1]
- LPDDR5x-7500 non-ECC (for discrete graphics models)<sup>[2]</sup>

#### Notes:

- [1] System comes with DDR5-5600 memory and will run at DDR5-5200 due to platform limitations.
- [2] System comes with LPDDR5x-7500 memory and will run at LPDDR5x-4800 due to platform limitations.

## Storage

## Storage Support[1]

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	512GB / 1TB / 2TB	Opal 2.0

#### 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.

# **Removable Storage**

## Card Reader

No card reader

#### Multi-Media

# Audio Chip

High Definition (HD) Audio, Realtek® ALC3287 codec

# **Speakers**

Stereo speakers, 2W x2, Dolby® Audio™

## Microphone

Dual-microphone array, far-field, Dolby Voice

#### Camera\*\*

- HD 720p, with privacy shutter, fixed focus
- FHD 1080p + IR hybrid, with privacy shutter and Ultrasonic Human Presence Detection, fixed focus
- 5.0MP + IR discrete, with privacy shutter and Ultrasonic Human Presence Detection, fixed focus

# **Battery**

# Battery\*\*

- Integrated Li-Polymer 52.5Wh battery, supports Rapid Charge (charge up to 80% in 1hr)
- Integrated Li-Polymer 86Wh battery, supports Rapid Charge (charge up to 80% in 1hr) with 135W AC adapter

# **Power Adapter**

# Power Adapter\*\*[1]

- 65W USB-C® (2-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
- 65W USB-C (3-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
- 65W USB-C slim (2-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
- 65W USB-C slim (3-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
- 100W USB-C slim (3-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
- 135W USB-C 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\*\*[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)	Multi- touch	IPS <sup>[2]</sup>	300 nits	Anti- glare	16:10	800:1	45% NTSC		85°/85°/85°/85°	85.4% screen to body ratio, DC dimming
16"	WUXGA (1920x1200)	None	IPS <sup>(3)</sup>	400 nits	Anti- glare	16:10	1000:1	100% sRGB		85°/85°/85°/85°	ICC Template color calibration, Low power, Low Blue Light, Eyesafe® Certified 2.0, 85.4% screen to body ratio, DC dimming
16"	WUXGA (1920x1200)	None	IPS <sup>[4]</sup>	300 nits	Anti- glare	16:10	800:1	45% NTSC		85°/85°/85°/85°	85.4% screen to body ratio, DC dimming
16"	WQUXGA (3840x2400)	None	OLED	400 nits	Anti- reflection / Anti- smudge	16:10	100000:1	100% DCI- P3		85°/85°/85°/85°	X-Rite® Factory Color Calibration, Low Blue Light, Eyesafe Certified 2.0, DisplayHDR™ 400, Dolby Vision™, 85.4% screen to body ratio

## **Color Calibration**

- X-Rite factory color calibration (OLED display)
- ICC Template color calibration (low power display)
- No color calibration

# Touchscreen

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

## Notes:

[1] 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. [2], [3], [4] 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™

3-button TrackPoint® pointing device and glass-like Mylar® surface multi-touch touchpad, 67 x 115 mm (2.64 x 4.53 inches)

## Mechanical

## Dimensions (WxDxH)[1]

Models	Dimensions
NVIDIA graphics models	361.9 x 255.5 x 21.1 mm (14.25 x 10.06 x 0.83 inches)
Integrated graphics models	361.98 x 255.5 x 20.5 mm (14.25 x 10.06 x 0.81 inches)

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

Models	Weight
Models with grey cover	Starting at 1.73 kg (3.83 lbs)
Models with black cover	Starting at 1.70 kg (3.77 lbs)

#### Case Color\*\*

- Storm grey
- Villi black

#### Case Material\*\*

- Models with black cover: PC 50% GF + PC 20% CF (top), PPS (bottom)
- Models with grey cover: aluminium (top), PPS (bottom)

#### 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\*\*

- Gigabit Ethernet, Intel Ethernet Connection I219-LM (vPro® 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]

- Qualcomm® Wi-Fi® 6E NFA725A, 802.11ax 2x2 Wi-Fi + Bluetooth 5.1
- Intel Wi-Fi 6E AX211, 802.11ax 2x2 Wi-Fi + Bluetooth 5.1 (Bluetooth 5.3 hardware ready)

# WWAN\*\*

- Wireless WAN upgradable to 4G (with antenna ready)
- Fibocom L860-GL-16, 4G LTE CAT16, M.2 card, with embedded eSIM functionality
- Quectel EM05-G, 4G LTE CAT4, M.2 card, with embedded eSIM functionality
- No support

#### SIM Card

No SIM card inbox

#### **NFC**

- Near Field Communication
- · No support

#### Notes:

[1] Bluetooth 5.3 is hardware ready but may run at a lower version due to OS limitations. Wi-Fi 6E is only enabled on Windows 11 and operates as Wi-Fi 6 with Windows 10.



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

#### **Standard Ports**

- 2x USB 3.2 Gen 1 (one Always On)
- 2x Thunderbolt 4 / USB4® 40Gbps (support data transfer, Power Delivery 3.0 and DisplayPort™ 2.0)
- 1x HDMI 2.1, up to 4K/60Hz
- 1x Ethernet (RJ-45)
- 1x Headphone / microphone combo jack (3.5mm)
- 1x Security keyhole

## **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 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.

# **Docking**

# **Docking**

Various docking solutions supported via Thunderbolt or USB-C.

For more compatible docking solutions, please visit

Docking for ThinkPad® P16s Gen 2 (Intel)

# **Monitor Cable**

## **Monitor Cable**

- · Lenovo HDMI to VGA Monitor Adapter
- · Lenovo USB-C to VGA Adapter
- Lenovo USB-C to DisplayPort Adapter
- No monitor cable

# **SECURITY & PRIVACY**

## Security

# Security Chip

Discrete TPM 2.0, TCG certified

## **Physical Locks**

Kensington® 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
- NVMe password
- Self-healing BIOS

## **Other Security**

- (Optional) Ultrasonic Human Presence Detection for IR camera
- (Optional) Camera privacy shutter



- Bottom cover tamper detection
- (Optional) IR camera for Windows Hello

# **MANAGEABILITY**

# **System Management**

#### **System Management**

- Intel vPro Enterprise
- Non-vPro

# **SERVICE**

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

# 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

#### 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 <a href="https://smartfind.lenovo.com/">https://smartfind.lenovo.com/</a>. To learn more details of warranty policy, please access <a href="https://pcsupport.lenovo.com/warranty">https://pcsupport.lenovo.com/warranty</a>.

# **ENVIRONMENTAL**

# Sustainability

# Material

85% PCC recycled plastic used in key caps (backlight)

70% PCC recycled plastic used in key caps (non-backlight)

98% PCC recycled plastic used in speaker enclosure

97% PCC recycled plastic used in the battery

90% PCC recycled plastic used in 65W adapter

Low-temperature solder

90% recycled and/or sustainable packaging

# **Operating Environment**

## Temperature[1]

- 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)

#### 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**



- Lenovo USB-C to Ethernet Adapter (1Gbps)
- None

# **CERTIFICATIONS**

# Green Certifications<sup>11</sup>

#### **Green Certifications**

- (Optional) ENERGY STAR® 8.0
- (Optional) EPEAT™ Gold Registered[2]
- TCO Certified 9.0
- RoHS compliant

#### Notes:

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

[2] 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

#### Other Certifications

- (Optional) Eyesafe Certified 2.0
- (Optional) TÜV Rheinland® Low Blue Light

### **ISV Certifications**

#### **ISV Certifications**

Please visit ISV certifications for Lenovo Workstations

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