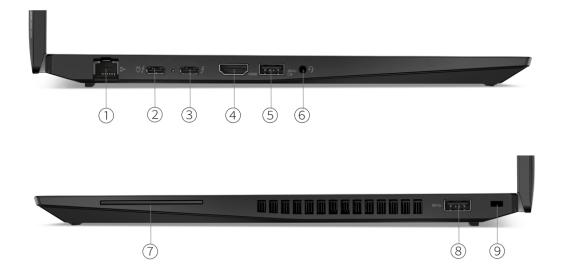
OVERVIEW



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 2.1 TMDS	9. Security keyhole
5. USB 3.2 Gen 1 (one Always On)	

Notes:

• Items with * are only available on selected models

ThinkPad P16s Gen 1 (Intel)

PERFORMANCE

Processor

Processor Family

12th Generation P series Intel[®] Core™ i5 / i7 processor, supports up to 14 cores, up to 4.8GHz

Processor**[1]

Processor Name	Cores	Threads	Base Frequency	Max Frequency	Cache	Processor Graphics
	12 (4 P-core + 8 E- core)	16 P-core 1.7GHz / E-core 1.2GHz		P-core 4.4GHz / E-core 3.3GHz	12MB	Intel Iris® Xe Graphics
	12 (4 P-core + 8 E- core)	I.2GHZ		P-core 4.4GHz / E-core 3.3GHz	12MB	Intel Iris Xe Graphics
	12 (4 P-core + 8 E- core)		P-core 2.1GHz / E-core 1.5GHz	P-core 4.7GHz / E-core 3.4GHz	18MB	Intel Iris Xe Graphics
Core i7-1270P	12 (4 P-core + 8 E- core)	16	P-core 2.2GHz / E-core 1.6GHz	P-core 4.8GHz / E-core 3.5GHz	18MB	Intel Iris Xe Graphics
Core i7-1280P	14 (6 P-core + 8 E-core)	20	P-core 1.8GHz / E-core 1.3GHz	P-core 4.8GHz / E-core 3.6GHz	24MB	Intel Iris Xe Graphics

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.

Operating System

Operating System**[1]

- Windows® 11 Pro
- Windows 11 Home
- Windows 11 Home Single Language
- Windows 11 DG Windows 10 Pro 64
- Windows 10 Home 64 Single Language
- Ubuntu Linux LTS
- Red Hat Enterprise Linux 8.6 (certified only, available in late 2022, for detailed and latest information, please visit
 <u>Red Hat Certified Hardware</u>)

Notes:

1. 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**[1]

Graphics	Туре	Memory	Boost Clock	TGP	Connector	Max Resolution	Key Features	Remark
Intel Iris Xe Graphics	Integrated	Shared	-	Share CPU TDP	-	-	DirectX® 12.1	-
NVIDIA® T550 Laptop GPU	Discrete	4GB GDDR6	-	30W	-	-	DirectX 12	-

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^[1]

- Up to 40GB (8GB soldered + 32GB SO-DIMM) DDR4-3200
- Up to 48GB (16GB soldered + 32GB SO-DIMM) DDR4-3200

Memory Slots

One memory soldered to systemboard, one DDR4 SO-DIMM slot, dual-channel capable

Memory Type

DDR4-3200 non-ECC

Notes:

1. The max memory is based on the test results with current Lenovo[®] memory offerings. The system may support more memory as the technology develops.

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**[2]

Disk Type	Interface	RPM	Offering	Security
M.2 2280 SSD	PCIe NVMe®, PCIe 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.
- 2. PCIe x4 SSD may be PCIe 3.0 x4 or PCIe 4.0 x4 as substitution.

Removable Storage

Optical

None

Card Reader

No card reader

Multi-Media

Audio Chip

High Definition (HD) Audio, Realtek® ALC3287 codec

Speakers

Stereo speakers, Dolby® Audio™

Microphone

- Dual-microphone array, Dolby Voice
- No microphone

Camera**

- HD 720p, with privacy shutter, fixed focus
- FHD 1080p, with privacy shutter, fixed focus
- FHD 1080p + IR, with privacy shutter, fixed focus
- No camera

Battery

Battery**

Lenovo

- 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
- No power adapter

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	Viewing Angle (L/R/U/D)	Key Features
16″	WUXGA (1920x1200)	None	IPS	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	400 nits	Anti- glare	16:10	1000:1	100% sRGB	89°/89°/89°/89°	ICC Template color calibration, Low power, Low blue light, TUV Eye Comfort, 85.4% screen to body ratio, DC dimming
16″	WUXGA (1920x1200)	Multi- touch	IPS	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)	Multi- touch	IPS	500 nits	Anti- glare	16:10	1000:1	100% sRGB	85°/85°/85°/85°	ThinkPad® Privacy Guard, Low Blue Light, TUV Eye Comfort, 85.4% screen to body ratio, DC dimming
16″	WQXGA (2560x1600)	None	IPS	400 nits	Anti- glare	16:10	1200:1	100% sRGB	85°/85°/85°/85°	Dolby Vision [™] , X- Rite® Pantone® Factory Color Calibration (ΔE<2), Low blue light, TUV Eye Comfort, 85.4% screen to body ratio, DC dimming

Color Calibration**

- X-Rite Pantone factory color calibration (WQXGA display)
- ICC Template color calibration (selected WUXGA display)

No color calibration

Touchscreen

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

Notes:

- 1. California Electronic Waste Recycling Fee
 - In California, 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, go to https://www.calrecycle.ca.gov/Electronics/Consumer

Input Device

Keyboard

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

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)[]

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

Weight^{[2][3]}

Models	Weight
Models with grey cover	Starting at 1.83 kg (4.04 lbs)
Models with black cover	Starting at 1.8 kg (3.97 lbs)

Case Color**[4]

- Black
- Storm grey

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. 3. Starting weight is based on minimal configuration (integrated graphics, lowest capacity battery, no WWAN, etc).
- 4. Storm grey case will be available in in the middle of May.

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

WWAN*

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

SIM Card

- Gemalto eSIM card (physical)
- No SIM card inbox

NFC

- Near Field Communication
- No support

Notes:

1. Bluetooth 5.2 is hardware ready but may run at a lower version due to OS limitations.

Ports^[1]

Standard Ports

- 2x Thunderbolt 4 / USB4[®] 40Gbps (support data transfer, Power Delivery 3.0 and DisplayPort[™] 2.0)
- 2x USB 3.2 Gen 1 (one Always On)
- 1x HDMI, 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;
 - USB 3.2 Gen 2x2 (SuperSpeed USB 20Gbps): 20 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 <u>Docking for ThinkPad P16s Gen 1 (Intel)</u>

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) Camera privacy shutter

• (Optional) IR camera for Windows Hello

MANAGEABILITY

System Management

System Management^[1]

- Intel vPro Enterprise
- Non-vPro

Notes:

1. Intel vPro offers a superset of DASH's defined capabilities.

SERVICE

Warranty^[1]

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 <u>https://smartfind.lenovo.com/</u>. To learn more details of warranty policy, please access <u>https://pcsupport.lenovo.com/warranty</u>.

ENVIRONMENTAL

Sustainability

Material

97% PCC recycled plastic used in speaker enclosure 97% PCC recycled plastic used in the 52.5Wh battery 95% PCC recycled plastic used in standard 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 $^{\circ}\text{C}$ (50 $^{\circ}\text{F}$).

ACCESSORIES

Bundled Accessories

Bundled Accessories

Lenovo USB-C to Ethernet Adapter (1Gbps)

ThinkPad P16s Gen 1 (Intel) - March 01 2023

• None

CERTIFICATIONS

Green Certifications^{III}

- Green Certifications^[2]
- EPEAT™ Gold
- ENERGY STAR[®] 8.0
- 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) TÜV Rheinland® Low Blue Light
- (Optional) TÜV Rheinland Eye Comfort Certification

ISV Certifications

ISV Certifications

Please visit ISV certifications for Lenovo Workstations

- Feature with ** means that only one offering listed under the feature is configured on selected models.
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