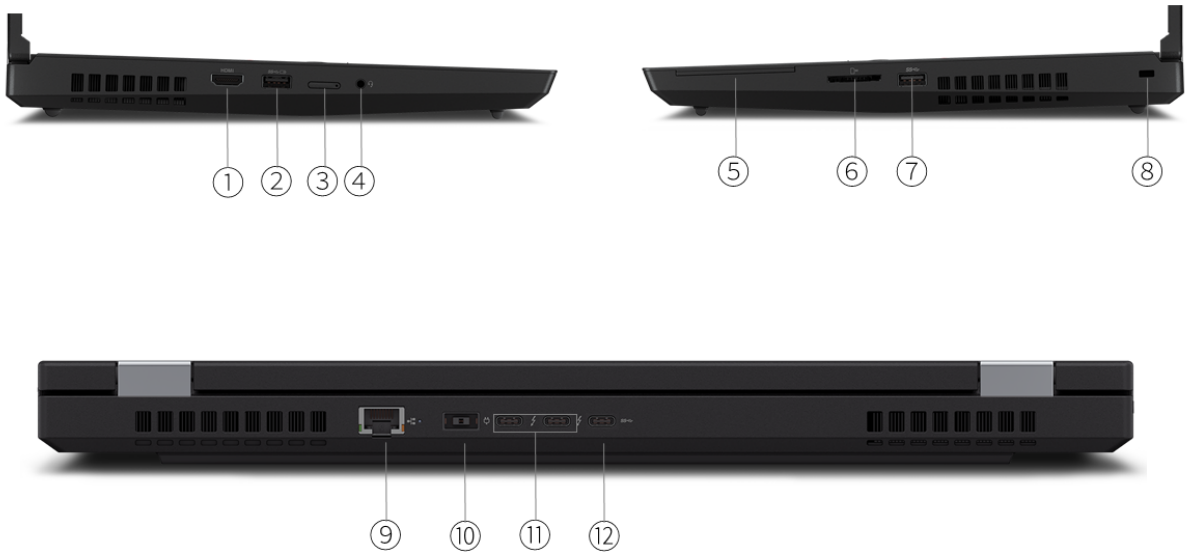
OVERVIEW



1. HDMI 2.1 / 2.0	7. USB 3.2 Gen 1
2. USB 3.2 Gen 1 (Always On)	8. Kensington Security Slot
3. Nano-SIM card slot *	9. 2.5GbE (RJ-45)
4. Headphone / microphone combo jack (3.5mm)	10. Power connector
5. Smart card reader *	11. 2x Thunderbolt 4
6. SD card reader	12. USB-C 3.2 Gen 2

Notes:

- Items with * are only available on selected models

PERFORMANCE

Processor

Processor Family

11th Generation Intel® Core™ i5 / i7 / i9 or Intel Xeon® Processor

Processor**

Processor Name	Cores	Threads	Base Frequency	Max Frequency	Cache	Processor Graphics
Core i5-11500H	6	12	2.9GHz	4.6GHz	12MB	Intel UHD Graphics
Core i7-11800H	8	16	2.3GHz	4.6GHz	24MB	Intel UHD Graphics
Core i7-11850H	8	16	2.5GHz	4.8GHz	24MB	Intel UHD Graphics
Core i9-11950H	8	16	2.6GHz	5.0GHz	24MB	Intel UHD Graphics
Xeon W-11855M	6	12	3.2GHz	4.9GHz	18MB	Intel UHD Graphics
Xeon W-11955M	8	16	2.6GHz	5.0GHz	24MB	Intel UHD Graphics

Operating System

Operating System[1]

- Windows® 11 Pro
- Windows 11 Pro for Workstations
- Windows 11 Home
- Windows 11 Home Single Language
- Windows 11 DG Windows 10 Pro 64
- Windows 11 DG Windows 10 Pro 64 for Workstations
- Windows 10 Pro 64
- Windows 10 Pro 64 for Workstations
- Windows 10 Home 64
- Windows 10 Home 64 Single Language
- Ubuntu Linux LTS
- Red Hat Enterprise Linux 8.4 (certified only, for detailed and latest information, please visit Red Hat Certified Hardware)

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**

Graphics	Type	Memory	TGP	Key Features
NVIDIA® RTX A5000 Laptop GPU	Discrete	16GB GDDR6	115W	DirectX® 12
NVIDIA T1200 Laptop GPU	Discrete	4GB GDDR6	60W	DirectX 12
NVIDIA RTX A4000 Laptop GPU	Discrete	8GB GDDR6	115W	Dynamic Boost 2.0, DirectX 12
NVIDIA RTX A2000 Laptop GPU	Discrete	4GB GDDR6	60W	Dynamic Boost 2.0, DirectX 12
NVIDIA RTX A3000 Laptop GPU	Discrete	6GB GDDR6	115W	Dynamic Boost 2.0, DirectX 12

Monitor Support

Monitor Support

Supports up to 5 independent displays (native display and 4 external monitors via HDMI®, USB-C®, or Thunderbolt™) on hybrid mode only
• HDMI supports up to 4K@60Hz on NVIDIA T1200, 8K@60Hz on other discrete graphics
• USB-C up to 5120x3200@60Hz
• Thunderbolt supports up to 5120x3200@60Hz

Chipset

Chipset

Intel WM590 chipset

Memory

Max Memory[1]

Up to 128GB (4x 32GB DDR4 SO-DIMM)

Memory Slots

Four DDR4 SO-DIMM slots, dual-channel capable

Memory Type**

- DDR4-3200 ECC
- DDR4-3200 non-ECC

Memory Protection

ECC on models with ECC DIMMs and Xeon processor

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]

Up to three drives, 3x M.2 SSD
• M.2 2280 SSD up to 2TB

Storage Slot[2]

Three M.2 slots
• Two M.2 2280 PCIe® 3.0 x4 slots
• One M.2 2280 PCIe 4.0 x4 slot

Storage Type***[3]

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

RAID[4]

RAID 0/1 support on two M.2 PCIe Gen 3x4 slots

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. M.2 PCIe Gen 4 SSD in a M.2 PCIe Gen 3 slot runs at PCIe Gen 3 speeds
3. PCIe x4 SSD may be PCIe 3.0 x4 or PCIe 4.0 x4 as substitution.
4. Opal capability is not available in RAID mode.

Removable Storage

Optical

None

Card Reader

SD card reader

Multi-Media

Audio Chip

High Definition (HD) Audio, Realtek® ALC3306 codec

Speakers

Stereo speakers, Dolby® Atmos®

Microphone

- Dual-microphone array, far-field
- No microphone

Camera

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

Battery

Battery

Integrated Li-Polymer 94Wh battery, supports Rapid Charge (charge up to 80% in 1hr) with 230W AC adapter

Max Battery Life[1]

MobileMark® 2018: 8.3 hr
JEITA 2.0: 11 hr

Notes:

1. All battery life claims are approximate maximum and based on results using the MobileMark 2014, MobileMark 2018, JEITA 2.0, continuous 1080p video playback (with 150nits brightness and default volume level) or Google Power Load Test (PLT) battery-life benchmark tests. Actual battery life will vary and depends on many factors such as product configuration and usage, software use, wireless functionality, power management settings, and screen brightness. The maximum capacity of the battery will decrease with time and use.

Power Adapter

Power Adapter**[1]

- 170W slim tip (3-pin) AC adapter, 100-240V, 50-60Hz
- 230W slim tip (3-pin) AC adapter, 100-240V, 50-60Hz

Notes:

1. AC adapter offerings depend on the country.

DESIGN

Display

Display**[1][2]

Size	Resolution	Touch	Type	Brightness	Surface	Aspect Ratio	Contrast Ratio	Color Gamut	Viewing Angle (L/R/U/D)	Key Features
17.3"	FHD (1920x1080)	None	IPS	300 nits	Anti-glare	16:9	800:1	100% sRGB	85°/85°/-/-	-
17.3"	UHD (3840x2160)	None	IPS	500 nits	Anti-glare	16:9	1000:1	100% Adobe® RGB	85°/85°/-/-	Dolby Vision™, DisplayHDR™ 400

Color Calibration

- X-Rite® Pantone® factory color calibration (UHD display)
- No color calibration

Touchscreen

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
2. For non-OLED display, HDR is only supported under hybrid mode.

Input Device

Keyboard

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

Keyboard Backlight

LED backlight

UltraNav™

3-button TrackPoint® pointing device and Mylar® surface multi-touch touchpad

Mechanical

Dimensions (WxDxH)[1]

415.44 x 280.81 x 24.31-32.45 mm (16.36 x 11.06 x 0.96-1.28 inches)

Weight[2]

Starting at 3.564 kg (7.86 lbs)

Case Color

Black

Case Material

PPS / 50% GF (top), PA / 50% GF (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**

- 2.5GbE, Intel Ethernet Connection I225-LM (vPro® models), 1x RJ-45, supports Wake-on-LAN
- 2.5GbE, Intel Ethernet Connection I225-V (non-vPro models), 1x RJ-45, supports Wake-on-LAN

WLAN + Bluetooth®[1][2]

- Intel Wi-Fi® 6E AX210, 802.11ax 2x2 Wi-Fi + Bluetooth 5.1
- No WLAN and Bluetooth

WWAN**

- Wireless WAN upgradable to 4G (with antenna ready)
- Quectel EM160R, 4G LTE CAT16, MIMO 4x4, M.2 card, with embedded eSIM functionality
- No support

SIM Card

No SIM card inbox

NFC

No support

Notes:

1. Bluetooth 5.2 is hardware ready but may run at a lower version due to OS limitations.
2. 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.

Ports[1]

Standard Ports

- 2x USB 3.2 Gen 1 (one Always On)
- 1x USB-C 3.2 Gen 2 (support data transfer, Power Delivery 3.0 and DisplayPort™ 1.4)
- 2x Thunderbolt 4 / USB4® 40Gbps (support data transfer, Power Delivery 3.0 and DisplayPort 1.4a)
- 1x SD card reader
- 1x Ethernet (2.5GbE RJ-45)
- 1x Headphone / microphone combo jack (3.5mm)

Optional Ports***

- 1x Smart card reader
- 1x Nano-SIM card slot (WWAN support models)
- 1x HDMI 2.0 (models with NVIDIA T1200 graphics)
- 1x HDMI 2.1 (models with NVIDIA RTX graphics)

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 Docking for ThinkPad® P17 Gen 2

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® Security Slot™, 3 x 7 mm

Smart Card Reader

- Smart card reader
- No smart card reader

Fingerprint Reader

Touch style fingerprint reader on palm rest, match-on-chip

BIOS Security

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

Other Security

(Optional) IR camera for Windows Hello

MANAGEABILITY

System Management

System Management[1]

- Intel vPro
- 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 https://smartfind.lenovo.com/. To learn more details of warranty policy,

please access https://pcsupport.lenovo.com/warranty.

ENVIRONMENTAL

Operating Environment

Temperature[1]

- 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)

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).

CERTIFICATIONS

Green Certifications[1]

Green Certifications[2]

- EPEAT™ Gold
- ENERGY STAR® 8.0
- 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

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.
- Feature with *** means that one or more offerings listed under the feature could be configured on selected models.
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