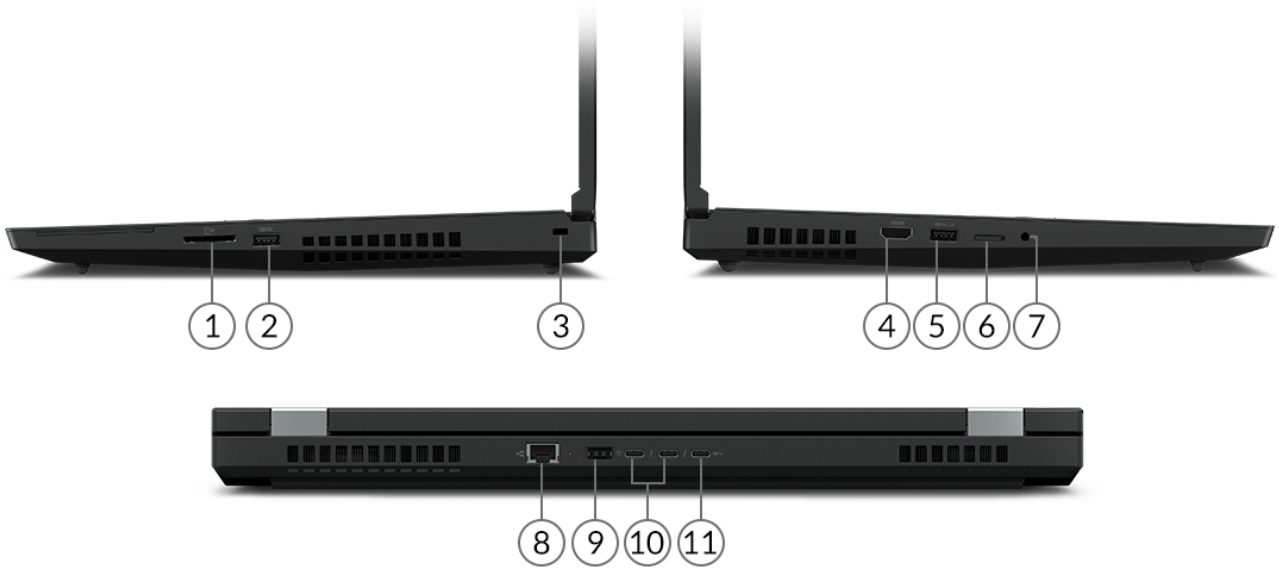
OVERVIEW



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

Notes:

- Ports with * are only available on selected models

PERFORMANCE

Processor

Processor Family

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

Processor

Processor Name	Cores	Threads	Base Frequency	Max Frequency	Cache	Memory Support	Processor Graphics
Core i5-11500H	6	12	2.9GHz	4.6GHz	12MB	DDR4-3200	Intel UHD Graphics for 11th Gen Intel Processors
Core i7-11800H	8	16	2.3GHz	4.6GHz	24MB	DDR4-3200	Intel UHD Graphics
Core i7-11850H	8	16	2.5GHz	4.8GHz	24MB	DDR4-3200	Intel UHD Graphics for 11th Gen Intel Processors
Core i9-11950H	8	16	2.6GHz	5.0GHz	24MB	DDR4-3200	Intel UHD Graphics for 11th Gen Intel Processors
Xeon W-11855M	6	12	3.2GHz	4.9GHz	18MB	DDR4-3200	Intel UHD Graphics for 11th Gen Intel Processors
Xeon W-11955M	8	16	2.6GHz	5.0GHz	24MB	DDR4-3200	Intel UHD Graphics for 11th Gen Intel Processors

Operating System

Operating System

- Windows® 10 Home 64
- Windows 10 Pro 64
- Windows 10 Pro 64 for Workstations
- Fedora Linux
- Ubuntu Linux LTS

Graphics

Graphics

Graphics	Type	Memory	Boost Clock	TGP	Connector	Max Resolution	Key Features	Remark
NVIDIA® RTX A2000	Discrete	4GB GDDR6	-	-	-	-	DirectX® 12	-
NVIDIA RTX A3000	Discrete	6GB GDDR6	-	-	-	-	DirectX 12	-
NVIDIA RTX A5000	Discrete	16GB GDDR6	-	-	-	-	DirectX 12	-
NVIDIA T1200	Discrete	4GB GDDR6	-	-	-	-	DirectX 12	-
NVIDIA RTX A4000	Discrete	8GB GDDR6	-	-	-	-	DirectX 12	-

Monitor Support

Monitor Support

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

Chipset

Chipset

Intel WM590

Memory

Max Memory[1]

Up to 128GB, both ECC and non-ECC

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

Up to three M.2 2280 SSD, up to 2TB each

Storage Slot[1]

Three M.2 2280 PCIe slots for SSD:
• 1x M.2 2280 PCIe Gen 4x4 slot, supports M.2 2280 SSD
• 2x M.2 2280 PCIe Gen 3x4 slots, supports M.2 2280 SSD

Storage Type

Disk Type	Interface	RPM	Offering	Security
M.2 2280 SSD	PCIe NVMe	-	256GB / 512GB / 1TB / 2TB	Opal2

RAID

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

Notes:

1. M.2 PCIe Gen 4 SSD in a M.2 PCIe Gen 3 slot runs at PCIe Gen 3 speeds

Removable Storage

Card Reader

SD card reader

Multi-Media

Audio Chip

High Definition (HD) Audio, Realtek® ALC3306 codec

Speakers

Stereo speakers, Dolby® Atmos® Speaker System certified

Microphone

- Dual array microphone, near-field
- No microphone

Camera

- 720p, with privacy shutter, fixed focus
- IR & 720p, 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: 9 hr
JEITA 2.0: 11.5 hr

Notes:

1. All battery life claims are approximate maximum and based on results using the MobileMark 2014, MobileMark 2018, and/or JEITA 2.0 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

- 170W slim tip AC adapter (3-pin)
- 230W slim tip AC adapter (3-pin)

DESIGN

Display

Display[2]

Size	Resolution	Touch	Type	Brightness	Surface	Aspect Ratio	Contrast Ratio	Color Gamut	Viewing Angle	Key Features
15.6"	UHD (3840x2160)	Multi-touch	OLED	SDR 400nit, HDR 500nit (peak)	Anti-reflection Anti-smudge	16:9	100000:1	100% DCI-P3	170°	Dolby Vision™, HDR 500 True Black
15.6"	FHD (1920x1080)	None	IPS	300 nits	Anti-glare	16:9	700:1	100% sRGB	170°	-
15.6"	FHD (1920x1080)	None	IPS	500 nits	Anti-glare	16:9	1200:1	100% sRGB	170°	Dolby Vision
15.6"	UHD (3840x2160)	None	IPS	600 nits	Anti-glare	16:9	1200:1	100% Adobe® RGB	170°	Dolby Vision, HDR 400

Color Calibration

X-Rite Pantone factory color calibration (UHD display)

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

Input Device

Pen

- Lenovo Pen Pro
- None

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)

Models	Dimensions
Touch models	375.4 x 252.3 x 25.25-32.2 mm (14.24 x 9.67 x 0.99-1.27 inches)
Non-touch models	375.4 x 252.3 x 24.5-31.45 mm (14.24 x 9.67 x 0.96-1.24 inches)

Weight

Models	Weight

Touch models	3.07 kg (6.75 lbs)
Non-touch models	2.87 kg (6.32 lbs)

Case Color

Black

Case Material

PPS695 + GF 50% (top), PA+ 50% GF (bottom)

CONNECTIVITY

Network

Onboard Ethernet

- 2.5GbE, Intel Ethernet Connection I225-LM (vPro models), supports Wake-on-LAN
- 2.5GbE, Intel Ethernet Connection I225-V (non-vPro models), supports Wake-on-LAN

WLAN + Bluetooth™

- Intel Wi-Fi 6E AX210, 802.11ax 2x2 Wi-Fi + Bluetooth 5.2
- None

WWAN

- Integrated Mobile Broadband 4G LTE, Quectel EM160R, MIMO 4x4, M.2 card, with embedded eSIM functionality
- Wireless WAN upgradable to 4G
- Not Support

SIM Card

No SIM card

NFC

Not support

Ports[1]

Standard Ports[2]

- 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 HDMI 2.1 (HDMI 2.0 on NVIDIA T1200 model)
- 1x SD card reader
- 1x headphone / microphone combo jack (3.5mm)
- 1x Security keyhole
- 1x 2.5GbE RJ-45

Optional Ports

- 1x Smart card reader
- 1x Nano-SIM card slot (WWAN 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, formely USB 3.0 / USB 3.1 Gen 1): 5 Gbit/s;
   USB 3.2 Gen 2 (SuperSpeed USB 10Gbps, formely USB 3.1 Gen 2): 10 Gbit/s;
   USB 3.2 Gen 2x2 (SuperSpeed USB 20Gbps): 20 Gbit/s;
   Thunderbolt 3: 40 Gbit/s;
   FireWire 400: 400 Mbit/s;
   FireWire 800: 800 Mbit/s
2. Depending on many factors, actual data transfer speed may be lower than theoretical speed

Monitor Cable

Monitor Cable

- Lenovo HDMI to VGA Monitor Adapter
- Lenovo USB-C to DisplayPort Adapter
- Lenovo USB-C to VGA 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

MANAGEABILITY

System Management

System Management

- Intel vPro Technology, DASH
- None

SERVICE

Warranty

Base Warranty

- 1-year depot service
- 1-year depot with 2-year system board service
- 3-year (1-yr battery) depot service
- 3-year (1-yr battery) limited onsite service

ENVIRONMENTAL

Operating Environment

Temperature[1]

- Storage without packaging: 5°C (41°F) to 43°C (109°F)
- Storage and transportation in original shipping packaging: -20°C (-4°F) to 60°C (140°F)
- Operating: 5°C (41°F) to 35°C (95°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

Green Certifications

- EPEAT™ Gold
- ENERGY STAR® 8.0
- RoHS compliant

Other Certifications

Mil-Spec Test

MIL-STD-810H military test passed

ISV Certifications

ISV Certifications

Please visit www.thinkworkstations.com/isv-certifications/