Lenovo PSREF
Product Specifications
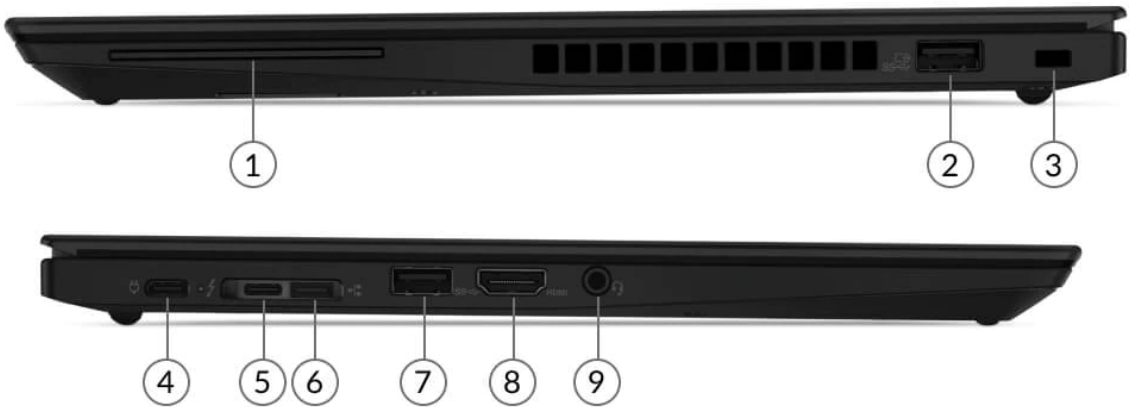Reference

OVERVIEW

1.	Smart card reader *	6.	Ethernet extension connector
2.	USB 3.2 Gen 1 (Always On)	7.	USB 3.2 Gen 1
3.	Kensington Security Slot	8.	HDMI 1.4b
4.	USB-C 3.2 Gen 1	9.	Headphone / microphone combo jack (3.5mm)
5.	USB-C 3.2 Gen 2 / Thunderbolt 3		

Notes:
- Ports with * are only available on selected models
- Card slot on the rear side (not shown on the sample product above) is for microSD card (WLAN model) or nano-SIM + microSD card (WWAN model)
- The combination of 5 and 6 is side docking connector

PERFORMANCE

Processor

Processor Family

10th Generation Intel® Core™ i5 / i7 Processor

Processor[**]

Processor Name	Cores	Threads	Base Frequency	Max Frequency	Cache	Memory Support	Processor Graphics
Core i5-10210U	4	8	1.6GHz	4.2GHz	6MB	DDR4-2666	Intel UHD Graphics
Core i5-10310U	4	8	1.7GHz	4.4GHz	6MB	DDR4-2666	Intel UHD Graphics
Core i7-10510U	4	8	1.8GHz	4.9GHz	8MB	DDR4-2666	Intel UHD Graphics
Core i7-10610U	4	8	1.8GHz	4.9GHz	8MB	DDR4-2666	Intel UHD Graphics
Core i7-10710U	6	12	1.1GHz	4.7GHz	12MB	DDR4-2666	Intel UHD Graphics
Core i7-10810U	6	12	1.1GHz	4.9GHz	12MB	DDR4-2666	Intel UHD Graphics

Operating System

Operating System[**]

- Windows® 10 Pro 64
- Windows 10 Home 64
- Linux
- Ubuntu Linux
- No operating system

Graphics

Graphics

Graphics	Type	Memory	Key Features
Intel UHD Graphics	Integrated	Shared	DirectX® 12

Monitor Support

Monitor Support

Supports up to 3 independent displays (native display and 2 external monitors via HDMI®, USB-C and Thunderbolt™)
• HDMI supports up to 4096x2160@24Hz
• USB-C supports up to 4096x2304@60Hz
• Thunderbolt supports up to 4096x2304@60Hz

Chipset

Chipset

Intel SoC (System on Chip) platform

Memory

Max Memory[1]

- 8GB soldered memory, not upgradable
- 16GB soldered memory, not upgradable
- 32GB soldered memory, not upgradable

Memory Slots

Memory soldered to systemboard, no slots, dual-channel

Memory Type[2]

DDR4-2666

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.
2. Installed memory is actually 3200MHz but run at 2666MHz due to processor limitation.

Storage

Storage Support[1]

One drive, up to 512GB M.2 2242 SSD or 2TB M.2 2280 SSD, optional Intel Optane™ Memory integrated with SSD, M.2

Storage Type**

Disk Type	Interface	RPM	Security
M.2 2242 SSD	PCIe® NVMe®, PCIe 3.0 x2	-	-
M.2 2280 SSD	PCIe NVMe, PCIe 3.0 x4	-	Opal2
Intel Optane Memory with Solid State Storage, M.2 2280	PCIe NVMe, PCIe 3.0 x4	-	-

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

Optical

None

Card Reader**

- MicroSD card slot (WLAN model)
- Nano-SIM + microSD card slot (WWAN model)

Multi-Media

Audio Chip

High Definition (HD) Audio, Realtek® ALC3287 codec

Speakers

Stereo speakers, 1W x2, Dolby® Audio™

Microphone

- Dual array microphone, far-field
- No microphone

Camera**

- 720p, with ThinkShutter, fixed focus
- IR & 720p hybrid, with ThinkShutter, fixed focus
- No camera

Battery

Battery

Integrated Li-Polymer 57Wh battery, supports Rapid Charge (charge up to 80% in 1hr) with 65W AC adapter

Max Battery Life[1]

MobileMark® 2014: 21 hr
MobileMark 2018: 14.28 hr
JEITA 2.0: 23.1 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]

- 45W USB-C (2-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
- 45W USB-C (3-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
- 65W USB-C (2-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
- 65W USB-C (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	Type	Brightness	Surface	Aspect Ratio	Contrast Ratio	Color Gamut	Viewing Angle	Key Features
14.0"	FHD (1920x1080)	None	IPS	250 nits	Anti-glare	16:9	700:1	45% NTSC	170°	-
14.0"	FHD (1920x1080)	None	IPS	400 nits	Anti-glare	16:9	800:1	72% NTSC	170°	Low power
14.0"	UHD (3840x2160)	None	IPS	500 nits	Glossy	16:9	1500:1	100% DCI-P3	170°	Dolby Vision™, DisplayHDR™ 400
14.0"	FHD (1920x1080)	Multi-touch	IPS	300 nits	Anti-glare	16:9	700:1	45% NTSC	170°	-
14.0"	FHD (1920x1080)	Multi-touch	IPS	500 nits	Anti-glare	16:9	1000:1	72% NTSC	170°	ThinkPad® Privacy Guard

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™

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

Mechanical[1]

Dimensions (WxDxH)

Models	Dimensions
Model with black cover and FHD Low Power / UHD display	328.8 x 225.8 x 16.1 mm (12.94 x 8.89 x 0.63 inches)
Model with black cover and FHD touch / FHD non-touch / FHD Privacy Guard display	329.0 x 226.15 x 16.7 mm (12.95 x 8.90 x 0.66 inches)
Silver models	329.15 x 226.45 x 17.2 mm (12.96 x 8.92 x 0.68 inches)

Weight

Models	Weight
Model with black cover and FHD Low Power / UHD display	1.27 kg (2.81 lbs)
Model with black cover and FHD touch / FHD non-touch / FHD Privacy Guard display	1.35 kg (2.98 lbs)
Silver models	1.49 kg (3.29 lbs)

Case Color**

- Black
- Silver

Case Material**[2]

- Black models: carbon fiber hybrid (top), magnesium (keyboard cover & bottom)
- Silver models: aluminium (top), magnesium (keyboard cover & bottom)

Notes:

1. The system dimensions and weight vary depending on configurations.
2. CFRP Hybrid top cover for black models; Aluminum top cover for silver models.

CONNECTIVITY

Network

Onboard Ethernet**

- Gigabit Ethernet, Intel Ethernet Connection I219-LM (vPro models), 1x RJ-45 via optional ThinkPad Ethernet Extension Adapter Gen 2, supports Wake-on-LAN
- Gigabit Ethernet, Intel Ethernet Connection I219-V (non-vPro models), 1x RJ-45 via optional ThinkPad Ethernet Extension Adapter Gen 2, supports Wake-on-LAN

WLAN + Bluetooth®[1][2]

Intel Wi-Fi® 6 AX201, 802.11ax 2x2 Wi-Fi + Bluetooth 5.2

WWAN**[3]

- Wireless WAN upgradable to 4G (with antenna ready)
- Integrated Mobile Broadband 4G LTE-A, CAT9, Fibocom L850-GL, M.2 card
- Integrated Mobile Broadband 4G LTE-A, Fibocom L860-GL, CAT16, M.2 card
- No support

SIM Card

- Gemalto eSIM
- 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 limitation
2. Wi-Fi 6 full features might be limited by country-level restrictions.
3. For non-WWAN model, it means the model is NOT WWAN upgradable.

Ports[1]

Standard Ports

- 1x USB 3.2 Gen 1
- 1x USB 3.2 Gen 1 (Always On)
- 1x USB-C 3.2 Gen 1 (support data transfer, Power Delivery and DisplayPort™ 1.2)
- 1x USB-C 3.2 Gen 2 / Thunderbolt 3 (support data transfer, Power Delivery and DisplayPort 1.2)
- 1x HDMI 1.4b
- 1x Ethernet extension connector
- 1x Headphone / microphone combo jack (3.5mm)
- 1x Side docking connector

Optional Ports***

- 1x Smart card reader
- 1x Nano-SIM & microSD card slot (WWAN support models)
- 1x microSD card slot (WLAN model)

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;
FireWire 400: 400 Mbit/s;
FireWire 800: 800 Mbit/s

Docking

Docking

Various docking solutions supported via side docking connector, Thunderbolt or USB-C.
For more compatible docking solutions, please visit Docking for ThinkPad T14s Gen 1 (Intel)

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
- Firmware TPM 2.0 integrated in chipset
- Disabled (in some regions)

Physical Locks

Kensington® Security Slot

Smart Card Reader

- Smart card reader
- No smart card reader

Fingerprint Reader

- Touch style fingerprint reader on palm rest, match-on-chip
- No fingerprint reader

BIOS Security

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

Other Security

- (Optional) ThinkShutter camera cover
- (Optional) IR camera for Windows Hello
- (Optional) Privacy Guard with Privacy Alert

MANAGEABILITY

System Management

System Management[1]

- Intel vPro
- Non-vPro

Notes:

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

SERVICE

Warranty

Base Warranty

**[1]

- 1-year depot service
- 1-year depot with 2-year system board service (Korea only)
- 1-year limited onsite service
- 1-year + 2-year depot service
- 1-year + 2-year limited onsite service
- 3-year (1-yr battery) depot service
- 3-year (1-yr battery) limited onsite service
- No base warranty

Notes:
1. More information 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 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

- ThinkPad Ethernet Extension Adapter Gen 2
- None

CERTIFICATIONS

Green Certifications

Green Certifications

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

Other Certifications

Mil-Spec Test

MIL-STD-810G military test passed

- 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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