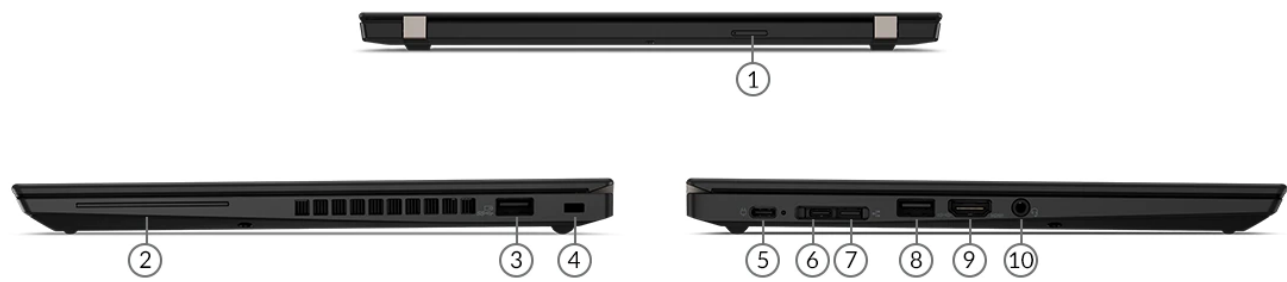


OVERVIEW



1. Nano-SIM card slot *	6. USB-C 3.2 Gen 2
2. Smart card reader *	7. Ethernet extension connector *
3. USB 3.2 Gen 1 (Always On)	8. USB 3.2 Gen 1
4. Kensington Nano Security Slot	9. HDMI 2.0
5. USB-C 3.2 Gen 2	10. Headphone / microphone combo jack (3.5mm)

- Notes:
- Ports with * are only available on selected models
 - The combination of 6 and 7 is side docking connector

PERFORMANCE

Processor

Processor Family

AMD Ryzen™ 3 / 5 / 7 Processor

Processor**[1]

Processor Name	Cores	Threads	Base Frequency	Max Frequency	Cache	Memory Support	Processor Graphics
AMD Ryzen 3 PRO 5450U	4	8	2.6GHz	4.0GHz	2MB L2 / 8MB L3	LPDDR4-4266	AMD Radeon™ Graphics
AMD Ryzen 5 5600U	6	12	2.3GHz	4.2GHz	3MB L2 / 16MB L3	LPDDR4-4266	AMD Radeon Graphics
AMD Ryzen 5 PRO 5650U	6	12	2.3GHz	4.2GHz	3MB L2 / 16MB L3	LPDDR4-4266	AMD Radeon Graphics
AMD Ryzen 7 5800U	8	16	1.9GHz	4.4GHz	4MB L2 / 16MB L3	DDR4-3200	AMD Radeon Graphics
AMD Ryzen 7 PRO 5850U	8	16	1.9GHz	4.4GHz	4MB L2 / 16MB L3	LPDDR4-4266	AMD Radeon Graphics

Notes:
1. Ryzen 5 5600U is NOT available in EMEA.

Operating System

Operating System**

- Windows® 11 Pro 64
- Windows 11 Home 64
- Windows 11 DG Windows 10 Pro 64
- Windows 10 Pro 64
- Windows 10 Home 64
- Windows 10 IoT Enterprise LTSC
- Linux
- Ubuntu Linux
- No operating system

Graphics

Graphics

Graphics	Type	Memory	Key Features
AMD Radeon Graphics	Integrated	Shared	DirectX® 12

Monitor Support

Monitor Support

Supports up to 4 independent displays (native display and 3 external monitors via HDMI® and USB-C)

- HDMI supports up to 4K@60Hz
- USB-C supports up to 5K@60Hz

Chipset

Chipset

AMD 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

LPDDR4x-4266

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

One drive, up to 256GB M.2 2242 SSD or 2TB M.2 2280 SSD

Storage Slot

One M.2 2280 PCIe® Gen 3x4 slot, supports M.2 2242/2280 SSD

Storage Type**[1]

Disk Type	Interface	RPM	Offering	Security
M.2 2242 SSD	PCIe NVMe®, PCIe 3.0 x4	-	128GB / 256GB	-
M.2 2280 SSD	PCIe NVMe, PCIe x4	-	256GB / 512GB / 1TB	Opal2
M.2 2280 SSD	PCIe NVMe, PCIe 4.0 x4 Performance	-	2TB	Opal2

Notes:

- 1. The SSD with PCI 4.0x4 performance is downgraded to closer to PCIe 3.0x4 performance due to the system slot limitation.

Removable Storage

Optical

None

Card Reader

MicroSD card reader

Multi-Media

Audio Chip

High Definition (HD) Audio, Realtek® ALC3287 codec

Speakers

Stereo speakers, 2W x2, Dolby® Audio™

Microphone

- Dual array microphone, far-field
- No microphone

Camera**

- 720p, with privacy shutter, fixed focus
- IR & 1080p hybrid, with privacy shutter, fixed focus
- No camera

Battery

Battery**

- Integrated Li-Polymer 41Wh battery, supports Rapid Charge (charge up to 80% in 1hr) with 65W AC adapter
- Integrated Li-Polymer 54.7Wh battery, supports Rapid Charge (charge up to 80% in 1hr) with 65W AC adapter

Max Battery Life[1]

- Model with 41Wh battery:
MobileMark® 2018: 10.7 hr
JEITA 2.0: 13.5 hr
- Model with 54.7Wh battery:
MobileMark 2018: 15.4 hr
JEITA 2.0: 18.1 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
- No power adapter

Notes:

1. No power adapter is for special bid only.

DESIGN

Display

Display**[1]

Size	Resolution	Touch	Type	Brightness	Surface	Aspect Ratio	Contrast Ratio	Color Gamut	Viewing Angle	Key Features
13.3"	WUXGA (1920x1200)	None	IPS	300 nits	Anti-glare	16:10	1000:1	72% NTSC	170°	-
13.3"	WUXGA (1920x1200)	None	IPS	500 nits	Anti-glare	16:10	1000:1	72% NTSC	170°	ThinkPad® Privacy Guard
13.3"	WUXGA (1920x1200)	Multi-touch	IPS	300 nits	Anti-glare	16:10	1000:1	72% NTSC	170°	-
13.3"	WQXGA (2560x1600)	None	IPS	400 nits	Anti-glare	16:10	1200:1	100% sRGB	170°	Low power, low blue light

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[1]

- LED backlight
- No support

UltraNav™

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

Notes:

1. Non-backlit keyboard is only available for the models with black cover.

Mechanical

Dimensions (WxDxH)

Models	Dimensions
Models with aluminium top cover	305.8 x 217.89 x 18.06 mm (12.04 x 8.58 x 0.71 inches)
Models with carbon fiber top cover	305.8 x 217.39 x 18.97 mm (12.04 x 8.56 x 0.75 inches)
Models with PPS top cover	305.8 x 217.06 x 18.19 mm (12.04 x 8.55 x 0.72 inches)

Weight^[1]

Models	Weight
Models with WQXGA display, 41Wh battery, and black PPS top cover	1.21 kg (2.67 lbs)
Models with WQXGA display, 41Wh battery, and storm grey top cover	1.28 kg (2.82 lbs)
Models with WQXGA display, 54.7Wh battery, and black PPS top cover	1.26 kg (2.78 lbs)
Models with WQXGA display, 54.7Wh battery, and storm grey top cover	1.34 kg (2.94 lbs)
Models with WUXGA display, 41Wh battery, and black carbon fiber top cover	1.19 kg (2.62 lbs)
Models with WUXGA display, 41Wh battery, and black PPS top cover	1.25 kg (2.77 lbs)
Models with WUXGA display, 41Wh battery, and storm grey top cover	1.33 kg (2.93 lbs)
Models with WUXGA display, 54.7Wh battery, and black carbon fiber top cover	1.26 kg (2.77 lbs)
Models with WUXGA display, 54.7Wh battery, and black PPS top cover	1.31 kg (2.88 lbs)
Models with WUXGA display, 54.7Wh battery, and storm grey top cover	1.38 kg (3.04 lbs)

Case Color**

- Storm grey
- Villi black

Case Material**

- Villi black models: carbon fiber or PPS (top), magnesium (keyboard cover), aluminium (bottom)
- Storm grey & WWAN models: aluminium (top), magnesium (keyboard cover), aluminium (bottom)
- Storm grey & non-WWAN models: aluminium (top), aluminium (keyboard cover & bottom)

Notes:

1. The system weight varies depending on configurations.

CONNECTIVITY**Network****Onboard Ethernet**

- Gigabit Ethernet, Realtek RTL8111EPV, 1x RJ-45 via optional ThinkPad Ethernet Extension Adapter Gen 2
- No Ethernet

WLAN + Bluetooth®^[1]**

- Wi-Fi® 6, 802.11ax 2x2 Wi-Fi + Bluetooth 5.2
- Mediatek Wi-Fi 6 MT7921, 802.11ax 2x2 Wi-Fi + Bluetooth 5.2
- Realtek RTL8852AE, Wi-Fi 6, 802.11ax Dual Band 2x2 Wi-Fi + Bluetooth 5.2
- Qualcomm® QCNFA765, Wi-Fi 6E, 802.11ax Dual Band 2x2 Wi-Fi + Bluetooth 5.2, M.2 Card
- Intel® Wi-Fi 6 AX200, 802.11ax 2x2 Wi-Fi + Bluetooth 5.2

WWAN**

- Wireless WAN upgradable to 4G (with antenna ready)
- Integrated Mobile Broadband 4G LTE, Quectel EM120R-GL, M.2 card, with embedded eSIM functionality
- Qualcomm Snapdragon™ X55 5G Modem M.2 card - RF System with embedded eSIM functionality
- No support

SIM Card

No SIM card inbox

NFC^[2]

- Near Field Communication
- No support

Notes:

1. Intel Wi-Fi 6 full features might be limited by country level restrictions.
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.
Bluetooth 5.2 is supported with driver version 22.30 and later.
2. NFC is NOT available for the models with storm grey cover.

Ports^[1]**Standard Ports**

- 1x USB 3.2 Gen 1
- 1x USB 3.2 Gen 1 (Always On)
- 2x USB-C 3.2 Gen 2 (support data transfer, Power Delivery and DisplayPort™ 1.4)
- 1x HDMI 2.0
- 1x Headphone / microphone combo jack (3.5mm)
- 1x Side docking connector

Optional Ports^{*[2]}**

- 1x Ethernet extension connector
- 1x Smart card reader
- 1x Nano-SIM card slot (WWAN 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: 40 Gbit/s;
FireWire 400: 400 Mbit/s;
FireWire 800: 800 Mbit/s
2. If your computer has Ethernet icon, it supports wired Ethernet connection with ThinkPad Ethernet Extension Adapter or ThinkPad Basic/Pro/Ultra Docking Station.
If your computer does not have Ethernet icon, the Ethernet connector does not support Ethernet connection. We recommend you use the Lenovo USB-C to Ethernet Adapter for Ethernet connection.

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® Nano Security Slot

Smart Card Reader

- Smart card reader
- No smart card reader

Fingerprint Reader

- Touch style fingerprint reader on power button, match-on-chip
- No fingerprint reader

BIOS Security

- Supervisor password
- Power-on password

- NVMe password
- Self-healing BIOS

Other Security

- (Optional) Camera privacy shutter
- (Optional) IR camera for Windows Hello
- (Optional) Privacy Guard with Privacy Alert

MANAGEABILITY

System Management

System Management

- DASH
- None

SERVICE

Warranty

Base Warranty**

- 1-year depot service
- 1-year depot with 2-year system board service
- 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

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***

- Lenovo USB-C to Ethernet Adapter
- ThinkPad Ethernet Extension Adapter Gen 2
- None

CERTIFICATIONS

Green Certifications

Green Certifications

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

Other Certifications

Mil-Spec Test

MIL-STD-810H 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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