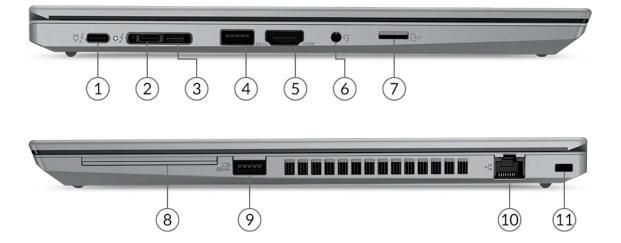
# **OVERVIEW**



1. Thunderbolt 4	7. microSD card reader
2. Thunderbolt 4	8. Smart card reader *
3. Side docking connector *	9. USB 3.2 Gen 1 (Always On)
4. USB 3.2 Gen 1	10. Ethernet (RJ-45) *
5. HDMI 2.0	11. Kensington Security Slot
6. Headphone / microphone combo jack (3.5mm)	

Notes:

- Items with \* are only available on selected models
- Optional nano-SIM card slot on the rear side (not shown on the sample product above)
- The combination of 1, 2 and 3 is side docking connector

# PERFORMANCE

## **Processor**

## **Processor Family**

11th Generation Intel<sup>®</sup> Core<sup>™</sup> i5 / i7 Processor

## Processor\*\*[1]

Processor Name	Cores	Threads	Base Frequency	Max Frequency	Cache	Processor Graphics
Core i5-1135G7	4	8	2.4GHz	4.2GHz	8MB	Intel Iris® Xe Graphics
Core i5-1145G7	4	8	2.6GHz	4.4GHz	8MB	Intel Iris Xe Graphics
Core i7-1165G7	4	8	2.8GHz	4.7GHz	12MB	Intel Iris Xe Graphics
Core i7-1185G7	4	8	3.0GHz	4.8GHz	12MB	Intel Iris Xe Graphics

## Notes:

[1] Intel Iris Xe Graphics capability requires system to be configured with dual-channel memory. On the system with singlechannel memory, Intel Iris Xe Graphics will function as Intel UHD Graphics.

# **Operating System**

## **Operating System**\*\*

- Windows<sup>®</sup> 11 Pro
- Windows 11 Home
- Windows 11 Home Single Language
- Windows 11 DG Windows 10 Pro 64
- Windows 10 Pro 64
- Windows 10 Home 64
- Windows 10 Home 64 Single Language
- Ubuntu Linux LTS
- No operating system

## **Graphics**

## Graphics\*\*[1]

Graphics	Туре	Memory	Key Features
Intel UHD Graphics	Integrated	Shared	DirectX® 12
Intel Iris Xe Graphics	Integrated	Shared	DirectX 12.1
NVIDIA <sup>®</sup> T500 Laptop GPU	Discrete	4GB GDDR6	DirectX 12

Notes:

[1] Intel Iris Xe Graphics capability requires system to be configured with dual-channel memory. On the system with singlechannel memory, Intel Iris Xe Graphics will function as Intel UHD Graphics.

## **Monitor Support**

## Monitor Support<sup>[1]</sup>

Supports up to 4 independent displays (native display and 3 external monitors via HDMI® and Thunderbolt™)

- HDMI supports up to 4K@60Hz
- $\bullet$  Thunderbolt supports up to 5K@60Hz

Notes:

[1] Refresh rates >60hz also supported, however max resolution will be limited.

# Chipset

Chipset

Intel SoC (System on Chip) platform

## Memory

## Max Memory

Lenovo

- 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

## Storage

## Storage Support<sup>[1]</sup>

One drive, up to 2TB M.2 2280 SSD

## Storage Slot<sup>[2]</sup>

One M.2 2280 PCIe® 3.0 x4 slot

## Storage Type\*\*[3]

Disk Type	Interface	RPM	Offering	Security
M.2 2242 SSD	PCIe NVMe <sup>®</sup> , PCIe 3.0 x4	-	-	-
M.2 2280 SSD	PCIe NVMe, PCIe x4	-	-	Opal 2.0
M.2 2280 SSD	PCIe NVMe, PCIe 4.0 x4 Performance	-	-	Opal 2.0

## RAID

No support

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] System comes with one M.2 SSD slot that supports PCIe 3.0.

PCIe x4 SSD may be PCIe 3.0 x4 or PCIe 4.0 x4 as substitution.

## **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<sup>®</sup> Audio<sup>™</sup>

## Microphone

Dual-microphone array, far-field

## Camera\*

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

# Battery

## Battery

Integrated Li-Polymer 50Wh battery, supports Rapid Charge (charge up to 80% in 1hr) with 65W AC adapter

## Max Battery Life<sup>[1]</sup>

MobileMark® 2018: 9.7 hr JEITA 2.0: 16 hr

Notes:

Lenovo

[1] All battery life claims are approximate maximum and based on results using the MobileMark 2014, MobileMark 2018, MobileMark 25, 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 depending 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<sup>®</sup> (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 (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
- 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
14″	FHD (1920x1080)	None	IPS	300 nits	Anti- glare	16:9	700:1	45% NTSC	85°/85°/-/-	DC dimming
14″	FHD (1920x1080)	None	IPS	400 nits	Anti- glare	16:9	800:1	72% NTSC	85°/85°/-/-	Low power
14″	FHD (1920x1080)	Multi- touch	IPS	300 nits	Anti- glare	16:9	700:1	45% NTSC	85°/85°/-/-	DC dimming
14″	FHD (1920x1080)	Multi- touch	IPS	500 nits	Anti- glare	16:9	1000:1	72% NTSC	85°/85°/-/-	ThinkPad® Privacy Guard, DC dimming
14″	UHD (3840x2160)	None	IPS	500 nits	Anti- glare	16:9	1500:1	100% DCI-P3	85°/85°/-/-	Dolby Vision™, DisplayHDR™ 400, DC dimming, X-Rite® FCC

## **Color Calibration**

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

## Touchscreen

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

#### Notes:

## [1] California Electronic Waste Recycling Fee

In California USA, 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, please 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

## Dimensions (WxDxH)

Models	Dimensions
Aluminium models	329.4 x 227.5 x 17.9 mm (12.97 x 8.96 x 0.70 inches)
PC + ABS models	329 x 227 x 17.9 mm (12.95 x 8.94 x 0.70 inches)

## Weight<sup>[2]</sup>

Models	Weight
Aluminium models	Starting at 1.502 kg (3.31 lbs)
PC + ABS models	Starting at 1.469 kg (3.24 lbs)

#### Case Color\*\*

- Black
- Storm grey

#### Case Material\*\*

- Aluminium (top), PC-ABS / Talc15 + magnesium alloy (keyboard cover), PA / 50% GF (bottom)
- PC + ABS (top), PC + ABS / Talc15 + magnesium alloy (keyboard cover), 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\*\*

- 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
- No onboard Ethernet (Using optional ethernet adapter or dock)

## WLAN + Bluetooth®\*\*[1]

- Intel Wi-Fi® 6 AX201, 802.11ax 2x2 Wi-Fi + Bluetooth 5.1 (Bluetooth 5.2 hardware ready)
- Intel Wi-Fi 6E AX210, 802.11ax 2x2 Wi-Fi + Bluetooth 5.1 (Bluetooth 5.3 hardware ready)
- No WLAN and Bluetooth

## WWAN\*\*

- Wireless WAN upgradable to 4G (with antenna ready)
- Quectel EM120R-GL, 4G LTE CAT12, M.2 card
- Quectel EM120R-GL, 4G LTE CAT12, M.2 card, with embedded eSIM functionality
- Quectel EM160R, 4G LTE CAT16, MIMO 4x4, M.2 card, with embedded eSIM functionality
- No support

## SIM Card\*\*

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

#### NFC

- Near Field Communication
- No support

#### Notes:

[1] Bluetooth 5.3 or 5.2 is hardware ready but may run at a lower version due to OS limitations.

## **Ports**<sup>III</sup>

## **Standard Ports**

- 1x USB 3.2 Gen 1
- 1x USB 3.2 Gen 1 (Always On)
- 2x Thunderbolt 4 / USB4<sup>®</sup> 40Gbps (support data transfer, Power Delivery 3.0 and DisplayPort<sup>™</sup> 1.4)
- 1x HDMI 2.0
- 1x microSD card reader
- 1x Headphone / microphone combo jack (3.5mm)

## **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; USB4 20Gbps / USB 3.2 Gen 2x2 (SuperSpeed USB 20Gbps): 20 Gbit/s; USB4 40Gbps (USB 40Gbps): 40 Gbit/s; Thunderbolt 3/4: 40 Gbit/s.

## Docking

## Docking

Various docking solutions supported via side docking connector (optional), Thunderbolt or USB-C. For more compatible docking solutions, please visit <u>Docking for ThinkPad P14s Gen 2 (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<sup>®</sup> Security Slot<sup>™</sup>, 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
- 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
- (Optional) Privacy Guard with Privacy Alert

# MANAGEABILITY

# System Management

## System Management<sup>[1]</sup>

- Intel vPro
- Non-vPro

## Notes:

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

# SERVICE

# Warranty

## 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**

## **Operating Environment**

## Temperature<sup>[1]</sup>

- 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**<sup>III</sup>

## Green Certifications<sup>[2]</sup>

- EPEAT<sup>™</sup> Gold Registered
- ENERGY STAR<sup>®</sup> 8.0
- TCO Certified Notebooks 8
- RoHS compliant

## Notes:

[1] The items listed under the "Green Certifications" section may not only refer to certification but also registration or selfdeclaration.

[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 www.thinkworkstations.com/isv-certifications/

- 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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