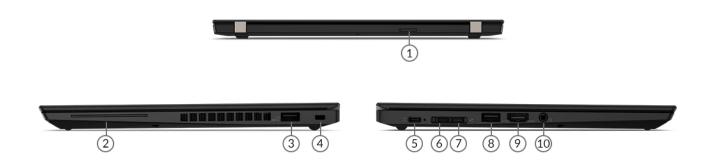


# **OVERVIEW**



1. Nano-SIM card slot *	6. USB-C 3.2 Gen 2
2. Smart card reader *	7. Ethernet extension connector (mini RJ-45) *
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:

- Items 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\*\*

Processor Name	Cores	Threads	Base Frequency	Max Frequency	Cache	Processor Graphics
AMD Ryzen 3 PRO 5450U	4	8	2.6GHz	4.0GHz	2MB L2 / 8MB L3	AMD Radeon™ Graphics
AMD Ryzen 5 5600U <sup>[1]</sup>	6	12	2.3GHz	4.2GHz	3MB L2 / 16MB L3	AMD Radeon Graphics
AMD Ryzen 5 PRO 5650U	6	12	2.3GHz	4.2GHz	3MB L2 / 16MB L3	AMD Radeon Graphics
AMD Ryzen 7 5800U	8	16	1.9GHz	4.4GHz	4MB L2 / 16MB L3	AMD Radeon Graphics
AMD Ryzen 7 PRO 5850U	8	16	1.9GHz	4.4GHz	4MB L2 / 16MB L3	AMD Radeon Graphics

### Notes:

[1] NOT available in EMEA.

# **Operating System**

# Operating System\*\*

- Linux<sup>[1]</sup>
- Ubuntu Linux<sup>[2]</sup>
- Windows® 10 Home 64
- Windows 10 Home 64 Single Language
- Windows 10 IoT Enterprise LTSC
- Windows 10 Pro 64
- Windows 11 DG Windows 10 Pro 64
- Windows 11 Home
- Windows 11 Home Single Language
- Windows 11 Pro
- · No operating system

## Notes:

[1], [2] 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	Туре	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**

- 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

## **Storage**

# Storage Support[1]

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

### **Storage Slot**

One M.2 2280 PCIe® 3.0 x4 slot

## Storage Type\*\*

Disk Type	Interface	Offering	Security
M.2 2242 SSD	PCIe NVMe®, PCIe 3.0 x4	128GB / 256GB	-
M.2 2280 SSD <sup>[2]</sup>	PCIe NVMe, PCIe 4.0 x4 Performance	2TB	Opal 2.0
M.2 2280 SSD <sup>[3]</sup>	PCIe NVMe, PCIe x4	256GB / 512GB / 1TB	Opal 2.0

### 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] The SSD with PCle 4.0x4 performance is downgraded to closer to PCle 3.0x4 performance due to the system slot limitation.

[3] PCIe x4 may be PCIe 3.0 x4 or PCIe 4.0 x4 as substitution.

# **Removable Storage**

### **Card Reader**

No card reader

## Multi-Media

# **Audio Chip**

High Definition (HD) Audio, Realtek® ALC3287 codec

## **Speakers**

Stereo speakers, 2W x2,  $Dolby^{8}$  Audio<sup>TM</sup>

### Microphone

- Dual-microphone array with 360° noise-cancelling, far-field
- · No microphone

### Camera\*\*

- HD 720p, with privacy shutter, fixed focus
- FHD 1080p + IR 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]

 Models with 41Wh battery: MobileMark® 2018: 10.7 hr JEITA 2.0: 13.5 hr

 Models 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, 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 (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<sup>[2]</sup>

### Notes:

- [1] AC adapter offerings depend on the country.
- [2] No power adapter is for special bid only.

# **DESIGN**

# **Display**

## Display\*\*[1][2]

Size	Resolution	Touch	Туре	Brightness	Surface	Aspect Ratio	Contrast Ratio	Color Gamut	Viewing Angle (L/R/U/D)	Key Features
13.3"	WUXGA (1920x1200)	None	IPS	300 nits	Anti- glare	16:10	1000:1	72% NTSC	85°/85°/85°/85°	-
13.3"	WUXGA (1920x1200)	Multi- touch	IPS	300 nits	Anti- glare	16:10	1000:1	72% NTSC	85°/85°/85°/85°	-
13.3"	WUXGA (1920x1200)	None	IPS	500 nits	Anti- glare	16:10	1000:1	72% NTSC	85°/85°/85°/85°	ThinkPad® Privacy Guard
13.3"	WQXGA (2560x1600)	None	IPS	400 nits	Anti- alare	16:10	1200:1	100% sRGB	85°/85°/85°/85°	Low power, low blue light

## 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.

[2] IPS (in-plane switching) technology may refer to IPS, PLS, ADS, AHVA, AAS.

# **Input Device**

## Keyboard

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

### **Keyboard Backlight**

- LED backlight
- Non-backlight<sup>[1]</sup>

### UltraNav™

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

## Notes:

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

# Mechanical



### Dimensions (WxDxH)[1]

Models	Dimensions
Models with PPS top cover	305.8 x 217.06 x 18.19 mm (12.04 x 8.55 x 0.72 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 aluminium top cover	305.8 x 217.89 x 18.06 mm (12.04 x 8.58 x 0.71 inches)

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

Models	Weight
Models with WQXGA display, 41Wh battery, and black PPS top cover	Starting at 1.21 kg (2.67 lbs)
Models with WQXGA display, 41Wh battery, and storm grey top cover	Starting at 1.28 kg (2.82 lbs)
Models with WQXGA display, 54.7Wh battery, and black PPS top cover	Starting at 1.26 kg (2.78 lbs)
Models with WQXGA display, 54.7Wh battery, and storm grey top cover	Starting at 1.34 kg (2.94 lbs)
Models with WUXGA display, 41Wh battery, and black PPS top cover	Starting at 1.25 kg (2.77 lbs)
Models with WUXGA display, 41Wh battery, and black carbon fiber top cover	Starting at 1.19 kg (2.62 lbs)
Models with WUXGA display, 41Wh battery, and storm grey top cover	Starting at 1.33 kg (2.93 lbs)
Models with WUXGA display, 54.7Wh battery, and black PPS top cover	Starting at 1.31 kg (2.88 lbs)
Models with WUXGA display, 54.7Wh battery, and black carbon fiber top cover	Starting at 1.26 kg (2.77 lbs)
Models with WUXGA display, 54.7Wh battery, and storm grey top cover	Starting at 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 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, Realtek RTL8111EPV, mini RJ-45 to RJ-45 via optional ThinkPad Ethernet Extension Adapter Gen 2, supports Wake-on-LAN
- · No onboard Ethernet

# WLAN + Bluetooth®\*\*[1]

- Wi-Fi® 6, 802.11ax 2x2 Wi-Fi + Bluetooth 5.1, M.2 card
- MediaTek Wi-Fi 6 MT7921, 802,11ax 2x2 Wi-Fi + Bluetooth 5.1, M.2 Card
- Realtek Wi-Fi 6 RTL8852AE, 802.11ax Dual Band 2x2 Wi-Fi + Bluetooth 5.1, M.2 card
- Intel Wi-Fi 6 AX200, 802.11ax 2x2 Wi-Fi + Bluetooth 5.1<sup>[2]</sup>
- Qualcomm® Wi-Fi 6E QCNFA765, 802.11ax Dual Band 2x2 Wi-Fi + Bluetooth 5.1, M.2 Card<sup>[3]</sup>

### **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
- Qualcomm Snapdragon™ X55 5G Modem-RF System, Sub-6 GHz, M.2 card, with embedded eSIM functionality
- No support

## SIM Card

# ThinkPad X13 Gen 2 (AMD)



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

## NFC<sup>[4]</sup>

- · Near Field Communication
- No support

### Notes:

- [1] Bluetooth 5.2 is hardware ready but may run at a lower version due to OS limitations.
- [2] Wi-Fi 6 full features might be limited by country-level restrictions.
- [3] Wi-Fi 6E full features might be limited by country-level restrictions.

Wi-Fi 6E is only enabled on Windows 11 and operates as Wi-Fi 6 with Windows 10.

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.

[4] NFC is NOT available for the models with storm grey cover.

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

## **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)

# Optional Ports\*\*\*[2]

- 1x Ethernet extension connector (mini RJ-45)
- 1x Side docking connector (Ethernet models only)
- · 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.

[2] Ethernet and side docking connector are coexisting. On some models, both of them are equipped. On some models, neither of them is equipped.

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.

# **Docking**

### **Docking**

Various docking solutions supported via side docking connector (optional) or USB-C. For more compatible docking solutions, please visit <u>Docking for ThinkPad X13 Gen 2 (AMD)</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® Nano Security Slot™

### **Smart Card Reader**

- · Smart card reader
- · No smart card reader

## **Fingerprint Reader**

- Touch style fingerprint reader integrated in power button, 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**

- DASH
- Non-DASH

# **SERVICE**

# **Warranty**<sup>(1)</sup>

## 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 <a href="https://smartfind.lenovo.com/">https://smartfind.lenovo.com/</a>. To learn more details of warranty policy, please access <a href="https://pcsupport.lenovo.com/warranty">https://pcsupport.lenovo.com/warranty</a>.

# **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<sup>11</sup>

### **Green Certifications**

- (Optional) ENERGY STAR® 8.0
- (Optional) EPEAT™ Gold Registered[2]
- TCO Certified
- · 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.

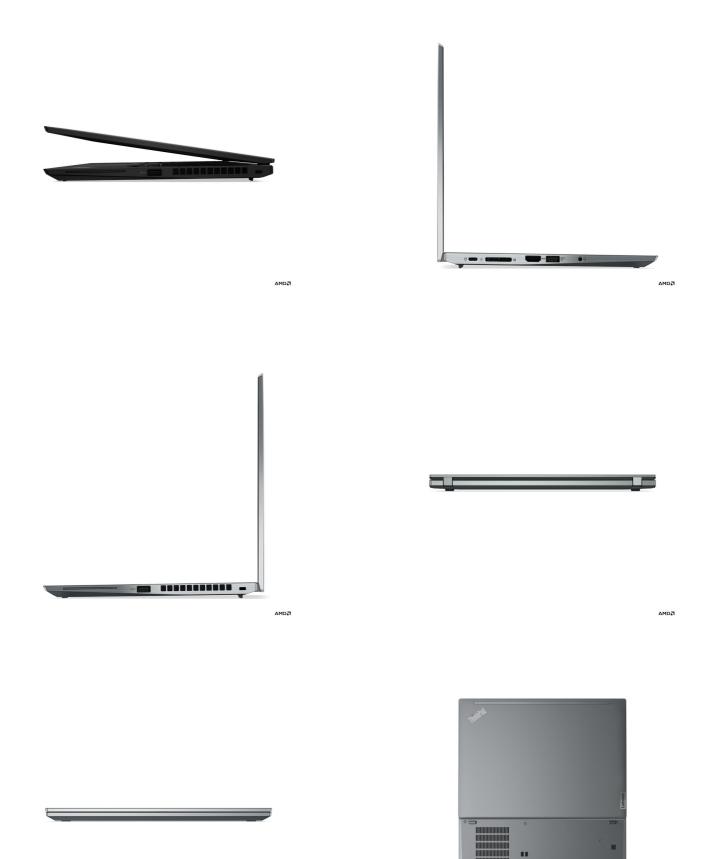
## Other Certifications

# Mil-Spec Test

MIL-STD-810H military test passed

- 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.
- Lenovo reserves the right to change specifications or other product information without notice. Lenovo is not
  responsible for photographic or typographical errors. LENOVO PROVIDES THIS PUBLICATION "AS IS,"
  WITHOUT WARRANTY OF ANY KIND, EITHER EXPRESS OR IMPLIED, INCLUDING THE IMPLIED WARRANTIES
  OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. Some jurisdictions do not allow
  disclaimer of express or implied warranties in certain transactions, therefore this disclaimer may not apply to
  you.
- The specifications on this page may not be available in all regions, and may be changed or updated without notice.





ThinkPad X13 Gen 2 (AMD) - July 19 2023