# OVERVIEW

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

Notes:
- Ports 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 2 and 3 is side docking connector
### PERFORMANCE

#### Processor

**Processor Family**

11th Generation Intel® Core™ i3 / i5 / i7 Processor

#### Processor**

<table>
<thead>
<tr>
<th>Processor Name</th>
<th>Cores</th>
<th>Threads</th>
<th>Base Frequency</th>
<th>Max Frequency</th>
<th>Cache</th>
<th>Memory Support</th>
<th>Processor Graphics</th>
</tr>
</thead>
<tbody>
<tr>
<td>Core i3-1115G4</td>
<td>2</td>
<td>4</td>
<td>3.0GHz</td>
<td>4.1GHz</td>
<td>6MB</td>
<td>LPDDR4x-3733</td>
<td>Intel UHD Graphics</td>
</tr>
<tr>
<td>Core i5-1135G7</td>
<td>4</td>
<td>8</td>
<td>2.4GHz</td>
<td>4.2GHz</td>
<td>8MB</td>
<td>LPDDR4x-4266</td>
<td>Intel Iris® Xe Graphics</td>
</tr>
<tr>
<td>Core i5-1145G7</td>
<td>4</td>
<td>8</td>
<td>2.6GHz</td>
<td>4.4GHz</td>
<td>8MB</td>
<td>LPDDR4x-4266</td>
<td>Intel Iris Xe Graphics</td>
</tr>
<tr>
<td>Core i7-1165G7</td>
<td>4</td>
<td>8</td>
<td>2.8GHz</td>
<td>4.7GHz</td>
<td>12MB</td>
<td>LPDDR4x-4266</td>
<td>Intel Iris Xe Graphics</td>
</tr>
<tr>
<td>Core i7-1185G7</td>
<td>4</td>
<td>8</td>
<td>3.0GHz</td>
<td>4.8GHz</td>
<td>12MB</td>
<td>LPDDR4x-4266</td>
<td>Intel Iris Xe Graphics</td>
</tr>
</tbody>
</table>

#### 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**(1)

<table>
<thead>
<tr>
<th>Graphics</th>
<th>Type</th>
<th>Memory</th>
<th>Key Features</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intel UHD Graphics</td>
<td>Integrated</td>
<td>Shared</td>
<td>DirectX® 12</td>
</tr>
<tr>
<td>Intel Iris Xe Graphics</td>
<td>Integrated</td>
<td>Shared</td>
<td>DirectX 12</td>
</tr>
</tbody>
</table>

**Notes:**

1. Intel Iris Xe Graphics is not available for Intel Core i3 models.

#### Monitor Support

**Monitor Support**(1)

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

- Thunderbolt supports up to 5K@60Hz
- HDMI supports up to 4K@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**(1)

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

**Memory Slots**

Memory soldered to system board, 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.
2. Installed memory is actually 4266MHz, but may run at 3733MHz depending on the memory support capability of processor.

Storage

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

Storage Type**

<table>
<thead>
<tr>
<th>Disk Type</th>
<th>Interface</th>
<th>Security</th>
</tr>
</thead>
<tbody>
<tr>
<td>M.2 2242 SSD</td>
<td>PCIe NVMe®, PCIe 3.0 x2</td>
<td>Opal2</td>
</tr>
<tr>
<td>M.2 2242 SSD</td>
<td>PCIe NVMe, PCIe 3.0 x4</td>
<td>-</td>
</tr>
<tr>
<td>M.2 2280 SSD</td>
<td>PCIe NVMe, PCIe 4.0 x4 Performance</td>
<td>Opal2</td>
</tr>
<tr>
<td>M.2 2280 SSD</td>
<td>PCIe NVMe, PCIe x4</td>
<td>Opal2</td>
</tr>
</tbody>
</table>

Removable Storage

Optical
None

Card Reader
No 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**
- Model with 41Wh battery:
  MobileMark® 2018: 10.5 hr
  JEITA 2.0: 16.5 hr
- Model with 54.7Wh battery:
  MobileMark 2018: 14.5 hr
  JEITA 2.0: 22.2 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]

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

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
- No support

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

Mechanical**[3]

Dimensions (WxDxH)

<table>
<thead>
<tr>
<th>Models</th>
<th>Dimensions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Models with aluminium top cover</td>
<td>305.8 x 217.89 x 18.06 mm (12.04 x 8.58 x 0.71 inches)</td>
</tr>
<tr>
<td>Models with carbon fiber top cover</td>
<td>305.8 x 217.39 x 18.97 mm (12.04 x 8.56 x 0.75 inches)</td>
</tr>
<tr>
<td>Models with PPS top cover</td>
<td>305.8 x 217.06 x 18.19 mm (12.04 x 8.55 x 0.72 inches)</td>
</tr>
</tbody>
</table>

Weight
Models

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

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 and weight vary depending on configurations.

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
- No Ethernet

WLAN + Bluetooth®**(1)

- Intel Wi-Fi® 6 AX200, 802.11ax 2x2 Wi-Fi + Bluetooth 5.2
- Intel Wi-Fi 6 AX201, 802.11ax 2x2 Wi-Fi + Bluetooth 5.2
- Intel Wi-Fi 6E AX210, 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-RF System, M.2 card, with embedded eSIM functionality
- No support

SIM Card

No SIM card inbox

NFC

- Near Field Communication
- No support

Notes:
1. Wi-Fi 6 and Wi-Fi 6E full features might be limited by country level restrictions.
2. 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.
3. Bluetooth 5.2 is supported with driver version 22.30 and later.

Ports**(1)
Standard Ports

• 1x USB 3.2 Gen 1
• 1x USB 3.2 Gen 1 (Always On)
• 2x Thunderbolt 4 / USB4™ 40Gbps (support data transfer, Power Delivery 3.0 and DisplayPort™ 1.4a)
• 1x HDMI 2.0
• 1x Headphone / microphone combo jack (3.5mm)

Optional Ports

• 1x Ethernet extension connector
• 1x Side docking connector (Ethernet model only)
• 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 3/4: 40 Gbit/s;
   - FireWire 400: 400 Mbit/s;
   - FireWire 800: 800 Mbit/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

Various docking solutions supported via side docking connector (optional) or Thunderbolt. For more compatible docking solutions, please visit [Docking for ThinkPad X13 Gen 2 (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® 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

• 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
• (Optional) Human Presence Detection

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**[2]
• 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

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***
• 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 Certified
- RoHS compliant

Other Certifications

Mil-Spec Test
MIL-STD-810H military test passed

Other Certifications

(Optional) Intel Evo™ Platform

Notes:

1. Intel Evo is NOT available for the models with i3 processor, 41Wh battery, or 128GB storage.

• 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.