OVERVIEW

1. Thunderbolt 4
2. Thunderbolt 4
3. USB 3.2 Gen 1
4. HDMI 2.0
5. Headphone / microphone combo jack (3.5mm)
6. Nano-SIM card slot *
7. USB 3.2 Gen 1 (Always On)
8. Kensington Nano Security Slot

Notes:
• Ports with * are only available on selected models
PERFORMANCE

Processor
Processor Family
11th Generation Intel® Core™ i5 / i7 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 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
- Fedora Linux
- Linux
- Ubuntu Linux
- No operating system

Graphics

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

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 systemboard, no slots, 8-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 2TB M.2 2280 SSD

**Storage Slot**
One M.2 2280 PCIe® Gen 4x4 slot, supports 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 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>

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**
No card reader

**Multi-Media**

**Audio Chip**
High Definition (HD) Audio, Realtek® ALC3306 codec

**Speakers**
Stereo speakers, 2W x2 and 0.8W x2, Dolby® Atmos®

**Microphone**
Four microphones, quad-array, 360° far-field, Dolby Voice

**Camera**
- HD 720p, with privacy shutter, fixed focus
- IR & 720p hybrid, with privacy shutter, fixed focus

**Battery**

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

**Max Battery Life**
MobileMark® 2014: 21.3 hr
MobileMark 2018: 16.7 hr
JEITA 2.0: 26.0 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**
- 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. AC adapter offerings depend on the country.
2. No power adapter is for special bid only.

**DESIGN**

**Display**

Display**[1][2]

<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>14.0&quot;</td>
<td>WUXGA (1920x1200)</td>
<td>None</td>
<td>IPS</td>
<td>400 nits</td>
<td>Anti-glare</td>
<td>16:10</td>
<td>1000:1</td>
<td>100% sRGB</td>
<td>170°</td>
<td>Low power, low blue light</td>
</tr>
<tr>
<td>14.0&quot;</td>
<td>WQUXGA (3840x2400)</td>
<td>None</td>
<td>IPS</td>
<td>500 nits</td>
<td>Glossy</td>
<td>16:10</td>
<td>1500:1</td>
<td>100% DCI-P3</td>
<td>170°</td>
<td>Low blue light, DisplayHDR™ 400</td>
</tr>
<tr>
<td>14.0&quot;</td>
<td>WUXGA (1920x1200)</td>
<td>Multi-</td>
<td>IPS</td>
<td>400 nits</td>
<td>Anti-glare</td>
<td>16:10</td>
<td>1000:1</td>
<td>100% sRGB</td>
<td>170°</td>
<td>Low power, low blue light</td>
</tr>
<tr>
<td>14.0&quot;</td>
<td>WUXGA (1920x1200)</td>
<td>Multi-</td>
<td>IPS</td>
<td>500 nits</td>
<td>Anti-glare</td>
<td>16:10</td>
<td>1000:1</td>
<td>100% sRGB</td>
<td>170°</td>
<td>Low power, ThinkPad® Privacy Guard</td>
</tr>
</tbody>
</table>

**Touchscreen**

• Capacitive-type on-cell multi-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
2. In marketing terms, WUXGA is FHD+ and WQUXGA is UHD+.

**Input Device**

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

**Keyboard Backlight**
LED backlight

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

**Mechanical**

**Dimensions (WxDxH)**
315 x 221.6 x 14.9 mm (12.4 x 8.72 x 0.59 inches)

**Weight**
1.133 kg (2.49 lbs)

**Case Color**
• Black, paint
• Black, weave

**Case Material**
Carbon fiber (top), magnesium alloy (bottom)

Notes:
1. The system dimensions and weight vary depending on configurations.
Network
Onboard Ethernet
No Ethernet

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

WWAN**
- Qualcomm® Snapdragon™ X55 5G Sub-6 GHz Modem-RF System, M.2 card, with embedded eSIM functionality
- Wireless WAN upgradable to 4G (with antenna ready)
- Integrated Mobile Broadband 4G LTE, Quectel EM120R-GL, M.2 card, with embedded eSIM functionality
- No support

SIM Card
No SIM card inbox

NFC
- Near Field Communication
- No support

Notes:
1. Ethernet support via optional Lenovo USB-C to Ethernet Adapter
2. Wi-Fi 6 full features might be limited by country-level restrictions. 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 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

Docking

Docking
Various docking solutions supported via Thunderbolt. For more compatible docking solutions, please visit Docking for ThinkPad X1 Carbon Gen 9

Monitor Cable

Monitor Cable
- Lenovo HDMI to VGA Monitor 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
No smart card reader

Fingerprint Reader
Touch style fingerprint reader on power button, match-on-chip

BIOS Security
• Power-on password
• Supervisor password
• NVMe password
• Self-healing BIOS

Other Security
• 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[1][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
2. No base warranty is for special bid only.

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
- Lenovo USB-C to Ethernet Adapter
- None

CERTIFICATIONS

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

Other Certifications
- Mil-Spec Test
  MIL-STD-810H military test passed
- (Optional) Intel Evo™ Platform
- TÜV Rheinland® Dynamic Privacy Filter (DPF) Certification (Privacy Guard models)
- (Optional) TÜV Rheinland Low Blue Light

Feature with ** means that only one offering listed under the feature is configured on selected models.

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