OVERVIEW

1. Ethernet (RJ-45)  
2. Thunderbolt 4  
3. Thunderbolt 4  
4. HDMI 2.1 TMDS  
5. USB 3.2 Gen 1 (one Always On)  
6. Headphone / microphone combo jack (3.5mm)  
7. Smart card reader *  
8. USB 3.2 Gen 1  
9. Security keyhole  

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

Processor

Processor Family
12th Generation P series Intel® Core™ i5 / i7 processor, supports processors up to 14 cores; up to 4.8 GHz; up to 28W TDP

<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 i5-1240P</td>
<td>12 (4 P-core + 8 E-core)</td>
<td>16</td>
<td>P-core 1.7GHz / E-core 1.2GHz</td>
<td>P-core 4.4GHz / E-core 3.3GHz</td>
<td>12MB</td>
<td>DDR4-3200</td>
<td>Intel Iris® Xe Graphics</td>
</tr>
<tr>
<td>Core i5-1250P</td>
<td>12 (4 P-core + 8 E-core)</td>
<td>16</td>
<td>P-core 1.7GHz / E-core 1.2GHz</td>
<td>P-core 4.4GHz / E-core 3.3GHz</td>
<td>12MB</td>
<td>DDR4-3200</td>
<td>Intel Iris Xe Graphics</td>
</tr>
<tr>
<td>Core i7-1260P</td>
<td>12 (4 P-core + 8 E-core)</td>
<td>16</td>
<td>P-core 2.1GHz / E-core 1.5GHz</td>
<td>P-core 4.7GHz / E-core 3.4GHz</td>
<td>18MB</td>
<td>DDR4-3200</td>
<td>Intel Iris Xe Graphics</td>
</tr>
<tr>
<td>Core i7-1270P</td>
<td>12 (4 P-core + 8 E-core)</td>
<td>16</td>
<td>P-core 2.2GHz / E-core 1.6GHz</td>
<td>P-core 4.8GHz / E-core 3.5GHz</td>
<td>18MB</td>
<td>DDR4-3200</td>
<td>Intel Iris Xe Graphics</td>
</tr>
<tr>
<td>Core i7-1280P</td>
<td>14 (6 P-core + 8 E-core)</td>
<td>20</td>
<td>P-core 1.8GHz / E-core 1.3GHz</td>
<td>P-core 4.8GHz / E-core 3.6GHz</td>
<td>24MB</td>
<td>DDR4-3200</td>
<td>Intel Iris Xe Graphics</td>
</tr>
</tbody>
</table>

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

Operating System

Operating System**
- Windows® 11 Pro 64
- Windows 11 Home 64
- Windows 11 Home 64 Single Language
- Windows 11 DG Windows 10 Pro 64
- Windows 10 Home 64 Single Language
- Ubuntu Linux LTS
- Red Hat Enterprise Linux 8.6 (certified only, available in late 2022, for detailed and latest information, please visit Red Hat Certified Hardware)

Graphics

Graphics**[1]

<table>
<thead>
<tr>
<th>Graphics</th>
<th>Type</th>
<th>Memory</th>
<th>Boost Clock</th>
<th>TGP</th>
<th>Connector</th>
<th>Max Resolution</th>
<th>Key Features</th>
<th>Remark</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intel Iris Xe Graphics</td>
<td>Integrated</td>
<td>Shared</td>
<td>-</td>
<td>Share CPU TDP</td>
<td>-</td>
<td>-</td>
<td>DirectX® 12.1</td>
<td>-</td>
</tr>
<tr>
<td>NVIDIA® T550 Laptop GPU</td>
<td>Discrete</td>
<td>4GB GDDR6</td>
<td>-</td>
<td>30W</td>
<td>-</td>
<td>-</td>
<td>DirectX 12</td>
<td>-</td>
</tr>
</tbody>
</table>

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

Monitor Support

Monitor Support
Supports up to 4 independent displays (native display and 3 external monitors via HDMI® and Thunderbolt™**)
- HDMI supports up to 3840x2160@60Hz
- Thunderbolt supports up to 7680x4320@60Hz

Chipset

Chipset
Memory

Max Memory\(^1\)
- 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

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\(^2\)
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\(^*\)[2]

<table>
<thead>
<tr>
<th>Disk Type</th>
<th>Interface</th>
<th>RPM</th>
<th>Offering</th>
<th>Security</th>
</tr>
</thead>
<tbody>
<tr>
<td>M.2 2280 SSD</td>
<td>PCIe NVMe(^*), PCIe 4.0 x4 Performance</td>
<td>-</td>
<td>512GB / 1TB / 2TB</td>
<td>Opal2</td>
</tr>
<tr>
<td>M.2 2280 SSD</td>
<td>PCIe NVMe, PCIe x4</td>
<td>-</td>
<td>256GB / 512GB / 1TB</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.
2. PCIe x4 SSD may be PCIe 3.0 x4 or PCIe 4.0 x4 as substitution.

Removable Storage

Optical
None

Card Reader
No card reader

Multi-Media

Audio Chip
High Definition (HD) Audio, Realtek\(^*\) ALC3287 codec

Speakers
Stereo speakers, Dolby\(^*\) Audio™

Microphone
- Dual array microphone, Dolby Voice
- No microphone

Camera\(^*\)
- HD 720p, with privacy shutter, fixed focus
- FHD 1080p, with privacy shutter, fixed focus
- IR & FHD 1080p hybrid, with privacy shutter, fixed focus
- No camera

Battery

Battery\(^*\)
- Integrated Li-Polymer 52.5Wh battery, supports Rapid Charge (charge up to 80% in 1hr)
- Integrated Li-Polymer 86Wh battery, supports Rapid Charge (charge up to 80% in 1hr) with 135W AC adapter

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ThinkPad P16s Gen 1 (Intel)

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ThinkPad P16s Gen 1 (Intel) - September 14, 2022

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Power Adapter

Power Adapter**[1]

- 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
- 100W USB-C slim (3-pin) AC adapter, supports PD 3.0, 100-240V, 50-60Hz
- 135W 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]

<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>16.0&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>800:1</td>
<td>45% NTSC</td>
<td>170°</td>
<td>85.4% screen to body ratio, DC dimming</td>
</tr>
<tr>
<td>16.0&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>178°</td>
<td>ICC Template color calibration, Low power, Low blue light, TUV Eye Comfort, 85.4% screen to body ratio, DC dimming</td>
</tr>
<tr>
<td>16.0&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>800:1</td>
<td>45% NTSC</td>
<td>170°</td>
<td>85.4% screen to body ratio, DC dimming</td>
</tr>
<tr>
<td>16.0&quot;</td>
<td>WUXGA (1920x1200)</td>
<td>Multi-touch</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>ThinkPad® Privacy Guard, Low Blue Light, TUV Eye Comfort, 85.4% screen to body ratio, DC dimming</td>
</tr>
<tr>
<td>16.0&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>Dolby Vision™, X-Rite® Pantone® Factory Color Calibration (∆E&lt;2), Low blue light, TUV Eye Comfort, 85.4% screen to body ratio, DC dimming</td>
</tr>
</tbody>
</table>

Color Calibration**

- X-Rite Pantone factory color calibration (WQXGA display)
- ICC Template color calibration (selected WUXGA display)
- No color calibration

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.cairecycle.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™**
3-button TrackPoint® pointing device and glass-like Mylar® surface multi-touch touchpad, 67 x 115 mm (2.64 x 4.53 inches)

**Mechanical**

Dimensions (WxDxH)

<table>
<thead>
<tr>
<th>Models</th>
<th>Dimensions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Integrated graphics</td>
<td>361.98 x 255.5 x 20.5 mm (14.25 x 10.06 x 0.81 inches)</td>
</tr>
<tr>
<td>NVIDIA graphics models</td>
<td>361.9 x 255.5 x 20.83 mm (14.25 x 10.06 x 0.82 inches)</td>
</tr>
</tbody>
</table>

**Weight**

<table>
<thead>
<tr>
<th>Models</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>Models with grey cover</td>
<td>Starting at 1.683 kg (3.71 lbs)</td>
</tr>
<tr>
<td>Models with black cover</td>
<td>Starting at 1.677 kg (3.7 lbs)</td>
</tr>
</tbody>
</table>

**Case Color**

• Black
• Storm grey

**Case Material**

• Models with grey cover: Aluminium (top), PPS (bottom)
• Models with black cover: PC 50% GF + PC 20% CF (top), PPS (bottom)

Notes:
1. The system dimensions and weight vary depending on configurations.
2. Storm grey case will be available in in the middle of May.

**CONNECTIVITY**

**Network**

**Ethernet**

• Gigabit Ethernet, Intel Ethernet Connection I219-LM (vPro models), supports Wake-on-LAN
• Gigabit Ethernet, Intel Ethernet Connection I219-V (non-vPro models), supports Wake-on-LAN

**WLAN + Bluetooth**

• Qualcomm® NFA-725A Wi-Fi® 6E, 802.11ax 2x2 Wi-Fi + Bluetooth 5.1
• Intel Wi-Fi 6E AX211, 802.11ax 2x2 Wi-Fi + Bluetooth 5.1

**WWAN**

• Wireless WAN upgradable to 4G (with antenna ready)
• Fibocom LB60-GL-16, 4G LTE CAT16, MIMO 4x4, M.2 card
• Quectel EM05-G, 4G LTE CAT4, M.2 card
• No support

**SIM Card**

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

**NFC**

• Near Field Communication
• No support

Notes:
1. Bluetooth 5.2 is hardware ready but may run at a lower version due to OS limitation

**Ports**

**Standard Ports**

• 2x Thunderbolt 4 / USB4® 40Gbps (support data transfer, Power Delivery 3.0 and DisplayPort™ 2.0)
• 2x USB 3.2 Gen 1 (one Always On)
ThinkPad P16s Gen 1 (Intel)

- 1x HDMI, up to 4K/60Hz
- 1x Ethernet (RJ-45)
- 1x Headphone / microphone combo jack (3.5mm)
- 1x Security keyhole

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;
   - USB 3.2 Gen 2x2 (SuperSpeed USB 20Gbps): 20 Gbit/s;
   - Thunderbolt 3/4: 40 Gbit/s

Docking

Various docking solutions supported via Thunderbolt or USB-C.
For more compatible docking solutions, please visit [Docking for ThinkPad P16s Gen 1 (Intel)]

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™, 2.5 x 6 mm

Smart Card Reader
- Smart card reader
- No smart card reader

Fingerprint Reader
- Touch style fingerprint reader on power button
- 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

MANAGEABILITY

System Management

System Management
- Intel vPro
- Non-vPro
Notes:
1. Intel vPro offers a superset of DASH's defined capabilities.

SERVICE

Warranty

Base Warranty**[(1)]
- 1-year courier or carry-in service
- 1-year courier 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. More information of warranty policy, please access https://pcsupport.lenovo.com/warranty

ENVIRONMENTAL

Sustainability

Material
97% PCC recycled plastic used in speaker enclosure
97% PCC recycled plastic used in the 52.5Wh battery
95% PCC recycled plastic used in standard 65W adapter
Low-temperature solder
90% recycled and/or sustainable packaging

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).

CERTIFICATIONS

Green Certifications

Green Certifications
- EPEAT™ Gold
- ENERGY STAR® 8.0
- TCO Certified 9.0
- RoHS compliant

Other Certifications

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

Other Certifications
- (Optional) TÜV Rheinland® Eye Comfort Certification
ThinkPad P16s Gen 1 (Intel)

- (Optional) TÜV Rheinland Low Blue Light

ISV Certifications

Please visit ISV certifications for Lenovo Workstations

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