

## OVERVIEW



1. Headphone / microphone combo jack (3.5mm)	6. Kensington Security Slot
2. SD card reader	7. Power connector
3. HDMI	8. Thunderbolt 4
4. 2x USB 3.2 Gen 1	9. Smart card reader *
5. Ethernet (RJ-45)	

Notes:

- Items with \* are only available on selected models
- Nano-SIM card slot on the rear side (not shown on the sample product above)

## PERFORMANCE

### Processor

#### Processor Family

12th Generation H series Intel® Core™ i5 / i7 / i9 processor, supports up to 14 cores, up to 5.0GHz

#### Processor\*\*<sup>[1]</sup>

Processor Name	Cores	Threads	Base Frequency	Max Frequency	Cache	Processor Graphics
Core i5-12500H	12 (4 P-core + 8 E-core)	16	P-core 2.5GHz / E-core 1.8GHz	P-core 4.5GHz / E-core 3.3GHz	18MB	Intel Iris® Xe Graphics
Core i7-12800H	14 (6 P-core + 8 E-core)	20	P-core 2.4GHz / E-core 1.8GHz	P-core 4.8GHz / E-core 3.7GHz	24MB	Intel Iris Xe Graphics
Core i7-12700H	14 (6 P-core + 8 E-core)	20	P-core 2.3GHz / E-core 1.7GHz	P-core 4.7GHz / E-core 3.5GHz	24MB	Intel Iris Xe Graphics
Core i9-12900H	14 (6 P-core + 8 E-core)	20	P-core 2.5GHz / E-core 1.8GHz	P-core 5.0GHz / E-core 3.8GHz	24MB	Intel Iris Xe Graphics

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

- Windows® 11 Pro
- Windows 11 Home
- Windows 11 Home Single Language
- Windows 11 DG Windows 10 Pro 64
- Ubuntu Linux LTS
- Red Hat Enterprise Linux 8.6 (certified only, for detailed and latest information, please visit [Red Hat Certified Hardware](#))
- No operating system

#### Notes:

1. 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<sup>[1]</sup>

Graphics	Type	Memory	TGP	Key Features
Intel Iris Xe Graphics	Integrated	Shared	Share CPU TDP	DirectX® 12.1
NVIDIA® T600 Laptop GPU	Discrete	4GB GDDR6	35W	DirectX 12
NVIDIA T1200 Laptop GPU	Discrete	4GB GDDR6	35W	DirectX 12
NVIDIA RTX A2000 Laptop GPU	Discrete	4GB GDDR6	35W	Dynamic Boost 2.0, DirectX 12

#### 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 3 independent displays (native display and 2 external monitors via HDMI® and Thunderbolt™)

- HDMI supports up to 3840x2160@60Hz
- Thunderbolt supports up to 5120x3200@60Hz (Thunderbolt or USB-C® to DP)

### Chipset

#### Chipset

# ThinkPad P15v Gen 3 (Intel)

Intel SoC (System on Chip) platform

## Memory

### Max Memory<sup>[1]</sup>

Up to 64GB DDR5-4800

### Memory Slots

Two DDR5 SO-DIMM slots, dual-channel capable

### Memory Type

DDR5-4800 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<sup>[1]</sup>

Up to two drives, 2x M.2 SSD

- M.2 2280 SSD up to 4TB, 2TB each
- RAID 0/1 support

### Storage Slot

Two M.2 2280 PCIe® 4.0 x4 slots

### Storage Type

Disk Type	Interface	RPM	Offering	Security
M.2 2280 SSD	PCIe NVMe®, PCIe 4.0 x4	-	256GB / 512GB / 1TB	Opal 2.0
M.2 2280 SSD	PCIe NVMe, PCIe 4.0 x4 Performance	-	512GB / 1TB / 2TB	Opal 2.0

## RAID

RAID 0/1 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.

## Removable Storage

### Optical

None

### Card Reader

SD card reader

## Multi-Media

### Audio Chip

High Definition (HD) Audio, Realtek® ALC3287 codec

### Speakers

Stereo speakers, 2W x2, Dolby® Audio™ Premium

### Microphone

- Dual-microphone array, far-field, Dolby Voice
- No microphone

### Camera\*\*

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

## Battery

### Battery

Integrated Li-Polymer 68Wh battery, supports Rapid Charge (charge up to 80% in 1hr)

## Power Adapter

### Power Adapter<sup>[1]</sup>

- 135W slim tip (3-pin) AC adapter, 100-240V, 50-60Hz
- No power adapter

#### Notes:

1. AC adapter offerings depend on the country.

## DESIGN

## Display

### Display<sup>\*\*[1]</sup>

Size	Resolution	Touch	Type	Brightness	Surface	Aspect Ratio	Contrast Ratio	Color Gamut	Viewing Angle (L/R/U/D)	Key Features
15.6"	FHD (1920x1080)	None	IPS	300 nits	Anti-glare	16:9	1200:1	100% sRGB	85°/85°/-/-	DC dimming
15.6"	FHD (1920x1080)	None	IPS	300 nits	Anti-glare	16:9	800:1	45% NTSC	85°/85°/-/-	DC dimming
15.6"	FHD (1920x1080)	Multi-touch	IPS	300 nits	Anti-glare	16:9	800:1	45% NTSC	85°/85°/-/-	DC dimming
15.6"	UHD (3840x2160)	None	IPS	600 nits	Anti-glare	16:9	1400:1	100% Adobe® RGB	85°/85°/-/-	Dolby Vision™, DisplayHDR™ 400, optional X-Rite® Pantone® Factory Color Calibration, DC dimming

### Color Calibration

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

### Touchscreen

- On-cell touch, supports 10-point touch (FHD models only)
- 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, numeric keypad

### Keyboard Backlight

- LED backlight
- Non-backlight

### UltraNav™

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

## Mechanical

### Dimensions (WxDxH)<sup>[1]</sup>

366.5 x 250 x 22.7 mm (14.43 x 9.84 x 0.89 inches)

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

Models	Weight
Models with integrated graphics	Starting at 2.096 kg (4.62 lbs)

Models with discrete graphics	Starting at 2.226 kg (4.91 lbs)
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**Case Color**

Black

**Case Material**

PC-ABS (top), PC-ABS (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

**WLAN + Bluetooth®\*\*<sup>[1]</sup>**

- Qualcomm® Wi-Fi® 6E NFA725A, 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 L860-GL-16, 4G LTE CAT16, MIMO 4x4, M.2 card
- No support

**SIM Card**

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

**NFC**

No support

**Notes:**

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

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

**Standard Ports**

- 2x USB 3.2 Gen 1 (one Always On)
- 1x Thunderbolt 4 / USB4® 40Gbps (support data transfer, Power Delivery 3.0 and DisplayPort™ 1.4)
- 1x HDMI, up to 4K/60Hz
- 1x SD card reader
- 1x Ethernet (RJ-45)
- 1x Headphone / microphone combo jack (3.5mm)
- 1x Power connector

**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

**Docking**

Various docking solutions supported via Thunderbolt, USB-C, or USB-A.

For more compatible docking solutions, please visit [Docking for ThinkPad® P15v Gen 3 \(Intel\)](#)

## Monitor Cable

### Monitor Cable

- (Optional) Lenovo USB-C to DisplayPort Adapter
- (Optional) Lenovo HDMI to VGA Monitor Adapter
- (Optional) Lenovo USB-C to VGA Adapter

## SECURITY & PRIVACY

### Security

#### Security Chip

Discrete TPM 2.0, TCG certified

#### Physical Locks

Kensington® Security Slot™, 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

#### BIOS Security

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

#### Other Security

- (Optional) Camera privacy shutter
- Bottom cover tamper detection
- (Optional) IR camera for Windows Hello

## MANAGEABILITY

### System Management

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

- Intel vPro Enterprise
- Intel vPro Essentials
- Non-vPro

Notes:

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

## 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

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

## Sustainability

### Material

90% recycled and/or sustainable packaging

## 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>[1]</sup>

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

- EPEAT™ Gold
- ENERGY STAR® 8.0
- TCO Certified 9.0
- 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

### ISV Certifications

#### ISV Certifications

Please visit [ISV certifications for Lenovo Workstations](#)

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