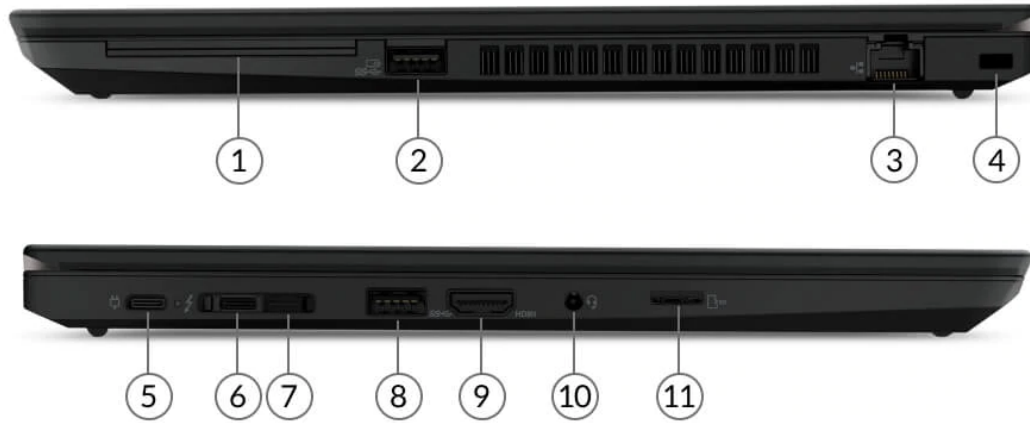


## OVERVIEW



|                                    |   |
|------------------------------------|---|
| 1. Smart card reader *             | 7. Side docking connector                     |
| 2. USB 3.2 Gen 1 (Always On)       | 8. USB 3.2 Gen 1                              |
| 3. Ethernet (RJ-45)                | 9. HDMI 1.4b                                  |
| 4. Kensington Security Slot        | 10. Headphone / microphone combo jack (3.5mm) |
| 5. USB-C 3.2 Gen 1                 | 11. MicroSD card reader                       |
| 6. USB-C 3.2 Gen 2 / Thunderbolt 3 |   |

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 5, 6 and 7 is side docking connector

## PERFORMANCE

### Processor

#### Processor Family

10th Generation Intel® Core™ i5 / i7 Processor

#### Processor

| Processor Name | Cores | Threads | Base Frequency | Max Frequency | Cache | Memory Support | Processor Graphics |
|----------------|-------|---------|----------------|---------------|-------|----------------|--------------------|
| Core i5-10210U | 4     | 8       | 1.6GHz         | 4.2GHz        | 6MB   | DDR4-2666      | Intel UHD Graphics |
| Core i5-10310U | 4     | 8       | 1.7GHz         | 4.4GHz        | 6MB   | DDR4-2666      | Intel UHD Graphics |
| Core i7-10510U | 4     | 8       | 1.8GHz         | 4.9GHz        | 8MB   | DDR4-2666      | Intel UHD Graphics |
| Core i7-10610U | 4     | 8       | 1.8GHz         | 4.9GHz        | 8MB   | DDR4-2666      | Intel UHD Graphics |
| Core i7-10710U | 6     | 12      | 1.1GHz         | 4.7GHz        | 12MB  | DDR4-2666      | Intel UHD Graphics |
| Core i7-10810U | 6     | 12      | 1.1GHz         | 4.9GHz        | 12MB  | DDR4-2666      | Intel UHD Graphics |

### Operating System

#### Operating System

- Windows® 10 Home 64
- Windows 10 Pro 64
- Red Hat Enterprise Linux (certified only)
- Ubuntu Linux LTS
- No operating system

### Graphics

#### Graphics

| Graphics             | Type     | Memory    | Key Features |
|----------------------|----------|-----------|--------------|
| NVIDIA® Quadro® P520 | Discrete | 2GB GDDR5 | DirectX® 12  |

### Monitor Support

#### Monitor Support

Supports up to 3 independent displays via native display and 2 external monitors; supports external monitors via HDMI® (up to 4096x2160@24Hz), USB-C (up to 4096x2304@60Hz) or Thunderbolt™ (up to 4096x2304@60Hz)

### Chipset

#### Chipset

Intel SoC (System on Chip) platform

### Memory

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

- Up to 40GB (8GB soldered + 32GB SO-DIMM) DDR4-2666
- Up to 48GB (16GB soldered + 32GB SO-DIMM) DDR4-2666

#### Memory Slots

One memory soldered to systemboard, one DDR4 SO-DIMM slot, dual-channel capable

#### Memory Type<sup>[2]</sup>

DDR4-2666 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.
2. Installed memory is actually DDR4-3200 but may run at DDR4-2666 due to processor limitation

### Storage

#### Storage Support

One drive, up to 2TB M.2 2280 SSD

**Storage Type<sup>[1]</sup>**

| Disk Type   | Interface              | RPM | Security |
|---|------------------------|-----|----------|
| M.2 2242 SSD  | PCIe NVMe, PCIe 3.0 x2 | -   | -        |
| M.2 2280 SSD  | PCIe NVMe, PCIe 3.0 x4 | -   | Opal2    |
| Intel Optane™ Memory with Solid State Storage, M.2 2280 | PCIe NVMe, PCIe 3.0 x4 | -   | -        |

## Notes:

- M.2 2242 is special bid only

**Removable Storage****Optical**

None

**Card Reader**

MicroSD card reader

**Multi-Media****Audio Chip**

High Definition (HD) Audio, Realtek® ALC3287 codec

**Speakers**

Stereo speakers, 2W x2, Dolby® Audio™

**Microphone**

- Dual array microphone, near-field
- No microphone

**Camera**

- 720p, with ThinkShutter, fixed focus
- IR & 720p hybrid, with ThinkShutter, fixed focus
- No camera

**Battery****Battery**

Integrated Li-Polymer 50Wh battery, supports Rapid Charge (charge up to 80% in 1hr) with 65W AC adapter

**Max Battery Life<sup>[1]</sup>**

MobileMark® 2014: 15.1 hr

MobileMark 2018: 10.96 hr

JEITA 2.0: 15.1 hr

## Notes:

- All battery life claims are approximate maximum and based on results using the MobileMark 2014, MobileMark 2018, and/or JEITA 2.0 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**

- 65W USB-C slim (3-pin) AC adapter
- 65W USB-C slim (2-pin) AC adapter
- 65W USB-C (2-pin) AC adapter
- 65W USB-C (3-pin) AC adapter

**DESIGN****Display****Display<sup>[1]</sup>**

| Size | Resolution | Touch | Type | Brightness | Surface | Aspect | Contrast | Color | Viewing | Key Features |
|------|------------|-------|------|------------|---------|--------|----------|-------|---------|--------------|
|------|------------|-------|------|------------|---------|--------|----------|-------|---------|--------------|

|       |                 |             |     |          |            | Ratio | Ratio  | Gamut       | Angle |                         |
|-------|-----------------|-------------|-----|----------|------------|-------|--------|-------------|-------|-------------------------|
| 14.0" | FHD (1920x1080) | None        | IPS | 250 nits | Anti-glare | 16:9  | 700:1  | 45% NTSC    | 170°  | -                       |
| 14.0" | FHD (1920x1080) | None        | IPS | 400 nits | Anti-glare | 16:9  | 800:1  | 72% NTSC    | 170°  | Low power               |
| 14.0" | FHD (1920x1080) | Multi-touch | IPS | 300 nits | Anti-glare | 16:9  | 700:1  | 45% NTSC    | 170°  | -                       |
| 14.0" | FHD (1920x1080) | Multi-touch | IPS | 500 nits | Anti-glare | 16:9  | 1000:1 | 72% NTSC    | 170°  | ThinkPad® Privacy Guard |
| 14.0" | UHD (3840x2160) | None        | IPS | 500 nits | Glossy     | 16:9  | 1500:1 | 100% Adobe® | 170°  | Dolby Vision™, HDR 400  |

**Color Calibration**

- X-Rite Pantone factory color calibration (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****Pen**

No support

**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****Dimensions (WxDxH)**

329 x 227 x 17.9 mm (12.95 x 8.94 x 0.70 inches)

**Weight<sup>(1)</sup>**

| Models                   | Weight             |
|--------------------------|--------------------|
| FHD Low Power models     | 1.49 kg (3.28 lbs) |
| FHD models               | 1.55 kg (3.43 lbs) |
| FHD Privacy Guard models | 1.61 kg (3.56 lbs) |
| FHD touch models         | 1.55 kg (3.41 lbs) |
| UHD models               | 1.49 kg (3.28 lbs) |

**Case Color**

Black

**Case Material**

PPS / 50% GF (top), PA / 50% GF (bottom)

**Notes:**

1. The system weight varies depending on configurations

**CONNECTIVITY**

## Network

### Onboard Ethernet

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

### WLAN + Bluetooth®

- Intel Wi-Fi® 6 AX201, 802.11ax 2x2 Wi-Fi + Bluetooth 5.1, M.2 Card
- No WLAN and Bluetooth

### WWAN

- Wireless WAN upgradable to 4G
- Integrated Mobile Broadband 4G LTE-A, CAT9, Fibocom L850-GL, M.2 card
- Integrated Mobile Broadband 4G LTE-A, Fibocom L860-GL, MIMO 4x4, M.2 card
- No support

### SIM Card

- Gemalto eSIM
- No SIM card inbox

### NFC

- Near Field Communication
- No support

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

### Standard Ports<sup>[2]</sup>

- 2x USB 3.2 Gen 1 (one Always On)
- 2x USB-C 3.1 Gen 2 / Thunderbolt 3 (support data transfer, Power Delivery and DisplayPort™ 1.2)
- 1x USB-C 3.2 Gen 1 (support data transfer, Power Delivery and DisplayPort 1.2)
- 1x HDMI 1.4b
- 1x microSD card reader
- 1x Ethernet (RJ-45)
- 1x Headphone / microphone combo jack (3.5mm)
- 1x Side docking connector

### Optional Ports

- 1x Nano-SIM card slot (WWAN model)
- 1x Smart card reader

### 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: 40 Gbit/s;  
FireWire 400: 400 Mbit/s;  
FireWire 800: 800 Mbit/s
2. Depending on many factors, actual data transfer speed may be lower than theoretical speed

## Monitor Cable

### Monitor Cable

- Lenovo HDMI to VGA Monitor Adapter
- Lenovo USB-C to DisplayPort Adapter
- Lenovo USB-C to VGA Adapter

## 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® Security Slot

**Smart Card Reader**

- Smart card reader
- No smart card reader

**Fingerprint Reader**

- Touch style fingerprint reader on palm rest, match-on-chip
- No fingerprint reader

**BIOS Security**

- Supervisor password
- Power-on password
- Hard disk password
- Self-healing BIOS

**Other Security**

- (Optional) ThinkShutter camera cover
- (Optional) IR camera for Windows Hello
- (Optional) Privacy Guard with Privacy Alert

**MANAGEABILITY****System Management****System Management**

- Intel vPro Technology, DASH
- None

**SERVICE****Warranty****Base Warranty**

- 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

**ENVIRONMENTAL****Operating Environment****Temperature<sup>[1]</sup>**

- 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)
- Operating: 5°C (41°F) to 35°C (95°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

None

## CERTIFICATIONS

### Green Certifications

#### Green Certifications

- EPEAT™ Gold
- ENERGY STAR® 8.0
- RoHS compliant

### Other Certifications

#### Mil-Spec Test

MIL-STD-810G military test passed

### ISV Certifications

#### ISV Certifications

Please visit [www.thinkworkstations.com/isv-certifications/](http://www.thinkworkstations.com/isv-certifications/)

