

## PERFORMANCE

### Processor

#### Processor Family

10th Generation Intel® Core™ i5 / i7 / i9 Processor or Intel Xeon® W Processor

#### Processor

Processor Name	Cores	Threads	Base Frequency	Max Frequency	Cache	Memory Support	Processor Graphics
Core i5-10400H	4	8	2.6GHz	4.6GHz	8MB	DDR4-2933	Intel UHD Graphics
Core i7-10750H	6	12	2.6GHz	5.0GHz	12MB	DDR4-2933	Intel UHD Graphics
Core i7-10850H	6	12	2.7GHz	5.1GHz	12MB	DDR4-2933	Intel UHD Graphics
Core i7-10875H	8	16	2.3GHz	5.1GHz	16MB	DDR4-2933	Intel UHD Graphics
Core i9-10885H	8	16	2.4GHz	5.3GHz	16MB	DDR4-2933	Intel UHD Graphics
Core i9-10980HK	8	16	2.4GHz	5.3GHz	16MB	DDR4-2933	Intel UHD Graphics
Xeon W-10855M	6	12	2.8GHz	5.1GHz	12MB	DDR4-2933	Intel UHD Graphics
Xeon W-10885M	8	16	2.4GHz	5.3GHz	16MB	DDR4-2933	Intel UHD Graphics

### Operating System

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

### Graphics

Graphics	Type	Memory	Key Features
NVIDIA® Quadro® RTX 3000	Discrete	6GB GDDR6	DirectX® 12
NVIDIA Quadro RTX 4000 Max-Q	Discrete	8GB GDDR6	DirectX 12
NVIDIA Quadro RTX 5000 Max-Q	Discrete	16GB GDDR6	DirectX 12
NVIDIA Quadro T1000	Discrete	4GB GDDR6	DirectX 12
NVIDIA Quadro T2000	Discrete	4GB GDDR6	DirectX 12

### Monitor Support

Supports up to 5 independent displays via native display and 4 external monitors; supports external monitors via HDMI® (up to 4K@60Hz), USB-C (up to 4K@60Hz) or Thunderbolt™ (one supports up to 5K@60Hz and the other supports up to 4K@60Hz)

### Chipset

Intel WM490 chipset

### Memory

#### Memory Type

- DDR4-2933 ECC
- DDR4-2933 non-ECC

#### Notes:

- Non-ECC memory is actually DDR4-3200 but may run at DDR4-2933 due to processor limitation

#### Memory Slots

Four DDR4 SO-DIMM slots, dual-channel capable

#### Memory Protection

ECC on models with ECC DIMMs and Xeon processor

**Max Memory**

Up to 128GB

## Notes:

- 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**

Up to two drives, 2x M.2 2280 SSD

- M.2 2280 SSD up to 2TB each

**RAID**

RAID 0/1 support

**Storage Type**

Disk Type	Interface	RPM	Security
M.2 2280 SSD	PCIe NVMe, PCIe 3.0 x4	-	Opal2

**Removable Storage****Optical**

Not Support

**Card Reader**

SD card reader

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

High Definition (HD) Audio, Realtek® ALC3286 codec

**Speakers**

Stereo speakers, Dolby® Atmos® sound system

**Microphone**

- Dual array microphone, far-field
- Not configured

**Camera**

- 720p, with ThinkShutter, fixed focus
- IR & 720p, with ThinkShutter, fixed focus
- Not configured

**Battery****Battery**

Integrated Li-Polymer 94Wh battery, supports Rapid Charge (charge up to 80% in 1hr) with 230W AC adapter

**Max Battery Life**

MobileMark® 2014: 16.4 hr

MobileMark 2018: 10.3 hr

JEITA 2.0: 17.4 hr

## Notes:

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

- 170W slim tip AC adapter
- 230W slim tip AC adapter

**DESIGN**

## Display

### Display

Size	Resolution	Touch	Type	Brightness	Surface	Aspect Ratio	Contrast Ratio	Color Gamut	Viewing Angle	Key Features
15.6"	FHD (1920x1080)	None	IPS	500 nits	Anti-glare	16:9	1200:1	72% NTSC	160°	Dolby Vision™, HDR
15.6"	FHD (1920x1080)	None	IPS	300 nits	Anti-glare	16:9	700:1	72% NTSC	160°	-
15.6"	UHD (3840x2160)	None	IPS	600 nits	Anti-glare	16:9	1400:1	100% Adobe® RGB	178°	Dolby Vision, HDR
15.6"	UHD (3840x2160)	Multi-touch	OLED	SDR 400nit, HDR 500nit (peak)	Anti-reflection Anti-smudge	16:9	100000:1	100% DCI-P3	170°	Dolby Vision, HDR

#### Notes:

- 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>

#### Color Calibration

- X-Rite Pantone factory color calibration (UHD display)
- Not configured

#### Touchscreen

- On-cell touch, supports 10-point touch
- Non-touch

## Input Device

### Pen

Not support

### Keyboard

6-row, spill-resistant, multimedia Fn keys with Unified Communications controls, numeric keypad

#### Keyboard Backlight

LED backlight

### UltraNav™

3-button TrackPoint® pointing device and 2-button Mylar® surface multi-touch touchpad

## Mechanical

### Dimensions (WxDxH)

Models	Dimensions
Touch models	375.4 x 252.3 x 25.25-32.2 mm (14.24 x 9.67 x 0.99-1.27 inches)
Non-touch models	375.4 x 252.3 x 24.5-31.45 mm (0.96-1.24 inches)

### Weight

2.74 kg (6.05 lbs)

### Case Color

Black

### Case Material

PPS695 + GF 50% (top), PPS + GF (bottom)

## CONNECTIVITY

### Network

**Onboard Ethernet**

- Gigabit Ethernet, Intel Ethernet Connection I219-V (non-vPro models)
- Gigabit Ethernet, Intel Ethernet Connection I219-LM (vPro models)

**WLAN + Bluetooth™**

- Intel Wi-Fi 6 AX201, 802.11ax 2x2 Wi-Fi + Bluetooth 5.1, M.2 Card
- Not configured

**WWAN**

- Wireless WAN upgradable
- Integrated Mobile Broadband 4G LTE-A, Fibocom L860-GL, MIMO 4x4, M.2 card
- Not configured

**SIM Card**

Not Support

**NFC**

Not support

**Ports****Standard Ports**

- 2x USB 3.2 Gen 1 (one Always On)
- 1x USB-C 3.2 Gen 1 (support data transfer, Power Delivery and DisplayPort™)
- 2x USB-C 3.2 Gen 2 / Thunderbolt 3 (support data transfer, Power Delivery and DisplayPort)
- 1x HDMI 2.0
- 1x SD card reader
- 1x Ethernet (RJ-45)
- 1x headphone / microphone combo jack (3.5mm)
- 1x Security keyhole

**Notes:**

- Depending on many factors, actual data transfer speed may be lower than theoretical speed

**Optional Ports**

- 1x Nano-SIM card slot (WWAN models)
- 1x Smart Card Reader

**Monitor Cable**

- Lenovo HDMI to VGA Monitor Adapter
- Lenovo USB-C to DisplayPort Adapter
- Lenovo USB-C to VGA Adapter
- Not configured

**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
- Not configured

**Fingerprint Reader**

Touch style fingerprint reader on palm rest, match-on-chip

**BIOS Security**

- Power-on password
- Supervisor password
- Hard disk password

- Self-healing BIOS

**Other Security**

- (Optional) ThinkShutter camera cover
- (Optional) IR camera for Windows Hello

## MANAGEABILITY

### System Management

- Intel vPro Technology, DASH
- None

## SERVICE

### Warranty

**Base Warranty**

- 1-year depot service
- 1-year limited onsite service
- 1-year depot with 2-year system board 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

## ACCESSORIES

### Bundled Accessories

Not Support

## CERTIFICATIONS

### Green Certifications

- EPEAT™ Gold
- ENERGY STAR® 8.0
- RoHS

### Other Certifications

**Mil-Spec Test**

MIL-STD-810G military test passed

### ISV Certifications

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

