

## PERFORMANCE

### Processor

#### Processor Family

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

#### Processor\*\*

Processor Name	Cores	Threads	Base Frequency	Max Frequency	Cache	Memory Support	Processor Graphics
Core i9-10980HK	8	16	2.4GHz	5.3GHz	16MB	DDR4-3200	Intel UHD Graphics
Core i5-10300H	4	8	2.5GHz	4.5GHz	8MB	DDR4-2933	Intel UHD Graphics
Core i7-10750H	6	12	2.6GHz	5.0GHz	12MB	DDR4-2933	Intel UHD Graphics
Core i7-10875H	8	16	2.3GHz	5.1GHz	16MB	DDR4-3200	Intel UHD Graphics

### Operating System

#### Operating System\*\*

- FreeDOS
- Windows® 10 Home 64
- Windows 10 Home 64 Single Language
- Windows 10 Pro 64
- No operating system

### Graphics

#### Graphics\*\*

Graphics	Type	Memory	Key Features
NVIDIA® GeForce GTX 1660 Ti	Discrete	6GB GDDR6	VR ready, DirectX® 12
NVIDIA GeForce RTX™ 2060	Discrete	6GB GDDR6	VR ready, DirectX 12
NVIDIA GeForce RTX 2070 with Max-Q Design	Discrete	8GB GDDR6	VR ready, DirectX 12
NVIDIA GeForce RTX 2070 SUPER with Max-Q Design	Discrete	8GB GDDR6	VR ready, DirectX 12
NVIDIA GeForce RTX 2080 SUPER with Max-Q Design	Discrete	8GB GDDR6	VR ready, DirectX 12

### Monitor Support

#### Monitor Support

Supports up to 3 independent displays (native display and 2 external monitors via HDMI® and USB-C®)

- HDMI supports up to 4096x2304@60Hz
- USB-C supports up to 4096x2304@60Hz

### Chipset

#### Chipset

Intel HM470 chipset

### Memory

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

- Up to 32GB DDR4-2933 offering
- Up to 32GB DDR4-3200 offering

#### Memory Slots

Two DDR4 SO-DIMM slots, dual-channel capable

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

- DDR4-2933
- DDR4-3200

Notes:

[1] The max memory is based on the test results with current Lenovo® memory offerings.

[2] Installed memory is actually 3200MHz but may run at 2933MHz due to processor limitation.

## Storage

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

Up to two drives, 2x M.2 SSD

- M.2 2280 SSD up to 1TB

### Storage Type

Disk Type	Interface
M.2 2280 SSD	PCIe® NVMe®, PCIe 3.0 x4

### RAID

- RAID 0 support
- No support

Notes:

[1] The storage capacity supported is based on the test results with current Lenovo storage offerings.

## 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, Dolby® Atmos® for gaming

### Microphone

Dual-microphone array

### Camera

HD 720p, with privacy shutter, fixed focus

## Battery

### Battery

Integrated Li-Polymer 80Wh battery, supports Rapid Charge Pro (charge up to 50% in 30min)

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

MobileMark® 2018: 7.3 hr

Notes:

[1] All battery life claims are approximate maximum and based on results using the MobileMark 2014, MobileMark 2018, MobileMark 25, 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 depending 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<sup>[1]</sup>

230W slim tip (3-pin) AC adapter, 100-240V, 50-60Hz

Notes:

[1] AC adapter offerings depend on the country.

## DESIGN

### Display

**Display\*\***

Size	Resolution	Touch	Type	Brightness	Surface	Aspect Ratio	Color Gamut	Key Features
15.6"	FHD (1920x1080)	None	IPS	300nits	Anti-glare	16:9	100% sRGB	Refresh rate 144Hz, DC dimmer, Dolby Vision™
15.6"	FHD (1920x1080)	None	IPS	500nits	Anti-glare	16:9	100% Adobe® RGB	Refresh rate 144Hz, Dolby Vision, DisplayHDR™ 400, G-Sync, DC dimmer
15.6"	FHD (1920x1080)	None	IPS	500nits	Anti-glare	16:9	100% sRGB	Refresh rate 240Hz, Dolby Vision, DisplayHDR 400, G-Sync, DC dimmer

**Color Calibration**

X-Rite® Pantone® factory color calibration

**Touchscreen**

Non-touch

**Input Device**

**Keyboard**

6-row, spill-resistant, multimedia Fn keys, numeric keypad, CORSAIR iCUE

**Keyboard Backlight**

RGB backlight

**Touchpad**

Buttonless Mylar® surface multi-touch touchpad, supports Precision TouchPad (PTP), 69 x 104 mm (2.72 x 4.09 inches)

**Mechanical**

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

359.34 x 259.04 x 19.9 mm (14.15 x 10.20 x 0.78 inches)

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

2.25 kg (4.96 lbs)

**Case Color**

Slate grey (top), black (bottom)

**Surface Treatment**

Anodizing sandblasting

**Case Material**

Aluminium (top), aluminium (bottom)

**System Lighting**

"Y" logo RGB lighting on top cover

RGB lighting on power button

"U" strip RGB lighting

RGB lighting on rear thermal vent

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

Gigabit Ethernet

**WLAN + Bluetooth<sup>[2]</sup>**

Wi-Fi® 6, 802.11ax 2x2 Wi-Fi + Bluetooth 5.0, M.2 card

## Notes:

- [1] Wake-on-LAN needs the power adapter plugged in.
- [2] Bluetooth 5.2 is hardware ready but may run at a lower version due to OS limitations.

**Ports<sup>[1]</sup>****Standard Ports**

- 1x Ethernet (RJ-45)
- 1x HDMI 2.0
- 1x Headphone / microphone combo jack (3.5mm)
- 1x Power connector
- 1x USB 3.2 Gen 1 (Always On)
- 1x USB-C 3.2 Gen 1 (support data transfer and DisplayPort™ 1.4)
- 2x USB 3.2 Gen 2
- 1x USB-C 3.2 Gen 2 / Thunderbolt™ 3 (support data transfer and DisplayPort 1.4)

## 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;

USB4® 20Gbps / USB 3.2 Gen 2x2 (SuperSpeed USB 20Gbps): 20 Gbit/s;

USB4 40Gbps (USB 40Gbps): 40 Gbit/s;

Thunderbolt 3/4: 40 Gbit/s.

**SECURITY & PRIVACY****Security****Security Chip**

Firmware TPM 2.0 integrated in chipset

**Physical Locks**

Kensington® Security Slot™

**Fingerprint Reader**

No fingerprint reader

**BIOS Security**

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

**Other Security**

Camera privacy shutter

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

- 1-year depot service
- 1-year courier with 2-year system board service (Korea only)
- 2-year (1-yr battery) courier service

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

- At altitudes up to 2438 m (8,000 ft)

- Operating: 5°C to 35°C (41°F to 95°F)
- Storage: 5°C to 43°C (41°F to 109°F)
- At altitudes above 2438 m (8,000 ft)
  - Maximum temperature when operating under the unpressurized condition: 31.3°C (88°F)

## Humidity

- Operating: 8% to 95% at wet-bulb temperature 23°C (73°F)
- Storage: 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

- ErP Lot 3
- RoHS compliant

Notes:

[1] The items listed under the "Green Certifications" section may not only refer to certification but also registration or self-declaration.

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