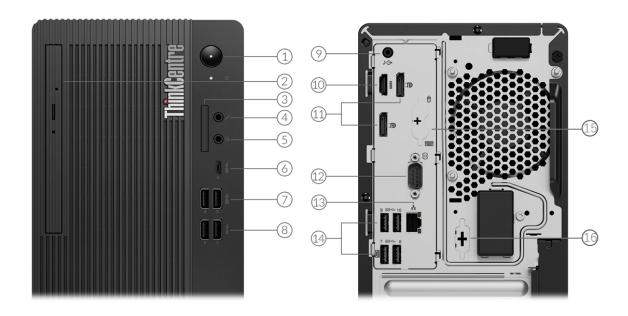


# **OVERVIEW**



1. Optical drive *       9. Line-out (3.5mm)         2. Power button       10. HDMI         3. Card reader *       11. 2x DisplayPort         4. Microphone (3.5mm)       12. Serial         5. Headphone / microphone combo jack (3.5mm)       13. Ethernet (RJ-45)         6. USB-C 3.2 Gen 1       14. 4x USB 3.2 Gen 1         7. 2x USB 3.2 Gen 1       15. 2x PS/2 ports (keyboard / mouse) *         8. 2x USB 3.2 Gen 2       16. Serial *		
3. Card reader *  4. Microphone (3.5mm)  5. Headphone / microphone combo jack (3.5mm)  6. USB-C 3.2 Gen 1  7. 2x USB 3.2 Gen 1  11. 2x DisplayPort  12. Serial  13. Ethernet (RJ-45)  14. 4x USB 3.2 Gen 1  15. 2x PS/2 ports (keyboard / mouse) *	1. Optical drive *	9. Line-out (3.5mm)
4. Microphone (3.5mm)       12. Serial         5. Headphone / microphone combo jack (3.5mm)       13. Ethernet (RJ-45)         6. USB-C 3.2 Gen 1       14. 4x USB 3.2 Gen 1         7. 2x USB 3.2 Gen 1       15. 2x PS/2 ports (keyboard / mouse) *	2. Power button	10. HDMI
5. Headphone / microphone combo jack (3.5mm) 13. Ethernet (RJ-45) 6. USB-C 3.2 Gen 1 14. 4x USB 3.2 Gen 1 7. 2x USB 3.2 Gen 1 15. 2x PS/2 ports (keyboard / mouse) *	3. Card reader *	11. 2x DisplayPort
6. USB-C 3.2 Gen 1 14. 4x USB 3.2 Gen 1 7. 2x USB 3.2 Gen 1 15. 2x PS/2 ports (keyboard / mouse) *	4. Microphone (3.5mm)	12. Serial
7. 2x USB 3.2 Gen 1 15. 2x PS/2 ports (keyboard / mouse) *	5. Headphone / microphone combo jack (3.5mm)	13. Ethernet (RJ-45)
	6. USB-C 3.2 Gen 1	14. 4x USB 3.2 Gen 1
8. 2x USB 3.2 Gen 2 16. Serial *	7. 2x USB 3.2 Gen 1	15. 2x PS/2 ports (keyboard / mouse) *
	8. 2x USB 3.2 Gen 2	16. Serial *

# Notes:

- Items with \* are only available on selected models
- More ports are available through the optional expansion cards (not shown on the sample product above)



# **PERFORMANCE**

## **Processor**

## **Processor Family**

Intel® Celeron®, Intel Pentium®, or 10th Generation Intel Core™ i3 / i5 / i7 / i9 Processor

## Processor\*\*

Processor Name	Cores	Threads	Base Frequency	Max Frequency	Cache	Processor Graphics
Celeron G5900	2	2	3.4GHz	-	2MB	Intel UHD Graphics 610
Celeron G5905	2	2	3.5GHz	-	4MB	Intel UHD Graphics 610
Celeron G5920	2	2	3.5GHz	-	2MB	Intel UHD Graphics 610
Celeron G5925	2	2	3.6GHz	-	4MB	Intel UHD Graphics 610
Pentium Gold G6400	2	4	4.0GHz	-	4MB	Intel UHD Graphics 610
Pentium Gold G6500	2	4	4.1GHz	-	4MB	Intel UHD Graphics 630
Pentium Gold G6600	2	4	4.2GHz	-	4MB	Intel UHD Graphics 630
Core i3-10100	4	8	3.6GHz	4.3GHz <sup>[1]</sup>	6MB	Intel UHD Graphics 630
Core i3-10300	4	8	3.7GHz	4.4GHz <sup>[2]</sup>	8MB	Intel UHD Graphics 630
Core i3-10320	4	8	3.8GHz	4.6GHz <sup>[3]</sup>	8MB	Intel UHD Graphics 630
Core i5-10400	6	12	2.9GHz	4.3GHz <sup>[4]</sup>	12MB	Intel UHD Graphics 630
Core i5-10400F	6	12	2.9GHz	4.3GHz <sup>[5]</sup>	12MB	-
Core i5-10500	6	12	3.1GHz	4.5GHz <sup>[6]</sup>	12MB	Intel UHD Graphics 630
Core i5-10600	6	12	3.3GHz	4.8GHz <sup>[7]</sup>	12MB	Intel UHD Graphics 630
Core i7-10700	8	16	2.9GHz	4.8GHz <sup>[8]</sup>	16MB	Intel UHD Graphics 630
Core i7-10700F	8	16	2.9GHz	4.8GHz <sup>[9]</sup>	16MB	-
Core i9-10900	10	20	2.8GHz	5.2GHz <sup>[10]</sup>	20MB	Intel UHD Graphics 630
Core i9-10900F	10	20	2.8GHz	5.2GHz <sup>[11]</sup>	20MB	-

### Notes:

[1], [2], [3], [4], [5], [6], [7], [8], [9], [10], [11] Intel Max Turbo frequency will vary depending on application workload and the hardware and software configurations, see http://www.intel.com/technology/turboboost/ for more information.

# **Operating System**

### Operating System\*\*

- Ubuntu Linux[1]
- Windows® 10 Home 64
- Windows 10 Home 64 Single Language
- Windows 10 IoT Enterprise<sup>[2]</sup>
- Windows 10 Pro 64
- Windows 11 DG Windows 10 Pro 64
- Windows 11 Home
- Windows 11 Home Single Language
- Windows 11 Pro
- No operating system

## Notes:

[1], [2] Special bid only.

# **Graphics**

# Graphics\*\*[1]

Graphics Type Memory Connector	Max Resolution	Key Features
--------------------------------	----------------	-----------------



Intel UHD graphics 610	Integrated	Shared	1x HDMI®, 2x DP	1920x1080@60Hz(HDMI), 4096x2304@60Hz(DP)	DirectX® 12
Intel UHD graphics 630	Integrated	Shared	1x HDMI, 2x DP	1920x1080@60Hz(HDMI), 4096x2304@60Hz(DP)	DirectX 12
AMD Radeon™ 520	Discrete	2GB GDDR5	2x DP 1.2	4096x2160@60Hz(DP)	DirectX 12
NVIDIA® GeForce GT 730	Discrete	2GB GDDR5	1x VGA, 1x HDMI 1.4	2048x1536@75Hz(VGA), 3840x2160@30Hz(HDMI)	DirectX 12
AMD Radeon RX 550X	Discrete	4GB GDDR5	1x HDMI 2.0, 1x VGA, 1x DP 1.4	4096x2160@60Hz(HDMI), 2048x1536@85Hz(VGA), 3840x2160@60Hz(DP)	DirectX 12

### Notes:

[1] The information of integrated graphics are not applicable for the models with processor which has no integrated graphics inside (for the details, please refer to processor section).

# **Monitor Support**

## Monitor Support[1]

Supports up to 3 independent displays via onboard ports (HDMI and 2x DisplayPort™), more displays support via discrete graphics

### Notes:

[1] Onboard video ports are only available for the models with integrated graphics.

# **Chipset**

## Chipset

Intel Q470 chipset

## **Memory**

## Max Memory[1]

Up to 128GB DDR4-2933

# **Memory Slots**

Four DDR4 DIMM slots, dual-channel capable

# Memory Type\*\*

- DDR4-2666
- DDR4-2933

## Notes:

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

# **Storage**

## Storage Support[1]

Up to three drives, 1x 2.5"/3.5" HDD + 1x 2.5" HDD + 1x M.2 SSD

- 2.5" HDD up to 1TB each
- 3.5" HDD up to 2TB
- M.2 SSD up to 2TB
- Optional Intel Optane<sup>™</sup> Memory, M.2

## Storage Type\*\*\*

Disk Type	Interface	RPM	Security
2.5" SATA HDD	SATA 6Gb/s	7.2K	-
3.5" SATA HDD	SATA 6Gb/s	7.2K	-
M.2 2242 SSD	PCIe® NVMe®, PCIe 3.0 x2	-	-
M.2 2280 SSD	PCIe NVMe, PCIe 3.0 x4	-	-
M.2 2280 SSD	PCIe NVMe, PCIe 3.0 x4	-	Opal

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Intel Optane Memory M10	PCIe NVMe, PCIe 3.0 x2	-	-	
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### **RAID**

RAID 0/1 support for HDDs (RAID preset only available via special bid models)

Notes:

[1] The max capacity of each disk type is based on the test results with current Lenovo storage offerings.

# **Removable Storage**

### Optical\*\*

- DVD-ROM, SATA 1.5Gb/s, slim (9.0mm)
- DVD burner (DVD±RW), SATA 1.5Gb/s, slim (9.0mm)
- None

### **Card Reader**

- 3-in-1 card reader (SD, SDHC, SDXC)
- · No card reader

## Multi-Media

### **Audio Chip**

High Definition (HD) Audio, Realtek® ALC623-CG codec

### **Speakers**

Single speaker, 2W x1

# **Power Supply**

## Power Supply\*

Power	Туре	Efficiency	Key Features
180W	Fixed	85%	-
260W	Fixed	85%	100-240V, 50-60Hz
310W	Fixed	92%	100-240V, 50-60Hz
380W	Fixed	92%	-

## **DESIGN**

## **Input Device**

## Keyboard\*\*

- · Lenovo Calliope Keyboard (USB connector), black
- Lenovo Calliope Wireless Keyboard (2.4GHz via USB receiver), black
- Lenovo Traditional Keyboard (USB connector), black
- No keyboard

### Mouse\*\*

- Lenovo Calliope Mouse (USB connector), black
- · Lenovo Calliope Wireless Mouse (2.4GHz via USB receiver), black
- Lenovo Fingerprint Mouse (USB connector), Windows Hello support, black (EOL on Jan, 2023)
- No mouse

### Mechanical

### Form Factor

Tower (13.6L)

## Dimensions (WxDxH)[1]

145 x 296 x 346 mm (5.7 x 11.7 x 13.6 inches)

### Packaging Dimensions (WxDxH)

245 x 395 x 530 mm (9.65 x 15.55 x 20.87 inches)

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

Around 4.8 kg (10.6 lbs)



### **Packaging Weight**

8.3 kg (18.29 lbs)

### **Case Color**

Black

# Bays

- 1x 2.5" disk bay (optional, or bay comes with disk)
- 1x 3.5" disk bay
- · 1x slim ODD bay

### **Expansion Slots**

- One PCle 3.0 x16, full-height (length < 215mm)
- One PCle 3.0 x4, full-height (length < 215mm)</li>
- One PCle 3.0 x1, full-height (length < 215mm)</li>
- One dummy slot, only bracket for optional port extension
- Two M.2 slots (one for WLAN, one for SSD)

#### Others

- (Optional) Dust filter
- Supports Smart Power On

#### 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

## Onboard Ethernet

Gigabit Ethernet, Intel Ethernet Connection I219-LM, 1x RJ-45, supports Wake-on-LAN

### Optional Ethernet\*\*

- Gigabit Ethernet, Bitland BN8E88, 1x RJ-45, PCle x1
- Gigabit Ethernet, Intel Ethernet Server Adapter I350-T4, 4x RJ-45, PCIe x4<sup>[1]</sup>
- No optional Ethernet

## WLAN + Bluetooth®\*\*

- Realtek RTL8822CE, 802.11ac Dual Band 2x2 Wi-Fi® + Bluetooth 5.0, M.2 card
- Intel Wireless-AC 9560, 802.11ac Dual Band 2x2 Wi-Fi + Bluetooth 5.1, M.2 card
- Intel Wi-Fi 6 AX201, 802.11ax 2x2 Wi-Fi + Bluetooth 5.1, Intel vPro® technology support, M.2 Card[2]
- No WLAN and Bluetooth

### Notes:

[1] Intel Ethernet Server Adapter I350-T4 is not available in EMEA.

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

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

## **Front Ports**

- 1x USB-C® 3.2 Gen 1
- 2x USB 3.2 Gen 1
- 2x USB 3.2 Gen 2
- 1x headphone / microphone combo jack (3.5mm)
- 1x microphone (3.5mm)

### **Optional Front Ports**

- · 1x card reader
- None

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

- 4x USB 3.2 Gen 1
- 1x HDMI

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- 2x DisplayPort
- 1x Ethernet (RJ-45)
- 1x line-out (3.5mm)
- 1x serial (9-pin)

### Optional Rear Ports\*\*\*

- 2x USB-C 3.2 Gen 2 (support data transfer, via 2-port USB-C expansion card, PCIe x4)
- 2x USB 3.2 Gen 1 (via 2-port USB expansion card, PCle x1)
- 2x USB 2.0 (via 2-port adapter)
- 1x parallel
- 1x serial
- 4x serial (via 4-port serial expansion card, PCle x1)
- 2x PS/2

### 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.

[2] For video ports on discrete graphics, please see graphics section.

### **Monitor Cable**

### Monitor Cable\*\*\*

- HDMI to HDMI cable (1.5m)
- HDMI to VGA dongle
- DP to VGA dongle
- DP to VGA cable (1.5M)
- DP to dual DP dongle
- DP to DVI-D dongle
- DP to HDMI dongle
- No monitor cable

## **SECURITY & PRIVACY**

## Security

## **Security Chip**

Discrete TPM 2.0, TCG certified

## **Physical Locks**

- (Optional) E-lock
- (Optional) Smart Cable Clip
- Kensington® Security Slot™, 3 x 7 mm
- Padlock Loop

### **Chassis Intrusion Switch**

- · Chassis intrusion switch
- No chassis intrusion switch

### **Fingerprint Reader**

- Touch style fingerprint reader on mouse (EOL on Jan, 2023)
- · No fingerprint reader

### **BIOS Security**

- Administrator password
- Power-on password
- Hard disk password
- · Boot sequence control
- Boot without keyboard and mouse
- Smart USB protection (allows keyboard / mouse only, blocks all storage devices)



· Individual USB port disablement

## **MANAGEABILITY**

# **System Management**

## **System Management**

- Intel vPro with Intel AMT 14[1]
- 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 limited onsite service
- · 3-year limited onsite service
- · No base warranty

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

# **ENVIRONMENTAL**

# **Operating Environment**

## **Temperature**

- Operating: 5°C (41°F) to 35°C (95°F)
- Storage: -40°C (-40°F) to 60°C (140°F)

### Humidity

Operating: 20% to 80%

• Storage: 10% to 90%

### **Altitude**

• Operating: 0 m (0 ft) to 3048 m (10,000 ft)

• Storage: 0 m (0 ft) to 12192 m (40,000 ft)

## **CERTIFICATIONS**

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

## Green Certifications[2]

- (Optional) ENERGY STAR® 8.0
- (Optional) EPEAT™ Gold Registered<sup>[3]</sup>
- (Optional) EPEAT Silver Registered<sup>[4]</sup>
- ErP Lot 3
- RoHS compliant
- TCO Certified 8.0

## Notes:

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

[2] ENERGY STAR 8.0 and EPEAT are only available for MT 11CS/11CT.

[3], [4] EPEAT is registered where applicable, please see https://www.epeat.net for registration status by country.



### **Other Certifications**

### **Other Certifications**

- (Optional) TÜV Rheinland® Low Noise
- (Optional) TÜV Rheinland Ultra Low Noise
- Feature with \*\* means that only one offering listed under the feature is configured on selected models.
- Feature with \*\*\* means that one or more offerings listed under the feature could be configured on selected models.
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