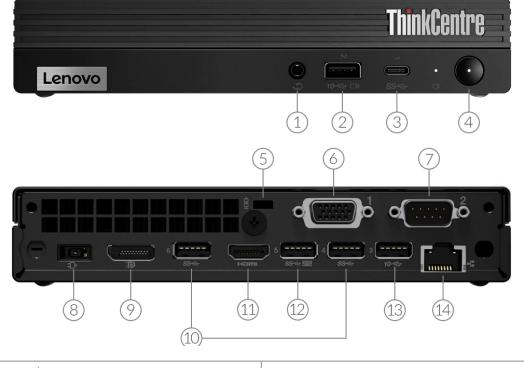
# **OVERVIEW**



| 1. Headphone / microphone combo jack (3.5mm) | 8. Power connector   |
|--|----------------------|
| 2. USB 3.2 Gen 2                             | 9. DisplayPort       |
| 3. USB-C 3.2 Gen 1                           | 10. USB 3.2 Gen 1    |
| 4. Power button                              | 11. HDMI             |
| 5. Kensington Security Slot                  | 12. USB 3.2 Gen 1    |
| 6. Optional port 1 (VGA is shown)            | 13. USB 3.2 Gen 2    |
| 7. Optional port 2 (serial is shown)         | 14. Ethernet (RJ-45) |

# ThinkCentre M70q

# PERFORMANCE

## Processor

#### **Processor Family**

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

#### Processor\*\*

| Processor Name         | Cores | Threads | Base<br>Frequency | Max<br>Frequency      | Cache | Memory<br>Support | Processor Graphics        |
|------------------------|-------|---------|-------------------|-----------------------|-------|-------------------|---------------------------|
| Celeron G5900T         | 2     | 2       | 3.2GHz            | -                     | 2MB   | DDR4-2666         | Intel UHD Graphics 610    |
| Celeron G5905T         | 2     | 2       | 3.3GHz            | -                     | 4MB   | DDR4-2666         | Intel UHD Graphics 610    |
| Pentium Gold<br>G6400T | 2     | 4       | 3.4GHz            | -                     | 4MB   | DDR4-2666         | Intel UHD Graphics 610    |
| Pentium Gold<br>G6500T | 2     | 4       | 3.5GHz            | -                     | 4MB   | DDR4-2666         | Intel UHD Graphics<br>630 |
| Core i3-10100T         | 4     | 8       | 3.0GHz            | 3.8GHz <sup>[1]</sup> | 6MB   | DDR4-2666         | Intel UHD Graphics<br>630 |
| Core i3-10300T         | 4     | 8       | 3.0GHz            | 3.9GHz <sup>[2]</sup> | 8MB   | DDR4-2666         | Intel UHD Graphics<br>630 |
| Core i5-10400T         | 6     | 12      | 2.0GHz            | 3.6GHz <sup>[3]</sup> | 12MB  | DDR4-2666         | Intel UHD Graphics<br>630 |
| Core i5-10500T         | 6     | 12      | 2.3GHz            | 3.8GHz <sup>[4]</sup> | 12MB  | DDR4-2666         | Intel UHD Graphics<br>630 |
| Core i5-10600T         | 6     | 12      | 2.4GHz            | 4.0GHz <sup>[5]</sup> | 12MB  | DDR4-2666         | Intel UHD Graphics<br>630 |
| Core i7-10700T         | 8     | 16      | 2.0GHz            | 4.5GHz <sup>[6]</sup> | 16MB  | DDR4-2933         | Intel UHD Graphics<br>630 |
| Core i9-10900T         | 10    | 20      | 1.9GHz            | 4.6GHz <sup>[7]</sup> | 20MB  | DDR4-2933         | Intel UHD Graphics<br>630 |

#### Notes:

[1], [2], [3], [4], [5], [6], [7] 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<sup>[1]</sup>
- Windows® 10 Home 64
- Windows 10 Home 64 Single Language
- Windows 10 IoT Enterprise
- 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] Some features may not be supported on the system with Linux preload, including but not limited to Intel RST RAID, Human Presence Detection, etc.

# Graphics

#### Graphics\*\*[1]

|  | Graphics Type | Memory | Connector | Max Resolution | Key<br>Features |  |
|--|---------------|--------|-----------|----------------|-----------------|--|
|--|---------------|--------|-----------|----------------|-----------------|--|

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| Intel UHD<br>graphics<br>610 | Integrated | Shared | 1x HDMI®, 1x DP, 1x<br>optional video port (2nd<br>HDMI / VGA / 2nd DP /<br>USB-C® / dual DP) | 4096x2304@24Hz(onboard HDMI),<br>4096x2304@60Hz(DP), 3840x2160@60Hz(Dual<br>DP, MST mode), 2048x1536@50Hz(VGA),<br>4096x2304@60Hz(USB-C) | DirectX®<br>12 |
|------------------------------|------------|--------|---|--|----------------|
| Intel UHD<br>graphics<br>630 | Integrated | Shared | 1x HDMI, 1x DP, 1x<br>optional video port (2nd<br>HDMI / VGA / 2nd DP /<br>USB-C / dual DP)   | 4096x2160@24Hz(onboard HDMI),<br>4096x2304@60Hz(DP), 3840x2160@60Hz(Dual<br>DP, MST mode), 2048x1536@50Hz(VGA),<br>4096x2304@60Hz(USB-C) | DirectX<br>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**

Supports up to 3 independent displays via (onboard DP, onboard HDMI, and one optional port [VGA / 2nd DP / 2nd HDMI / USB-C]) or (one onboard port [DP / HDMI] and optional dual DP [MST mode])

# Chipset

#### Chipset

Intel H470 chipset

## Memory

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

Up to 64GB DDR4-2933

#### Memory Slots

Two DDR4 SO-DIMM slots, dual-channel capable

#### Memory Type\*\*[2]

- DDR4-2666
- DDR4-2933

#### 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 2666MHz or 2933MHz, depending on the memory support capability of processor.

#### Storage

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

Up to two drives, 1x 2.5" HDD + 1x M.2 SSD

• 2.5" HDD up to 1TB

• M.2 SSD up to 2TB

• Optional Intel Optane™ Memory, M.2

#### Storage Type\*\*\*

| Disk Type               | Interface                | RPM  | Security |
|-------------------------|--------------------------|------|----------|
| 2.5" SATA HDD           | SATA 6Gb/s               | 7.2K | -        |
| M.2 2242 SSD            | PCIe® NVMe®, PCIe 3.0 x2 | -    | -        |
| M.2 2242 SSD            | PCIe NVMe, PCIe 3.0 x4   | -    | -        |
| M.2 2280 SSD            | PCIe NVMe, PCIe 3.0 x4   | -    | -        |
| M.2 2280 SSD            | PCIe NVMe, PCIe 3.0 x4   | -    | Opal     |
| Intel Optane Memory M10 | PCIe NVMe, PCIe 3.0 x2   | -    | -        |

#### RAID

No support

Notes:

Lenovo

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

# **Removable Storage**

#### **Optical**\*\*

- DVD-ROM, slim (9.0mm), via USB external ODD box
- DVD burner (DVD±RW), slim (9.0mm), via USB external ODD box
- None

#### Card Reader

No card reader

### **Multi-Media**

#### Audio Chip

High Definition (HD) Audio, Realtek® ALC233VB codec or ALC897Q codec

#### Speakers

Single speaker, 1.5W x1

# **Power Supply**

#### Power Supply\*\*

| Power           | Туре    | Efficiency | Key Features |
|-----------------|---------|------------|--------------|
| 65W             | Adapter | 89%        | Autosensing  |
| 90W             | Adapter | 89%        | Autosensing  |
| 135W            | Adapter | 89%        | Autosensing  |
| No power supply | -       | -          | -            |

# 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

Tiny (1L)

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

| Models                    | Dimensions  |
|---------------------------|---|
| Tiny only                 | 179 x 183 x 34.5 / 37 mm with rubber feet (7.05 x 7.2 x 1.36 / 1.5 inches with rubber feet) |
| With VESA mount & ODD box | 187 x 183.8 x 66.5 mm (7.36 x 7.24 x 2.62 inches)   |

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

| Models                    | Weight                    |  |
|---------------------------|---------------------------|--|
| Tiny only                 | Around 1.25 kg (2.76 lbs) |  |
| With VESA mount & ODD box | Around 1.74 kg (3.84 lbs) |  |

#### Case Color

Black

# Bays

1x 2.5" disk bay

#### Expansion Slots

Two M.2 slots (one for WLAN, one for SSD)

## EOU

(Optional) toolless chassis open (toolless chassis screw required) and toolless M.2 SSD, HDD, memory assembly / removal

### Stand

- Vertical stand
- No stand

#### Mounting

- VESA mount bracket kit, supports VESA mount 75mm and 100mm
- None

#### Others

- (Optional) Dust filter
- (Optional) Power adapter cage

#### 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-V, 1x RJ-45, supports Wake-on-LAN

#### **Optional Ethernet**

No optional Ethernet

#### WLAN + Bluetooth®\*\*

- Realtek RTL8822CE, 802.11ac Dual Band 2x2 Wi-Fi® + Bluetooth 5.0, M.2 card
- Intel Wireless-AC 9462, 802.11ac Dual Band 1x1 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, M.2 Card
- No WLAN and Bluetooth

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

#### Front Ports

- 1x USB-C 3.2 Gen 1
- 1x USB 3.2 Gen 2 (Always On and fast charge)
- 1x headphone / microphone combo jack (3.5mm)

#### **Optional Front Ports**

#### None

# Rear Ports

- 1x USB 3.2 Gen 2
- 3x USB 3.2 Gen 1
- 1x HDMI
- 1x DisplayPort™
- 1x Ethernet (RJ-45)

# Optional Rear Ports\*\*\*

- Optional port 1 (one of VGA / 2nd DisplayPort / 2nd HDMI / serial / USB-C 3.2 Gen 1 with DisplayPort function)
- 2x DisplayPort ports (occupy Optional port 1 and 2)
- Optional port 2 (serial)
- 2x USB 3.2 Gen 1 ports (share one USB 3.2 Gen 1 bandwidth, occupy optional port 1 and 2)

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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<sup>™</sup> 3/4: 40 Gbit/s.

# **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**

Kensington<sup>®</sup> Security Slot<sup>™</sup>, 3 x 7 mm

#### **Chassis Intrusion Switch**

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

Non-vPro®

# SERVICE

## **Warranty**<sup>III</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 <u>https://smartfind.lenovo.com/</u>. To learn more details of warranty policy, please access <u>https://pcsupport.lenovo.com/warranty</u>.

# 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>III</sup>

#### **Green Certifications**

- (Optional) EPEAT<sup>™</sup> Gold Registered<sup>[2]</sup>
- (Optional) EPEAT Silver Registered<sup>[3]</sup>
- ENERGY STAR® 8.0
- ErP Lot 3
- RoHS compliant
- TCO Certified

#### Notes:

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

[2], [3] 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

#### **Mil-Spec Test**

MIL-STD-810H military test passed (Low Pressure [Altitude], High Temperature, Low Temperature, Temperature Shock, Humidity, Sand and Dust, Vibration, Shock, Fungus, Solar Radiation)

• 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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