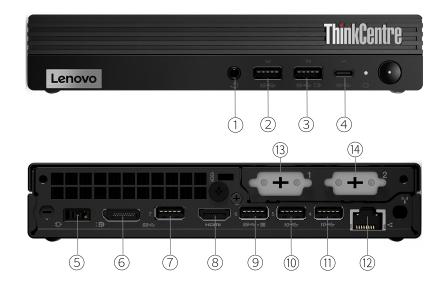
# **OVERVIEW**



1. Headphone / microphone combo jack (3.5mm)	8. HDMI
2. USB 3.2 Gen 2	9. USB 3.2 Gen 1 (with Smart Power On feature)
3. USB 3.2 Gen 2 (Always On and fast charge)	10. USB 3.2 Gen 2
4. USB-C 3.2 Gen 2	11. USB 3.2 Gen 2
5. Power connector	12. Ethernet (RJ-45)
6. DisplayPort	13. Punch out port 1 *
7. USB 3.2 Gen 1	14. Punch out port 2 *

Notes:

• Items with \* are only available on selected models

# ThinkCentre M80q Gen 4

# PERFORMANCE

# **Processor**

## **Processor Family**

13th Generation Intel<sup>®</sup> Core™ i3 / i5 / i7 / i9 Processor, 35W

# Processor\*\*[1]

Processor Name	Cores	Threads	Base Frequency	Max Frequency	Cache	Memory Support	Processor Graphics
Core i3- 13100T	4 (4 P-core + 0 E-core)	8	P-core 2.5GHz	P-core 4.2GHz	12MB	DDR5- 4800	Intel UHD Graphics 730
Core i5- 13400T	10 (6 P-core + 4 E-core)	16	P-core 1.3GHz / E- core 1.0GHz	P-core 4.4GHz / E-core 3.0GHz	20MB	DDR5- 4800	Intel UHD Graphics 730
Core i5- 13500T	14 (6 P-core + 8 E-core)	20	P-core 1.6GHz / E-core 1.2GHz	P-core 4.6GHz / E-core 3.2GHz	24MB	DDR5- 4800	Intel UHD Graphics 770
Core i5- 13600T	14 (6 P-core + 8 E-core)	20	P-core 1.8GHz / E-core 1.3GHz	P-core 4.8GHz / E-core 3.4GHz	24MB	DDR5- 4800	Intel UHD Graphics 770
Core i7- 13700T	16 (8 P-core + 8 E-core)	24	P-core 1.4GHz / E-core 1.0GHz	Max Turbo up to 4.9GHz / P- core 4.8GHz / E-core 3.6GHz	30MB	DDR5- 5600	Intel UHD Graphics 770
Core i9- 13900T	24 (8 P-core + 16 E-core)	32	P-core 1.1GHz / E- core 0.8GHz	Max Turbo up to 5.3GHz / P- core 5.1GHz / E-core 3.9GHz	36MB	DDR5- 5600	Intel UHD Graphics 770

Notes:

[1] 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**\*\*

- Windows<sup>®</sup> 11 Pro
- Windows 11 Home
- Windows 11 Home Single Language
- No operating system

# Graphics

# Graphics\*\*

Graphics	Туре	Memory	Connector	Max Resolution	Key Features	Remark
Intel UHD graphics 730	Integrated	Shared	1x HDMI <sup>®</sup> 2.1 TMDS, 1x DP 1.4, 2x punch out ports([2x HDMI/VGA/DP] or [USB-C <sup>®</sup> with DP function, HDMI/VGA/DP])	4096x2304@60Hz(HDMI), 1920x1200@60Hz(VGA), 4096x2304@60Hz(DP), 4096x2304@60Hz(USB-C with DP function)	DirectX® 12	-
Intel UHD graphics 770	Integrated	Shared	1x HDMI 2.1 TMDS, 1x DP 1.4, 2x punch out ports([2x HDMI/VGA/DP] or [USB-C with DP function, HDMI/VGA/DP])	4096x2304@60Hz(HDMI), 1920x1200@60Hz(VGA), 4096x2304@60Hz(DP), 4096x2304@60Hz(USB-C with DP function)	DirectX 12	-

# **Monitor Support**

## **Monitor Support**

Supports up to 4 independent displays via (onboard DP, onboard HDMI, punch out port 1[VGA / HDMI / DP / USB-C], and punch out port 2[VGA / HDMI / DP])

# Chipset

### Chipset

# ThinkCentre M80q Gen 4

Lenovo

Intel Q670 chipset

# Memory

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

Up to 64GB (2x 32GB DDR5 SO-DIMM)

## **Memory Slots**

Two DDR5 SO-DIMM slots, dual-channel capable

### Memory Type\*\*

- DDR5-4800
- DDR5-5600<sup>[2]</sup>

Notes:

[1] The max memory is based on the test results with current Lenovo<sup>®</sup> memory offerings. The system may support more memory as the technology develops.

[2] System may come with DDR5-5600 memory and will run at lower speed due to platform limitations: 1x 32GB / 2x 32GB configurations run at DDR5-5200

## Storage

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

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

• 2.5" HDD up to 1TB

• M.2 SSD up to 2TB each

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

Disk Type	Interface	RPM	Offering	Security
2.5" SATA HDD	SATA 6Gb/s	7.2K	1TB	-
M.2 2280 SSD	PCle® NVMe®, PCle 4.0 x4	-	256GB / 512GB / 1TB	Opal 2.0
M.2 2280 SSD	PCIe NVMe, PCIe 4.0 x4 Performance	-	512GB / 1TB / 2TB	Opal 2.0

#### RAID

None

#### Notes:

[1] The max capacity of each disk type is based on the test results with current Lenovo storage offerings. The system may support larger storage as the technology develops.

# 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® ALC256VB codec

#### Speakers\*\*

- Single speaker, 2W x1
- Premium single speaker, 2W x1

# Microphone

No microphone

# **Power Supply**

Power

# Power Supply\*\*

Type Efficiency Key Features

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65W	Adapter	89%	Autosensing
90W	Adapter	89%	Autosensing
135W	Adapter	90%	Autosensing
170W	Adapter	89%	Autosensing
No power supply	-	-	-

# DESIGN

# **Input Device**

## Keyboard\*\*

- Lenovo Calliope Keyboard (USB connector), black
- Lenovo Calliope Wireless Keyboard, 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
- No mouse

# Mechanical

## Form Factor

Tiny (1L)

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

Models	Dimensions
Tiny only	179 x 182.9 x 36.5 mm with rubber feet (7.05 x 7.2 x 1.44 inches with rubber feet)
Tiny & ODD	204.2 x 186.6 x 64 mm with rubber feet (8.04 x 7.35 x 2.52 inches with rubber feet)

## Packaging Dimensions (WxDxH)

- Tiny only : 490 x 268 x 141 mm (19.29 x 10.55 x 5.55 inches)
- Tiny & ODD : 490 x 268 x 166 mm (19.29 x 10.55 x 6.54 inches)

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

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

#### **Packaging Weight**

- Tiny only: Around 2.848 kg (6.28 lbs)
- Tiny & ODD: Around 3.58 kg (7.89 lbs)

## Case Color

## Black

Bays

- 1x 2.5" disk bay (optional, or bay comes with disk)
- No bays

#### **Expansion Slots**

- Two M.2 PCIe Gen 4x4 slots (for SSD)
- One M.2 slot (for WLAN)

#### EOU

- (Optional) toolless chassis open (toolless chassis screw required) and toolless M.2 SSD, HDD, memory assembly / removal
- No support

## Stand

- Vertical stand
- No stand

## **IO Box**

No IO box

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

### **Optional Ethernet**

- 2.5 Gigabit Ethernet, Realtek RTL8125BGS, 1x RJ-45
- No optional Ethernet

## WLAN + Bluetooth®\*\*

- Realtek Wi-Fi<sup>®</sup> 6 RTL8852BE, 802.11ax 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
- Intel Wi-Fi 6E AX211, 802.11ax 2x2 Wi-Fi + Bluetooth 5.1, Intel vPro® technology support, M.2 Card
- No WLAN and Bluetooth

# **Ports**<sup>III</sup>

#### **Front Ports**

- 1x USB 3.2 Gen 2
- 1x USB 3.2 Gen 2 (Always On and 5V@2.1A charging)
- 1x USB-C 3.2 Gen 2
- 1x headphone / microphone combo jack (3.5mm)

## **Optional Front Ports**

#### None

#### **Rear Ports**

- 1x HDMI 2.1 TMDS
- 1x DisplayPort<sup>™</sup> 1.4
- 2x USB 3.2 Gen 1 (one supports Smart Power On)
- 2x USB 3.2 Gen 2
- 1x Ethernet (RJ-45)

## **Optional Rear Ports**

- Punch out port 1 (one of VGA / DisplayPort / HDMI / serial / USB-C 3.2 Gen 1 with DisplayPort functions)
- Punch out port 2 (one of VGA / DisplayPort / HDMI / serial / RJ-45)
- 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 (share one USB 3.2 Gen 1 bandwidth, occupies port 1 and 2)
- 4x USB 3.2 Gen 1 (share one USB 3.2 Gen 1 bandwidth, occupy port 1 and 2)

[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;

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Notes:

Lenovo

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.

# **Monitor Cable**

## Monitor Cable

- HDMI to VGA dongle
- DP to VGA dongle
- DP to DVI dongle
- 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

No fingerprint reader

#### **BIOS Security**

- Administrator password
- Power-on password
- Hard disk password
- Boot sequence control
- Boot without keyboard and mouse
- Certificate based BIOS management
- Cover presence switch
- Self-healing BIOS
- Smart USB protection (allows keyboard / mouse only, blocks all storage devices)
- Individual USB port disablement

# MANAGEABILITY

# System Management

#### System Management

- Intel vPro Enterprise with Intel AMT 16<sup>[1]</sup>
- Non-vPro

Notes:

[1] Intel vPro offers a superset of DASH's defined capabilities.

# SERVICE

# Warranty

#### Base Warranty\*\*

- 1-year courier or carry-in service
- 1-year limited onsite service
- 3-year limited onsite service
- No base warranty

Lenovo

## 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) ENERGY STAR<sup>®</sup> 8.0
- (Optional) EPEAT<sup>™</sup> Gold Registered<sup>[2]</sup>
- (Optional) EPEAT Silver Registered<sup>[3]</sup>
- ErP Lot 3
- TCO Certified 9.0
- RoHS compliant

#### 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® Ultra Low Noise

**Mil-Spec Test** 

MIL-STD-810H military test passed

- 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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PSREF Product Specifications Reference



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