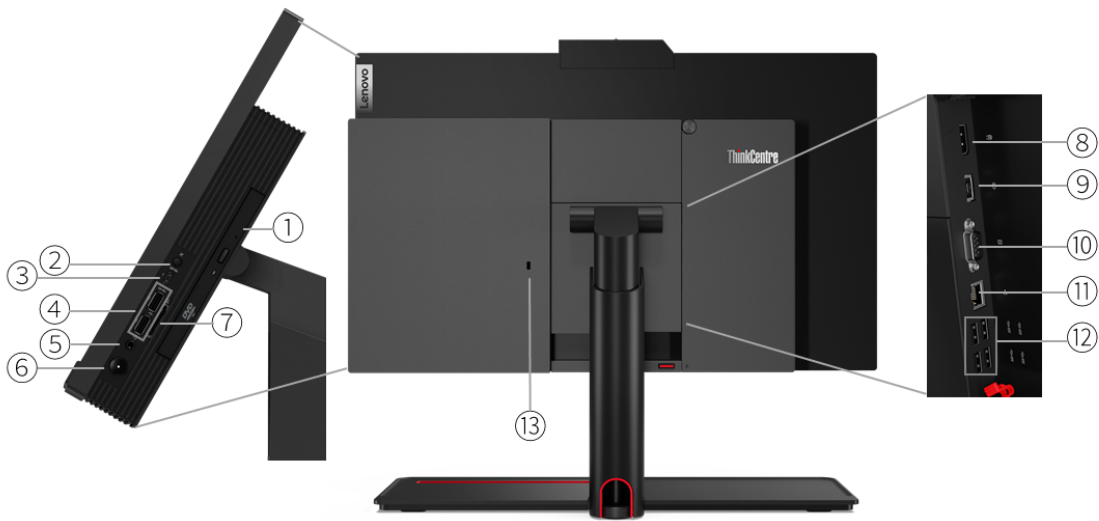


## OVERVIEW



1. Optical drive *	8. DisplayPort
2. Microphone mute button	9. Power connector
3. USB-C 3.2 Gen 1	10. Serial *
4. 2x USB 3.2 Gen 2	11. Ethernet (RJ-45)
5. Headphone / microphone combo jack (3.5mm)	12. 4x USB 3.2 Gen 1
6. Power button	13. Kensington Security Slot
7. Card reader *	

Notes:

- Ports with \* are only available on selected models

## 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	Memory Support	Processor Graphics
Celeron G5900	2	2	3.4GHz	-	2MB	DDR4-2666	Intel UHD Graphics 610
Celeron G5905	2	2	3.5GHz	-	4MB	DDR4-2666	Intel UHD Graphics 610
Celeron G5920	2	2	3.5GHz	-	2MB	DDR4-2666	Intel UHD Graphics 610
Celeron G5925	2	2	3.6GHz	-	4MB	DDR4-2666	Intel UHD Graphics 610
Pentium Gold G6400	2	4	4.0GHz	-	4MB	DDR4-2666	Intel UHD Graphics 610
Pentium Gold G6500	2	4	4.1GHz	-	4MB	DDR4-2666	Intel UHD Graphics 630
Pentium Gold G6600	2	4	4.2GHz	-	4MB	DDR4-2666	Intel UHD Graphics 630
Core i3-10100	4	8	3.6GHz	4.3GHz	6MB	DDR4-2666	Intel UHD Graphics 630
Core i3-10300	4	8	3.7GHz	4.4GHz	8MB	DDR4-2666	Intel UHD Graphics 630
Core i3-10320	4	8	3.8GHz	4.6GHz	8MB	DDR4-2666	Intel UHD Graphics 630
Core i5-10400	6	12	2.9GHz	4.3GHz	12MB	DDR4-2666	Intel UHD Graphics 630
Core i5-10500	6	12	3.1GHz	4.5GHz	12MB	DDR4-2666	Intel UHD Graphics 630
Core i5-10600	6	12	3.3GHz	4.8GHz	12MB	DDR4-2666	Intel UHD Graphics 630
Core i7-10700	8	16	2.9GHz	4.8GHz	16MB	DDR4-2933	Intel UHD Graphics 630
Core i9-10900	10	20	2.8GHz	5.2GHz	20MB	DDR4-2933	Intel UHD Graphics 630

### Operating System

#### Operating System\*\*

- Windows® 11 Pro 64
- Windows 11 Home 64
- Windows 11 DG Windows 10 Pro 64
- Windows 10 Pro 64
- Windows 10 Home 64
- Windows 10 IoT Enterprise
- Ubuntu Linux
- No operating system

### Graphics

#### Graphics\*\*<sup>[1]</sup>

Graphics	Type	Memory	Connector	Max Resolution	Key Features
Intel UHD graphics 630	Integrated	Shared	1x DP 1.2	4096x2304@60Hz(DP)	DirectX® 12
Intel UHD graphics 610	Integrated	Shared	1x DP 1.2	4096x2304@60Hz(DP)	DirectX 12
AMD Radeon™ 625	Discrete	2GB GDDR5	1x DP 1.2	4096x2304@60Hz(DP)	DirectX 12

#### Notes:

1. The information of integrated graphics are not applicable for the models without integrated graphics (for the details, please refer to processor section)

### Monitor Support

#### Monitor Support

Supports up to 2 independent displays via native display and 1 external monitor; supports external monitor via DisplayPort™

### Chipset

## Chipset

Intel Q470 chipset

## Memory

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

Up to 64GB DDR4-2933

### Memory Slots

Two DDR4 DIMM slots, dual-channel capable

### Memory Type<sup>\*\*</sup>

- DDR4-2666
- DDR4-2933

#### Notes:

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

- 2.5" HDD up to 2TB each
- M.2 SSD up to 1TB
- Optional Intel Optane™ Memory, M.2

### Storage Type<sup>\*\*\*</sup>

Disk Type	Interface	RPM	Security
2.5" SATA HDD	SATA 6Gb/s	5.4K	-
2.5" 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	-	Opal
M.2 2280 SSD	PCIe NVMe, PCIe 3.0 x4	-	-
Intel Optane Memory M10	PCIe NVMe, PCIe 3.0 x2	-	-

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

RAID 0/1 support for HDDs

#### Notes:

1. RAID is not preset by default, user can config RAID 0/1 according to the demand.

## Removable Storage

### Optical<sup>\*\*</sup>

- 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
- No card reader

## Multi-Media

### Audio Chip

High Definition (HD) Audio, Realtek® ALC233 codec

### Speakers

Stereo speakers, 3W x2

### Microphone

Dual array microphone

### Camera<sup>\*\*</sup>

# ThinkCentre M90a

- 1080p, with ThinkShutter (physical switch on/off)
- IR & 1080p, with ThinkShutter (physical switch on/off), Windows Hello support
- No camera

## Power Supply

### Power Supply\*\*

Power	Type	Efficiency	Key Features
150W	Adapter	89%	Autosensing
170W	Adapter	89%	Autosensing

## DESIGN

### Display

#### Display\*\*<sup>[2]</sup>

Size	Resolution	Touch	Type	Brightness	Surface	Aspect Ratio	Contrast Ratio	Color Gamut	Viewing Angle	Key Features
23.8"	FHD (1920x1080)	None	IPS	250 nits	Anti-glare	16:9	1000:1	-	horizontal: +/- 89°, vertical: +/- 89°	Borderless design, support low blue light mode
23.8"	FHD (1920x1080)	None	IPS	350 nits	Anti-glare	16:9	1000:1	-	horizontal: +/- 89°, vertical: +/- 89°	Borderless design, support low blue light mode, PrivacyGuard
23.8"	FHD (1920x1080)	Multi-touch	IPS	250 nits	Anti-glare	16:9	1000:1	-	horizontal: +/- 89°, vertical: +/- 89°	Borderless design, support low blue light mode

#### Touchscreen

- Advanced In-cell Touch (AIT), supports 10-point touch
- Non-touch

#### Notes:

1. 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>

2. PrivacyGuard is only available for MT 11JX

## 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
- No mouse

## Mechanical

### Buttons

- Power button
- PrivacyGuard on/off button (PrivacyGuard model only)
- Microphone mute button

### Form Factor

AIO (23.8 inches)

**Dimensions (WxDxH)**

Models	Dimensions
Models (with full function monitor stand, with ODD, with PrivacyGuard, with camera)	541 x 200 x 414.2-494.2 mm (21.3 x 7.9 x 16.3-19.5 inches)
Models (with full function monitor stand, with ODD, without PrivacyGuard, with camera)	541 x 200 x 414.2-494.2 mm (21.3 x 7.9 x 16.3-19.5 inches)
Models (with full function monitor stand, without ODD, with PrivacyGuard, with camera)	541 x 200 x 414.2-494.2 mm (21.3 x 7.9 x 16.3-19.5 inches)
Models (with full function monitor stand, without ODD, without PrivacyGuard, with camera)	541 x 200 x 414.2-494.2 mm (21.3 x 7.9 x 16.3-19.5 inches)
Models (with UltraFlex IV stand, with ODD, without PrivacyGuard, with camera)	Lowest in flat mode: 541 x 312.8 x 227.4 mm (21.3 x 12.3 x 9.0 inches) Highest in vertical mode: 541 x 232.7 x 467.7 mm (21.3 x 9.2 x 18.4 inches)
Models (with UltraFlex IV stand, without ODD, without PrivacyGuard, with camera)	Lowest in flat mode: 541 x 312.8 x 227.4 mm (21.3 x 12.3 x 9.0 inches) Highest in vertical mode: 541 x 232.7 x 467.7 mm (21.3 x 9.2 x 18.4 inches)
Models (without stand, with ODD, with PrivacyGuard, with camera)	541 x 61.3 x 340.5 mm (21.3 x 2.4 x 13.4 inches)
Models (without stand, with ODD, without PrivacyGuard, with camera)	541 x 57.8 x 340.5 mm (21.3 x 2.3 x 13.4 inches)
Models (without stand, without ODD, with PrivacyGuard, with camera)	541 x 49.5 x 340.5 mm (21.3 x 1.9 x 13.4 inches)
Models (without stand, without ODD, without PrivacyGuard, with camera)	541 x 46 x 340.5 mm (21.3 x 1.8 x 13.4 inches)

**Weight**

Models	Weight
Models (with full function monitor stand, with ODD, with PrivacyGuard, with camera)	8.71 kg (19.2 lbs)
Models (with full function monitor stand, with ODD, without PrivacyGuard, with camera)	7.84 kg (17.3 lbs)
Models (with full function monitor stand, without ODD, with PrivacyGuard, with camera)	8.39 kg (18.5 lbs)
Models (with full function monitor stand, without ODD, without PrivacyGuard, with camera)	7.51 kg (16.6 lbs)
Models (with UltraFlex IV stand, with ODD, without PrivacyGuard, with camera)	8.58 kg (18.9 lbs)
Models (with UltraFlex IV stand, without ODD, without PrivacyGuard, with camera)	8.26 kg (18.2 lbs)
Models (without stand, with ODD, with PrivacyGuard, with camera)	6.45 kg (14.2 lbs)
Models (without stand, with ODD, without PrivacyGuard, with camera)	5.57 kg (12.3 lbs)
Models (without stand, without ODD, with PrivacyGuard, with camera)	6.13 kg (13.5 lbs)
Models (without stand, without ODD, without PrivacyGuard, with camera)	5.25 kg (11.6 lbs)

**Case Color**

Black

**Bays**

- 2x 2.5" disk bay (2nd 2.5" HDD occupies ODD bay)
- 1x slim ODD bay

**Expansion Slots**

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

**EOU**

Toolless cover and stand assembly / removal

**Stand\*\***

- Full function monitor stand, supports -5° to +30° tilt, up to 80mm lift
- UltraFlex IV stand, supports -5° to +70° tilt, up to 164mm lift (flat mode) / up to 115mm lift (vertical mode)
- No stand

**Mounting**

Supports VESA mount 100mm

**CONNECTIVITY****Network<sup>[1]</sup>****Onboard Ethernet**

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

**Optional Ethernet**

No optional Ethernet

**WLAN + Bluetooth<sup>®\*\*</sup>**

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

**Notes:**

1. This system does not support Power Over Ethernet (PoE). If the system is used in a PoE environment, then a Network Isolator is required to prevent possible damage to the system, PoE equipment, or both.

**Ports<sup>[1]</sup>****Rear Ports<sup>[2]</sup>**

- 4x USB 3.2 Gen 1 (one supports Smart Power On)
- 1x DisplayPort
- 1x Ethernet (RJ-45)

**Optional Rear Ports**

1x serial

**Right Ports**

- 2x USB 3.2 Gen 2
- 1x USB-C 3.2 Gen 1 (5V/3A charging)
- 1x headphone / microphone combo jack (3.5mm)

**Optional Right Ports**

1x card reader

**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;  
USB 3.2 Gen 2x2 (SuperSpeed USB 20Gbps): 20 Gbit/s;  
Thunderbolt™ 3: 40 Gbit/s;  
FireWire 400: 400 Mbit/s;  
FireWire 800: 800 Mbit/s
2. For video ports on discrete graphics, please see graphics section

**Monitor Cable****Monitor Cable<sup>\*\*\*</sup>**

- DP to dual DP dongle
- DP to DVI-D dongle
- DP to HDMI<sup>®</sup> 1.4 dongle
- DP to VGA dongle
- No monitor cable

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

**Security Chip**

Discrete TPM 2.0, TCG certified

**Physical Locks**

Kensington® Security Slot

**Chassis Intrusion Switch**

- Chassis intrusion switch
- No chassis intrusion switch

**Fingerprint Reader**

- Touch style fingerprint reader on mouse
- No fingerprint reader

**Other Security**

(Optional) ThinkShutter camera cover

**BIOS Security**

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

## MANAGEABILITY

### System Management

**System Management<sup>□</sup>**

- Intel vPro with Intel AMT 14.0
- None

Notes:

1. Require choosing a vPro-support Wi-Fi adapter to enable vPro function through wireless connection

## SERVICE

### Warranty

**Base Warranty\*\***

- 1-year depot service
- 1-year limited onsite service
- 3-year limited onsite service
- No base warranty

## ENVIRONMENTAL

### Operating Environment

**Temperature**

- Operating: 5°C (41°F) to 35°C (95°F)
- Storage: -20°C (-4°F) to 60°C (140°F)

**Humidity**

Operating: 20% to 80%

**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

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

- EPEAT™ Silver
- ENERGY STAR® 8.0
- ErP Lot 3
- TCO Certified 8.0
- TCO edge
- RoHS compliant

#### Notes:

1. Energy Star 8.0 and EPEAT are only available for MT 11CD/11CE, TCO 8.0 and TCO Edge are not for the models with PrivacyGaurd.

## Other Certifications

### Other Certifications

- TÜV Rheinland® Eye Comfort Certification
- TÜV Rheinland Low Blue Light
- (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.
- Lenovo reserves the right to change specifications or other product information without notice. Lenovo is not responsible for photographic or typographical errors. LENOVO PROVIDES THIS PUBLICATION “AS IS,” WITHOUT WARRANTY OF ANY KIND, EITHER EXPRESS OR IMPLIED, INCLUDING THE IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. Some jurisdictions do not allow disclaimer of express or implied warranties in certain transactions, therefore this disclaimer may not apply to you.
- The specifications on this page may not be available in all regions, and may be changed or updated without notice.



