# ThinkCentre M90t Gen 4 12HK000CMZ

#### PERFORMANCE

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

Intel® Core $^{\rm m}$ i<br/>9-13900, 24C (8P + 16E) / 32T, Max Turbo up to 5.6GHz, P-core 2.0 / 5.2GHz, E-core 1.5 / 4.2GHz, 36MB

#### Graphics

Integrated Intel UHD Graphics 770

#### Chipset

Intel Q670 Chipset

#### Memory

2x 16GB UDIMM DDR5-4400

#### Memory Slots Four DDR5 UDIMM slots, dual-channel capable

Max Memory<sup>[2]</sup> Up to 128GB DDR5

#### Storage

1TB SSD M.2 2280 PCIe<sup>®</sup> 4.0x4 Performance NVMe<sup>®</sup> Opal 2.0

#### Storage Support<sup>[3]</sup>

- Up to five drives, 2x 2.5"/3.5" HDD + 1x 2.5" HDD + 2x M.2 SSD
- 2.5" HDD up to 1TB each
- 3.5" HDD up to 2TB
- M.2 SSD up to 2TB each

#### **Card Reader**

3-in-1 Card Reader

#### Optical

DVD±RW

#### **Audio Chip**

High Definition (HD) Audio, Realtek® ALC897Q-CG codec

#### Speakers

2Wx1 Power Supply

### 500W 92%

#### DESIGN

Keyboard

#### USB Traditional Keyboard, Black, Swiss

Mouse USB Calliope Mouse, Black

#### **Optional Bay**

Optional 3.5" Bay

#### **Expansion Slots**

- One PCIe 4.0 x16 (x4 signal), full-height, length ≤ 205mm, height ≤ 114.55mm
- One PCIe 4.0 x16, full-height, length ≤ 268.5mm, height ≤ 114.55mm
- One PCIe 3.0 x1, full-height, length  $\leq$  205mm, height  $\leq$  114.55mm
- Three M.2 slots (one for WLAN, two for SSD)

#### Case Color Black

Stand

No stand

#### Form Factor

Tower (17L)

#### Dimensions (WxDxH)<sup>[4]</sup>

170 x 298 x 376 mm (6.7 x 11.7 x 14.8 inches)

#### Weight<sup>[5]</sup> Around 6.5 kg (14.3 lbs)

#### CONNECTIVITY

#### Ethernet

Integrated 100/1000M

#### WLAN + Bluetooth®<sup>[6]</sup>

Intel Wi-Fi® 6E AX211, 11ax 2x2 + BT5.1, vPro®

#### Front Ports

- 1x USB-C<sup>®</sup> 3.2 Gen 2 (support data transfer and 15W charging)
- 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 (configured)**

1x card reader

#### Rear Ports

- 4x USB 3.2 Gen 1
- 1x HDMI® 2.1 TMDS
- 2x DisplayPort<sup>™</sup> 1.4a (HBR2, DSC)
- 1x Ethernet (RJ-45)
- 1x line-out (3.5mm)

#### **SECURITY & PRIVACY**

#### **Security Chip**

Discrete TPM 2.0, TCG certified, FIPS 140-2 certified

Fingerprint Reader

No fingerprint reader

#### Physical Locks

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

Lenovo

PSRFF

Reference

Product Specifications

Padlock Loop

Chassis Intrusion Switch

Chassis Intrusion Switch

#### MANAGEABILITY

System Management<sup>[7]</sup> Intel<sup>®</sup> vPro<sup>®</sup> Enterprise

#### SERVICE

Base Warranty 3-year, Onsite

#### Included Upgrade

1Y Premier Support from 3Y Onsite WHB (CPN)

#### **CERTIFICATIONS**

#### Green Certifications<sup>[8]</sup>

- ENERGY STAR® 8.0
- EPEAT<sup>™</sup> Silver Registered
- ErP Lot 3
- RoHS compliant
- TCO Certified 9.0

#### **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, Contamination by Fluids, Salt Fog)

#### SOFTWARE

Operating System

current Lenovo storage offerings.

To see more note information, please link to

https://psref.lenovo.com/Detail/2324?M=12HK000CMZ

Windows® 11 Pro, WE (EN/FR/DE/NL/IT)

#### MODEL

TopSeller	: Yes	Announce Date	: 2023-06-19
EAN / UPC / JAN	: 0197528828206	End of Support	: 2029-11-27

#### Note:

[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.

[2] The max memory is based on the test results with current Lenovo memory offerings.[3] The max capacity of each disk type is based on the test results with

[4] The system dimensions may vary depending on configurations.[5] The system weight is approximate and based on results in.....

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Advanced technical support, 24x7x365, in more than 100 markets



Comprehensive hardware & OEM software support



Single point of contact for simplified end-to-end case management



Technical Account Managers for proactive relationship and escalation management

Priority on service delivery and repair parts



Lenovo Service Connect Portal for customized reporting and product support

# **Recommended Accessories**



### Lenovo USB-C to Ethernet Adapter

#### 4X90S91831

The Lenovo USB-C to Ethernet Adapter is quick and easy way to connect your USB-C enabled notebook to Ethernet connections. It's ideal for imaging of systems or transferring large files quickly.

# Accidental Damage Protection - Protection of your PC from the unexpected.

Experience shows that a significant portion of devices may be damaged (and not covered under warranty) in the first three years. Lenovo's Accidental Damage Protection service covers accidents beyond the system warranty such as drops, spills, bumps and even electrical surges. Make sure your new device has maximum protection, avoid unplanned costs and get peace of mind.

# Base Warranty - Included with the systems you purchase, default 1- or 3-year coverage window.

# Warranty Extensions & Upgrades - Service and protection that's right for your circumstances.

- Pick Up & Return Courier
- Onsite Support

- Technician Installed Customer
- Replaceable Unit Service
- International Warranty Upgrade

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# **Recommended Services**

BEST	5Y Lenovo Support (Premier Support + KYD + International Upg) (5PS1J31179)
BETTER	4Y Lenovo Support (Premier Support + KYD + International Upg) (5PS1J31175)
GOOD	3Y Premier Support upgrade from 1Y Premier Support (5WS1C83305)

For a full list of accessories and services, please visit: https://smartfind.Lenovo.com

