# ThinkCentre M90s Gen 4 12HQ0007SP



# **PERFORMANCE**

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

Intel® Core™ i5-13600, 14C (6P + 8E) / 20T, P-core 2.7 / 5.0GHz. E-core 2.0 / 3.7GHz. 24MB

#### **Graphics**

Integrated Intel UHD Graphics 770

#### Chipset

Intel Q670 Chipset

#### Memory

1x 16GB UDIMM DDR5-4400

#### **Memory Slots**

Four DDR5 UDIMM slots, dual-channel capable

#### Max Memory<sup>[2]</sup>

Up to 128GB DDR5

#### Storag

512GB SSD M.2 2280 PCIe® 4.0x4 Performance NVMe® Opal 2.0

#### Storage Support[3]

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

- 2.5" HDD up to 1TB
- 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

1Wx1

## **Power Supply**

260W 90%

## **DESIGN**

#### Keyboard

USB Traditional Keyboard, Black, Spanish

#### Mous

USB Calliope Mouse, Black

#### **Optional Bay**

Optional 2.5" Bay

#### **Expansion Slots**

- One PCIe 4.0 x16 (x4 signal), low-profile, length ≤ 155mm, height ≤ 70mm
- One PCIe 4.0 x16, low-profile, length ≤ 155mm, height ≤ 70mm
- One PCIe 3.0 x1, low-profile, length ≤ 155mm, height ≤ 70mm
- Three M.2 slots (one for WLAN, two for SSD)

#### Case Color

Black

#### Form Factor

SFF (8.2L)

#### Dimensions (WxDxH)[4]

92.5 x 297.7 x 339.5 mm (3.6 x 11.7 x 13.4 inches)

## Weight<sup>[5]</sup>

Around 5.3 kg (11.7 lbs)

# CONNECTIVITY

#### **Ethernet**

Integrated 100/1000M

## WLAN + Bluetooth®[6]

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

#### Front Ports

- 1x USB-C\* 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™ 1.4a (HBR2, DSC)
- 1x Ethernet (RJ-45)
- 1x line-out (3.5mm)

# **SECURITY & PRIVACY**

#### Security Chi

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

#### **Fingerprint Reader**

No fingerprint reader

#### **Physical Locks**

- Kensington® Security Slot™, 3 x 7 mm
- Padlock Loop

#### **Chassis Intrusion Switch**

Chassis Intrusion Switch

#### **MANAGEABILITY**

#### System Management[7][8]

Intel® vPro® Enterprise

#### SERVICE

# **Base Warranty**

3-year, Onsite

# **Included Upgrade**

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

# **CERTIFICATIONS**

#### Green Certifications<sup>[9]</sup>

- ENERGY STAR® 8.0
- EPEAT™ 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**

Windows® 11 Pro, Spanish

# **MODEL**

TopSeller : Yes Announce Date : 2023-06-19
EAN / UPC / JAN : 0197528831916 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
- current Lenovo storage offerings.
- [4] The system dimensions may vary depending on configurations.
- [5] 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.
- [6] Bluetooth 5.2 is hardware ready but may run at a lower version due to OS limitations.
- [7] Intel vPro offers a superset of DASH's defined capabilities.
- [8] Intel vPro offers a superset of DASH's defined.....
- · Lenovo reserves the right to change specifications without notice.

To see more note information, please link to https://psref.lenovo.com/Detail/2325?M=12HQ0007SP

# Premier Support - A direct 24x7x365 line to our most elite technicians.



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



Technical Account Managers for proactive relationship and escalation management



Comprehensive hardware & OEM software support



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# 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.

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- Onsite Support

- Technician Installed Customer
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# Recommended Accessories



# Lenovo USB Soundbar

OA36190

The Lenovo USB Soundbar allows you to add stereo sound to your compatible Lenovo ThinkVision Monitor without having to sacrifice valuable desk space. The stylish Lenovo USB Soundbar is an excellent choice for adding ...

# **Recommended Services**

BEST	5Y Lenovo Protect (Premier Support + ADP + KYD + International Upg) (5PS1D67032)
BETTER	5Y Lenovo Support (Premier Support + KYD + International Upg) (5PS1D67028)
GOOD	4Y Lenovo Support (Premier Support + KYD + International Upg) (5PS1D67027)

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

