# ThinkCentre M90a Gen 5 12SH0012MG



# **PERFORMANCE**

### **Processor**

Intel® Core™ i5-14500, 14C (6P + 8E) / 20T, P-core 2.6 / 5.0GHz. E-core 1.9 / 3.7GHz. 24MB

#### **Graphics**

Integrated Intel® UHD Graphics 770

## Chipset

Intel® Q670 Chipset

#### Memory

1x 16GB SO-DIMM DDR5-4800

#### **Memory Slots**

Two DDR5 SO-DIMM slots, dual-channel capable

#### Max Memory[1]

- Models with Core™ i3/i5: Up to 64GB DDR5-4800
- Models with Core<sup>™</sup> i7: Up to 64GB DDR5-5200

#### Storage

1TB SSD M.2 2280 PCIe® 4.0x4 Performance NVMe® Opal 2.0

#### Storage Support[2]

Models with Intel® UHD graphics:

Up to two drives, 2x M,2 SSD

• M.2 SSD up to 2TB each

# **Card Reader**

3-in-1 Card Reader

## Optical

**DVD±RW** 

#### **Audio Chip**

High Definition (HD) Audio, Realtek® ALC233NL-VB2-CG codec

# **Speakers**

3Wx2

# Camera

5.0MP + IR Hybrid

# Microphone

2x, Array

## **Power Supply**

180W 90%

# **DESIGN**

# Display<sup>[3]</sup>

23.8" FHD (1920x1080) IPS Anti-glare 250nits, 60Hz, 99% sRGB, hardware low blue light, flick free, eyesafe, non-touch

# Keyboard

USB Traditional Keyboard, Black, Greek / English (US)

#### Mouse

USB Calliope Mouse, Black

#### **Expansion Slots**

Models with Intel® UHD graphics: Three M.2 slots (one for WLAN, two for SSD)

#### Case Color

Black

#### Stand

**Full Function Monitor Stand** 

## Mounting

VESA mount

# Form Factor

AIO (23.8 inches)

## Dimensions (WxDxH)[4]

 $539.6 \times 217.31 \times 393.66-501.85 \text{ mm} (21.24 \times 8.56 \times 15.50-19.76 \text{ inches})$ 

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

Around 8.13 kg (17.9 lbs)

# CONNECTIVITY

#### Ethernet

Integrated 100/1000M

# WLAN + Bluetooth®

Intel® Wi-Fi® 6E AX211, 11ax 2x2 + BT5.3, vPro®

## **Rear Ports**

- 1x USB-C\* (USB 10Gbps / USB 3.2 Gen 2), with data transfer and 15W charging
- 3x USB-A (USB 5Gbps / USB 3.2 Gen 1)
- 1x HDMI<sup>®</sup> (HDMI<sup>®</sup> in 1.4 / HDMI<sup>®</sup> out 2.1 TMDS combo port)
- 1x DisplayPort<sup>™</sup> 1.4
- 1x Ethernet (RJ-45)

## **Optional Rear Ports (configured)**

1x serial

#### **Right Ports**

- 3x USB-A (USB 10Gbps / USB 3.2 Gen 2)
- 1x headphone / microphone combo jack (3.5mm)

# **Optional Right Ports (configured)**

1x card reader

## Optional Ports (configured)

1x Serial

# **SECURITY & PRIVACY**

# Security Chip

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

# **Fingerprint Reader**

No fingerprint reader

#### **Physical Locks**

Kensington® Security Slot™. 3 x 7 mm

#### Chassis Intrusion Switch

Chassis Intrusion Switch

#### **Other Security**

ThinkShutter camera cover

# **MANAGEABILITY**

## System Management<sup>[6]</sup>

Intel® vPro® Enterprise

# **SERVICE**

# **Base Warranty**

3-year, Onsite

# **Included Upgrade**

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

# **CERTIFICATIONS**

#### **Green Certifications**

- ENERGY STAR® 8.0
- EPEAT™ Gold Registered
- ErP Lot 3
- GREENGUARD®
- RoHS compliant
- TCO Certified 9.0
- TCO edge

#### **Other Certifications**

- TÜV Rheinland® Low Blue Light (Hardware Solution)
- Eyesafe® Certified 2.0
- TÜV Rheinland® Flicker Free
- UL Anti-dust

# 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, Greek / English

## MODEL

 TopSeller
 : Yes
 Announce Date
 : 2024-01-16

 EAN / UPC / JAN
 : 0197531662521
 End of Support
 : 2030-08-16

#### Note

- [1] The max memory is based on the test results with current Lenovo memory
- [2] The max capacity of each disk type is based on the test results with current Lenovo storage offerings.
- [3] IPS (in-plane switching) technology may refer to IPS,.....
- · Lenovo reserves the right to change specifications without notice.

To see more note information, please link to https://psref.lenovo.com/Detail/2409?M=12SH0012MG

# 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



Priority on service delivery and repair parts



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



Lenovo Service Connect Portal for customized reporting and product support

# 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 Accessories

# Kensington MicroSaver 2.0 Cable Lock from Lenovo

4XE0N80914

Protect your device. Lenovo offers the latest standard in device security – the MicroSaver 2.0 Cable Lock From Lenovo. Engineered to be the smallest, strongest lock for laptops and other devices, the MicroSaver 2.0 re...

# **Lenovo USB-C to Ethernet Adapter**

4X90S9183

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.

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

