ThinkCentre M90a Gen 5 12SH000PMZ

Lenovo PSREF Product Specifications Reference

PERFORMANCE

Processor
Intel® Core™ i7-14700, 20C (8P + 12E) / 28T, Max Turbo up to 5.4GHz, P-core 2.1 / 5.3GHz, E-core 1.5 / 4.2GHz, 33MB

Graphics
Integrated Intel® UHD Graphics 770

Chipset
Intel® Q670 Chipset

Memory
1x 16GB SO-DIMM DDR5-5600

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™ 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[3]
23.8" FHD (1920x1080) IPS Anti-glare 250nits, 60Hz, 72% NTSC, software low blue light, flick free, touch

Touchscreen
10-point Multi-touch

Keyboard
USB Traditional Keyboard, Black, Swiss

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 x 217.31 x 393.66-501.85 mm (21.24 x 8.56 x 15.50-19.76 inches)

Weight[5]
Around 8.13 kg (17.9 lbs)

CONNECTIVITY

Ethernet
Integrated 100/1000M

WLAN + Bluetooth®
Intel® Wi-Fi® 6E AX211, 802.11ax 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® (HDMI® in 1.4 / HDMI® out 2.1 TMDS combo port)
- 1x DisplayPort™ 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 (camera models)

MANAGEABILITY

System Management[6]
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 (Software Solution)
- 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, WE (EN/FR/DE/NL/IT)

MODEL

TopSeller	: Yes	**Announce Date**	: 2024-01-16
EAN / UPC / JAN	: 0197531652270	**End of Support**	: 2030-08-16

Note:
[1] The max memory is based on the test results with current Lenovo memory offerings.
[2] The max capacity of each disk type is based on the test.....
· Lenovo reserves the right to change specifications without notice.

To see more note information, please link to
https://psref.lenovo.com/Detail/2409?M=12SH000PMZ

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

Lenovo may not offer the products, services or features discussed in this document in all regions. Lenovo may withdraw an offering at any time. Information is subject to change without notice. Consult your local representative for information on offerings available in your area. 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.

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...

Recommended Services

BEST	3Y Premier Support upgrade from 1Y Premier Support (5WS1C83308)
BETTER	2Y Premier Support upgrade from 1Y Premier Support (5WS1C83303)
GOOD	1Y Keep Your Drive Add On (5PS0V08542)

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

Lenovo **PSREF**
Product Specifications Reference