ThinkCentre M90s Gen 5 12V4001BUS

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^[1] 2x 8GB UDIMM DDR5-4400

Memory Slots Four DDR5 UDIMM slots, dual-channel capable

Max Memory^[2] Up to 128GB DDR5

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

Storage Support^{[3][4]}

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

- 3.5" HDD up to 2TB
- 2.5" HDD bay is only for customer self upgrade
- M.2 SSD up to 2TB each

Card Reader

None

Optical DVD±RW

Audio Chip

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

Speakers

Power Supply

310W 92%

DESIGN

Keyboard USB Traditional Keyboard, Black, English

Mouse

USB Calliope Mouse, Black

Optional Bay

Optional 2.5" Bay

Expansion Slots

- One PCle[®] 4.0 x16 (x4 signal), low-profile, length ≤ 155mm, height ≤ 70mm
- One PCIe $^{\circ}$ 4.0 x16, low-profile, length \leq 155mm, height \leq 70mm
- One PCIe[®] 3.0 x1, low-profile, length \leq 155mm, height \leq 70mm
- Three M.2 slots (one for WLAN, two for SSD)

Case Color Black

Stand None

Dust Filter

None

Form Factor

Dimensions (WxDxH)^[5]

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

Weight^[6] Around 5.3 kg (11.7 lbs)

CONNECTIVITY

Ethernet Integrated 100/1000M

WLAN + Bluetooth®

Intel® Wi-Fi® 6E AX211, 802.11ax 2x2 + BT5.3, vPro®

Front Ports

- 1x USB-C[®] (USB 10Gbps / USB 3.2 Gen 2), with 15W charging
- 2x USB-A (USB 5Gbps / USB 3.2 Gen 1)
- 2x USB-A (USB 10Gbps / USB 3.2 Gen 2)
- 1x headphone / microphone combo jack (3.5mm)

• 1x microphone (3.5mm)

- Rear Ports
- 4x USB-A (USB 5Gbps / 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)

Optional Rear Ports (configured)

1x DP 1.2 (Flex IO)

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
- Padlock Loop

Smart Cable Clip

None

Chassis E-Lock

None

Chassis Intrusion Switch

None

MANAGEABILITY

System Management^[7] Intel[®] vPro[®] Enterprise

SERVICE

- **Base Warranty**
- 3-year, Onsite

Included Upgrade

None

CERTIFICATIONS

Green Certifications

- ENERGY STAR® 8.0
- EPEAT[™] Gold Registered
- ErP Lot 3
- GREENGUARD[®]
- 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, Solar Radiation, Contamination by Fluids, Salt Fog)

[1] Installed memory is actually DDR5-5600 but may run as DDR5-4400

[2] The max memory is based on the test results with current Lenovo

[3] The max capacity of each disk type is based on the test results with

[5] The system dimensions may vary depending on configurations.

· Lenovo reserves the right to change specifications without notice.

[6] The system weight is approximate and based on results in.....

[4] 2.5" HDD bay is optional part, only for customer self upgrade purpose

Lenovo

PSRFF

Reference

Product Specifications

: 2024-09-17

: 2030-11-15

Announce Date

End of Support

SOFTWARE

Operating System

Windows® 11 Pro, English

: Yes

depending on the memory support capability of Intel.

EAN / UPC / JAN : 198155317712

current Lenovo storage offerings.

and the hard drive is sold separately.

To see more note information, please link to

https://psref.lenovo.com/Detail/2449?M=12V4001BUS

Bundled Software

None

ACCESSORIES

Bundled Accessories

None

MODEL TopSeller

Note:

memory offerings.

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



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

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

Technician Installed Customer

Onsite Support

- 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

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	4Y Premier Support Plus upgrade from 3Y Onsite (5WS1L39206)
BETTER	3Y Premier Support Plus upgrade from 3Y Onsite (5WS1L39278)
GOOD	3Y Premier Support Upgrade from 3Y Onsite (5WSOV07841)

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

