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› MINISFORUM MS-01 Mini Workstation Intel Core i9-13900H (vPro Enterprise Support) 32GB DDR5 1TB SSD Mini PC, 2x 10Gbps SFP+ / 2x 2.5G RJ45 / 2x USB4 / HDMI / 1x PCIe 4.0 x16 slot / Support 3x M.2 2280 / 22110 / U.2 SSD MS-01-S1390-32GB/1TB

MINISFORUM MS01-S1390

MINISFORUM MS-01 Mini Workstation User Manual

Model: MS01-S1390

1. INTRODUCTION

The MINISFORUM MS-01 Mini Workstation is a high-performance mini PC designed for demanding tasks, offering robust processing power, extensive connectivity, and flexible storage solutions. This manual will guide you through its features and functionalities.

Package Contents

- 1x MS-01 Mini Workstation
- 1x U.2 conversion adapter
- 1x Power adapter
- 1x Power cord
- 1x SSD heat sink
- 1x HDMI cable
- 1x Mounting screw set
- 1x User's Manual

2. SETUP

Follow these steps to set up your MINISFORUM MS-01 Mini Workstation for the first time.

2.1 Connecting Peripherals

Connect your monitor(s), keyboard, mouse, and other peripherals to the available ports on the mini PC. The MS-01 features a variety of ports for versatile connectivity.

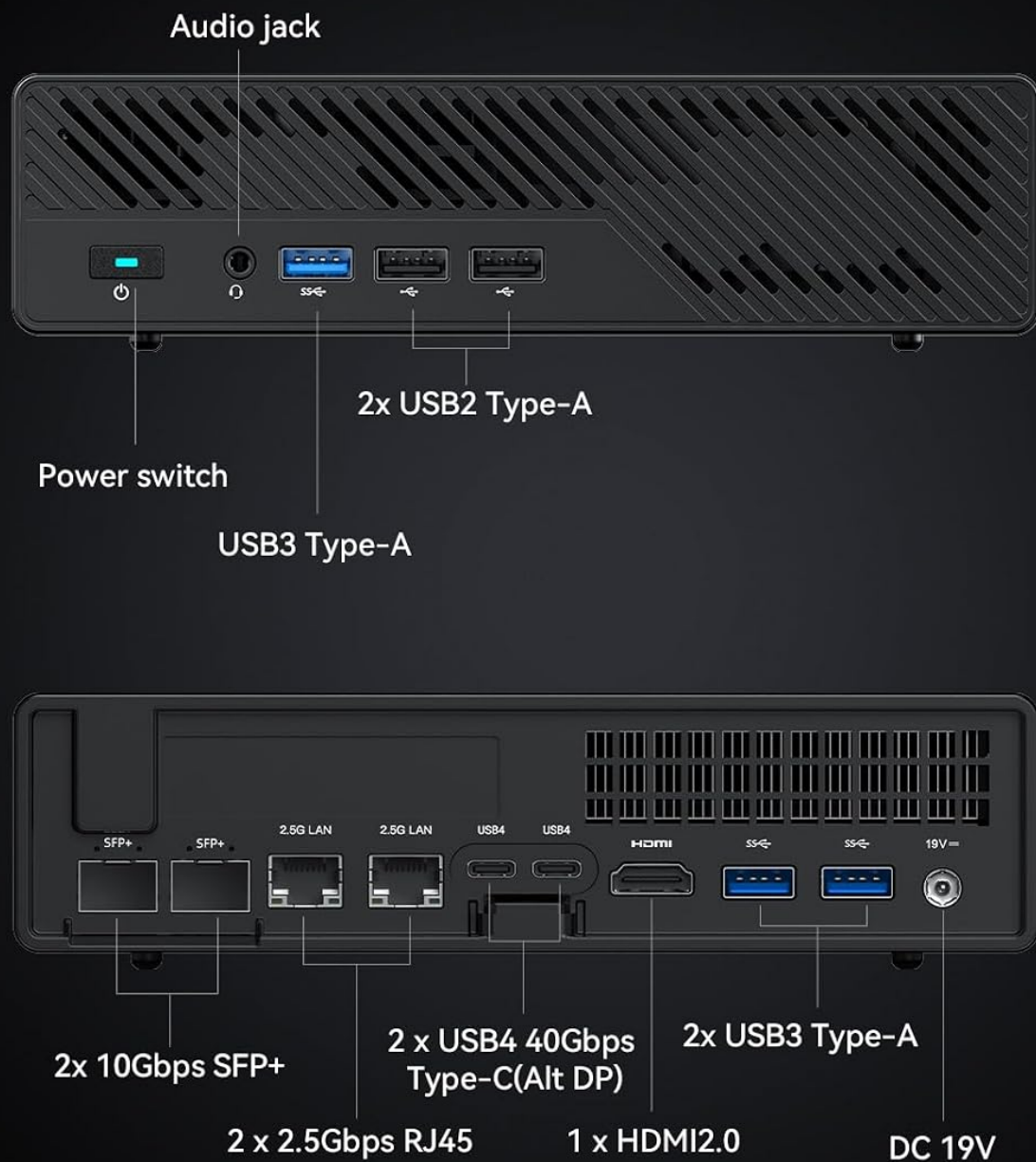


Figure 2.1: Front and Rear Port Layout. The front panel includes USB 3.0 Type-A ports, USB 2.0 Type-A ports, and an audio jack. The rear panel features 10Gbps SFP+ network ports, 2.5G RJ45 network ports, USB4 Type-C ports, HDMI 2.0, and additional USB 3.0 Type-A ports.

2.2 Power Connection

Connect the provided power adapter to the DC 19V input port on the rear of the mini PC, then plug the power cord into a wall outlet. Press the power button on the front panel to turn on the device.

2.3 Initial Boot and Operating System Setup

Upon first boot, the system may guide you through the operating system setup process. Follow the on-screen instructions to complete the setup, including network configuration and user account creation.

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Video 2.1: Overview of the MINISFORUM MS-01 Mini Workstation. This video provides a general look at the device's exterior and highlights its key features and compact design.

3. OPERATING

The MINISFORUM MS-01 is engineered for powerful performance and efficient operation across various applications.

3.1 Processor Performance

Equipped with the Intel 13th Generation Core i9-13900H Processor (14C/20T, up to 5.4GHz), the MS-01 delivers powerful performance for gaming, working, and demanding applications. Integrated Intel Iris Xe Graphics further enhance visual capabilities.

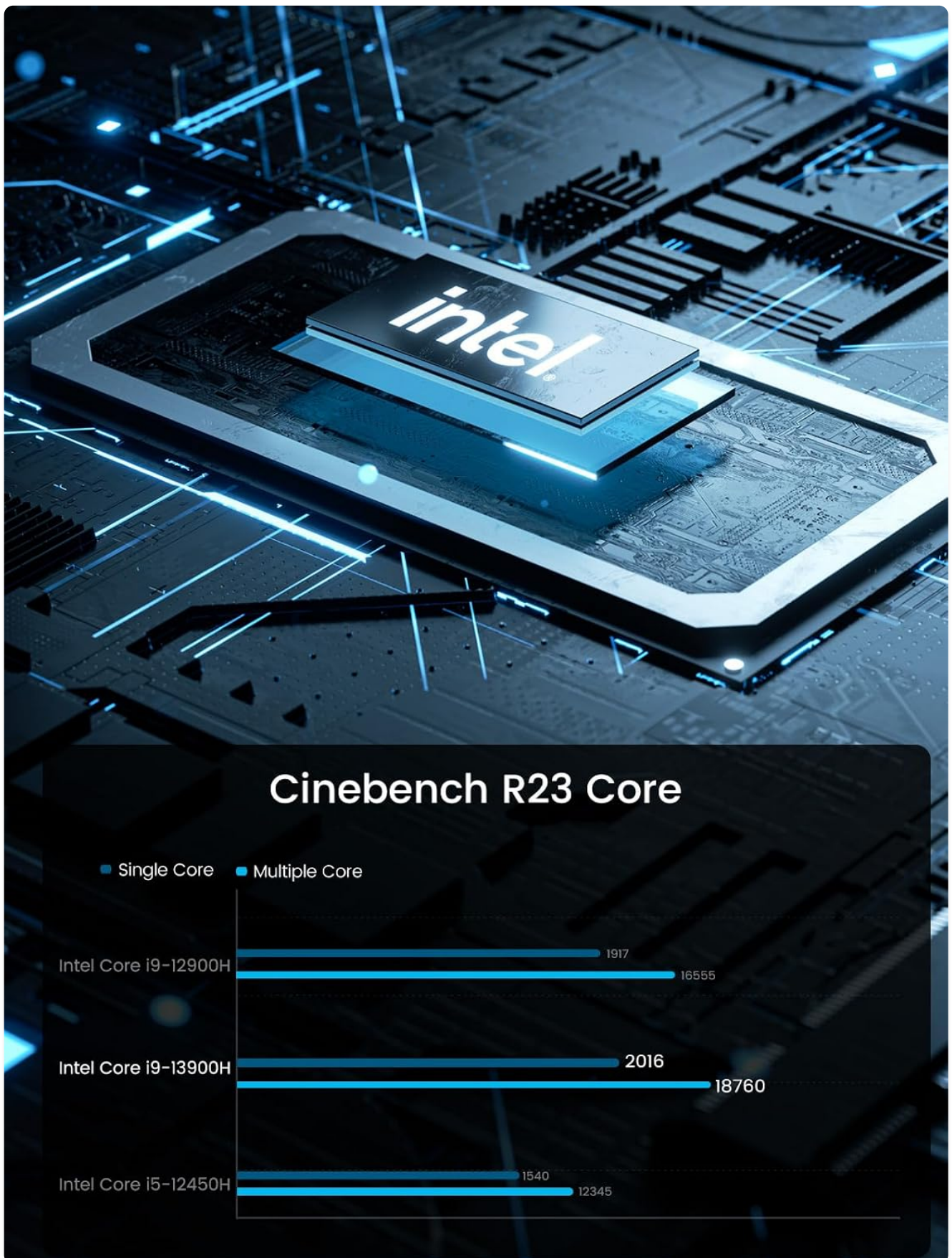


Figure 3.1: Performance comparison highlighting the Intel Core i9-13900H processor's capabilities in Cinebench R23 Core benchmarks.

3.2 Network Connectivity

Experience super-fast network speeds with 2x 10Gbps SFP+ ports (supporting link aggregation) and 2x 2.5G RJ45 network ports. Additionally, 2x USB4 interfaces support Thunderbolt Ethernet up to 20Gbps, offering a total network transmission speed of up to 65Gbps for quick access to NAS documents and high-bandwidth applications.

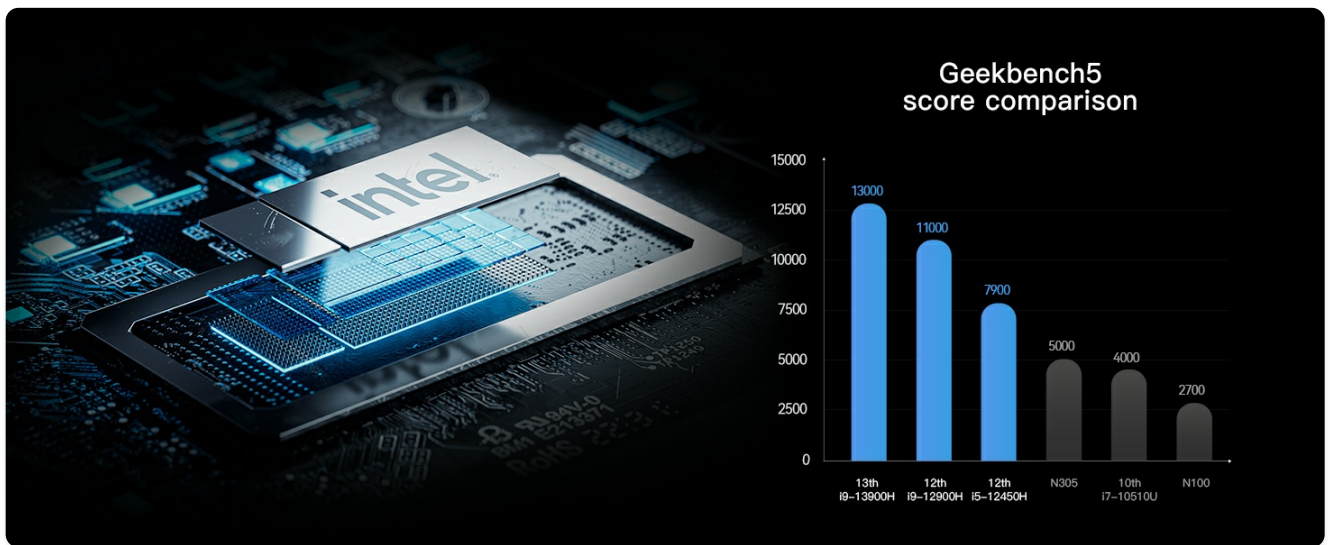


Figure 3.2: Diagram illustrating the various high-speed network interfaces available on the MS-01, including SFP+, RJ45, and USB4 ports, enabling high-speed data transfer.

3.3 Display Configuration

The MS-01 supports triple screen display configurations via 1x HDMI 2.0 port (4K@60Hz) and 2x USB4 Type-C ports (Alt DP, 8K@30Hz). This allows for enhanced productivity and immersive visual experiences.

Support Triple Screen Display

①HDMI2.0(4K@60Hz) ②USB 4 (8K@30Hz) x2



Figure 3.3: Example setup demonstrating the MS-01's capability to support triple screen displays for improved workflow and entertainment.

4. MAINTENANCE AND UPGRADES

The MINISFORUM MS-01 is designed for easy access and upgradeability to ensure long-term performance.

4.1 Accessing Internal Components

The chassis of the MS-01 is designed for one-click disassembly, allowing easy access to internal components for upgrades or maintenance. Simply push the button on the back and slide the case off.

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Video 4.1: Detailed unboxing and internal component overview of the MS-01 Mini PC. This video demonstrates the ease of opening the chassis and highlights the accessible upgrade slots.

4.2 Storage Upgrades

The MS-01 Mini Workstation supports up to 3x M.2 NVMe SSDs, including one PCIe 4.0 compliant interface with speeds up to 7000MB/s. It also supports RAID0 for increased capacity and RAID1 for data safety. For enterprise-grade storage, it supports 1x U.2 NVMe SSD and 2x 22110 M.2 NVMe SSDs.

Enterprise-class Storage Support

Pull-out body with multiple SSD slots for flexible upgrades

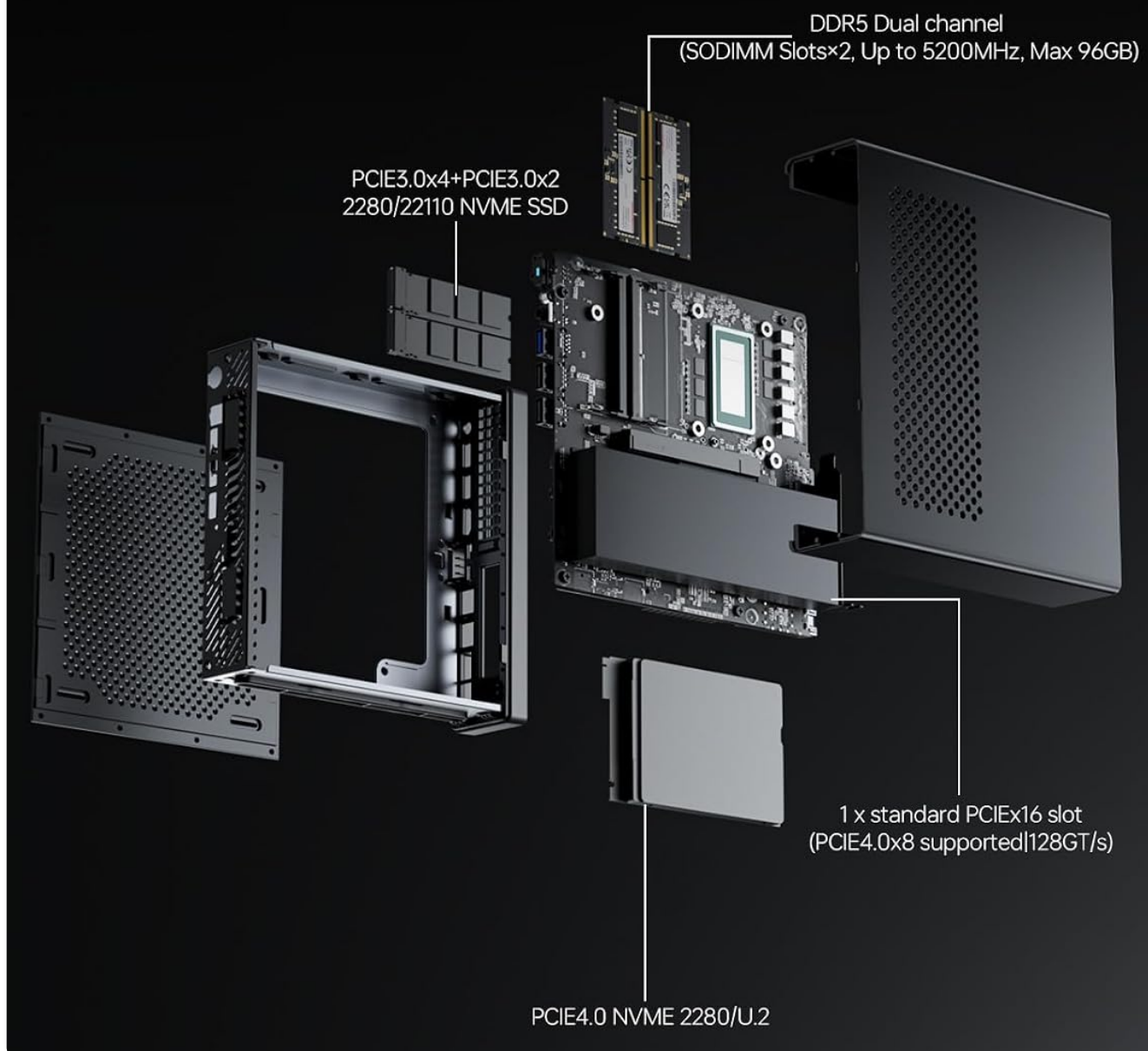


Figure 4.2: Exploded view showing the multiple M.2 NVMe SSD slots and the U.2 compatibility for flexible storage expansion.

4.3 Memory Upgrades

The system features DDR5 Dual channel SODIMM slots, supporting up to 5200MHz and a maximum of 96GB RAM. This allows for significant memory upgrades to handle more intensive workloads.

4.4 Graphics Card Expansion

A PCIe 4.0 x16 slot is available for installing high-performance external GPUs, network cards, or storage controllers. This enables faster data transfer and optimal performance for applications requiring high computational power and bandwidth, such as gaming, video editing, and 3D rendering.

Wide variety of SSD slots

Flexible expansion

Leftmost PCIe4.0 compliant

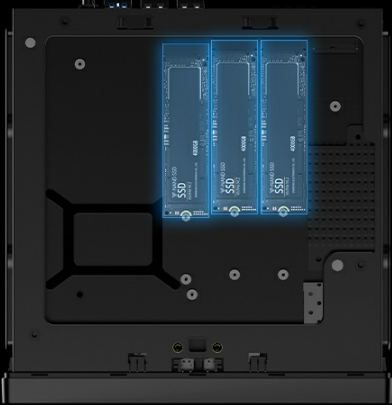
Maximum transfer rate7000MB/s

Supports RAID 0

Increased capacity

Supports RAID1

Enhanced data safety



M.2 NVME SSD x 3

Figure 4.3: Illustration of the PCIe 4.0 x16 slot, demonstrating its capability to support various expansion cards including independent graphics cards.

4.5 Cooling System

The MS-01 is equipped with an excellent cooling system, including a memory cooling fan and an SSD heat sink, ensuring efficient and quiet performance even under heavy loads.

Excellent Cooling System

Equipped with memory cooling fan + SSD heat sink

Efficient and quiet performance release



Figure 4.4: Diagram showing the efficient cooling system with memory cooling fan and SSD heat sink for optimal thermal management.

5. TROUBLESHOOTING

If you encounter issues with your MINISFORUM MS-01, refer to the following common troubleshooting steps.

5.1 No Power

- Ensure the power adapter is securely connected to both the mini PC and a working power outlet.
- Verify the power outlet is functional by plugging in another device.
- Check the power adapter for any visible damage.

5.2 No Display

- Confirm that the HDMI or USB4 cable is securely connected to both the mini PC and the monitor.
- Ensure the monitor is powered on and set to the correct input source.
- Try a different display cable or monitor if available.

5.3 Network Connectivity Issues

- For wired connections, check that Ethernet cables are properly connected to the RJ45 or SFP+ ports and your router/switch.
- Verify that your router/modem is working correctly.
- For wireless connections, ensure Wi-Fi is enabled in the operating system and you are connected to the correct network.

6. SPECIFICATIONS

Feature	Detail
Brand	MINISFORUM
Model Number	MS01-S1390
Processor	Intel Core i9-13900H (5.4 GHz, 14 Cores, 20 Threads, 24MB Cache)
Graphics Coprocessor	Intel Iris Xe Graphics (Integrated)
RAM	32 GB DDR5 (Up to 96GB supported)
Hard Drive	1 TB SSD (Supports 3x M.2 NVMe SSDs, 1x U.2 NVMe SSD)
Max Screen Resolution	7680x4320
Wireless Type	Bluetooth
USB 2.0 Ports	2
USB 3.0 Ports	3
Operating System	OS (Pre-installed)
Item Weight	5.99 pounds
Color	Black
Personal computer design type	Mini PC

7. WARRANTY AND SUPPORT

MINISFORUM products come with a standard manufacturer's warranty. Please refer to the included warranty card

or the official MINISFORUM website for specific terms and conditions.

For technical support, troubleshooting assistance, or warranty claims, please contact MINISFORUM customer service through their official channels. Keep your purchase receipt and product serial number handy for faster service.

Additional protection plans may be available for extended coverage. Please check with your retailer for details.

ASK A QUESTION ABOUT THIS MANUAL

Ask about setup, troubleshooting, compatibility, parts, safety, or missing instructions. Manuals+ will review the question and use this page's manual context to help answer it.

Name

Anonymous

Email

you@example.com

After a successful submission, we securely hash the supplied account or form email before sending it to Microsoft Advertising for conversion attribution. [Privacy details](#).

Question

Example: How do I reset this device or fix this error?

Details

Model number, symptoms, what you tried, or the section of the manual you are using.

Submit question