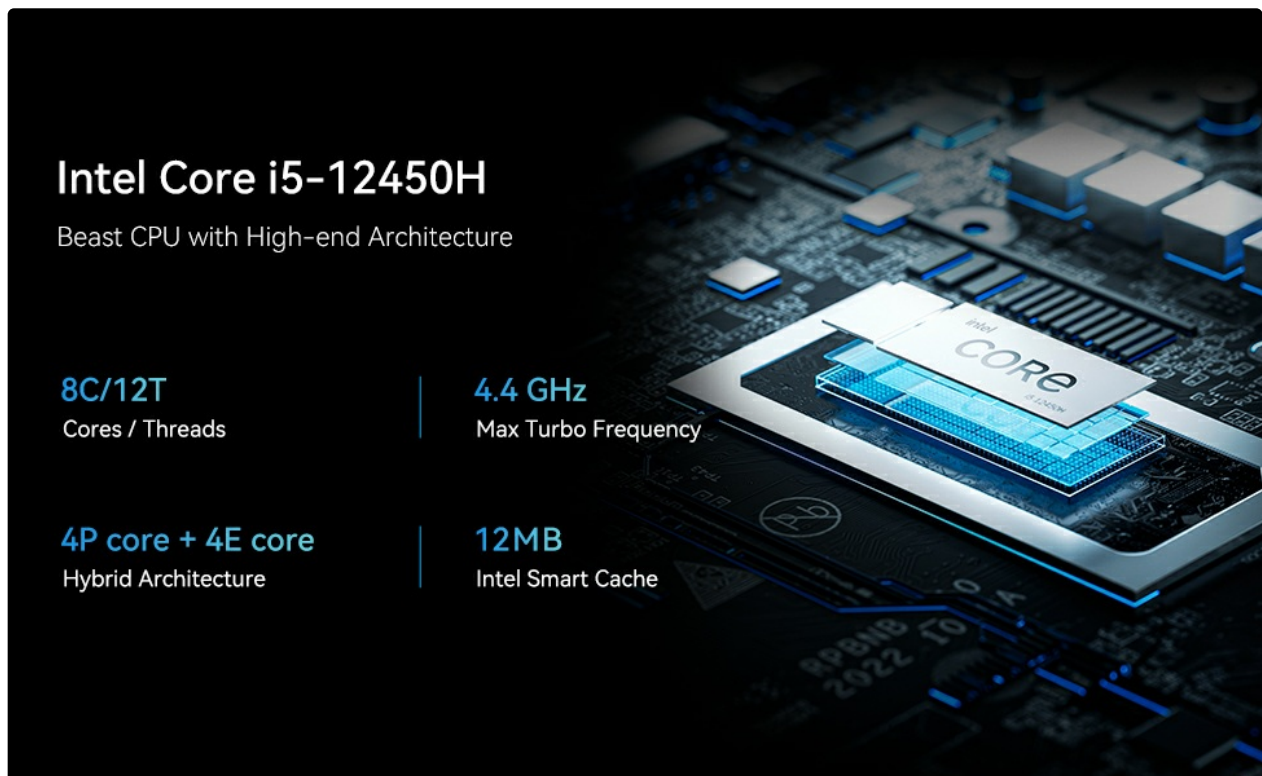


MINISFORUM NAB5

MINISFORUM NAB5 Mini PC Instruction Manual

1. INTRODUCTION

Thank you for choosing the MINISFORUM NAB5 Mini PC. This compact and powerful desktop computer is designed for a wide range of applications, from home theater and office tasks to digital signage and multimedia. Featuring an Intel Core i5-12450H processor, ample memory, and versatile connectivity, the NAB5 offers robust performance in a small form factor. This manual provides essential information for setting up, operating, maintaining, and troubleshooting your device.



Intel Core i5-12450H
Beast CPU with High-end Architecture

8C/12T Cores / Threads	4.4 GHz Max Turbo Frequency
4P core + 4E core Hybrid Architecture	12MB Intel Smart Cache

Image: The MINISFORUM NAB5 Mini PC positioned on a desk next to a monitor, showcasing its compact design in a typical workspace setup.

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Video: An introductory overview of the MINISFORUM NAB5 Mini PC, highlighting its key features and design.

2. PACKAGE CONTENTS

Please check the package carefully to ensure all items are present:

- 1x MINISFORUM NAB5 Mini PC
- 1x HDMI Cable
- 1x US Power Adapter
- 1x Instruction Manual
- 1x SATA cable for 2.5" HDD (for storage expansion)

3. PRODUCT FEATURES

The MINISFORUM NAB5 Mini PC is engineered for high performance and versatility:

- **Processor:** Intel Core i5-12450H (8 cores/12 threads, up to 4.4GHz) with Intel UHD Graphics.
- **Quad Display Output:** Supports up to four 4K@60Hz displays simultaneously via 2x HDMI and 2x USB-C ports.
- **Memory & Storage:** 16GB DDR4 RAM (expandable up to 64GB) and 512GB PCIe 4.0 SSD (expandable up to 2TB). Includes a 2.5-inch SATA HDD slot for additional storage.
- **Network:** Dual 2.5Gbps RJ45 LAN ports for high-speed wired connectivity.
- **Cooling System:** Features a double copper heat pipe and an active SSD cooler for efficient heat dissipation.



Image: Detailed specifications of the Intel Core i5-12450H processor, highlighting its core count, thread count, cache size, and maximum turbo frequency.

Quad Screen Fluent 4K Video Streaming

①HDMI (4K@60Hz) x2

②USB-C(4K@60Hz) x2



Image: The Mini PC demonstrating its capability to drive four 4K displays simultaneously, enhancing productivity for various tasks.



Image: A close-up view of the dual 2.5Gbps LAN ports on the Mini PC, illustrating its high-speed network capabilities.



Venus Series NAB5 Mini PC

Alder Lake - 12th Generation Intel Core i5 Processors

Image: An exploded view diagram detailing the efficient cooling system of the Mini PC, featuring double copper heat pipes and an active SSD cooler.

4. HARDWARE OVERVIEW

Familiarize yourself with the ports and internal components of your MINISFORUM NAB5 Mini PC.

4.1 External Ports

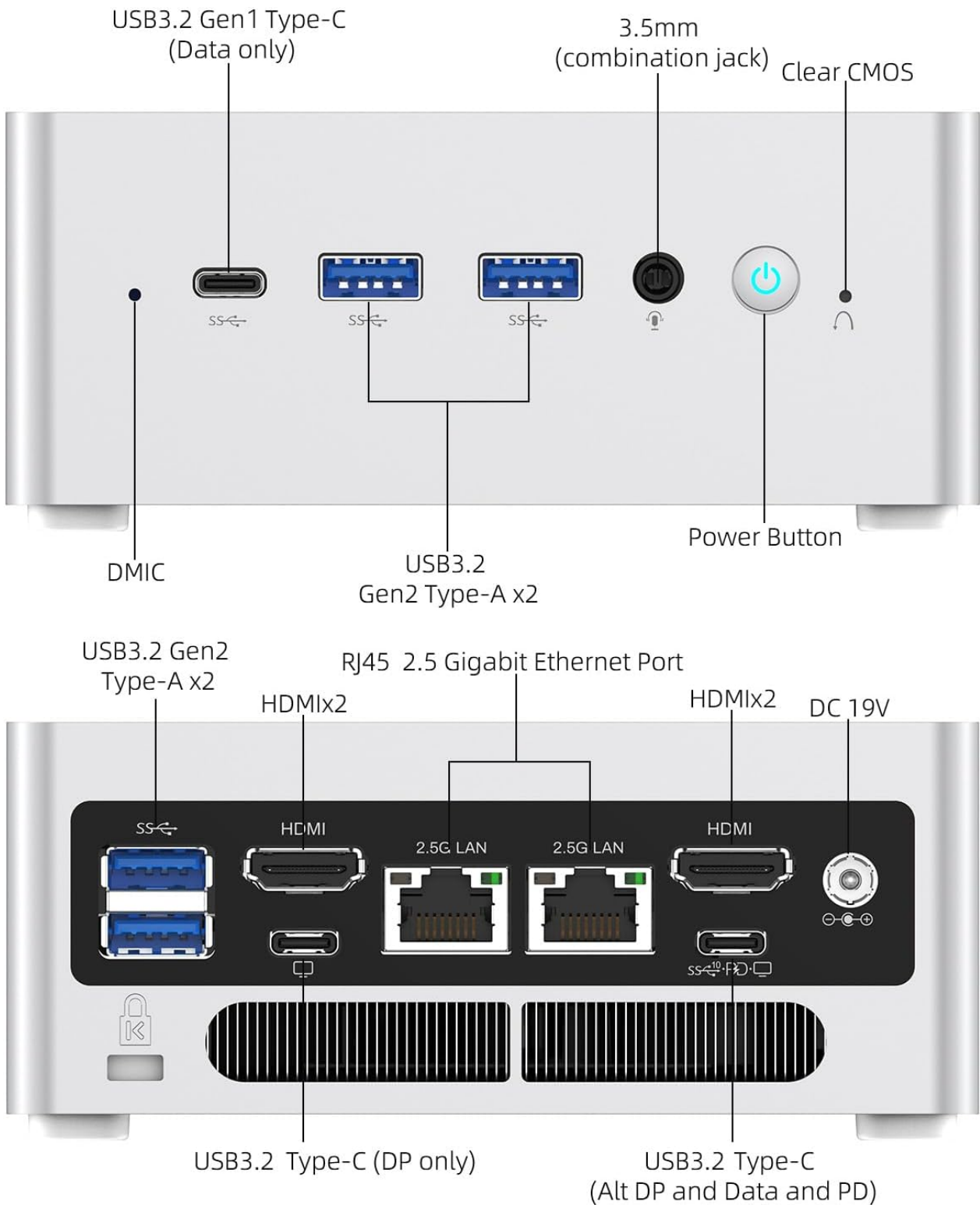


Image: A comprehensive diagram labeling all front and rear input/output ports on the MINISFORUM NAB5 Mini PC for easy identification.

Front Ports:

- 1x USB 3.2 Gen1 Type-C (Data only)
- 2x USB 3.2 Gen2 Type-A
- 1x 3.5mm Combination Jack (Audio/Mic)
- 1x Power Button
- 1x Clear CMOS Button
- 1x DMIC (Digital Microphone)

Rear Ports:

- 2x USB 3.2 Gen2 Type-A
- 2x HDMI (4K@60Hz)
- 2x RJ45 2.5 Gigabit Ethernet Port
- 1x DC 19V Power Input
- 1x USB 3.2 Type-C (DP only)
- 1x USB 3.2 Type-C (Alt DP and Data and PD)

4.2 Internal Components

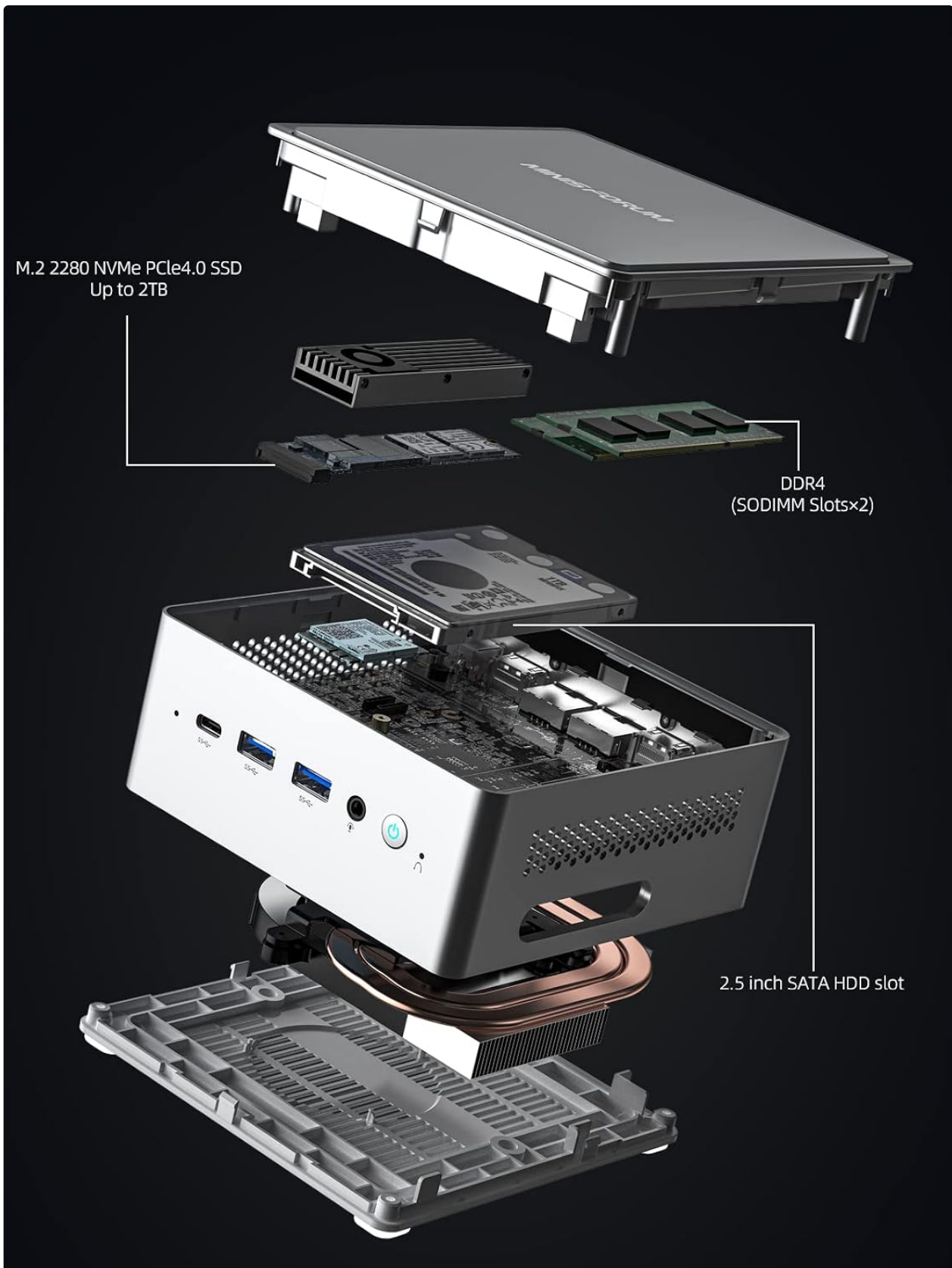


Image: An exploded diagram illustrating the internal layout of the Mini PC, detailing the locations for M.2 NVMe PCIe 4.0 SSD, DDR4 SODIMM memory modules, and the 2.5-inch SATA HDD slot.

The internal design allows for easy upgrades:

- **M.2 2280 NVMe PCIe 4.0 SSD:** Supports up to 2TB.
- **DDR4 SODIMM Slots:** Two slots supporting up to 64GB RAM.
- **2.5-inch SATA HDD Slot:** For additional storage expansion.

5. SETUP GUIDE

Follow these steps for the initial setup of your MINISFORUM NAB5 Mini PC:

1. **Connect Peripherals:** Connect your keyboard, mouse, and other USB devices to the available USB ports.
2. **Connect Display:** Connect your monitor(s) to the Mini PC using an HDMI or USB-C cable. The NAB5 supports up to four displays.
3. **Connect Network:** For wired internet access, connect an Ethernet cable to one of the 2.5G RJ45 ports. For wireless, ensure Wi-Fi is enabled in the operating system settings.
4. **Connect Power:** Plug the US Power Adapter into the DC 19V input port on the Mini PC, then plug the adapter into a power outlet.
5. **Power On:** Press the power button on the front of the Mini PC. The system will boot up.
6. **Initial OS Setup:** Follow the on-screen instructions to complete the operating system setup (e.g., Windows 11).

6. OPERATING INSTRUCTIONS

Basic operation of your MINISFORUM NAB5 Mini PC:

- **Power On/Off:** Press the power button to turn on the PC. To turn off, use the operating system's shutdown function. A short press of the power button can put the PC to sleep. A long press (approx. 5 seconds) will force a shutdown.
- **Display Configuration:** If using multiple monitors, configure display settings within your operating system to extend or duplicate your desktop.
- **USB-C Functionality:** The USB-C ports support various functions including 4K@60Hz video output, 10Gbps data transmission, and 15W power delivery (depending on the specific USB-C port).

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Video: Demonstrates the portability and ease of use of the NAB5 Mini PC in various environments.

7. STORAGE EXPANSION

The MINISFORUM NAB5 Mini PC allows for easy storage expansion by adding a 2.5-inch SATA HDD or SSD.

1. **Power Off:** Ensure the Mini PC is completely powered off and disconnected from the power adapter.
2. **Open Chassis:** Carefully remove the bottom cover of the Mini PC. Refer to the video for detailed steps.
3. **Install Drive:** Connect your 2.5-inch SATA HDD/SSD to the SATA data and power cable provided in the package. Secure the drive in the designated slot.
4. **Close Chassis:** Reattach the bottom cover securely.
5. **Initialize Drive:** After booting the PC, you may need to initialize and format the new drive through Disk Management in your operating system before it can be used.

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Video: A detailed guide on how to install additional storage (2.5-inch SATA HDD/SSD) into the MINISFORUM NAB5 Mini PC.

8. MAINTENANCE

To ensure the longevity and optimal performance of your Mini PC, follow these maintenance guidelines:

- **Cleaning:** Regularly clean the exterior of the PC with a soft, dry cloth. Use compressed air to clear dust from ventilation grilles to prevent overheating. Ensure the PC is powered off before cleaning.
- **Software Updates:** Keep your operating system and drivers updated to the latest versions for security and performance improvements.
- **Environmental Conditions:** Operate the PC in a well-ventilated area, away from direct sunlight, excessive heat, humidity, and dust.
- **Power Management:** Use the provided power adapter. Avoid frequent abrupt power cuts; always shut down the system properly.

9. TROUBLESHOOTING

If you encounter issues with your MINISFORUM NAB5 Mini PC, refer to the following common troubleshooting steps:

- **No Power:**
 - Ensure the power adapter is securely connected to both the PC and a working power outlet.
 - Verify the power outlet is functional by plugging in another device.
- **No Display:**
 - Check that the HDMI or USB-C cable is firmly connected to both the 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.
- **No Internet Connection:**
 - For wired connections, check the Ethernet cable and router status.
 - For Wi-Fi, ensure Wi-Fi is enabled in the operating system and you are connected to the correct network.
 - Restart your router/modem and the Mini PC.
- **System Slowdown:**
 - Close unnecessary applications running in the background.
 - Check for sufficient free storage space on your primary drive.
 - Ensure the PC is well-ventilated and not overheating.
- **Clear CMOS:** If you experience boot issues or incorrect BIOS settings, use the Clear CMOS button on the front panel (requires a paperclip or similar thin object) while the PC is off and disconnected from power.

10. TECHNICAL SPECIFICATIONS

Feature	Specification
Brand	MINISFORUM
Model Name	NAB5
Processor	Intel Core i5-12450H (8 Cores/12 Threads, up to 4.4GHz)
Graphics	Intel UHD Graphics (Graphics Frequency 1.20 GHz)
RAM Memory	16GB DDR4 (3200 MT/s), Max 64GB (2 SODIMM slots)
Storage	512GB M.2 2280 PCIe 4.0 SSD (Max 2TB)
Expandable Storage	1x 2.5-inch SATA HDD/SSD slot (SATA 3.0 6.0Gb/s)
Video Output	2x HDMI (4K@60Hz), 2x USB-C (4K@60Hz)
Network	2x 2.5Gbps RJ45 Ethernet, Wi-Fi 802.11ax, Bluetooth
USB Ports	3x USB 3.2 Gen2 Type-A, 2x USB 3.2 Gen1 Type-A, 1x USB 3.2 Gen1 Type-C (Data only), 1x USB 3.2 Type-C (Alt DP and Data and PD)
Audio	1x 3.5mm Combination Jack
Operating System	OS (Pre-installed)
Cooling Method	Fan, Double Copper Heat Pipe, Active SSD Cooler
Color	Silver

11. WARRANTY AND SUPPORT

MINISFORUM products come with a standard warranty. For detailed warranty information, technical support, or service inquiries, please visit the official MINISFORUM website or contact their customer support directly. Keep your purchase receipt for warranty claims.

MINISFORUM Official Website: www.minisforum.com