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## MINISFORUM UM690

# MINISFORUM Venus Series UM690S Mini PC User Manual

Model: UM690 | Brand: MINISFORUM

## 1. INTRODUCTION

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This manual provides detailed instructions for the setup, operation, maintenance, and troubleshooting of your MINISFORUM Venus Series UM690S Mini PC. Please read this manual thoroughly before using the device to ensure proper functionality and longevity.



Figure 1: MINISFORUM Venus Series UM690S Mini PC

## 2. PACKAGE CONTENTS

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Verify that all items are present in the package:

- 1x MINISFORUM UM690S Mini PC
- 1x HDMI cable
- 1x US Power Adapter
- 1x User Manual (this document)

## 3. PRODUCT FEATURES

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The MINISFORUM Venus Series UM690S Mini PC offers powerful performance in a compact form factor:

- **Excellent Processor:** Equipped with an AMD Ryzen 9 6900HX processor (8 Cores/16 Threads, up to 4.9Ghz), built on 6nm Zen 3+ architecture for smooth handling of demanding tasks and multitasking.
- **Powerful Graphics:** Features integrated AMD Radeon 680M Graphics, based on the RDNA 2 architecture, providing high frame rates and advanced content creation capabilities.
- **8K Video Output:** Supports up to three displays simultaneously with 2x HDMI (4K@60Hz) and 1x USB4 (8K@60Hz) ports. The USB4 port also enables high-speed data transfer and enhanced graphics functionality.
- **Large Capacity:** Pre-installed with 32GB DDR5-4800 RAM (expandable up to 64GB across two SODIMM slots) and a 1TB 2280 NVMe PCIe4.0 SSD (expandable up to 2TB). An additional 2.5-inch SATA HDD slot supports up to 2TB storage.
- **High-Speed Networking:** Includes a 2.5Gbps LAN Port for fast wired network connections, supporting features like Auto Power On, PXE Boot, WOL, and RTC Boot.
- **Advanced Cooling System:** Features a new cooling design with dual fans on the bottom cover, 120 heat sinks, thick copper tubes, and liquid metal application for efficient heat dissipation and reduced noise.

# AMD Ryzen 9 6900HX Processor

Zen 3+ Architecture



## Geekbench 5

■ Singel-core

■ Multi-core

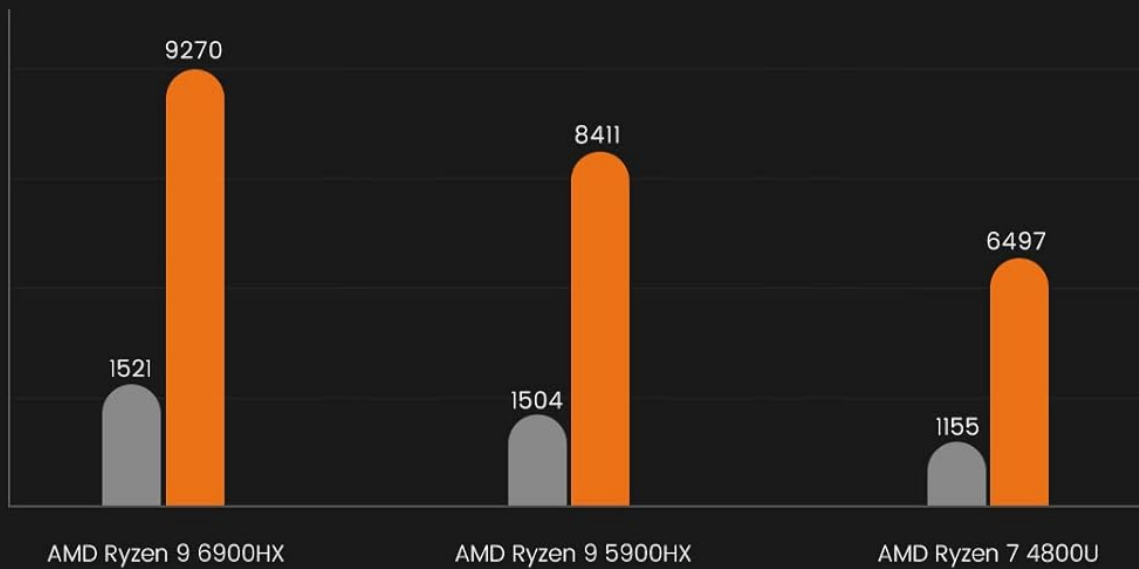


Figure 2: AMD Ryzen 9 6900HX Processor

# Triple Screen Fluent 8K Video Streaming

HDMI (4K@60Hz) × 2    USB 4 (8K@60Hz) × 1



Figure 3: Triple Screen 8K Video Output Capability

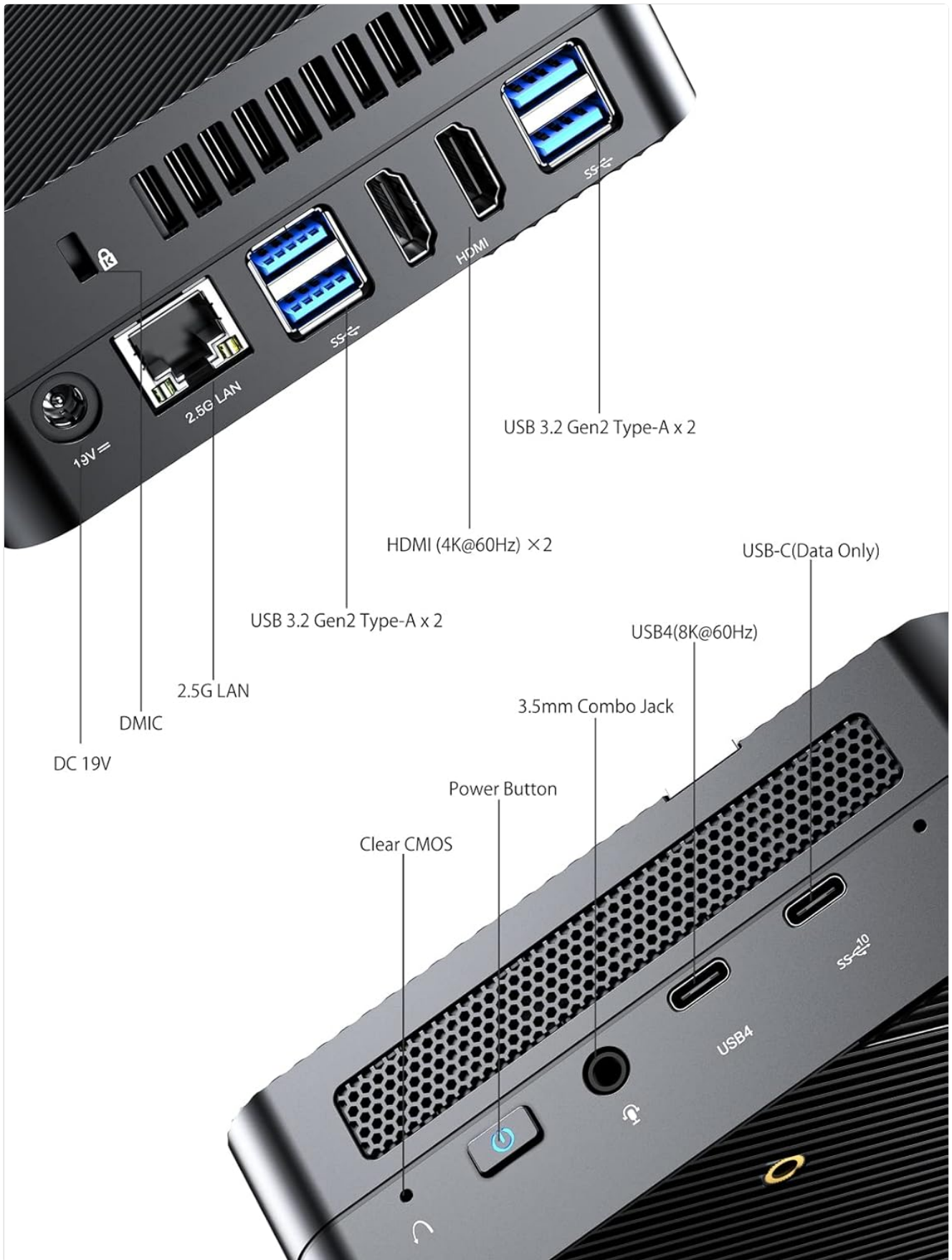


Figure 4: Front and Rear Port Layout



Figure 5: Internal Components and Storage Expansion

## 4. SETUP

Follow these steps to set up your MINISFORUM UM690S Mini PC:

1. **Connect Power:** Plug the US Power Adapter into the DC 19V port on the rear of the Mini PC, then connect it to a power outlet.
2. **Connect Display:** Connect your monitor(s) to the HDMI or USB4 ports on the Mini PC using appropriate cables. For optimal performance, use 8K compatible cables for USB4 connections.
3. **Connect Peripherals:** Connect your keyboard, mouse, and other USB devices to the available USB 3.2 Gen2 Type-A or USB-C ports.

4. **Network Connection:** For wired internet, connect an Ethernet cable to the 2.5G LAN port. For wireless connectivity, ensure your Wi-Fi network is available after initial boot.
5. **Initial Boot:** Press the power button on the front of the Mini PC. The system will boot up, typically to the pre-installed Windows 11 operating system. Follow the on-screen prompts for initial Windows setup.

## 4.1. Installing Additional Storage (M.2 SSD / 2.5-inch HDD)

The UM690S Mini PC allows for easy expansion of storage. Refer to the video below for a visual guide on installing storage.

Your browser does not support the video tag.

Video 1: How to install storage on UM690S. This video demonstrates the process of opening the Mini PC, installing RAM modules, and adding an M.2 SSD.

1. **Power Off and Disconnect:** Ensure the Mini PC is powered off and disconnected from all power sources and peripherals.
2. **Remove Bottom Cover:** Unscrew the four screws on the bottom cover of the Mini PC. Carefully lift and remove the bottom cover.
3. **Install RAM (if applicable):** If adding or upgrading RAM, gently push the clips on the SODIMM slots outwards to release existing modules (if any). Insert the new DDR5 SODIMM modules into the slots, ensuring they are seated correctly, then push down until the clips snap into place.
4. **Install M.2 SSD:** Locate the M.2 2280 PCIe4.0 SSD slot. Insert the M.2 SSD at an angle, then gently push it down and secure it with the provided screw.
5. **Install 2.5-inch SATA HDD (if applicable):** Connect the SATA data and power cables to your 2.5-inch HDD/SSD and then to the corresponding connectors on the motherboard. Secure the drive in the designated bay.
6. **Reattach Bottom Cover:** Carefully align the bottom cover and press it back into place. Secure it with the four screws.

## 5. OPERATING INSTRUCTIONS

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Your MINISFORUM UM690S Mini PC operates like a standard desktop computer. Here are basic operating guidelines:

- **Power On/Off:** Press the power button on the front of the device to turn it on. To turn off, use the operating system's shutdown function (e.g., Start Menu > Power > Shut down in Windows) or press and hold the power button for a few seconds for a forced shutdown (not recommended for regular use).
- **Operating System:** The Mini PC typically comes with Windows 11 Pro pre-installed. Familiarize yourself with the operating system's interface and functions.
- **Software Installation:** Install necessary drivers and applications as required for your specific use cases (e.g., office suites, creative software, games).
- **Connectivity:** Utilize the various ports for connecting external devices such as USB drives, external hard drives, webcams, and audio devices.
- **Multi-Display Setup:** Take advantage of the multiple video outputs to extend your desktop across several monitors for increased productivity.



UM690 is Widely  
Used in the Field of

- 1 Digital Signage
- 2 Video Conference
- 3 Work From Home
- 4 Online Education



Figure 6: Diverse Applications of the UM690S Mini PC

## 6. MAINTENANCE

Regular maintenance helps ensure the longevity and optimal performance of your Mini PC:

- **Cleaning:** Periodically clean the exterior of the Mini PC with a soft, dry cloth. Use compressed air to gently clear dust from the ventilation grilles and ports to prevent overheating. Ensure the device is powered off and unplugged before

cleaning.

- **Ventilation:** Always place the Mini PC in a well-ventilated area. Avoid blocking the air vents on the sides and bottom of the device. Do not place it on soft surfaces like carpets or blankets that can obstruct airflow.
- **Software Updates:** Regularly update your operating system, drivers, and applications to ensure security, stability, and performance improvements.
- **Data Backup:** Periodically back up important data to an external drive or cloud storage to prevent data loss.

## 7. TROUBLESHOOTING

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If you encounter issues with your MINISFORUM UM690S Mini PC, refer to the following common troubleshooting steps:

- **No Power:** Ensure the power adapter is securely connected to both the Mini PC and a working power outlet. Try a different outlet if necessary.
- **No Display:** Verify that the HDMI/USB4 cables are 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 possible.
- **System Freezes/Crashes:** This can sometimes be due to overheating. Ensure proper ventilation as described in the Maintenance section. Check for recent software installations or updates that might be causing conflicts. Consider updating drivers, especially graphics drivers.
- **Wi-Fi/Bluetooth Issues:** Check if Wi-Fi and Bluetooth are enabled in the operating system settings. Ensure antennas (if external) are properly connected. If issues persist, try reinstalling the wireless drivers from the MINISFORUM support website.
- **Slow Performance:** Close unnecessary applications. Check disk space and consider uninstalling unused programs. Ensure the cooling system is not obstructed.
- **BIOS/CMOS Reset:** If experiencing boot issues, you may need to clear the CMOS. Refer to the port diagram (Figure 4) for the 'Clear CMOS' button/pinhole. Consult the MINISFORUM support website for specific instructions on performing a CMOS reset for your model.

For more complex issues, please contact MINISFORUM customer support.

## 8. SPECIFICATIONS

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Detailed technical specifications for the MINISFORUM Venus Series UM690S Mini PC:

Feature	Specification
Processor	AMD Ryzen 9 6900HX (8C/16T, up to 4.9Ghz)
Graphics	AMD Radeon 680M (Graphics Frequency 2400 MHz)
RAM	32GB DDR5-4800 (2x SODIMM slots, max 64GB)
Storage	1TB PCIe4.0 SSD (M.2 2280, max 2TB) + 2.5-inch SATA HDD slot (max 2TB)
Video Output	2x HDMI (4K@60Hz), 1x USB4 (8K@60Hz)
Networking	2.5Gbps LAN, Wi-Fi 6 (802.11ax), Bluetooth
USB Ports	3x USB 3.2 Gen2 Type-A, 2x USB-C (1x USB4, 1x Data Only)
Audio	3.5mm Combo Jack
Operating System	OS (typically Windows 11 Pro)
Dimensions (LxWxH)	5.04 x 4.96 x 2.2 inches (128 x 126 x 56 mm)

Feature	Specification
Weight	1.32 pounds

**Size:** 5.04 x 5 x 2 inch



Figure 7: Compact Size of the Mini PC

## 9. WARRANTY AND SUPPORT

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MINISFORUM provides customer support for its products. For warranty information, technical assistance, or service requests, please visit the official MINISFORUM website or contact their customer support directly. Keep your purchase receipt as proof of purchase for warranty claims.

**MINISFORUM Official Website:** [www.minisforum.com](http://www.minisforum.com)