

MINISFORUM UM690

MINISFORUM Venus Series UM690 Mini PC Instruction Manual

Model: UM690

1. INTRODUCTION

This manual provides essential information for setting up, operating, maintaining, and troubleshooting your MINISFORUM Venus Series UM690 Mini PC. Please read this guide thoroughly before using the device to ensure proper functionality and longevity.

The MINISFORUM UM690 Mini PC is a compact desktop computer featuring an AMD Ryzen 9 6900HX processor and AMD Radeon 680M Graphics. It is designed for various tasks including light gaming, image editing, browsing, watching movies, and programming.



Image 1.1: The MINISFORUM Venus Series UM690 Mini PC, a compact and powerful desktop solution.

2. PACKAGE CONTENTS

Verify that all items listed below are included in your package:

- 1x MINISFORUM UM690 Mini PC
- 1x HDMI cable
- 1x Mounting Bracket
- 1x US Power Adapter
- 1x User Manual (this document)

3. PRODUCT OVERVIEW

Familiarize yourself with the ports and components of your UM690 Mini PC.

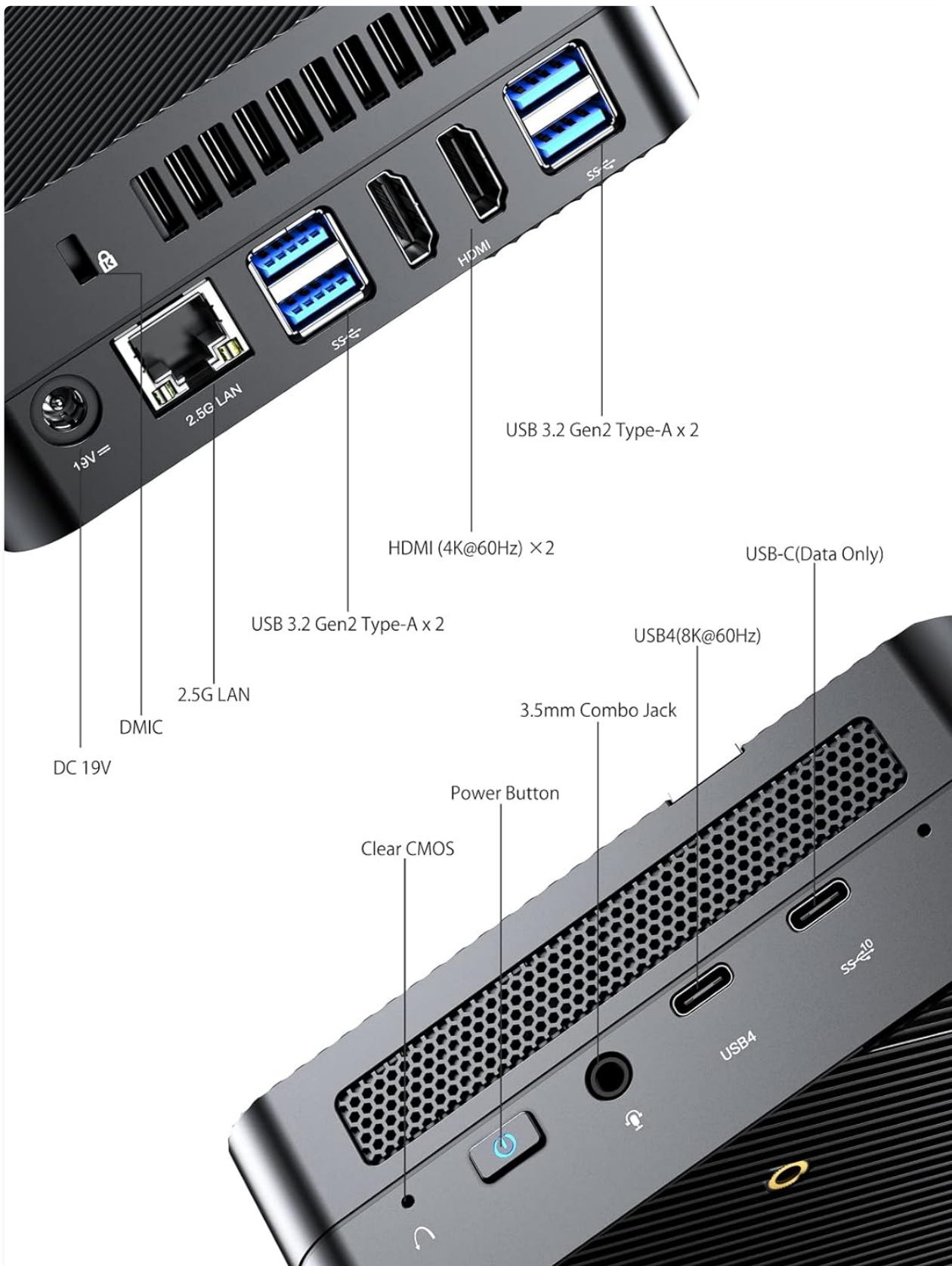


Image 3.1: Detailed view of the front and rear ports on the MINISFORUM UM690 Mini PC.

Front Panel Ports:

- **Power Button:** To turn the device on/off.
- **3.5mm Combo Jack:** For headphones or headsets.
- **USB4 (8K@60Hz):** High-speed data transfer and 8K video output.
- **USB-C (Data Only):** For data transfer.

Rear Panel Ports:

- **DC 19V Power Input:** Connect the power adapter here.
- **2.5G LAN:** For high-speed wired network connection.
- **USB 3.2 Gen2 Type-A x 2:** For connecting USB devices.
- **HDMI (4K@60Hz) x 2:** For connecting displays.
- **Clear CMOS:** Button to reset BIOS settings.
- **DMIC:** Digital Microphone input.



Image 3.2: Dimensions of the MINISFORUM UM690 Mini PC, illustrating its compact size.

4. HARDWARE INSTALLATION AND UPGRADES

The UM690 Mini PC supports upgrades for RAM and storage. Always power off and unplug the device before performing any internal hardware changes.

Internal Components:



DDR5-4800(SODIMM Slot x 2, up to 64GB)

M.2 2280 PCIe4.0 SSD

1x 2.5 inch SATA HDD Slot (SATA 3.0 6.0Gb/s, within 7mm thickness)

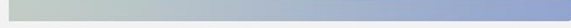
Image 4.1: Exploded view showing the internal layout of the UM690 Mini PC, including RAM, SSD, and HDD slots.

- **DDR5-4800 SODIMM Slots x 2:** Supports up to 64GB RAM (32GB per slot).
- **M.2 2280 PCIe4.0 SSD Slot:** Supports high-speed NVMe SSDs up to 2TB.
- **2.5 inch SATA HDD Slot:** Supports SATA 3.0 6.0Gb/s HDDs/SSDs up to 2TB (within 7mm thickness).

Wi-Fi 6 VS Wi-Fi 5

Attain 4X Network Capacity Reduce 75% Network Latency Expand 30% Coverage

AMD Wi-Fi 6



802.11AC



AMD WiFi6



2.5G RJ45



BT

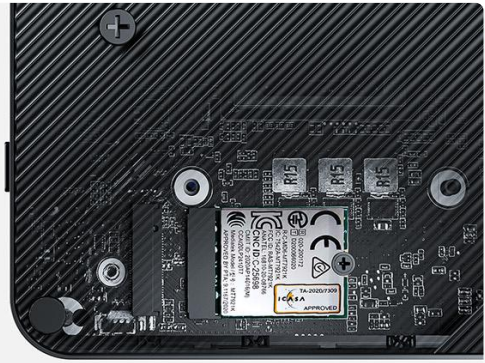


Image 4.2: Illustration of the storage expansion capabilities, including M.2 NVMe SSD and 2.5-inch SATA drive bay.

5. INITIAL SETUP

1. **Connect Peripherals:** Connect your keyboard and mouse to the available USB ports.
2. **Connect Display:** Connect your monitor(s) using the HDMI or USB4 ports. The UM690 supports up to three displays simultaneously (2x 4K@60Hz HDMI, 1x 8K@60Hz USB4).
3. **Connect Power:** Plug the power adapter into the DC 19V input port on the rear panel, then plug the adapter into a power outlet.
4. **Power On:** Press the power button on the front panel to turn on the Mini PC.
5. **Operating System Setup:** Follow the on-screen instructions to complete the initial setup of your Windows 11 Pro operating system.

6. OPERATING INSTRUCTIONS

Display Configuration:

The UM690 Mini PC supports multi-monitor setups for enhanced productivity or immersive experiences.

Triple Screen Fluent 8K Video Streaming

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

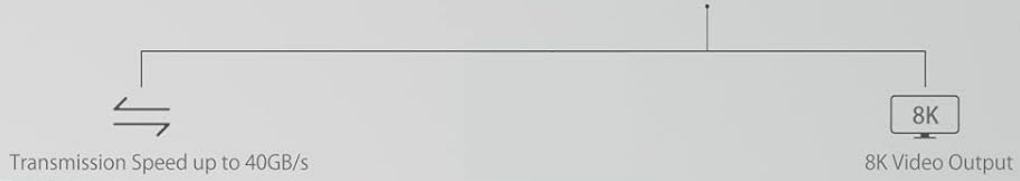


Image 6.1: The UM690 Mini PC connected to a multi-monitor setup, demonstrating its display capabilities.



Image 6.2: An example of a triple monitor setup with the MINISFORUM UM690, highlighting its 8K video streaming capability.

Network Connectivity:

The Mini PC features a 2.5Gbps LAN port for high-speed wired internet and supports Wi-Fi for wireless connectivity.

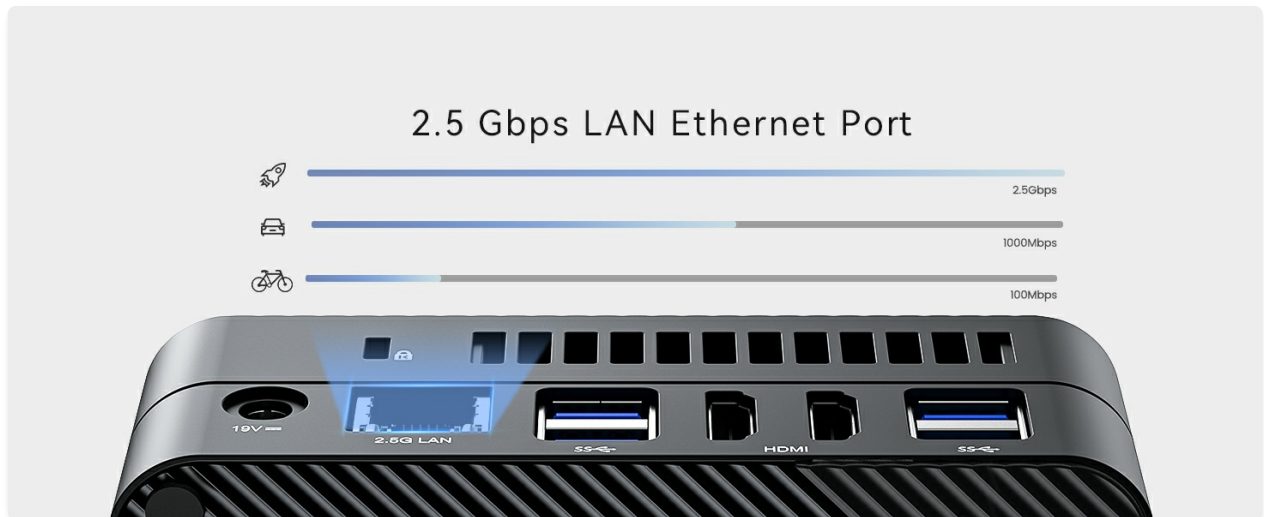


Image 6.3: The 2.5Gbps LAN Ethernet Port on the UM690, providing fast and stable wired network access.

General Operation:

The UM690 is suitable for a wide range of applications, from office tasks to multimedia consumption and light gaming. Its compact design allows for versatile placement, including mounting behind a monitor using the included bracket.

Your browser does not support the video tag.

Video 6.1: An official MINISFORUM overview video showcasing features like liquid metal cooling, RAM, SSD, HDD, and multi-display support. While the video title refers to the HX90 model, many features and internal components are similar across MINISFORUM mini PCs and are relevant to the UM690.

7. MAINTENANCE AND CARE

Proper maintenance ensures the longevity and optimal performance of your Mini PC.

- **Cleaning:** Regularly clean the exterior with a soft, dry cloth. Use compressed air to clear dust from ventilation openings. Ensure the device is powered off and unplugged before cleaning.

- **Ventilation:** Ensure the Mini PC is placed in a well-ventilated area. Do not block the air vents.
- **Temperature:** Operate the device within recommended temperature ranges. Avoid direct sunlight or extreme heat sources.

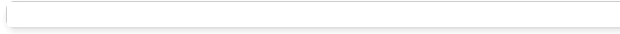


Image 7.1: Diagram illustrating the high-efficiency thermal system of the UM690, featuring 360° air vents, smart fan, dual heat sink, and liquid metal for effective heat dissipation.

8. TROUBLESHOOTING

If you encounter issues with your MINISFORUM UM690 Mini PC, refer to the following common solutions:

- **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 display cable (HDMI or USB4) is securely connected to both the Mini PC and the monitor. Ensure the monitor is powered on and set to the correct input source.
- **Frequent Reboots/Crashes:** If experiencing instability, especially after a memory upgrade, consider entering the BIOS settings and reducing the memory frequency. Ensure all drivers are up to date.
- **Connectivity Issues (Wi-Fi/LAN):** Check network cable connections for LAN. For Wi-Fi, ensure drivers are installed and the network is selected correctly in the operating system. Restart your router/modem.
- **Peripheral Not Detected:** Try connecting the peripheral to a different USB port. Ensure necessary drivers for the peripheral are installed.
- **Slow Performance:** Check for background applications consuming resources. Ensure sufficient free storage space. Consider upgrading RAM or SSD if performance remains an issue.

If problems persist, consult the official MINISFORUM support resources.

9. TECHNICAL SPECIFICATIONS

Feature	Specification
Brand	MINISFORUM
Model Name	UM690
Operating System	Windows 11 Pro
CPU Model	AMD Ryzen 9 6900HX (8C/16T, up to 4.9GHz)
Graphics Coprocessor	AMD Radeon 680M
RAM Memory Installed	32GB DDR5-4800 (16x2 SODIMM)
RAM Memory Maximum Size	64GB
Memory Storage Capacity	512GB 2280 NVMe PCIe4.0 SSD
Hard Disk Interface	Serial ATA-600 (for 2.5-inch HDD/SSD)
Connectivity Technology	Ethernet (2.5Gbps LAN), Wi-Fi
Video Output Interface	2x HDMI (4K@60Hz), 1x USB4 (8K@60Hz)

Feature	Specification
Total USB Ports	2x USB 3.2 Gen2 Type-A, 1x USB4, 1x USB-C (Data Only)
Item Dimensions (LxWxH)	7.72 x 7.48 x 2.36 inches (approximate)
Cooling Method	Passive cooling and small fans (Liquid Metal thermal compound)
Specific Uses For Product	Multipurpose, Light Gaming, Image Editing, Browsing, Watching Movies, Programming

10. WARRANTY AND SUPPORT

MINISFORUM products come with a standard manufacturer's warranty. For detailed warranty information, please refer to the warranty card included in your package or visit the official MINISFORUM website. For technical support, troubleshooting assistance, or warranty claims, please contact MINISFORUM customer service through their official website or the contact information provided in your product documentation.