

## GMKtec M5 Ultra

# GMKtec M5 Ultra Mini PC AMD Ryzen 7 7730U User Manual

Model: M5 Ultra

## 1. INTRODUCTION

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This manual provides detailed instructions for setting up, operating, maintaining, and troubleshooting your GMKtec M5 Ultra Mini PC. Please read this manual thoroughly before using the device to ensure optimal performance and longevity.

## 2. PACKAGE CONTENTS

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Verify that all items listed below are included in your package. If any items are missing or damaged, please contact GMKtec customer support.

- GMKtec Nucbox M5 Ultra AMD Ryzen 7 7730U Mini PC Computer
- Power Adapter
- VESA Mount
- HDMI Cable
- User Manual (this document)

## 3. PRODUCT OVERVIEW

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The GMKtec M5 Ultra is a compact and powerful mini PC designed for various applications, including office work, content creation, and gaming. It features an AMD Ryzen 7 7730U processor and integrated AMD Radeon Graphics.

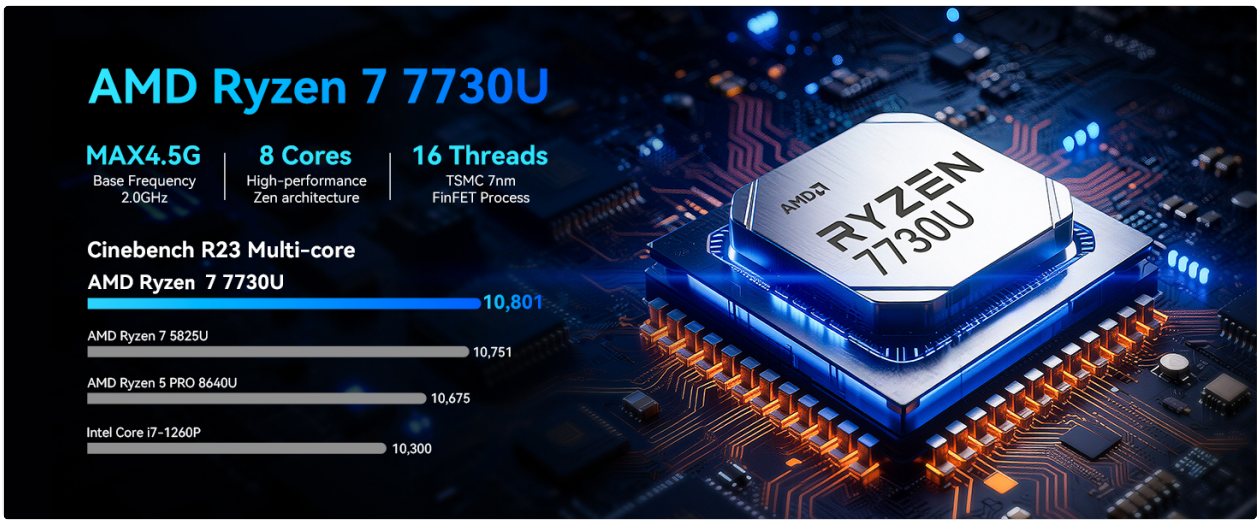


Image: GMKtec M5 Ultra Mini PC with key features such as AMD Ryzen 7 7730U, Triple Screens 8K Display, PCIe 3.0 M.2 2280 SSD, DDR4 3200MT/s, WiFi 6E, Bluetooth 5.2, Dual Surround Cooling Vents, and additional functions like Auto Power ON and Wake ON LAN.

### 3.1 Key Features

- **Processor:** AMD Ryzen 7 7730U (8 Cores/16 Threads, up to 4.50GHz)
- **Graphics:** AMD Radeon Graphics (8 Cores, 2000 MHz)
- **Memory:** 16GB DDR4 RAM (Dual Channel, expandable up to 64GB)
- **Storage:** 512GB M.2 2280 PCIe 3.0 SSD (Dual slot expansion up to 8TB each)
- **Network:** Dual 2.5GbE RJ45 LAN, WiFi 6E (2.5G/5G/6G triple band), Bluetooth 5.2
- **Display Output:** Triple 4K Display support via HDMI 2.0, DisplayPort, and USB-C (PD/DP/DATA)
- **Ports:** 2x USB 3.2, 2x USB 2.0, 1x HDMI 2.0, 1x USB-C (PD/DP/DATA), 1x DP, 1x Audio 3.5mm (HP&MIC), 1x DC Power Port
- **Cooling:** Dual Cooling Fan system with copper heat pipes

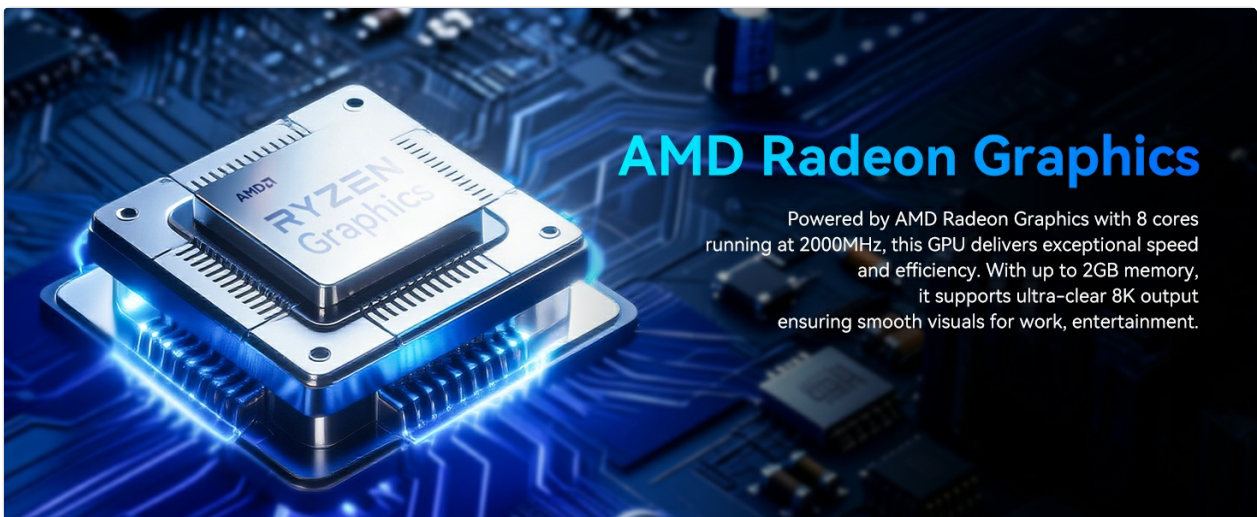


Image: Detailed view of the AMD Ryzen 7 7730U processor, highlighting its 8 Cores, 16 Threads, 7nm process, and base/max clock speeds. Includes a Cinebench R23 Multi-core performance comparison.

## Advanced Cooling Design for Quiet and Efficient Performance

Featuring a brand-new board-style heatsink with dual surround air intakes, the system delivers quieter and cooler operation.

Intelligent fan control and dust-resistant design extend device lifespan while ensuring stable SSD and memory performance.

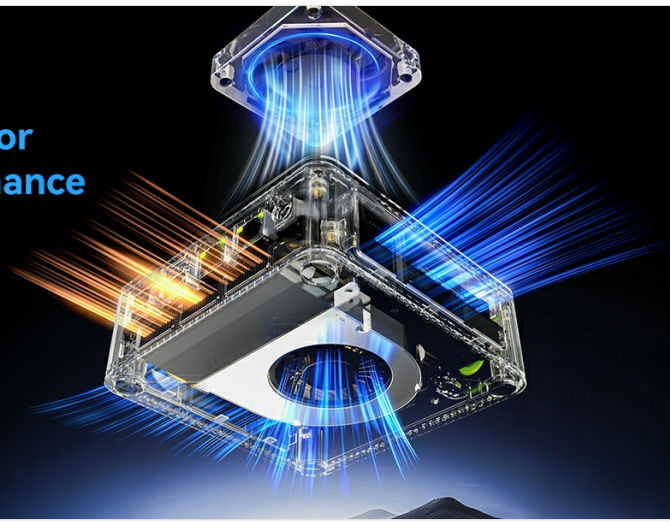


Image: Diagram illustrating the easy RAM and SSD upgrade options, showing dual M.2 2280 SSD slots (one supporting SATA/PCIe, one PCIe only, up to 8TB each) and dual SO-DIMM slots for DDR4 3200MT/s RAM (up to 64GB).

## Smooth Office Performance

With up to 64GB memory and 8TB storage, the M5 Ultra handles Excel, Photoshop, and other apps with ease while giving you ample room to expand, so you can work and play without limits.



Image: Exploded view of the product's internal structure, detailing the copper cooling fan, multiple exhaust vents, M.2 2280 PCIe 3.0 slots, and dual-channel DDR4 memory.

## 4. SETUP INSTRUCTIONS

### 4.1 Connecting Peripherals

- 1. Connect Display:** Use the provided HDMI cable or a DisplayPort/USB-C cable to connect your monitor(s) to the corresponding ports on the mini PC. The device supports up to three 4K displays simultaneously.
- 2. Connect Keyboard and Mouse:** Plug your USB keyboard and mouse into the available USB 2.0 or USB 3.2 ports.
- 3. Connect Network (Optional):** For a wired connection, connect an Ethernet cable from your router or modem to one of the 2.5GbE RJ45 LAN ports. For wireless, the device supports WiFi 6E.
- 4. Connect Power:** Plug the power adapter into the DC Power Port on the mini PC, then plug the adapter into a power outlet.

# AMD Ryzen 7 7730U

**MAX4.5G**

Base Frequency  
2.0GHz

**8 Cores**

High-performance  
Zen architecture

**16 Threads**

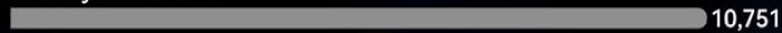
TSMC 7nm  
FinFET Process

## Cinebench R23 Multi-core

### AMD Ryzen 7 7730U



AMD Ryzen 7 5825U



AMD Ryzen 5 PRO 8640U



Intel Core i7-1260P

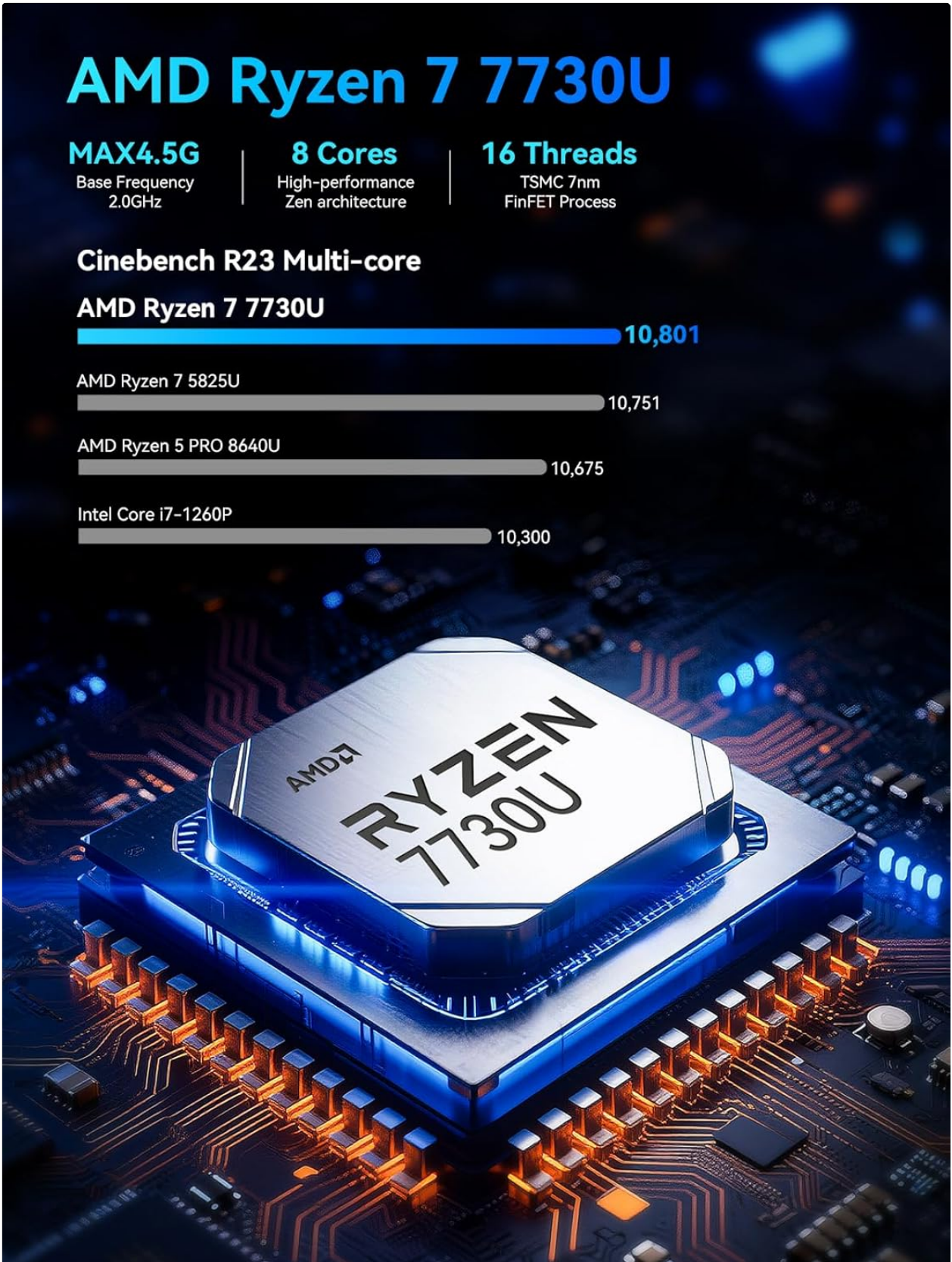


Image: Front and rear view of the GMKtec M5 Ultra Mini PC, showing the location of the 3.5mm Audio Jack, Power Button, USB 3.2 (Gen2) ports, Type-C Port on the front, and USB 2.0 ports, HDMI, DP, 2.5GbE Ethernet, and Power Adapter port on the rear.

## 4.2 Initial Power On

1. Ensure all connections are secure.
2. Press the Power Button located on the front of the mini PC.
3. The system will boot up. Follow the on-screen instructions for initial Windows 11 Pro setup.

## 5. OPERATING INSTRUCTIONS

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### 5.1 Basic Operation

- **Power On/Off:** Press the power button to turn on. To turn off, use the Windows shutdown option or press and hold the power button for 5 seconds for a forced shutdown (not recommended for regular use).
- **Restart:** Use the Windows restart option.
- **Sleep Mode:** Use the Windows sleep option. The mini PC supports Wake On LAN.

### 5.2 Display Configuration

The GMKtec M5 Ultra supports triple display output. To configure multiple displays:

1. Connect all desired monitors to the HDMI, DisplayPort, and USB-C ports.
2. Right-click on the desktop and select 'Display settings'.
3. Arrange your displays and choose your preferred display mode (Extend, Duplicate, or Show only on 1/2/3).

# Smooth Office Performance

With up to 64GB memory and 8TB storage, the M5 Ultra handles Excel, Photoshop, and other apps with ease while giving you ample room to expand, so you can work and play without limits.



Image: A visual representation of the GMKtec M5 Ultra Mini PC connected to three monitors, demonstrating its triple 4K display capability for enhanced productivity or entertainment.

## 5.3 Network Connectivity

- **Wired LAN:** The dual 2.5GbE Ethernet ports provide high-speed wired network access.
- **WiFi 6E:** To connect to a wireless network, click the network icon in the system tray, select your desired WiFi network, and enter the password.
- **Bluetooth 5.2:** To pair Bluetooth devices, go to 'Settings' > 'Bluetooth & devices' and follow the on-screen instructions.

## 6. MAINTENANCE

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### 6.1 Cleaning

- Regularly clean the exterior of the mini PC with a soft, dry cloth.
- Use compressed air to clear dust from the ventilation grilles to maintain optimal cooling performance. Ensure the device is powered off before cleaning.

### 6.2 Software Updates

- Keep your operating system (Windows 11 Pro) updated to the latest version for security and performance improvements.
- Check the GMKtec website for any driver updates specific to the M5 Ultra.

### 6.3 Storage and RAM Upgrades

The GMKtec M5 Ultra allows for easy upgrades of RAM and SSDs. Refer to the 'Product Internal Structure' image in Section 3 for component locations.

- The device has two M.2 2280 PCIe 3.0 SSD slots, each supporting up to 8TB. One slot supports both SATA and PCIe, while the other supports PCIe only.
- It features two SO-DIMM slots for DDR4 3200MHz RAM, supporting up to 64GB total.
- Always power off and unplug the device before performing any internal upgrades. Consult a professional if you are unsure about the upgrade process.

## 7. TROUBLESHOOTING

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If you encounter issues with your GMKtec M5 Ultra, refer to the following common troubleshooting steps:

### 7.1 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.

### 7.2 No Display Output

- Confirm that the HDMI, DisplayPort, or USB-C 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 connecting the mini PC to a different monitor or using a different display cable.

### 7.3 Network Connectivity Issues

- **Wired:** Check the Ethernet cable connection. Ensure your router/modem is working correctly.
- **Wireless:** Verify that WiFi is enabled in Windows settings. Ensure you are connecting to the correct network with the correct password. Restart your router/modem.

### 7.4 System Performance Issues

- Close unnecessary applications running in the background.

- Ensure the mini PC has adequate ventilation and is not overheating.
- Run a system scan for malware or viruses.
- Check for and install any available Windows updates or driver updates.

## 8. SPECIFICATIONS

Feature	Detail
Brand	GMKtec
Model Name	M5 Ultra
Operating System	Windows 11 Pro
CPU Model	AMD Ryzen 7 7730U (8 Cores/16 Threads, up to 4.5 GHz)
Graphics Coprocessor	AMD Radeon Graphics 8CUs 2000 MHz
RAM Memory Installed	16 GB DDR4 (3200 MHz)
RAM Memory Maximum Size	64 GB
Hard Disk Description	M.2 2280 NVME SSD Dual Slot (Max. 8TB each)
Wireless Connectivity	WiFi 6E (2.4 GHz, 5 GHz, 6 GHz), Bluetooth 5.2
Wired Connectivity	Dual 2.5GbE Ethernet (RJ45)
Video Output	HDMI 2.0, DisplayPort, USB-C (supports 4K triple display)
USB Ports	2x USB 3.2, 2x USB 2.0, 1x USB-C
Audio Interface	3.5mm Audio (HP&MIC)
Power Consumption	35 Watts
Item Dimensions	4.4 x 1.7 x 4.84 inches
Cooling Method	Dual Cooling Fan
Additional Features	Auto Power ON, Wake ON LAN

## 9. OFFICIAL PRODUCT VIDEO

Your browser does not support the video tag.

Video: An official product video from GMKtec-Direct showcasing the GMKtec M5 Ultra Gaming Mini PC with Ryzen 7 7730U, highlighting its features and capabilities. Duration: 0:55.

## 10. WARRANTY AND SUPPORT

GMKtec offers a 1-year limited warranty for each mini PC, starting from the date of purchase. This warranty covers defects due to design and workmanship. For technical assistance or warranty claims, please contact GMKtec customer support. Details on how to contact support can typically be found on the GMKtec official website or through your purchase platform.

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