**GMKtec G9**

# GMKtec G9 Mini PC NAS Intel N150 Dual Boot System User Manual

This manual provides essential instructions for the setup, operation, maintenance, and troubleshooting of your GMKtec G9 Mini PC NAS. Please read this guide thoroughly before using your device.

## 1. INTRODUCTION

Welcome to the GMKtec G9 Mini PC NAS user manual. This guide provides essential information for setting up, operating, maintaining, and troubleshooting your new device. The GMKtec G9 is a versatile mini PC designed for various applications, including home office, entertainment, and network-attached storage (NAS) solutions. It features an Intel N150 processor, dual boot capabilities with Windows 11 Pro and Ubuntu, and extensive connectivity options.

Image 1.1: The GMKtec G9 Mini PC, showcasing its compact design and multiple ports in both vertical and horizontal setups.

## 2. WHAT'S IN THE BOX

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

- GMKtec Nucbox G9 Mini PC (Intel Twin Lake N150, 12GB RAM, 64GB eMMC & 512GB Hard Drive)
- Power Supply & Cable
- HDMI Cable
- VESA Mount and Screws
- User Manual

# RETAIL BOXED PACKAGING



1. Nucbox G9 Mini PC

2. Power Supply & Cable

3. User Manual

4. HDMI Cable

5. VESA Mount with Screws

Image 2.1: The retail packaging and included accessories for the GMKtec G9 Mini PC.

## 3. PHYSICAL OVERVIEW

Familiarize yourself with the ports and indicators on your GMKtec G9 Mini PC.

## 3.1. Front Panel

- **Power Button:** Press to turn the device on or off.
- **USB 3.2 (10Gbps) Ports:** Three ports for connecting high-speed peripherals.

## 3.2. Rear Panel

- **DC Power Input:** Connect the included power adapter.
- **3.5mm Audio Jack:** For headphones or external speakers.
- **Intel i226V Dual NIC (RJ45) 2.5GbE:** Two Ethernet ports for high-speed wired network connections.
- **HDMI (4K@60Hz) Ports:** Two ports for connecting displays.
- **Type-C (DP/DATA/PD) Port:** Multi-functional port supporting DisplayPort, data transfer, and Power Delivery.
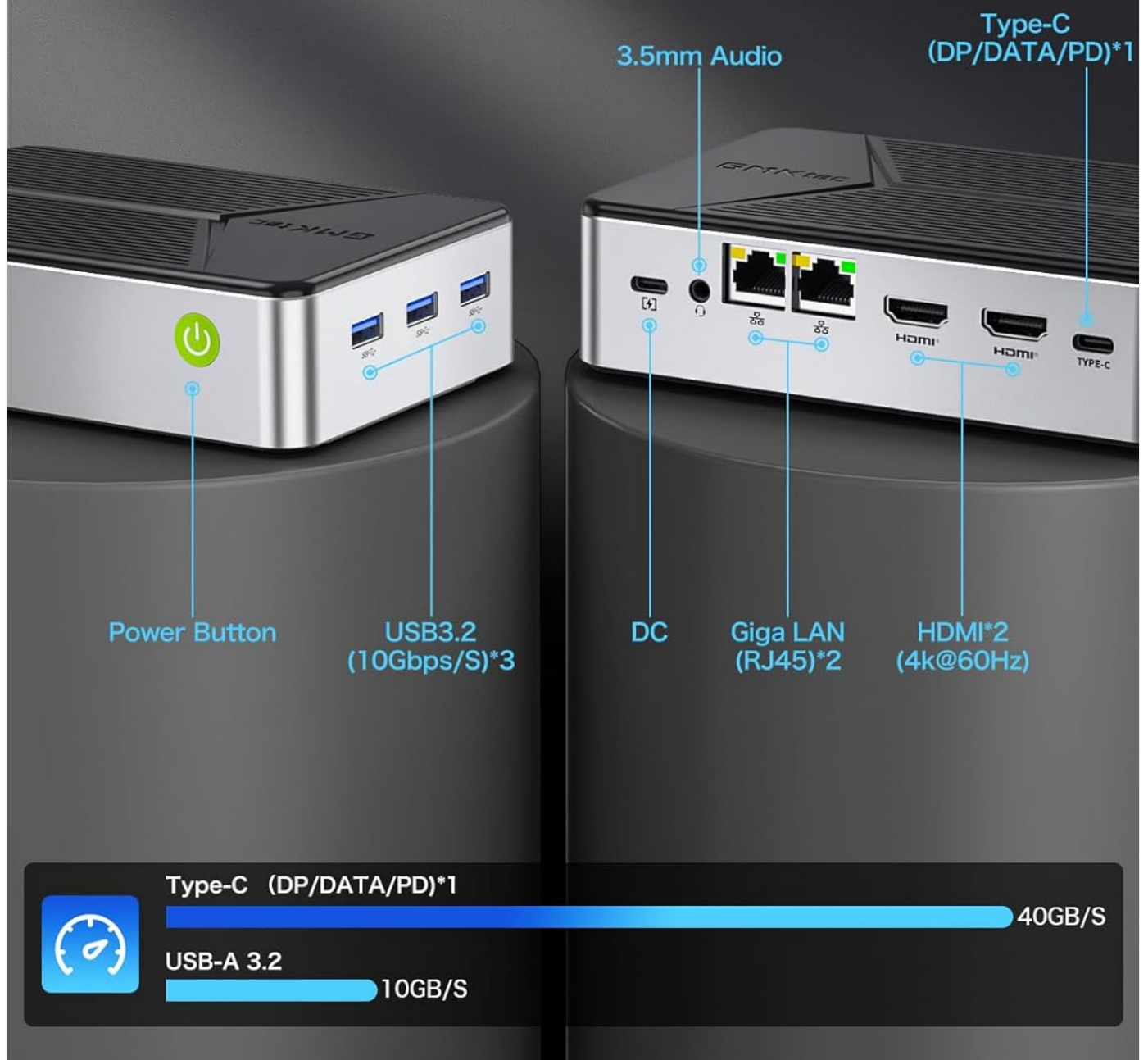
# MULTI PORTS FOR MULTI PURPOSE

3.5mm Audio

Type-C
(DP/DATA/PD)*1

Power Button

USB3.2
(10Gbps/S)*3

DC

Giga LAN
(RJ45)*2

HDMI*2
(4k@60Hz)

Type-C  (DP/DATA/PD)*1

40GB/S

USB-A 3.2

10GB/S

Image 3.1: A detailed view of the GMKtec G9 Mini PC's front and rear ports, including USB, HDMI, Type-C, and Ethernet connections.

## 4. SETUP INSTRUCTIONS

## 4.1. Connecting Peripherals

1. **Connect Display:** Use the HDMI cable to connect your monitor(s) to the HDMI ports on the rear panel. For a third display, use the Type-C port with a compatible adapter or monitor.
2. **Connect Input Devices:** Plug your USB keyboard and mouse into the available USB 3.2 ports.
3. **Connect Network (Optional):** For a wired connection, plug an Ethernet cable into one of the 2.5GbE RJ45 ports. For wireless, ensure your WiFi network is available during initial setup.
4. **Connect Power:** Plug the power adapter into the DC power input on the rear panel, then connect it to a power outlet.

## 4.2. Powering On

Press the power button located on the front panel. The power indicator light will illuminate.

## 4.3. Initial Boot and OS Selection

The GMKtec G9 comes pre-installed with Windows 11 Pro (default) and Ubuntu 24.10 (or higher). During startup, you may be prompted to select your desired operating system. Follow the on-screen instructions to complete the initial setup for your chosen OS.

## 4.4. Placement Options

The compact design of the G9 Mini PC allows for flexible placement. It can be placed horizontally on a desktop or mounted behind a monitor using the included VESA mount.



Image 4.1: Examples of the GMKtec G9 Mini PC's versatile placement, including VESA mounting for space-saving and traditional desktop placement.

## 5. OPERATING INSTRUCTIONS

## 5.1. Dual Boot System

To switch between Windows 11 Pro and Ubuntu, restart the Mini PC. During the boot sequence, press the designated key (often F7, F10, F11, or DEL, refer to your system's boot menu instructions) to access the boot device selection menu and choose your preferred operating system.

## 5.2. Network Connectivity

The G9 Mini PC supports both wired and wireless network connections.

- **Wired Network:** Utilize the dual 2.5GbE RJ45 ports for high-speed, stable wired connections. These ports offer up to 2.5 times faster speeds than standard Gigabit Ethernet.
- **Wireless Network:** The device features WiFi 6 (802.11ax) for fast wireless connectivity up to 600Mbps. Bluetooth

5.2 is also integrated for connecting wireless peripherals.



Image 5.1: Illustration of the dual 2.5GbE Ethernet ports and their enhanced data transfer speeds.



Image 5.2: Visual representation of the Mini PC's WiFi 6 and Bluetooth 5.2 capabilities, alongside its 2.5G LAN ports.

## 5.3. Display Configuration

The G9 Mini PC supports up to three 4K@60Hz displays simultaneously, utilizing its two HDMI 2.0 ports and one full-function Type-C port. This allows for an extended workspace for multitasking, design, or entertainment.

Image 5.3: The GMKtec G9 Mini PC demonstrating its triple display output capability, enhancing productivity across multiple screens.

## 5.4. NAS Functionality

The G9 Mini PC is equipped with four M.2 2280 PCIe slots, enabling it to function as a Network Attached Storage (NAS) device. This allows for significant storage expansion and various applications:

- **Massive Storage:** Expand storage up to 16TB (4x 4TB M.2 NVMe SSDs) for backing up files, photos, and videos.
- **Media Streaming Server:** Stream media content seamlessly to various devices on your network.
- **Budget Homelab:** Create a home network for data storage, surveillance systems, or hosting servers.
- **Host Backup:** Implement local and off-site backup solutions for your data.

*Note: GMKtec does not provide NAS software. Users are responsible for installing and configuring appropriate NAS software.*



Image 5.4: Diagram illustrating the four M.2 NVMe slots for storage expansion, supporting up to 16TB for NAS functionality.

## 5.5. USB-C Port Usage

The Type-C port on the rear panel is a full-function port, supporting:

- **DisplayPort (DP):** For video output to compatible monitors.
- **Data Transfer:** High-speed data transfer.
- **Power Delivery (PD):** Can receive power from a compatible USB-C power source.



Image 5.5: Diagram explaining the multi-functional capabilities of the USB-C port, including Power Delivery, data, audio, and video output.

## 6. MAINTENANCE

## 6.1. Cleaning

Regularly clean the exterior of the Mini PC with a soft, dry cloth. Ensure ventilation openings are free from dust and obstructions to maintain optimal airflow.

## 6.2. Storage Expansion

The GMKtec G9 supports up to four M.2 2280 PCIe SSDs for storage expansion. To install or replace an SSD:

1. Power off the device and disconnect all cables.
2. Carefully remove the bottom cover of the Mini PC.
3. Locate the M.2 slots and insert the SSDs according to the diagram.
4. Secure the SSDs with the provided screws.
5. Replace the bottom cover.



Image 6.1: Step-by-step guide for installing M.2 2280 SSDs into the GMKtec G9 Mini PC.

## 6.3. Cooling System

The G9 Mini PC features a triple cooling fan system, including a large fan for the CPU and two smaller fans for the SSD/DDR compartments. This design ensures efficient heat dissipation while maintaining low noise levels (33-36dB).



Image 6.2: Exploded view of the GMKtec G9 Mini PC, highlighting its internal components and triple cooling fan system.

## 7. TROUBLESHOOTING

This section addresses common issues you might encounter with your GMKtec G9 Mini PC.

| Issue | Possible Cause | Solution |
|---|---|---|
| No Power | Power cable not connected; Power adapter faulty; Power outlet issue. | Ensure power cable is securely connected. Test with another power outlet. Contact support if adapter is suspected faulty. |
| No Display | Monitor cable loose; Incorrect input selected on monitor; Monitor faulty. | Check HDMI/Type-C cable connections. Ensure monitor is on correct input. Test with another monitor or cable. |
| No Network Connection (Wired) | Ethernet cable loose/faulty; Router/modem issue; Network driver issue. | Check Ethernet cable connection. Restart router/modem. Verify network drivers are installed in OS. |
| No Network Connection (Wireless) | WiFi disabled; Incorrect password; Router too far; Driver issue. | Ensure WiFi is enabled in OS. Re-enter WiFi password. Move closer to router. Update WiFi drivers. |
| Slow Performance | Too many applications running; Overheating; Low storage space. | Close unnecessary applications. Ensure proper ventilation. Free up disk space. |

## 8. TECHNICAL SPECIFICATIONS

Below are the detailed technical specifications for the GMKtec G9 Mini PC NAS.

| Feature | Specification |
|---|---|
| Processor | Intel N150 (4 Cores, 4 Threads, 6MB Cache, up to 3.6GHz) |
| Graphics | Intel UHD Graphics (up to 1000MHz) |
| RAM | 12GB LPDDR5 4800MHz |
| Storage | 64GB eMMC + 512GB M.2 2280 PCIe 3.0 SSD (Supports 4x M.2 2280 PCIe slots, Max 16TB total) |
| Operating System | Windows 11 Pro (Default) & Ubuntu 24.10 (or higher) Dual Boot |
| Ethernet | Dual Intel i226V 2.5 Gigabit Ethernet (RJ45) |
| Wireless Connectivity | WiFi 6 (802.11ax), Bluetooth 5.2 |
| Video Output | 2x HDMI (4K@60Hz), 1x Type-C (DP/DATA/PD) - Triple Display Support |
| USB Ports | 3x USB 3.2 (10Gbps) |
| Audio | 3.5mm Audio Jack |
| Special Features | Wake On LAN, PXE Boot, RTC Wake, Auto Power On, VESA Mount Support |
| Dimensions | Approx. 7.28 x 6.02 x 4.09 inches |

| Feature | Specification |
|---------|---------------|
| Weight | Approx. 2.44 pounds |

## 9. WARRANTY AND SUPPORT

GMKtec provides comprehensive support for your Mini PC.

### 9.1. Warranty Information

GMKtec offers a 1-year limited warranty for each Mini PC, effective from the date of purchase. This warranty covers defects due to design and workmanship. Please retain your proof of purchase for warranty claims.
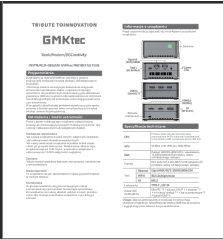
### 9.2. Customer Support

For any technical assistance or inquiries, please contact our professional after-sales team:

- **Amazon Support:** For purchases made on Amazon, log in to your Amazon account, navigate to 'Your Orders', and select 'Ask Product Question' for direct assistance.
- **Email Support:** You can also reach our after-sales team directly via email at support@gmktec.com. Our team is available 24/7.



Image 9.1: Information on how to contact GMKtec for warranty and support services.

### Related Documents - G9



[GMKtec NUCBOX G2 PLUS User Manual and Safety Information](#)
Comprehensive user manual for the GMKtec NUCBOX G2 PLUS mini PC, covering setup, specifications, safety precautions, and warranty information. Includes detailed descriptions of hardware interfaces and operational guidelines.

| | |
|---|---|
|  | [GMKtec M6 Mini PC User Manual](#)<br>Comprehensive user manual for the GMKtec M6 Mini PC, detailing specifications, setup, operation, and troubleshooting for this compact desktop computer powered by AMD R5 6600H. |
|  | [GMKtec NUCBOX G3 PLUS User Manual and Specifications](#)<br>Comprehensive user manual for the GMKtec NUCBOX G3 PLUS mini PC, covering setup, specifications, safety precautions, and warranty information. Includes detailed descriptions of hardware interfaces and technical details. |
|  | [Instrukcja Obsługi GMKtec NUCBOX G3 PLUS - Mini PC](#)<br>Szczegółowa instrukcja obsługi dla mini PC GMKtec NUCBOX G3 PLUS. Zawiera informacje o specyfikacjach, podłączeniu, bezpieczeństwie i konserwacji. |
|  | [GMKtec NUCBOX7/7S User Manual](#)<br>User manual for the GMKtec NUCBOX7 and NUCBOX7S mini PCs, detailing specifications, safety precautions, connection steps, and after-sales support. |
| TRIBUTE TO INNOVATION<br><br>**GMKtec**<br><br>Geek/Modern/(K)Creativity<br><br>Instrukcja obsługi<br>GMKTEC NUCBOX G5 | [GMKtec NUCBOX G5 User Manual and Specifications](#)<br>This document provides a user manual, specifications, and setup guide for the GMKtec NUCBOX G5 Mini PC. It covers safety precautions, device interfaces, technical specifications, connection steps, and basic settings. |