

GMKtec G9 PLUS 12GB DDR5 + 1TB SSD

GMKtec G9 Plus Mini PC NAS User Manual

Model: G9 PLUS 12GB DDR5 + 1TB SSD

1. INTRODUCTION

The GMKtec G9 Plus is a versatile mini PC designed for both traditional desktop computing and Network Attached Storage (NAS) functionalities. Featuring an Intel N150 CPU, 12GB DDR5 RAM, and a 1TB M.2 SSD, it offers robust performance for daily tasks, office work, and home entertainment. Its unique design includes four M.2 2280 PCIe slots for extensive storage expansion, making it an ideal solution for creating a personal cloud or media server. This manual provides essential information for setting up, operating, maintaining, and troubleshooting your G9 Plus Mini PC.



Image: The GMKtec G9 Plus Mini PC, showcasing its compact design and accessible internal components for storage expansion.

2. WHAT'S IN THE BOX

Upon unboxing your GMKtec G9 Plus Mini PC, please verify that all the following items are included:

- GMKtec Nucbox G9 Mini PC Intel Twin Lake N150 12GB RAM +64GB & 1TB Hard Drive
- Power Supply & Cable
- HDMI Cable
- VESA Mount and Screws
- User Manual (this document)

3. PRODUCT FEATURES

The GMKtec G9 Plus is engineered with advanced features to provide a powerful and flexible computing experience:

3.1. Hybrid Mini PC & NAS Capabilities

The G9 mini PC integrates 4x M.2 2280 PCIe slots, allowing it to function as a Network Attached Storage (NAS) device alongside its standard PC features. It is powered by the latest Twin Lake N150 CPU (4 Cores, 4 Threads, 6MB cache, up to 3.6GHz burst speed), offering improved performance over previous generations.

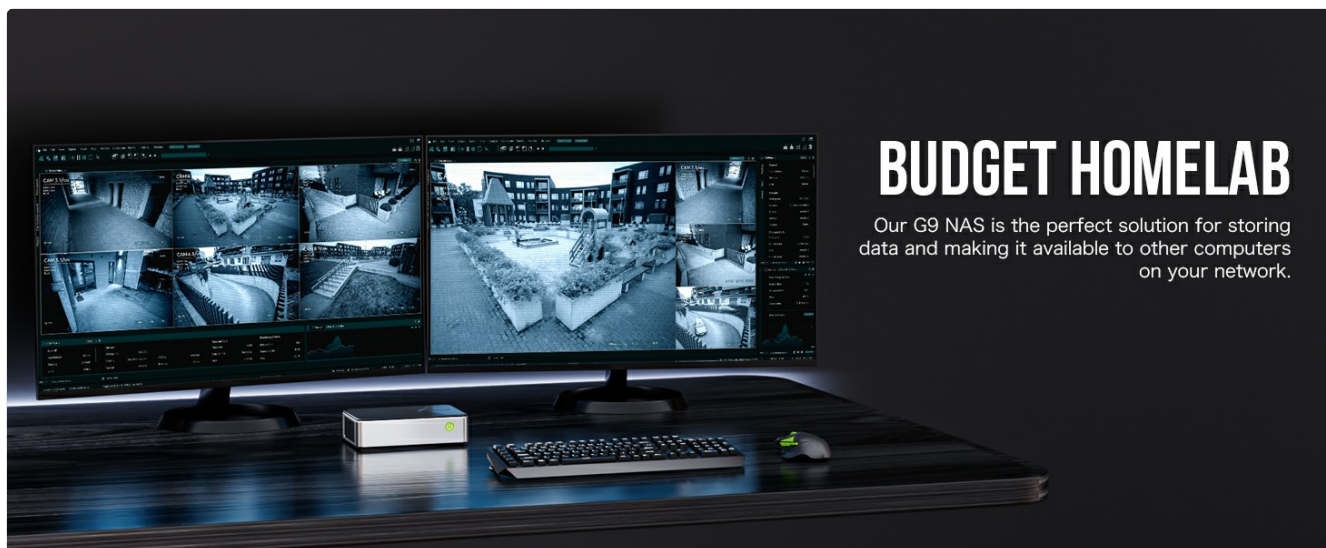


Image: Internal components and cooling system of the GMKtec G9 Plus, highlighting the Intel N150 processor and memory.

3.2. Extensive NAS Storage Expansion

Transform your G9 Plus into a massive storage network. With four M.2 NVMe slots, you can expand storage up to 16TB (4TB per slot), enabling file backups, photo sharing, and video streaming. While GMKtec does not provide NAS software, the hardware supports hosting servers and creating a home network for multiple users.

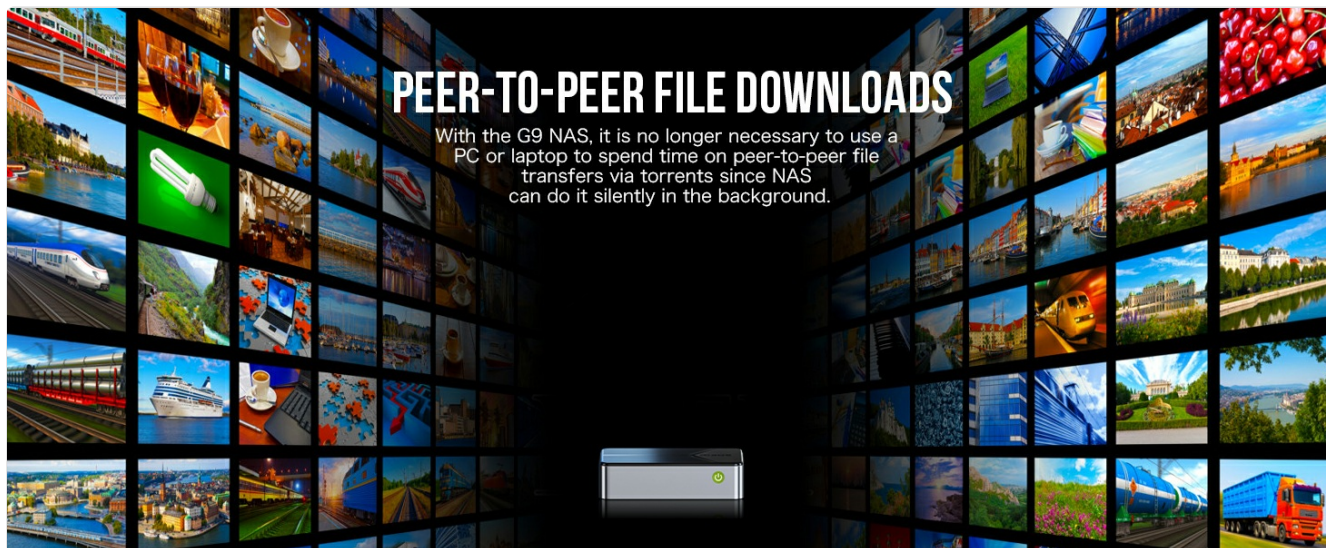


Image: The four M.2 NVMe slots for significant storage expansion, allowing up to 16TB total capacity.

3.3. Dual Boot Operating Systems

The G9 mini PC comes pre-installed with Windows 11 Pro (default OS) on the SSD and Ubuntu 24.10 Version (or higher) on the 64GB eMMC storage, offering flexibility for different computing needs.



Image: The G9 Plus supporting dual boot functionality, displaying both Windows and Ubuntu interfaces.

3.4. Rich Connectivity Interface

Equipped with multiple ports for versatile connectivity: 3x USB 3.2 (10Gbps), 2x HDMI (4K@60Hz), 1x Type-C (DP/DATA/PD), and a 3.5mm Audio Jack. It supports WiFi 6, Bluetooth 5.2, and dual Gigabit Ethernet RJ45 2.5GbE network connectivity, making it compatible with various devices like servers, monitoring equipment, and displays.



Image: Detailed view of the rich interface on the GMKtec G9 Plus, including USB, HDMI, Type-C, and Ethernet ports.

3.5. Advanced Cooling Solution

The G9 PLUS features upgraded cooling with additional ventilation on the top and sides. It includes three cooling fans: two for the SSD/DDR compartments and a large fan for the CPU, ensuring optimal temperature management with minimal noise (33-36dB).



Image: An exploded view illustrating the triple cooling fan system and ventilation design for efficient heat dissipation.

3.6. Dual 2.5GbE Ethernet

Equipped with Dual Intel i226v 2.5 Gigabit Ethernet ports, providing up to 2.5 times faster speeds than 1.0GbE. This feature

is compatible with various operating systems and server applications like Ubuntu, Proxmox, Firewall Server, and ESXI VMware.



Image: Visual representation of the dual 2.5GbE Ethernet ports, emphasizing faster network speeds.

3.7. Wireless Connectivity (WiFi 6 & Bluetooth 5.2)

Features 802.11ax WiFi 6 for speeds up to 600Mbps and Bluetooth 5.2 for connecting multiple wireless devices. Supports Wake On LAN, PXE Boot, RTC Wake, and Auto Power On, making it suitable for server applications.



Image: Icons representing WiFi 6, Bluetooth 5.2, and 2.5G LAN connectivity options.

3.8. Triple Display Support

Connect up to three displays simultaneously using the dual HDMI and full-function Type-C interfaces, supporting 4K resolution at 60Hz for extended workspace or multimedia applications.

TRIPLE DISPLAY

2*HDMI 4K+Type C 4K
Easily Office, Film and Television, Design



Image: A setup demonstrating the GMKtec G9 Plus connected to three external monitors for a multi-display experience.

3.9. VESA Mount & Desktop Placement

The compact design allows for flexible placement, either on a desktop or mounted behind a monitor using the included VESA mount, saving valuable desk space.

SPACE-SAVING VESA INSTALLATION & DESKTOP PLACEMENT



Desktop Placement



VESA Installation

Image: Examples of the GMKtec G9 Plus in both desktop placement and VESA mount configurations.

4. SETUP GUIDE

Follow these steps to set up your GMKtec G9 Plus Mini PC:

1. Connect Peripherals:

- Connect your monitor(s) to the HDMI ports or the Type-C port (with a compatible adapter/cable) on the back of the mini PC.
 - Connect your keyboard and mouse to the USB 3.2 ports.
 - If using a wired network, connect an Ethernet cable to one of the 2.5GbE RJ45 ports.
2. **Power Connection:** Connect the power supply to the DC-in port on the mini PC, then plug the power cable into a wall outlet.
 3. **Power On:** Press the power button on the front of the mini PC. The power indicator light will illuminate.
 4. **Initial OS Setup:** The system will boot into Windows 11 Pro by default. Follow the on-screen instructions to complete the initial Windows setup. If you wish to use Ubuntu, you can switch the operating system after the initial setup (refer to Section 5.1).

5. OPERATING INSTRUCTIONS

This section provides guidance on operating your GMKtec G9 Plus Mini PC.

5.1. Switching Between Operating Systems (Dual Boot)

To switch between Windows 11 Pro and Ubuntu, restart the mini PC. During startup, repeatedly press the designated key (usually F7 or Delete, refer to your BIOS/UEFI settings for exact key) to enter the boot menu. From the boot menu, select your desired operating system.

5.2. Utilizing NAS Features

The G9 Plus provides the hardware foundation for a powerful NAS. To enable NAS functionalities, you will need to install and configure appropriate NAS software (e.g., TrueNAS, OpenMediaVault, or a Linux distribution with NAS services). GMKtec does not provide this software. Once configured, you can:

- **Backup Files:** Create centralized backups for all your devices.
- **Share Data:** Easily share photos, documents, and other files across your network.
- **Stream Media:** Use the G9 Plus as a media server to stream videos and music to connected devices within your home network.
- **Host Services:** Depending on the software, you can host various network services or applications.

MEDIA STREAMING SERVER HUB

Using our G9 NAS allows for seamless streaming of all your movies and music on any of your devices, including phones, tablets, laptops, and TVs. Stream HD movies or play your favorite tunes in or outside your home.



Image: The GMKtec G9 Plus functioning as a media streaming server hub, connected to a display.

6. MAINTENANCE

Proper maintenance ensures the longevity and optimal performance of your mini PC:

- **Cleaning:** Regularly clean the exterior of the mini PC with a soft, dry cloth. Use compressed air to gently clear dust from the ventilation openings to ensure proper airflow and cooling. Do not use liquid cleaners directly on the device.
- **Ventilation:** Ensure the mini PC is placed in a well-ventilated area, away from direct sunlight or heat sources. Do not block the ventilation holes.
- **Software Updates:** Keep your operating system (Windows or Ubuntu) and drivers updated to the latest versions to ensure security, stability, and performance.
- **Data Backup:** Regularly back up important data to an external drive or cloud storage to prevent data loss.

7. TROUBLESHOOTING

If you encounter issues with your GMKtec G9 Plus, refer to the following common troubleshooting steps:

- **No Display:**
 - Ensure the monitor is properly connected and powered on.
 - Try a different HDMI or Type-C cable.
 - Test with a different monitor if available.
- **No Power:**
 - Verify the power adapter is securely connected to both the mini PC and the power outlet.
 - Check if the power outlet is functional by plugging in another device.
- **Network Connectivity Issues:**
 - **Wired:** Ensure the Ethernet cable is securely connected to both the mini PC and the router/modem. Check router status.
 - **Wireless:** Verify WiFi is enabled in the OS. Check if the correct WiFi network is selected and the password is entered correctly. Restart your router.
- **Slow Performance:**
 - Close unnecessary applications running in the background.
 - Ensure sufficient free space on the SSD.
 - Check for and install any pending OS updates.
 - Monitor CPU and RAM usage in Task Manager (Windows) or System Monitor (Ubuntu).
- **Excessive Fan Noise:**
 - Ensure the mini PC is in a well-ventilated area and not obstructed.
 - Clean dust from the ventilation openings using compressed air.
 - If the noise persists and is unusually loud, contact customer support.

8. SPECIFICATIONS

Detailed technical specifications for the GMKtec G9 Plus Mini PC:

Feature	Specification
Brand	GMKtec
Model Series	G9
Processor	Intel N150 (3.6 GHz, 4 Cores, 4 Threads, 6MB Cache)
RAM	12GB LPDDR5 (4800 MHz)
Internal Storage	1TB PCIe3.0 M.2 2280 NVMe SSD + 64GB eMMC
Storage Expansion	4x M.2 2280 NVMe Slots (Max 16TB total, 4TB per slot)
Graphics Coprocessor	Intel Graphics (up to 1000MHz)
Operating System	Support Win 11 Pro, Linux (Ubuntu 24.10 or higher pre-installed)
Video Output	2x HDMI (4K@60Hz), 1x Type-C (DP/DATA/PD) - Triple Display Support
USB Ports	3x USB 3.2 (10Gbps), 1x Type-C (DP/DATA/PD)
Network Connectivity	Dual Intel i226v 2.5GbE RJ45, WiFi 6 (802.11ax), Bluetooth 5.2
Audio	3.5mm Audio Jack
Cooling	Upgraded Cooling Solution with Triple Fans (CPU, SSD/DDR)
Special Features	Wake On LAN, PXE Boot, RTC Wake, Auto Power On
Item Weight	2.51 pounds
Package Dimensions	7.2 x 5.98 x 4.09 inches
Color	Black

9. WARRANTY AND SUPPORT

GMKtec offers a 1-year limited warranty for each mini PC, effective from the date of purchase. This warranty covers all defects attributed to design and workmanship. For any inquiries or assistance, please contact GMKtec customer support. Their professional after-sales team is available to address your needs and ensure a satisfactory experience with your mini PC.