

GMKtec K6

GMKtec Nucbox K6 Gaming Mini PC User Manual

Model: K6

1. INTRODUCTION

Welcome to the user manual for your GMKtec Nucbox K6 Gaming Mini PC. This compact yet powerful desktop computer is designed to deliver exceptional performance for gaming, productivity, and creative tasks. Featuring an AMD Ryzen 7 7840HS processor and Radeon 780M graphics, it offers a robust computing experience in a small form factor.

Key features include:

- Powerful AMD Ryzen 7 7840HS CPU (8 Cores, 16 Threads, up to 5.1 GHz)
- High-performance AMD Radeon 780M Graphics (12 Cores, 2700MHz)
- Dual-channel 5600MHz DDR5 RAM (up to 64GB supported)
- Dual M.2 2280 PCIe 4.0 SSD slots (up to 4TB total storage)
- Triple display support via HDMI 2.0, Type-C (USB4.0), and DP1.4 (4K@60Hz)
- Dual 2.5Gbps LAN ports for high-speed wired networking
- Built-in Wi-Fi 6E (RZ616) and Bluetooth 5.2 for wireless connectivity

2. WHAT'S IN THE BOX

Upon unboxing your GMKtec Nucbox K6, please ensure all the following items are present:

- 1x GMKtec Nucbox K6 Mini PC
- 1x VESA Mount
- 1x HDMI Cable
- 1x Power Adapter
- 1x Screws



Image: Contents of the GMKtec Nucbox K6 retail box.

3. SETUP

Follow these steps to set up your GMKtec Nucbox K6 Mini PC:

1. **Connect Peripherals:** Connect your monitor(s) to the HDMI, DisplayPort, or USB4 (Type-C) ports. Connect your keyboard and mouse to the available USB ports.
2. **Connect to Network:** For wired internet, connect an Ethernet cable to one of the 2.5GbE LAN ports. For wireless internet, the device supports Wi-Fi 6E.
3. **Connect Power:** Plug the power adapter into the DC IN port on the mini PC, then plug the adapter into a power outlet.
4. **Power On:** Press the power button located on the front of the device. The power indicator light will illuminate.
5. **Initial Setup:** The Nucbox K6 comes pre-installed with Windows 11 Pro. Follow the on-screen prompts to complete the initial Windows setup, including language, region, network connection, and user account creation.



Image: Front and rear connectivity options of the Nucbox K6.

4. OPERATING

The GMKtec Nucbox K6 is designed for versatile use, from everyday computing to demanding applications.

4.1 General Usage

With its powerful AMD Ryzen 7 7840HS processor and ample 32GB DDR5 RAM, the Nucbox K6 handles multitasking with ease. You can comfortably run multiple applications simultaneously, browse the web with numerous tabs, and manage complex documents without performance degradation.

4.2 Gaming Performance

Equipped with the AMD Radeon 780M graphics, the Nucbox K6 offers impressive gaming capabilities for a mini PC. It can run many modern games at playable frame rates, especially with optimized settings. Older and less graphically intensive games will perform exceptionally well, often exceeding 60 frames per second. For more demanding titles, adjusting in-game graphics settings can significantly improve performance.

4.3 Video Editing & Graphic Design

The Nucbox K6 is well-suited for creative professionals. Its powerful CPU and integrated GPU provide sufficient processing power for video editing, graphic design, and 3D rendering tasks. While it may not match the performance of high-end dedicated workstations for extremely complex projects, it offers a highly capable and portable solution for daily creative workflows.

4.4 Triple Display Setup

Enhance your productivity by connecting up to three displays simultaneously. The Nucbox K6 supports 4K@60Hz output across its HDMI 2.0, DisplayPort 1.4, and USB4.0 (Type-C) interfaces, allowing for an expansive and immersive workspace.



Image: Triple-screen display setup with the Nucbox K6.



Image: Nucbox K6 supporting graphic design applications.

5. MAINTENANCE

Regular maintenance ensures optimal performance and longevity of your Nucbox K6.

5.1 RAM and SSD Upgrades

The Nucbox K6 features a disassembled design, making RAM and SSD upgrades easy and convenient. It supports dual-channel 5600MHz DDR5 SO-DIMM modules, with a maximum capacity of 64GB (32GB*2). For storage, it includes two M.2 2280 PCIe 4.0 slots, allowing for up to 4TB (2TB*2) of high-speed SSD storage. Refer to the internal layout image for component locations.

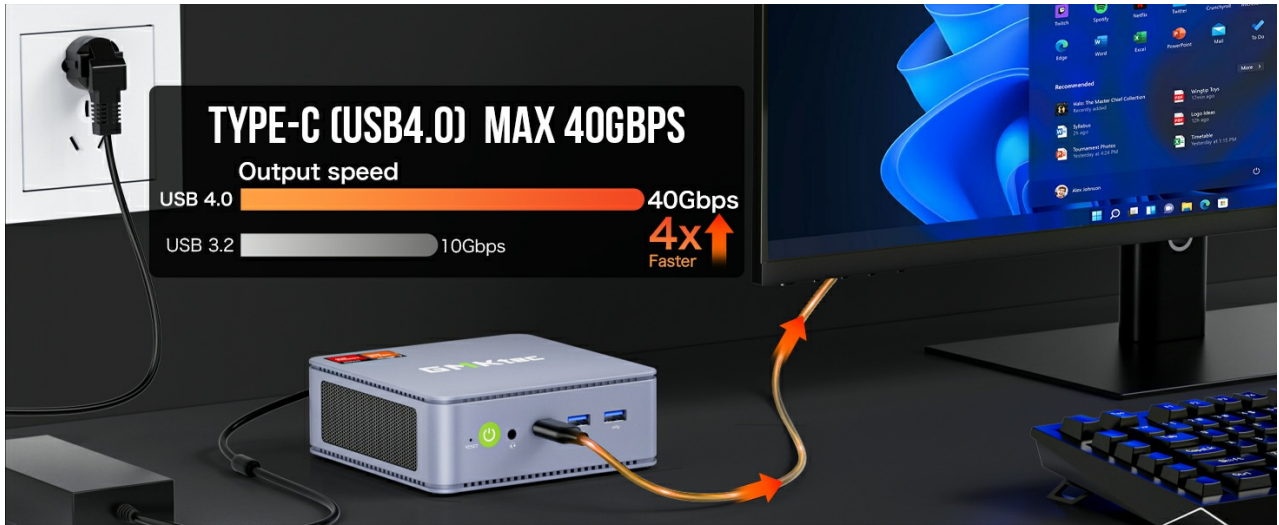


Image: Internal components and upgrade paths for RAM and SSD.

5.2 Cooling System

The Nucbox K6 is equipped with a dual-fan cooling system designed to efficiently dissipate heat from both the CPU and SSD/DDR components. This ensures stable and efficient operation even under heavy loads. The Thermal Design Power (TDP) can be adjusted in the BIOS with modes for 45W, 55W, and 65W to balance performance and acoustics.



Image: Dual-fan cooling system design.

6. TROUBLESHOOTING

If you encounter any issues with your Nucbox K6, please refer to the following common troubleshooting tips:

- **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 your monitor(s) are correctly connected to the mini PC's video output ports (HDMI, DP, Type-C) and that the monitor is set to the correct input source. Try a different cable or monitor if possible.

- **Windows Activation:** If Windows requires re-activation after an upgrade or change, navigate to Windows Settings > System > Activation. Windows 11 Pro is pre-licensed and should activate automatically via the digital license linked to the motherboard.
- **Performance Issues:** Ensure the mini PC has adequate ventilation. Check background applications and close any unnecessary programs. Consider adjusting TDP settings in the BIOS for higher performance modes if needed.
- **Fan Noise:** The Nucbox K6 features a dual-fan cooling system. Under heavy load, the fans will increase speed to maintain optimal temperatures, which may result in audible fan noise. This is normal operation.

7. SPECIFICATIONS

Feature	Specification
Processor	AMD Ryzen 7 7840HS (8C/16T, 3.8-5.1 GHz)
Graphics	AMD Radeon 780M (12 Core, 2700MHz)
RAM	32GB DDR5 5600MHz (2 SO-DIMM slots, Max 64GB)
Storage	2TB PCIe 4.0*4 M.2 2280 SSD (Dual Slots, Max 4TB)
Video Output	HDMI 2.0 (4K@60Hz), Type-C (USB4.0, 40Gbps), DP1.4 (4K@60Hz)
Network	Dual 2.5Gbps LAN, Wi-Fi 6E (RZ616), Bluetooth 5.2
USB Ports	3x USB 3.0, 1x USB 2.0, 1x Type-C (USB4.0)
Operating System	Windows 11 Pro
Dimensions (LxWxH)	5.07 x 5 x 1.88 inches
Weight	3.58 pounds

8. WARRANTY AND SUPPORT

GMKtec offers a 1-year limited warranty for each mini PC, starting from the date of purchase. This warranty covers all defects due to design and workmanship. For any assistance or inquiries, GMKtec provides professional after-sales support.

You can contact the support team through the following methods:

- **Contact Us on Amazon:** Log in to your Amazon account, navigate to 'Your Orders', and select 'Product Question' for assistance.
- **Send E-mail to After-Sales Team:** support@gmktec.com
- **24/7 Customer Support:** Available for your convenience.



Image: GMKtec Warranty & Support contact information.

Related Documents - K6

	<p>Instrukcja obsługi GMKtec NUCBOX K11</p> <p>Kompleksowa instrukcja obsługi mini PC GMKtec NUCBOX K11, zawierająca szczegółowe informacje o konfiguracji, specyfikacjach technicznych, środkach ostrożności, gwarancji i zgodności z normami środowiskowymi. Idealna dla użytkowników poszukujących wsparcia technicznego i optymalizacji urządzenia.</p>
	<p>GMKtec NUCBOX K6 User Manual and Specifications</p> <p>Comprehensive user manual and technical specifications for the GMKtec NUCBOX K6 mini PC, covering setup, operation, safety, and compliance information.</p>
	<p>Instrukcja Obsługi GMKtec NUCBOX K5/K6/K8</p> <p>Szczegółowa instrukcja obsługi dla komputerów mini PC GMKtec NUCBOX K5, K6 i K8, zawierająca informacje o konfiguracji, specyfikacjach technicznych, bezpieczeństwie, konserwacji i zgodności.</p>
	<p>Návod k obsluze GMKtec NUCBOX G3: Specifikace a Bezpečnostní Pokyny</p> <p>Kompletní uživatelský manuál pro GMKtec NUCBOX G3 mini PC. Obsahuje informace o specifikacích, připojení, bezpečnosti, údržbě a záruce produktu.</p>
	<p>GMKtec NUCBOX K1/K2 Mini PC User Manual - Setup, Specifications, and Support</p> <p>Comprehensive user manual for the GMKtec NUCBOX K1 and K2 Mini PCs, detailing setup procedures, technical specifications for both models, connectivity options, warranty information, and customer support contacts.</p>



[GMKtec NUCBOX M7 Mini PC User Manual](#)

Comprehensive user manual for the GMKtec NUCBOX M7 Mini PC, detailing setup, connection steps, technical specifications, safety precautions, and warranty information for optimal performance.