

[Manuals.plus](#) /

› [GMKtec](#) /

› GMKtec Nucbox K8 Plus Mini PC AMD Ryzen 7 8845HS User Manual

GMKtec K8 Plus

GMKtec Nucbox K8 Plus Mini PC User Manual

Model: K8 Plus

1. INTRODUCTION

This manual provides essential information for the safe and efficient use of your GMKtec Nucbox K8 Plus Mini PC. Please read these instructions carefully before operating the device and retain them for future reference. The Nucbox K8 Plus is a compact yet powerful mini PC designed for various applications, from gaming and content creation to office work and home theater.

RETAIL BOXED PACKAGING

- 1.Nucbox K8 Plus Mini PC
- 2.Power Supply & Cable
- 3.User Manual
4. HDMI Cable
- 5.VESA Mount with Screws



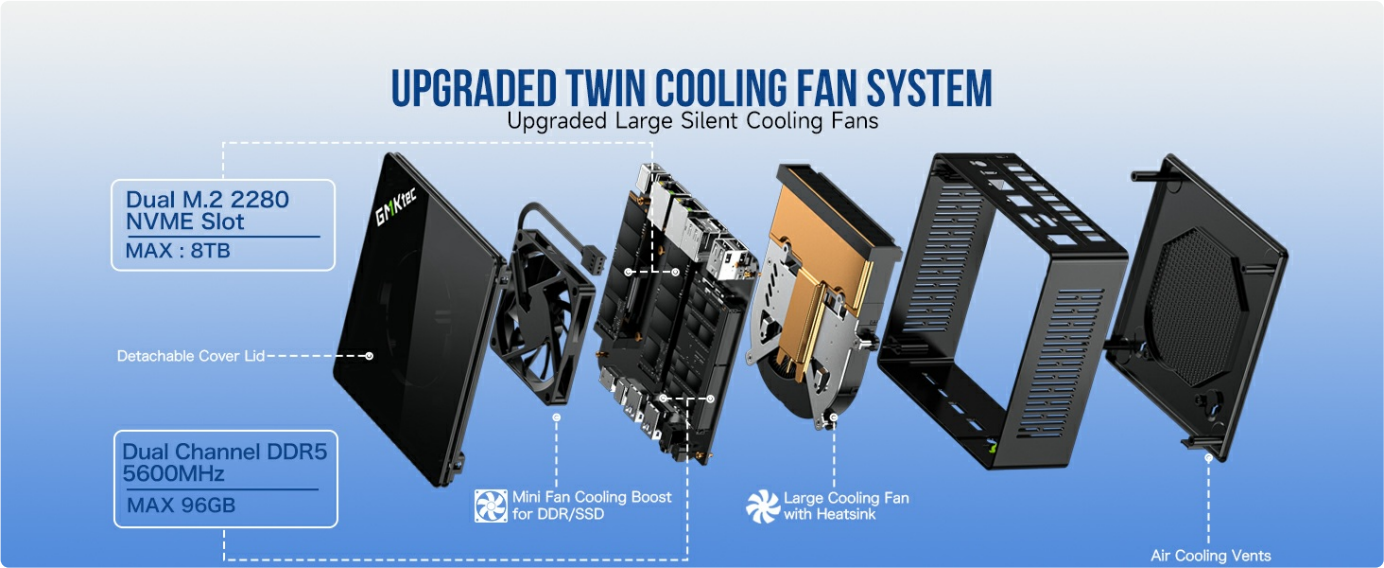
The GMKtec Nucbox K8 Plus Mini PC is designed for portability and efficiency.

2. PACKAGE CONTENTS

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

- 1x Nucbox K8 Plus Mini PC Unit
- 1x User Manual
- 1x HDMI Cable
- 1x Power Adapter

- 1x Power Cord
- 1x VESA Mount
- 1x Screw Set



Ensure all listed components are present in the retail packaging.

3. PRODUCT OVERVIEW

The GMKtec Nucbox K8 Plus is equipped with advanced hardware for high performance:

- **Processor:** AMD Ryzen 7 8845HS (8 Cores, 16 Threads, up to 5.1 GHz, 16MB L3 Cache) with integrated AMD Ryzen AI Engine.
- **Graphics:** Integrated AMD Radeon 780M GPU.
- **Memory:** Supports DDR5 RAM (up to 64GB, 5600MHz).
- **Storage:** Dual PCIe 4.0 M.2 2280 SSD slots (up to 8TB total).
- **Operating System:** Pre-installed with Windows 11 Pro.
- **Connectivity:** Dual 2.5G LAN, WiFi 6E (2.4/5.0/6.0 GHz), Bluetooth 5.2.
- **Display Outputs:** HDMI 2.1, DisplayPort 2.1, 2x USB4 (DisplayPort Alt Mode) supporting up to four 8K displays.
- **Special Ports:** Oculink port for external graphics card connectivity.
- **Cooling:** Upgraded dual cooling fan system (top and bottom) for efficient heat dissipation.

silent mode
35W

balance mode
54W

performance mode
65W

70W

Power	CPU (Celcius)	Noise (dB)
Quiet (35-40W TDP)	50	32-35
Normal (54-60W TDP)	65	36-37
Performance (65-70W)	75	39-40

The VRAM memory allocation can be adjusted up to 16GB

3.1. Ports and Interfaces

Familiarize yourself with the available ports on your Mini PC:



**Upgraded version of Ryzen 8745 – [K8 Plus]
equipped with AI-powered Ryzen 7 8845HS processor**

The 8845 processor features an AI NPU for fast task response and boosted creativity, maximizing productivity with Windows 11 Copilot.

Item	Ryzen 7 8845HS	Ryzen 7 8745HS	Ryzen 7 7840HS	Core i9-13900HK
AI Capability	 Supports local AI acceleration. Future support for broader AI scenarios	 No AI engine	 No AI engine	 No AI engine
NPU Functionality	 The XDNA AI engine delivers powerful AI computing power of approximately 16 TOPS, suitable for running complex AI models and accelerating AI-related applications.	 No AI algorithm	 No AI algorithm	 No AI algorithm
iGPU FLOPS	4.30 (FP32 TFLOPS)	4.15 (FP32 TFLOPS)	4.15 (FP32 TFLOPS)	2.30 (FP32 TFLOPS)

iGPU FLOPS (A higher coefficient indicates a higher frequency, which improves game frame rates, graphics rendering speed, and AI computation efficiency.)

Front and rear view of the Nucbox K8 Plus ports.

- **Front Ports:** Power button, USB 3.2 Gen2 Type-A, USB 3.2 Gen2 Type-C, Audio Jack.
- **Rear Ports:** DC Power Input, HDMI 2.1, DisplayPort 2.1, 2x USB4 Type-C, 2x 2.5G LAN, 2x USB 3.2 Gen2 Type-A, Oculink.

3.2. Oculink Port

The Oculink port provides high-speed connectivity for external graphics cards, enhancing the PC's graphical performance.

Important: This interface does not support hot-swapping. Always plug and unplug the Oculink cable when the PC is powered off to prevent damage.

EASY INSTALLATION

Disassembled design, upgrade RAM and SSD easy and convenient

SSD M.2 2280

DUAL SLOT SSD M2 2280*2
MAX CAPACITY: 8TB

MAX 4TB EACH SLOT

DDR5 5600MHz

Dual Channel SO-DIMM*2
MAX CAPACITY: 96GB

MAX 96GB



The Oculink port allows connection to an external graphics card.

4. SETUP INSTRUCTIONS

1. **Connect Peripherals:** Connect your monitor(s) to the HDMI, DisplayPort, or USB4 ports. Connect your keyboard and

mouse to the available USB ports.

2. **Connect Network:** For a wired connection, connect an Ethernet cable to one of the 2.5G LAN ports. For wireless, ensure your WiFi network is available.
3. **Connect Power:** Plug the power adapter into the DC input port on the Mini PC, then plug the power cord into an electrical outlet.
4. **Power On:** Press the power button on the front of the Mini PC. The system will boot up.
5. **Initial Windows Setup:** Follow the on-screen instructions to complete the Windows 11 Pro setup, including language, region, network, and user account creation.

5. OPERATING INSTRUCTIONS

5.1. Power Modes

The Nucbox K8 Plus offers various power modes to optimize performance and power consumption:

- **Silent Mode (35W):** For quiet operation and low power consumption.
- **Balance Mode (54W):** A balanced setting for everyday tasks.
- **Performance Mode (65W):** For demanding applications requiring higher CPU performance.
- **Max Performance (70W):** Unleashes full power for intensive tasks like gaming or video editing.

You can typically switch between these modes via the operating system's power settings or dedicated software if provided by GMKtec.



Select the appropriate power mode for your tasks.

5.2. Multi-Display Setup

The Nucbox K8 Plus supports up to four displays simultaneously, with resolutions up to 8K@60Hz. Connect your monitors to the available HDMI 2.1, DisplayPort 2.1, and USB4 ports. Configure display settings within Windows (Right-click on desktop > Display settings).

GMKTEC UPGRADED HYPER ICE CHAMBER 2.0

Larger Top & Bottom Cooling Fan with Copper Base
Faster Cooling Speed with Less Noise Fans



Connect up to four displays for an expansive workspace.

6. MAINTENANCE

6.1. Cleaning

- Regularly clean the exterior of the Mini PC with a soft, dry cloth.
- Use compressed air to gently clear dust from the ventilation grilles to maintain optimal airflow and cooling performance.
- Do not use liquid cleaners directly on the device.

6.2. Hardware Upgrades (RAM/SSD)

The Nucbox K8 Plus features an easy-to-disassemble design for convenient RAM and SSD upgrades. Always power off and disconnect the Mini PC from the power source before performing any internal maintenance.



4K QUAD SCREENS DISPLAY VIA HDMI 2.1+DP2.1+USB4 (DUAL)

1*HDMI 2.1 (8K@60Hz)

1*DisplayPort 2.1 (8K@60Hz)

2*USB4 (40GB/S)



Upgrade RAM and SSD easily with the disassembled design.

- **RAM:** The device supports dual-channel DDR5 SO-DIMM memory, with a maximum capacity of 96GB.
- **SSD:** It features two M.2 2280 NVMe slots, supporting up to 4TB per slot for a total of 8TB.

6.3. Software Updates

Regularly check for and install Windows updates, driver updates, and BIOS updates to ensure optimal performance, security, and

compatibility. These can typically be found through Windows Update or the GMKtec official website.

7. TROUBLESHOOTING

If you encounter issues with your Mini PC, refer to the following common troubleshooting steps:

- **No Display:**
 - Ensure the monitor is powered on and correctly connected to the Mini PC.
 - Try a different display cable or monitor.
 - Verify the correct input source is selected on your monitor.
- **No Power:**
 - Check if the power adapter and cord are securely connected to both the Mini PC and the power outlet.
 - Test the power outlet with another device.
- **WiFi Connectivity Issues:**
 - Restart your router and the Mini PC.
 - Ensure WiFi is enabled in Windows settings.
 - Update your wireless network drivers.
 - If issues persist, try resetting the network adapter in Windows Device Manager.
- **Random Shutdowns/Restarts:**
 - Ensure the Mini PC has adequate ventilation and is not overheating.
 - Check for recent software or driver installations that might be causing conflicts.
 - Run a system diagnostic or check Windows Event Viewer for error messages.
- **Slow Performance:**
 - Check for background applications consuming resources.
 - Ensure sufficient free storage space on your SSD.
 - Verify that the power mode is set to 'Performance' or 'Max Performance' if needed.

8. SPECIFICATIONS

Feature	Detail
Brand	GMKtec
Model Number	K8Plus 32+512GB
Operating System	Windows 11 Pro
CPU Model	AMD Ryzen 7 8845HS
CPU Speed	Up to 5.1 GHz
CPU Cores	8
L3 Cache Size	16 MB

Feature	Detail
Graphics Processor	AMD Radeon 780M 2700MHz
VRAM Type	GDDR5
Installed RAM	32 GB DDR5
Max RAM Supported	64 GB
Memory Speed	5600 MHz
Storage Type	SSD (PCIe x4 interface)
Storage Capacity	512 GB (Configurable up to 8TB)
USB Ports	4 (including USB4)
HDMI Ports	1 (HDMI 2.1)
Display Outputs	HDMI, DisplayPort, USB-C (DisplayPort Alt Mode)
Max Display Resolution	7680x4320 pixels (8K)
Ethernet	Dual Intel i226V 2.5G NIC
Wireless Connectivity	WiFi 6E (2.4 GHz, 5.0 GHz, 6.0 GHz), Bluetooth 5.2
Power Consumption	35 Watts (TDP)
Cooling Method	Water Cooling (Enhanced large cooling fans)
Expansion Slots	2
Additional Features	Oculink Port, Built-in Microphone, VESA Mount support, Auto Power On, WOL, Fan Speed Control

9. WARRANTY AND SUPPORT

Your GMKtec Nucbox K8 Plus Mini PC comes with a **1-year warranty** from the date of purchase. This warranty covers manufacturing defects and hardware malfunctions under normal use.

For technical support, troubleshooting assistance beyond this manual, or warranty claims, please contact GMKtec customer service. You can typically find contact information on the official GMKtec website or through your retailer's support channels. When contacting support, please have your product model number (K8 Plus) and proof of purchase ready.

