

GMKtec K15

GMKtec K15 Mini PC AI Ultra 5 125U User Manual

Model: NucBox K15

INTRODUCTION

This manual provides essential information for setting up, operating, maintaining, and troubleshooting your GMKtec K15 Mini PC AI Ultra 5 125U. Please read this manual thoroughly before using the device to ensure optimal performance and longevity.

The GMKtec K15 is a high-performance mini PC featuring the Intel Core Ultra 5 125U processor with integrated AI capabilities, Intel Arc 140T GPU, 32GB DDR5 RAM, and a 1TB PCIe 4.0 SSD. It supports quad 8K displays and includes an Oculink port for external graphics expansion, making it suitable for gaming, video editing, and demanding multitasking environments.

PACKAGE CONTENTS

Before proceeding with the setup, verify that all items are present in the package:

- GMKtec NucBox K15 AI Mini PC Ultra 5 125U
- Power Supply & Cable
- HDMI Cable
- User Manual (this document)

Package Contents

1. NucBox K15 Mini PC
2. Service Card
3. Power Adapter
4. HDMI Cable
5. VESA
6. Instruction Manual



Image: Contents of the GMKtec K15 Mini PC retail package.

SETUP INSTRUCTIONS

1. **Connect Peripherals:** Connect your monitor(s) to the available HDMI 2.1, DisplayPort 1.4, or USB Type-C ports. Connect your keyboard and mouse to the USB ports.
2. **Connect Power:** Plug the power supply cable into the DC Power Input port on the mini PC, then connect the power adapter to an electrical outlet.
3. **Power On:** Press the power button located on the front panel of the mini PC. The system will boot up.
4. **Initial Operating System Setup:** Follow the on-screen instructions to complete the Windows 11 Pro setup, including language, region, network connection, and user account creation.

K15 — Intel AI Boost with Dedicated NPU

11 TOPS AI Power

Faster & Smarter than CPU/GPU alone

Smarter AI Apps

Optimized for video editing, voice assistants & more

Efficient & Cool

Dedicated AI engine reduces CPU load & lowers heat

- AI-enhanced creativity
- Smoother video conferencing
- Everyday smart computing
- Future-ready AI performance



Image: GMKtec K15 Mini PC connected to a display and peripherals.

OPERATING INSTRUCTIONS

Front and Rear Panel I/O

Familiarize yourself with the input/output ports on your GMKtec K15 Mini PC:

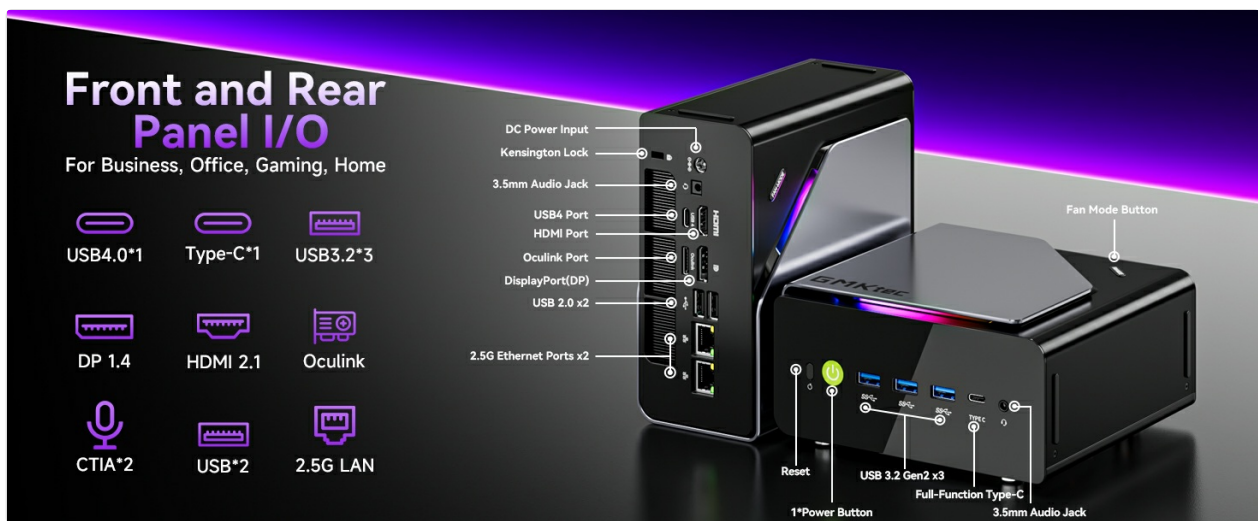


Image: Detailed view of the front and rear I/O ports.

- **Front Panel:** Power Button, USB 3.2 Gen2 x3, Full-Function Type-C, 3.5mm Audio Jack, Reset button.
- **Rear Panel:** DC Power Input, Kensington Lock, 3.5mm Audio Jack, USB4 Port, HDMI Port, Oculink Port, DisplayPort (DP), USB 2.0 x2, 2.5G Ethernet Ports x2, Fan Mode Button.

Multi-Display Setup

The K15 supports up to four 4K/8K displays simultaneously. Connect your monitors to the HDMI 2.1, DisplayPort 1.4, and USB Type-C (supporting DP1.4) ports. Configure display settings within your operating system.



Image: Quad 4K/8K display support for enhanced productivity.

Performance Modes

The K15 Mini PC offers three performance modes to balance power consumption and performance:

- **Silent Mode (15W):** Optimized for quiet operation and low power consumption.
- **Balance Mode (25W):** A balanced setting for everyday tasks.
- **Performance Mode (35W):** Maximizes CPU and GPU performance for demanding applications and gaming.

You can switch between these modes using the Fan Mode Button on the rear panel or through system software settings.

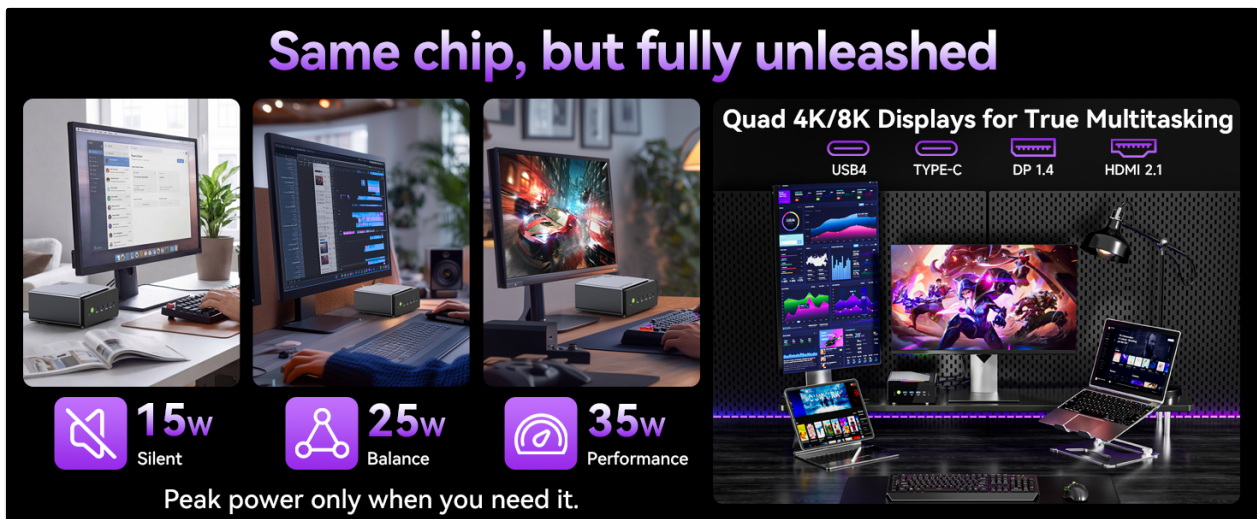


Image: Three selectable performance modes for varied usage scenarios.

Oculink Port Usage

The Oculink port provides a high-bandwidth PCIe x4 connection for external graphics cards (eGPUs). This allows for significantly enhanced graphics performance for gaming or professional applications. Connect your Oculink-compatible eGPU enclosure to this port. **Note: Oculink does not support hot-plugging. Ensure the system is powered off before connecting or disconnecting an eGPU.**



Image: Oculink port for external graphics card connectivity.

Your browser does not support the video tag.

Video: An overview of the GMKtec K15 AI Mini PC, highlighting its features including the Oculink port for external graphics.

MAINTENANCE

Cleaning

Regularly clean the exterior of the mini PC with a soft, dry cloth. For dust accumulation in vents, use compressed air. Ensure the device is powered off and unplugged before cleaning.

Software Updates

Keep your operating system and drivers updated to ensure optimal performance and security. Windows Update will handle OS updates, and GMKtec may provide driver updates on their official support website.

Storage and RAM Expansion

The GMKtec K15 features three M.2 2280 expansion slots for PCIe 4.0 SSDs, each supporting up to 8TB, for a total of 24TB. It also supports dual SO-DIMM DDR5 4800MT/S memory sticks, with a maximum capacity of 96GB. Refer to the detailed instructions on the GMKtec support website for safe installation of additional storage or RAM.

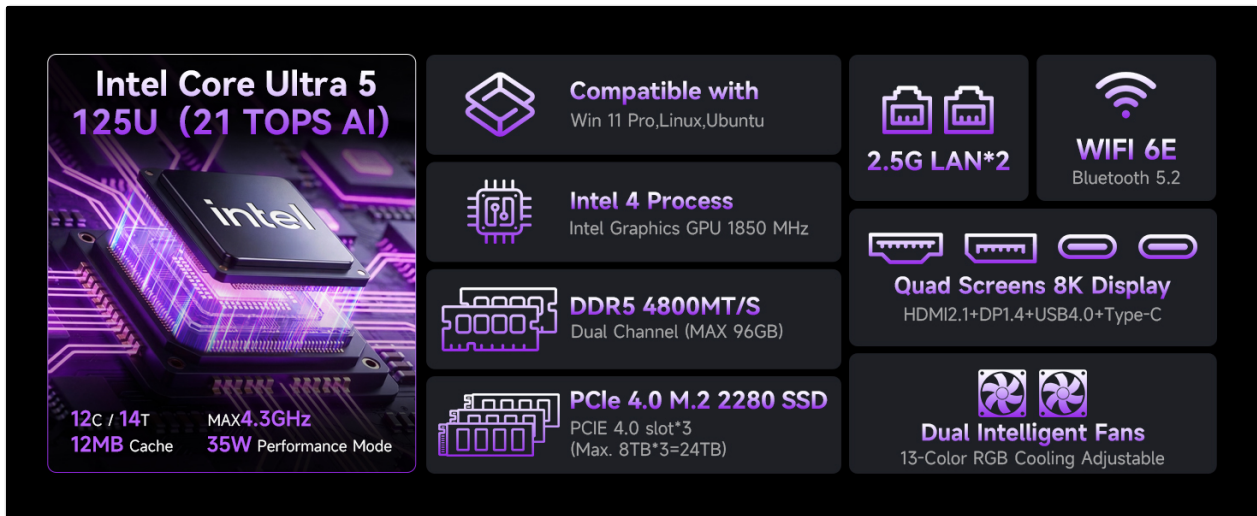


Image: Internal layout highlighting RAM and M.2 SSD expansion capabilities.

Cooling System

The K15 is equipped with a triple cooling fan system (dual turbo CPU fans + DDR5/SSD cooling fan) and three advanced heatpipes. Ensure the vents are not obstructed to maintain efficient cooling. The system operates quietly, around 35dB in Quiet Mode.



Image: Dual-fan cooling system design for efficient heat dissipation.

TROUBLESHOOTING

- **No Power:**
 - Ensure the power adapter is securely connected to both the mini PC and a working electrical outlet.
 - Verify the power button is pressed firmly.
- **No Display:**

- Check 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 a different display cable or monitor if available.
- **No Internet Connection (Wired):**
 - Verify the Ethernet cable is securely connected to both the mini PC's 2.5GbE LAN port and your router/modem.
 - Check your router/modem for proper operation.
- **No Internet Connection (Wireless):**
 - Ensure Wi-Fi is enabled in Windows settings.
 - Check that you are connected to the correct Wi-Fi network and have entered the password correctly.
 - Restart your router/modem.
- **System Slowdown:**
 - Check for background applications consuming excessive resources.
 - Ensure the cooling vents are clear of obstructions.
 - Update drivers and operating system.

SPECIFICATIONS

Feature	Detail
Model Name	GMKtec NucBox K15
Processor	Intel Core Ultra 5 125U (12 Cores, 16 Threads, up to 4.3 GHz)
Graphics	Intel Arc 140T GPU 2.35GHz (8 Xe cores)
AI NPU	Intel AI Boost NPU (up to 13 TOPS)
RAM	32GB DDR5 4800MT/S (Dual Channel, Max 96GB)
Storage	1TB PCIe 4.0 M.2 2280 SSD (3x M.2 slots, Max 24TB)
Operating System	Windows 11 Pro
Video Output	HDMI 2.1 (8K@60Hz), DisplayPort 1.4 (4K@60Hz), USB Type-C (DP1.4/DATA) - Quad Display Support
Networking	2x 2.5GbE LAN, Wi-Fi 6E, Bluetooth 5.2
Ports	USB4 x1, Type-C x1, USB x2, USB 3.2 Gen2 x3, DP 1.4, HDMI 2.1, Oculink, CTIA x2, 2.5G LAN x2, 3.5mm Audio Jack
Power Consumption	35 Watts
Cooling	Triple Cooling Fans with RGB Lighting

WARRANTY AND SUPPORT

GMKtec offers a **1-year limited warranty** for the K15 Mini PC, effective from the date of purchase. This warranty covers defects in design and workmanship.

For technical support, warranty claims, or further assistance, please visit the official GMKtec website or contact their customer service. Keep your purchase receipt as proof of purchase for warranty services.