GMKtec Nucbox M2 Pro 16GB + 512GB

GMKtec Nucbox M2 Pro Mini PC User Manual

Model: Nucbox M2 Pro 16GB + 512GB (MINI PC-Mxilie)

1. INTRODUCTION

The GMKtec Nucbox M2 Pro is a high-performance mini PC designed for a variety of computing needs, from daily office tasks to light gaming and multimedia consumption. Featuring an 11th Generation Intel Core i7-1195G7 processor, ample memory, and fast storage, it offers robust performance in a compact form factor. This manual provides essential information for setting up, operating, maintaining, and troubleshooting your mini PC.

Figure 1: GMKtec Nucbox M2 Pro Mini PC. This image displays the compact design of the mini PC, showcasing its front with USB ports and power button, and its rear with additional connectivity options.

2. PACKAGE CONTENTS

Please check the box for the following items:

- 1x GMKtec Nucbox M2 Pro Mini PC
- 1x Connection Cable
- 1x HDMI Cable
- 1x Power Adapter
- 1x Screws (for internal component installation/mounting)

3. PRODUCT OVERVIEW

The GMKtec Nucbox M2 Pro is engineered for efficiency and versatility. Key features include:

- **Powerful Performance:** Equipped with an 11th generation Intel Core i7-1195G7 processor (up to 5.0 GHz, 4 cores, 8 threads, 12MB cache) for efficient daily tasks.
- **Ample Storage & Memory:** Comes with 16GB DDR4 RAM (dual-channel, expandable up to 64GB) and a 512GB NVMe SSD (PCIe3.0, expandable to 2TB). An additional M.2 2242 SATA slot allows for up to 2TB expansion.
- **Wide Connectivity:** Features WiFi 6, Bluetooth 5.2, USB4.0, DisplayPort (DP), HDMI, and RJ45 2.5G Ethernet for comprehensive peripheral and network connections.

- **Compact Design:** A sleek and small form factor that saves desk space without compromising performance.
- **4K UHD & Triple Display Support:** Integrated Intel Iris Xe Graphics G7 96EU GPU supports high-quality 4K visuals across up to three displays simultaneously (2x HDMI, 1x USB Type-C).

Core i7-1195G7
4 Core
8 Threads
(5.0GHz Turbo)

Compatible with Win 11 Pro, Linux, Ubuntu

512GB
(M.2 2280 PCIe 3.0 SSD (MAX 2TB)

16GB Crucial
(DDR4 SODIMM Slots x 2)

CNC Metal Casing

LAN
(RJ45)*2500M

USB3.2 Type-C 40Gbps
(USB-A 3.2*3 USB-C 40Gbps *1)
USB-A 2.0*1

WiFi6
(3x the speed of WiFi 5)

Intel Iris Xe Graphics 1400MHz

24 Hour Customer Support
(365 Days a Year)

Bluetooth5.2
(Faster Stable Connection)

Figure 2: Overview of GMKtec Nucbox M2 Pro's core components and features, highlighting the Intel Core i7-1195G7, 16GB DDR4, 512GB SSD, CNC metal casing, USB 3.2, Type-C, WiFi 6, Bluetooth 5.2, Intel Iris Xe Graphics, and 24-hour customer support.

MULTI PORTS FOR MULTI PURPOSE

Audio(3.5mm CTIA)

TYPE-C (DP/DATA)

USB-A 3.2

Power Button

HDMI (4K@60Hz)

USB-A 3.2*2

(20V 5A)DC Port

RJ45(2.5G)

HDMI(4K@60Hz)

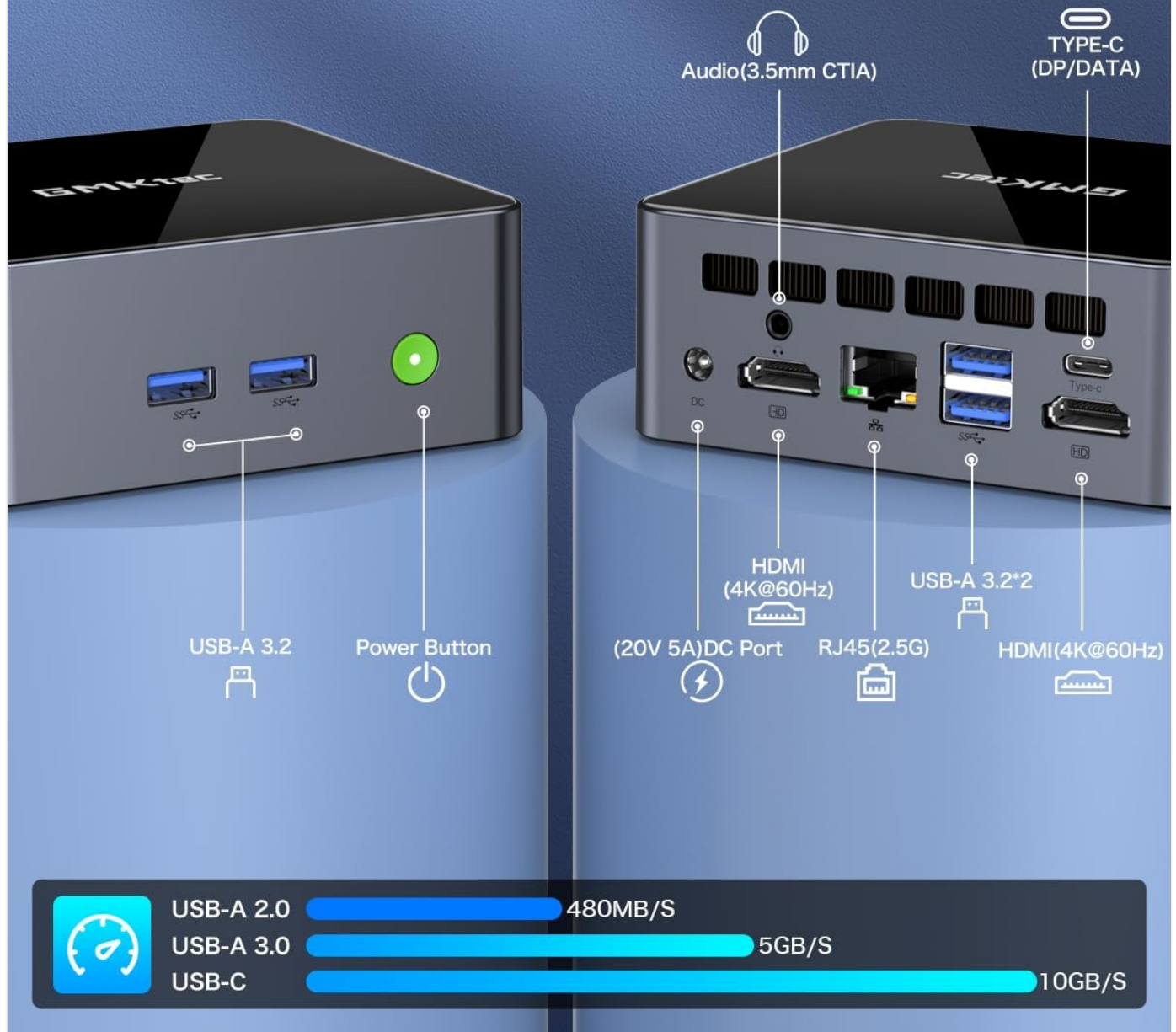|	
USB-A 2.0	480MB/S
USB-A 3.0	5GB/S
USB-C	10GB/S

Figure 3: Detailed view of the various ports available on the GMKtec Nucbox M2 Pro, including USB-A 3.2, USB-A 2.0, USB-C (DP/DATA), HDMI, RJ45 2.5G Ethernet, and a 3.5mm audio jack.

Product Video Overview

Your browser does not support the video tag.

Video 1: An official product video from GMKtec showcasing the M2 Pro Mini PC, its internal components, connectivity options, and various use cases such as gaming, office work, and business presentations.

4. SETUP

4.1 Initial Connection

1. **Connect to Display:** Use the provided HDMI cable to connect the mini PC to your monitor or TV. The device supports up to three displays via 2x HDMI and 1x USB Type-C.

2. **Connect Peripherals:** Plug in your keyboard and mouse into the available USB ports (USB 3.0 or USB 2.0).

3. **Connect to Network:** For a wired connection, plug an Ethernet cable into the RJ45 2.5G Gigabit Ethernet port. For wireless, ensure your WiFi network is available (WiFi 6 supported).

4. **Connect Power:** Connect the power adapter to the DC-in port on the mini PC, then plug the adapter into a power outlet.

5. **Power On:** Press the power button located on the front of the mini PC.

MULTI PORTS FOR MULTI PURPOSE

Audio(3.5mm CTIA)

TYPE-C (DP/DATA)

USB-A 3.2

Power Button

HDMI (4K@60Hz)

USB-A 3.2*2

(20V 5A)DC Port

RJ45(2.5G)

HDMI(4K@60Hz)

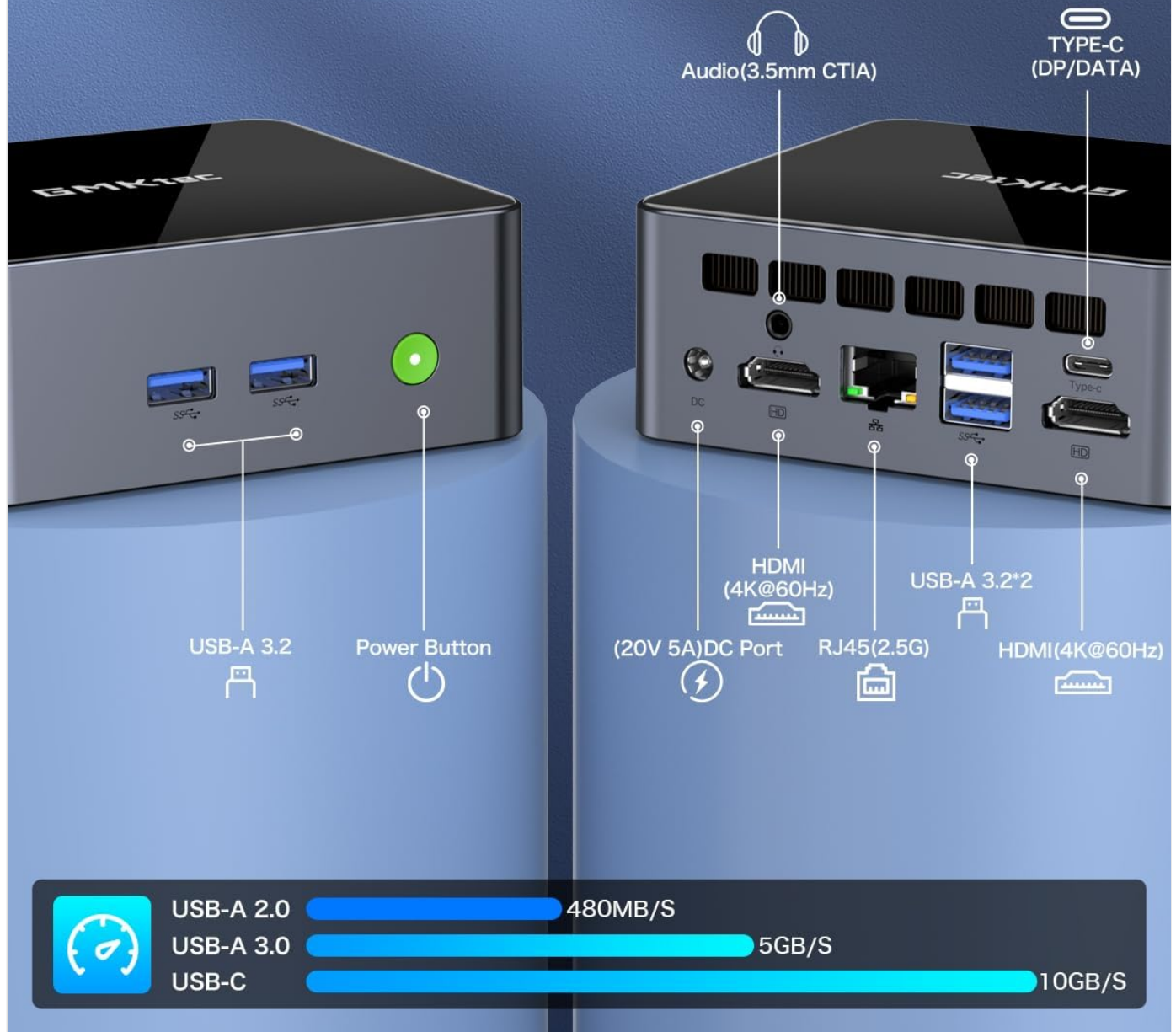USB-A 2.0 — 480MB/S
USB-A 3.0 — 5GB/S
USB-C — 10GB/S

Figure 4: Illustration of connecting various devices to the mini PC's ports, including power, display, and USB peripherals.

4.2 Operating System and Initial Boot

The GMKtec Nucbox M2 Pro comes with Windows 11 Pro pre-installed. Upon first boot, you will be guided through the Windows setup process, including language selection, network configuration, and user account creation. Follow the on-screen prompts to complete the setup.

5. OPERATING YOUR MINI PC

5.1 Daily Use

Once set up, your mini PC functions like a standard desktop computer. You can install software, browse the internet, stream media, and perform various computing tasks. Its compact size makes it ideal for home office, entertainment, or business environments.

5.2 Storage and Memory Expansion

The Nucbox M2 Pro supports significant upgrades:

- **RAM:** The 16GB DDR4 SODIMM RAM can be expanded up to 64GB (via two SODIMM slots).
- **NVMe SSD:** The pre-installed 512GB M.2 2280 NVMe (PCIe3.0) SSD can be expanded up to 2TB.
- **SATA SSD:** An additional M.2 2242 SATA slot allows for up to 2TB storage expansion.

For expansion, the device features a quick disassembly design, allowing access to internal components without special tools. Refer to Figure 5 for an exploded view.
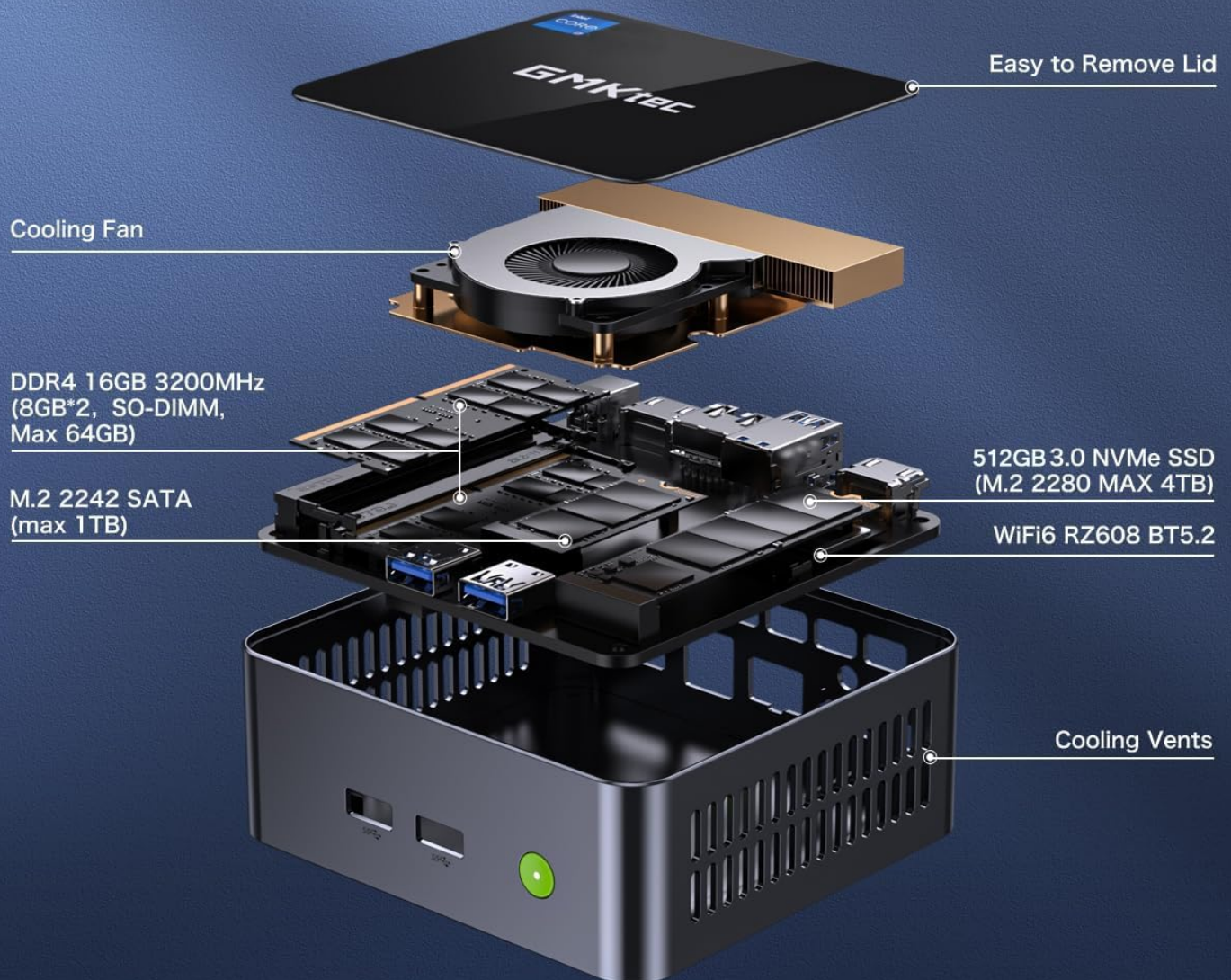
Figure 5: Quick disassembly design of the mini PC, illustrating how to access the cooling fan, DDR4 RAM slots, M.2 2280 NVMe SSD, M.2 2242 SATA slot, and cooling vents.

5.3 Network and Wireless Connectivity

The mini PC offers robust network options:

- **Wired:** 2.5G Gigabit Ethernet (RJ45) for high-speed wired connections.
- **Wireless:** WiFi 6 (802.11ax) for faster and more stable wireless internet, and Bluetooth 5.2 for connecting wireless peripherals like keyboards, mice, and headphones.
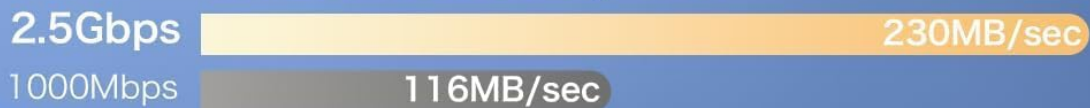
Figure 6: Performance comparison for 2.5G High Speed Ethernet, showing read-write and transmission speeds compared to 1000Mbps connections.

Figure 7: Benefits of Super Speed Wi-Fi 6 and Bluetooth 5.2, including faster speeds (3x faster than Wi-Fi 5), higher bandwidth, lower latency, and improved coverage.

5.4 Multi-Display Setup

The mini PC supports up to three 4K displays simultaneously, making it suitable for multitasking, professional design, or immersive entertainment setups. Connect displays using the two HDMI ports and one USB Type-C port.
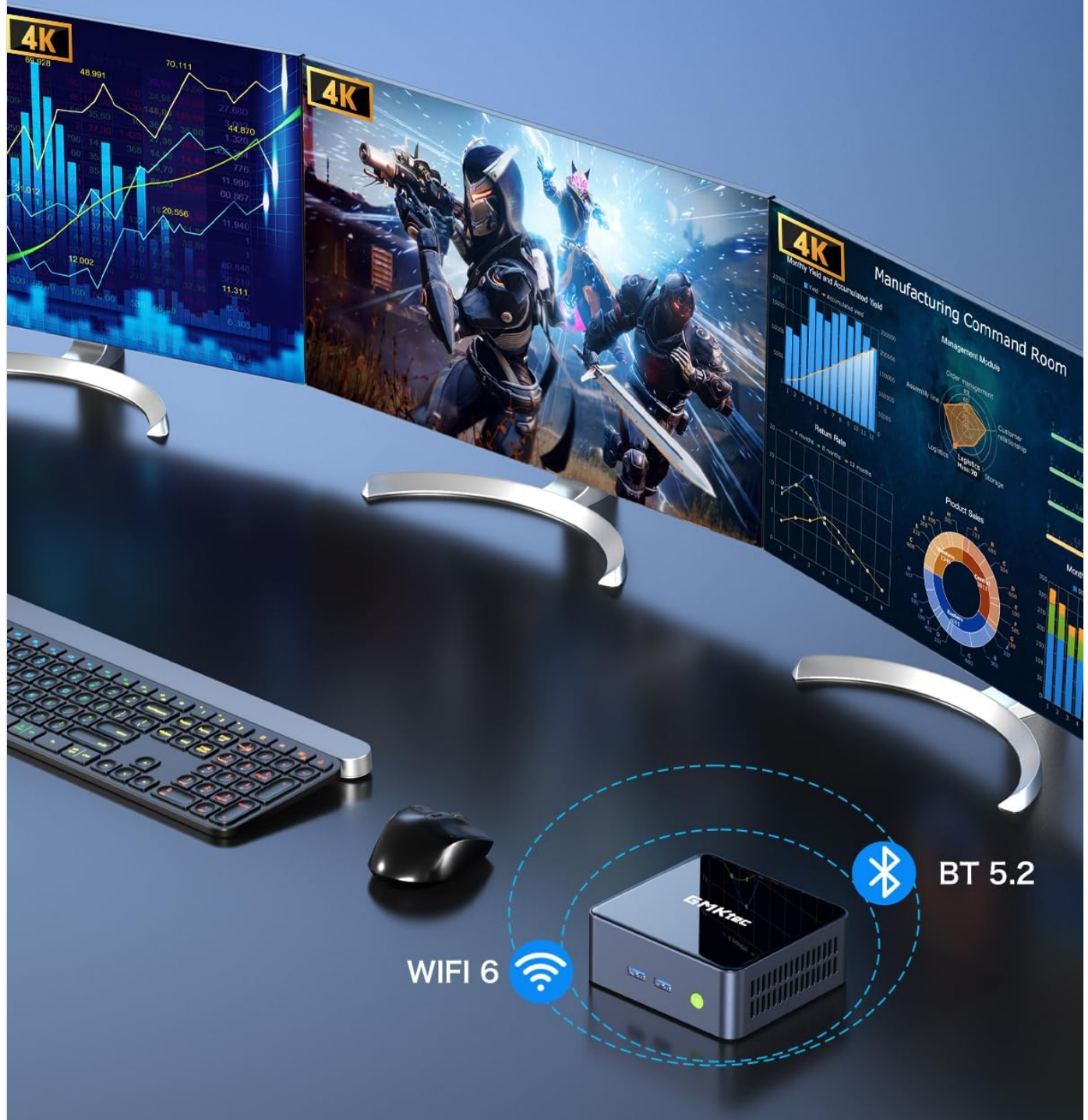
Figure 8: A visual representation of the triple display capability of the GMKtec Nucbox M2 Pro, demonstrating its use for office, film, television, and design applications.

6. MAINTENANCE

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

- **Cleaning:** Regularly clean the exterior with a soft, dry cloth. Use compressed air to clear dust from the ventilation grilles to ensure proper airflow and cooling.

- **Software Updates:** Keep your operating system and drivers updated to the latest versions for security and performance improvements.
- **Environmental Conditions:** Operate the mini PC in a well-ventilated area, away from direct sunlight, excessive heat, and moisture.
- **Internal Cleaning:** If you notice increased fan noise or overheating, consider carefully opening the case (refer to Figure 5 for guidance) to clean the internal cooling fan and heatsink from dust buildup.

7. TROUBLESHOOTING

Here are solutions to common issues you might encounter:

Problem	Possible Cause	Solution
No power/Does not turn on	Power adapter not connected properly; Power outlet issue.	Ensure power adapter is securely connected to both the PC and the outlet. Try a different power outlet.
No display on monitor	HDMI/DP cable loose or faulty; Incorrect input selected on monitor.	Check display cable connections. Ensure monitor is set to the correct input source (HDMI 1, HDMI 2, USB-C). Try a different cable or monitor.
No internet connection (wired)	Ethernet cable disconnected; Router/modem issue; Network driver issue.	Check Ethernet cable connection. Restart your router/modem. Check network adapter status in Device Manager.
No internet connection (wireless)	WiFi disabled; Incorrect password; Router issue.	Ensure WiFi is enabled in Windows settings. Re-enter WiFi password. Restart your router.
Fan is noisy or PC overheats	Dust buildup in fan/vents; Poor ventilation.	Clean dust from vents and fan. Ensure PC is in a well-ventilated area.

8. TECHNICAL SPECIFICATIONS

Feature	Specification
Processor	Intel Core i7-1195G7 (4 Cores, 8 Threads, up to 5.0 GHz, 12MB Cache)
Graphics	Intel Iris Xe Graphics G7 96EU (1.45GHz)
RAM	16GB DDR4 SODIMM (Dual-channel, expandable to 64GB)
Storage	512GB M.2 2280 NVMe (PCIe3.0, expandable to 2TB) + M.2 2242 SATA slot (expandable to 2TB)
Operating System	Windows 11 Pro (Pre-installed)
Wireless Connectivity	WiFi 6 (802.11ax), Bluetooth 5.2
Ethernet	RJ45 2.5G Gigabit Ethernet
Video Output	2x HDMI (4K@60Hz), 1x USB Type-C (4K@60Hz) - Triple Display Support

Feature	Specification
USB Ports	1x USB4.0 (Type-C), 3x USB 3.0, 2x USB 2.0
Audio	3.5mm Audio Jack
Dimensions (LxWxH)	5.2 x 4.92 x 2.28 inches
Weight	3.21 pounds
Color	Black

9. WARRANTY AND SUPPORT

GMKtec offers comprehensive support for your Mini PC:

- **Warranty:** A 1-year limited warranty covers defects due to design and workmanship from the date of purchase.
- **Customer Support:** For any inquiries or technical assistance, please contact the GMKtec after-sales team.
- **Contact via Amazon:** Login to your Amazon account, navigate to 'Your Orders', and select 'Product Question' for assistance.
- **Email Support:** You can also send an email to support@gmktec.com.
- **24/7 Customer Support:** GMKtec provides 24/7 customer support to address your needs.