

## GMKtec EVO-T1

# GMKtec EVO-T1 Mini PC AI Ultra 9 285H User Manual

Model: EVO-T1 | Brand: GMKtec

## 1. INTRODUCTION

Thank you for choosing the GMKtec EVO-T1 Mini PC. This manual provides essential information for setting up, operating, maintaining, and troubleshooting your new mini computer. Please read this manual thoroughly before use to ensure optimal performance and longevity of your device.



Figure 1.1: GMKtec EVO-T1 Mini PC, showcasing its compact design and various ports.

## 2. SAFETY INFORMATION

Always observe the following safety precautions to prevent damage to the device or injury to yourself:

- Do not expose the device to water, moisture, or extreme temperatures.
- Avoid placing the device near heat sources or in direct sunlight.
- Use only the provided power supply and cables.
- Do not attempt to open or repair the device yourself. Refer to qualified service personnel.
- Ensure proper ventilation around the device during operation.

### 3. PACKAGE CONTENTS

---

Verify that all items are present in the box:

- GMKtec EVO-T1 AI Mini PC Ultra 9 285H Mini PC Computer
- Power Supply & Cable
- HDMI Cable
- User Manual
- VESA Mount and Screws (for mounting behind a monitor)



Figure 3.1: Contents included in the GMKtec EVO-T1 retail packaging.

### 4. SETUP GUIDE

---

#### 4.1 Identifying Ports and Components

Familiarize yourself with the various input/output ports on your EVO-T1 Mini PC:

# Rich Interface

For Business, Office, Gaming, Home

  
USB4.0\*2

  
USB\*2

  
USB3.2\*3

  
DP 1.4

  
HDMI 2.1

  
Oculink

  
CTIA\*2

  
2.5G LAN

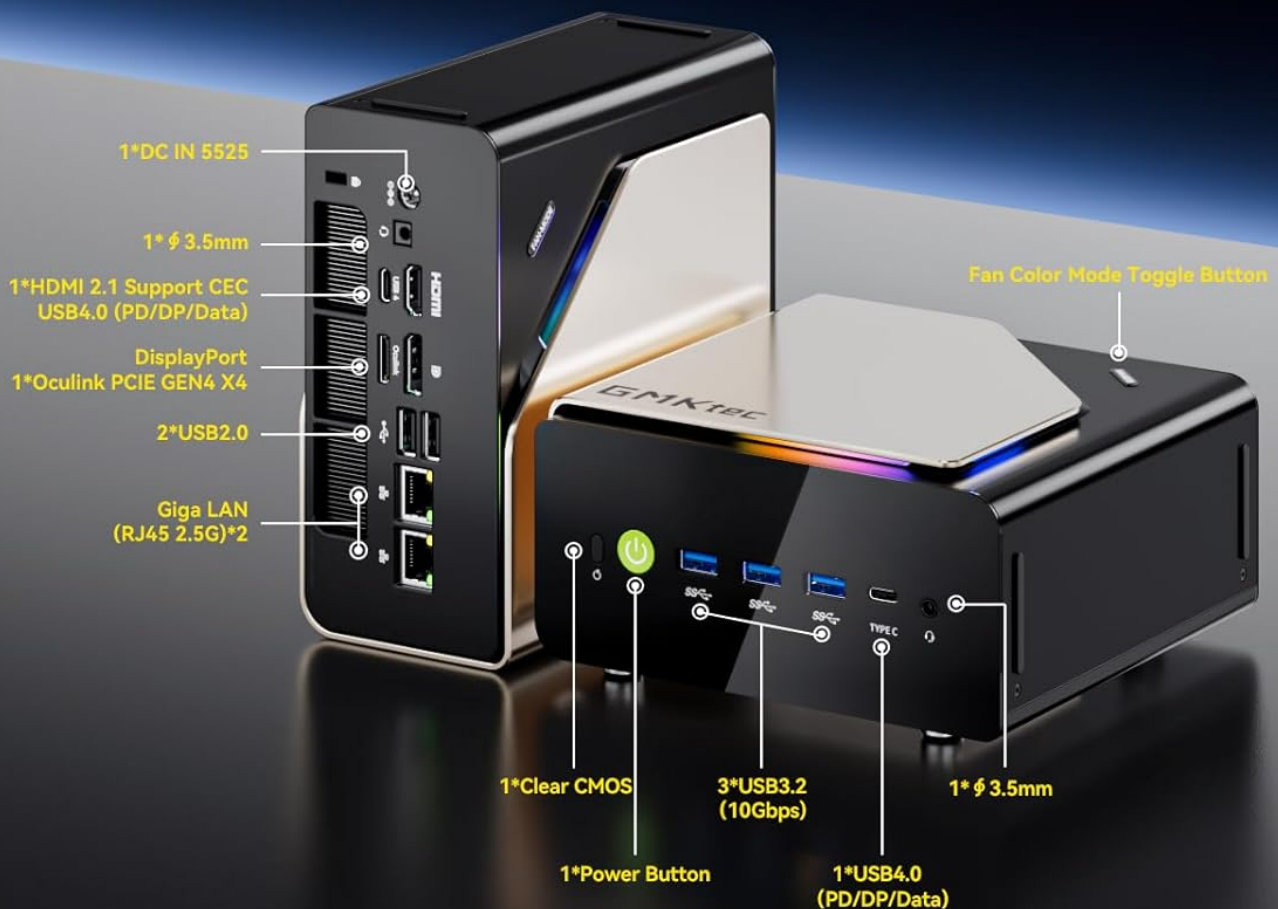


Figure 4.1: Front and rear port layout of the EVO-T1 Mini PC.

- **Front Ports:** Power Button, 3x USB3.2 (10Gbps), 1x USB4.0 (PD/DP/Data), 1x 3.5mm Audio Jack, Clear CMOS button.
- **Rear Ports:** DC In (power), 1x 3.5mm Audio Jack, 1x HDMI 2.1 (8K@60Hz), 1x DisplayPort 1.4 (8K@120Hz), 1x Oculink PCIe Gen4 x4, 2x USB2.0, 2x Giga LAN (RJ45 2.5G).

## 4.2 Initial Setup Steps

1. **Connect Display:** Connect your monitor(s) to the HDMI 2.1, DisplayPort 1.4, or USB4.0 (Type-C) ports using appropriate cables. The EVO-T1 supports up to four screens with 8K resolution.
2. **Connect Peripherals:** Plug in your keyboard, mouse, and other USB devices into the available USB ports.
3. **Connect Network:** For wired internet, connect an Ethernet cable to one of the 2.5GbE LAN ports. For wireless, ensure your Wi-Fi network is available.
4. **Connect Power:** Plug the power adapter into the DC In port on the back of the Mini PC, then plug the power cable into a wall outlet.
5. **Power On:** Press the power button on the front of the device. The system will boot up.

## 5. OPERATING INSTRUCTIONS

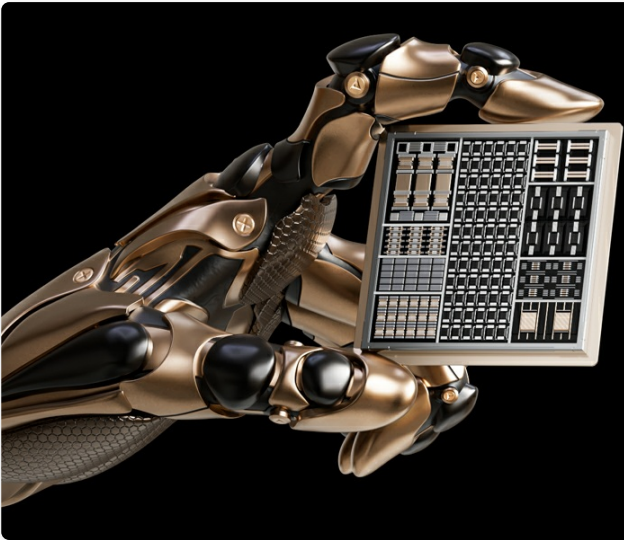
### 5.1 Power On/Off

- **To Power On:** Press the power button on the front of the Mini PC.
- **To Power Off:** From the operating system, select 'Shut Down'. Alternatively, press and hold the power button for 5 seconds to force a shutdown (use only when necessary).

### 5.2 Key Features and Usage

The GMKtec EVO-T1 is designed for high performance across various applications:

- **Intel Core Ultra 9 285H Processor:** Equipped with 16 cores and 22 threads, offering a turbo frequency of up to 5.4GHz for demanding tasks.
- **Intel Arc 140T GPU:** Integrated graphics with 8 Xe cores, supporting DirectX 12, OpenGL 4.5, and OpenCL 3, suitable for gaming and creative applications.
- **AI NPU:** Features an Intel AI Boost NPU with up to 13 TOPS for accelerating AI tasks and optimizing AI-enhanced creativity.



## Intel Arc 140T GPU

**Gaming:** 🎮  
1080p runs CS2 Progenitor smoothly (40% frame rate boost with XeSS on).

**Creative:** 🎨  
Hardware-accelerated Premiere Pro H.264/AV1 rendering for smoother 4K timeline.

**AI Applications:** 🧠 AI  
Running Stable Diffusion locally (512x512 image generation in ~15 seconds)

Model	FP32 Arithmetic	AI Arithmetic (TOPS)	Memory	Typical Scenario
Arc A140T	~4.8 TFLOPS	77 (int8)	4GB GDDR6 1080p	High Quality Gaming/Clips
NVIDIA MX550	~3.2 TFLOPS	No Dedicated AI Unit	2GB GDDR6	Office/Light Gaming
AMD Radeon 740M	~3.5 TFLOPS	No public TOPS data	4GB Share	Thin & Light Multimedia

Figure 5.1: The Intel AI Boost NPU enhances performance for AI-driven applications.

- **64GB DDR5 RAM:** Dual 32GB SO-DIMM DDR5 5600MHz memory for high-speed multitasking and data processing.
- **2TB PCIe 4.0 SSD:** Fast storage with three M.2 2280 expansion slots, each supporting up to 8TB for a maximum of 24TB storage.

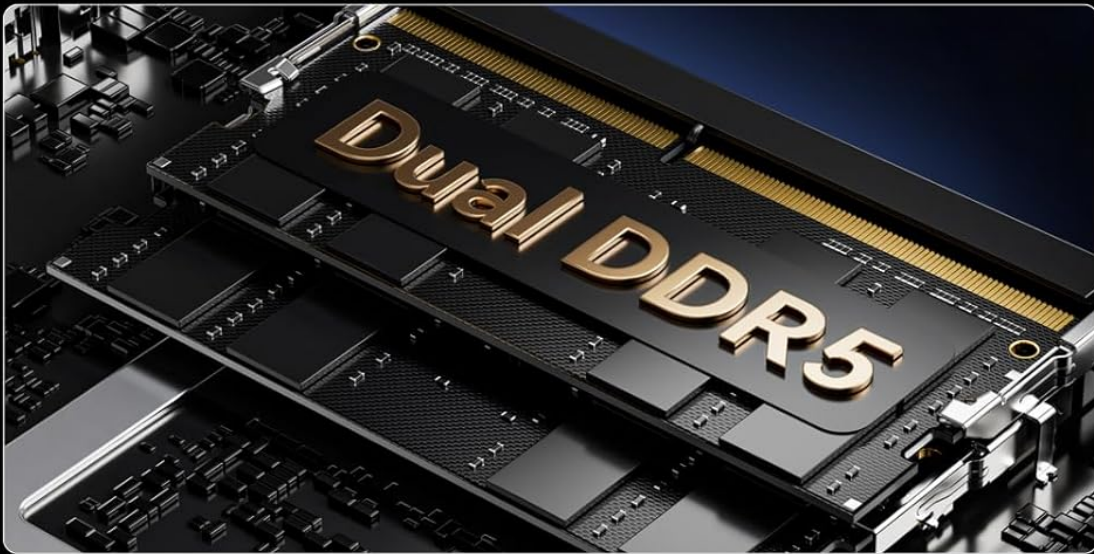


# Triple PCIe 4.0 SSD Slots



- ▶ **3× M.2 2280 Slots** – Support up to 12TB (**4TB\*3**)
- ▶ **PCIe 4.0×4 Interface** – **7000MB/s** read speed (**2X PCIe 4.0**)
- ▶ **Flexible Configs** – Mix **1TB/2TB** drives for OS+Projects+Backup

# Dual-Channel DDR5 Memory



- ▶ **64GB High-Capacity** (2×32GB SO-DIMM)
- ▶ **5600MT/s Blazing Speed** – **75%** faster than DDR4
- ▶ **Dual-Channel Optimized** – **20%** bandwidth boost for multitasking

Figure 5.2: Overview of the triple M.2 SSD slots and dual-channel DDR5 memory architecture.

- **Quad Screen 8K Display Support:** Connect up to four displays via HDMI 2.1 (8K@60Hz), DisplayPort 1.4 (8K@120Hz), and USB Type-C (PD3.0/DP1.4/DATA) for expansive visual workspaces.
- **Oculink Port:** Provides higher bandwidth (64Gbps) for external GPU (eGPU) setups, offering better frame rates and lower lag compared to Thunderbolt. **Note:** Oculink does not support hot-plugging. Always power off before connecting/disconnecting devices.

# 4K Gaming & AI Workloads? OCuLink Delivers

OCuLink delivers full PCIe 4.0 bandwidth (64Gbps) for near-lossless eGPU performance

Feature	OCuLink	Thunderbolt 4	USB4
Max Bandwidth	64Gbps	40Gbps	40Gbps
GPU Efficiency	95%+	~85%	~80%
Best For	Pro Workloads	Casual Use	Storage/Displays



Note: OCuLink does NOT support hot-plugging.  
Always power off before connecting/disconnecting devices.

Figure 5.3: OCuLink port capabilities for external graphics performance.

- **Fast Connectivity:** Features 2.5GbE LAN for high-speed wired networking, Wi-Fi 6 for faster and more stable wireless connections, and Bluetooth 5.2 for connecting wireless peripherals.

## 6. MAINTENANCE



### 6.1 Cooling System

The EVO-T1 features an advanced dual-fan cooling system with VC heatpipes and 360° airflow to maintain optimal temperatures, even under heavy loads. It operates quietly, with noise levels as low as 35dB in Quiet Mode.



Figure 6.1: Internal view of the advanced dual-fan cooling system.

### 6.2 Upgradability

The EVO-T1 allows for easy upgrades of both RAM and storage. The 3x M.2 2280 expansion slots support up to 8TB each, and the DDR5 SO-DIMM slots can be upgraded for increased memory capacity.

### 6.3 Cleaning

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

## 7. TROUBLESHOOTING

If you encounter issues with your GMKtec EVO-T1, please refer to the following common solutions:

Problem	Possible Cause	Solution
No Power	Power cable loose; Power adapter faulty; Power outlet issue.	Check all power connections. Try a different power outlet. Ensure the power adapter is functioning.
No Display	Display cable loose; Incorrect input selected on monitor; Monitor faulty.	Ensure display cables are securely connected. Select the correct input source on your monitor. Test with a different monitor or cable.
System Freezes/Crashes	Overheating; Software conflict; Driver issue.	Ensure proper ventilation. Update drivers. Check for conflicting software. Perform a system restart.
Slow Performance	Too many applications running; Low storage space; Malware.	Close unnecessary applications. Free up disk space. Run antivirus/malware scan.

If the problem persists, please contact GMKtec customer support for further assistance.

## 8. SPECIFICATIONS

Feature	Detail
Processor	Intel Core Ultra 9 285H (up to 5.4 GHz)
RAM	64GB DDR5 5600MHz (Dual 32GB SO-DIMM)
Storage	2TB PCIe 4.0 M.2 2280 SSD (3x M.2 Expansion Slots, Max. 24TB)
Graphics Coprocessor	Intel Arc 140T GPU 2.35GHz
Max Screen Resolution	7680x4320 Pixels (8K)
Display Outputs	HDMI 2.1 (8K@60Hz), DisplayPort 1.4 (8K@120Hz), USB Type-C (PD3.0/DP1.4/DATA)
Networking	2.5GbE LAN, Wi-Fi 6, Bluetooth 5.2
USB Ports	3x USB3.2 (10Gbps), 1x USB4.0, 2x USB2.0
Special Ports	Oculink PCIe Gen4 x4
Operating System	OS Pro (Compatible with Windows 11 Pro/Linux)
Item Weight	4.95 pounds
Dimensions	14.09 x 8.07 x 3.7 inches

## 9. WARRANTY AND SUPPORT

GMKtec offers a 1-year limited warranty for the EVO-T1 Mini PC, starting from the date of purchase. This warranty covers defects due to design and workmanship.

### 9.1 Contacting Support

For technical assistance or warranty claims, please use the following methods:

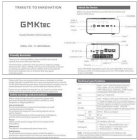

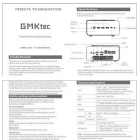
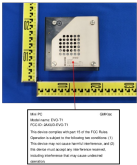
- **Via Amazon:** Log in to your Amazon account, go to 'Your Orders', and select 'Ask Product Question' for the EVO-T1.
- **Email:** Send an email to the After-Sales Team at [support@gmktec.com](mailto:support@gmktec.com).
- **Customer Support:** GMKtec provides 24/7 customer support.





Figure 9.1: GMKtec Warranty and Support details.

Related Documents

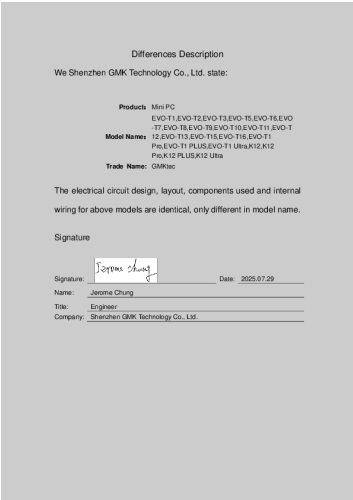
	<p><a href="#">GMKtec EVO-T1 Mini PC User Manual: Specifications and Setup Guide</a></p> <p>Comprehensive user manual for the GMKtec EVO-T1 Mini PC, detailing technical specifications, connection steps, BIOS settings, power modes, safety precautions, and compliance information.</p>
	<p><a href="#">GMKtec Mini PC Model Differences and Specifications</a></p> <p>Overview of Shenzhen GMK Technology Co., Ltd. Mini PC models, detailing shared electrical circuit design and component layouts across the EVO-T series and K12 series, highlighting only model name variations.</p>
	<p><a href="#">GMKtec EVO-T1 User Manual - Mini PC Guide</a></p> <p>Comprehensive user manual for the GMKtec EVO-T1 Mini PC, covering setup, technical specifications, power modes, boot options, and compliance information.</p>
	<p><a href="#">GMKtec EVO-T1 Mini PC: FCC ID and Product Label Information</a></p> <p>Detailed information from the product label of the GMKtec EVO-T1 Mini PC, including model name, manufacturer, FCC ID, input specifications, and compliance statements.</p>



[pdf] Test Report

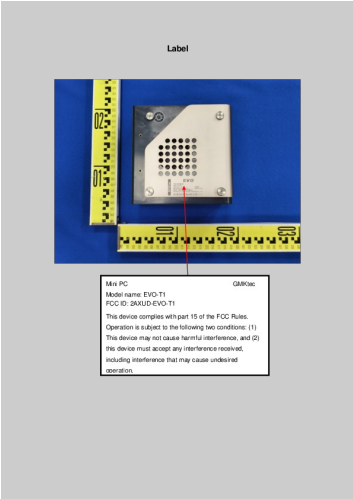
Measurement Report Kent MPE Shenzhen GMK Technology Co Ltd EVO T1 Mini PC 2AXUD  
2AXUDEVOT1 evo t1

MPE Report Report No.: STS2507081H01 Issued for Shenzhen GMK Technology Co., Ltd. 901, Building 2, Yingtai Kehui Plaza, Yingtai Road 8, Langkou Community, Dalang Subdistrict, Longhua District, Shenzhen, Guangdong, China Product Name: Mini PC Brand Name: GMKtec Model Name: **EVO-T1** Series Model ...  
lang:en score:28 filesize: 816.52 K page\_count: 10 document date: 2025-07-30



GMKtec Mini PC Model Differences and Specifications

Overview of Shenzhen GMK Technology Co., Ltd. Mini PC models, detailing shared electrical circuit design and component layouts across the EVO-T series and K12 series, highlighting only model name variations.  
lang:i-klngon score:27 filesize: 41.78 K page\_count: 1 document date: 2025-07-29



GMKtec EVO-T1 Mini PC: FCC ID and Product Label Information

Detailed information from the product label of the GMKtec EVO-T1 Mini PC, including model name, manufacturer, FCC ID, input specifications, and compliance statements.  
lang:i-klngon score:27 filesize: 177.03 K page\_count: 1 document date: 2025-07-24

