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> Beelink SER5 Pro Mini PC, AMD Ryzen 7 5825U (8C/16T, up to 4.5Ghz), 32GB DDR4 RAM 1TB NVMe SSD, Mini Desktop Computer Support 4K@144Hz/Triple Display/WiFi6/BT5.2/Home/Office/Gaming R7-5825U 32G+1TB

## Beelink SER5 Pro

# Beelink SER5 Pro Mini PC User Manual

Model: SER5 Pro

## 1. INTRODUCTION

This manual provides essential information for setting up, operating, maintaining, and troubleshooting your Beelink SER5 Pro Mini PC. Please read this manual thoroughly before using the device to ensure proper functionality and longevity.

The Beelink SER5 Pro is a high-performance mini desktop computer designed for various applications, including home entertainment, office productivity, and light gaming. It features an AMD Ryzen 7 5825U processor, ample memory, and fast storage, all within a compact form factor.

## 2. PRODUCT OVERVIEW

### 2.1. Package Contents

- Beelink SER5 Pro Mini PC
- Power Adapter
- HDMI Cables
- User Manual (this document)

### 2.2. Physical Features and Ports

The Beelink SER5 Pro Mini PC is designed for efficient connectivity and compact placement. Below are diagrams illustrating the various ports and components.



Figure 2.1: Front and Rear View of Beelink SER5 Pro Mini PC.

This image displays the compact design of the Beelink SER5 Pro Mini PC, showing its front and rear panels. The front panel includes USB ports, a Type-C port, an earphone jack, and the power button. The rear panel features LAN, additional USB ports, DisplayPort, HDMI, and the DC power input.

# M.2 PCIe3.0 x4 SSD

Up to 2TB M.2 2280 NVMe SSD



\*The SER5 Pro ships with an SSD of 500GB

Figure 2.2: Detailed Port Layout.

This diagram provides a closer look at the connectivity options. The front includes an RTC Key, two USB 3.2 Gen2 ports, a Type-C port (for data and video), an earphone jack, and the power button. The rear panel features a LAN port (1000Mbps), a USB 2.0 port, two USB 3.2 Gen2 ports, a DisplayPort (4K@144Hz), an HDMI 2.0 port (4K@60Hz), and the power adapter input.

## 2.3. Key Components

- **Processor:** AMD Ryzen 7 5825U (8 Cores/16 Threads, up to 4.5GHz)
- **Graphics:** AMD Radeon Vega 8-core 2000MHz GPU
- **RAM:** 32GB DDR4 3200MHz (Dual-channel, expandable up to 64GB)
- **Storage:** 1TB NVMe SSD (M.2 2280 PCIe3.0 x4, expandable up to 2TB)
- **Wireless Connectivity:** WiFi 6 (802.11ax) and Bluetooth 5.2
- **Operating System:** Pre-installed Windows 11 Pro

# SER5 PRO

## AMD Ryzen™ 7 5825U

Small but high performance

Machine size:4.96\*4.44\*1.65 in



# 4.5 GHz

Max Turbo Frequency

# 8

Cores

# 16

Threads

# 2000 MHz

AMD Radeon™ Graphics 8 CUs

Graphics Capabilities

M.2 2280 NVMe SSD  
Support up to 2TB



# DDR4 3200 MHz

Max Dual channel 64G



# Wi-Fi 6 + Bluetooth 5.2

Faster and more stable

# Three-screen display

HDMI+DP+Type-C

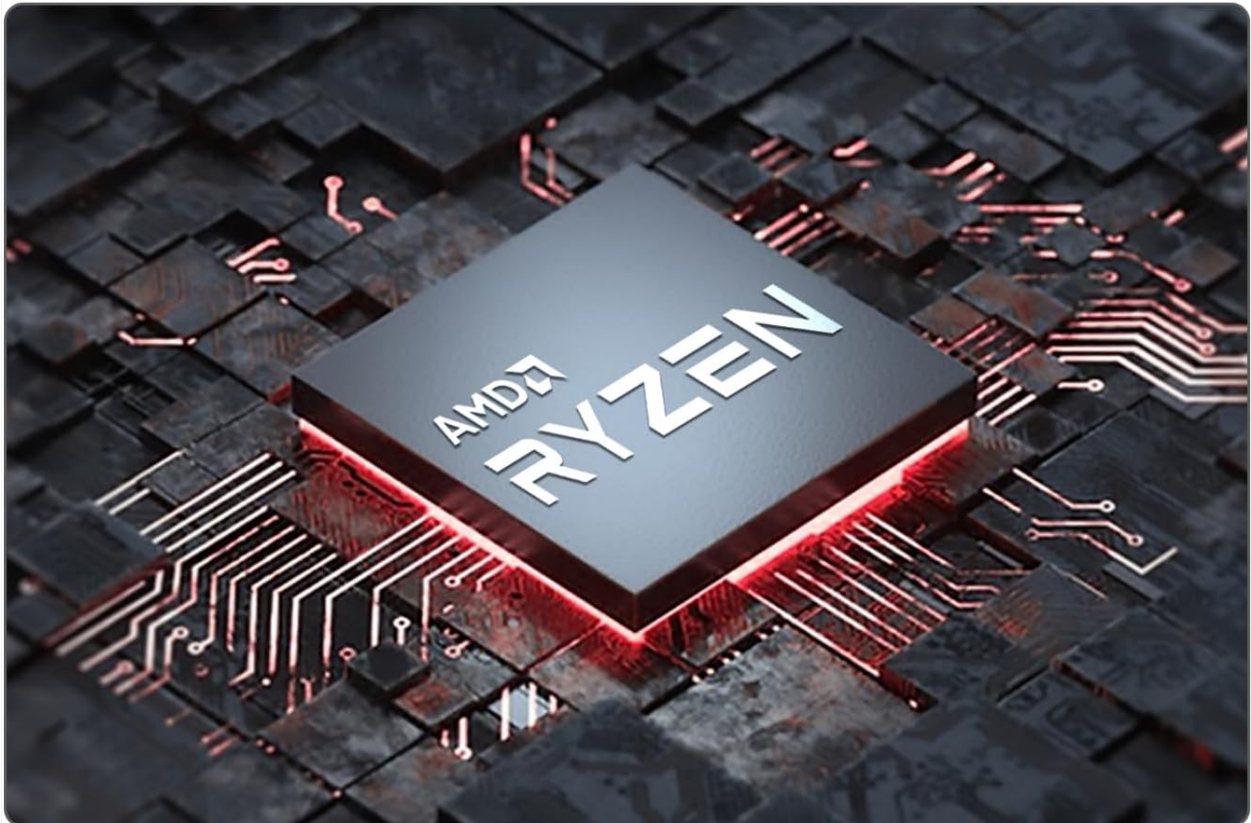


Figure 2.3: SER5 Pro Key Features.

This image highlights the core specifications of the SER5 Pro, including its AMD Ryzen 7 5825U processor, max turbo frequency of 4.5 GHz, 8 cores/16 threads, 2000 MHz AMD Radeon Graphics, DDR4 3200 MHz RAM, M.2 2280 NVMe SSD support up to 2TB, Wi-Fi 6, Bluetooth 5.2, and triple-screen display capability.

# AMD Ryzen™ 7 5825U

Processor Base Frequency:2.0GHz/Max Turbo Frequency:4.5GHz



**4.5**GHz

CPU

8 Cores 16 Threads

**2000**MHz

Graphics Card  
Frequency

**7**nm

Processor Technology  
for CPU Cores

**64**GB

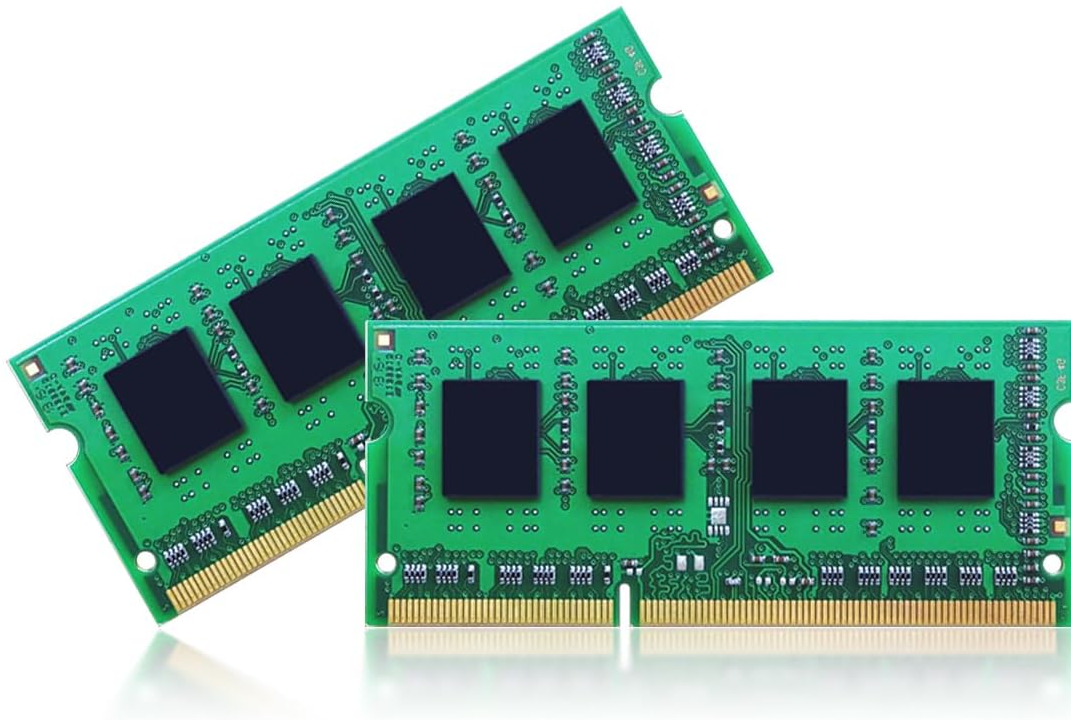
Max Memory  
Size

Figure 2.4: AMD Ryzen 7 5825U Processor.

This image focuses on the AMD Ryzen 7 5825U processor, detailing its base frequency of 2.0GHz, max turbo frequency of 4.5GHz, 8 cores, 16 threads, 2000MHz graphics card frequency, 7nm processor technology, and support for up to 64GB max memory.

# Up to 64GB DDR4 RAM

There are dual SO-DIMM RAM slots on the motherboard. Each slot supports DDR4-3200MHz RAM of up to 32GB, and you can have a maximum of 64GB dual-channel RAM.



\*The SER5 Pro ships with dual-channel DDR4 RAM of 16GB(8GBx2) or 32GB(16GBx2).

Figure 2.5: DDR4 RAM.

This image shows two DDR4 SO-DIMM RAM modules, illustrating the dual-channel memory support of the SER5 Pro. The system supports up to 64GB of DDR4-3200MHz RAM across two slots.

# Plenty Ports For Connectivity

Multiple Ports, Various Choices

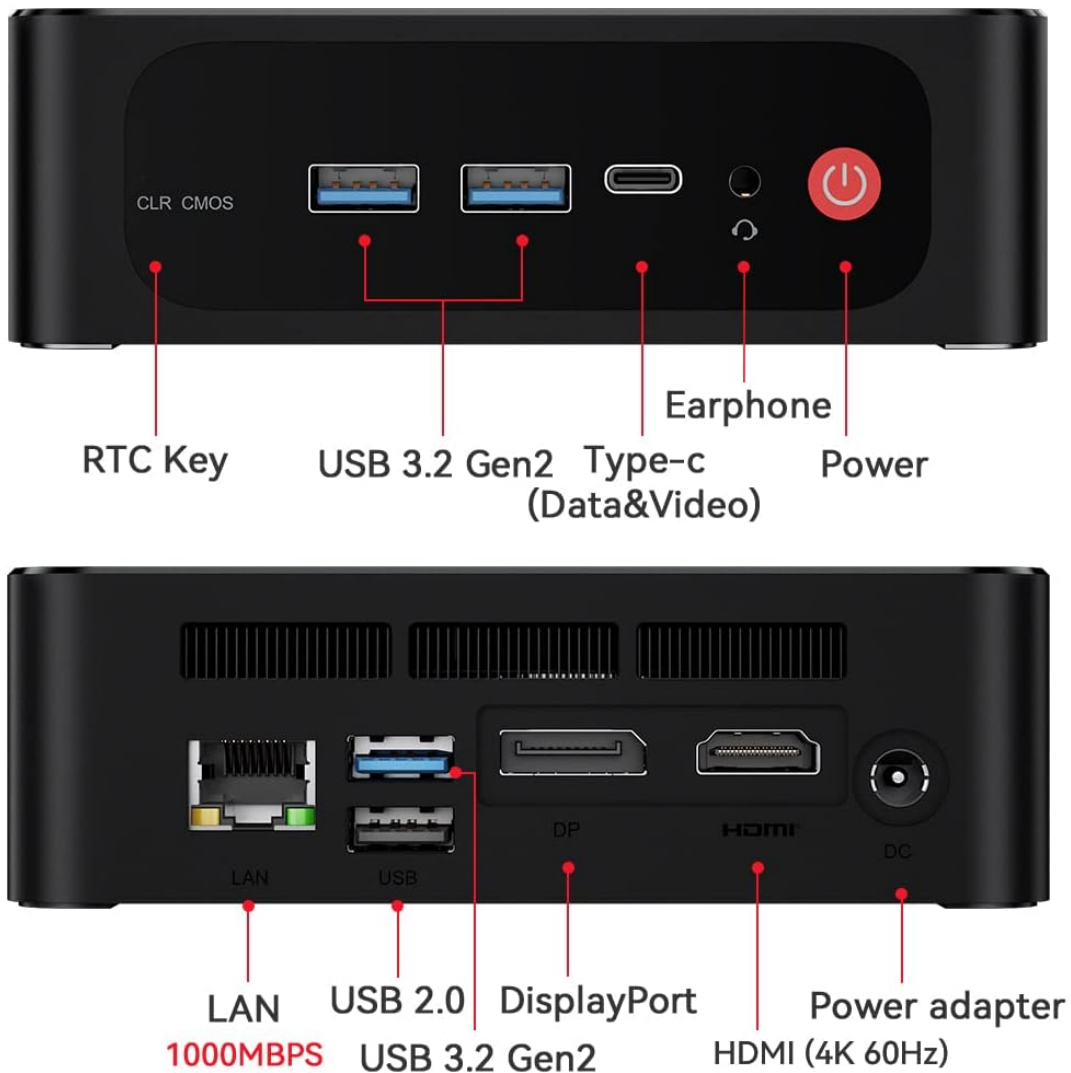


Figure 2.6: M.2 PCIe3.0 x4 SSD.

This image displays an M.2 NVMe SSD, highlighting its compatibility with the SER5 Pro, which supports up to 2TB M.2 2280 NVMe SSDs.

# Faster Connections to WiFi 6

Enjoy smooth traffic flow, and low latency with WiFi 6, and more stable connection with Bluetooth v5.2



Figure 2.7: Faster Connections with WiFi 6 and Bluetooth 5.2.

This image illustrates the enhanced wireless capabilities of the SER5 Pro, featuring WiFi 6 for smoother traffic flow and lower latency, and Bluetooth 5.2 for stable connections to various devices.

## 3. SETUP GUIDE

### 3.1. Initial Connection

1. **Connect Display:** Connect your monitor(s) to the Mini PC using the HDMI, DisplayPort, or Type-C video output ports. The SER5 Pro supports up to three displays simultaneously.
2. **Connect Peripherals:** Plug in your keyboard, mouse, and any other USB devices into the available USB ports.
3. **Connect Network (Optional):** For a wired connection, connect an Ethernet cable to the LAN port. For wireless, ensure your WiFi network is available.
4. **Connect Power:** Insert the power adapter into the DC input port on the Mini PC, then plug the adapter

into a power outlet.

## 3.2. First Boot

1. Press the power button on the front of the Mini PC. The power LED will illuminate.
2. The system will boot into the pre-installed Windows 11 Pro operating system.
3. Follow the on-screen instructions to complete the initial Windows setup, including region, language, and user account creation.

## 4. OPERATING INSTRUCTIONS

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### 4.1. Basic Operation

- **Power On/Off:** Press the power button to turn on. To shut down, use the Windows Start menu options (Shut down, Restart, Sleep).
- **Connectivity:** Utilize the various USB ports for external devices, the LAN port for wired internet, and WiFi 6 for wireless internet. Bluetooth 5.2 allows connection to wireless peripherals like headphones and speakers.
- **Multi-Display Setup:** Connect up to three monitors using a combination of the HDMI, DisplayPort, and Type-C video outputs for extended desktop or mirrored displays.

### 4.2. Memory and Storage Expansion

The Beelink SER5 Pro offers upgrade options for both RAM and storage:

- **RAM Upgrade:** The Mini PC has two SO-DIMM DDR4 slots, supporting up to 32GB per slot for a maximum of 64GB dual-channel DDR4 3200MHz RAM.
- **SSD Upgrade:** The system is equipped with an M.2 2280 NVMe SSD slot (PCIe3.0 x4) that supports up to 2TB. Additionally, there is a slot for adding a 2.5-inch SSD/HDD for expanded storage.

*For detailed instructions on upgrading components, please refer to the official Beelink support resources or consult a qualified technician.*

## 5. MAINTENANCE

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### 5.1. Cooling System

The SER5 Pro features a built-in quiet and powerful cooling fan with a heat pipe and fins design to accelerate airflow and ensure efficient heat dissipation for the CPU, RAM, and SSD. This design helps maintain optimal performance and prevents overheating, even under heavy load.

# MSC Technology- System Fan

The system fan accelerates the air flow, providing efficient cooling for the RAM and the SSD.



Improved overall performance with new cooling

With system fan

Without system fan

Baseline

↑19%

Figure 5.1: MSC Technology - System Fan.

This diagram illustrates the internal airflow and cooling mechanism of the SER5 Pro, showing how the system fan accelerates air movement to provide efficient cooling for the RAM and SSD, improving overall performance.

## 5.2. Cleaning

- Regularly clean the exterior of the Mini PC with a soft, dry cloth.
- Ensure ventilation openings are free from dust and obstructions to maintain proper airflow. Use compressed air to gently clear dust from vents if necessary.

## 5.3. Software Updates

Keep your operating system and drivers updated to ensure optimal performance, security, and compatibility. Windows Update will automatically manage OS updates. For specific driver updates, visit the official Beelink support website.

## 6. TROUBLESHOOTING

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This section addresses common issues you might encounter with your Beelink SER5 Pro Mini PC.

### 6.1. No Power / System Not Starting

- Ensure the power adapter is securely connected to both the Mini PC and a working power outlet.
- Try a different power outlet.
- Verify the power adapter is the correct one supplied with the Mini PC.

### 6.2. No Display Output

- Check that the display cable (HDMI, DisplayPort, or Type-C) 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 possible.

### 6.3. Wi-Fi or Bluetooth Issues

- Restart the Mini PC. Sometimes a reboot can resolve temporary connectivity issues.
- Check if Wi-Fi and Bluetooth are enabled in Windows settings.
- Ensure your Wi-Fi router is functioning correctly and within range.
- Update wireless and Bluetooth drivers from the Beelink support website.

### 6.4. System Slowdown or Freezing

- Close unnecessary applications running in the background.
- Check Task Manager (Ctrl+Shift+Esc) for high CPU, RAM, or disk usage.
- Ensure the Mini PC has adequate ventilation and is not overheating.
- Run a disk cleanup and defragmentation (for HDDs) or TRIM (for SSDs).

### 6.5. CMOS Reset

If you encounter persistent boot issues or incorrect BIOS settings, you may need to clear the CMOS. The SER5 Pro has a dedicated CLR CMOS button on the front panel. To reset:

1. Turn off the Mini PC and disconnect the power adapter.
2. Locate the small 'CLR CMOS' button (often recessed) on the front panel.
3. Press and hold the button for 5-10 seconds using a paperclip or similar non-conductive pointed object.
4. Reconnect power and attempt to boot the system.

## 7. SPECIFICATIONS

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Detailed technical specifications for the Beelink SER5 Pro Mini PC:

# Product Specification

☑ Dimension	4.96*4.44*1.65 inch(126*113*42mm)		WOL
☑ CPU	AMD Ryzen™ 7 5825U 2-4.5GHz 8C/16T L2 4MB L3 16MB		☑ Additional function AUTO POWER ON
☑ Graphics	AMD Radeon™ Graphics 8core 2000 MHz		☑ Power LED 1
☑ Wireless LAN	WiFi 6 (AX200) Bluetooth 5.2		☑ Power Button 1
☑ System disk	M.2 2280 PCIe3.0 ×4	1	19V/3.42A Certification
☑ Internal slot	SO-DIMM DDR4 3200MHz Slot	2	☑ Adapter Input: 100-240V AC, 50/60Hz , Output: 19V/3.42A
	SATA HDD(2.5inch 7mm)Slot	1	☑ Operating Environment -10°C~45°C, 30%~90% Humidity
	DC Jack	1	☑ Storage Environment -20°C~60°C, 10%~90% Humidity
☑ Interface	USB3.2 Gen2(10Gbps)	3	Wall-Mounted bracket
	LAN 1000M	1	☑ Accessories HDMI 100CM
	4K 60Hz HDMI	1	Adapter19V/3.42A
	DisplayPort	1	
	Audio Jack (HP&MIC)	1	
	Type-C (Data&Video)	1	
	USB2.0	1	

Figure 7.1: Product Specification Table.

This image provides a comprehensive table of the SER5 Pro's specifications, including dimensions, CPU, graphics, wireless LAN, system disk, internal slots, interfaces, additional functions, power LED, power button, adapter details, and operating/storage environment conditions.

Feature	Specification
Brand	Beelink
Model Number	SER5 Pro
Processor	AMD Ryzen 7 5825U (8C/16T, up to 4.5GHz)
Graphics Coprocessor	AMD Radeon Vega 8-core 2000MHz
RAM	32 GB DDR4 (3200MHz, SODIMM, 2 slots, max 64GB)
Hard Drive	1 TB NVMe SSD (M.2 2280 PCIe3.0 x4, max 2TB)
Operating System	Windows 11 Pro

Wireless Type	WiFi 6 (802.11ax), Bluetooth 5.2
Video Output	HDMI 2.0 (4K@60Hz), DisplayPort 1.4 (4K@144Hz), Type-C (Data & Video)
USB Ports	3x USB 3.2 Gen2, 1x USB 2.0, 1x Type-C
LAN	Gigabit Ethernet (1000Mbps)
Audio Jack	HP&MIC (3.5mm)
Dimensions	4.96 x 4.44 x 1.65 inches (126 x 113 x 42 mm)
Item Weight	2.01 pounds
Color	Black
Additional Functions	Wake up On LAN (WOL), PXE, AUTO Power ON

## 8. WARRANTY AND SUPPORT

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Beelink provides comprehensive support for your Mini PC:

- **Warranty:** One-year quality assurance from the date of purchase.
- **Customer Service:** 24/7 manual customer service is available.
- **Technical Support:** Lifetime technical support is provided for your Beelink Mini PC.

### 8.1. How to Contact Support

If you have any questions or require assistance, please follow these steps:

1. Log in to your Amazon account.
2. Navigate to "Your Account".
3. Go to "Your Orders".
4. Locate your Beelink SER5 Pro Mini PC order.
5. Select "Ask Product Question" or contact the seller directly through the order details.

Beelink Mini PCs have passed CE, EMC, FCC, and RoHS certifications, ensuring product quality and safety.