

MINIX Z150-0dB

MINIX Z150-0dB Fanless Mini PC User Manual

Model: Z150-0dB

1. INTRODUCTION

This manual provides essential information for the setup, operation, and maintenance of your MINIX Z150-0dB Fanless Mini PC. Designed for quiet and efficient performance, this mini PC is suitable for a variety of applications including home office, industrial, and commercial environments. Please read this manual thoroughly before using your device.

2. PRODUCT OVERVIEW

The MINIX Z150-0dB is a high-performance, fanless mini PC featuring an Intel N150 processor. Its design prioritizes silent operation, reliability, and energy efficiency. Key features include:

- **Intel N150 Processor:** An efficient entry-level CPU (up to 3.6GHz, upgraded from N100) with Intel UHD Graphics, suitable for basic tasks, web browsing, and office applications.
- **Fanless Passive Cooling:** Ensures silent operation, reduced maintenance, dust-free performance, and no vibration, making it ideal for noise-sensitive environments.
- **Efficient RAM Cooling:** An exclusive feature that enhances thermal dissipation for memory, preserving performance and reliability.
- **No Throttling:** The system maintains full CPU power without underclocking to mitigate heat, ensuring sustained performance and optimal power usage.
- **Anti-Static Design:** Robust hardware protection minimizes the risk of damage from electrostatic discharge, enhancing component longevity and stability.



Image 2.1: The MINIX Z150-0dB Fanless Mini PC, showcasing its compact design and external antennas.

Intel 12th Gen N150 Fanless Mini PC

Z150-0dB



4
Cores

4
Threads

24EUs

Intel® UHD
Graphics

750MHz

Graphics Max
Dynamic Frequency



2.5Gbps Lan

High Speed and Stable



WiFi 6
(AX201)

Bluetooth5.2



DDR4
3200MHz



PCIe x 4
512GB



Quiet-0dB
Design

Image 2.2: An overview of the MINIX Z150-0dB's key specifications, including Intel N150 processor, 4 cores, 4 threads, Intel UHD Graphics, 2.5Gbps LAN, WiFi 6, DDR4 3200MHz, PCIe x4 512GB SSD, and Quiet-0dB design.

3. WHAT'S IN THE BOX

Upon unpacking your MINIX Z150-0dB, please ensure all the following items are present:

- 1 x MINIX NEO Z150 Mini PC
- 2 x Dual-band Antennas
- 1 x HDMI Cable
- 1 x VESA Mount with Screws
- 1 x Power Adapter with US/EU/UK Plugs
- 1 x User Manual (this document)

4. SETUP GUIDE

Follow these steps to set up your MINIX Z150-0dB Mini PC:

1. **Attach Antennas:** Screw the two dual-band antennas onto the designated connectors at the rear of

the mini PC. Ensure they are securely fastened.

2. **Connect Display:** Connect your monitor or TV to one of the HDMI 2.0 ports on the mini PC using the provided HDMI cable. The device supports dual 4K@60Hz displays.
3. **Connect Peripherals:** Plug in your USB keyboard and mouse into the available USB 3.2 Gen 2 or USB 2.0 ports.
4. **Network Connection:** For a wired connection, connect an Ethernet cable to the 2.5G Ethernet port. For Wi-Fi, ensure antennas are attached; the device supports Wi-Fi 6.
5. **Power Connection:** Connect the power adapter to the DC 12V-19V power jack on the mini PC, then plug the adapter into a power outlet.
6. **Power On:** Press the power button located on the front of the mini PC. The system will boot up, typically running Windows 11 Pro.



Image 4.1: Detailed diagram showing the port layout and dimensions of the MINIX Z150-0dB Mini PC, including TF Card Slot, USB-C (Data Only), USB 3.2 Gen 2, 3.5 mm Audio Jack, Power Button, Reset Button, DC 12V-19V Power Jack, USB 2.0, 2.5G Ethernet, HDMI 2.0, and Antenna Screw Mounts.

5. OPERATING INSTRUCTIONS

Your MINIX Z150-0dB Mini PC comes pre-installed with Windows 11 Pro, offering a familiar user experience.

- **Power On/Off:** Press the power button once to turn on the device. To shut down, use the standard Windows shutdown procedure. A quick press of the power button can also initiate sleep mode.
- **Dual Display Setup:** Connect two monitors to the HDMI 2.0 ports for an extended desktop experience. The system supports 4K resolution at 60Hz on both displays simultaneously.
- **Network Connectivity:** Utilize the 2.5G Ethernet port for high-speed wired internet or connect to a wireless network via the integrated Wi-Fi 6 (AX201) and Bluetooth 5.2.
- **USB-C Port:** The USB-C port is for data transfer only and does not support video output or power delivery.

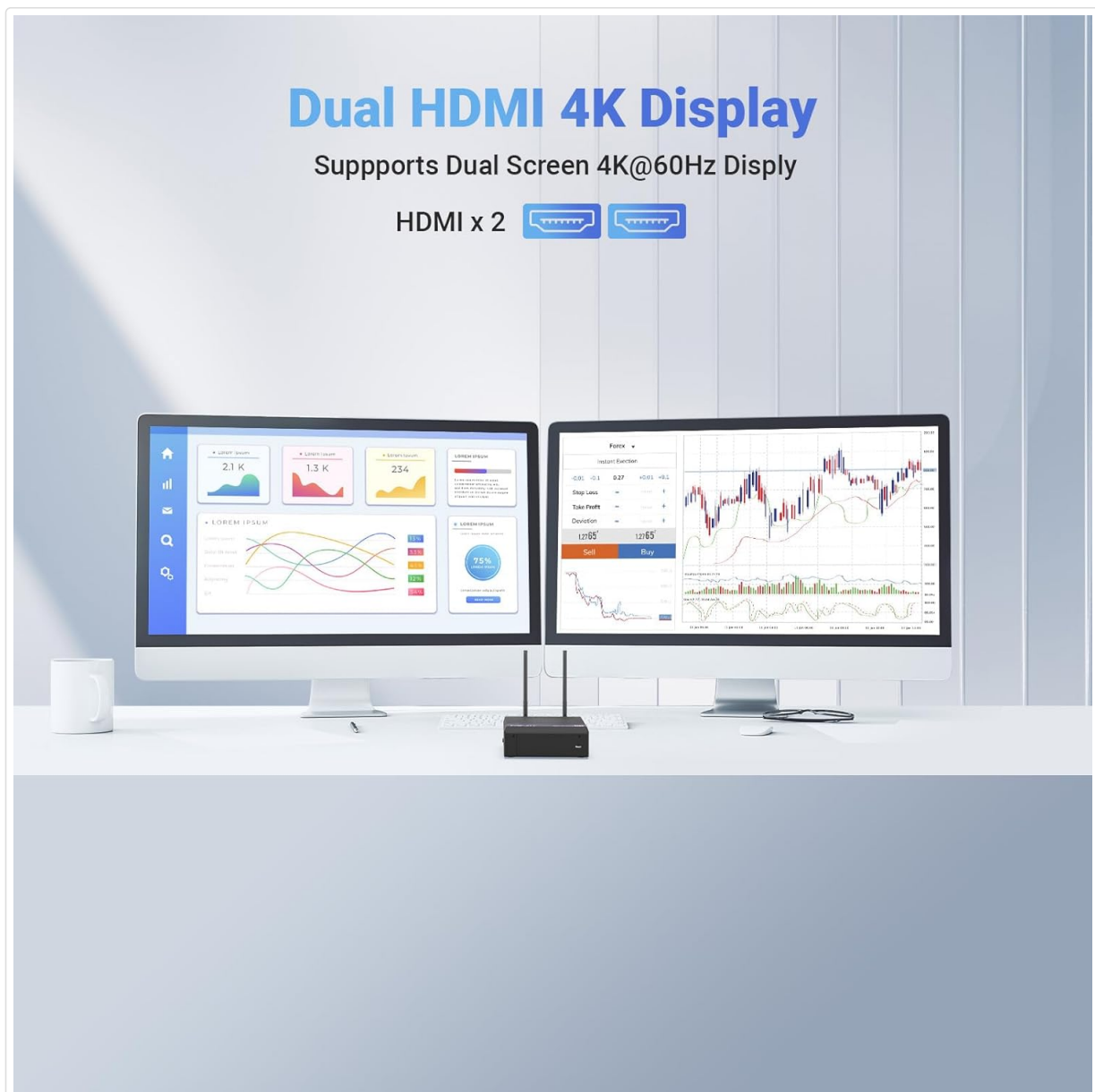


Image 5.1: The MINIX Z150-0dB Mini PC connected to two external monitors, demonstrating its dual HDMI 4K display capability for enhanced productivity.

6. MAINTENANCE

The fanless design of the MINIX Z150-0dB significantly reduces maintenance requirements compared to

traditional PCs. However, proper care ensures optimal performance and longevity.

- **Dust-Free Operation:** The fanless design prevents dust accumulation inside the unit, reducing the need for internal cleaning.
- **Heat Dissipation:** The mini PC utilizes a special metal shell for passive cooling. The surface, especially the top aluminum heat dissipation shell, may become warm or hot during intensive tasks. This is normal for fanless mini PCs.
- **Ensure Airflow:** Always ensure adequate airflow around the mini PC to improve its cooling performance. Do not obstruct the ventilation fins.
- **Handling:** Avoid touching the metal heat conduction shell with bare hands during operation, especially when the device is under heavy load, as it may be hot.

Anti Static Design

MINIX Z150-0dB mini pc build in with anti-static hardware protection. Ensuring reliability and sustained high performance.



Image 6.1: Illustration highlighting the anti-static hardware protection of the MINIX Z150-0dB, contributing to component longevity and stability.



Image 6.2: An exploded view illustrating the internal cooling layers and heat dissipation mechanism of the MINIX Z150-0dB, showing how heat is conducted away from components.

7. TROUBLESHOOTING

If you encounter issues with your MINIX Z150-0dB, refer to the following common troubleshooting steps:

- **No Display:**

- Ensure the power adapter is securely connected and the power button is pressed.
- Verify that the HDMI cable is firmly connected to both the mini PC and the monitor.
- Test with a different HDMI cable or monitor if possible.

- **No Power:**

- Check the power adapter and cable for any damage.
- Ensure the power outlet is functional.

- **Network Connectivity Issues:**

- For wired connections, check the Ethernet cable and router status.
- For Wi-Fi, ensure the antennas are properly attached and the device is within range of your wireless network. Check Wi-Fi settings in Windows.

- **System Slowdown/Performance Issues:**

- While the Z150-0dB is designed for no throttling, ensure adequate ventilation around the device.
- Close unnecessary applications to free up RAM and CPU resources.
- Ensure Windows is up to date.

No throttling

Z150-0dB Fanless mini PC featuring an Intel® N150 CPU, maintains full power without underclocking for heat.



Image 7.1: Diagram illustrating the 'No Throttling' feature of the MINIX Z150-0dB, showing how it maintains full CPU power without underclocking, unlike other systems.

8. SPECIFICATIONS

Feature	Detail
Processor	Intel N150 (up to 3.6 GHz Celeron, 4 Cores, 4 Threads)
Graphics	Intel UHD Graphics (24 EUs, 750MHz Max Dynamic Frequency)
RAM	16GB DDR4 3200MHz SO-DIMM (Single-channel support up to 32GB Max)
Storage	512GB PCIe Gen3 x 4 NVMe SSD (Read >2000 MB/s, Write >1500 MB/s)
Operating System	Windows 11 Pro
Display Output	2 x HDMI 2.0 (Supports Dual 4K@60Hz Display)
LAN	2.5G Ethernet (RTL8125BG-CG)
Wireless Connectivity	Wi-Fi 6 (AX201), Bluetooth 5.2 (5 GHz Radio Frequency)

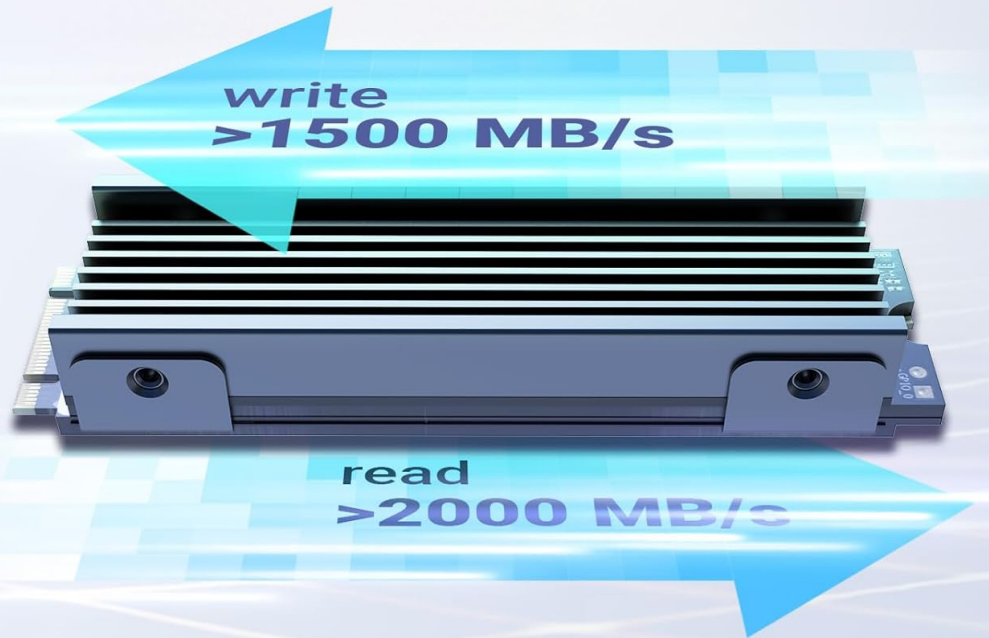
Feature	Detail
USB Ports	2 x USB 3.2 Gen 2, 2 x USB 2.0, 1 x USB-C (Data Only)
Audio	1 x 3.5 mm Audio Jack
Card Reader	TF Card Slot
Dimensions (LxWxH)	4.84 x 4.72 x 1.81 inches (123 x 120 x 46 mm)
Weight	1.96 pounds



Image 8.1: Illustration of the RAM with heatsink cooling, demonstrating how thermal dissipation is optimized to preserve memory performance and reliability.

PCIe 3.0 x 4 SSD

Reliable and Durable: equipped with a heat sink for efficient heat dissipation, prolonging the lifespan of the drive.



M.2 PCIe 3.0 x4 NVMe SSD

2068MB/s

SATA SSD

500MB/s

Image 8.2: Visual representation of the PCIe 3.0 x 4 SSD, highlighting its read and write speeds (Read >2000 MB/s, Write >1500 MB/s) and comparing it to SATA SSD performance.

9. WARRANTY AND SUPPORT




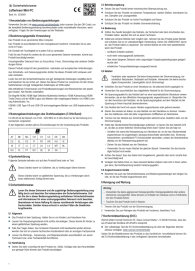


For warranty information, please refer to the official MINIX website or the documentation included with your purchase. MINIX products are designed for reliability and durability.

Customer Support:

If you require assistance or have questions regarding your MINIX Z150-0dB, you can reach customer support through the following methods:

- **Amazon Support:** Log in to your Amazon account, navigate to "Your Account" > "Your orders," and select "Ask Product Question" for your MINIX Z150-0dB purchase.
- **Official Website:** Visit the official MINIX website for additional support resources, FAQs, and contact information for offline maintenance services.

Related Documents - Z150-0dB

	<p>Minix NEO J50C-8SE Mini PC User Guide</p> <p>User guide for the Minix NEO J50C-8SE Mini PC featuring Intel Celeron J4125 processor, 8 GB RAM, 240 GB SSD, and Windows 10 Pro. Learn about setup and usage.</p>
	<p>MINIX NEO Z83-4 Max Fanless Mini PC User Guide</p> <p>Comprehensive guide for the MINIX NEO Z83-4 Max fanless mini PC, covering specifications, contents, overview of ports and features, and setup instructions.</p>
	<p>MINIX NEO Z83-4 Max Fanless Mini PC Setup Guide</p> <p>A comprehensive setup guide for the MINIX NEO Z83-4 Max fanless mini PC, covering specifications, connections, and basic setup for Windows 10 Pro.</p>
	<p>Minix Fanless Mini PC (Model 3338301) - Safety and Technical Data</p> <p>Comprehensive safety instructions, intended use, wireless restrictions, and technical specifications for the Minix Fanless Mini PC (Item No. 3338301). Learn about proper handling, operation, cleaning, and disposal.</p>
	<p>MINIX Wireless USB-C to HDMI Dongle (1080P) Quick Start Guide</p> <p>Step-by-step instructions for setting up the MINIX Wireless USB-C to HDMI Dongle (1080P), including connection details for C1 and H1 transmitters and FCC compliance information.</p>
	<p>MINIX U8K-ULTRA 8K UHD AI Media Hub User Guide</p> <p>Comprehensive user guide for the MINIX U8K-ULTRA, an 8K UHD AI Media Hub powered by Android. Learn about specifications, setup, and controls.</p>