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HUNSN RX03

HUNSN RX03 Micro Firewall Appliance User Manual

Model: RX03

1. INTRODUCTION

The HUNSN RX03 is a versatile Micro Firewall Appliance designed for network security, routing, and mini PC applications. Featuring an Intel Celeron processor and a fanless aluminum chassis, it offers reliable and quiet operation. This device supports a wide range of operating systems, including FreeBSD-based router systems, Linux distributions, and Windows OS, making it suitable for various firewall solutions like pfSense, Untangle, OPNsense, and Sophos XG.

This manual provides essential information for setting up, operating, maintaining, and troubleshooting your RX03 appliance. Please read it thoroughly before use.

2. PACKAGE CONTENTS

Verify that all items are present in the package:

- HUNSN RX03 Firewall Appliance
- Power Supply (DC12V5A)
- Power Cord
- VESA Mount Kit
- Warranty Card

3. DEVICE OVERVIEW

Familiarize yourself with the ports and indicators on your HUNSN RX03 appliance.



Figure 3.1: HUNSN RX03 Micro Firewall Appliance. This image provides an angled view of the device, showcasing its compact design and fanless heat sink fins.



Figure 3.2: Front and Rear Panel Overview. This image displays the front and rear panels of the HUNSN RX03, highlighting the various input/output ports including LAN, USB, HDMI, and power input.

Front Panel

- **Power Button:** Press to power on or off the device.
- **Reset Button:** Small button for system reset.
- **Nano SIM Slot:** For cellular connectivity (requires compatible 4G module).
- **HDMI Port:** For video output to a monitor.
- **USB 3.0 Ports (x4):** For connecting peripherals like keyboards, mice, or USB storage.
- **COM Port:** Serial port for console access or other serial devices.
- **LAN Ports (x6):** Intel I211-AT Gigabit Ethernet ports for network connections.

Rear Panel

- **DC_IN:** Power input jack (12V DC).

4. SETUP

4.1. Physical Installation

The RX03 supports various installation methods. By default, it is configured for VESA wall-mounted installation.

1. VESA Mount:

- Attach the VESA mount bracket to the rear of a compatible monitor or a wall using appropriate screws.
- Secure the RX03 appliance to the VESA mount bracket.

2. **Desktop Placement:** Place the device on a flat, stable surface with adequate ventilation. Ensure no obstructions block the heat sink fins.

3. **Din Rail (Optional):** If Din Rail mounting is required, ensure you have the correct RX03a model or an appropriate adapter.

4.2. Connecting Peripherals

1. **Connect Display:** Connect a monitor to the HDMI port.

2. **Connect Input Devices:** Connect a USB keyboard and mouse to the USB 3.0 ports.

3. **Connect Network Cables:** Connect your network cables to the desired LAN ports. The device features 6 Intel I211-AT Gigabit Ethernet ports.

4. **Insert SIM Card (Optional):** If using a 4G module, insert a Nano SIM card into the Nano SIM slot.

5. **Connect Power:** Connect the power adapter to the DC_IN port on the rear panel, then plug the power cord into an electrical outlet.



Figure 4.1: Connecting Cables. This image illustrates the process of connecting essential cables such as power, HDMI, and network cables to the HUNSN RX03 appliance.

4.3. Initial Boot and OS Installation

1. After connecting all necessary peripherals and power, press the **Power Button** on the front panel.
2. The device will power on. If no operating system is pre-installed, you will need to install one. The RX03 supports various operating systems, including FreeBSD-based router systems (e.g., pfSense, OPNsense), Linux distributions, and Windows OS.
3. To install an OS, prepare a bootable USB drive with your chosen operating system. Insert it into a USB 3.0 port.
4. Access the BIOS/UEFI settings (usually by pressing **DEL** or **F2** during boot-up) to configure the boot order and initiate the OS installation process.

5. OPERATING THE DEVICE

5.1. Power On/Off

- **Power On:** Press the Power Button once.
- **Power Off:** Press and hold the Power Button for a few seconds, or shut down the operating system gracefully.
- **Hardware Auto Power On:** The device supports hardware auto power on, which is enabled by default. This means the device will automatically power on when power is restored after an outage.

5.2. Advanced Features

- **Timing Boot:** Configure scheduled power-on times via BIOS settings.
- **Wake-on-LAN (WOL):** Enable WOL in BIOS to power on the device remotely via network signal.
- **PXE Boot:** Preboot eXecution Environment allows booting from a network server. Enable in BIOS.
- **Watchdog:** A hardware watchdog timer (0-255 level) is supported to automatically reset the system if it becomes unresponsive. Configuration is typically done via the operating system or BIOS.

6. MAINTENANCE

6.1. Cooling and Ventilation

The HUNSN RX03 features a fanless design, relying on its aluminum chassis and heat sink fins for passive cooling. To ensure optimal performance and longevity:

- Ensure adequate airflow around the device. Do not place it in enclosed spaces or cover the heat sink fins.
- Keep the device away from direct sunlight or heat sources.
- Regularly check for dust accumulation on the heat sink fins and gently clean them with compressed air or a soft brush.

6.2. Storage and Memory Upgrades

The device supports upgrades for storage and memory:

- **Storage:** It has one mSATA SSD slot and one 2.5-inch SATA SSD/HDD slot.
- **Memory:** It features two SODIMM DDR4-2133 slots, supporting a maximum of 32GB RAM.

Caution: Opening the chassis for upgrades should be performed by qualified personnel to avoid voiding the warranty or damaging components. Always disconnect power before performing any internal maintenance or upgrades.

7. TROUBLESHOOTING

If you encounter issues with your HUNSN RX03, refer to the following common troubleshooting steps:

Problem	Possible Cause	Solution
Device does not power on.	No power supply, faulty power adapter, loose connection.	<ul style="list-style-type: none">◦ Ensure the power adapter is securely connected to the device and the electrical outlet.◦ Verify the power outlet is functional.◦ Try a different power cord or adapter if available.
No display on monitor.	Loose HDMI cable, incorrect monitor input, display issue.	<ul style="list-style-type: none">◦ Check HDMI cable connection at both the device and the monitor.◦ Ensure the monitor is set to the correct input source (HDMI).◦ Test with a different monitor or HDMI cable.
Network connectivity issues.	Loose Ethernet cable, incorrect network configuration, driver issues.	<ul style="list-style-type: none">◦ Verify Ethernet cables are securely connected to the LAN ports and your network switch/router.◦ Check network settings within your operating system.◦ Ensure network drivers are correctly installed.
System is unresponsive.	Software crash, hardware issue.	<ul style="list-style-type: none">◦ Press the Reset Button on the front panel.◦ If the issue persists, perform a hard power cycle (disconnect power, wait 10 seconds, reconnect).◦ Reinstall the operating system if software corruption is suspected.

If these steps do not resolve your issue, please contact HUNSN customer support for further assistance.

8. SPECIFICATIONS

Feature	Detail
Model Number	HUNSN RX03
Chassis	Aluminum
CPU	Intel Celeron Processor 3865U / 3867U (1.8 GHz)
AES-NI Support	Yes
Memory	2 x SODIMM DDR4-2133 slots, Max. 32GB (16GB RAM included)
Storage	1 x mSATA SSD slot, 1 x 2.5 Inch SATA SSD/HDD slot (512GB SSD included)
Network Card	Intel I211-AT 10/100/1000M LAN (6 ports)
I/O Interface	Power ON/OFF, Reset, Nano SIM Slot, HDMI, 4 x USB3.0, COM, DC_IN, 6 x LAN
Expansion	1 x half height MINI PCIE slot (WiFi), 1 x full height MINI PCIE slot (mSATA/4G module)
Power	DC100-240V AC/50-60hz, 12V5A
Work Temperature	0°C to +50°C (Commercial HDD), -20°C to +50°C (Industrial SSD)
Work Humidity	0%~95% non-condensing
TDP	15W
Cooling System	Fanless
Size	186 x 126.5 x 66mm
Weight	1.5 kgs
System Compatibility	FreeBSD-based router systems, Linux distributions, Windows OS (e.g., pfSense, Untangle, OPNsense, Sophos XG)

9. WARRANTY AND SUPPORT

Your HUNSN RX03 appliance comes with a warranty. Please refer to the included warranty card for specific terms and conditions.

For technical support, inquiries, or customization needs, please contact HUNSN customer service. You can find contact information on the warranty card or by visiting the official HUNSN store on Amazon.

Online Store: [HUNSN Store on Amazon](#)