

HUNSN RJ36

HUNSN RJ36 Micro Firewall Appliance User Manual

Model: RJ36

1. PRODUCT OVERVIEW

The HUNSN RJ36 is a compact, fanless micro firewall appliance designed for various network applications, including VPN, routing, and firewall solutions. It is equipped with an Intel Alder Lake-N 12th Gen N100 processor and features multiple 2.5GbE I226-V network ports, making it suitable for demanding network environments. This device is sold as a barebone unit, requiring the user to install system memory, a storage drive, and an operating system.



Figure 1: HUNSN RJ36 Micro Firewall Appliance, showcasing its compact design and heat sink fins.

2. PACKAGE CONTENTS

- HUNSN RJ36 Firewall Appliance
- Power Supply (DC12V3A)
- Power Cord
- Warranty Card

3. SETUP AND INSTALLATION

The HUNSN RJ36 is a barebone system. Before operation, you must install compatible RAM and a storage drive, and then install an operating system.

3.1 Required Components (Not Included)

- **System Memory (RAM):** One (1) SO-DIMM DDR5 4800 MT/s module, up to 32GB.
- **Storage Drive:** One (1) M.2 2280 NVME x4 SSD. Alternatively, an M.2 WiFi adapter board can be used for an M.2 2280 NVME x1 SSD, or a 2.5-inch SATA SSD/HDD (2 choose 1 with the M.2 WiFi adapter board).
- **Operating System:** Compatible with 5.10.x and above core-based FreeBSD router systems, Linux distributions, or Windows operating systems. UEFI support only.

3.2 Hardware Installation

1. **Open the Chassis:** Carefully open the appliance chassis to access the internal components. Refer to the manufacturer's specific instructions for opening the case.
2. **Install RAM:** Locate the SO-DIMM slot. Insert the DDR5 RAM module firmly until it clicks into place.
3. **Install Storage Drive:**
 - a. For M.2 NVME SSD: Insert the M.2 2280 NVME SSD into the designated M.2 slot and secure it with the provided screw.
 - b. For 2.5-inch SATA SSD/HDD: Connect the SATA data and power cables to the drive and the motherboard. Secure the drive within the chassis if mounting points are available.
4. **Close the Chassis:** Once all components are installed, carefully close and secure the chassis.

3.3 Connecting Peripherals

Connect the necessary cables to the appliance. The RJ36 features various I/O interfaces:

- **Power ON/OFF Button:** Located on the front panel.
- **USB Ports:** Two (2) USB 3.0 ports and six (6) USB 2.0 ports for connecting peripherals like keyboards, mice, or USB drives.
- **Video Outputs:** One (1) HDMI 2.1 port and one (1) DisplayPort 1.4 for connecting to a monitor.
- **LAN Ports:** Four (4) 2.5GbE I226-V LAN ports for network connectivity.
- **TF Slot:** For data storage or system boot from a TF card.
- **DC_IN:** Power input for the 12V3A power adapter.
- **GPIO, Auto Power Key, CLR CMOS:** Advanced controls for specific configurations.



Figure 2: Rear panel connectivity of the HUNSN RJ36, highlighting the four 2.5GbE LAN ports and video outputs.

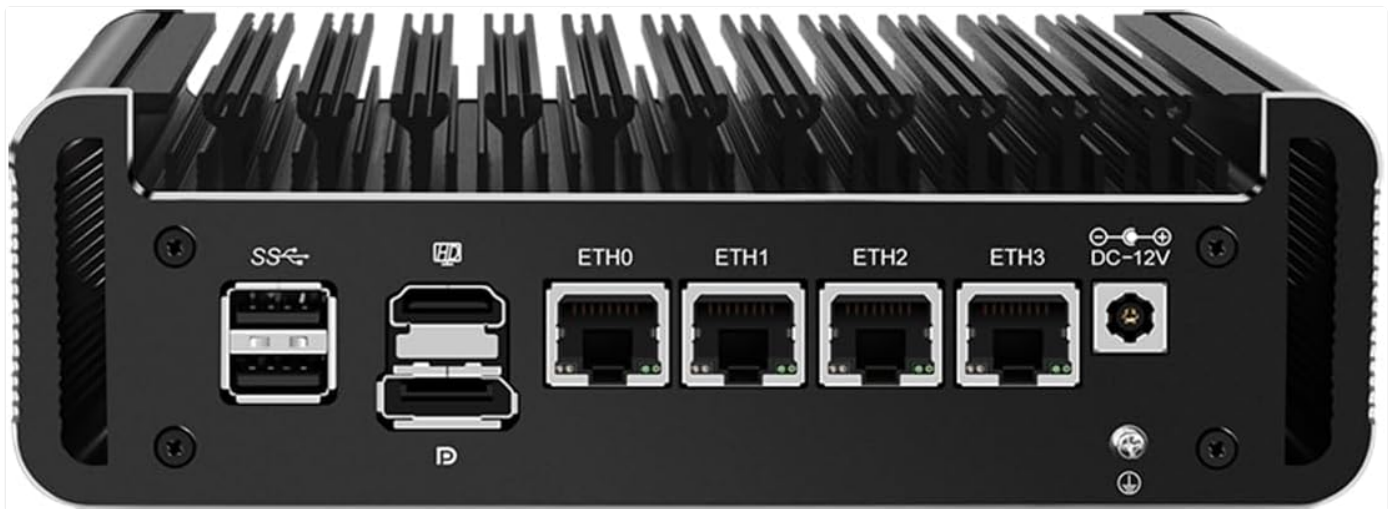


Figure 3: Front panel connectivity of the HUNSN RJ36, including USB ports and the TF slot.

4. OPERATING INSTRUCTIONS

4.1 Powering On

After connecting the power adapter and all necessary peripherals, press the Power ON/OFF button on the front panel to start the appliance. The device supports hardware auto power on, which is enabled by default.

4.2 Operating System Installation

Install your preferred operating system (e.g., FreeBSD-based router systems, Linux distributions, or Windows) onto the installed storage drive. Ensure your installation media is configured for UEFI boot, as the system supports UEFI only.

4.3 System Functions

- **Network Wake-up:** Supports Wake-on-LAN (WoL) functionality.
- **System Power Management:** Advanced power management features are available.
- **Temperature Management:** The system includes features for monitoring and managing internal temperatures.
- **AES-NI Support:** The Intel N100 processor supports AES New Instructions for hardware-accelerated encryption.

5. MAINTENANCE

The HUNSN RJ36 features a fanless design, which contributes to silent operation and reduces dust accumulation. Regular maintenance is minimal but recommended:

- **Dust Removal:** Periodically clean the exterior of the appliance, especially the heat sink fins, to ensure optimal heat dissipation. Use a soft, dry cloth or compressed air.
- **Temperature Monitoring:** While fanless, ensure the appliance is operated within its specified temperature range (-10°C to 70°C) and in a well-ventilated area to prevent overheating.
- **Optional Fan Installation:** The chassis includes 80x80mm holes and two small 4-pin fan sockets, supporting the addition of an 8010 fan for enhanced cooling if desired, with temperature-control capabilities.

6. TROUBLESHOOTING

6.1 Common Issues

- **No Display Output:**

Ensure the monitor is correctly connected to either the HDMI or DisplayPort. Verify the monitor is powered on and set to the correct input source. If the system emits 5 beeps upon startup, this may indicate a display detection issue or a CPU-related problem. Check all connections and ensure RAM is properly seated.
- **System Not Powering On:**

Verify the power adapter is securely connected to both the appliance and a working power outlet. Ensure the power button is fully pressed. Check the power cord for any damage.
- **Operating System Not Booting:**

Confirm that RAM and the storage drive are correctly installed. Ensure the operating system is installed on the drive and that the BIOS/UEFI settings are configured to boot from the correct device. Remember, the system supports UEFI boot only.
- **Overheating Concerns:**

Although fanless, ensure adequate airflow around the appliance. Avoid placing it in enclosed spaces. If temperatures are consistently high, consider installing an optional 8010 fan.

6.2 Clearing CMOS

If you encounter boot issues or incorrect BIOS settings, you can clear the CMOS. Locate the CLR CMOS button/jumper on the front panel or motherboard and follow the instructions in the BIOS manual for your specific board to reset settings to default.

7. TECHNICAL SPECIFICATIONS

Feature	Specification
Model Number	HUNSN RJ36
Chassis	Aluminum with knockout hole
CPU	Intel Processor N100 (6M Cache, up to 3.40 GHz)
AES-NI Support	Yes

Feature	Specification
Memory	1 x SO-DIMM DDR5 4800 MT/s, up to 32GB
Storage	1 x M.2 2280 NVME x4 SSD; 1 x M.2 WiFi adaptor board for M.2 2280 NVME x1 SSD / 1 x 2.5 Inch SATA SSD/HDD (2 choose 1)
Network Card	Intel 2.5GbE I226-V (4 ports), UDE built-in filter connector
I/O Interface	Power ON/OFF, GPIO, Auto Power Key, CLR CMOS, 2 x USB3.0, 6 x USB2.0, TF Slot, HDMI2.1, DP1.4, 4 x LAN, DC_IN
Expansion	1 x M.2 Key-E WiFi slot (for NVME SSD if M.2 NVME adapter board removed); SATA3.0 socket and WiFi socket signal (2 choose 1); Support to expand 4 x M.2 x1/mSATA/SATA (customizable)
Power	DC100-240V AC/50-60hz, 12V3A
Operating Temperature	-10°C to 70°C
Storage Temperature	0°C to 70°C
Relative Humidity	5%~85% non-condensing
TDP	6W
Cooling System	Fanless (supports optional 8010 fan)
Dimensions (L x W x H)	178.3 x 135.6 x 55mm (7.02 x 5.34 x 2.17 inches)
Weight	1.3 kgs (2.87 lbs)
System Compatibility	FreeBSD router systems (5.10.x+), Linux distros, Windows OS (UEFI support only)
Firewall Compatibility	pfSense Plus, OPNsense, other popular open-source solutions

8. WARRANTY AND SUPPORT

For warranty information and technical support, please contact the seller, HUNSN, directly through the platform where the product was purchased. HUNSN is committed to providing responsive and helpful customer service.

While specific warranty periods may vary, the manufacturer ensures the product is free from defects in materials and workmanship under normal use. For any issues or inquiries, reaching out to the seller is the recommended first step.

ASK A QUESTION ABOUT THIS MANUAL

Ask about setup, troubleshooting, compatibility, parts, safety, or missing instructions. Manuals+ will review the question and use this page's manual context to help answer it.

Name

Anonymous

Email

you@example.com

After a successful submission, we securely hash the supplied account or form email before sending it to Microsoft Advertising for conversion attribution. [Privacy details](#).

Question

Example: How do I reset this device or fix this error?

Details

Model number, symptoms, what you tried, or the section of the manual you are using.

Submit question