

Sharevdi F12

Sharevdi Micro Firewall Appliance User Manual

Model: F12

1. INTRODUCTION

This user manual provides detailed instructions for the installation, operation, and maintenance of your Sharevdi Micro Firewall Appliance. This fanless mini PC is designed for various network security and routing applications, offering robust performance with its Intel N3700 processor and multiple 2.5 Gigabit Ethernet ports. Please read this manual thoroughly before using the device to ensure proper setup and functionality.

2. PACKAGE CONTENTS

Carefully unpack the box and ensure all items listed below are present and in good condition. If any items are missing or damaged, please contact Sharevdi customer support.

- 1 x Sharevdi Micro Firewall Appliance (Mini PC)
- 1 x Power Adapter
- 1 x Power Cord
- 1 x User Manual (this document)
- 1 x Mounting Bracket & Screws (for VESA mounting)
- 1 x Quality Conformity Certificate

What you will get



- 1*Sharevdi Mini PC
- 1* Power Adapter
- 1* Power Cable
- 1* User Manual
- 1*Certificate of Quality
- 1* Mounting Bracket
- WiFi & Screws
- SATA Hard Disk Cables

Figure 2.1: All items included in the product package, showing the mini PC, power adapter, power cord, user manual, and mounting accessories.

3. PRODUCT OVERVIEW

The Sharevdi Micro Firewall Appliance is a compact and fanless mini PC designed for robust network applications. It features multiple high-speed Ethernet ports and a low-power processor, making it ideal for 24/7 operation.

3.1. Front and Rear Panel Layout

More Ports Multi-purpose

The Processor N3700 supports AES-NI

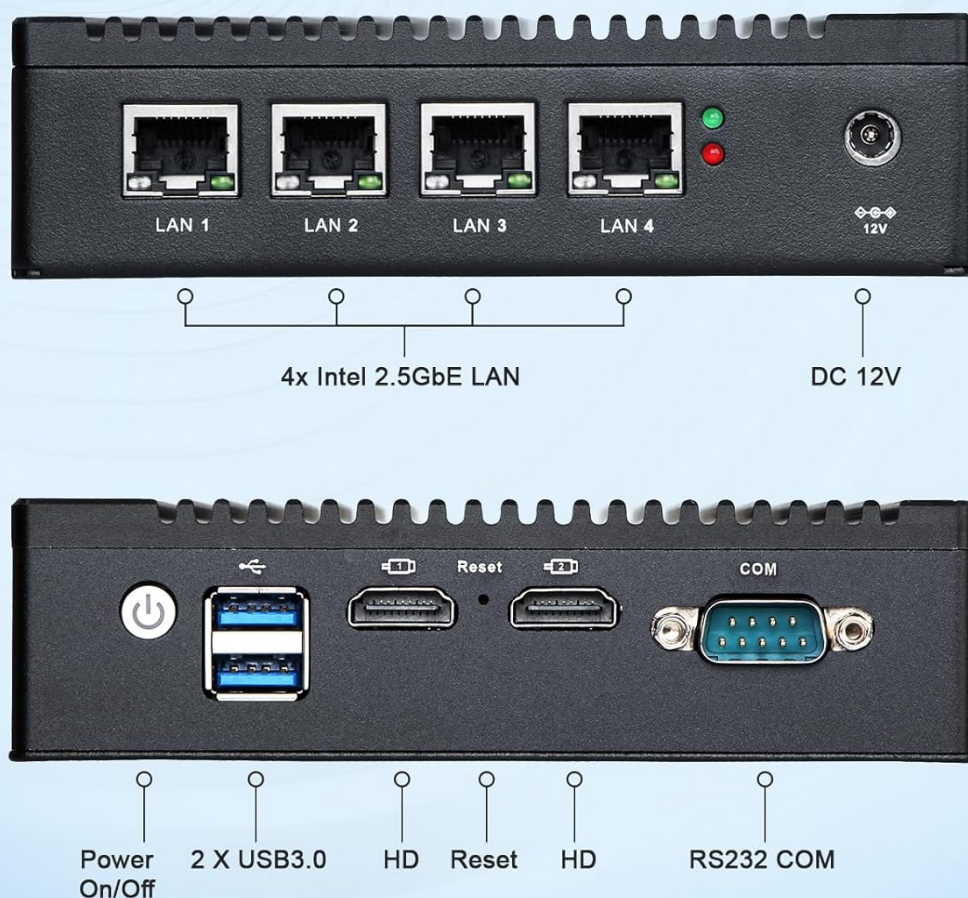


Figure 3.1: Detailed view of the front and rear panels, highlighting the 4x Intel 2.5GbE LAN ports, DC 12V power input, Power On/Off button, 2x USB 3.0 ports, HD (HDMI) ports, Reset button, and RS232 COM port.

- **LAN 1-4 Ports:** Four Intel 2.5 Gigabit Ethernet ports (i226-V) for high-speed network connections.
- **DC 12V:** Power input port for the included power adapter.
- **Power On/Off:** Button to power the device on or off.
- **USB 3.0 Ports:** Two high-speed USB 3.0 ports for connecting peripherals.
- **HD Ports:** Two HDMI ports for video output, supporting up to 3840x2160@30Hz.
- **Reset Button:** Button to reset the device.
- **RS232 COM Port:** Serial communication port.

3.2. Internal Components (Exploded View)

Exploded View

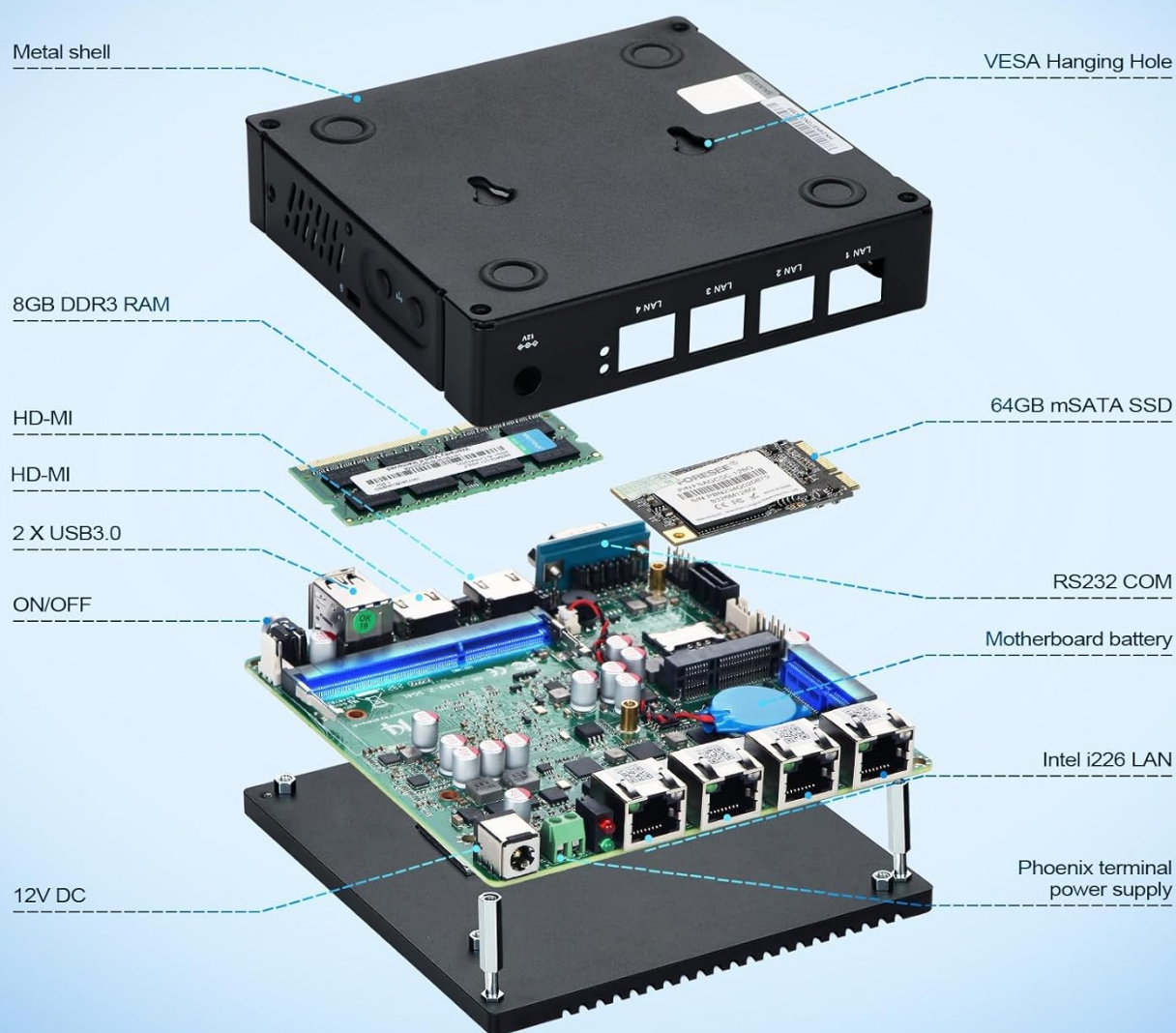


Figure 3.2: An exploded diagram illustrating the internal components, including the metal shell, 8GB DDR3 RAM, 64GB mSATA SSD, motherboard, Intel I226 LAN chips, and power supply connections.

- **Intel N3700 Processor:** 4 Cores/4 Threads, up to 2.40GHz, with AES-NI support.
- **8GB DDR3 RAM:** Provides sufficient memory for various applications.
- **64GB mSATA SSD:** Fast and reliable storage for the operating system and applications.
- **Intel i226 LAN Chips:** Dedicated chips for stable and high-speed Ethernet connectivity.
- **Fanless Design:** Aluminum alloy casing provides efficient heat dissipation without noise.

4. SETUP GUIDE

Follow these steps to set up your Sharevdi Micro Firewall Appliance.

4.1. Initial Connection

1. **Connect Display:** Connect a monitor to one of the HD (HDMI) ports on the rear panel using an HDMI cable.
2. **Connect Peripherals:** Connect a USB keyboard and mouse to the USB 3.0 ports.
3. **Connect Network:** Connect your network cables to the LAN ports as required by your network configuration.

For initial setup, connect your internet source to LAN1 and your local network to LAN2.

4. **Connect Power:** Plug the power adapter into the DC 12V port on the device, then plug the power cord into an electrical outlet.

4.2. Powering On

Press the Power On/Off button located on the rear panel. The power indicator light on the front will illuminate, and the device will begin to boot up.

4.3. Operating System Installation (if applicable)

The device typically comes with a firewall OS pre-installed. If you need to install or re-install an operating system (e.g., Linux Ubuntu, pfSense, OPNsense), follow these general steps:

1. Prepare a bootable USB drive with your desired operating system image.
2. Insert the USB drive into a USB 3.0 port on the device.
3. Power on the device and repeatedly press the **DEL** or **F2** key (or as indicated on screen) to enter the BIOS/UEFI setup.
4. Navigate to the Boot menu and set the USB drive as the primary boot device. Save changes and exit.
5. The device will boot from the USB drive, allowing you to proceed with the OS installation.

5. OPERATING INSTRUCTIONS

Once the operating system is installed and configured, you can begin using your Sharevdi Micro Firewall Appliance for its intended purpose.

5.1. Network Configuration

The primary function of this device is network security and routing. Configuration of network interfaces (LAN ports) will depend on the specific operating system or firewall software you are using (e.g., pfSense, OPNsense, Linux distributions). Refer to the documentation of your chosen software for detailed network setup instructions.

4 x Intel 2.5 Gigabit Ethernet Ports



Figure 5.1: Visual representation of the four 2.5 Gigabit Ethernet ports, emphasizing their role in high-speed network connectivity for various applications.

5.2. Key Features and Capabilities

Powerful Firewall Mini PC



Figure 5.2: Overview of the device's capabilities, including support for PXE, VPN, Network/Data Security, Wake-on-LAN, Auto-power-on, AES-NI, and overall System Stability and Reliability.

- **AES-NI Support:** Hardware acceleration for encryption tasks, crucial for VPN and secure communications.
- **PXE Boot:** Allows booting from a network server.
- **Wake-on-LAN (WoL):** Enables remote power-on of the device.
- **Auto-power-on:** Configurable to automatically power on after a power outage.
- **Dual Display:** Supports two independent displays via the HD (HDMI) ports.
- **Wi-Fi (Optional):** If a compatible Wi-Fi module is installed, the device supports 802.11 b/g for wireless connectivity. Note: Wi-Fi module requires USB Channel Communication.

2.4G WiFi + 4*Gigabit Ethernet

Please note: WiFi module is required to support USB Channel Communication, otherwise it will not work

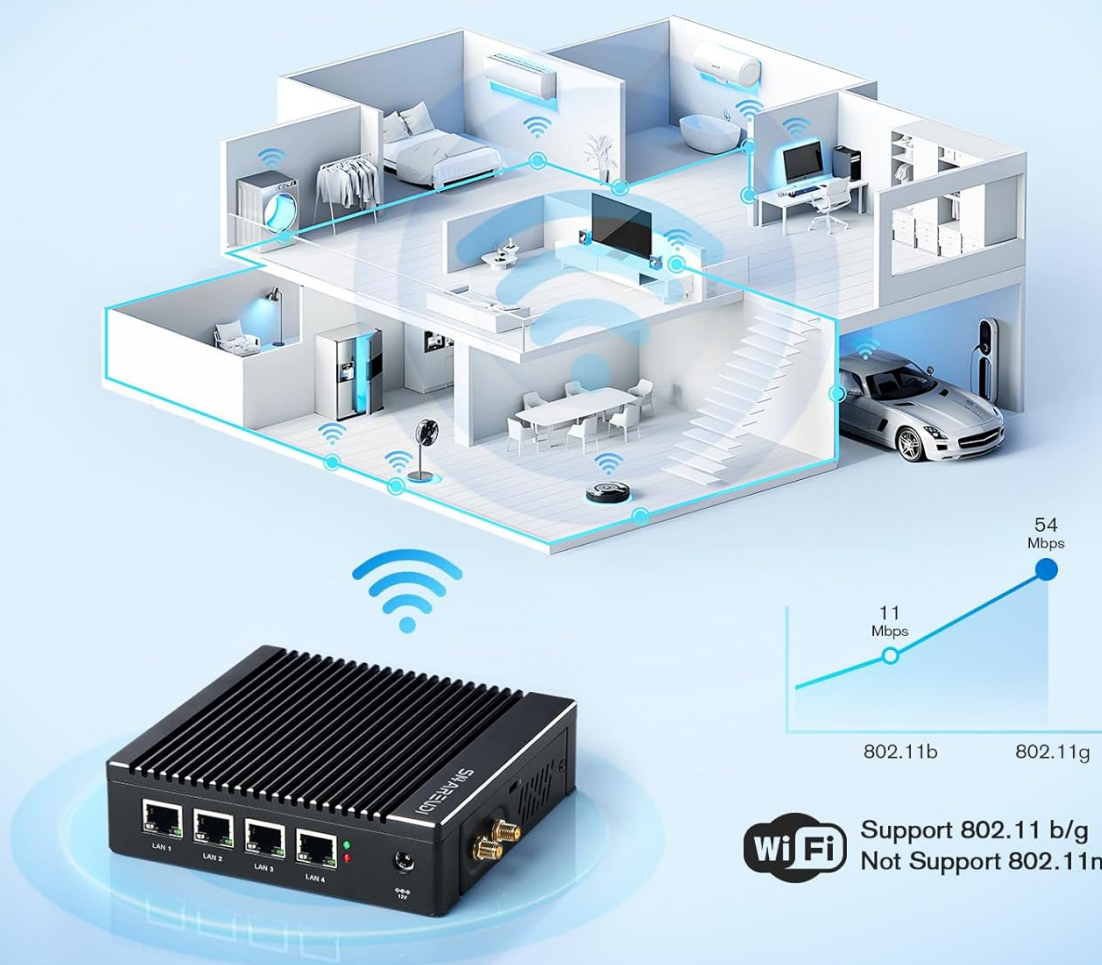


Figure 5.3: Illustrates the integration of 2.4G Wi-Fi and 4 Gigabit Ethernet ports within a typical home or office network environment, highlighting network coverage and speed capabilities.

6. MAINTENANCE

To ensure the longevity and optimal performance of your Sharevdi Micro Firewall Appliance, follow these maintenance guidelines:

- **Keep Clean:** Regularly clean the exterior of the device with a soft, dry cloth. Avoid using liquid cleaners or aerosols.
- **Ventilation:** Although fanless, ensure the device is placed in a well-ventilated area to allow for proper heat dissipation. Do not block the heat sink fins.
- **Temperature:** Operate the device within its specified temperature range. Avoid extreme hot or cold environments.
- **Firmware/Software Updates:** Regularly check for and apply updates to your operating system and firewall software to ensure security and performance improvements.
- **Power Supply:** Use only the original power adapter provided with the device.

7. TROUBLESHOOTING

This section addresses common issues you might encounter with your Sharevdi Micro Firewall Appliance.

Problem	Possible Cause	Solution
Device does not power on.	No power, faulty power adapter, loose connection.	Check power cord and adapter connections. Ensure the power outlet is functional. Try a different outlet.
No display output.	Loose HDMI cable, incorrect input on monitor, display driver issue.	Ensure HDMI cable is securely connected. Select the correct input source on your monitor. Reinstall or update display drivers if OS is accessible.
Network connection issues.	Incorrect cable, misconfigured OS network settings, incompatible software.	Verify Ethernet cables are properly connected. Check network settings within your operating system/firewall software. Note that the i226 chip is not compatible with IPCop/sophis/untangle/coreboat.
Device feels warm.	Normal operation for fanless design, poor ventilation.	This is normal due to the fanless aluminum alloy design for heat dissipation. Ensure adequate airflow around the device. Do not place it in an enclosed space.

If you encounter problems not listed here or if the suggested solutions do not resolve the issue, please contact Sharevdi customer support.

8. SPECIFICATIONS

Detailed technical specifications for the Sharevdi Micro Firewall Appliance, Model F12.

Feature	Specification
Processor	Intel N3700 (4 Cores/4 Threads, 2MB L2 Cache, up to 2.40GHz), supports AES-NI
RAM	8GB DDR3 (1 slot available)
Storage	64GB mSATA SSD
Ethernet Ports	4 x Intel 2.5GbE i226-V LAN ports
USB Ports	2 x USB 3.0
Video Output	1 x VGA, 1 x HD (HDMI), Max Resolution: 3840x2160@30Hz
Serial Port	1 x RS232 COM
Power Input	DC 12V
Power Consumption	Approx. 6W
Cooling	Fanless, Aluminum Alloy Casing
Dimensions (LxWxH)	5.39 x 5 x 1.46 inches (13.69 x 12.7 x 3.71 cm)

Feature	Specification
Weight	1.54 pounds (0.7 kg)
Operating System Support	Linux Ubuntu, pfSense, OPNsense, and other open-source systems. (Not compatible with IPCop/sophis/untangle/coreboat with i226 chip)

9. WARRANTY AND SUPPORT

Sharevdi provides comprehensive support for its products. For any inquiries or assistance, please refer to the following information:

9.1. Warranty Information

Please refer to the warranty card included in your product package or visit the official Sharevdi website for detailed warranty terms and conditions. Keep your purchase receipt as proof of purchase for warranty claims.

9.2. Customer Support

If you encounter any problems during the use of your Sharevdi Micro Firewall Appliance, please contact our professional and efficient support team:

- **Via Amazon:** Log in to your Amazon buyer account, find your order, and click "Get Help" or "Contact Seller" to send a message to Sharevdi.
- **Support Email:** hksupport@sharevdi.com
- **WhatsApp:** +86 181 2405 0985



Figure 9.1: Sharevdi customer support contact details, including Amazon contact method, support email, and WhatsApp number.