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Protectli Vault 6 Port

Protectli Vault 6 Port Firewall/Mini PC

USER MANUAL

Introduction

The Protectli Vault 6 Port Firewall/Mini PC is a compact, fanless, and silent computing device designed for network security applications. It features an Intel Quad Core i7-8550U processor, 16GB RAM, and a 240GB SSD, making it suitable for various open-source software solutions such as pfSense, Untangle, and OPNsense. This manual provides essential information for setting up, operating, maintaining, and troubleshooting your Protectli Vault.

Setup Guide

Package Contents

Before you begin, ensure all components are present in your package:



Image: The Protectli Vault package contents, showing the mini PC, power adapter, power cord, a blue serial console cable, a SATA data and power cable, a VESA mounting bracket, and various screws for installation.

- Protectli Vault 6 Port Mini PC
- Power Adapter (DC 12V)
- Power Cord
- Serial Console Cable (RJ-45 to DB9)
- SATA Data and Power Cable (for optional 2.5" drive)
- VESA Mounting Bracket and Screws

Physical Connections

Follow these steps to connect your Protectli Vault:

1. **Power Connection:** Connect the provided power adapter to the DC 12V port on the rear of the device and plug it into a power outlet.

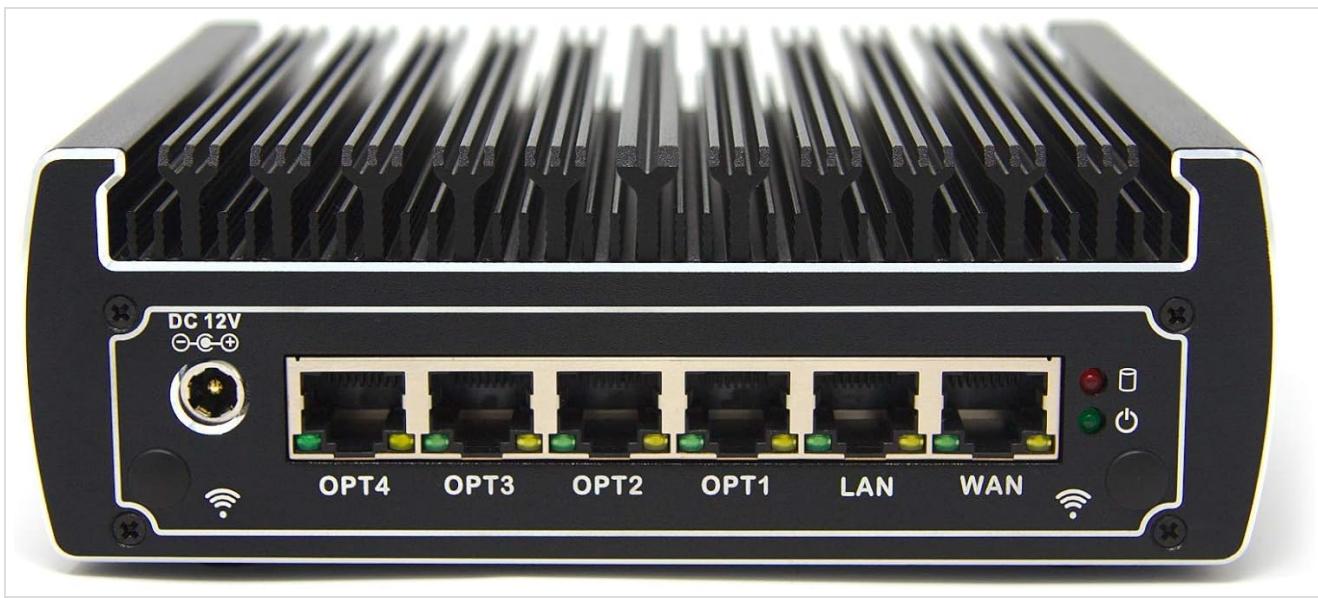


Image: Rear panel of the Protectli Vault, featuring the DC 12V power input, six Intel Gigabit Ethernet ports labeled WAN, LAN, OPT1, OPT2, OPT3, OPT4, and status indicator LEDs.

2. Network Connections:

- Connect your internet source (e.g., modem) to the **WAN** Ethernet port.
- Connect your local network (e.g., switch, computer) to the **LAN** Ethernet port.
- The **OPT1-OPT4** ports can be configured for additional network segments as needed by your chosen operating system.

3. Display Connection (Optional):

If you need to connect a monitor for initial setup or troubleshooting, use the HDMI port on the front panel.



Image: Front panel of the Protectli Vault, displaying the power button, status LEDs, HDMI port, four USB 3.0 ports, and an RJ-45 COM serial console port.

4. **Serial Console Connection (Optional):** For command-line interface access, connect the provided serial console cable from the RJ-45 COM port on the front of the Vault to your computer's serial port (or a USB-to-serial adapter).
5. **USB Devices (Optional):** Connect any necessary USB devices (e.g., keyboard, mouse, USB installation media) to the USB 3.0 ports.

Initial Boot

Once all connections are made, press the power button on the front panel. The device will power on. Since no operating system is pre-installed, you will need to proceed with software installation.

Operating Instructions

Software Installation

The Protectli Vault is designed to be OS Agnostic, meaning it does not come with a pre-installed operating system. It is fully compatible and tested with popular open-source firewall and routing distributions such as pfSense, Untangle, and OPNsense. You will need to download your preferred operating system's installation image and create bootable USB media to install it on the Vault's internal SSD.

For detailed installation guides specific to your chosen software, please refer to the respective project's documentation or the Protectli Knowledge Base.

Basic Operation

- **Power On:** Press the power button on the front panel.
- **Power Off:** It is recommended to shut down the operating system gracefully before pressing and holding the power button for a few seconds to turn off the device.
- **Status Indicators:** Observe the LEDs on the front and rear panels for power, network activity, and storage activity.

Network Configuration

After installing your operating system, you will need to configure the network interfaces. Typically, the WAN port will be configured for your internet connection, and the LAN port for your internal network. The additional OPT ports provide flexibility for creating separate network segments (e.g., DMZ, guest network, IoT network) depending on your security and networking requirements.

Maintenance

Cleaning

As a fanless device, the Protectli Vault requires minimal cleaning. Periodically wipe the exterior with a soft, dry cloth to remove dust. Avoid using liquid cleaners directly on the device.

Firmware Updates

Protectli regularly releases firmware updates to improve performance, stability, and security. It is recommended to check the official Protectli website for the latest firmware versions and update instructions. The Vault supports coreboot, an open-source firmware, for enhanced security and transparency.

Hardware Upgrades

The Protectli Vault allows for user-serviceable upgrades to RAM and storage.

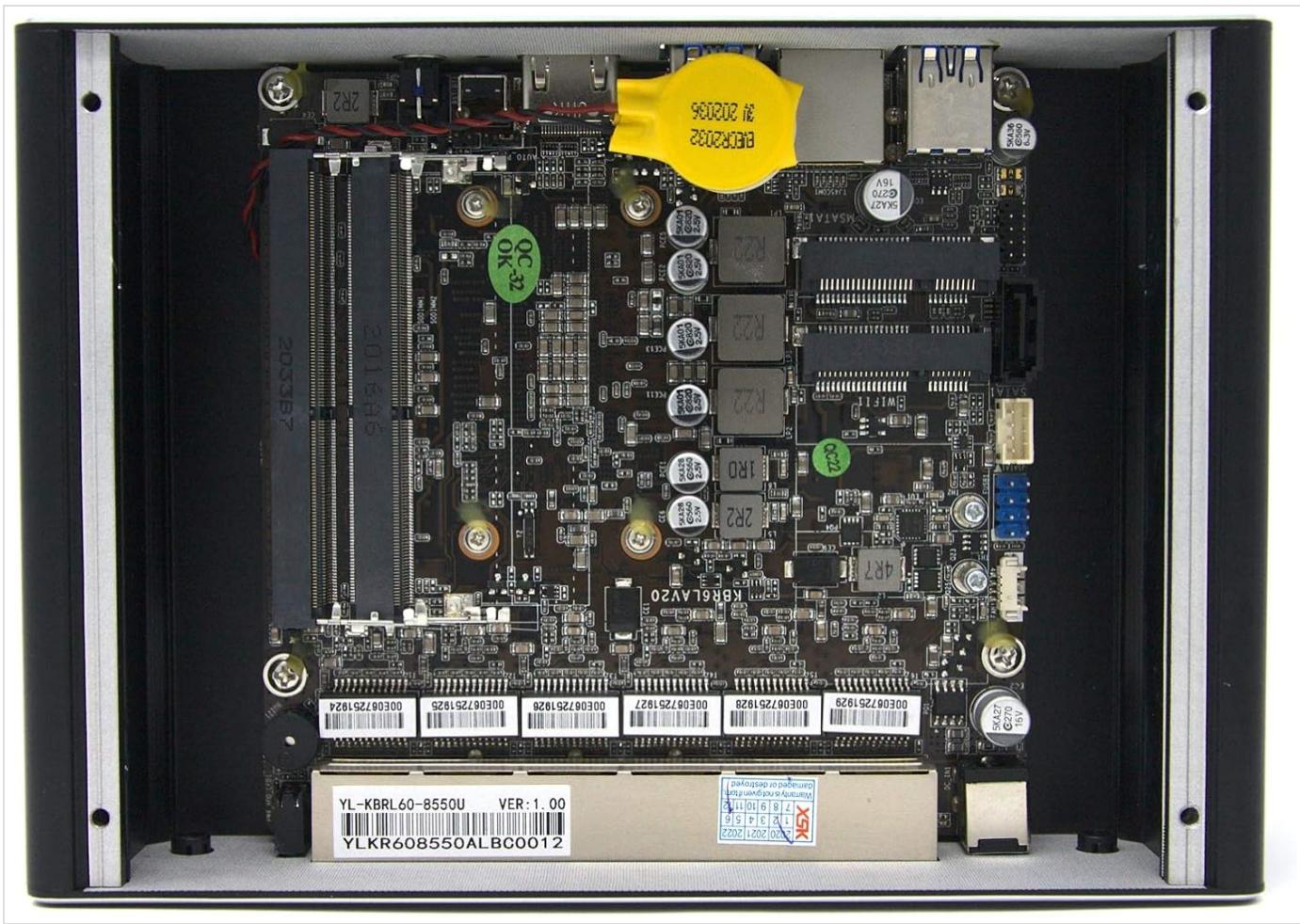


Image: Internal view of the Protectli Vault's motherboard. Visible components include two SODIMM RAM slots, an mSATA slot, and a SATA connector for a 2.5-inch drive. The board model YL-KBRL60-8550U is also visible.

- **RAM:** The device uses SODIMM RAM. Refer to the specifications for supported RAM types and maximum capacity. To upgrade, carefully open the chassis and insert compatible RAM modules into the available slots.
- **Storage:** The Vault comes with an mSATA SSD. An additional 2.5-inch SATA SSD/HDD can be installed using the provided SATA data and power cable.

Caution: Always disconnect the power adapter before performing any internal hardware maintenance or upgrades. Refer to the Protectli website for detailed instructions on opening the chassis and performing upgrades.

Troubleshooting

If you encounter issues with your Protectli Vault, consider the following common troubleshooting steps:

- **No Power:** Ensure the power adapter is securely connected to both the device and a working power outlet. Check the power adapter's LED indicator.
- **No Display Output:** Verify the HDMI cable connection. If using a serial console, ensure the correct COM port and baud rate settings are used in your terminal software.
- **Network Connectivity Issues:** Check physical Ethernet cable connections. Verify network interface configurations within your operating system. Ensure your modem/router is functioning correctly.
- **Operating System Not Booting:** Confirm that the operating system was installed correctly on the internal SSD. Try re-installing the OS if necessary.
- **Performance Issues:** Ensure your chosen operating system and its services are not over-utilizing the system resources. Check for available software updates.

For more advanced troubleshooting or persistent issues, please visit the [Protectli Knowledge Base](#) or contact their

customer support.

Specifications

Feature	Detail
Model Name	Vault 6 Port (Mini)
Processor	Intel Quad Core i7-8550U (1.8 GHz, up to 4GHz Turbo, 8MB Smart Cache, AES-NI)
RAM	16GB SODIMM
Storage	240GB SSD (mSATA)
Ethernet Ports	6x Intel Gigabit Ethernet NIC ports
USB Ports	4x USB 3.0
Video Output	1x HDMI (Max Resolution: 1920x1080)
Serial Port	1x RJ-45 COM
Graphics Coprocessor	Intel UHD Graphics 620 (Integrated)
Operating System	OS Agnostic (No OS pre-installed)
Dimensions (LxWxH)	7.25 x 5 x 2.5 inches
Weight	3 pounds
Color	Black

Warranty and Support

Protectli offers a 30-day money-back guarantee on the Vault. For any technical assistance or inquiries, Protectli provides dedicated US-based customer support.

For extensive documentation, FAQs, and support resources, please visit the official [Protectli Store on Amazon](#) or their corporate website.

Protectli is committed to providing reliable, cost-effective, and secure computer equipment, backed by a team of experts with decades of experience in networking and security.