MikroTik LDF 5 ac

MikroTik LDF 5 ac Outdoor Wireless System User Manual

1. Introduction and Overview

The MikroTik LDF (Lite Dish Feed) 5 ac is an outdoor wireless system featuring a built-in antenna. It is specifically designed for installation on satellite offset dish antennas, which then act as a reflector to amplify the wireless signal. This innovative design allows for the rapid deployment of powerful, long-range wireless links using readily available satellite TV dishes with a universal 40 mm diameter offset mount.

The LDF 5 ac is equipped with a Gigabit Ethernet port and supports the 802.11ac wireless standard, ensuring higher throughput and efficient data transfer. The device comes pre-installed with MikroTik's RouterOS, making it ready for immediate use. The US version of the LDF 5 ac is factory locked to specific 5GHz frequencies (5170-5250MHz and 5725-5835MHz), which cannot be altered.

2. Product Features

- Outdoor wireless system with integrated antenna.
- Designed for installation on satellite offset dish antennas, utilizing the dish as a signal reflector.
- Compatible with universal 40 mm diameter offset mounts.
- Compact form factor for simplified shipping and deployment.
- Equipped with one Gigabit Ethernet port.
- Supports 802.11ac wireless standard for enhanced throughput.
- Pre-installed with MikroTik RouterOS.
- US Version frequency lock: 5170-5250MHz and 5725-5835MHz.

3. Safety Information

Please read these safety guidelines carefully before installing or operating the device:

- Installation should be performed by qualified personnel in accordance with local electrical codes and regulations.
- Ensure proper grounding to prevent electrical hazards.
- Do not operate the device near water or in excessively humid environments.
- Use only the power supply and accessories specified by the manufacturer.
- Avoid direct exposure to the antenna during operation.
- Securely mount the device to prevent it from falling, especially when integrated with a satellite dish.

4. Setup

4.1. Package Contents

Your MikroTik LDF 5 ac package should include:

- MikroTik LDF 5 ac device (2 units for the 2-unit system)
- Mounting accessories (if included by manufacturer)
- Power over Ethernet (PoE) injector (if included by manufacturer)

4.2. Physical Installation

The LDF 5 ac is designed to be mounted on a satellite offset dish antenna. The dish will serve as a reflector to enhance the wireless signal.

1. Identify the offset mount on your satellite dish. The LDF 5 ac is compatible with universal 40 mm diameter mounts.
2. Carefully insert the LDF 5 ac into the offset mount. Ensure it is securely fastened according to the mounting hardware instructions.
3. Connect an Ethernet cable from the LDF 5 ac's ETH1 PoE IN port to a Power over Ethernet (PoE) injector. The device accepts 0-28V PoE input.
4. Connect the other end of the PoE injector to your network infrastructure (e.g., a switch or router).
5. Ensure the satellite dish is properly aimed to establish the desired wireless link.

Figure 1: MikroTik LDF 5 ac devices. The side panel shows the ETH1 PoE IN (0-28V) port, a Reset (RES) button, and indicator LEDs for Wireless Signal, Ethernet (ETH), User (USR), and Power (PWR).

4.3. Initial Configuration

The MikroTik LDF 5 ac units are pre-configured and ready to install for basic operation. For advanced network settings or specific link configurations, you can access the RouterOS interface.

- **Accessing RouterOS:** You can typically access the RouterOS web interface by connecting a computer directly to the PoE injector's LAN port and navigating to the device's default IP address (refer to MikroTik documentation for the specific default IP, often 192.168.88.1). Alternatively, use the WinBox utility for Windows.
- **Default Credentials:** Consult the MikroTik documentation or the device's packaging for default login credentials. It is highly recommended to change these immediately after initial access.

5. Operating Instructions

Once properly installed and powered, the LDF 5 ac will begin operating as a wireless bridge or access point, depending on its pre-configuration. Monitor the indicator lights for operational status.

5.1. Indicator Lights

- **PWR (Power):** Indicates the device is receiving power.
- **USR (User):** A user-definable LED, its behavior can be configured within RouterOS.
- **ETH (Ethernet):** Indicates Ethernet link activity on the Gigabit port.

- **Wireless Signal LEDs:** Multiple LEDs typically indicate the strength of the wireless signal. More illuminated LEDs signify a stronger signal.

6. Maintenance

Regular maintenance helps ensure the longevity and optimal performance of your LDF 5 ac system.

- **Physical Inspection:** Periodically check the device and its mounting for any signs of damage, corrosion, or loose connections. Ensure cables are securely attached and free from wear.
- **Cleaning:** Gently clean the exterior of the device with a soft, dry cloth. Do not use harsh chemicals or abrasive cleaners. Ensure no debris obstructs the antenna or ports.
- **Firmware Updates:** Regularly check the MikroTik website for RouterOS firmware updates. Applying updates can improve performance, add features, and address security vulnerabilities. Firmware updates are performed via the RouterOS interface.

7. Troubleshooting

If you encounter issues with your LDF 5 ac, refer to the following troubleshooting steps:

- **No Power (PWR LED off):**
  - Verify the PoE injector is connected to a working power outlet.
  - Check the Ethernet cable connection between the PoE injector and the LDF 5 ac.
  - Ensure the PoE injector is functioning correctly.
- **No Network Connectivity (ETH LED off/flashing incorrectly):**
  - Inspect the Ethernet cable for damage and ensure it is properly seated in both the LDF 5 ac and your network device.
  - Check the status of the connected network switch or router port.
  - Access RouterOS to verify network interface settings and IP configuration.
- **Poor Wireless Performance/No Link:**
  - Ensure the satellite dish is accurately aimed at the remote wireless device. Even slight misalignments can significantly impact performance.
  - Check for any physical obstructions (trees, buildings) in the line of sight between the two wireless points.
  - Within RouterOS, verify wireless settings such as frequency, channel width, and transmit power.
  - Check for potential interference from other 5GHz devices in the area.
- **Device Unresponsive / Factory Reset:**
  - If the device becomes unresponsive, you can perform a factory reset using the RES button. Refer to MikroTik documentation for the exact reset procedure (typically involves holding the button during power-up). **Warning:** A factory reset will erase all custom configurations.

8. Specifications

Feature	Specification
Model	MikroTik LDF 5 ac
Brand	MikroTik
Wireless Standard	802.11ac
Frequency	5 GHz (US Version: 5170-5250MHz, 5725-5835MHz)
Ethernet Ports	1x Gigabit Ethernet
PoE Input	0-28V
Antenna	Built-in, designed for satellite offset dish integration
Mount Compatibility	Universal 40 mm diameter offset mount
Operating System	RouterOS
Item Weight	2 pounds
ASIN	B07TYG2SB1
UPC	680665926732

9. Warranty and Support

For detailed warranty information, please refer to the documentation provided with your product or visit the official MikroTik website. MikroTik provides technical support and resources for their products.

- **Official Website:** For the latest documentation, software downloads, and support resources, please visit the official MikroTik website.
- **Technical Support:** Contact MikroTik technical support through their website for assistance with specific issues or advanced configurations.