inhand IR302-FQ38-WLAN

InHand Networks InRouter302 User Manual

Model: IR302-FQ38-WLAN | Brand: InHand Networks

1. INTRODUCTION

The InRouter300 (IR300) is an IoT cellular router designed to provide easy, reliable, and secure Internet connectivity by integrating 4G LTE, Wi-Fi, and VPN technologies. This device is ideal for networking unattended devices and remote sites, ensuring stable communications through embedded watchdog and multi-layer link detection mechanisms. The IR300 supports large-scale network deployments and efficient management via the InHand Device Manager cloud platform. It offers a balanced solution for various industrial and commercial IoT applications, including smart commerce (ATM, POS, kiosks, digital signage), smart city initiatives (water/wastewater management, intelligent lighting, traffic management, EV charging, parking kiosks).

2. KEY FEATURES

- Compact size, facilitating mass deployment.

- Watchdog and multi-layer link detection mechanisms for reliable connectivity.

- Strong security measures for data transmission, network, and device access.

- Remote management capabilities for easy batch configuration.

- Reliable, secure, and powerful M2M connectivity solution for commercial and industrial scenarios.

- Connectivity technology: 4G LTE Cat 4, WLAN.

3. PACKAGE CONTENTS

Please verify that all items are present and in good condition:

- InHand Networks InRouter302 Device

- Ethernet cables

- Power Adapter (not explicitly listed but implied for operation)

- Quick Start Guide (not explicitly listed but implied)

4. PRODUCT OVERVIEW

Figure 4.1: Overall view of the InHand Networks InRouter302. The device features a compact black metal casing with a prominent green top panel indicating the brand and model. Status LEDs for Power, Status, Cellular, and Wi-Fi are visible on the top panel. The front panel displays various connectivity ports.
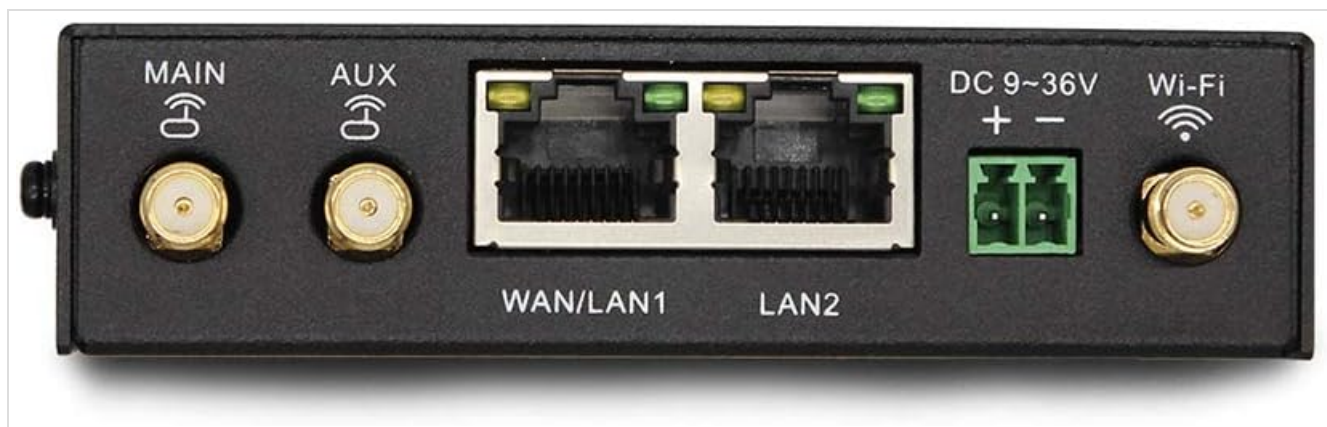

Figure 4.2: Front Panel Connectors. From left to right, the front panel includes: **MAIN** and **AUX** antenna connectors (SMA type, for cellular connectivity), two Ethernet ports labeled **WAN/LAN1** and **LAN2** (RJ45, with status LEDs), a green screw terminal for **DC 9-36V** power input, and a **Wi-Fi** antenna connector (SMA type).

Figure 4.3: Side Panel with SIM Slots. One side of the router features a recessed **Reset** button and two accessible SIM card slots, labeled **SIM 1** and **SIM 2**, allowing for dual-SIM redundancy.

5. INITIAL SETUP

1. **Unpack the Device:** Carefully remove the InRouter302 and all accessories from the packaging. Inspect for any signs of damage.

2. **Install SIM Cards:** Locate the SIM card slots on the side of the router (refer to Figure 4.3). Insert your activated Nano-SIM cards into the SIM 1 and/or SIM 2 slots until they click into place. Ensure the SIM cards are correctly oriented.

3. **Connect Antennas:** If external antennas are provided or required, connect them to the MAIN, AUX (for cellular), and Wi-Fi antenna connectors on the front panel (refer to Figure 4.2). Ensure they are securely tightened.

4. **Connect Power:** Connect the power adapter to the DC 9-36V screw terminal on the front panel. Ensure correct polarity (+ and -). Connect the other end of the power adapter to a suitable power source. The Power LED on the top panel should illuminate.

5. **Network Connection:**
   - **Ethernet:** Connect an Ethernet cable from your computer or network device to either the WAN/LAN1 or LAN2 port on the router.
   - **Wi-Fi:** If Wi-Fi is enabled, search for the router's Wi-Fi network (SSID) on your device and connect using the default password (usually found on a label on the device or in the Quick Start Guide).

6. **Access Web Interface:** Open a web browser on your connected computer and enter the default IP address of the router (e.g., 192.168.1.1 or as specified in the Quick Start Guide). Log in using the default username and password. It is highly recommended to change the default login credentials immediately for security.

6. OPERATION

6.1 Status Indicators

The InRouter302 features several LED indicators on its top panel to provide real-time status information:

- **Power LED:** Indicates the power status of the device. (e.g., Solid Green: Power On; Off: No Power).
- **Status LED:** Indicates the system's operational status. (e.g., Blinking: Booting/Firmware Update; Solid: System Ready).
- **Cellular LED:** Shows the cellular network connection status. (e.g., Solid: Connected; Blinking: Connecting/Data Transfer; Off: No Cellular Signal).

- **Signal LED:** Indicates the strength of the cellular signal. (e.g., Different blink patterns or colors for strong, medium, weak signal).
- **Wi-Fi LED:** Indicates the Wi-Fi module status. (e.g., Solid: Wi-Fi On; Blinking: Data Transfer; Off: Wi-Fi Off).

6.2 Basic Connectivity

Once the router is powered on and connected to the cellular network, devices connected via Ethernet or Wi-Fi should be able to access the internet. You can configure network settings, VPNs, and other advanced features through the web management interface.

6.3 Web Management Interface

The web management interface allows for comprehensive configuration and monitoring of the InRouter302. Access it by entering the router's IP address in a web browser. Refer to the full user manual (if available) for detailed instructions on configuring specific features such as APN settings, Wi-Fi SSID/password, firewall rules, and VPN tunnels.

7. MAINTENANCE

- **Cleaning:** Use a soft, dry cloth to clean the exterior of the router. Do not use liquid or aerosol cleaners.
- **Firmware Updates:** Periodically check the InHand Networks official website for firmware updates. Keeping your router's firmware up-to-date ensures optimal performance, security, and access to new features. Follow the instructions provided with the firmware update package carefully.
- **Resetting the Device:** If the router is unresponsive or you need to restore factory settings, use the recessed Reset button (refer to Figure 4.3). Press and hold the button for approximately 5-10 seconds until the status LEDs change, then release. This will revert all settings to their factory defaults.
- **Environmental Conditions:** Ensure the router is operated within its specified temperature and humidity ranges to prevent damage and ensure longevity. Avoid exposing the device to direct sunlight, excessive heat, or moisture.

8. TROUBLESHOOTING

Problem	Possible Cause	Solution
No Power LED indication.	Power adapter not connected or faulty; power outlet issue.	Check power cable connection. Ensure power outlet is functional. Verify power adapter is working correctly.
No cellular connection (Cellular LED off/blinking erratically).	SIM card not inserted correctly; no cellular signal; incorrect APN settings; SIM not activated.	Re-insert SIM card. Move router to an area with better signal. Verify APN settings in web interface. Contact your cellular provider to ensure SIM is active.
Cannot access web management interface.	Incorrect IP address; network cable issue; firewall blocking access.	Verify the router's IP address. Check Ethernet cable connection. Temporarily disable computer's firewall. Try a different browser.
Wi-Fi connection issues.	Incorrect Wi-Fi password; Wi-Fi disabled; signal interference.	Verify Wi-Fi password. Ensure Wi-Fi is enabled in the web interface. Change Wi-Fi channel to avoid interference.

9. TECHNICAL SPECIFICATIONS

Feature	Detail
Model Name	IR302-FQ38-WLAN
Brand	InHand
Connectivity Technology	Wi-Fi, 4G LTE Cat 4
Wireless Communication Standard	802.11ac
Frequency Band Class	Dual-Band
Antenna Type	Internal (with external connectors for cellular/Wi-Fi)
Item Weight	1.3 pounds (approx. 0.59 kg)
Package Dimensions	8.31 x 5.83 x 2.72 inches (approx. 21.1 x 14.8 x 6.9 cm)
Power Input	DC 9-36V
Ethernet Ports	2 (WAN/LAN1, LAN2)
SIM Slots	Dual-SIM
Special Feature	WPS (Wi-Fi Protected Setup)
Recommended Uses	Security, Industrial IoT, Smart Commerce, Smart City

10. WARRANTY AND SUPPORT

For detailed warranty information, technical support, and service inquiries, please refer to the official InHand Networks website or contact their customer support directly. Keep your purchase receipt and product serial number handy when seeking support.

Manufacturer: InHand

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