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## Zyxel NR7302

# Zyxel 5G NR Outdoor Router User Manual

Model Series: NR7301 / NR7302 / NR7303

## 1. INTRODUCTION

This manual provides essential information for the installation, operation, and maintenance of your Zyxel 5G NR Outdoor Router. The NR7301, NR7302, and NR7303 series routers are designed to deliver high-speed, low-latency 5G connectivity for both residential and service provider applications, offering robust outdoor performance and reliable coverage.

For optimal performance and safety, please read this manual thoroughly before beginning installation or operation.

## 2. SAFETY INFORMATION

Always observe the following safety precautions to reduce the risk of injury, electric shock, fire, or damage to the device:

- Ensure the power source meets the device's requirements (802.3af/at PoE).
- Do not open the device casing. Refer all servicing to qualified personnel.
- Install the device in a location that complies with local regulations and provides adequate ventilation.
- Avoid installing during a lightning storm.
- Use only accessories and cables specified by the manufacturer.
- The device is IP67 certified for outdoor use, but avoid submerging it in water.

## 3. PACKAGE CONTENTS

Verify that all items are present in your package:

- Zyxel 5G NR Outdoor Router (NR7301, NR7302, or NR7303 model)
- Installation Kit (mounting brackets, screws, etc.)
- Quick Start Guide / Documentation
- Access to Zyxel Mobile Application (for setup)

## 4. PRODUCT OVERVIEW

The Zyxel 5G NR Outdoor Router is a compact, weather-resistant unit designed for external deployment. It features integrated 4x4 MIMO 4G/5G antennas for optimal signal reception.



**Figure 4.1:** Front-side view of the Zyxel 5G NR Outdoor Router, showing its sleek white casing and Zyxel branding.



**Figure 4.2:** Front view of the router, highlighting the Zyxel logo.



**Figure 4.3:** Side view of the router, showing its slim profile.



**Figure 4.4:** Rear view of the router, displaying the mounting points for wall or pole installation.

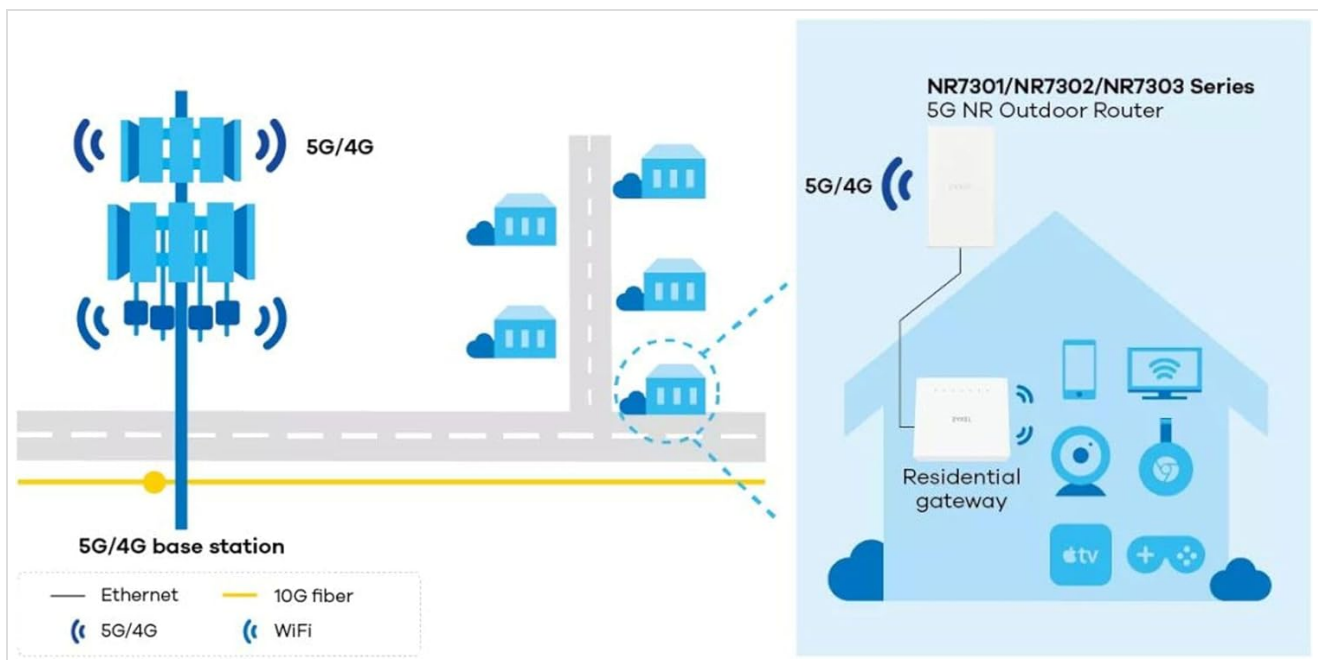


Figure 4.5: Bottom view of the router, showing the LAN (PoE) port, SIM card slot, and Reset (RST) button.

## 4.1. Ports and Indicators

- **LAN (PoE) Port:** Connects to your indoor network and receives power via Power over Ethernet (PoE).
- **SIM Card Slot:** Insert your 5G/4G SIM card here.
- **RST Button:** Reset button for factory defaults or reboot.
- **LED Indicators:** Typically for Power, Signal Strength, and Network Status. *(Note: Specific LED behavior details can be found in the Quick Start Guide.)*

## 5. SETUP AND INSTALLATION

The Zyxel 5G NR Outdoor Router is designed for easy self-installation using the Zyxel mobile application.



**Figure 5.1:** Typical deployment scenario, illustrating the outdoor router connecting to a 5G/4G base station and providing internet to a residential gateway and connected devices.

## 5.1. Pre-installation Checklist

- Ensure you have a valid 5G/4G SIM card with an active data plan.
- Identify a suitable outdoor location for installation, preferably with clear line-of-sight to the nearest cellular tower.
- Have necessary tools for mounting (e.g., drill, screwdriver) and an Ethernet cable for PoE connection.
- Download the Zyxel mobile application on your smartphone.

## 5.2. SIM Card Insertion

1. Locate the SIM card slot cover on the bottom of the router (refer to Figure 4.5).
2. Carefully open the cover.
3. Insert your Nano-SIM card into the slot until it clicks into place. Ensure correct orientation.
4. Close the SIM card slot cover securely to maintain IP67 weather resistance.

## 5.3. Mounting the Router

1. Attach the mounting bracket from the installation kit to the rear of the router (refer to Figure 4.4).
2. Mount the router to a pole or wall using the provided hardware. Ensure it is securely fastened and stable.
3. Orient the router for optimal signal reception. The Zyxel mobile application can assist in finding the best signal strength.

## 5.4. Power and Network Connection (PoE)

1. Connect one end of an Ethernet cable to the LAN (PoE) port on the router (refer to Figure 4.5).

2. Connect the other end of the Ethernet cable to a PoE injector or a PoE-enabled switch indoors.
3. Ensure the PoE source is powered on. The router will power up automatically.

## 5.5. Initial Configuration with Zyxel App

1. Open the Zyxel mobile application on your smartphone.
2. Follow the on-screen instructions to detect and configure your router. This typically involves scanning a QR code on the device or entering its serial number.
3. The app will guide you through network settings, including APN configuration (if required by your carrier) and initial Wi-Fi setup for your indoor gateway.

## 6. OPERATING THE ROUTER

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Once installed and configured, the Zyxel 5G NR Outdoor Router operates as your primary internet gateway, converting 5G/4G cellular signals into a usable network connection for your home or office.

### 6.1. Network Connectivity

- The router provides internet access via its LAN (PoE) port, which should be connected to your indoor network (e.g., a residential gateway, switch, or Wi-Fi router).
- It supports Wi-Fi standards 802.11a, 802.11g, and 802.11n, operating on a 5 GHz frequency band for wireless communication with your indoor network components if configured as such.

### 6.2. Remote Management

The router supports remote management, allowing service providers or advanced users to monitor and configure the device from a centralized location. Refer to the Zyxel documentation or your service provider for details on remote management access.

## 7. MAINTENANCE

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Regular maintenance ensures the longevity and optimal performance of your Zyxel 5G NR Outdoor Router.

- **Cleaning:** Periodically wipe the exterior of the router with a soft, damp cloth. Do not use harsh chemicals or abrasive cleaners.
- **Firmware Updates (FOTA):** The router supports Firmware Over-The-Air (FOTA) updates. Ensure your device is connected to the internet to receive critical updates that improve performance, security, and add new features. Check the Zyxel mobile app or web interface for available updates.
- **Environmental Check:** Periodically inspect the mounting and cabling for any signs of wear or damage, especially after severe weather conditions.

## 8. TROUBLESHOOTING

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This section addresses common issues you might encounter with your Zyxel 5G NR Outdoor Router.

### 8.1. No Internet Connection

- **Check SIM Card:** Ensure the SIM card is correctly inserted and has an active data plan.
- **Check PoE Connection:** Verify that the Ethernet cable is securely connected to the LAN (PoE) port on the router and to a powered PoE source indoors.
- **Signal Strength:** Use the Zyxel mobile app to check the 5G/4G signal strength. If the signal is weak, consider

adjusting the router's orientation or location.

- **APN Settings:** Confirm that the Access Point Name (APN) settings are correctly configured for your mobile carrier. This can usually be done via the Zyxel app or web interface.

## 8.2. Slow Speeds

- **Signal Strength:** Weak cellular signal is a common cause of slow speeds. Optimize router placement.
- **Network Congestion:** Cellular network performance can vary based on time of day and local network traffic.
- **Firmware:** Ensure the router's firmware is up to date.

## 8.3. Router Not Powering On

- **PoE Source:** Verify that your PoE injector or switch is powered on and functioning correctly.
- **Cable Integrity:** Check the Ethernet cable for any damage.

## 8.4. Resetting the Router

If you encounter persistent issues, you may need to reset the router. Locate the RST button (refer to Figure 4.5). Use a paperclip to press and hold the button for approximately 10 seconds until the LED indicators change, then release. This will restore the router to factory default settings.

## 9. SPECIFICATIONS

Feature	Description
Brand	Zyxel
Model Name	NR7302 (Series: NR7301/NR7302/NR7303)
Connectivity Technology	5G, Wi-Fi
Wireless Communication Standard	802.11a, 802.11g, 802.11n
Frequency Band Class	Dual Band (5 GHz mentioned for Wi-Fi)
Special Feature	Waterproof (IP67 certified)
Operating System	ZyNOS
Compatible Devices	Universal
Included Components	Application, Installation Kit, Router
Power Input	802.3af/at 2.5G PoE
Antennas	4x4 MIMO 4G/5G antennas

## 10. WARRANTY AND SUPPORT

For detailed warranty information, please refer to the warranty card included with your product or visit the official Zyxel website. Warranty terms may vary by region and retailer.

For technical support, firmware updates, and additional resources, please visit the Zyxel support portal or contact your local Zyxel representative. The Zyxel mobile application also provides support features and access to documentation.

*Note: Information regarding spare parts availability and guaranteed software updates is not available in the provided*

*product data. Please consult Zyxel's official support channels for the most current information.*

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