

## Cudy P5

# Cudy P5 5G NR SA NSA AX3000 WiFi 6 CPE Router User Manual

Model: P5

## 1. INTRODUCTION

This manual provides comprehensive instructions for the installation, operation, and maintenance of your Cudy P5 5G NR SA NSA AX3000 WiFi 6 CPE Router. Please read this manual carefully before using the device to ensure proper functionality and safety.

## 2. PRODUCT OVERVIEW

### 2.1. Components



The Cudy P5 router is a high-performance 5G NR SA/NSA AX3000 WiFi 6 CPE Router. It features a sleek design with multiple external antennas for enhanced signal reception and transmission. The front panel includes LED indicators for power, internet connectivity, and Wi-Fi status. The rear panel provides various ports for connectivity.

### 2.2. Key Features

- **Lightning-fast 5G Connectivity:** Equipped with Qualcomm Snapdragon SDX62 5G NR SA/NSA Modem, supporting downlink speeds up to 2.5 Gbps (5G) and 1 Gbps (4G LTE).
- **Advanced WiFi 6 Technology:** Features Qualcomm IPQ5018 WiFi 6 SoC with a 1 GHz Dual-core ARM Cortex-A53 CPU, delivering dual-band Wi-Fi speeds up to 2402 Mbps (5 GHz) and 574 Mbps (2.4 GHz).
- **Dual SIM and WAN Failover:** Two SIM card slots provide redundancy, ensuring continuous internet connectivity. The WAN/LAN port can be configured for landline internet with 3G/4G as backup.
- **Detachable Antennas:** Includes 4 x 5dBi cellular antennas and 2 x 5dBi WiFi antennas. The cellular antennas are

detachable, allowing for external antenna upgrades via SMA connectors.

- **Multiple VPN Clients:** Built-in support for PPTP, L2TP, OpenVPN, WireGuard, IPsec, and ZeroTier VPN protocols for secure data transmission.
- **Band Lock:** Allows users to select specific 5G and LTE bands for optimized performance.
- **TTL Settings:** Customizable TTL settings for various network configurations.
- **DNS over TLS:** Supports secure DNS resolution with Cloudflare, NextDNS, and Google DNS.



The Cudy P5 router, highlighting its 5G SA/NSA AX3000 Wi-Fi 6 CPE capabilities with Qualcomm IPQ5018 and X62 5G Modem.

## Lightning-fast 5G Connectivity

4X4  
MIMO

2.5Gbps  
~ 5Gbps

1.2Gbps DL

600Mbps DL

300Mbps DL

150Mbps DL



Illustration of the router's lightning-fast 5G connectivity, showcasing 4x4 MIMO technology and various download speeds for 5G and 4G LTE categories.

## WiFi6 The most powerful WiFi ever

1 GHz  
Dual-Core CPU



4X

more capacity

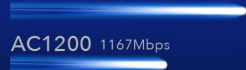


150%

increase in data throughput

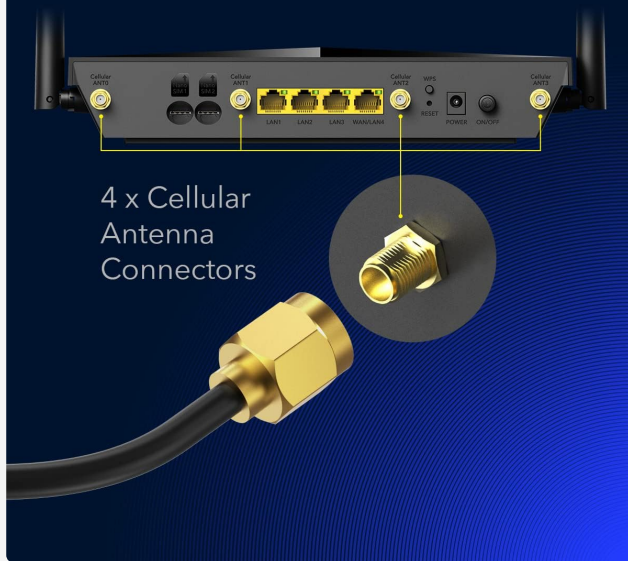
AX3000 2974Mbps

AC1200 1167Mbps



Details on the WiFi 6 capabilities, including the 1 GHz Dual-Core CPU (Qualcomm IPQ5018), 4x more capacity, and 150% increase in data throughput compared to AC1200.

## External Antenna connector



A close-up view of the rear panel of the Cudy P5 router, highlighting the 4 cellular antenna connectors (SMA type) and other ports like LAN/WAN, Reset, and Power.



An illustration showing the dual Nano SIM card slots on the Cudy P5 router, emphasizing the redundant SIM functionality for continuous connectivity.

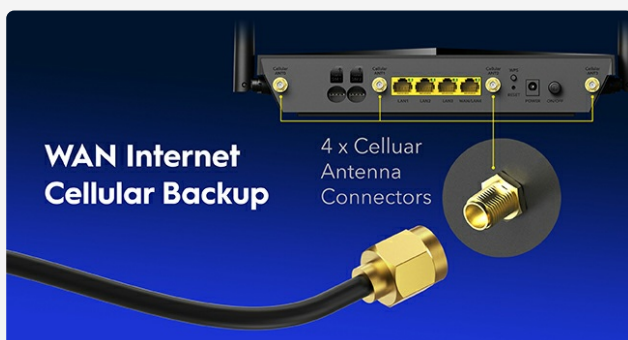


Diagram illustrating the WAN Internet Cellular Backup feature, showing how the router can switch between wired WAN and cellular (SIM) internet for redundancy.



LT500

Icons representing the various VPN protocols supported by the Cudy P5 router, including WireGuard, OpenVPN, Zerotier, IPsec, L2TP, and PPTP.

## 3. SETUP GUIDE

### 3.1. Package Contents

Before you begin, ensure all items are present in the package:

- Cudy P5 5G WiFi 6 CPE Router
- Power Adapter
- Ethernet Cable
- Quick Installation Guide
- Detachable Antennas (4 cellular, 2 WiFi)

### 3.2. Hardware Installation

1. **Install Antennas:** Screw the provided detachable antennas onto the corresponding connectors on the rear of the router. Ensure they are securely tightened.
2. **Insert SIM Cards:** Locate the dual SIM card slots on the router. Insert your Nano SIM cards into the slots until they click into place. Ensure the SIM cards are activated by your mobile carrier.
3. **Connect Power:** Connect the power adapter to the router's power port and plug it into a wall outlet. The power LED indicator on the front panel should light up.
4. **Connect to Network (Optional):**
  - **Wired Connection:** Connect one end of the Ethernet cable to any LAN port on the router and the other end to your computer.
  - **Wireless Connection:** Find the Wi-Fi network name (SSID) and password printed on the label at the bottom of the router. Connect your wireless device to this network.

### 3.3. Initial Configuration

1. **Access Web Interface:** Open a web browser (e.g., Chrome, Firefox) on a device connected to the router. Type **192.168.10.1** into the address bar and press Enter.
2. **Login:** Enter the default username and password. These are typically printed on the router's label. It is highly recommended to change the default password immediately after logging in for security purposes.
3. **Quick Setup Wizard:** Follow the on-screen Quick Setup Wizard to configure your internet connection.
  - **APN Settings:** If your SIM card does not automatically connect, you may need to manually enter the Access Point Name (APN) provided by your mobile carrier.
  - **WAN Failover:** Configure WAN/LAN port as WAN if you intend to use a landline internet connection as primary, with cellular as backup.

4. **Wi-Fi Settings:** Customize your Wi-Fi network name (SSID) and password for both 2.4 GHz and 5 GHz bands.

## 4. OPERATING INSTRUCTIONS

### 4.1. LED Indicators

| LED Name | Status        | Description                                      |
|----------|---------------|--------------------------------------------------|
| Power    | Solid Blue    | Router is powered on and operating normally.     |
| Internet | Solid Blue    | Connected to the internet.                       |
| Internet | Flashing Blue | Connecting to the internet or data transmission. |
| Internet | Off           | No internet connection.                          |
| Wi-Fi    | Solid Blue    | Wi-Fi is enabled and active.                     |
| Wi-Fi    | Off           | Wi-Fi is disabled.                               |

### 4.2. Advanced Settings

The web interface provides access to advanced configurations:

- **Network Settings:** Configure LAN, WAN, DHCP server, and static IP addresses.
- **Cellular Settings:** Manage SIM card preferences, APN profiles, and band locking.

**Band Lock**

**5G Bands**

☐ N1 ☐ N2 ☐ N3 ☐ N5 ☐ N7 ☐ N8 ☐ N12

☐ N20 ☐ N25 ☐ N28 ☐ N38 ☐ N40 ☐ N41

☐ N48 ☐ N66 ☐ N71 ☐ N77 ☐ N78 ☐ N79

**LTE Bands**

☐ B1 ☐ B2 ☐ B3 ☐ B4 ☐ B5 ☐ B7 ☐ B8 ☐ B12 ☐ B13

☐ B14 ☐ B18 ☐ B19 ☐ B20 ☐ B25 ☐ B26 ☐ B28

☐ B29 ☐ B30 ☐ B32 ☐ B34 ☐ B38 ☐ B39 ☐ B40

☐ B41 ☐ B42 ☐ B43 ☐ B46 ☐ B48 ☐ B66 ☐ B71

The Band Lock feature allows you to select specific 5G and LTE frequency bands to optimize signal strength and stability based on your location and carrier. This can be useful in areas with fluctuating signal quality.

- **VPN:** Set up VPN client connections (PPTP, L2TP, OpenVPN, WireGuard, IPsec, Zerotier) to secure your network traffic.
- **Firewall:** Configure security settings, port forwarding, and parental controls.
- **System Tools:** Update firmware, backup/restore configurations, and view system logs.
- **TTL Settings:** Adjust Time-To-Live (TTL) values for specific network requirements.

**TTL Settings**

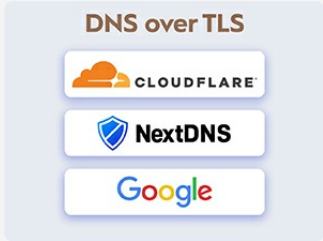
☐ TTL=255 ☐ TTL=254 ☐ TTL=253 ☐ TTL=252



The TTL settings interface allows for modification of the Time-To-Live value, which can be useful for certain cellular data plans or specific network configurations.

- **DNS over TLS:** Enhance privacy and security by encrypting DNS queries. Supports Cloudflare, NextDNS, and

Google DNS.



Configure DNS over TLS to encrypt your DNS queries, improving privacy and preventing DNS manipulation. Options include Cloudflare, NextDNS, and Google DNS.

4.3. Cudy App Management

Manage your Cudy router conveniently using the Cudy App, available for iOS and Android devices. The app allows for easy setup and monitoring of your network.



WR11000

The Cudy App provides a streamlined interface for setting up and managing your router directly from your smartphone. It offers features like device management, network status, and basic configuration options.

5. MAINTENANCE

- **Firmware Updates:** Regularly check for and install the latest firmware updates from the Cudy official website or through the router's web interface (System Tools > Firmware Upgrade). Firmware updates often include performance improvements, new features, and security patches.
- **Cleaning:** Keep the router clean and free from dust. Use a soft, dry cloth to wipe the exterior. Ensure ventilation holes are not blocked to prevent overheating.
- **Placement:** Place the router in a central location, away from obstructions like thick walls, large metal objects, and other electronic devices that may cause interference. Ensure adequate airflow around the device.
- **Restarting:** If you experience network issues, try restarting the router by unplugging the power adapter for 10 seconds and then plugging it back in.

6. TROUBLESHOOTING

6.1. Common Issues and Solutions

| Problem      | Possible Cause                         | Solution                                                                                                     |
|--------------|----------------------------------------|--------------------------------------------------------------------------------------------------------------|
| No Power LED | Power adapter not connected or faulty. | Ensure power adapter is securely connected to the router and a working power outlet. Try a different outlet. |

| Problem                                   | Possible Cause                                                                                                    | Solution                                                                                                                                                                                                                                                                                                                              |
|-------------------------------------------|-------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| No Internet Connection (Internet LED Off) | SIM card not inserted correctly, not activated, or incorrect APN settings. WAN cable disconnected (if using WAN). | <ul style="list-style-type: none"><li>• Reinsert SIM card(s).</li><li>• Verify SIM card activation with your carrier.</li><li>• Check APN settings in the web interface (General &gt; APN).</li><li>• Ensure WAN cable is connected if using wired internet.</li><li>• Check carrier signal strength in the web interface.</li></ul>  |
| Slow Internet Speed                       | Poor cellular signal, network congestion, or router placement.                                                    | <ul style="list-style-type: none"><li>• Relocate the router to an area with better cellular signal.</li><li>• Consider using external cellular antennas if signal is consistently weak.</li><li>• Check for firmware updates.</li><li>• Ensure no other devices are heavily utilizing bandwidth.</li></ul>                            |
| Cannot Access Web Interface               | Incorrect IP address, network connection issue, or browser cache.                                                 | <ul style="list-style-type: none"><li>• Ensure your device is connected to the router (wired or Wi-Fi).</li><li>• Verify you are using the correct IP address (<b>192.168.10.1</b>).</li><li>• Clear your browser's cache and cookies.</li><li>• Try a different web browser.</li><li>• Restart the router and your device.</li></ul> |
| Forgot Login Password                     | Password lost.                                                                                                    | Perform a factory reset by pressing and holding the Reset button on the router's rear panel for 5-10 seconds while the router is powered on. This will revert all settings to factory defaults, including the login password.                                                                                                         |

## 7. SPECIFICATIONS

| Feature          | Detail                                                   |
|------------------|----------------------------------------------------------|
| Brand            | Cudy                                                     |
| Model Name       | P5                                                       |
| 5G Modem         | Qualcomm Snapdragon SDX62                                |
| Wi-Fi Standard   | 802.11ax (WiFi 6)                                        |
| Wi-Fi Speed      | AX3000 (2402 Mbps on 5 GHz, 574 Mbps on 2.4 GHz)         |
| CPU              | Qualcomm IPQ5018 (1 GHz Dual-core ARM Cortex-A53)        |
| Antenna Type     | 4 x 5dBi Detachable Cellular, 2 x 5dBi Detachable WiFi   |
| SIM Slots        | Dual Nano SIM                                            |
| Connectivity     | 5G, Wi-Fi, Ethernet, LTE                                 |
| VPN Support      | PPTP, L2TP, OpenVPN, WireGuard, IPsec, Zerotier          |
| Special Features | QoS, Band Lock, WAN Failover, TTL Settings, DNS over TLS |

## 8. WARRANTY AND SUPPORT

## 8.1. Warranty Information

Cudy products typically come with a limited warranty. Please refer to the warranty card included in your product packaging or visit the official Cudy website for detailed warranty terms and conditions specific to your region.

## 8.2. Technical Support

For technical assistance, troubleshooting, or further inquiries, please contact Cudy Support through one of the following methods:

- **Official Website:** Visit [www.cudy.com](http://www.cudy.com) for FAQs, firmware downloads, and support resources.
- **Email Support:** Refer to the contact information on the Cudy website for email support.
- **Cudy App:** The Cudy App may offer direct support options or links to support resources.

When contacting support, please have your product model (P5) and serial number ready.

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### ASK A QUESTION ABOUT THIS MANUAL

Ask about setup, troubleshooting, compatibility, parts, safety, or missing instructions. Manuals+ will review the question and use this page's manual context to help answer it.

**Name**

Anonymous

**Email**

you@example.com

After a successful submission, we securely hash the supplied account or form email before sending it to Microsoft Advertising for conversion attribution. [Privacy details](#).

**Question**

Example: How do I reset this device or fix this error?

**Details**

Model number, symptoms, what you tried, or the section of the manual you are using.

Submit question