

Cudy P5

Cudy AX3000 WiFi 6 CPE Router User Manual

Model: P5

1. INTRODUCTION

Thank you for choosing the Cudy AX3000 WiFi 6 CPE Router. This device is designed to provide high-speed internet connectivity using 5G NR SA/NSA and Wi-Fi 6 technologies. It features a Qualcomm Snapdragon SDX62 5G modem and Qualcomm IPQ5018 WiFi 6 SoC, offering robust performance for various applications, including home, travel, and small business use.

This manual provides detailed instructions for setting up, operating, maintaining, and troubleshooting your router. Please read it carefully before using the device.



Figure 1.1: Cudy AX3000 WiFi 6 CPE Router (P5)

2. PACKAGE CONTENTS

Before you begin, please check the package contents to ensure all items are present:

- Cudy AX3000 WiFi 6 CPE Router (P5)
- Power Adapter
- Ethernet Cable
- Quick Installation Guide
- Detachable Antennas (4x Cellular, 2x WiFi)



Figure 2.1: Retail packaging of the Cudy P5 router, showing the device and key features.

3. SETUP

3.1 Hardware Installation

1. **Install SIM Cards:** Locate the dual Nano SIM slots on the router. Insert your Nano SIM cards into the slots until they click into place. Ensure the SIM cards are correctly oriented as indicated on the device. The router supports dual

SIM for redundancy.

2. **Attach Antennas:** Screw the four cellular antennas and two WiFi antennas onto their respective connectors on the back of the router. Ensure they are securely tightened. These antennas are detachable, allowing for external antenna options via SMA connectors.
3. **Connect Power:** Connect the power adapter to the router's power port and then plug it into a power outlet.
4. **Power On:** Press the Power ON/OFF button on the back of the router. The LED indicators on the front panel will light up.
5. **Connect to Network (Optional):** For initial setup or wired connection, connect one end of the Ethernet cable to any of the LAN ports (LAN1-LAN4) on the router and the other end to your computer.

External Antenna connector

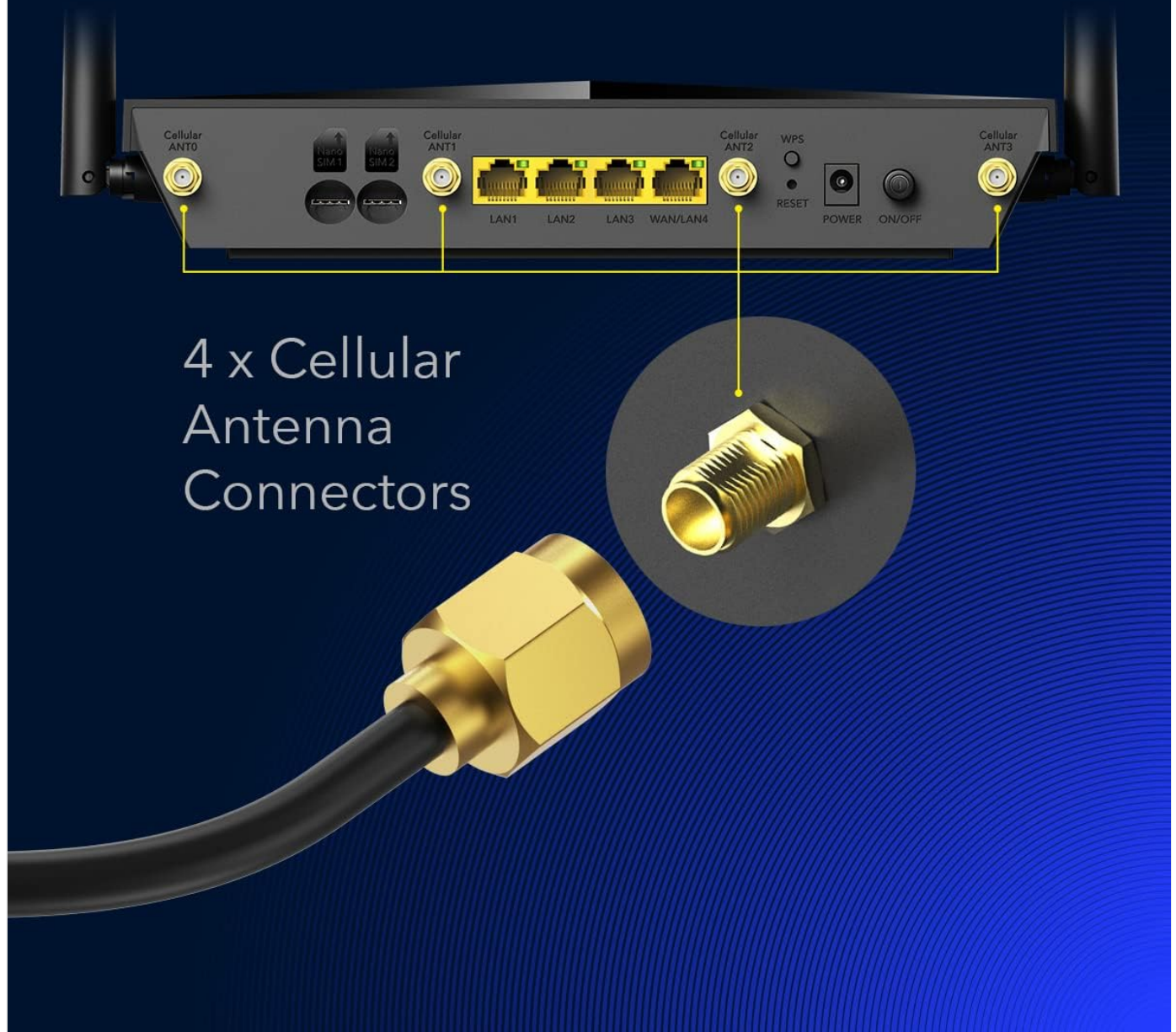


Figure 3.1: Rear panel of the Cudy P5 router, highlighting the 4 cellular antenna connectors and other ports.

3.2 Initial Configuration

To access the router's web management interface:

1. Ensure your computer is connected to the router via Wi-Fi or Ethernet. The default Wi-Fi SSID and password are printed on a label on the bottom of the router.
2. Open a web browser (e.g., Chrome, Firefox, Edge).

3. In the address bar, type 192.168.10.1 (default IP address) and press Enter.
4. Enter the default login credentials. The default username is admin and the default password is admin. It is highly recommended to change the default password immediately after your first login for security purposes.
5. Follow the on-screen setup wizard to configure your basic internet settings, including APN settings for your cellular provider if necessary, and Wi-Fi network name (SSID) and password.

4. OPERATING YOUR ROUTER

4.1 Connecting Devices

- **Wi-Fi Connection:** Search for your Wi-Fi network name (SSID) on your wireless devices (smartphones, laptops, tablets) and enter the Wi-Fi password you configured during setup. The router supports Wi-Fi 6 (802.11ax) for enhanced speed and efficiency.
- **Ethernet Connection:** For wired devices like desktop computers, gaming consoles, or smart TVs, connect an Ethernet cable from the device to any of the available LAN ports on the router.

4.2 Advanced Features

The Cudy P5 router offers a range of advanced features accessible through its web management interface:

- **Dual SIM & WAN Failover:** The router supports two Nano SIM cards, providing redundancy. You can configure it to automatically switch between SIM cards or use a wired WAN connection as primary with cellular as backup, ensuring continuous internet access.
- **VPN Clients:** Built-in support for multiple VPN protocols including PPTP, L2TP, OpenVPN, WireGuard, and IPSec. This allows you to establish secure connections to VPN servers.
- **Band Locking:** This feature allows you to lock the router to specific 5G/4G frequency bands, which can be useful for optimizing signal strength and stability in certain areas.
- **TTL Setting:** Adjust the Time-To-Live (TTL) value for cellular data, which can help with certain carrier restrictions or specific network configurations.
- **DDNS:** Compatible with over 20 DDNS providers, enabling remote access to your network resources even with a dynamic IP address.
- **DNS over Cloudflare/Google/Quad9:** Configure secure DNS resolution.
- **Cudy Mesh:** Supports Cudy Mesh technology for creating a seamless whole-home Wi-Fi network with compatible Cudy devices.
- **Cudy APP:** Manage your router conveniently using the Cudy mobile application.

Multiple VPN server and client support



Figure 4.1: The Cudy P5 supports multiple VPN client protocols including L2TP, IPsec, PPTP, OpenVPN, and WireGuard.

5. MAINTENANCE

5.1 Firmware Updates

Regularly updating your router's firmware ensures optimal performance, security, and access to new features. You can check for and install firmware updates via the router's web management interface, usually found under 'System Tools' or

'Firmware Upgrade'.

5.2 Resetting the Device

If you encounter persistent issues or forget your login password, you may need to reset the router to its factory default settings. To do this:

- With the router powered on, use a paperclip or a thin object to press and hold the 'Reset' button (located on the back panel) for approximately 5-10 seconds until the LED indicators flash.
- Release the button. The router will restart with factory default settings. You will need to reconfigure it from scratch.

5.3 Cleaning

To maintain the router's longevity, periodically clean its exterior with a soft, dry cloth. Avoid using liquid cleaners or abrasive materials.

6. TROUBLESHOOTING

This section addresses common issues you might encounter with your Cudy AX3000 router.

- **No Internet Access:**
 - Check if the SIM card is properly inserted and activated with your cellular provider.
 - Verify the APN settings in the router's web interface match your carrier's requirements.
 - Ensure the cellular signal strength is adequate (check the signal indicator LEDs or web interface).
 - If using WAN failover, ensure the primary WAN connection is active.
- **Wi-Fi Connection Issues:**
 - Ensure the Wi-Fi function is enabled in the router's settings.
 - Check if you are entering the correct Wi-Fi password.
 - Move closer to the router to improve signal strength.
 - Try restarting the router and your Wi-Fi device.
- **Cannot Access Web Management Interface:**
 - Ensure your device is connected to the router's network (wired or wireless).
 - Verify you are typing the correct IP address (default:192.168.10.1).
 - Clear your browser's cache or try a different browser.
 - If you forgot the password, perform a factory reset (see Section 5.2).

7. SPECIFICATIONS

Feature	Description
Model Name	P5
Brand	Cudy
5G Modem	Qualcomm Snapdragon SDX62
Wi-Fi SoC	Qualcomm IPQ5018 (1 GHz Dual-core ARM Cortex-A53 CPU)

Wi-Fi Standard	802.11ax (Wi-Fi 6)
Wi-Fi Speed	Up to 2402 Mbps (5 GHz), 574 Mbps (2.4 GHz)
5G NR Downlink Speed	Up to 2.5 Gbps
4G LTE Downlink Speed	Up to 1 Gbps
SIM Slots	Dual Nano SIM
Ethernet Ports	4 x Gigabit Ethernet (GbE) ports
Antennas	4 x 5dBi Cellular, 2 x 5dBi WiFi (Detachable)
Flash Memory	128MB
DDR RAM	256MB
VPN Support	PPTP, L2TP, OpenVPN, WireGuard, IPSec, Zerotier
Dimensions	19.69 x 19.69 x 11.02 inches
Item Weight	2.42 pounds (1.1 Kilograms)

5G SA/NSA AX3000 Wi-Fi 6 CPE

5G

Qualcomm
IPQ5018

Qualcomm
snapdragon
X62 5G Modem

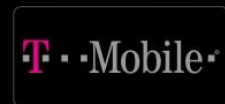
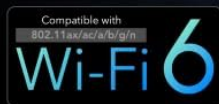


Figure 7.1: Overview of the Cudy P5's core technologies, including 5G SA/NSA, AX3000 Wi-Fi 6, Qualcomm IPQ5018, and X62 5G Modem.

WiFi6 The most powerful WiFi ever

1 GHz
Dual-Core CPU



4X
more capacity



150%
increase in data throughput

AX3000 2974Mbps



AC1200 1167Mbps



Figure 7.2: Illustration of the Qualcomm IPQ5018 1 GHz Dual-Core CPU and the benefits of WiFi 6, including 4x more capacity and 150% increase in data throughput.

8. WARRANTY AND SUPPORT

For warranty information and technical support, please refer to the warranty card included in your product package or visit the official Cudy website. You can also contact Cudy customer support for assistance with any issues not covered in this manual.

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