



RG-ANTx3-2400&5800(O) Antenna

Hardware Installation and Reference Guide

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Preface

Thank you for using our products. This manual will guide you through the installation of the antenna.

Scope

It is intended for the users who have some experience in installing and maintaining network hardware. At the same time, it is assumed that the users are already familiar with the related terms and concepts.

Obtaining Technical Assistance

- Ruijie Networks website: <http://www.ruijienetworks.com>
- Service Email: service_rj@ruijienetworks.com
- Technical Support: <http://www.ruijienetworks.com/service.aspx>
- Technical Support Hotline: +86-4008-111-000

Related Documents

Documents	Description
Configuration Guide	Describes network protocols and related mechanisms that supported by the product, with configuration examples.
Command Reference	Describes the related configuration commands, including command modes, parameter descriptions, usage guides, and related examples.

Symbol Conventions



Note

Means reader take note. Notes contain helpful suggestions or references.



Caution

Means reader be careful. In this situation, you might do something that could result in equipment damage or loss of data.

Chapter 1 Product Overview

The RG-ANTx3-2400&5800(O) is an outdoor omni-directional antenna that supports 3X3 MIMO and works with the RG-AP630 series products for 2.4GHz&5.8GHz band coverage.

RG-ANTx3-2400&5800(O)

Specifications

Table 1-1 RG-ANTx3-2400&5800(O) Technical Specifications

Product Model	RG-ANTx3-2400&5800(O)
Dimensions (L x W x H)	Φ145 mm x 330 mm
Operating Frequency	2.4 GHz-2.5 GHz; 5.125 GHz-6.100 GHz
Antenna Gain	8 dBi
Antenna Lobe Bandwidth	E:17°; H:360°
Stationary Wave Ratio	≤1.5
Isolation	≤ -25 dB
Port Resistance	50 ohm
Polarization Mode	Vertical polarization
Connector Type	6xN-K
Weight	1.2 Kg
Operating Temperature	-40°C~+60°C
Installation Method	Pole mounting (pole with a diameter of 40 mm to 70 mm)

Product and Accessory Appearance

Figure 1-1 Product Appearance of the RG-ANTx3-2400&5800(O)



Figure 1-2 Standard Feeder of the RG-ANTx3-2400&5800(O)



Figure 1-3 Standard Waterproof Material of the RG-ANTx3-2400&5800(O)



Chapter 2 Installation



Note To avoid personal injury and equipment damage, please carefully read the safety suggestions before you install the RG-ANTx3-2400&5800(O).



Note The following safety suggestions do not cover all possible dangers.

Check Before Installation

The following tools are required when you install outdoor antennas:

Installation Tools	Phillips screwdriver, flat-head screwdriver, paper knife, adjustable wrench, and strapping tape.
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Note No toolkit is delivered with the RG-ANTx3-2400&5800(O) outdoor directional antenna suite and you need to prepare the tools by yourself.

After you open the package, check and accept the products one by one according to the packing list in the package. If the products in the package do not comply with the packing list, directly contact the supplier or agent.

Installing the Antenna



Caution Please carefully read the precautions before you install the RG-ANTx3-2400&5800(O).



Caution Do not install the RG-ANTx3-2400&5800(O) near the conductive positions, such as power supplies or street lamps. Do not touch electric wires that may cause injury or death during the installation.



Caution To protect your outdoor directional antennas from lightning strikes, install a lightning rod.

- The antenna should be installed at a position away from electric cables and conductive positions.
- Avoid installing the antenna alone and try to confirm the installation procedures with other installation personnel.
- Work with others when erecting the pole to prevent injuries.
- Avoid falling antenna or radio frequency cables.

- Do not stand on metals or install the antenna in wet and windy days. Wear clothes suitable for antenna installation and insulated shoes and gloves.
- Go to the hospital when accidents happen.

Installing the Antenna Mounting Bracket

Attach the mounting bracket to the bottom of the antenna, as shown in the following figure:

Figure 2-1 Fixing the Antenna and Mounting Bracket



Installing the Feeder and Performing Waterproof Treatment

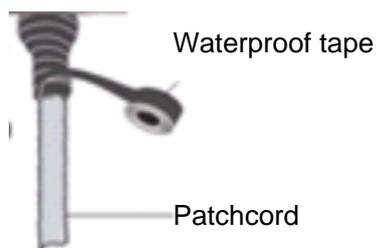
Connect the feeder cable to the antenna port.

Perform waterproof treatment in the connection point for three layers: waterproof tape as the first layer, waterproof clay as the second layer, and waterproof tape as the third layer.

The procedures are as follows:

- a). Wrap the waterproof tape and ensure that the upper layer tape covers more than 50% of the lower layer, as shown in the following figure:

Figure 2-2 Wrapping Waterproof Tape



b). Get 10 cm waterproof clay and wrap the connection point, as shown in the following figure:

Figure 2-3 Wrapping Waterproof Clay



c). Wrap the waterproof tape again, as shown in Figure 2-2.

Fixing the Antenna



Caution

To protect your outdoor directional antennas from lightning strikes, install a lightning rod.



Caution

The antenna must be installed at the height of 3 to 5 meters for the best coverage performance.

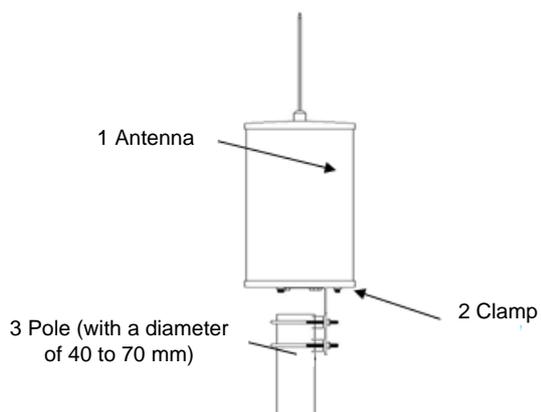
The RG-ANTx3-2400&5800 (O) is an omni-directional antenna that must be installed at the top of the pole.



Caution

The pole should be shorter than 5 meters for the coverage performance, as shown in the following figure:

Figure 2-4 Fixing the Antenna



Connecting to the AP and Performing Waterproof Treatment

Connect the other end of the feeder cable to the AP port.

Connect the 2.4GHz/5.8GHz feeder ports of the RG-ANTx3-2400&5800(O) to the 2.4G-1, 2.4G-2, 2.4G-3/ 5G-1, 5G-2, 5G-3 ports of the AP630 with no sequence. Perform waterproof treatment on the feeder connection point by referring to section *Installing the Feeder and Performing Waterproof Treatment*. After waterproof treatment, fix the feeder with the pole and other cables with cable ties.

When you use external antennas, configure the RG-AP630 to work in external antenna working mode. For detailed configuration commands, see the *RG-WLAN Series Wireless Access Point RGOS Configuration Guide*.