RG-ANTx3-2400D 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 access point.

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.

Documentation Conventions

The symbols used in this document are described as below:

This symbol brings your attention to some helpful suggestions and references.

This symbol means that you must be extremely careful not to do some things that may damage the device or cause data loss.

1 Product Overview

The RG-ANTx3-2400D is an outdoor directional antenna that supports 3X3 MIMO and works with the RG-AP630 series products for coverage and bridge applications of the 2.4GHz band.

1.1 RG-ANTx3-2400D

Specifications

Table 1-1 RG-ANTx3-2400D Technical Specifications

Product Model	RG-ANTx3-2400D
Dimensions (L x W x H)	400 mm x 240 mm x35 mm
Operating Frequency	2.4 GHz-2.483 GHz
Antenna Gain	3 x 15dBi
Antenna Lobe Bandwidth	2.4G: E:16°; H:65°
Isolation	≤ -25 dB
Port Resistance	50 ohm
Polarization Mode	2 x VP + 1 x HP
Connector Type	3×N-K
Weight	2.3 kg (5.07 lbs)
Operating Temperature	-40°C to 60°C (-40°F to 140°F)
Installation Method	Pole mounting (pole with a diameter of 30 mm to 50 mm)

Product and Accessory Appearance

Figure 1-1 RG-ANTx3-2400D Appearance

Figure 1-2 Standard Feeder for the RG-ANTx3-2400D

Figure 1-3 Standard Waterproofing Material for the RG-ANTx3-2400D

2 Installation

To avoid personal injury and equipment damage, please carefully read the safety suggestions before installing the RG-ANTx3-2400D.

The following safety suggestions do not cover all possible hazards.

2.1 Check Before Installation

Tools required for installing outdoor antennas:

Installation Tools	Phillips (crosshead) screwdriver, flat-head screwdriver, paper knife, adjustable wrench, and strapping tape.

No toolkit is delivered with the RG-ANTx3-2400D outdoor directional antenna suite. After you open the package, check and accept the products one-by-one according to the packing list. If the products in the package do not comply with the packing list, directly contact the supplier or agent.

2.2 Installing the Antenna

Please carefully read the precautions before installing the RG-ANTx3-2400D.

Do not install the RG-ANTx3-2400D 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.

The antenna should be in the range of the 45° lightening protection angle of the 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.
- Protect the antenna or radio frequency cables from falling.
- Do not stand on metals or install the antenna on wet and windy days. Wear clothes suitable for antenna installation and insulated shoes and gloves.
- Go to the hospital when accidents happen.

2.2.1 Installing the Antenna Mounting Bracket

Figure 2-1 Fixing the Antenna and Mounting Bracket

2.2.2 Installing the Feeder and Waterproofing

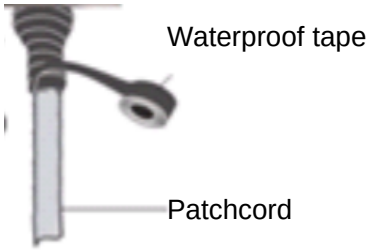
Connect the feeder cable to the antenna port.

Apply three layers of waterproofing treatment in the connection point: waterproof tape as the first layer, waterproof clay as the second layer, and waterproof tape as the third layer.

The procedures are:

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

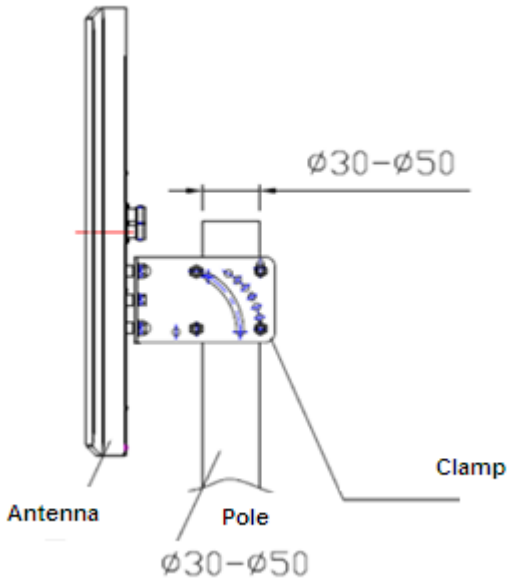
Figure 2-3 Wrapping Waterproof Clay

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

2.2.3 Adjusting the Antenna

Adjust the location of the U-shape hook of the antenna mounting bracket the clamp arc slot to adjust the inclination angle of the antenna. Then fasten the mounting bracket and the pole, as shown in the following figure:

Figure 2-4 Adjusting the Antenna Angle



2.2.4 Connecting to the AP and Waterproofing

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

Connect the 2.4GHz feeder ports of the RG-ANTx3-2400D to the 2.4G-1, 2.4G-2, 2.4G-3 ports of the AP630 with no sequence. Apply waterproofing materials on the feeder connection point by referring to section *Installing the Feeder and Performing Waterproof Treatment*. After waterproofing treatment, fix the feeder with the pole and other cables with cable ties.

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