



Quick Start Guide  
**ion414  
UBR**

# ANYWHERE EVERYWHERE



## Introduction

Thank you for choosing the IO's Unlicensed Band Radio (UBR). Enterprise Grade point-to-point and point-to-multipoint solution is optimally designed to support low to medium capacity enterprise applications in unlicensed 5 GHz spectrum for short and long range links.

## Packaging Content



2x2 UBR  
(Qty:1)



Quick Start Guide  
(Qty:1)



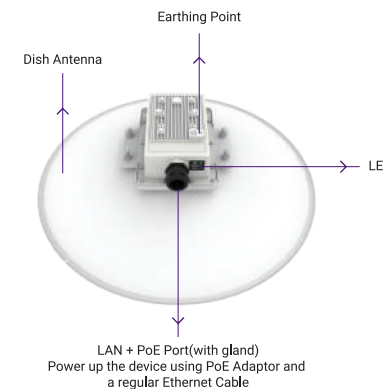
### Mounting Kit

1. Hood (1), 2. M6 Hex Bolts with split washers (6), 3. M6 Flange Nuts with serrations (4), 4. M8 x 220 Bolts (2), 5. Riveted U clamps (1), 6. Pole clamp assembly (1), 7. Pole clamp (1), 8. Nuts M8 (4), M8 split washer (4) & M8 flat washers (4)

## ion414 Specifications

Peak Throughput(aggregate)	Up to 700 Mbps Aggregate UL/DL Throughput
MIMO	2X2
Modulation	Upto 256 QAM
Channel Bandwidth	10/20/40/80 MHz
Wireless QoS	802.11e WMM
Wireless Security	WPA, WPA2, & 128-bit AES-PSK with hardware acceleration
Power Supply	IEEE 802.3af Active PoE
Power Consumption (Max)	<15 W
GPS Location	GNSS-1 (GPS +GLONASS)
Antenna Type	Integrated High Performance Dish Antenna
Antenna Gain	27 dBi
Management	Standalone (via GUI) or through appliance-based EMS or cloud-based
Enclosure Dimensions	625 x 625 x 280 mm or 24.6 x 24.6x 11 inches
Weight	2.6 kg
Operating Temperature	0°C to 55°C
Certifications	CE, FCC, RoHS 3.0, IP67

## Product Overview

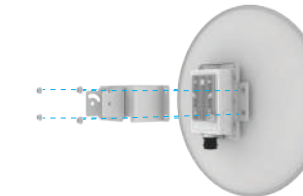


## Installation Set-up

The 2x2 UBR with integrated dish antenna has four studs on its backside for attaching the mounting bracket. The mounting bracket is designed in such a way that UBR can be mounted on the pole with the help of its attaching parts. It provides freedom of movement to the UBR for link alignment even after mounting.

**WARNING:** Insecure mounting might damage the device or cause injury. IO by HFCL is not responsible for damages incurred by insecure wall & pole mounting.

1. Use four M6 flange nuts and attach the hood with the UBR. Refer to the image below:



Note: Make sure that the cut in the hood aligns with lug connector.

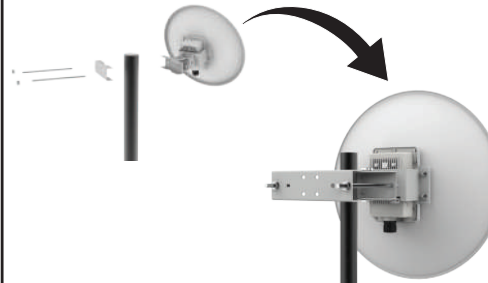
2. Attach pole clamp assembly with riveted U clamp with the help of three M6 hex bolts and split spring lock washers.



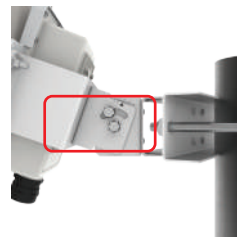
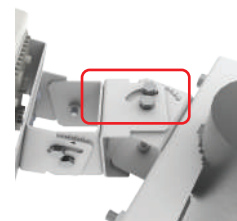
3. Mount this assembly from the previous step on UBR using three M6 hex bolts and split spring lock washers



4. Once UBR is assembled, the next step is to mount on the pole using two M8 x 220 bolts and four split spring lock washers and flat washers.



5. Slightly loosen M6 bolts, rotate brackets to align the pointer mark, at an optimum angle to set the azimuth and elevation. Once the desired setting is attained, securely tighten the six bolts using a compatible spanner.

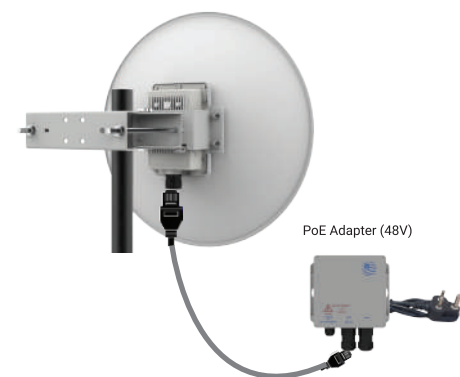


Note: Angle marking for azimuth adjustment & elevation adjustment

## Getting the ion414 Online

### Step 1: Power up

UBR can be powered up using PoE adaptor as shown below:

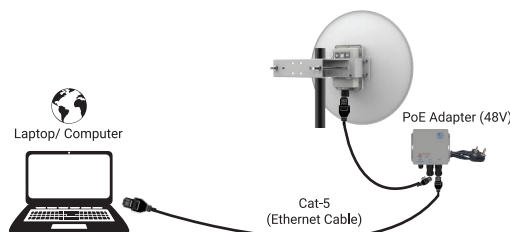


**Note:** For powering on UBR, only use HFCL POE adapter. Plug and Adaptor will vary by country/ region.

### Step 2: Login and Configure the UBR

Follow the steps mentioned below and connect UBR to a network :

1. Connect ethernet cable to the laptop/computer
2. Connect the other end of ethernet cable to the data port on PoE adapter
3. Connect UBR's PoE supported ethernet port to PoE adapter power port. Device will be powered on



4. Open web browser and enter "UBR IP address" in the address bar. The default static IP address for 2x2 UBR is set to "192.168.1.1"

5. A login screen will appear

6. Enter the default login credential details:  
User- admin, Password- HFCL@23#ion



7. Refer our user manual on our website [io.hfcl.com](http://io.hfcl.com) for detailed information to configure UBR

### Step 3: Check the LED status



LED Color	Status
Green LED (Power indication)	Green color notifies the user that the device is powered ON
BLUE LED (RSSI/Link indication)	Single blink: -1 to -50 dBm Double blink: -51 to -60 dBm Triple blink: Greater than -60 dBm NOTE - If link is down, then link LED will be in continuous OFF state.
BLUE LED (Alarm Indication)	Single blink: Minor Alarms Double blink: Major Alarms Triple blink: Critical Alarms

**NOTE -** During Reboot and Factory Reset, all the three LEDs will glow for 7 secs and the power LED will continue to glow.

## Safety Precautions

Observe following safety precautions to avoid damage to the ion414 UBR :

- ! Do not power the device during installation
- ! Do not subject the device to high temperatures
- ! Keep away from high voltage cables
- ! Do not power off the unit in the middle of an upgrade process
- ! The gland should be ground facing all the time
- ! Make sure the earthing wire is connected properly to the earthing points
- ! Do not open the enclosure when the UBR is working
- ! Fasten the device tightly

Part Number: QSG-02-0004  
Revision: A



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