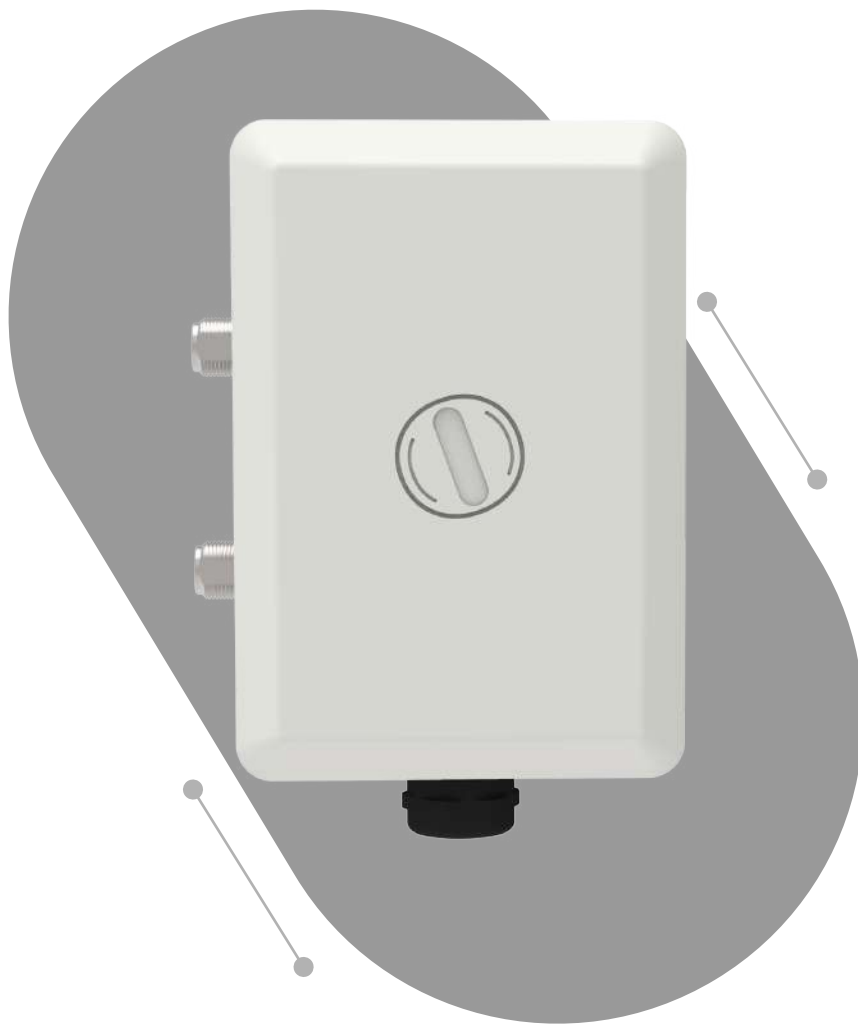


Quick Start Guide



Unlicensed Band Radio
High Capacity Radio
ion4xle/ion4xle_ext

**ANYWHERE
EVERYWHERE**



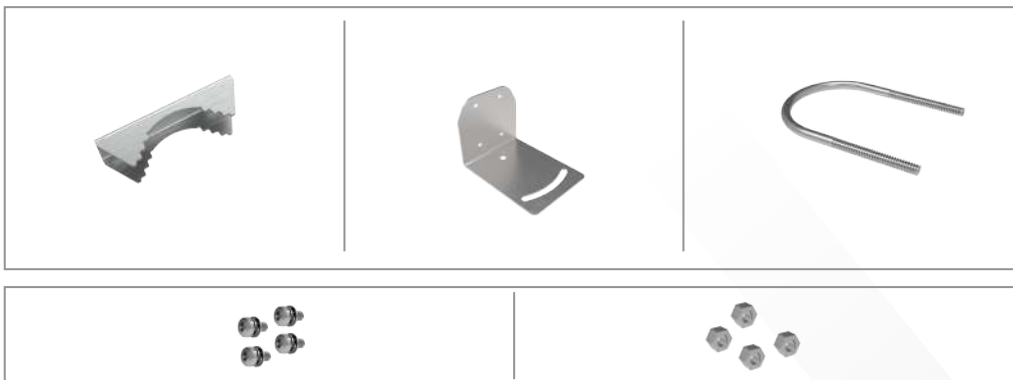
Introduction

Thank you for purchasing our Unlicensed Band Radio (UBR). IO enterprise/carrier grade P2P solution is designed to serve highly critical enterprise applications in unlicensed 5 GHz spectrum for short-range and long-range links.

Packaging Content



2x2 UBR (Qty:1)



Mounting Kit

Pole Clamp (Qty:1), L Plate (Qty:1),
 U bolt with 4 Hex Nuts (M6) (Qty:1),
 SEMS Screw (Qty:4), Hex Nuts (4)

Product Specifications

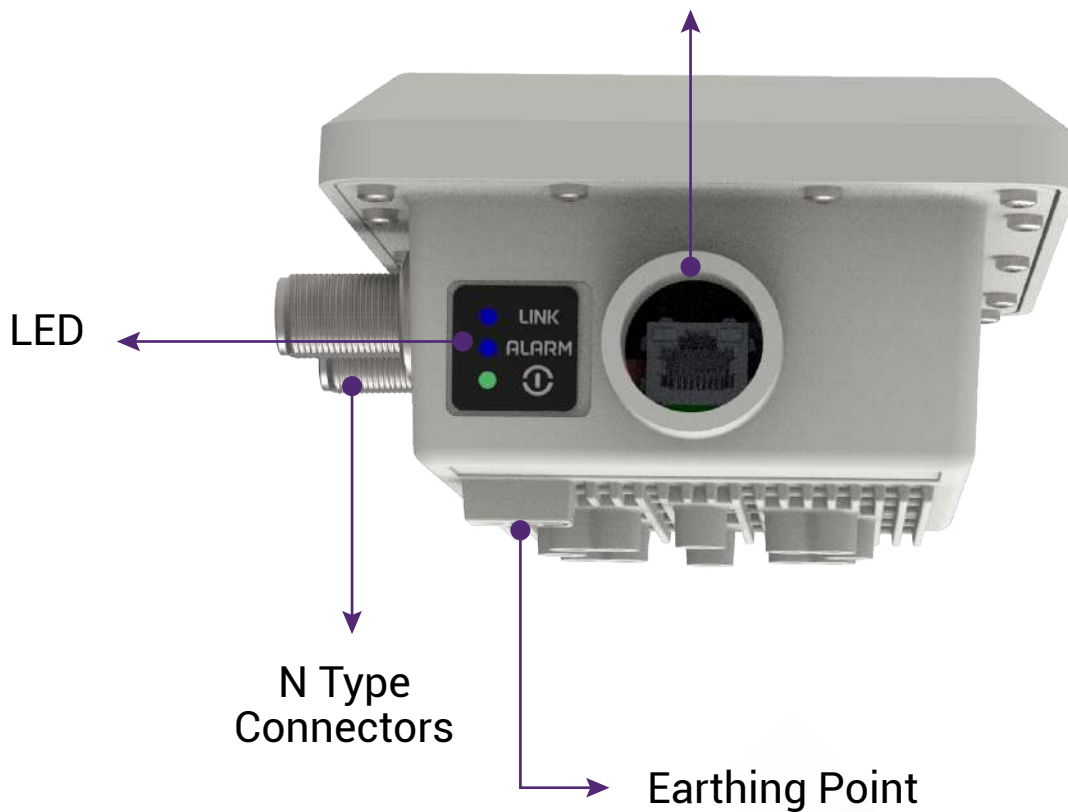
Peak Throughput (aggregate)	Up to 1 Gbps Aggregate UL/DL Throughput
Radio Mode	2X2
Modulation	Upto 1024 QAM
Channel Bandwidth	20/40/80 MHz
Wireless QoS	802.11e WMM
Wireless Security	WPA, WPA2, WPA3 - Personal and Enterprise and 256-bit AES PSK with hardware acceleration
Power Supply	IEEE 802.3 at -48V
Power Consumption (Max)	<15 W (max)
Antenna Type	UBR with option for External Antenna
Management	Standalone (via GUI) or through appliance-based EMS or cloud-based
Enclosure Dimensions (LxWxH)	209x125x72 mm or 8.23x4.92x2.83 inches
Weight	0.8 kg
Operating Temperature	ion4xle: -10° C to 55° C ion4xle_ext: -40° C to 55° C
Certifications	FCC Class A, CE, MTCTE, RoHS 3.0, IP67

Note:

Optional hardware customization includes an in-built temperature sensor, in-built buzzer, dying gasp, and GNSS-1 (GPS + GLONASS) For more options.information, please contact our Sales Team.

Product Overview

LAN + PoE Port (with gland)
Power up the device using PoE
adaptor and a regular Ethernet Cable



Installation Set-up

The 2x2 UBR has four threaded holes on its rear side specifically designed for affixing the mounting bracket. This mounting bracket is designed to facilitate easy pole mounting by utilizing its components.

1. Align the L Plate with the holes at the back of UBR and use provided SEMS screws to fix it.



2. Position the pole clamp as per the illustration



- ⋮⋮⋮ 3. Pass the U-bolt along with the hex nuts through the pole clamp, as depicted in the image below.



- ...
- ...
- ...
4. Secure the U-bolt firmly to affix it onto the pole by tightening the hex nuts, as demonstrated in the image below.



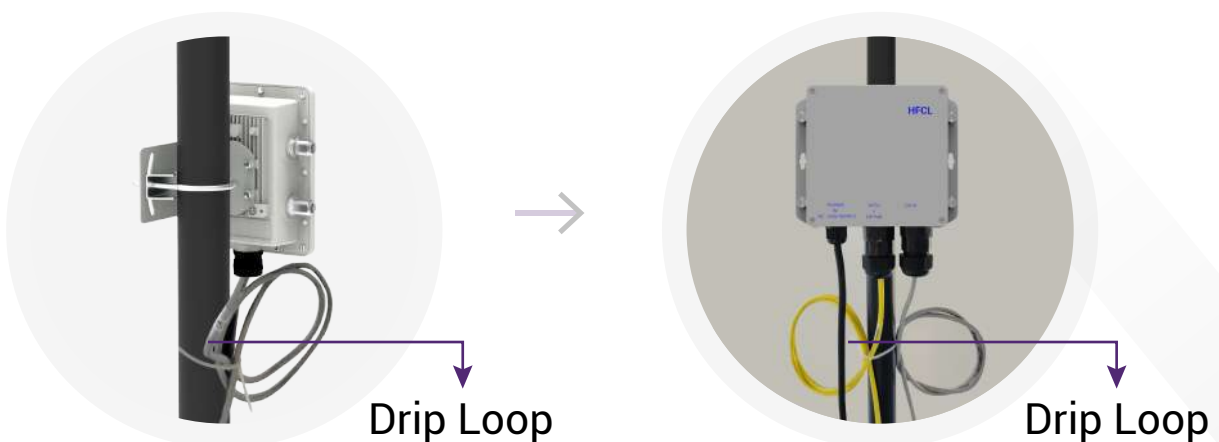
Attaching External Antennas

:::: Dish Antenna ::::

- :::: 1. Attach the UBR to an external dish antenna using an RF cable, as illustrated in the image below.



- :::: 2. To avoid the water ingress, give "Drip Loop" in the cable, as illustrated below



WARNING:

HFCL cannot be held liable for any damages incurred during the process.

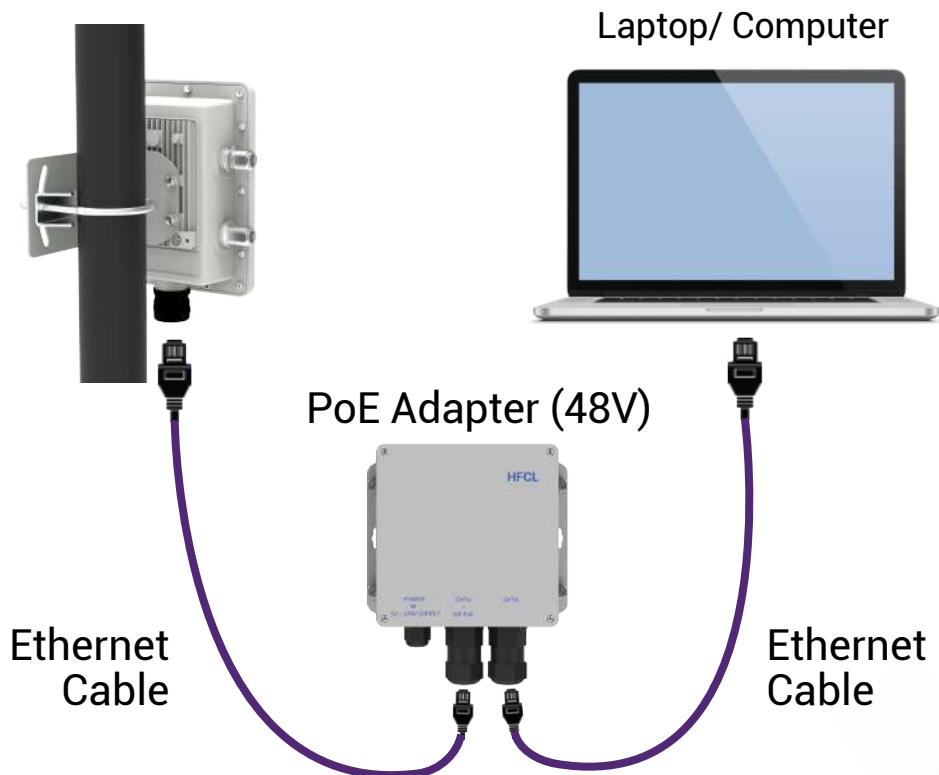
Getting the UBR Online



Step 1:

Power up the device and Configure the UBR

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

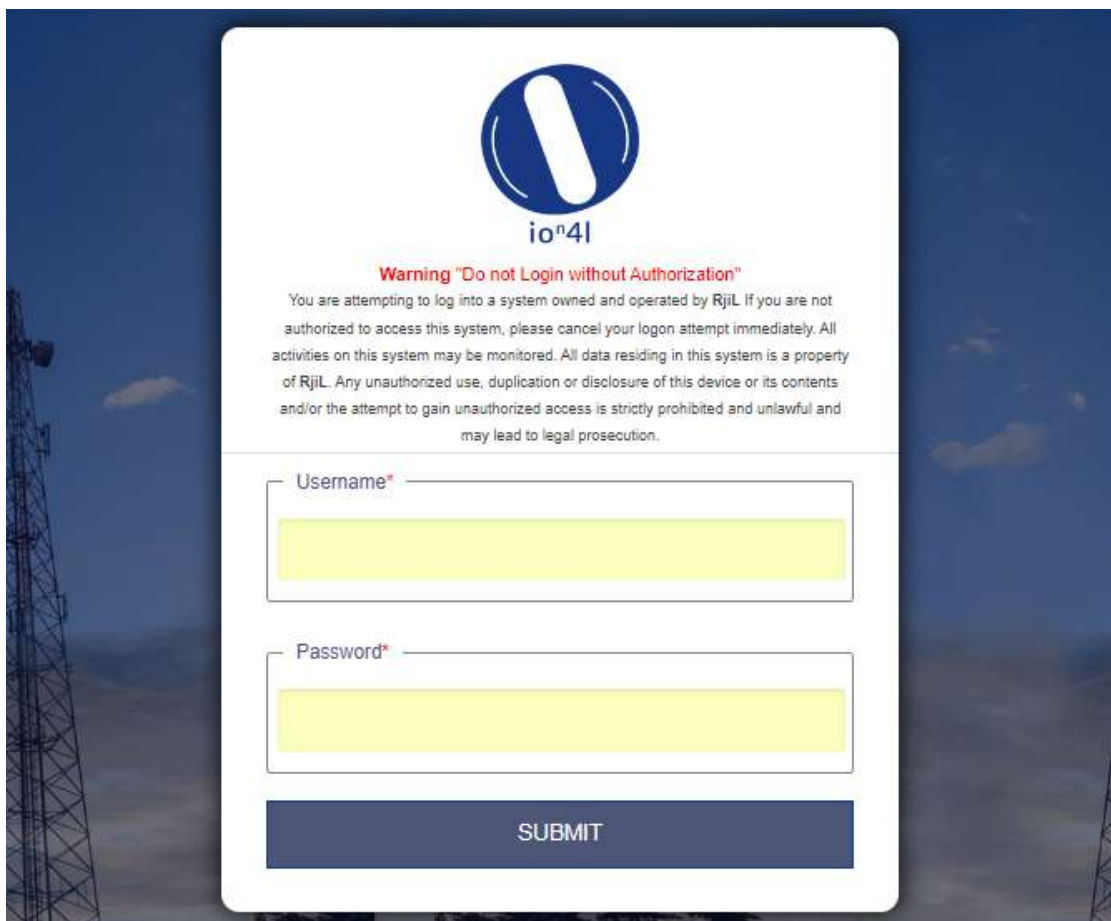


1. Connect an ethernet cable to the laptop/computer.
2. Connect the other end of the ethernet cable to the data port on the PoE adapter.
3. Connect UBR's PoE-supported ethernet port to the PoE adapter power port. The device will be powered on.

Note:

For powering on UBR, only use HFCL PoE adapter. Plug and Adaptor will vary by country/region.

- :::: 4. Configure a computer with a 1-domain static IP address e.g. 192.168.1.X and a subnet mask of 255.255.255.0.
- :::: 5. Open the 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".
- :::: 6. A login screen will appear
- :::: 7. Enter the default login credential details:
User- admin, Password- HFcl!@23#ion



- :::: 8. Refer to our user manual on our website io.hfcl.com for detailed information to configure UBR.



Step 2:

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: Lesser than -60 dBm NOTE: If the link is down, then the 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 the following safety precautions to avoid damage to the 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 point

-  Do not open the UBR enclosure when the UBR is working

-  Fasten the UBR device tightly



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