NORTHSTAR TELECOM

io by HFCL

# Quick Start Guide

**ion4x_2/ion4x_2_ext**

**ion4x_3/ion4x_3_ext**

## Access Point

NORTHSTAR TELECOM

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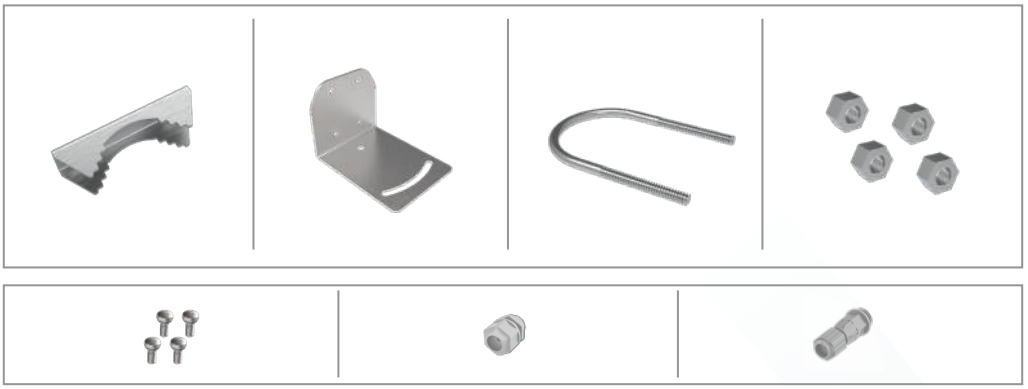
# ANYWHERE EVERYWHERE

# Introduction

Thank you for purchasing our Access Point. It is a cloud-managed 2x2:2 MU-MIMO Wi-Fi certified Access Point that raises the bar for wireless performance and efficiency.

## Packaging Content

ion4x_2/ion4x_2_ext/ion4x_3/ion4x_3_ext
Access Point (Qty:1)



Mounting Kit
Pole Clamp (1), L Plate (1), U Bolt (1),
Hex nut (4), SEMs Screws (4), Ethernet Port Gland (1),
SFP Port Gland (1)

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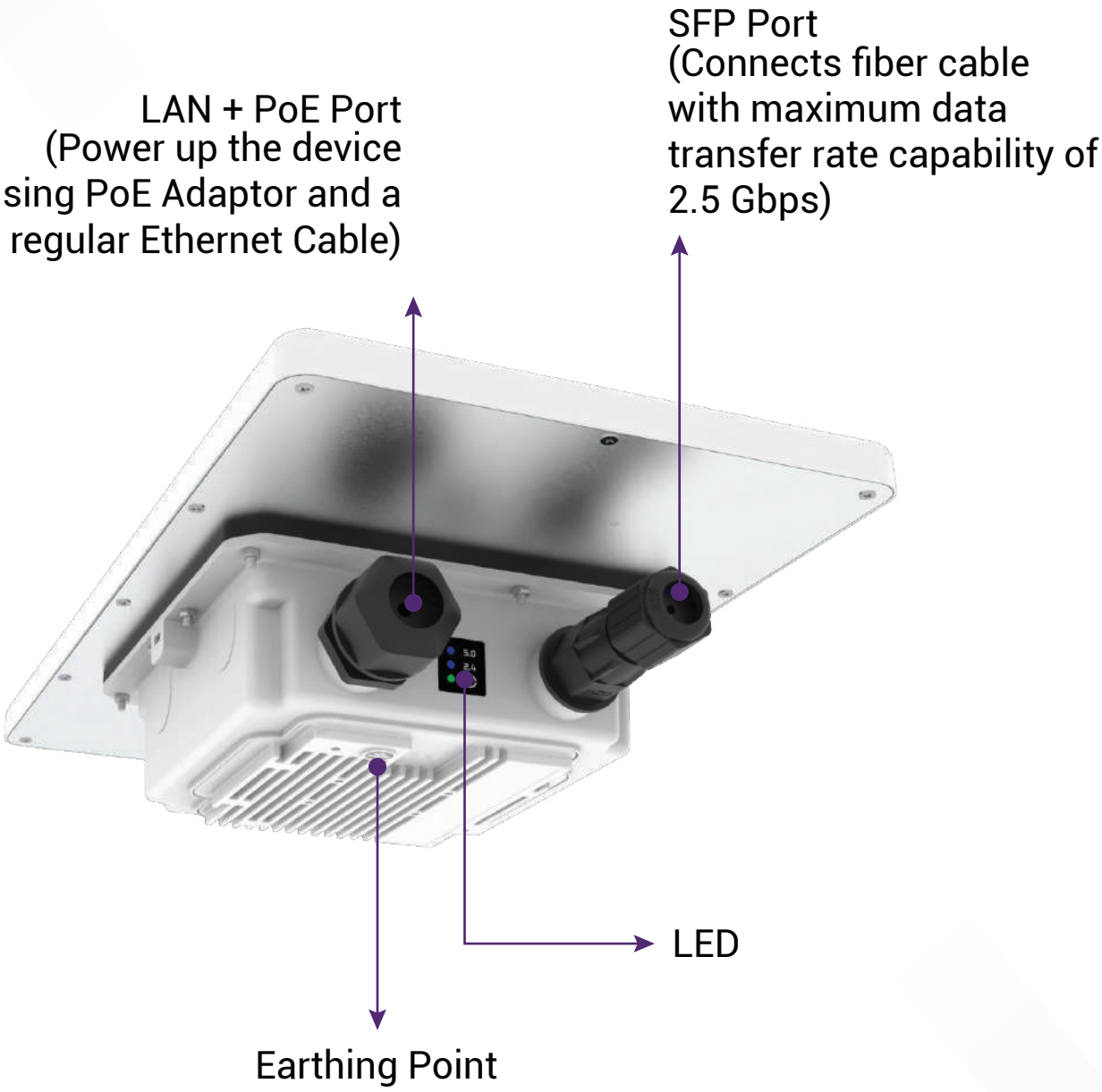
# Product Specifications

| | |
|---|---|
| Peak Data Rate (aggregate) | Up to 1.78 Gbps (1202 Mbps for 5 GHz and 574 Mbps for 2.4 GHz) |
| Wi-Fi Standard Support | 802.11a/b/g/n/ac/ax |
| Interface | 1 X 10/100/1000 BASE-T Ethernet<br>1 X 2500 Base X Optical Ethernet SFP |
| Radio Mode | 2x2 MU-MIMO with 2 spatial streams |
| Mesh Support | Self-creating, Self-healing EasyMesh |
| Maximum number of SSID | 16 per radio (32 combined) |
| Maximum User Support | 1024 clients per Access Point<br>(512 clients per radio) |
| Power Supply | IEEE 802.3at PoE/PoE+ |
| Power Consumption (Max) | 17 W (approx.) |
| Max Transmit Power | 30 dBm for 2.4 GHz, 30 dBm for 5 GHz (will depend on country-specific guidelines) |
| Antenna Type | Integrated directional antennas with $60^0 \pm 2^0$H & $15^0 \pm 1^0$V beamwidth **(ion4x_2/ion4x_2_ext)**<br>$45^0 \pm 2^0$H & $27^0 \pm 2^0$V beamwidth **(ion4x_3/ion4x_3_ext)** |
| Management | Standalone (via GUI) or through on-premise based solution or cloud-based |
| Enclosure Dimensions | **ion4x_2/ion4x_2_ext:**<br>375 X 215 X 89 mm or<br>14.8 X 8.5 X 3.5 inches<br>**ion4x_3/ion4x_3_ext:**<br>310 X 310 X 85 mm or<br>12.2 X 12.2 X 3.3 inches |

| | |
|---|---|
| Weight | 1.66 kg (for all variants) |
| Operating Temperature | -15°C to 60°C (ion4x_2/ion4x_3)<br>-40°C to 60°C (ion4x_2_ext/ion4x_3_ext) |
| Certifications | FCC Class A, CE, Passpoint 2.0, EasyMesh, WPA3, IP67, RoHS 3.0 |
| Variants : | ion4x_2 : 14 dBi integrated antenna; Normal temperature operation<br><br>ion4x_2_ext : 14 dBi integrated antenna; Extended temperature operation<br><br>ion4x_3 : 13 dBi integrated antenna; Normal temperature operation<br><br>ion4x_3_ext : 13 dBi integrated antenna; Extended temperature operation |

# Product Overview

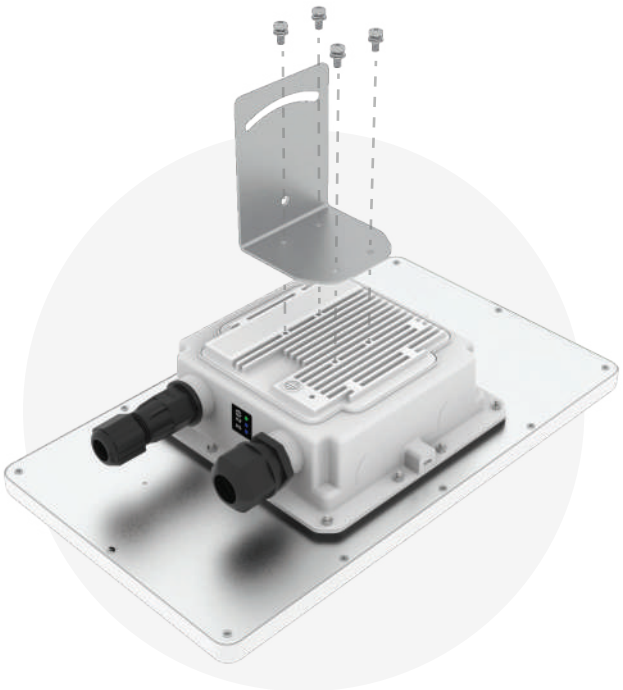


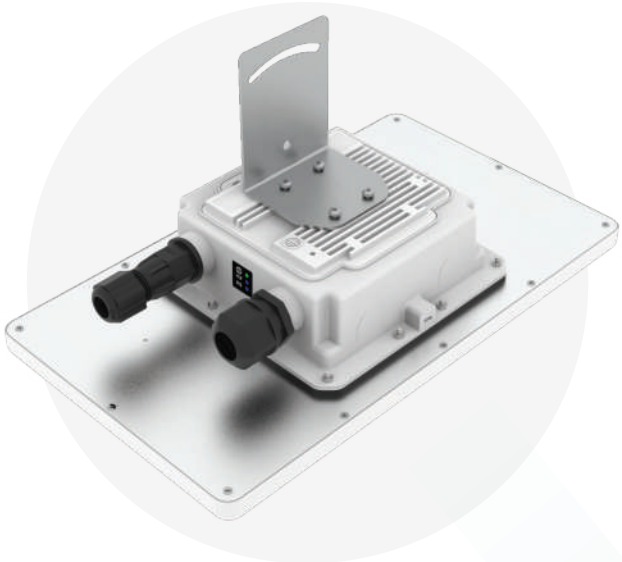
# Mounting of Access Point

The Access Point can be mounted on a pole or onto a wall. Perform the following steps for appropriate installation.

1. Align L Plate with the holes at the back of Access Point.

2. Use the provided screws to fix the plate onto the Access Point. The mounting bracket is fixed onto the mounting holes on the Access Point.





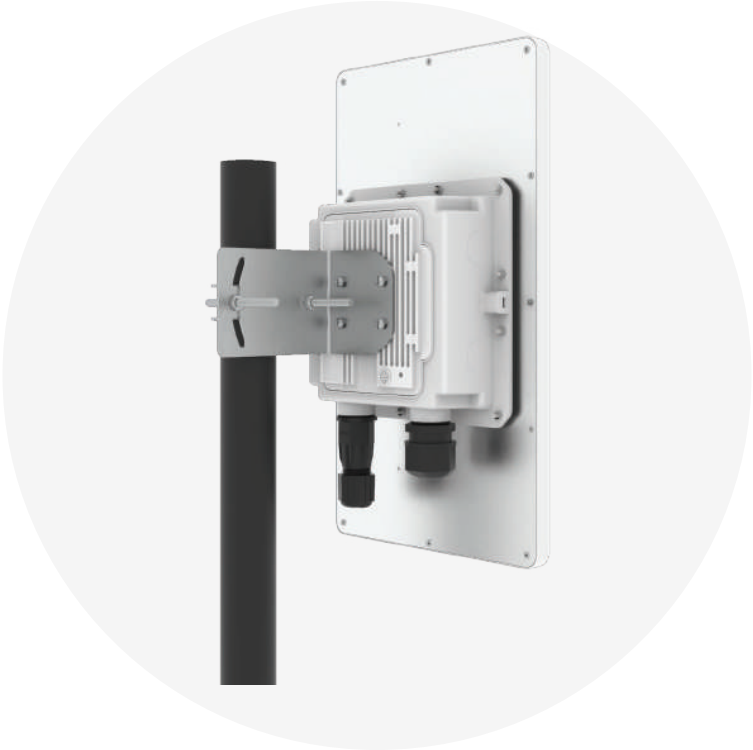
# Pole Mount

1. Align the L Plate mounted Access Point with pole clamp & U-Bolt.

2. Pass the U-Bolt through the cuts of pole clamp & L Plate. Secure it in place with Hex Nuts.

**Note:** The pole mounting is designed for poles of diameter 40 mm to 60 mm. For mountings on larger size poles up to 140 mm, contact at iosales@hfcl.com.

## 3. Access Point has the freedom of movement along with the vertical & horizontal axis.



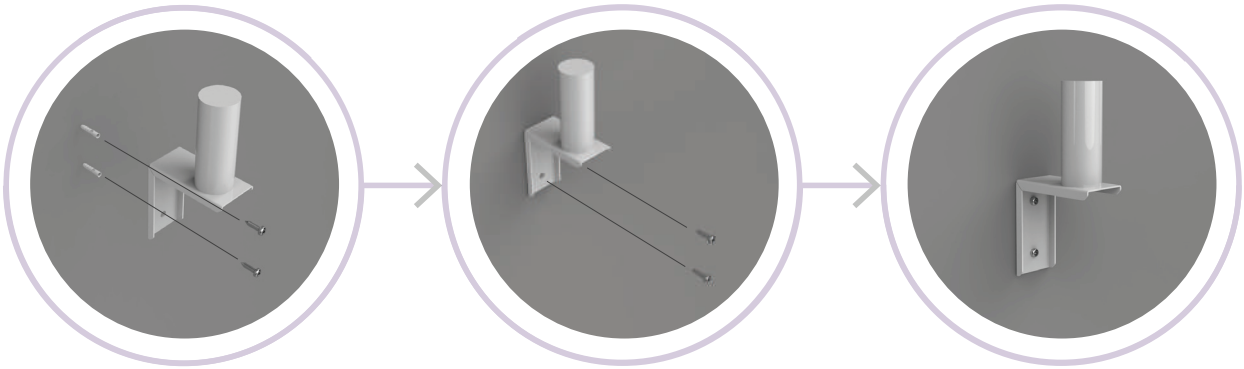
## 4. The final alignment of Access Point on a pole mounting as shown below.

**Note:** The pole mounting is designed for poles of diameter 40 mm to 60 mm. For mountings on larger size poles up to 140 mm, contact at iosales@hfcl.com.

# Wall Mount

To mount the Access Point on a wall, use the wall mounting bracket, drywall screws, and screw anchors.

(*The entire wall mounting assembly is sold separately)



1. Take the reference from the wall mounting bracket and mark the position of the holes on the wall.

2. Use the drill machine to drill 2 holes on respective marked positions.

3. Push the screw anchors into the holes with a hammer.

4. Align the drilled holes with the holes of wall mounting bracket.

5. Insert the drywall screws through the holes of the mounting bracket into the wall.

6. Wall mounting bracket is fixed to the wall.

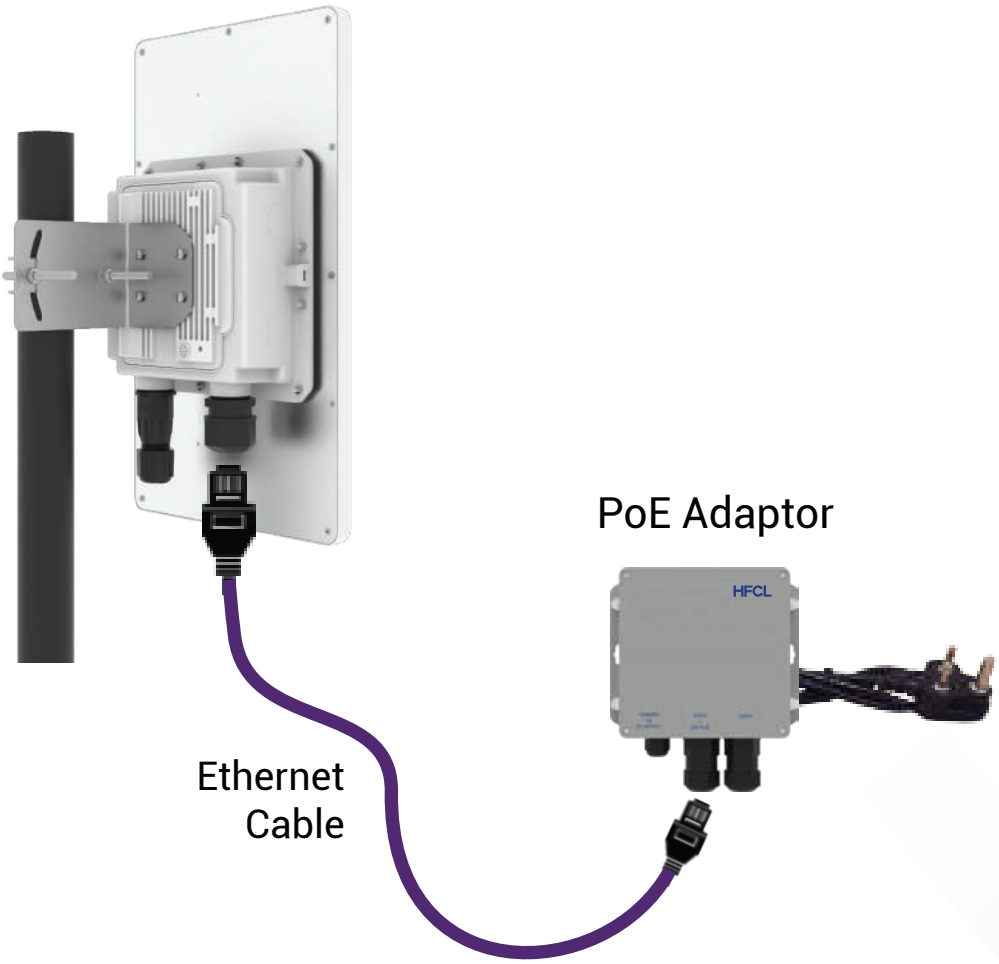
7. Mount the device onto the wall mounting bracket as discussed in the pole mounting process.

# Getting the Access Point Online

## Step 1:

Power up the device and connect to the network

Follow the steps mentioned below and connect the Access Point to a network:

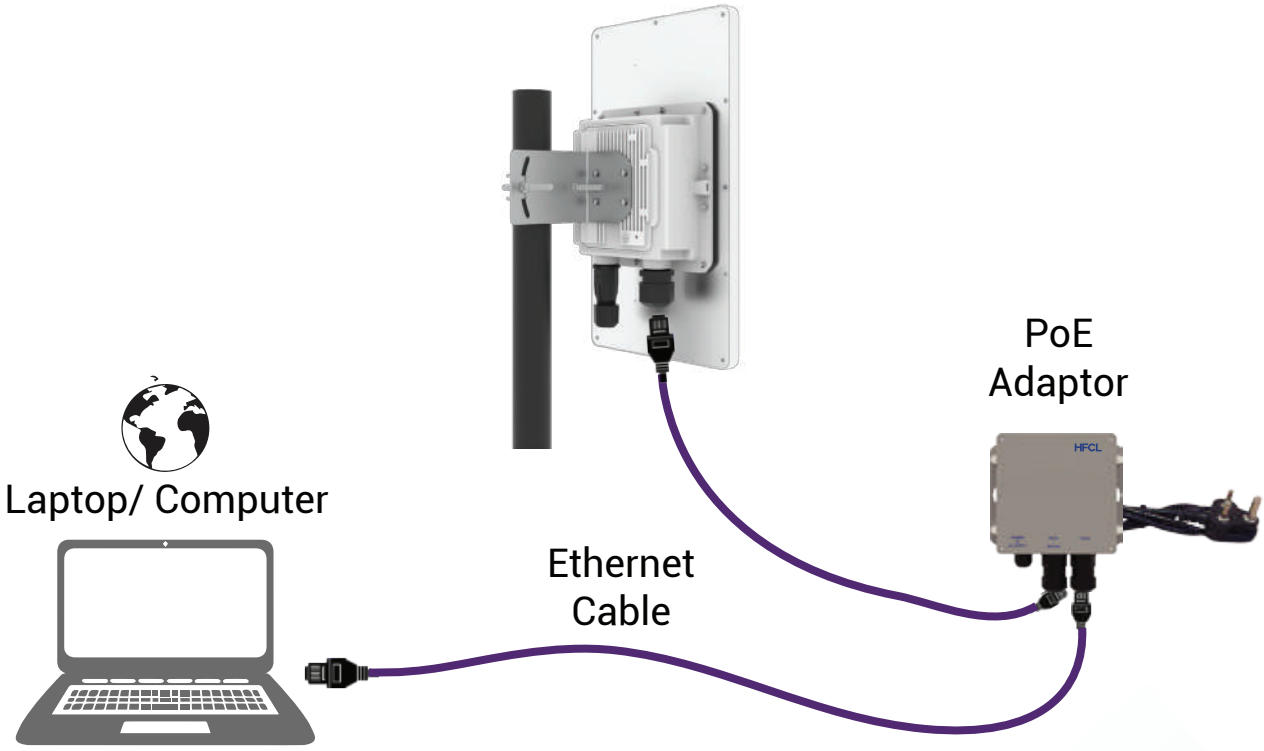



**Note:** Plug and Adaptor will vary by country/region

Power up using PoE Adaptor

## Section 1: Standalone AP

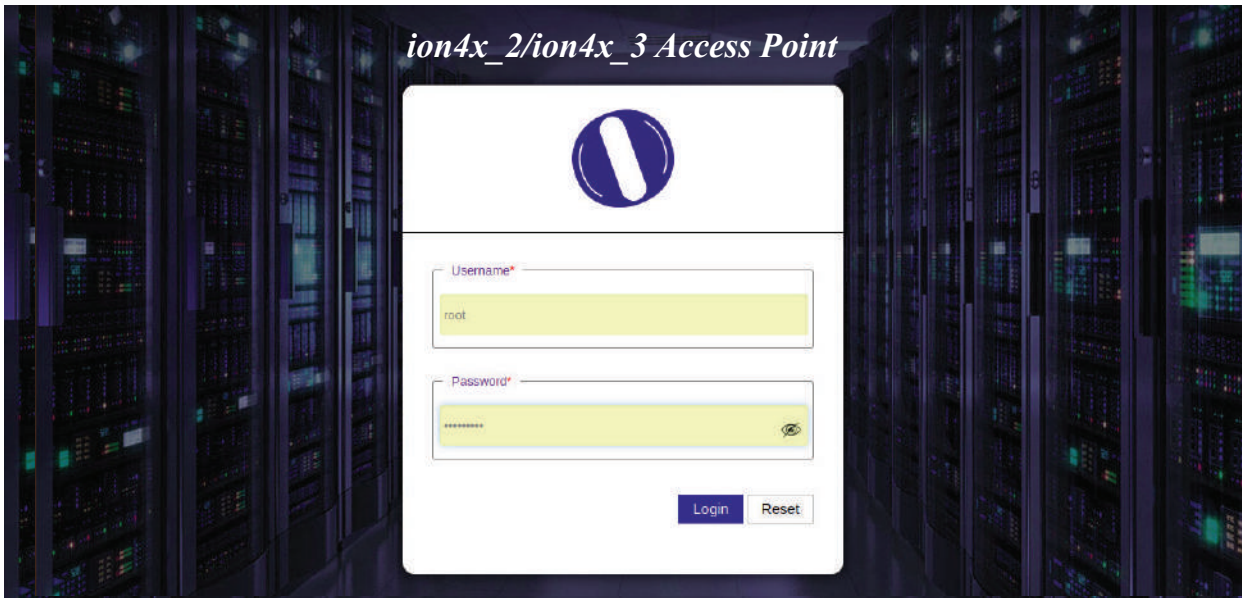
1. Connect an ethernet cable to the computer.
2. Connect the other end of ethernet cable to the data port on PoE adaptor.
3. Connect ion4x_2 PoE supported ethernet port to PoE adaptor power port. The device will be powered on.




4. Configure the computer with the same domain static IP 192.168.1.X and a subnet mask of 255.255.255.0 (X is from 2 to 255).
5. Open the web browser and enter the Access Point static IP address in the address bar: 192.168.1.1

6. A login screen will appear.

7. Enter the default login credential details:
*(User-root, Password-hfcl!@ion)*




## Section 2: Controller Managed AP

Follow the steps mentioned to connect Access Point to a network:

1. Power-up the AP through PoE adaptor or PoE switch.

2. Connect the AP to DHCP network and Internet.

3. Login to HFCL io cloud controller (cNMS) iocloud.hfcl.com with the credentials provided.

3a. To get cNMS login credentials, please send a request email to iosupport@hfcl.com with the below details.

| Customer name | Customer email address | Customer address | Customer contact number | Distributor/ Retailer Name | No.of AP Purchased | Country |
|---|---|---|---|---|---|---|
| | | | | | | |

4. Add AP group under configuration.

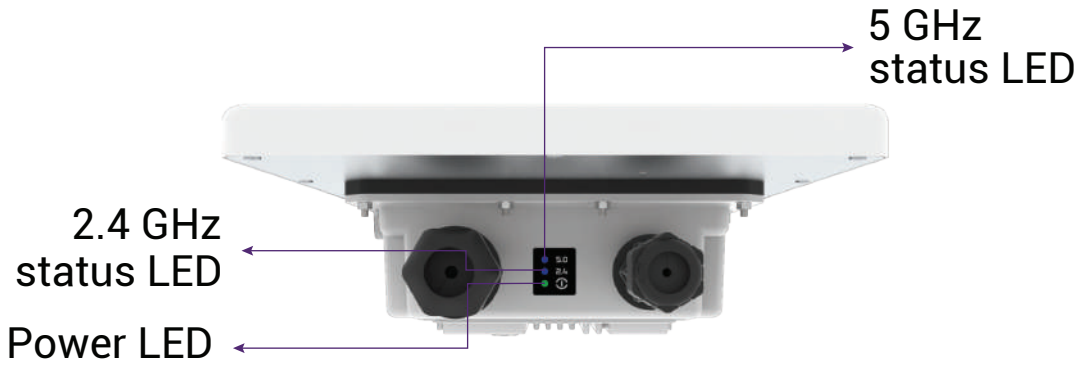
5. Add APs in the AP group.

6. Create SSID in the AP group.

7. Refer to our website io.hfcl.com for detailed information to configure AP through cNMS.

## Step 2:

Check the LED status




| LED COLOR | STATUS |
|---|---|
| Power LED Green | Green color notifies the user that the device is powered ON. |
| 2.4 GHz Status LED | Solid Blue color notifies the user that the 2.4 GHz radio is active and blinks while data is being transmitted on 2.4 GHz radio. |
| 5 GHz Status LED | Solid Blue color notifies the user that the 5 GHz radio is active and blinks while data is being transmitted on 5 GHz radio. |

# Safety Precautions

Observe the following safety precautions
to avoid damage to the Access Point:

- Do not subject the device to high temperatures
- Keep away from high voltage cables
- Disconnect the device before cleaning it
- Do not wipe the device with a damp cloth
- Do not open the enclosure of the Access Point
- Fasten the device tightly with the mount
- Make sure the earthing wire is connected properly to the earthing point
- The gland should be ground facing all the time

Part Number: QSG-01-0009
Revision: A

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