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HFCL ion4x Access Point User Guide

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Contents

Introduction

Thank you for purchasing our ion4x Access Point. ion4x is a cloud-managed 2×2:2 MU-MIMO Wi-Fi 6 certified Access Point that raises the bar for wireless performance and efficiency.

Packaging Content

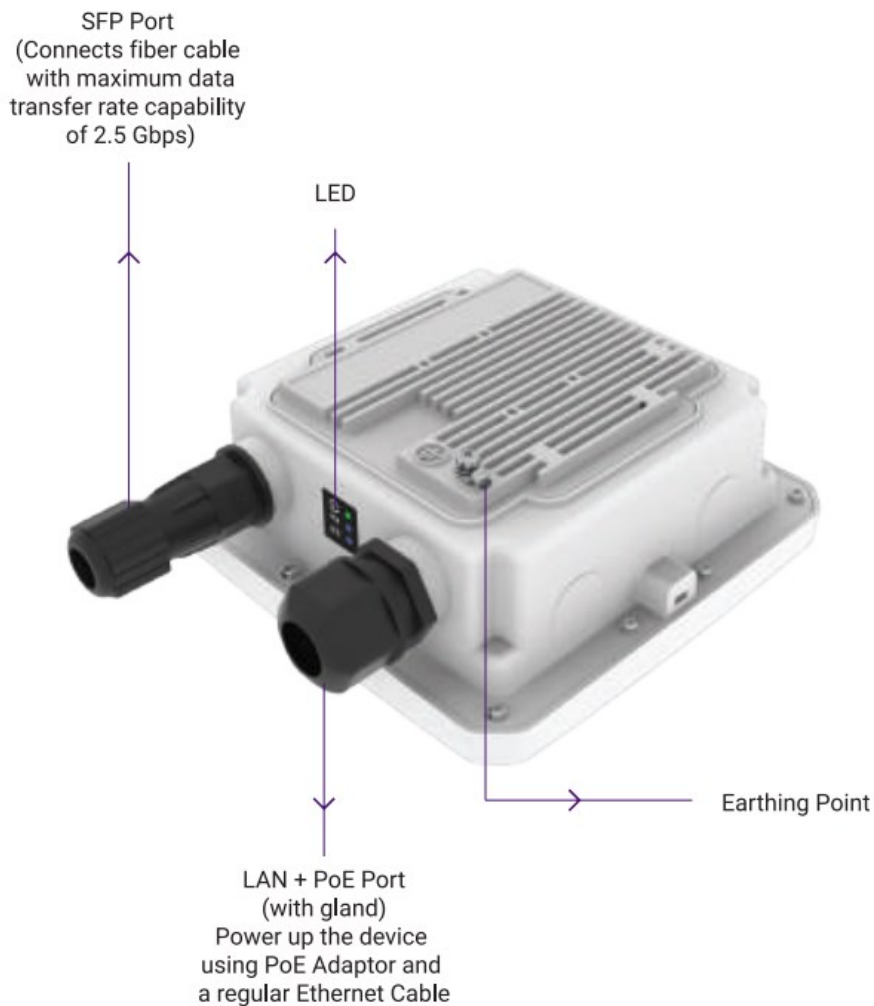- ion4x Access Point (Qty:1)

- Quick Start Guide (Qty:1)

- Mounting Kit (Pole Clamp (1), L Plate(1), U Bolt (1), Hex nut (4), Screws (4))

ion4x Specifications

Peak Throughput(aggregate)	Up to 1.78 Gbps (1202 Mbps for 5 GHz and 574 Mbps for 2.4 GHz)
Wi-Fi Standard Support	802.11 a/b/g/n/ac/ac Wave 2/ax
Interface	1 X 10/100/1000 BASE-T Ethernet1 X 2500 Base X Optical Ethernet SFP
Radio Mode	2×2 MU-MIMO with 2 spatial streams
Mesh Support	Self-creating, Self-healing EasyMesh
Maximum number of SSID (per radio)	16
Maximum User Support	1024 clients per Access Point (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 90° beamwidth
Antenna Gain	8 dBi for 5 GHz, 8 dBi for 2.4 GHz
Management	Standalone (via GUI) or through on-premise based solution or cloud-based
Enclosure Dimensions	182 x 182 x 89 mm or 7.17 x 7.17 x 3.5 inches
Weight	0.9 kg
Operating Temperature	-15°C to 60°C
Certifications	FCC Class A, CE, Passpoint 2.0, EasyMesh, WPA3, IP67, RoHS 3.0

Product Overview

SFP Port
(Connects fiber cable
with maximum data
transfer rate capability
of 2.5 Gbps)

LED

Earthing Point

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

Mounting of ion4x Access Point

The ion4x can be mounted on a pole or to 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 HexNuts.

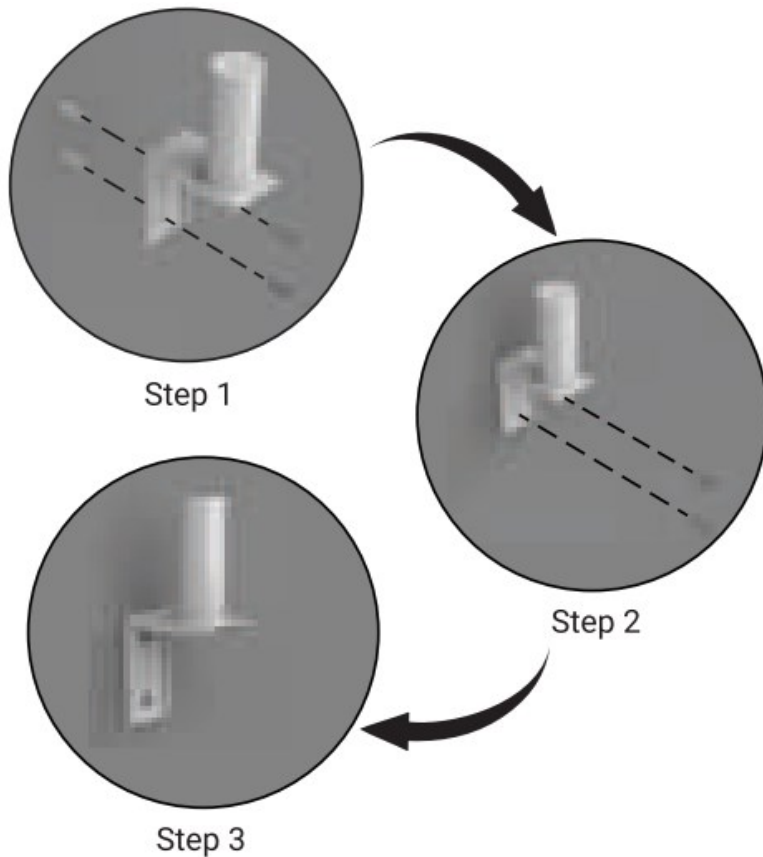3. Access Point has the freedom of movement along with the vertical & horizontal axis.

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 upto 140 mm, contact at **iosales@hfcl.com**

Wall Mount

To mount the ion4x on a wall, use the wall mounting bracket, drywall screws, and screw anchors (* The entire wall mounting assembly is sold seperately).

Step 1

Step 2

Step 3

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 mounting bracket into the wall.
6. Wall mounting bracket is fixed to the wall.
7. Mount the device on to the wall mounting bracket as discussed in pole mounting process.
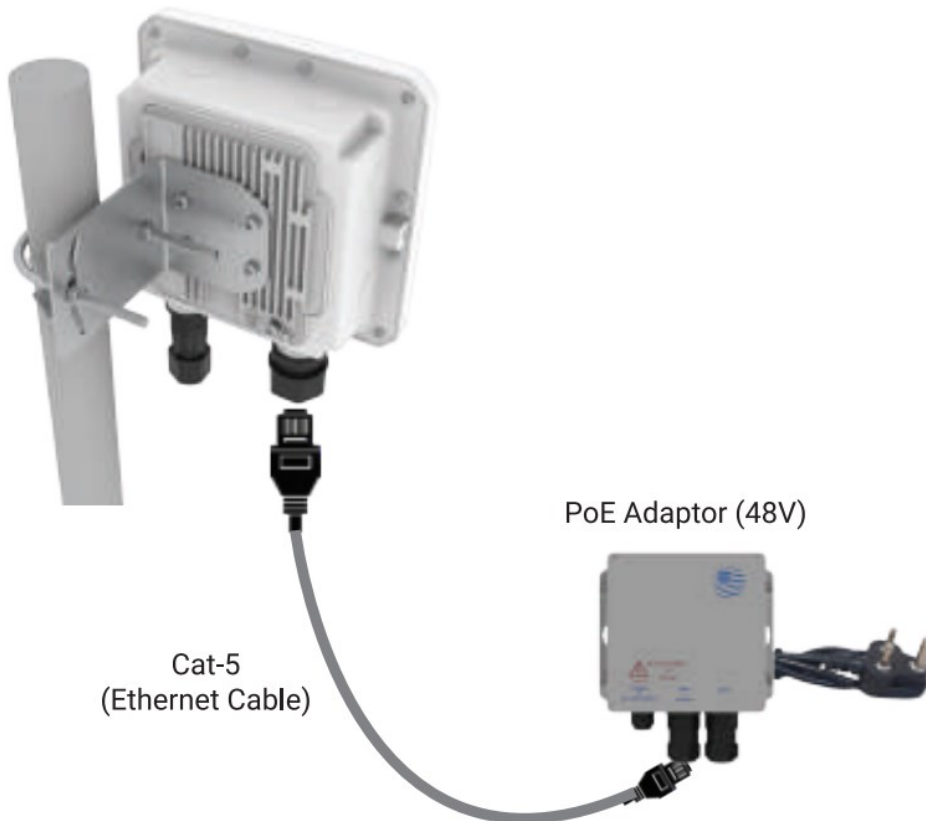
WARNING: HFCL is not held liable for any damages incurred during the process.

Getting the ion4x Online

Step 1: Power up

The Access Point can be powered up using PoE adaptor (48V) as shown below:

PoE Adaptor (48V)

Cat-5
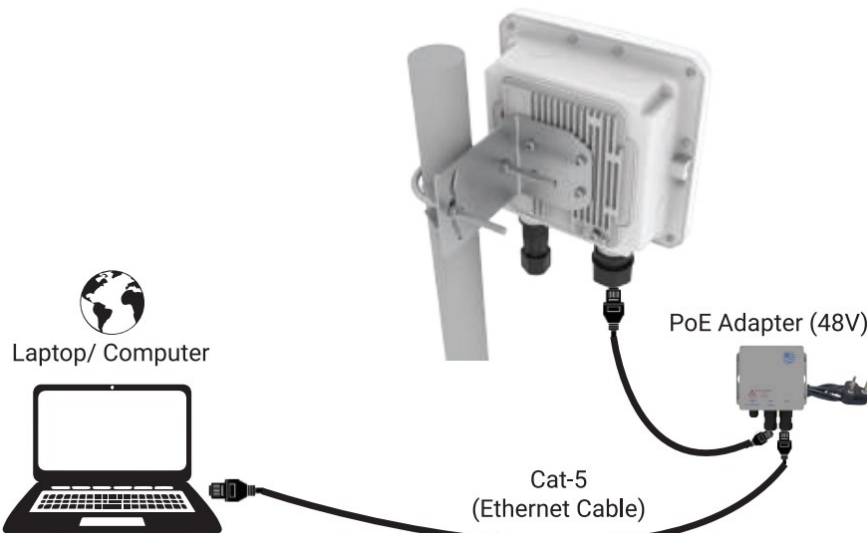(Ethernet Cable)

Note: Plug and Adaptor will vary by country/ region

Step 2: Connect to the network

Section 1: Standalone AP

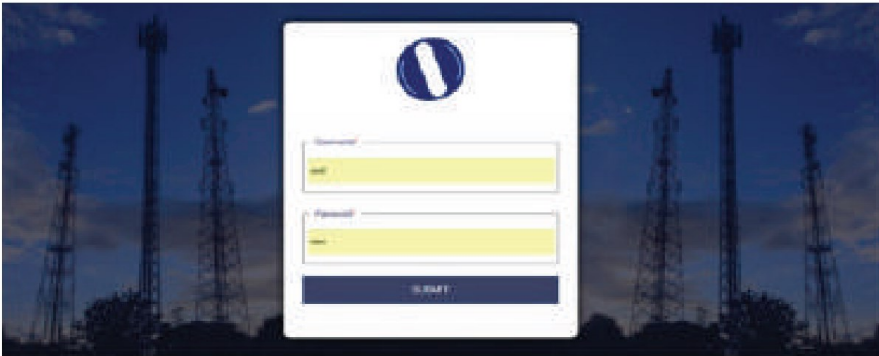Follow the steps mentioned below and connect the Access Point to a network :

1. Connect an ethernet cable to the computer.
2. Connect the other end of ethernet cable to the data port on PoE adapter (48V)
3. Connect ion4x PoE supported ethernet port to PoE adapter power port. Device will be powered on.

Laptop/ Computer

PoE Adapter (48V)

Cat-5
(Ethernet Cable)

4. Configure the computer with a 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. Connect an Ethernet cable to the computer.
2. Power-up the AP through PoE adaptor.
3. Connect the AP to DHCP network and Internet.
4. Login to HFCL 10 cloud controller (cNMS) iocloud.hfcl.com with credentials provided.
   - **a.** To get cNMS login credential, please send request email to **iosupport@hfcl.com** with below details

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

5. Add AP group under configuration
6. Add APs in the AP group
7. Create SSID in the AP group
8. Refer our website io.hfcl.com for detailed information to configure AP through cNMS

Step 3: Check the LED status

LED Color	Status
Power LED Green	Green color notifies the user that the device ispowered ON
2.4 GHz Status LED	Solid blue color notifies the user that the 2.4 GHzradio is active and blinks while data is beingtransmitted on 2.4 GHz radio
5 GHz Status LED	Solid blue color notifies the user that the 5 GHz radiois active and blinks while data is being transmittedon 5 GHz radio

Safety Precautions

Observe the following safety precautions to avoid damage to the ion4x Access Point:

- ⚠ Do not power the device during installation
- ⚠ 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
- ⚠ Do not open the enclosure
- ⚠ Fasten the device tightly
- ⚠ Make sure the earthing wire is connected properly to the earthing points

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Documents / Resources

	HFCL ion4x Access Point [pdf] User Guide ion4x Access Point, ion4x, Access Point, Point