NORTHSTAR TELECOM

io by HFCL

Quick Start Guide

Access Point
ion4x/ion4x_ext

ANYWHERE
EVERYWHERE

Introduction

Thank you for purchasing our ion4x/ion4x_ext, a cutting-edge centrally managed Access Point. This device is Wi-Fi 6 certified, featuring a 2x2:2 MU-MIMO setup that sets new standards for wireless performance and efficiency.

Packaging Content

ion4x/ion4x_ext
Access Point (Qty:1)

SFP Gland (1)

RJ45 Gland (1)

Pole Mounting Kit
Pole Clamp (1), L Plate (1), U Bolt (1),
SEMs Screws (4), Hex Nuts (4)

::: 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/ac Wave 2/ax
Interface	1 x 10/100/1000 BASE-T Ethernet 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 (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 70º ± 5º Horizontal and Vertical 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 (ion4x) - 40°C to 60°C (ion4x_ext)
Certifications	FCC Class A, CE, Passpoint 2.0, WPA3, EasyMesh, RoHS 3.0
Variants	ion4x - Normal temperature operation ion4x_ext - Extended temperature operation

:::: Product Overview ::::

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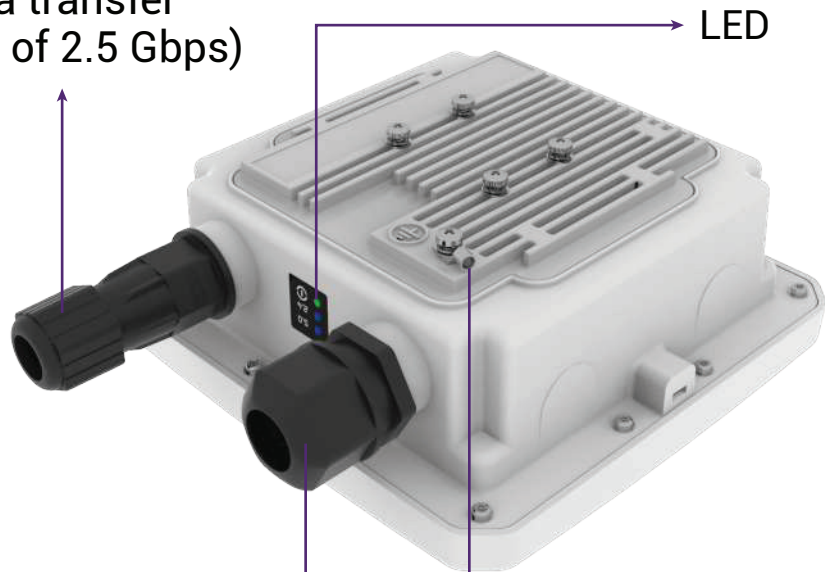
LED

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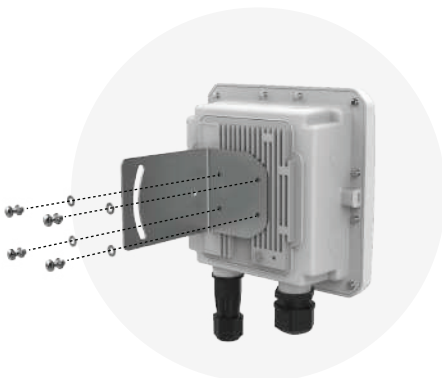and a regular
Ethernet Cable)

Earthing Point

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 SEMS screws to fix the plate onto the Access Point

The L Plate mounting bracket is fixed onto the mounting holes on the Access Point

Pole Mount

:: **1.** Align the bracket 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

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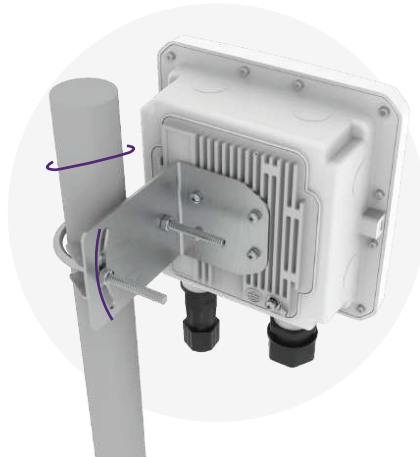

4. The final alignment of Access Point on a pole mounting as shown below

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 Access Point on a wall, use the wall mounting bracket, drywall screws, and screw anchors
(*The entire wall mounting assembly is sold separately)
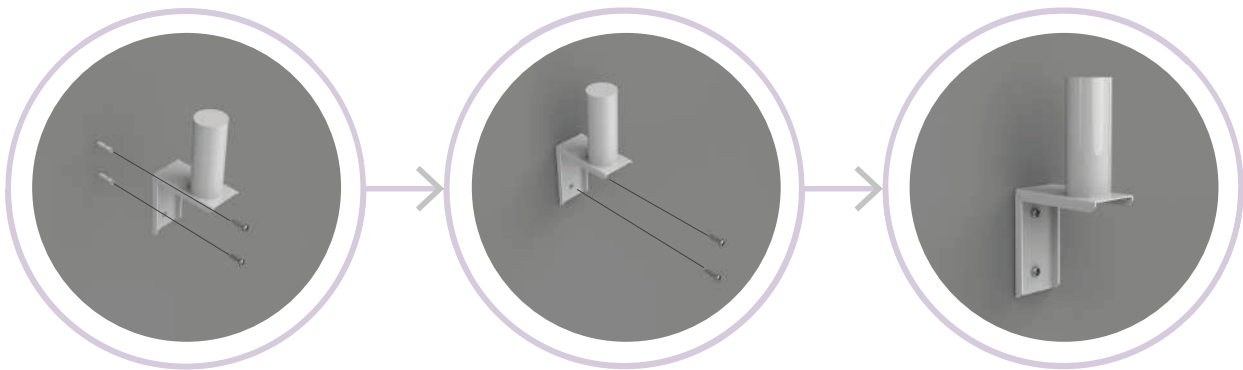
:: **1.** Take the reference from the wall mounting bracket and mark the position of the holes on the wall

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

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

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

:: **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

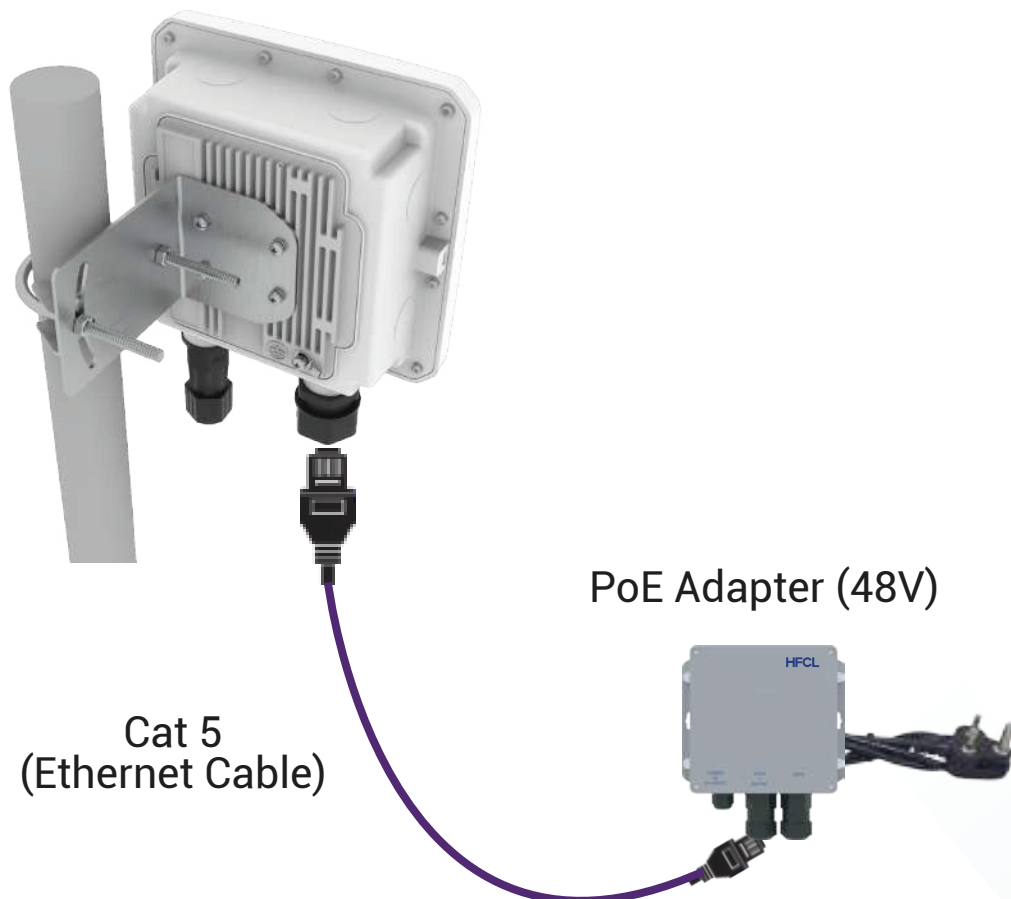:: **7.** Mount the device onto the wall mounting bracket as discussed in the pole mounting process

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:

PoE Adapter (48V)

Cat 5
(Ethernet Cable)

**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 Access Point's PoE supported Ethernet port
to PoE adaptor power port. Device will be powered on

PoE Adaptor (48V)

Laptop/ Computer

Cat-5
(Ethernet Cable)
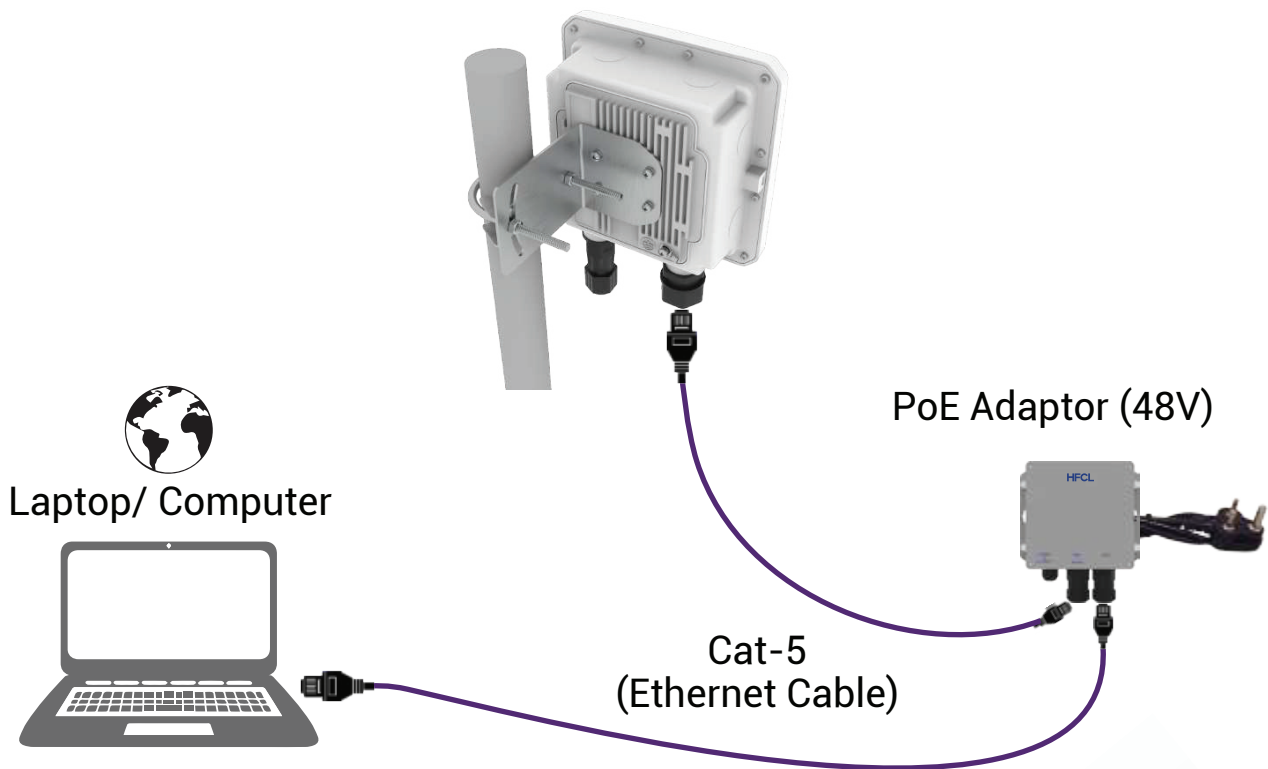
: : **4.** Configure the computer with a same domain static
IP 192.168.1.X and a subnet mask of 255.255.255.0
(X is from 2 to 255)

: : **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
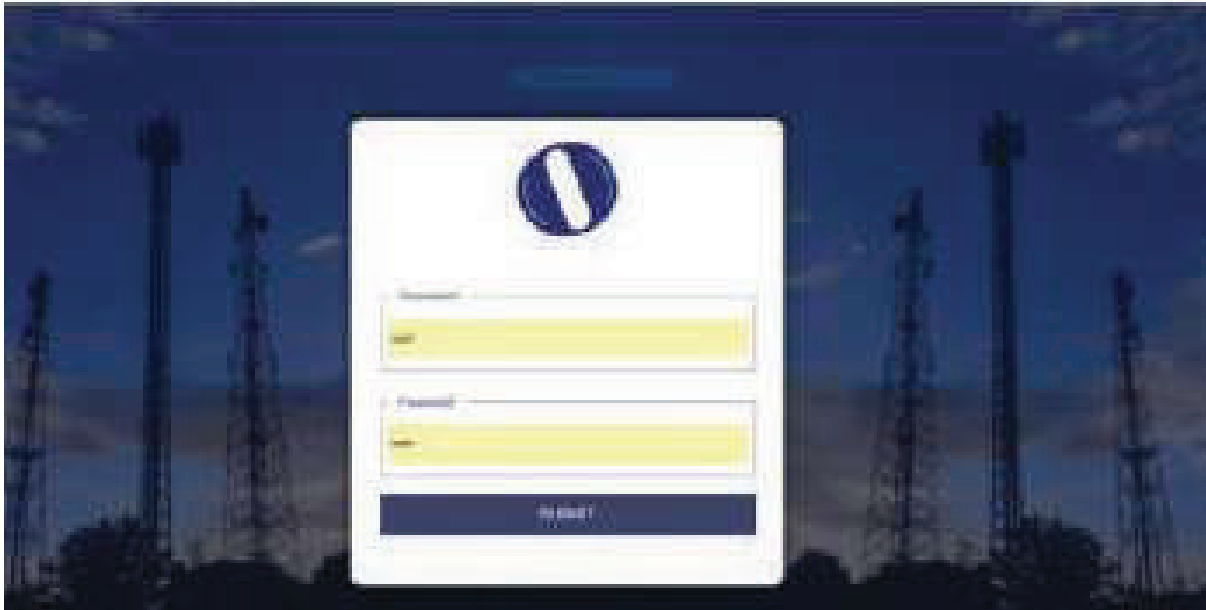
::::: **Section 2:** Controller Managed AP :::::

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

:: **1.** 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 credentials provided.

:: **3a.** To get cNMS login credential, please send a request 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

:: **4.** Add AP group under configuration

:: **5.** Add APs in the AP group

:: **6.** Create SSID in the AP group

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

Step 2:

Check the LED status

5 GHz status LED

2.4 GHz status LED

Power LED

LED COLOR	STATUS
Power LED	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
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 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 glands 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 point

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