

Wi-Fi 5 Dual Band 2x2:2 Outdoor Access Point ion4/ ion4_2



Carrier Grade

Managed Wi-Fi Solutions

- Captive Portal + AAA
- Coverage Hole Detection & Correction
- Policy Control
- Wi-Fi Network & Performance Analytics
- Automatic Transmit Power Control (ATPC)
- Bluetooth-based Advanced Location Services
- Proximity-based Marketing

Cloud Managed

Ease Of Management

- Centralized Control
- Troubleshoot on the move
- Network Analytics

Scalable Platform

- Create & Expand
- Robust & scalable application

Ubiquitous Secure Connectivity



Mesh Coverage

The entire Wi-Fi network functions on 802.11s Mesh technology. One or more Access Point can act as the controller (or Mesh root). With no limitation on the number of Agent nodes (or Mesh satellites) connected with each other or the Mesh root, the mesh network becomes highly scalable. Mesh limits the need for ethernet cabling to one or just a few cables. It is designed to eliminate wireless dropouts, stuttering videos, slow download speeds, poor signal and Wi-Fi dead zones.



Self-healing Mesh

In case of a mesh node failure, the surrounding nodes automatically re-connect and resume service without downtime. Nodes identify the best next hop and connect with it automatically.



Band Steering

In highly congested environments, the Access Point automatically moves dual-band client devices onto the wider 5GHz band for faster connections.



MIMO

Multiple Input and Multiple Output: This multiplies capacity by simultaneously transmitting & receiving from multiple devices.



Ease of Installation

Access Points can be mounted on walls & poles. Freedom of movement of Access Points even after installation in both horizontal and vertical axis for quick and easy alignment.

ion4



ion4_2



TECHNICAL SPECIFICATIONS

Wireless

Wi-Fi Standards	802.11a/b/g/n/ac/ac Wave 2
Radio Mode	2x2 MU-MIMO with 2 spatial streams
Radio Frequency Band	Supports full 2.4 GHz & 5 GHz ISM frequency bands
Peak Throughput	Upto 1.27 Gbps (867 Mbps for 5 GHz and 400 Mbps for 2.4 GHz)
Receiver Sensitivity	-97 dBm (for MCS 0)
Max Transmit Power	27 dBm for 2.4 GHz , 27 dBm for 5 GHz (will depend on country-specific guidelines)
Channel Size	20/40/80 MHz
Modulation Schemes	Supports upto 256 QAM
User Support	128 on 5 GHz and 64 on 2.4 GHz
Power	IEEE 802.3af PoE
Max Power Consumption	12 W (approx..)
Interface	1x10/100/1000BASE-T Ethernet
Antenna	Integrated directional antennas with 90° beamwidth
Antenna Gain	8 dBi for 2.4 GHz and 5 GHz (ion4) 14 dBi for 2.4 GHz and 5 GHz (ion4_2)

High Level Features

- WAN Protocols: Static IPv4/v6, DHCP client v4/v6
- Band Steering, Load Balancing, Channel Bonding
- WDS and MESH Support
- Auto Channel Selection
- Intelligent RF control plane for self-healing & selfoptimization
- Ability to simultaneously serve clients and monitor RF environment
- Radio Resource Management for power and channel
- Management: Standalone (via GUI) or through on-premise based solution or Cloud-based
- 16 SSIDs per Radio
- QOS 802.11e WMM
- 802.11r- fast roaming and fast handover
- Maximal ratio combining (MRC) and beamforming support
- 802.11w- Protected Management Frames (PMF) support
- Advance Power Save (U-APSD), VOIP Support

Physical and Environmental

Enclosure	Two-piece enclosure with UV protected ABS + PC top and bottom body, and an aluminium heat sink at bottom
Dimensions	185 X 170 X 65 mm (7.28 x 6.69 x 2.56 in) (ion4) 370X215X86 mm (14.56X8.46X3.38 in) (ion4_2)
Weight	0.75 kg (ion4) 1.5 kg (ion4_2)
Mounting	Wall and Pole mounting Weight: 185 grams
Visual Indicators	RF and Power LEDs
Outdoor Ingress Protection Rating	IP 67
Humidity	5 to 95% (non-condensing)
Operating Temperature	-15° C to 60° C
Wind Sustainability	150 km/hour (sustained winds)

Security

EAP Type (EAP-TLS, EAPTTLS/MSCHAPv2, PEAPv0/EAPMSCHAPv2, PEAPv1/EAP-GTC, EAP-SIM, EAP-AKA, EAP-AKA Prime, EAP-FAST)
Protected Management Frames (PMF)
WPA (Personal), WPA2 (Personal, Enterprise)
VPN pass-through
IP Security (IPSec), PPTP, IP-Filtering
Layer 2 Tunneling Protocol (L2TP/LWAP/AMQPS/GRE)
Flexible guest access with device isolation
Captive portal and guest accounts
Rogue access point detection and prevention (WIDS & WIPS)
Hidden SSID in beacons
MAC address authentication
X.509 digital certificates
Support for locally-significant certificates using Public Key Infrastructure (PKI)

Safety & Other Compliances

- Safety standard as per IEC/EN 62368/IEC60950 & IEC 60215
- Electrostatic Discharge Immunity as per IEC 61000-4-2, Contact L2 and Air Discharge, L3 Level
- DC Surge Immunity as per IEC 61000-4-5, Level 2 (power port + signal port)
- Electrical Fast Transient/Burst Immunity as per IEC 61000-4-4, Level 2
- Radiated susceptibility as per IEC 61000-4-3 Level 2
- Conducted Susceptibility as per IEC 61000-4-6, Level 2
- Bump and vibration as per QM333
- Radiated Emission as per CISPR 32 Class B
- Conducted Emission as per CISPR 22 Class B (power port + signal port)
- Voltage Variation: AC - as per IEC 61000-4-11 and DC - as per IEC 61000-4-29

Ordering Information	
Model No.	Description
ion4	IO Wi-Fi 5 Dual Band 2x2:2 Outdoor Access Point with Integrated Antenna (8 dBi)
ion4_2	IO Wi-Fi 5 Dual Band 2x2:2 Outdoor Access Point with Integrated Antenna (14dBi)

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Email: iosupport@hfcl.com

Website: hfcl.com | io.hfcl.com

Office: 8, Commercial Complex, Masjid Moth, Greater Kailash II, New Delhi 110048