DATASHEET

iO by **HFCL**

Wi-Fi 5
Dual Band 2x2:2
Indoor Access Point

ion4i

- IO Indoor Access Point is uniquely designed for high performance, next generation networks based on 802.11ac Wave 2 technology with integrated 2.4 and 5 GHz 2x2:2 MU-MIMO radios
- The Indoor Access Point provides throughput of upto 867 Mbps on 5 GHz and up to 400 Mbps on the 2.4 GHz band
- The Gigabit Ethernet port with 802.3af support allows powering the device with PoE switches

Best Performance - All the Way

- Simultaneous data transmission to multiple devices
- Maximized data throughput
- Improved network efficiency
- Up link and down link performance improvement
- Advanced location and indoor way finding
- Proximity based push notification capabilities
- Ability for businesses to leverage mobility context to develop applications that deliver enhanced user experience and increase the value of wireless networks for organizations

Unmatched Performance

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 unlimited number of Agent nodes (or Mesh satellites) connected with each other or the Mesh root, the mesh network becomes highly scalable.

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: Dual band concurrent operation in 2.4GHz and 5GHz bands and multiplies capacity by simultaneous transmission to multiple devices making this one of the fastest indoor Access Point options available in the market.

Easy Installation
Configurable in both thick and thin modes. Implying, these APs can be easily configured and managed as standalone or using iCon Cloud or server based cNMS solution.

Antenna
Integrated Omni-directional Antennas Antenna gain: 4.5 dBi for 5 GHz, 4 dBi for 2.4 GHz

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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
Processor	Qualcomm IPQ6010 SOC
Power	IEEE 802.3af PoE
Max Power Consumption	12 W
Interface	1 X 10/100/1000BASET Ethernet
Antenna	Integrated Omni-directional Antennas
Antenna Gain	4.5 dBi for 5 GHz, 4 dBi for 2.4 GHz

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 (32 SSIDs combined)
- QOS 802.11e WMM
- 802.11r- fast roaming and fast handover
- Bandwidth Shaping per SSID
- 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 ABS top and bottom body
Dimensions	175 X 175 X 37 mm or 6.89 X 6.89 X 1.46 inches
Weight	360 gms
Mounting	Table top, wall and ceiling mounting
Visual Indicators	RF and Power LEDs
Operating Temperature	-15º C to 50º C
Certifications	FCC Class B, CE, Wi-Fi Certified Passpoint 2.0

Security

- WPA Personal, WPA2 Personal, WPA2 Enterprise, EAP Type (EAP TLS, EAP TTLS/MSCHAPv2, PEAPv0/EAP MSCHAPv2, PEAPv1/EAP GTC, EAP SIM, EAP AKA, EAP AKA Prime, EAP FAST), Protected Management Frames

- 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 22 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**
ion4i	IO Wi-Fi 5 Dual Band 2x2:2 Indoor Access Point with Integrated Antenna (4 dBi)

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