

Wi-Fi 6 Dual Band 2x2:2 Indoor Access Point ion4xi



ion4xi is a cloud managed 2x2:2 MU-MIMO Wi-Fi 6 certified Access Point that raises the bar for wireless performance and efficiency. With the combination of cloud management, high performance hardware and advanced software features, ion4xi is ideal for most demanding use cases and high performance intensive applications like high definition videos, AR/VR, etc.

Overview

- 802.11 a/b/g/n/ac/ac Wave2/ax
- 1.78 Gbps aggregate throughput
- 2X2:2 MU-MIMO
- Up to 26 dBm transmit power, combined with high gain integrated omnidirectional antenna
- 1024 concurrent client support
- Configurable in standalone mode or via cloud controller or via on premise solution
- EasyMesh certified
- In-built temperature sensor (optional)

CARRIER GRADE

- Captive Portal + AAA
- Voucher Management; Web Self-care
- Policy Control
- Wi-Fi Network & Performance Analytics
- Presence & Location Intelligence
- Proximity-based Marketing
- Offers, Deals & Promotions
- Configurable User Journey/Survey
- Footfall Analytics

CLOUD MANAGED

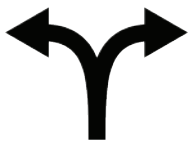
- Centralized Control
- Troubleshoot on the move
- Network Analytics Robust & Scalable platform

Key Features



Dual band radio offering peak data rate of up to 1.78 Gbps

The concurrent dual band radio inside ion4xi offers a combined peak data rate of 1.78 Gbps with up to 1202 Mbps in the 5 GHz band and 574 Mbps in the 2.4 GHz band. Technologies like transmit beamforming and enhanced receiver sensitivity allow the ion4xi to support a higher client density resulting in better performance for more clients connected to each Access Point.



Bi Directional Multi User Multiple Input Multiple Output (MU-MIMO)

The Access Point offers MU-MIMO and OFDMA for transmission that is more efficient to multiple clients. This is especially suited for environments with numerous varied devices, with each supporting latest or legacy Wi-Fi standards. MU-MIMO enables multiple clients to transmit and receive data simultaneously. This increases the total network performance and improves the end user experience.



Better Mesh Networking

Eliminating the need for expensive cabling, Access Points automatically form a wireless mesh, and provides connectivity in every possible corner. With self-healing and self-optimization functionality, in case of a mesh node failure, the surrounding nodes automatically re-connect and resume service without downtime. Support for EasyMesh means that ion4xi is interoperable with third party Access Points and/or Routers and can quickly be deployed as standalone or converged with the existing network. This eliminates the need for locking-in with a single vendor, driving down the total cost of ownership of the network.



Traffic shaping & Application aware

The ion4xi includes an integrated layer 7-packet inspection, classification, and control engine, enabling the configuration of QoS policies based on traffic type, helping to prioritize mission-critical applications while setting limits on recreational traffic like peer-to-peer, gaming and video streaming. Policies can be implemented per network, per SSID, per user group, or per individual user for maximum flexibility and control.



Improved Battery Life

The ion4xi comes with WPA3 - the latest Wi-Fi security standards, offering more security from hacker attacks. It builds a security shield so hackers cannot crack off-site, brute-force, dictionary-based cracking attempts. Integrated, easy-to-use security provides secure connectivity for employees and guests alike. Advanced security features such as AES hardware-based encryption and Enterprise authentication with 802.1X and Active Directory integration provide wired-like security while still being easy to configure. One-click guest isolation provides secure, Internet-only access for visitors.



Self-configuring, Self-maintaining and always up to date

Once plugged, ion4xi can be configured remotely via cloud network management. Firmware upgrades, new features, bug fixes, etc. are uploaded automatically. The Access Point comes with dual firmware support, so in the instance of any software malfunction, ion4xi will be automatically booted with the back-up firmware. This ensures zero downtime.

Technical Specs



Wireless

Wi-Fi Standards	802.11a/b/g/n/ac/ac Wave 2/ax
Radio Mode	2x2 MU-MIMO with 2 spatial streams
Radio Frequency Band	Supported frequency bands with DFS optimization (country-specific restrictions apply): <ul style="list-style-type: none"> • 2.4000 GHz to 2.4835 GHz • 5.150 GHz to 5.250 GHz • 5.250 GHz to 5.350 GHz • 5.470 GHz to 5.725 GHz • 5.725 GHz to 5.875 GHz
Peak Throughput	Upto 1.78 Gbps (1202 Mbps for 5 GHz and 574 Mbps for 2.4 GHz)
Max Transmit Power	26 dBm for 2.4 GHz , 26 dBm for 5 GHz (will depend on country-specific guidelines)
Receiver Sensitivity	- 97 dBm (for MCS 0)
Channel Size	20/40/80 MHz
Modulation Schemes	Supports upto 1024 QAM
User Support	1024 clients per Access Point (512 clients per radio)
Power	+12V DC Power Adaptor IEEE 802.3at PoE/PoE+
Max Power Consumption	approx. 20 W
Interface	<ul style="list-style-type: none"> • 1 X 10/100/1000BASE-T Ethernet • 1 X 2500 Base X Optical Ethernet SFP DC Power jack
Antenna	Integrated Omni-directional Antennas
Antenna Gain	4 dBi for both 5 GHz and 2.4 GHz
Certifications	FCC Class B, CE Wi-Fi Certified Passpoint 2.0 Wi-Fi Certified 6 Wi-Fi Certified EasyMesh Wi-Fi Certified WPA3

High Level Features

WAN Protocols: Static IPv4/v6, DHCP client v4/v6

Band Steering, Load Balancing

WDS and MESH Support

EasyMesh support

Auto Channel Selection

Intelligent RF control plane for self-healing and self optimization

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 SSID per Radio

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

In-built temperature sensor

Non-Wi-Fi interference detection and avoidance

Layer 4 to Layer 7 application identification and policy enforcement (DPI)

Support for ATPC and coverage hole detection and correction

Advance Power Save (U-APSD), VOIP Support

Technical Specs



Safety & Other Compliance

Safety Protection as per IEC 60950 and 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

Physical & Environmental

Enclosure Two-piece enclosure with ABS top and bottom body

Dimensions 175 X 174 X 45 mm or 6.89 X 6.85 X 1.77 inches

Weight 0.60 kg

Mounting Table top, wall and ceiling mounting

Visual Indicators Multicolor status LED and Power LED

Operating Temperature 0° C to 55° C

Operating Humidity 5 to 95% (Relative Humidity)

Security

802.11i, 802.1x / EAP, Hidden, WIPS, WEP, WPA-PSK, WPA-Enterprise, WPA2-PSK, WPA2-EAP, WPA2-PSK-Mixed, WPA2-Enterprise, WPA3-Personal and WPA3-Enterprise, WPA3-SAE, WPA3-SuiteB, MAC, Radius based, EAP Type (EAP-TLS, EAP-TTLS/MSCHAPv2, PEAPv0/EAP-MSCHAPv2, EAP-SIM), 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

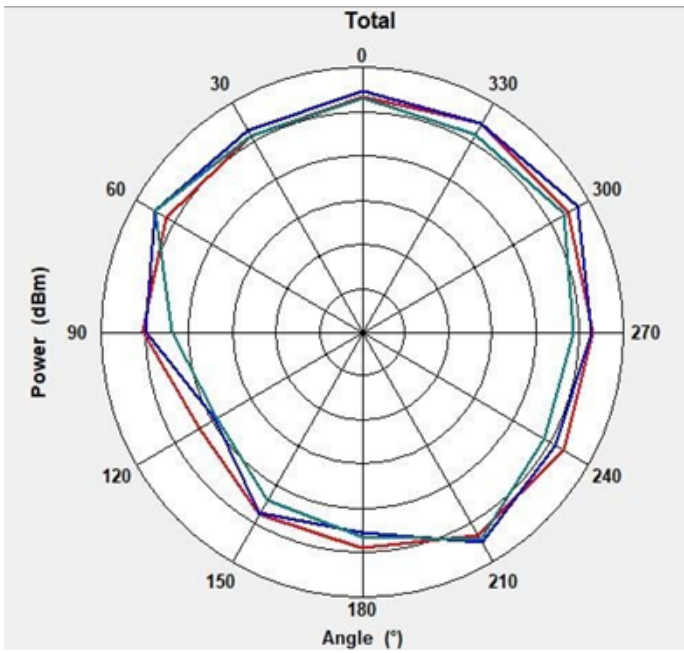
MAC address authentication

X.509 digital certificates

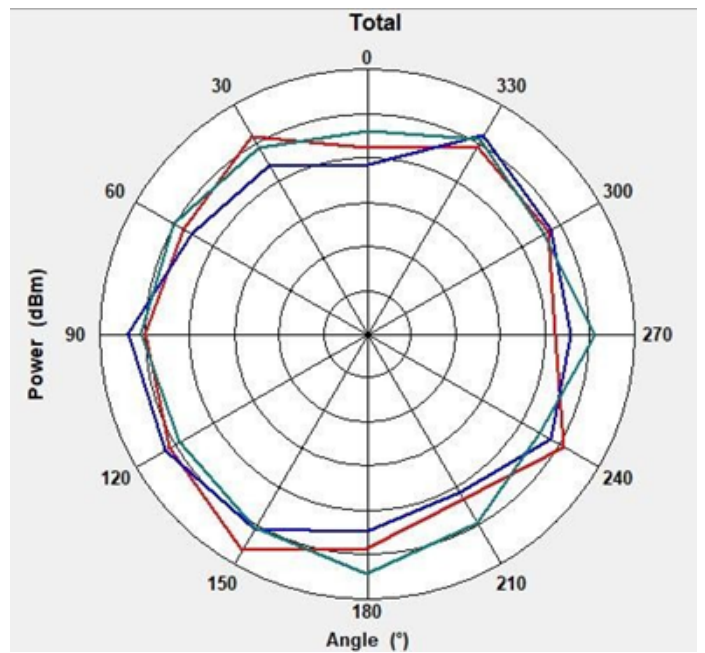
Support for locally-significant certificates using Public Key Infrastructure (PKI)

Antenna Radiation Pattern

2.4 GHz Antenna Radiation Pattern



5.5 GHz Antenna Radiation Pattern



Order Information

Model Number	ion4xi
Description	IO Wi-Fi 6 Dual Band 2x2:2 Indoor Access Point with Integrated Antenna (4 dBi)

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