

# Wi-Fi 6 Dual Band 2x2:2 Indoor Wall Plate Access Point

ion4xi\_WP



## High Capacity Dual-Band Access Point

ion4xi\_WP is a centrally managed 2x2:2 MU-MIMO Wi-Fi 6 certified Access Point with a sleek and aesthetic design that raises the bar for wireless performance and efficiency. Designed especially for the hospitality industry, the Wall Plate Access Point ensures high speeds, great network coverage & ultra-secure connectivity. ion4xi\_WP is ideal for most demanding use cases and high performance-intensive applications like high definition videos & high bandwidth requirements thereby ensuring enhanced user and guest experience.

## Overview

- 802.11 a/b/g/n/ac/ax
- Max power upto 23 dBm, combined with high performance integrated omnidirectional antennas
- 1.78 Gbps aggregate data rate
- Managed in standalone mode or via cloud controller
- 2X2:2 MU-MIMO
- EasyMesh certified
- Tailored for hospitality/campus/dormitory

## Enterprise Grade Capabilities

- Captive Portal and AAA Integration
- Voucher Management; Web Self-care
- Advanced Policy Control
- Wi-Fi Network & Performance Analytics
- Hotspot 2.0 support
- URL/IP Filtering
- MAC ACL Support

## TECHNICAL SPECIFICATIONS



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

The concurrent dual band radio inside ion4xi\_WP 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\_WP to support a higher client density resulting in better performance for more clients connected to Access Point.



### Enhanced user experience

ion4xi\_WP is a cloud managed 2x2:2 MU-MIMO Wi-Fi 6 certified Access Point with a sleek and aesthetic design that raises the bar for wireless performance and efficiency. Designed especially for the hospitality industry, the Wall Plate Access Point ensures high speeds, great network coverage & ultra-secure connectivity.



### 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. Support for EasyMesh means that ion4xi\_WP is interoperable with third party EasyMesh compliant 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\_WP includes a traffic control engine which enables URL/IP filtering. Sophisticated QoS policies can also be configured at network, SSID and user level.



### Advanced security features

The ion4xi\_WP comes with WPA3 - the latest Wi-Fi security standards and an integrated WIDS/WIPS engine, offering more security from hacker attacks. It builds a security shield so hackers cannot crack off-site, brute-force, dictionary-based cracking attempts. 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 client isolation provides secure, Internet-only access for visitors.



### Improved Battery Life

ion4xi\_WP has features like Unscheduled Automatic Power Save Delivery (U-APSD) and Target Wake Time (TWT) that enable devices such as smartphones and laptops to determine when and how frequently they will communicate with the Access Point. Benefits of these features are multifold such as an increased sleep time for the device, less consumption of battery and bandwidth, optimized spectral efficiency for IoT devices by reduction in overlaps and conflicts.



### Self-Configuring, Self-Maintaining and Always up to date

Once plugged in, the AP can be configured remotely via cloud network management. It uploads firmware upgrades, new features, bug fixes, etc., automatically. The Access Point comes with dual firmware support enabling ion4xi\_WP to be automatically booted with the backup firmware during any software malfunction, ensuring minimal downtime.

# TECHNICAL SPECIFICATIONS



## Wireless

<b>Wi-Fi Standards</b>	802.11a/b/g/n/ac/ax
<b>Radio Mode</b>	2x2 MU-MIMO with 2 spatial streams
<b>Radio Frequency Band</b>	Supported frequency bands (country-specific restrictions apply): <ul style="list-style-type: none"> <li>• 2.4000 GHz to 2.4835 GHz</li> <li>• 5.150 GHz to 5.250 GHz</li> <li>• 5.250 GHz to 5.350 GHz</li> <li>• 5.470 GHz to 5.725 GHz</li> <li>• 5.725 GHz to 5.875 GHz</li> </ul>
<b>Peak Data Rate</b>	Upto 1.78 Gbps (1202 Mbps for 5 GHz and 574 Mbps for 2.4 GHz)
<b>Receiver Sensitivity</b>	-96 dBm (for MCS 0)
<b>Max Transmit Power</b>	20 dBm for 2.4 GHz 23 dBm for 5 GHz
<b>Channel Size</b>	20/40/80 MHz
<b>Modulation Schemes</b>	Supports upto 1024 QAM
<b>User Support</b>	256 concurrent client support
<b>Power</b>	802.3af/at PoE Input 12V DC Powered Adapter (optional)
<b>Max Power Consumption</b>	15 W
<b>Interface</b>	<ul style="list-style-type: none"> <li>• 1 x 10/100/1000/2500 Base-T Ethernet (WAN &amp; PoE-in)</li> <li>• 4x10/100/1000 Base-T Ethernet (LAN)</li> <li>• Reset and WPS buttons</li> </ul>
<b>Antenna</b>	Integrated Omni-directional Antennas
<b>Antenna Gain</b>	3.5 dBi on 2.4 GHz and 5 dBi on 5 GHz

## Certifications

<b>Certifications</b>	<ul style="list-style-type: none"> <li>• FCC Class B, CE</li> <li>• Wi-Fi Certified Passpoint 3.0</li> <li>• Wi-Fi Certified 6</li> <li>• Wi-Fi Certified EasyMesh</li> <li>• Wi-Fi Certified WPA3</li> </ul>
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## High Level Features

- WAN Protocols: Static IPv4/v6, DHCP client v4/v6
- Band Steering, Load Balancing
- EasyMesh Support
- Auto Channel Selection
- 8 SSIDs per radio (16 Combined)
- Intelligent RF control plane for self-healing & 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
- QoS 802.11e WMM
- 802.11k/v/r support for fast roaming and handover
- Rate Limiting per SSID and per user
- Maximal ratio combining (MRC)
- 802.11w- Protected Management Frames (PMF) support
- Non Wi-Fi interference detection
- Support for ATPC, coverage hole detection & correction
- Advanced Power Save (U-APSD)
- Support for integration with Captive Portal and AAA servers
- Supports advanced features like MAC authentication, VLAN pooling, MPSK, DPSK, Q-in-Q, etc.
- Advanced AI-based analytics

## Physical and Environmental

<b>Dimensions</b>	163 x 150 x 38 mm
<b>Weight</b>	0.59 kg
<b>Mounting</b>	Wall mounting
<b>Visual Indicators</b>	LEDs for status and power indication
<b>Operating Temperature</b>	0° C to 45° C
<b>Physical Security</b>	via Kensington lock port

## Safety & Other Compliances

- RoHS 3.0
- 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

## Antenna Radiation Pattern

2.4 GHz Antenna Radiation Pattern



5 GHz Antenna Radiation Pattern



## Security

- 802.11i, 802.1x / EAP, Hidden, WIPS, WPA-PSK, WPA-Enterprise, WPA2-PSK, WPA2-EAP, WPA2-PSK-Mixed, WPA2-Enterprise, WPA3-Personal and WPA3-Enterprise, WPA3-SAE, Enhanced Open, WPA3-SuiteB, MAC, Radius based, EAP Type (EAP-TLS, EAP-TTLS/MSCHAPv2, PEAPv0/EAP-MSCHAPv2, EAP-SIM), Protected Management Frames
- VPN pass-through
- IP/URL Filtering
- Layer 2 Tunneling Protocol (EoGRE)
- Client isolation support
- 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)

## Ordering Information

Model No.	Description
ion4xi_WP	io Wi-Fi 6 Dual Band 2x2:2 Indoor Wall Plate Access Point with Integrated Antenna (5 dBi)

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