

## ion4xi

# Wi-Fi 6

# Dual Band 2x2 Indoor

# Access Point



ion4xi is a centrally managed 2x2 MU-MIMO Wi-Fi 6 certified Access Point. With the combination of high performance hardware and advanced software features, ion4xi ensures high throughput, supports high density and provides excellent coverage.

### Key Specifications

- **Dual Radio Wi-Fi 6**  
with 4 Spatial Streams  
(2x2:2 at 2.4 GHz,  
2x2:2 at 5 GHz)
- **Max. Data Rate**  
1.78 Gbps
- **Uplink Ports**  
1 GbE with PoE IN  
2.5G SFP+
- **Peak Transmit Power**  
26 dBm at 2.4 GHz  
26 dBm at 5 GHz
- **Max. Clients**  
512 per radio
- **Max. SSIDs<sup>1</sup>**  
16 per radio
- **Antenna**  
Integrated,  
Omni-directional

### Applications

- **Hotels, Resorts**
- **Dormitories**
- **Small Offices**
- **Hospitals**
- **Remote Workspaces**

### Product Overview

#### Dual-band 2x2 Radios offering Data Rate up to 1.78 Gbps

The concurrent dual radios in ion4xi support a combined peak data rate of 1.78 Gbps. It becomes the most preferred option when it comes to high-density, high throughput scenarios such as offices, hotels, and hospitals.

#### Wi-Fi 6 Features

The AP supports all advanced Wi-Fi 6 features, including DL/UL OFDMA, DL/UL MU-MIMO, BSS Coloring, and TWT.

#### Dual Uplink

The AP supports dual uplink options, in the form of 1G Ethernet and 2.5G SFP+ ports. These can be used standalone or in failover/aggregation modes.

#### OWF Compatible

The ion4xi supports the OpenWiFi software stack, enabling it to be managed via vendor-neutral OWF controller.

#### AI Analytics

The AP software includes an AI agent for 24x7 monitoring of client connections, network services, device health and stability. In conjunction with io Canvas, this enables a powerful AI Analytics feature for anomaly detection and root cause analysis.

#### Centralized Control

ion4xi is configured, managed and monitored with io Canvas, an AI-enabled centralized network management platform. io Canvas is available in the public cloud as a managed service. It can also be deployed on-premise.



# TECHNICAL SPECIFICATIONS

| Wireless Capabilities   |                                                                                                                                                                                                              |
|-------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Wi-Fi Standards         | IEEE 802.11ax (backward compatible with 802.11abgn/ac)                                                                                                                                                       |
| Supported Radio Bands*  | <ul style="list-style-type: none"><li>• 2.40 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> |
| Peak Data Rate          | 1.78 Gbps (1202 Mbps for 5 GHz and 574 Mbps for 2.4 GHz)                                                                                                                                                     |
| MIMO Configuration      | <ul style="list-style-type: none"><li>• 2.4 GHz: 2x2:2 MU-MIMO</li><li>• 5 GHz: 2x2:2 MU-MIMO</li></ul>                                                                                                      |
| Channel Bandwidth       | 20/40/80 MHz                                                                                                                                                                                                 |
| Max. Concurrent Clients | 512 per radio (1024 combined)                                                                                                                                                                                |
| Max. SSIDs <sup>1</sup> | 16 per radio (32 combined)                                                                                                                                                                                   |
| Receiver Sensitivity    | -97 dBm                                                                                                                                                                                                      |
| Modulation Schemes      | Upto 1024 QAM                                                                                                                                                                                                |
| Advanced PHY Techniques | Spatial Multiplexing and MRC (Maximal Ratio Combining)                                                                                                                                                       |
| Peak Transmit Power*    | <ul style="list-style-type: none"><li>• 26 dBm on 2.4 GHz at MCS 0</li><li>• 26 dBm on 5 GHz at MCS 0</li></ul>                                                                                              |
| Antenna Type            | Integrated, Omni-directional                                                                                                                                                                                 |
| Antenna Gain            | <ul style="list-style-type: none"><li>• 4 dBi on 2.4 GHz</li><li>• 4 dBi on 5 GHz</li></ul>                                                                                                                  |

| Radio Resource Management |                                                                                                                                                                                                          |
|---------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| RF Optimizations          | <ul style="list-style-type: none"><li>• Automatic Transmit Power Control (ATPC)</li><li>• Auto Channel Selection (ACS)</li><li>• Coverage Hole Detection and Correction</li></ul>                        |
| Radio Resource Control    | <ul style="list-style-type: none"><li>• Airtime Fairness (ATF)</li><li>• Max. client limit per radio and SSID</li><li>• Unicast and Multicast Rate Control</li><li>• Legacy Protocol Disabling</li></ul> |
| Connection Management     | <ul style="list-style-type: none"><li>• Band Steering</li><li>• Load Balancing</li><li>• Association Control</li></ul>                                                                                   |
| QoS                       | <ul style="list-style-type: none"><li>• 802.11e WMM</li><li>• Per-user and Per-SSID Rate Limit</li></ul>                                                                                                 |
| Roaming                   | <ul style="list-style-type: none"><li>• Fast Roaming (802.11k/v/r)</li><li>• Hotspot 2.0</li></ul>                                                                                                       |

Note:  
\*Subject to country-specific restrictions.  
<sup>1</sup>For optimal performance in the field, it is recommended to deploy up to 8 SSIDs per radio.

## Wireless Security & Authentication

|                                |                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                     |
|--------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Wireless Encryption</b>     | <ul style="list-style-type: none"> <li>• WPA3-Enterprise</li> <li>• WPA3-Enterprise Transition Mode</li> <li>• WPA3-Enterprise SuiteB (192-bit)</li> <li>• WPA3 Personal</li> <li>• WPA3-Personal Transition Mode</li> <li>• Enhanced Open (OWE)</li> </ul>                                                                                                                                                       | <ul style="list-style-type: none"> <li>• WPA2-Enterprise</li> <li>• WPA2-Personal (PSK)</li> <li>• WPA2-Personal Mixed Mode</li> <li>• WPA-Personal (PSK)</li> <li>• WEP</li> </ul> |
| <b>Wireless Authentication</b> | <ul style="list-style-type: none"> <li>• 802.1X Authentication</li> <li>• EAP <ul style="list-style-type: none"> <li>• TLS (RFC 5216)</li> <li>• TTLS/MSCHAPv2 (RFC 5281)</li> <li>• Protected EAP (PEAP)</li> <li>• PEAPv1</li> <li>• PEAPv0/MSCHAPv2</li> </ul> </li> <li>• SIM (RFC 4186)</li> <li>• AKA (RFC 4187)</li> <li>• PSK (RFC 4764)</li> <li>• IKEv2 (RFC 5106)</li> <li>• EKE (RFC 6124)</li> </ul> | <ul style="list-style-type: none"> <li>• MAC Address Authentication</li> <li>• Captive Portal and AAA Server Integration</li> <li>• Third Party NAC Integration</li> </ul>          |
| <b>Policy Control</b>          | <ul style="list-style-type: none"> <li>• Posture Assessment</li> <li>• Role-based Access Control</li> <li>• Dynamic VLAN</li> </ul>                                                                                                                                                                                                                                                                               |                                                                                                                                                                                     |

## Networking Capabilities

|                            |                                                                                                                                         |
|----------------------------|-----------------------------------------------------------------------------------------------------------------------------------------|
| <b>DHCP</b>                | <ul style="list-style-type: none"> <li>• DHCP v4/v6</li> <li>• Options 43 &amp; 82</li> </ul>                                           |
| <b>Tunneling</b>           | Layer 2 Tunneling: EoGRE                                                                                                                |
| <b>L3 Network Services</b> | <ul style="list-style-type: none"> <li>• Link Aggregation (LACP)</li> <li>• SNMP v2c/v3</li> <li>• Topology Discovery (LLDP)</li> </ul> |
| <b>WAN Protocols</b>       | Static IPv4/v6, DHCP Client v4/v6                                                                                                       |
| <b>Mesh</b>                | Wi-Fi Alliance EasyMesh™ Compliant                                                                                                      |

## Advanced Features

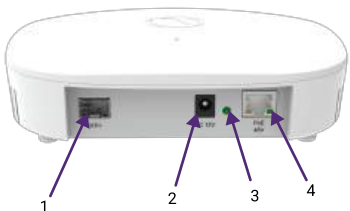
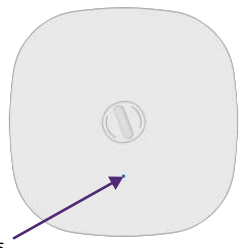
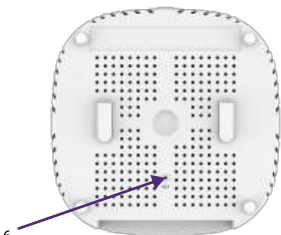
|                       |                                                                                                                                                                                 |                                                                                                                                                     |
|-----------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>WIDS</b>           | <ul style="list-style-type: none"> <li>• Authentication</li> <li>• Deauthentication</li> <li>• Disassociation</li> <li>• Probe Request Flood</li> <li>• Beacon Flood</li> </ul> | <ul style="list-style-type: none"> <li>• Session Hijack</li> <li>• MAC Spoofing</li> <li>• Evil Twin Attack</li> <li>• Password Guessing</li> </ul> |
| <b>WIPS</b>           | <ul style="list-style-type: none"> <li>• MAC Spoofing</li> <li>• Evil Twin Attack</li> </ul>                                                                                    | <ul style="list-style-type: none"> <li>• Password Guessing</li> </ul>                                                                               |
| <b>Access Control</b> | <ul style="list-style-type: none"> <li>• Dynamic Multi-PSK, Static Multi-PSK</li> <li>• Local MAC ACL</li> </ul>                                                                | <ul style="list-style-type: none"> <li>• RADIUS-based MAC ACL</li> <li>• Client Isolation</li> </ul>                                                |

## Monitoring & Diagnostics

|                          |                                                                                                      |
|--------------------------|------------------------------------------------------------------------------------------------------|
| <b>Device Monitoring</b> | <ul style="list-style-type: none"> <li>• SNMP v2c, v3</li> <li>• Syslog</li> <li>• Alarms</li> </ul> |
| <b>Device Management</b> | IO Canvas - AI-enabled Centralized Network Management Platform                                       |
| <b>Network Assurance</b> | Advanced AI-based Analytics for Anomaly Detection and RCA                                            |

| Power Management       |                                                                               |
|------------------------|-------------------------------------------------------------------------------|
| Power                  | DC Powered (via 12V power adaptor) or PoE Power (via 48V active PoE adaptor)* |
| Max. Power Consumption | 20 W                                                                          |

| Physical Characteristics |                                                   |
|--------------------------|---------------------------------------------------|
| Dimensions               | 180 x 180 x 50 mm or 7.09 × 7.09 × 1.97 in        |
| Weight                   | 0.45 kg                                           |
| Mounting                 | Wall and Ceiling Mounting                         |
| Visual Indicators        | Multi-color LEDs for Power and Status Indications |
| Operating Temperature    | -10° C to 55° C                                   |
| Physical Security        | Kensington® Lock Slot, Secure Bracket             |

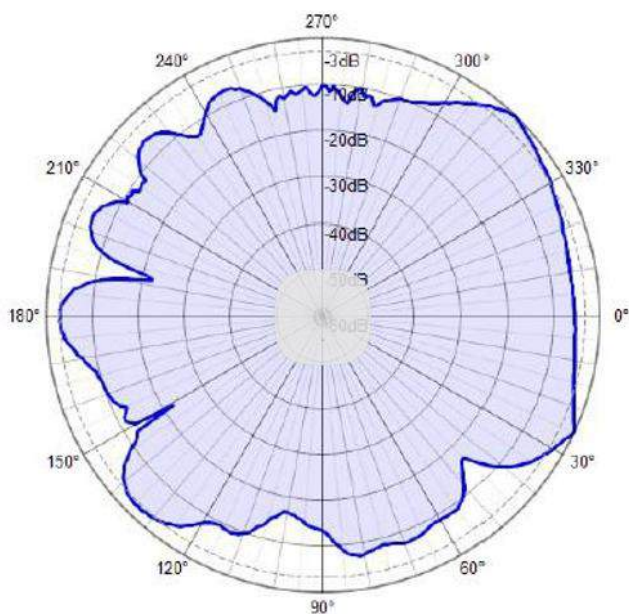
| Interfaces                                                                                                  |                  |                                                                                                                   |                      |                                  |
|-------------------------------------------------------------------------------------------------------------|------------------|-------------------------------------------------------------------------------------------------------------------|----------------------|----------------------------------|
| View                                                                                                        | Port             | Description                                                                                                       | Connector Type       | Speed/Protocol                   |
| <b>Bottom View</b><br>    | SFP+ Port (1)    | Forwards the network connection to another device, allowing extension of the Ethernet connection                  | Optical SFP+ Cage    | 2.5 Gbps                         |
|                                                                                                             | DC 12V (2)*      | Provides an alternative power source for the access point                                                         | 2 mm Center Pin      | -                                |
|                                                                                                             | PWR LED (3)      | Single-color LED for power indication                                                                             | LED                  | -                                |
|                                                                                                             | PoE Port (4)     | Provides the network uplink and supplies power to the device through Power over Ethernet (PoE): 802.3at PoE/ PoE+ | RJ-45                | 10/100/1000 Mbps Base-T Ethernet |
| <b>Top View</b><br>      | LED (5)          | Multi-color LEDs for status indication                                                                            | LED                  | -                                |
| <b>Backside View</b><br> | Reset Button (6) | Press and hold for 5 second to reboot/ Press and hold for 10 seconds to reset the device to factory settings      | Pin Hole Push Button | -                                |
| <b>Side View</b><br>     | Lock Slot (7)    | Slot used to attach a Kensington cable lock to secure the device and prevent theft or unauthorized removal        | Slot                 | -                                |

Note: \*If both PoE and DC power are connected, PoE is used as the primary power source.

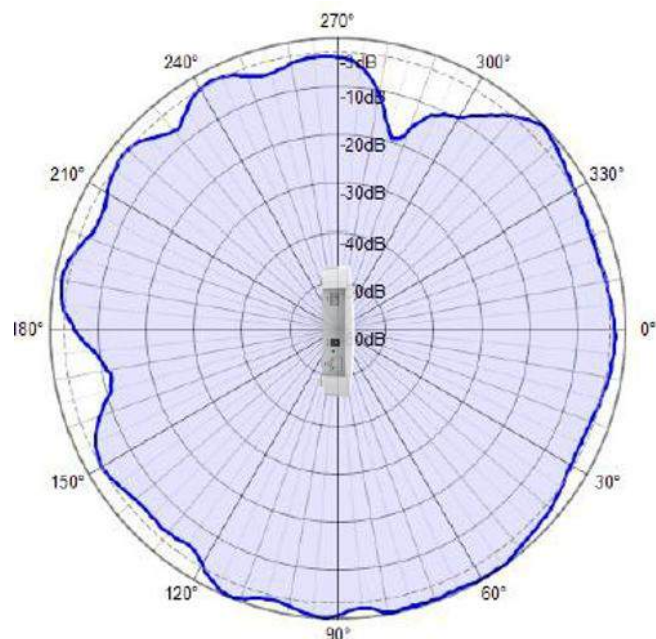
## Antenna Radiation Pattern

- 2.4 GHz Antenna Radiation Pattern

Radiation Pattern (Horizontal)

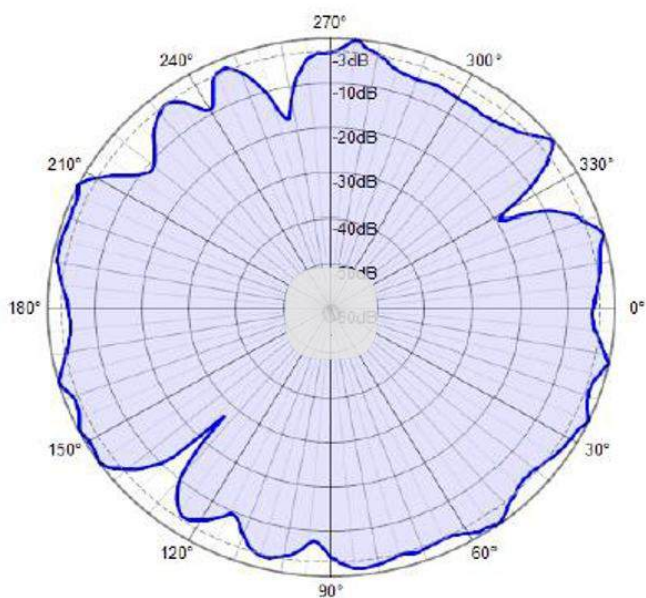


Radiation Pattern (Vertical)

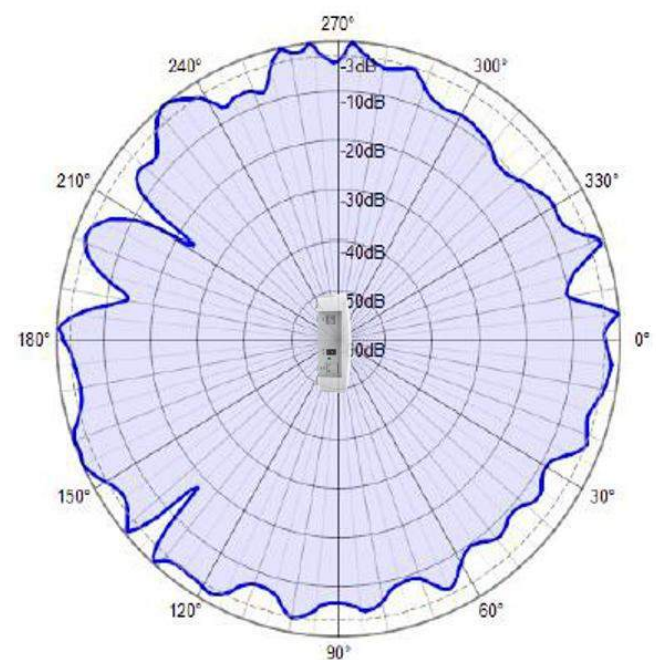


- 5 GHz Antenna Radiation Pattern

Radiation Pattern (Horizontal)



Radiation Pattern (Vertical)



## Certifications

### Wi-Fi Alliance

- Wi-Fi Certified 6
- Wi-Fi Certified WPA3™
- Wi-Fi Certified Passpoint® 3.0
- Wi-Fi Certified EasyMesh R1

## Compliances

### Regulatory

FCC Part 15 Subpart B (Class B), C & E, CE, ETA (WPC), MTC/TEC

### Compliance & Environmental Standards

- RoHS 3.0
- IEC/EN 62368/IEC60950 & IEC 60215 Safety Standard
- IEC 61000-4-2 Electrostatic Discharge Immunity, Contact L2 and Air Discharge, L3 Level
- IEC 61000-4-5 DC Surge Immunity, Level 2 (power port + signal port)
- IEC 61000-4-4 Electrical Fast Transient/Burst Immunity, Level 2
- Radiated and Conducted Emission as per EN 55032 (CISPR32) (power port + signal port)
- Conducted and Radiated Susceptibility as per EN 55024 (CISPR24)
- IEC 61000-4-6 Conducted Susceptibility, Level 2
- IEC 61000-4-3 Radiated susceptibility, Level 2
- QM333 Bump and Vibration
- Health Test as per IEC62311
- Voltage Variations:
  - IEC 61000-4-11 AC
  - IEC 61000-4-29 DC
- UL-2043 (Plenum) Compliant

## Ordering Information

### Model No.

### Description

ion4xi

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

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