

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. SSIDs¹**
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*	• 2.40 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 Data Rate	1.78 Gbps (1202 Mbps for 5 GHz and 574 Mbps for 2.4 GHz)
MIMO Configuration	• 2.4 GHz: 2x2:2 MU-MIMO • 5 GHz: 2x2:2 MU-MIMO
Channel Bandwidth	20/40/80 MHz
Max. Concurrent Clients	512 per radio (1024 combined)
Max. SSIDs ¹	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*	• 26 dBm on 2.4 GHz at MCS 0 • 26 dBm on 5 GHz at MCS 0
Antenna Type	Integrated, Omni-directional
Antenna Gain	• 4 dBi on 2.4 GHz • 4 dBi on 5 GHz

Radio Resource Management	
RF Optimizations	• Automatic Transmit Power Control (ATPC) • Auto Channel Selection (ACS) • Coverage Hole Detection and Correction
Radio Resource Control	• Airtime Fairness (ATF) • Max. client limit per radio and SSID • Unicast and Multicast Rate Control • Legacy Protocol Disabling
Connection Management	• Band Steering • Load Balancing • Association Control
QoS	• 802.11e WMM • Per-user and Per-SSID Rate Limit
Roaming	• Fast Roaming (802.11k/v/r) • Hotspot 2.0

Note:

*Subject to country-specific restrictions.

¹For optimal performance in the field, it is recommended to deploy up to 8 SSIDs per radio.

Wireless Security & Authentication

Wireless Encryption	• WPA3-Enterprise • WPA3-Enterprise Transition Mode • WPA3-Enterprise SuiteB (192-bit) • WPA3 Personal • WPA3-Personal Transition Mode • Enhanced Open (OWE)	• WPA2-Enterprise • WPA2-Personal (PSK) • WPA2-Personal Mixed Mode • WPA-Personal (PSK) • WEP
Wireless Authentication	• 802.1X Authentication • EAP • TLS (RFC 5216) • TTLS/MSCHAPv2 (RFC 5281) • Protected EAP (PEAP) • PEAPv1 • PEAPv0/MSCHAPv2 • SIM (RFC 4186) • AKA (RFC 4187) • PSK (RFC 4764) • IKEv2 (RFC 5106) • EKE (RFC 6124)	• MAC Address Authentication • Captive Portal and AAA Server Integration • Third Party NAC Integration
Policy Control	• Posture Assessment • Role-based Access Control • Dynamic VLAN	

Networking Capabilities

DHCP	• DHCP v4/v6 • Options 43 & 82
Tunneling	Layer 2 Tunneling: EoGRE
L3 Network Services	• Link Aggregation (LACP) • SNMP v2c/v3 • Topology Discovery (LLDP)
WAN Protocols	Static IPv4/v6, DHCP Client v4/v6
Mesh	Wi-Fi Alliance EasyMesh™ Compliant

Advanced Features

WIDS	• Authentication • Deauthentication • Disassociation • Probe Request Flood • Beacon Flood	• Session Hijack • MAC Spoofing • Evil Twin Attack • Password Guessing
WIPS	• MAC Spoofing • Evil Twin Attack	• Password Guessing
Access Control	• Dynamic Multi-PSK, Static Multi-PSK • Local MAC ACL	• RADIUS-based MAC ACL • Client Isolation

Monitoring & Diagnostics

Device Monitoring	• SNMP v2c, v3 • Syslog • Alarms
Device Management	IO Canvas - AI-enabled Centralized Network Management Platform
Network Assurance	Advanced AI-based Analytics for Anomaly Detection and RCA

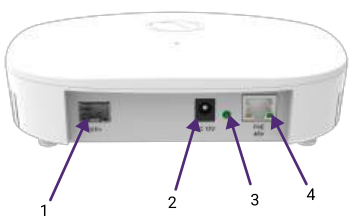
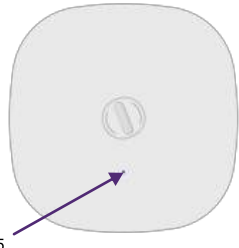
Power Management

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

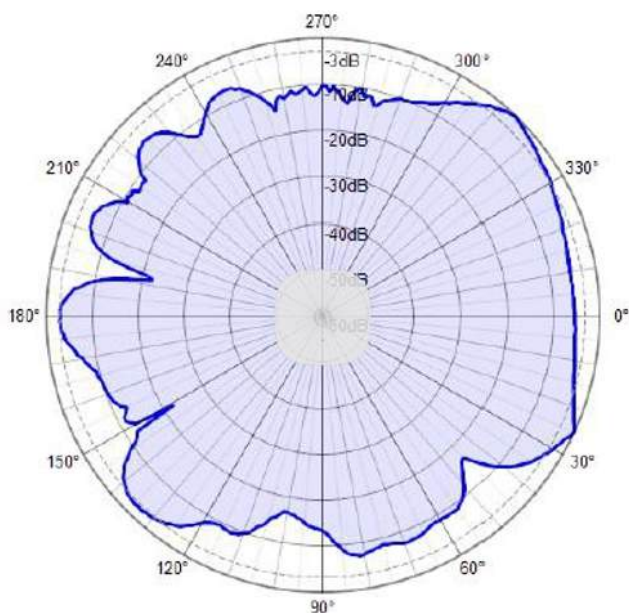
View	Port	Description	Connector Type	Speed/Protocol
Bottom View 	SFP+ Port (1)	Forwards the network connection to another device, allowing extension of the Ethernet connection	Optical SFP+ Cage	2.5 Gbps
	DC 12V (2)*	Provides an alternative power source for the access point	2 mm Center Pin	-
	PWR LED (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
Top View 	LED (5)	Multi-color LEDs for status indication	LED	-
Backside View 	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	-
Side View 	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.

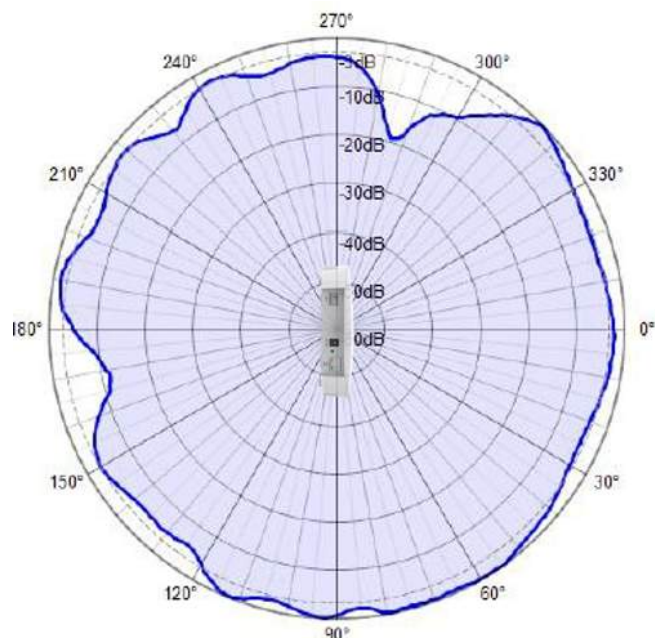
Antenna Radiation Pattern

- 2.4 GHz Antenna Radiation Pattern

Radiation Pattern (Horizontal)

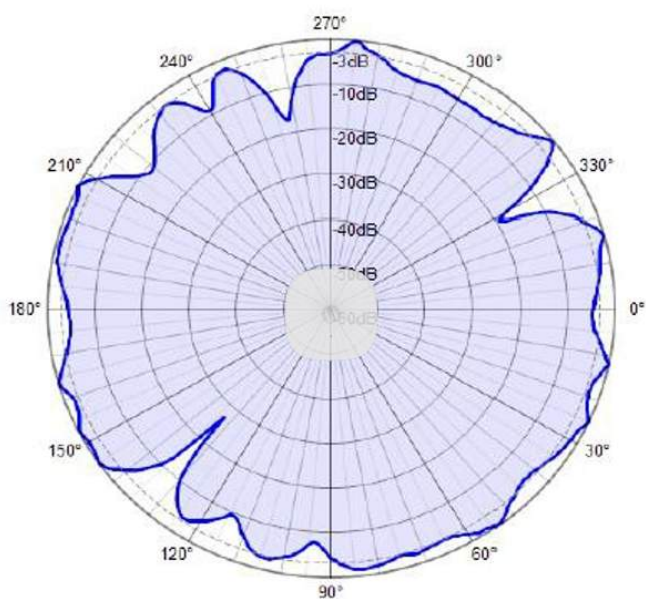


Radiation Pattern (Vertical)

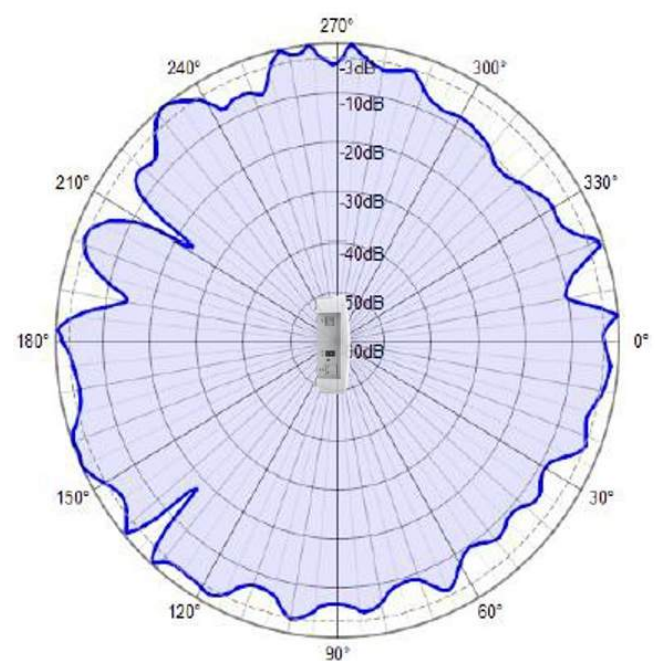


- 5 GHz Antenna Radiation Pattern

Radiation Pattern (Horizontal)



Radiation Pattern (Vertical)



Certifications & Compliances

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), MTCTE/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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