

ion4xi_WP2

Wi-Fi 6

Dual Band 2x2 Indoor

Wall Plate Access Point



ion4xi_WP2 is a centrally managed 2x2 MU-MIMO Wi-Fi 6 certified Access Point with a sleek and aesthetic design. Purpose-built for the hospitality industry, the Wall Plate Access Point ensures high speeds, optimal network coverage & secure connectivity, thereby ensuring enhanced user and guest experience.

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**
2.5 GbE with PoE IN
- **IoT Module**
BLE/ZigBee/Thread
- **Peak Transmit Power**
19 dBm at 2.4 GHz
22 dBm at 5 GHz
- **Max. Clients**
512 per radio
- **Max. SSIDs**
16 per radio
- **Antenna**
Integrated

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_WP2 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.

PoE Out Port

The ion4xi_WP2 supports PoE Out capability via one of the LAN ports acting as a PSE, allowing it to power other network devices such as IP phones, security cameras, or other low-power PoE devices. This eliminates the need for additional power adapters, simplifying deployments and reducing infrastructure costs.

Pass-Through Port for Flexible Wired Connectivity

With a dedicated pass-through port, the ion4xi_WP2 provides uninterrupted wired connectivity, ensuring seamless integration with existing network setups. This is especially useful for applications requiring a direct wired connection, such as IPTV or IP phones.

Built-in IoT Module

The ion4xi_WP2 comes with an integrated IoT module which supports Bluetooth® 5.2 Low Energy, Thread, Zigbee®, IEEE 802.15.4, enabling location-based services, asset tracking, and other IoT applications. This feature enhances user experiences in smart environments by enabling proximity-based interactions and automation.

OWF Compatible

The ion4xi_WP2 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_WP2 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	16 per radio (32 combined)
Receiver Sensitivity	-98 dBm
Modulation Schemes	Upto 1024 QAM
Advanced PHY Techniques	Spatial Multiplexing and MRC (Maximal Ratio Combining)
Peak Transmit Power*	• 19 dBm on 2.4 GHz at MCS 0 • 22 dBm on 5 GHz at MCS 0
Antenna Type	Integrated
Antenna Gain	• 3.5 dBi on 2.4 GHz • 3.5 dBi on 5 GHz • 2.0 dBi for IoT Module
IoT Module	Bluetooth® 5.2 Low Energy, Thread, Zigbee®, IEEE 802.15.4

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.

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 16 & 17	• Options 43 & 60 • Option 82
Tunneling	Layer 2 Tunneling: EoGRE	
L3 Network Services	• 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	

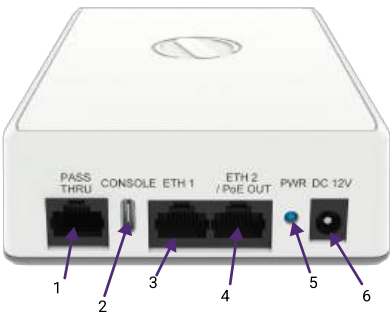
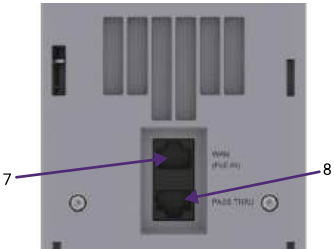
Power Management

Power	DC Powered (via 12V power adaptor) or PoE Power (via PoE++/ PoE+/ PoE adaptor) ¹
Max. Power Consumption	30 W

Physical Characteristics

Dimensions	168 x 100 x 34 mm or 6.61 × 3.94 × 1.33 in
Weight	0.43 kg
Mounting	Wall Mounting
Visual Indicators	LED for power and status indications
Operating Temperature	0°C to 45°C
Storage Temperature	-30°C to 60°C
Humidity	95% RH non-condensing
Physical Security	Kensington® Lock Slot, Secure Bracket

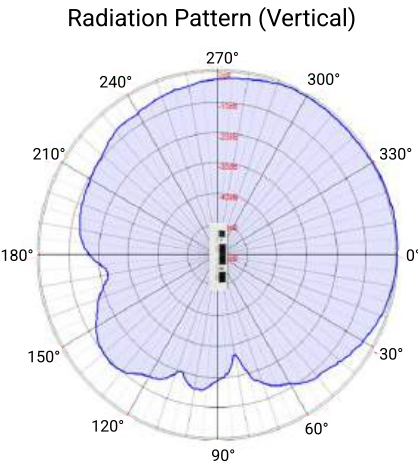
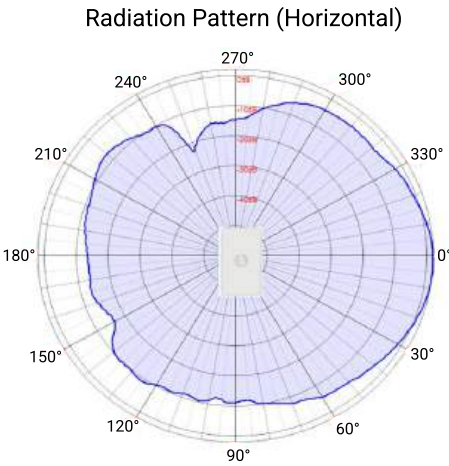
Interfaces

View	Port	Description	Connector Type	Speed/Protocol
Bottom View 	Pass-thru Port (1)	Forwards the network connection to another device, allowing extension of the Ethernet connection	RJ-45	1 Gbps
	Console Port (2)	Serial interface used for local management, troubleshooting, and initial configuration	Type-C USB	-
	ETH1 Port (3)	LAN port used to connect wired client devices	RJ-45	10/100/1000 Mbps Base-T Ethernet
	ETH2/PoE Out Port (4)	LAN port that provides both data connectivity and Power over Ethernet to a connected downstream device. This is a PSE type PoE Out port and supports as per the following: - With Type-1 802.3af (Class 3 - 15.4W) Input, PoE Out is not supported - With Type-2 802.3at (Class 4 - 30W) Input, PoE OUT can support Type 1 802.3af PSE (Class 1 - 4W and Class 2 - 7W) output - With Type-3 802.3bt (Class 5 - 45W) Input and above, PoE OUT can support Type 1 802.3af PSE (Class 1 - 4W, Class 2 - 7W and Class 3 - 15.4W)	RJ-45	10/100/1000 Mbps Base-T Ethernet
	PWR LED (5)	LED for power and status indications	LED	-
	DC 12V (6) ¹	Provides an alternative power source for the access point	2 mm Center Pin	-
Backside View 	WAN (PoE IN) Port (7)	Provides the network uplink and supplies power to the device through Power over Ethernet (PoE): 802.3bt (PoE+ +)/802.3at (PoE+)/802.3af (PoE) Maximum power consumption: 13W without PoE Out 21W with PoE Out to support a PD input of 7W 30W with PoE Out to support a PD input of 12.95W	RJ-45	10/100/1000/2500 Mbps Base-T Ethernet
	PASS THRU Port (8)	Forwards the network connection to another device, allowing extension of the Ethernet connection	RJ-45	1 Gbps
Left & Right Views 	Reset Button (9)	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	-
	Lock Slot (10)	Slot used to attach a Kensington cable lock to secure the device and prevent theft or unauthorized removal	Slot	-

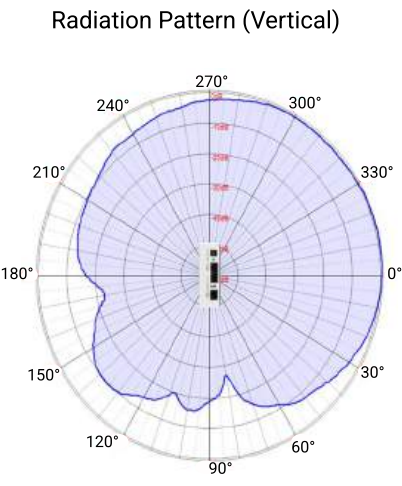
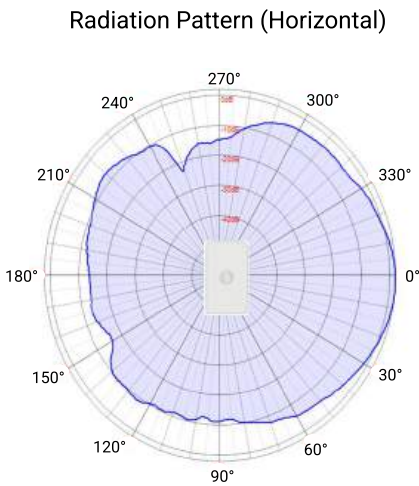
Note: ¹If both PoE and DC power are connected, PoE is used as the primary power source.

Antenna Radiation Pattern

• 2.4 GHz Antenna Radiation Pattern



• 5 GHz Antenna Radiation Pattern



Receiver Sensitivity					
MCS	2.4 GHz		5 GHz		
	20 MHz	40 MHz	20 MHz	40 MHz	80 MHz
0	-98	-95	-96	-93	-90
1	-95	-92	-94	-91	-88
2	-93	-90	-91	-88	-85
3	-90	-87	-88	-86	-83
4	-87	-84	-85	-83	-80
5	-84	-81	-82	-80	-77
6	-81	-79	-80	-78	-75
7	-79	-76	-78	-75	-72
8	-75	-73	-75	-72	-69
9	-73	-71	-72	-70	-67
10	-70	-68	-69	-67	-64
11	-68	-65	-67	-65	-62

Note: All Receiver sensitivity values in the above table are expressed in dBm.

Certifications & Compliances

Certifications	
Wi-Fi Alliance	• Wi-Fi Certified 6 • Wi-Fi Certified WPA3™ • Wi-Fi Enhanced Open™ • Wi-Fi Agile Multiband™ • Wi-Fi Certified Passpoint® 3.0
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

Ordering Information

Model No.	Description
ion4xi_WP2	IO Wi-Fi 6 Dual Band 2x2:2 Indoor Wall Plate Access Point with Integrated Antenna and BLE/ZigBee Module

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