io by HFCL

IO Wi-Fi 6 Dual Band 2x2:2 Indoor Wall Plate Access Point with Integrated Antenna
ion4xi_WP

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. ion4xi_WP is ideal for most demanding use cases and high performance-intensive applications like high definition videos & high bandwidth requirements thereby ensuring enhanced guest experience.

Overview

- 802.11 a/b/g/n/ac/ac Wave2/ax
- 1.78 Gbps aggregate throughput
- 2X2:2 MU-MIMO
- Max power 23 dBm, combined with high performance integrated omnidirectional antennas
- Configurable in standalone mode or via cloud controller
- EasyMesh certified

ENTERPRISE 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

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

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Key Features

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 each Access Point.

Enhanced Guest 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 without downtime. 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 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

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 band-width, optimized spectral efficiency for IoT devices by reduction in overlaps and conflicts.
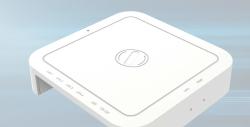
Advanced security features

The ion4xi_WP 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. 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_WP 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_WP will be automatically booted with the back-up firmware. This ensures zero downtime.

Technical Specifications

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): • 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 Data rate	Upto 1.78 Gbps (1202 Mbps for 5 GHz and 574 Mbps for 2.4 GHz)
Max Transmit Power	20 dBm on 2.4 GHz 23 dBm on 5 GHz
Receiver Sensitivity	-93 dBm (for MCS 0)
Channel Size	20/40/80 MHz
Modulation Schemes	Supports upto 1024 QAM
User Support	256 concurrent client support
Processor	Qualcomm IPQ6010 SOC
Power	802.3af/at PoE Input 12V DC Power Adapter (optional)
Max Power Consumption	15 W
Interface	• 1 x 10/100/1000/2500 Base-T Ethernet (WAN & PoE-in) • 4 x 10/100/1000 Base-T Ethernet (LAN) • DC input jack (optional) • Reset and WPS buttons
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 3.0 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
- EasyMesh support
- Auto Channel Selection
- 8 SSIDs per radio (16 Combined)
- Intelligent RF control plane for self-healing and self optimization
- Ability to simultaneously serve clients and monitor RF Environment
- Radio Resource Management for power
- Channel Management: Standalone (via GUI) or through Cloud-based solution
- 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
- 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)
- In-built Captive Portal & AAA server, parental controls and advanced analytics support.
- Supports advanced features like MAC authentication, VLAN pooling, MPSK, DPSK, Q-in-Q, etc.

Technical Specifications

Safety & Other Compliance

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

Physical & Environmental

Enclosure	Two-piece enclosure with Poly Carbonate top and Metallic bottom body
Dimensions	165 x 145 x 38 mm
Weight	750 gms
Mounting	Wall mounting
Visual Indicators	LEDs for status and Power indication
Operating Temperature	0º C to 40º C
Physical Security	via Kensington lock port

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)

Order Information

Model Number	ion4xi_WP
Description	Wi-Fi 6 Dual Band 2x2:2 Indoor Wall Plate Access Point with Integrated Antenna (4 dBi)

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