

WBSn-2450-I Access Point

Carrier-grade Indoor Wi-Fi Access Point

WBSn-2450-I is an advanced carrier-grade indoor Wi-Fi access point addressing operators' needs to rapidly deploy high quality Wi-Fi services in large, crowded, indoor venues



WBSn-2450-I
Access Point

Overview

Alvarion's advanced WBSn-2450-I carrier-grade indoor access point answers the skyrocketing need for indoor capacity as the number of handheld devices and innovative video applications grow. The WBSn-2450-I is optimal for crowded indoor venues such as malls, hotels, airports and campuses. Installation on walls and ceilings is quick and easy while achieving optimal coverage range with minimal intrusions on public spaces.

WBSn-2450-I is equipped with the same two-way Beamforming 802.11n, 3x3 MIMO with three spatial data streams and powerful interference immunity suite as in the field-proven outdoor WBSn models. Two simultaneous radios allow operators the flexibility to use the 2.4 GHz band for customer access and the 5 GHz radio for either access or backhauling.

WBSn-2450-I is a service-aware platform in line with the Wi-Fi Passpoint™ program for seamless Wi-Fi access and Wi-Fi roaming. The WBSn-2450-I includes a rich set of networking features for core integration into fixed and cellular networks such as integral Access Controller, RADIUS interface, and 802.1x security. This ensures that carriers and service providers are able to offer diverse Wi-Fi services including hot zones, data offloading, wholesale and future innovative location based applications.

WBSn-2450-I is part of Alvarion's carrier-grade Wi-Fi WBSn family of base stations, complemented by Alvarion's WCPEn customer premise equipment, WavionNet network management and WCC-1000 cloud controller.

Benefits

- Optimal Wi-Fi coverage in large crowded malls, airports, hotels campuses and large retail stores
- Indoor coverage with proven outdoor Wi-Fi carrier-grade technology
- Simple installation – wall and ceiling mount
- Connect up to 512 users per unit with up to one gigabit capacity
- High speed Internet access reaching speeds of up to 450 Mbps
- Supports QoS and security
- 2.4 and 5 GHz – concurrent support

Applications

 Hot zones	 Campus access
 3G/LTE mobile data offloading	 Hotels and resorts
 Wholesale Wi-Fi	 Malls and large retail stores
 Managed Wi-Fi service	 Airports

WBSn-2450-I Technology Edge

• Gigabit Wi-Fi Capacity and extended coverage

With spatially adaptive Beamforming leveraging a powerful High Gain Diversely Polarized (HGDP) antenna array

• Carrier-grade Wi-Fi

Designed for high reliability and manageability

• Rich Embedded Networking

Including Routing, integrated Access Controller, 802.1x security, RADIUS interface

• Environmentally Friendly

Low power consumption, fewer sites to power, aesthetic smart design, and green standard compliance

• Interference Immunity Suite

- Beamforming ability to suppress interference
- Dynamic Interference Handling (DIH) algorithm that continuously optimizes receiver's parameters according to noise level
- Automatic Channel Selection (ACS) algorithm for best operating channel online selection
- Wavion Rate Adaptation (WARA) for optimal rate selection in environments with high interference and high capacity

WBSn Access Point Specifications

Radio	802.11 b/g/n Radio	802.11 a/n Radio
Operating band*	2.400 – 2.483 GHz, 13 channels	5.150 – 5.900 GHz, DFS support
Modulations	802.11n: 3x3 MIMO with 3 spatial data streams 802.11g: OFDM, 802.11b: DSSS	802.11n: 3x3 MIMO with 3 spatial data streams 802.11a: OFDM
Data rates	802.11n: MCS0 – MCS23 802.11g: 6, 9, 12, 18, 24, 36, 48, 54 Mbps 802.11b: 1, 2, 5.5, 11 Mbps	802.11n: MCS0 – MCS23 802.11a: 6, 9, 12, 18, 24, 36, 48, 54 Mbps
Bandwidth	20 / 40 MHz	20 / 40 MHz
Max, transmit power*	Tx power at antenna port: 24 dBm	Tx power at antenna port: 22 dBm
Max EIRP*	37 dBm EIRP	35 dBm EIRP
Antenna	Embedded	Embedded

* Actual operating channels, transmission power and EIRP may reduce for compliance with local regulations (FCC, ETSI, etc.)

Hardware Specification

Ports	Ethernet: auto-sensing 10/100/1000 Base-T
Operating band*	Supporting standard 802.3at POE
Power Consumption** (Nom./Max.)	20/25W
Mounting options	Ceiling and Wall
Dimensions (L x W x H)	21cm x 21cm x 6cm
Weight	1kg

** May be lower with different regulations such as ETSI.

Software Features	Security	Environmental Specifications
<ul style="list-style-type: none"> Virtual APs (VAPs) per band WDS 	<ul style="list-style-type: none"> Wireless Security: Open, WEP, 802.11i (WPA, WPA2) 	<ul style="list-style-type: none"> Operating temperature: 0° to 45°C Storage temperature: -30° to 70
<ul style="list-style-type: none"> QoS: WMM with four priority queues Prioritization: VLAN, DSCP and IP TOS VLAN support: VLAN termination, VLAN trunk (multiple VLANs per VAP), QinQ, Dynamic VLAN assignment by RADIUS Bridge and Router *** modes Built-in Access Controller *** Built-in accounting *** 	<ul style="list-style-type: none"> Authentication: Pre-Shared-Key (PSK) and 802.1X-RADIUS (supporting EAP-TLS, EAP-TTLS, PEAP, EAP-AKA, EAP-SIM) Encryption: WEP, TKIP, AES Network securities: Broadcast/multicast limiters Peer-to peer traffic blocking option Access Control List (ACL) 	<ul style="list-style-type: none"> Humidity: 0 to 95 % non-condensing
Management	Approvals	
<ul style="list-style-type: none"> SNMPv2c HTTP/HTTPS 	<ul style="list-style-type: none"> Radio: FCC 47 CFR part 15C, EN 302 502, EN 301 893, EN 300 328 Safety: CE, UL 60950-1, UL2043 (Heat and Visible Smoke) EMC: 47 CFR Part 15B Class B (USA), EN 301 489 Green: ROHS, WEEE 	

*** These features require licenses.

WBSn Base Station Family

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2400 WBSn-2400-S
Sector base station, operating in the 2.4 GHz band

2450 WBSn-2450-S
Sector base station, operating in 2.4 and 5 GHz bands
simultaneously



2400 WBSn-2400-O
Omni base station, operating in the 2.4 GHz band

2450 WBSn-2450-O
Omni base station, operating in 2.4 and 5 GHz bands
simultaneously



2450 WBSn-2450-OS, WBSn-2450-SO
Omni base station in 2.4 GHz with Sector base station in 5 GHz,
and Sector in 2.4 GHz with Omni in 5 GHz



2450 WBSn-2450-I
Indoor access point, operating in 2.4 and 5 GHz band
simultaneously



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