Technical Specifications

Alvarion Technologies

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		802.11 b/g/n Radio	802.11 a/n/ac Radio	
Frequency bands *		2.400–2.4835 GHz, 13 channels	5.150–5.250, 5.250–5.350, 5.470– 5.725, 5.725–5.850	
Bandwidth		20/40MHz	20/40/80MHz	
Data Rates per chain		802.11n: MCS0 – MCS7 802.11g: 6, 9, 12, 18, 24, 36, 48, 54 Mbps 802.11b: 1, 2, 5.5, 11 Mbps	802.11n: MCS0 - MCS7 802.11a: 6, 9, 12, 18, 24, 36, 48, 54 Mbps 802.11ac: MCS0 - MCS9	
Omni Antennas**		5 dBi, 2x Dipole Antennas	7 dBi, 2x Dipole Antennas	
Sector Antennas	Gain	11 dBi	13dBi	
	Beamwidth	AZ: 85°H x 95°V; EL(typ.): 40°	AZ:75°H x 125°V; EL(typ.): 25°	
Max Tx Power		23 dBm*	23 dBm*	
Tx/Rx Streams		2x2 MIMO with 2 spatial data streams		
Throughput		Up to 300 Mbps	Up to 867 Mbps	
LAN Interface		1 X 10/100/1000 Base TX Ethernet Port (with Auto MDI / MDIX)		
Power Requirements		IEEE 802.3at compliance		
Max Power Consumption		<20 W		
Weight omni and sector (unit only)		1.67		
Humidity (non-condensing)		Operating: 5% to 90% typical		
Temperature Range		Operating: -40°C to 60°C Storage: -40°C to 70°C		
Dimensions - L x W x H		Omni: 249 x 220 x 53 mm; Sector: 255 x 220 x 60		
Directives		RoHS		
MTBF		Over 280k hrs.		
Mounting Options		Mounting kit with tilt capability (should be ordered separately)		
Max concurrent users	Open	395		
	WPA2	265		
	WPA2+open	397		

 $^{^{}st}$ Frequency selection and power may be restricted to abide by regional regulatory compliance laws.

Notes

- Customers are responsible for verifying the approved frequency channels in their country as well as verifying the approved maximum conducted power in their country
- The maximum conducted power (EIRP) limitation may vary by channel and according to individual country
- The maximum TX power can be manually reduced, please refer to user manual for details

Ordering Information

17403303	WBSac-2450-0-UN	Wi-Fi Outdoor access point dual band 2x2 Omni Antennas, 802.11ac, Universal compliant.
17403302	WBSac-2450-0-EU	Wi-Fi Outdoor access point dual band 2x2 Omni Antennas, 802.11ac, ETSI compliant.
17403503	WBSac-2450-S-UN	Wi-Fi Outdoor access point dual band 2x2 Sector Antennas, 802.11ac, Universal compliant.
17403502	WBSac-2450-S-EU	Wi-Fi Outdoor access point dual band 2x2 Sector Antennas, 802.11ac, ETSI compliant.

About Alvarion Technologies

Alvarion Technologies is a global provider of autonomous Wi-Fi networks designed with self-organizing capabilities that enable constantly optimized performance. We are guided by our belief that the sustainability of any network stems from the combined strength of its elements. We have developed an approach that is transforming Wi-Fi from a "dumb pipe" into a goldmine of actionable data.

Alvarion designs solutions for Carrier Wi-Fi, Enterprise Connectivity, Smart City, Smart Hospitality, Connected Campuses and Connected Events that are both complete and heterogeneous to ensure ease of use and optimize operational efficiency. Carriers, Local Governments and Hospitality sectors worldwide deploy our intelligent Wi-Fi networks to enhance productivity and performance, directly and for the long term. With over 25,000 sites in over 95 countries, our experience and know-how has enabled us to become a proactive contributor to the evolution of the Global Communications Network. As in everything we do, our commitment to elevating the Wi-Fi experience is reflected in our offering.



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WBSac 0-216025-[A]



Alvarion's Avidity family WBSac Outdoor Access Point



^{**} For OMNI product only

Data Sheet



WBSac Outdoor Access Point

Avidity product family

Avidity refers to the accumulate strength of multiple elements. We named our product series Avidity as we believe a network should be based on multiple elements that together compose its structure.

The Avidity product series comprises indoor and outdoor platforms. Our indoor platform is built with an internal OMNI antenna. Our outdoor platform has two main antenna variants, external Omni antennas and internal sector antenna.

An evolution of Alvarion's high performance outdoor Access Point, the Avidity series is both compliant with IEEE 802.11ac and backwards-compatible with 802.11a/b/g/n. Our product evolution allows us to provide sustainable solutions that can handle today's capacity and performance needs.

Overview

Alvarion's versatile family of Access Points enables the construction of scalable Wi-Fi networks with Quality of Service (QoS), security and high service reliability. It is designed with an extended temperature ruggedized enclosure, and IP67 rated which is suitable for various harsh outdoor conditions.

The unit has two main antenna variants, external Omni antennas and internal sector antenna. It supports Passpoint™ with hotspot capability and includes a rich set of networking features for core integration with cellular and fixed-line operators. The units are controlled and managed by the Alvarion Arena controller and include a user-friendly web interface for configuration and monitoring.

Benefits, Features and Applications

- Self-configuring, plug-and-play deployment
- Dual-concurrent 802.11 (ac/n)- radios, dualband 2x2:2 MIMO operation technologies, up to 867 Mbps data rate
- Equipped with External Omni or internal Sectoral antenna
- Integrated Power-over-Ethernet (PoE)
- Centralized visibility and control via Alvarion's Arena controller or standalone deployments
- Enhanced receive sensitivity / transmit power performance enables self-optimizing and self-healing algorithm

WBSac Outdoor Access Point



Firmware Information

Multiple SSID

Supports up to 6 virtual access points (VAP) per radio, with unique BSSID; each VAP can configure its own security

Operational Modes

- Access point
- Root AP
- Mesh Point
- CPE

WAN Type

- Static IP
- Dynamic IP
- PPPoE
- DHCP

Advanced Features

- Built-in DHCP Server
- Transmission Power Control (one dB per step)
- Closed System (Suppress SSID)
- Transmission Rate Control
- Spanning Tree Protocol

VLAN Ethernet Trunk

Map VLAN IDs to multiple SSID

Security

Wireless Security

Open, WEP, 802.11i (WPA, WPA2)

Authentication

Pre-Shared-Key (PSK) and 802.1X-RADIUS (supporting EAP-TLS, EAP-TTLS, PEAP, EAP-AKA, and EAP-SIM)

Encryption

WEP, TKIP, AES

Network securities

Wi-Fi client isolation, Access Control List (ACL)

Management

Device Management

- HTTP / HTTPs Web Server
- SNMP V3
- Secure Shell (SSH)

VLAN Management

Can manage the AP through VLAN ID

Other Prominent Features

IEEE 802.11h (DFS & TPC)

Enables worldwide operation through support for standards-based Dynamic Frequency Selection (DFS) and Transmission Power Control (TPC)

Hotspot with Integrated Controller for Full Users Management

Can use with/without Radius Server

 STBC - transmit multiple copies of a data stream across a number of antennas to improve the reliability of data-transfer

Compliance Standards

Outdoor conditions

IP67 ruggedized enclosure with Extend temperature range

Safety

EN60950-1/22

Radio

- FCC Part 15.247, 15.407**
- o EN 300 328
- EN 301 893
- o EN 301 489-1/17

Package content

OMNI

- AP unit
- 2 x 2.4GHz N-type Omni antennas
- 2 x5GHz N-type Omni antennas
- Mounting kit
- PoE power supply
- Quick installation guide

Sector

- AP unit
- Mounting kit
- PoE power supply