SKSpruce®

WOA5200-80

802.11ac dual-band outdoor access point

Datasheet

High performance, integrated outdoor wireless access point

The WOA5200-80 is a high performance dual-band 802.11ac outdoor wireless access point with 3x3 MIMO support designed to meet rapidly rising demand for bandwidth by mobile users, while offering network operators a fully integrated weatherproof unit that is easily deployed outdoors. Capable of supporting up to 80 simultaneous multimedia users and up to 1.75 Gbps aggregate throughput, the WOA5200-80 delivers outstanding performance in dense urban outdoor settings, such as transit centers, retail malls, campuses, and stadiums, as well as industrial settings, such as mining and oil and gas applications.

The WOA5200-80 is designed with an IP67-rated enclosure, high performance internal antennas, local or power-over-Ethernet (PoE) power options, and an internal heating module for easy deployment in harsh environments. The unit can be deployed as a stand-alone access point or managed via a centralized controller or multi-service gateway that handles all user authentication, routing, radio resource management, and network management.

Features

High performance Wi-Fi access point

- Compliant with IEEE 802.11a/b/g/n/ac standards
- High performance dual-band (2.4 GHz and 5 GHz) solution
- 3x3 MIMO and OFDM
- Aggregate 1.75 Gbps throughput (450 Mbps in the 2.4 GHz band; 1.3 Gbps in 5 GHz band)
- Supports up to 256 connections, with up to 80 users at a sustained bandwidth of 1 Mbps

Robust security

- 802.1x, MAC-based, Web-based, and transparent authentication mechanisms
- Allows use of SMS, Facebook® or WeChat® to complete authentication
- Continuously monitors for rogue access points and network attacks
- Support for up to 32 SSIDs
- User parameters and security policies can be assigned for each SSID

Smart Link connectivity management

- Actively monitors link state and connectivity to the controller or gateway
- Intelligently responds to connectivity interruptions by maintaining user sessions and establishing new sessions without interruption

Flexible data forwarding network architecture

- Support for split bearer and control channels provides enhanced flexibility for small or large network design
- Configurable for central data forwarding, routing all data traffic through the central gateway to provide complete control of packet flows
- Local forwarding for network access maintains unified user management and security policy administration, while offering high bandwidth and low latency for remote sites

Feature-rich AP with centralized optimization and management

- Supports innovative AP functions, such as PPPoE, Network Address Translation, and DHCP server/client
- Zero-touch join and configuration
- Load balancing of client and network traffic by voice, video, or data service type enhance user quality of experience (QoE)
- Handoffs to and from the cellular network occur seamlessly and without service degradation

Rugged, easy to deploy in outdoor applications

- Rugged IP67-rated outdoor design, moisture-proof and dust-proof to withstand challenging environments
- PoE support and built-in high performance antennas (maximum 9 dBi gain)
- Pole or bracket mounting
- Heating module prevents buildup of ice and snow in cold climates

Specifications

Physical Specifications	
Power input	802.3at power over Ethernet (PoE)
Overall power consumption	25W
Dimensions (W x D x H)	10.24" x 8.27" x 3.15" (260 mm x 210 mm x 80 mm)
Weight	5.28 lbs (2.40 kg)
Ethernet ports	2 x 10/100/1000Base-T
Console port	1 Micro USB
Reset	1 Reset button
Indicators	1 Power/status 1 WLAN/LAN 1 Wi-Fi
Operating temperature	–40°F to +131°F (–40°C to +55°C)
Storage temperature	–40°F to 158°F (–40°C to +70°C)
Relative humidity	0–100% noncondensing
Ingress protection	IP67

WLAN Specifications	
Antenna	Internal antenna, 9 dBi gain
Operating frequency	802.11a/n/ac: 5.15–5.850 GHz 802.11b/g/n: 2.4–2.4835 GHz
Spatial streams	3x3 MIMO
Maximum transmit power	2.4 GHz: 27 dBm (23 dBm per chain) 5 GHz: 25 dBm (20 dBm per chain)
Modulation technique	DSSS (11b): DBPSK @ 1 Mbps, DQPSK @ 2 Mbps CCK @ 5.5/11 Mbps OFDM (11a/g): BPSK @ 6/9 Mbps QPSK @ 12/18 Mbps 16-QAM @ 24 Mbps 64-QAM @ 48/54 Mbps MIMO-OFDM (11n): MCS 0-23 MIMO-OFDM (11ac): MCS 0-9
Data rates	IEEE 802.11ac: 54/48/36/24/18/12/9/6 Mbps IEEE 802.11b: 11/5.5/2/1 Mbps IEEE 802.11g: 54/48/36/24/18/12/9/6 Mbps IEEE 802.11n: 20 MHz: 6.5–216.7 Mbps 40 MHz: 13.5–450 Mbps IEEE 802.11ac: 20 MHz: 6.5–216.7 Mbps 40 MHz: 13.5–450 Mbps 80 MHz: 29.3–1300 Mbps
Maximum SSIDs	32
Maximum concurrent users	256

802.11n/ac	Maximal ratio combining (MRC) Maximum likelihood detection (MLD) Automatic channel scanning 20 MHz/40 MHz channel bandwidth (802.11.ac supports 80 MHz) A-MPDU, A-MSDU Dynamic frequency scaling Unscheduled automatic power save delivery (UAPSD)
Wi-Fi security and authentication	WEP 64/128 WPA/WPA2-PSK-TKIP WPA/WPA2-PSK-CCMP WPA/WPA2-802.1X-TKIP WPA/WPA2-802.1X-CCMP WAPI-PSK/CA MAC, Portal, Transparent Authentication, Dot1x Authentication (EAP-TTLS, EAP-PEAP, EAP-SIM/AKA, EAP-FAST)
Local AP functions	PPPoE client, NAT, DHCP server, DHCP client Local SSID, encryption, configuration of shared keys
QoS	Supports 802.1p, IP DSCP, 802.11e Supports rate-limiting based on STA/SSID/AP Supports RADIUS bandwidth property delivery
Management	Local management: console Remote management: Telnet, SSH, CAPWAP Network management and control: CAPWAP Supports remote upgrades through FTP Supports batch upgrades through multi-service gateway
Software	AmOS 2.0

Note: Specifications are subject to change.

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