





802.11ac Wave 2 Dual-Radio Unified Access Point

The Zyxel WAC500 802.11ac Wave 2 Dual-Radio Unified Access Point is a highly future-proof WLAN solution perfect for growing business, hospitality and education environments. With a 3-in-1 standalone/controller/cloud-managed design, users can initially use it as a standalone AP, and convert it to a controller-managed or Nebula cloud-managed AP when WiFi demand grows. The WAC500 is designed with industry-leading technology to provide trouble-free wireless quality to lower IT overhead. The embedded antennas and signal output are fine-tuned to provide easy RF planning and maximum signal coverage. It also supports such features as dynamic channel selection, load balancing and pre-authentication for superb WiFi experience.

Benefits

Ceiling-mount design blends into environments

Different from traditional business routers, low-profile ceiling-mount design of Zyxel WAC500 provides better coverage and performance. The WAC500 is a PoE AP with a multifunction design that solves all problems by offering an advanced antenna design to enhance wireless performance and to eliminate coverage dead spots. Moreover, the signal outputs have been fine-tuned to provide easy RF planning and excellent signal coverage especially for hospitality and education environments.

The Zyxel WAC500 is constructed from non-toxic casing materials, making it safe to install in plenum areas, as it won't release hazardous vapor emissions in the event of a fire. This is life-critical issue, particularly when deploying in public venues such as offices, hotels, and schools.



ZYXEL

Optimized RF performance for ceiling mounting deployment



NebulaFlex Pro allows users to switch among standalone, onpremises controller managed or intuitive Nebula cloud managed modes as needed



The latest WPA3 security protocol provides safer connectivity



Enterprise class 2x2 802.11ac Wave 2 AP supports combined data rates of up to 1200 Mbps



Advanced Cellular Coexistence minimizes interferences from 4G/5G cellular networks



Next generation beamforming technology delivers maximum coverage





NebulaFlex Pro-simply manage it your way!

The NebulaFlex Pro provides extended flexibility, allowing users to easily switch among standalone, on-promises controller or our intuitive NCC (Nebula Control Center) modes any time according to your needs without additional cost while protecting wireless technology investments. The privilege of one-year professional pack you can get once upon registration on Nebula includes wireless health, sitewide topology, 365-day statistics on the devices and clients monitoring along with more upcoming advanced features on NCC and its App.

Zyxel one network experience

Aiming for relieving our customers from repetitive operations of deploying and managing a network, Zyxel one network is designed to simplify the configuration, management, and troubleshooting, allowing our customers to focus on the business priorities. Zyxel one network presents an easy-to-use tool, Zyxel one network utility (ZON utility), to realize speed network setup. Zyxel Smart Connect allows Zyxel networking equipment to be aware and recognize each other and further facilitating the network maintenance via one-click remote functions such as factory reset or power cycling. Zyxel one network redefines the network integration across multiple networking products from switch to WiFi AP and to Gateway.

Ultra-fast Gigabit WiFi experience

Featuring the latest 802.11ac Wave 2 standard, the WAC500 not only provides data rates of up to 1200 Mbps, but also optimizes signal with its advanced antenna design to bring the best user experience through a higher number of parallel video data streams for minimized latency on the network. Additionally, the concurrent dual-band support enables WAC500 to satisfy clients using both 2.4 GHz and 5 GHz at the same time and is perfect for high-density applications such as hospitality, education and business.

Streamlined deployments for optimized WLAN experience

To deliver optimized wireless experience for users, the WAC500 features Dynamic Channel Selection (DCS), Load Balancing, Smart Client Steering and beamforming technology etc. Dynamic Channel Selection (DCS) avoids interference from co-channel and channel overlapping at initialization, while Load Balancing enables administrators to set limits on the number of clients associated with each AP. Furthermore, Smart Client steering features Band Select, Signal Threshold and Band Balancing for stable, reliable wireless connections. Band Select and Signal Threshold monitor the capabilities of each wireless client and steer them to the less-congested band and the AP with better signal. Band Balancing detects dualradio clients and distributes clients across 2.4 GHz and 5 GHz bands on AP. And, the second generation transmit beamforming technology incorporating Low End Sensitivity Improvements and Time Domain Channel Smoothing allowing data rates to increase for not only MU-MIMO clients, but for all existing ones as well. These advanced functions ensure the WAC500 to provide a smooth, consistent and uninterrupted wireless access experience.

Applications Diagram

Controller Management Hotel Lounges Café Cloud Networking **WAC500** GS1920-24HPv2 802.11ac Wave 2 24-port GbE Smart Smartphone Tablet PC Laptop **Dual-Radio Unified** Hotel Managed PoE Switch Access Point **Hotel Lobby** GS1920-8HPv2 **USG FLEX 200 WAC500** 8-port GbE Smart Internet 802.11ac Wave 2 ZvWALL Unified Managed PoE Switch Smartphone Tablet PC Laptop Security Firewalls **Dual-Radio Unified** Access Point Guestroom WiFi 2.4 GHz GS1920-24HPv2 WAC500 ((WiFi 2.4+5 GHz 24-port GbE Smart 802.11ac Wave 2 Smartphone Tablet PC Laptop Managed PoE Switch **Dual-Radio Unified** Access Point

Specifications

Model	WAC500
Product name	802.11ac Wave 2 Dual-Radio Unified Access Point
	ZYXEL

Wireless		
Standard		IEEE802.11 ac/n/g/b/a
МІМО		MU-MIMO
Wireless speed	2.4 GHz	300Mbps
	5 GHz	866Mbps
Frequency band	2.4 GHz	• USA (FCC): 2.412 to 2.462 GHz
	5 GHz	 Europe (ETSI): 2.412 to 2.472 GHz USA (FCC): 5.15 to 5.25 GHz; 5.725 to 5.850 GHz
	3 GHZ	• European (ETSI): 5.15 to 5.35 GHz; 5.470 to 5.725 GHz
Bandwidth		20-, 40- and 80-MHz
Conducted typical transmit output power	US (2.4GHz/5GHz)	23/26dBm
	EU (2.4GHz/5GHz)	19/26dBm
RF Design		
Antenna type		2x2 MIMO Embedded Antenna
Antenna gain	2.4GHz	3 dBi
Antenna gam	5GHz	4 dBi
Minimum receive ser	nsitivity	up to -99 dBm
WLAN feature		
Band Steering		Yes
WDS/ Mesh		Yes
Fast roaming		Pre-authentication, PMK caching and 802.11r/k/v
DCS		Yes
Load balancing		Yes
Security		
Encryption		WEP/ WPA/WPA2-PSK/WPA3
Authentication		WPA/WPA2-Enterprise/ EAP/ IEEE 802.1X/ RADIUS authentication
Access management		L2-isolation/ MAC filtering
Networking		
IPv6		Yes
VLANs		Yes
WMM		Yes
U-APSD		Yes
DiffServ marking		Yes

	WAC500			
le	Nebula Cloud managed/contr	Nebula Cloud managed/controller-managed / standalone		
	Discovery of Zyxel switches, APs and gatewaysCentralized and batch configurations			
	IP configurationIP renewDevice rebootDevice locating	Web GUI accessFirmware upgradePassword configuration		
Optimizer	WiFi AP planningWiFi coverage detectionWireless health management			
	Yes	Yes		
	Yes	Yes		
fications				
Dimensions (WxDxH) (mm/in.)	140 x 140 x 37.5 /5.51 x 5.51 x 1.4	8		
Weight (kg/lb.)	249/0.55			
Dimensions (WxDxH) (mm/in.)	185 x 155 x 59 / 7.28 x 6.10 x 2.32			
Weight (kg/lb.)	419 / 0.92			
sories	Ceiling-mount plate			
	630,794			
aces				
	1 x 10/100/1000M LAN			
	 Input: AC 100 - 240V - 50/60 Output: DC +12V 1A PoE (802.3af): power draw 11 			
Specifications				
Temperature	0°C to 50°C/32°F to 122°F			
Humidity	10% to 90% (non-condensing)			
Temperature	-40°C to 70°C/-40°F to 158°F			
Humidity	10% to 90% (non-condensing)			
	FCC Part 15C, FCC Part 15E; E	TSI EN 300 328, EN 301 893; LP0002, EN 60601-1-2		
	FCC Part 15B, EN 301 489-1; EN BSMI CNS13438	I 301 489-17, EN55022, EN55024, EN61000-3-2/-3,		
		I CNS14336-1		
	Dimensions (WxDxH) (mm/in.) Weight (kg/lb.) Dimensions (WxDxH) (mm/in.) Weight (kg/lb.) sories Specifications Temperature Humidity Temperature	Nebula Cloud managed/contr Discovery of Zyxel switches, and control in the configuration in		







