



WAX630S

802.11ax (WiFi 6) Dual-Radio Unified Pro Access Point

Featuring 6 spatial streams (4x4:4 in 5 GHz, 2x2:2 in 2.4 GHz), OFDMA and MU-MIMO capabilities, the Zyxel WAX630S is the true WiFi 6 access point that provides ultra-fast speed and consistent performance for your wireless network. Any environment that needs to accommodate a large number of devices, it can offer a faster and smarter connection to everyone every time when they connect to the WiFi.

The built-in smart antenna technology, proven to be capable to mitigate co-channel interference, continuously monitors the connection and adaptively adjusts its antenna patterns to ensure that the optimum performance is delivered to every connection, which means more users and devices can be connected without any degradation in performance or response time even in high-density environments.

The WAX630S is not only efficient at delivering impressive high speeds with smooth and consistent delivery to wireless clients, but also it's efficient on power. The WAX630S can deliver its impressive performance while keeping the consumption of PoE within the PoE+ standard, so that you can enjoy the latest WiFi 6 technology, experience first-hand the uncompromising multi-gigabit speed when coupling with the capacity of Zyxel XS1930 Series switches without the need of re-cabling.



Dual-radio (dual 4x4+2x2 MIMO) 802.11ax AP provides maximum data rate of 2975 Mbps



Smart antenna is the proven technology that can mitigate interference and boost WiFi 6 performance



Coupled the capacity with Zyxel XS1930 Series switches, the 2.5GbE uplink delivers uncompromising multi-gigabit speed without the need of re-cabling



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



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

Benefits

Bringing next generation WiFi within reach

Zyxel's new WAX630S is a next-generation WiFi 6 access point that delivers faster performance and massive increased-capacity, which along with unique Zyxel technology, make the user experience even better.

Apart from running at 25% faster speed, the WAX630S can also accommodate more client devices without any fall-off in speed, allowing an easy scale-up capacity to support hundreds of connections without increased latency.

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, site-wide topology, 365-day statistics on the devices and clients monitoring along with more upcoming advanced features on NCC and its App.

Unparalleled high-density performance

Essentially, there are two technologies that make a real difference in WiFi 6 – orthogonal frequency-division multiple access (OFDMA), and spatial re-use, which is also referred to as Basic Service Set (BSS) coloring. These make WiFi 6 a much more efficient technology than 802.11ac. The BSS coloring allows multiple access points to be used in the same vicinity without fear of co-channel-interference. Zyxel smart antenna technology has elevated the effectiveness of spatial reuse even further by physically change the antenna pattern to avoid interference from other co-channel APs. This makes WAX630S really help in exceptionally very dense environments.

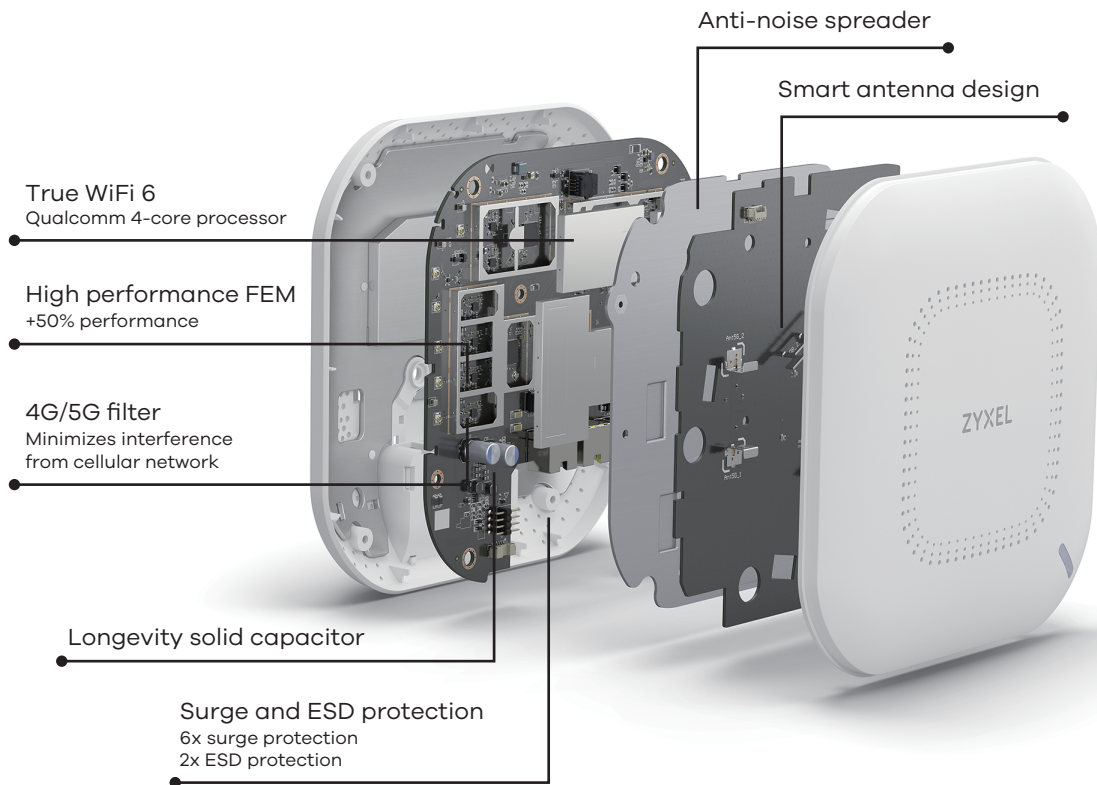
4G/5G cellular network coexistence

With the exponential growth of mobile devices in the wireless network, users start to experience degraded performance, such as ping drops and high latency; users have to reduce the use of their mobile devices in order to maintain a smooth, working wireless service. Thus, to enable 4G/5G cellular network coexistence and minimize interference from 4G/5G antennas or signal boosters, the WAX630S has built-in 4G/5G interference filters. As a result, the visible or invisible 4G/5G indoor antennas in the environment is no longer an issue when installing APs.

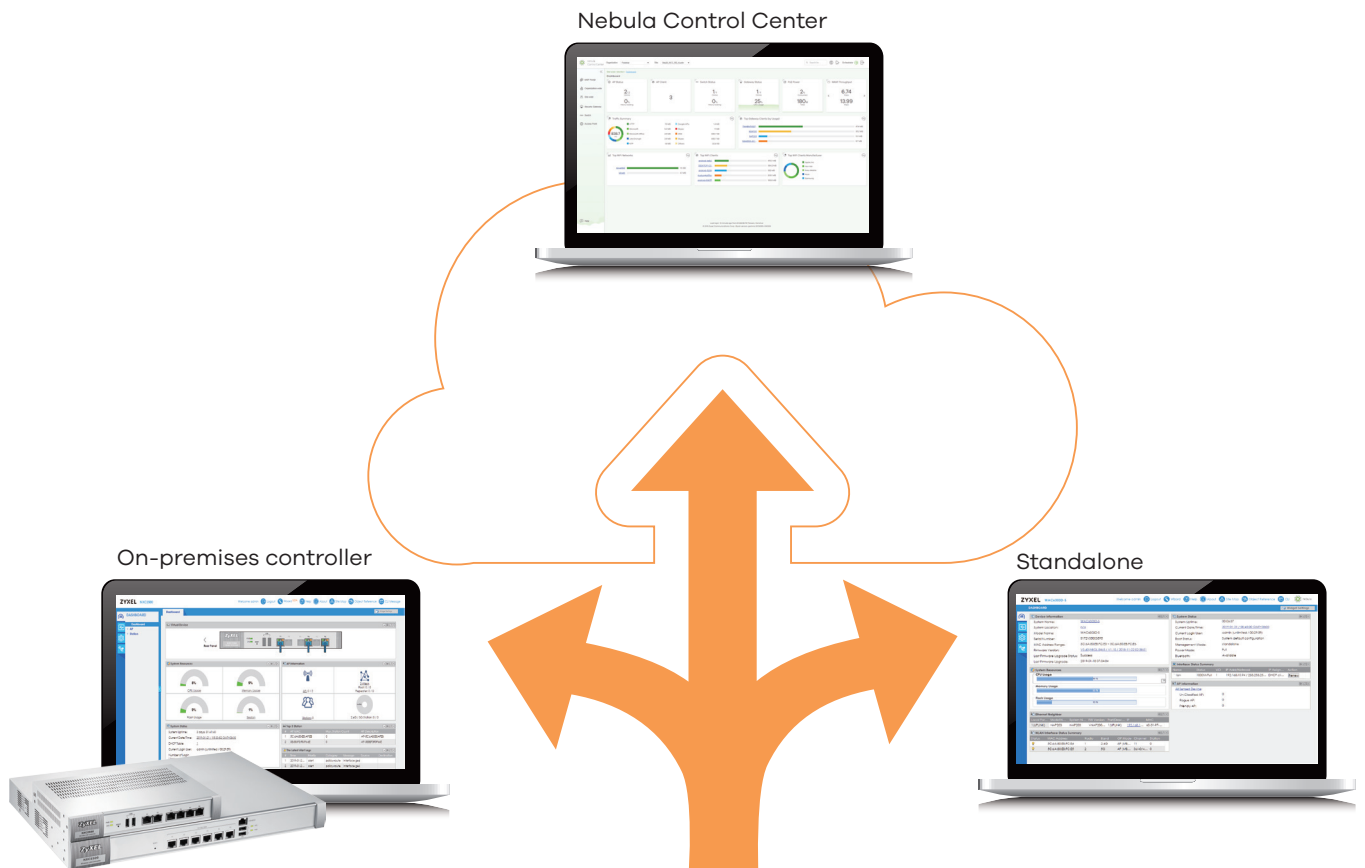
Optimized wireless experience with advanced features

The WAX630S ensures an optimized wireless experience for users with a range of wireless features such as Dynamic Channel Selection (DCS), Load Balancing and Smart Client Steering. DCS minimizes the interference of co-channel and overlapping channels. Load Balancing enables administrators to set limits on the number of clients associated with each AP. Furthermore, Smart Client Steering features with Band Select, Signal Threshold and Band Balancing combine to deliver 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 AP with better signals. Band Balancing detects dual-radio clients and distributes clients across 2.4 GHz and 5 GHz bands on AP. All of these deliver a smooth, consistent and uninterrupted wireless experience to its users.

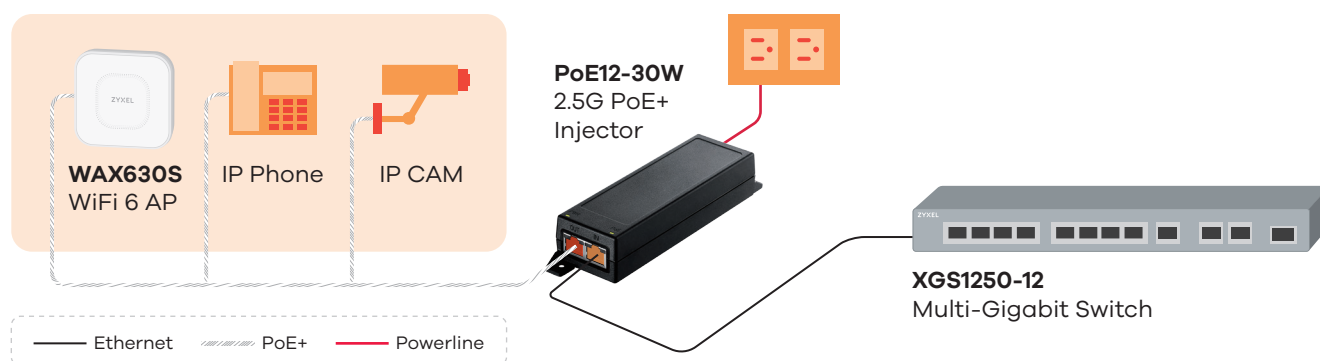
Powerful Hardware Design




Switch Among Triple Modes



Suggested PoE Injector



Specifications

Model	WAX630S	
Product name	802.11ax (WiFi 6) Dual-Radio Unified Pro Access Point	
		
Wireless		
Standard	IEEE 802.11 ax/ac/n/g/b/a	
MIMO	MU-MIMO	
Wireless speed	2.4 GHz	575 Mbps
	5 GHz	2400 Mbps
Frequency band	2.4 GHz	<ul style="list-style-type: none"> USA (FCC): 2.412 to 2.462 GHz Europe (ETSI): 2.412 to 2.472 GHz
	5 GHz	<ul style="list-style-type: none"> USA (FCC): 5.15 to 5.35 GHz; 5.470 to 5.850 GHz European (ETSI): 5.15 to 5.35 GHz; 5.470 to 5.725 GHz
Bandwidth	20-, 40-, 80- and 160-MHz	
Conducted typical transmit output power*1 (limited by local regulatory requirements)	US (2.4 GHz/5 GHz)	23/28 dBm
	EU (2.4 GHz/5 GHz)	19/25 dBm
RF Design		
Antenna type	4x4 + 2x2 smart antenna	
Antenna gain	2.4 GHz	Peak gain 3 dBi
	5 GHz	Peak gain 4.5 dBi
Minimum receive sensitivity	Min. Rx sensitivity up to -101 dBm	
WLAN Feature		
Band steering	Yes	
WDS/Mesh*2	Yes	
Fast roaming	Pre-authentication, PMK caching and 802.11r/k/v	
DCS	Yes	
Load balancing	Yes	

*1: Conducted typical transmit output power excludes antenna gain. For total (EIRP) transmit power, add antenna gain.

*2: WDS, ZyMesh, Smart Mesh and Industry's Open Mesh, Easy Mesh are different mesh systems that do not work with one another.

Model		WAX630S
Security		
Encryption	WEP/WPA/WPA2/WPA3	
Authentication	IEEE 802.1X/RADIUS authentication	
Access management	L2-isolation/MAC filtering/Rogue AP detection	
Networking		
IPv6	Yes	
VLANs	Yes	
WMM	Yes	
U-APSD	Yes	
Management		
Operating mode	Nebula Cloud managed/controller-managed/standalone	
ZON Utility	<ul style="list-style-type: none"> • Discovery of Zyxel switches, APs and gateways • Centralized and batch configurations <ul style="list-style-type: none"> ▪ IP configuration ▪ IP renew ▪ Device reboot ▪ Device locating ▪ Web GUI access ▪ Firmware upgrade ▪ Password configuration 	
Zyxel Wireless Optimizer	<ul style="list-style-type: none"> • WiFi AP planning • WiFi coverage detection • Wireless health management 	
Web UI/CLI	Yes	
SNMP	Yes	
Physical Specifications		
Item	Dimensions (WxDxH)(mm/in.)	180 x 180 x 39/7.09 x 7.09 x 1.54
	Weight (g/lb.)	530/1.17
Packing	Dimensions (WxDxH)(mm/in.)	228 x 216 x 63/8.98 x 8.5 x 2.48
	Weight (g/lb.)	765/1.69
Included accessories	<ul style="list-style-type: none"> • Mount plate • Mounting screws 	
MTBF (hr)	321,114	
Physical Interfaces		
Ethernet port	1 x 1/2.5 Gbps LAN 1 x 1 Gbps LAN	
Power	<ul style="list-style-type: none"> • PoE (802.3) at: power draw 19.5 W • DC input: 12 VDC 2 A 	
Environmental Specifications		
Operating	Temperature	0°C to 50°C/32°F to 122°F
	Humidity	10% to 95% (non-condensing)
Storage	Temperature	-40°C to 70°C/-40°F to 158°F
	Humidity	10% to 90% (non-condensing)
Certifications		
Radio	FCC Part 15C, FCC Part 15E, ETSI EN 300 328, EN 301 893, LP0002	
EMC	FCC Part 15B, EN 301 489-1, EN 301 489-17, EN55022, EN55024, EN61000-3-2/-3, EN60601-1-2, BSMI CNS13438	
Safety	Safety EN 60950-1, IEC 60950-1, BSMI CNS14336-1	

Accessory

Model

PoE12-30W



RJ-45 (Data) input	1
RJ-45 (Data + Power) output	1
Data rate	100 Mbps and 1/2.5 Gbps
PoE standard	PoE, PoE+
Total PoE budget	30 watts

For more product information, visit us on the web at www.zyxel.com

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