



WAX610D

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

The WAX610D is truly the next generation of wireless (WiFi 6) AP, especially for businesses looking to strike the right balance between performance and budget. It embodies the full range of WiFi 6 technologies including UL/DL, OFDMA, MU-MIMO, and 1024 QAM, which enables the ultra-fast speed of 2975 Mbps. The WAX610D 4x4 (5G) + 2x2 (2.4G) dual-optimized antenna design boasts the most effective solution to guarantee that it provides smooth and consistently fast service to each client at all times whether it is wall-mounted or ceiling-mounted. Also, it uses 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.

The WAX610D 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 WAX610D 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.

The WAX610D with NebulaFlex Pro offers the full flexibility for users to switch among standalone, controller-managed and cloud-managed modes. In addition, it comes with a 1-year bundled Nebula Professional Pack license¹ that eliminates immediate licensing cost when migrating to full-featured cloud management.



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



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



Dual-optimized antenna provides wall-/ceiling-mounting modes to fit in your deployment



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 WAX610D is a true WiFi 6 access point that delivers faster performance and massive increased-capacity, which along with unique Zyxel dual optimized antenna technology, make the user experience even better. Apart from running at 25% faster speed, the WAX610D 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.

Superior performance with innovative “Dual-optimized” antenna

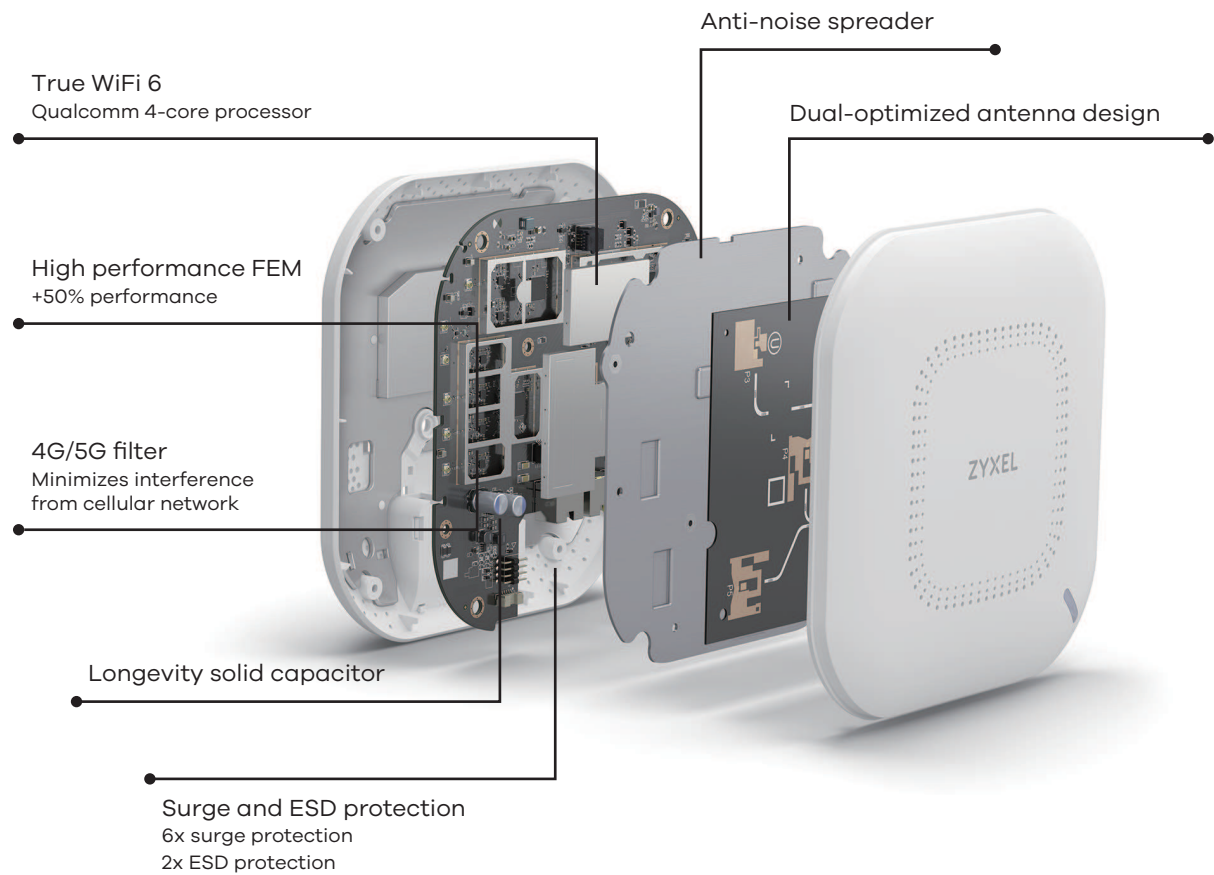
People without RF expertise may not realize that installing an AP optimized for ceiling-mount as wall-mount may cause the ceiling-mount radiation pattern to interfere with other devices up- or downstairs as well as to deliver signals with shorter-than-expected range for its clients. Designed with the innovative “Dual-optimized” antenna, the WAX610D adapts to both wall- and ceiling-mount installations. Thus, users can switch between the two optimized antenna modes easily to fit either situation. To boost WiFi speeds for your network, the WAX610D is definitely an excellent choice.

4G/5G cellular network coexistence

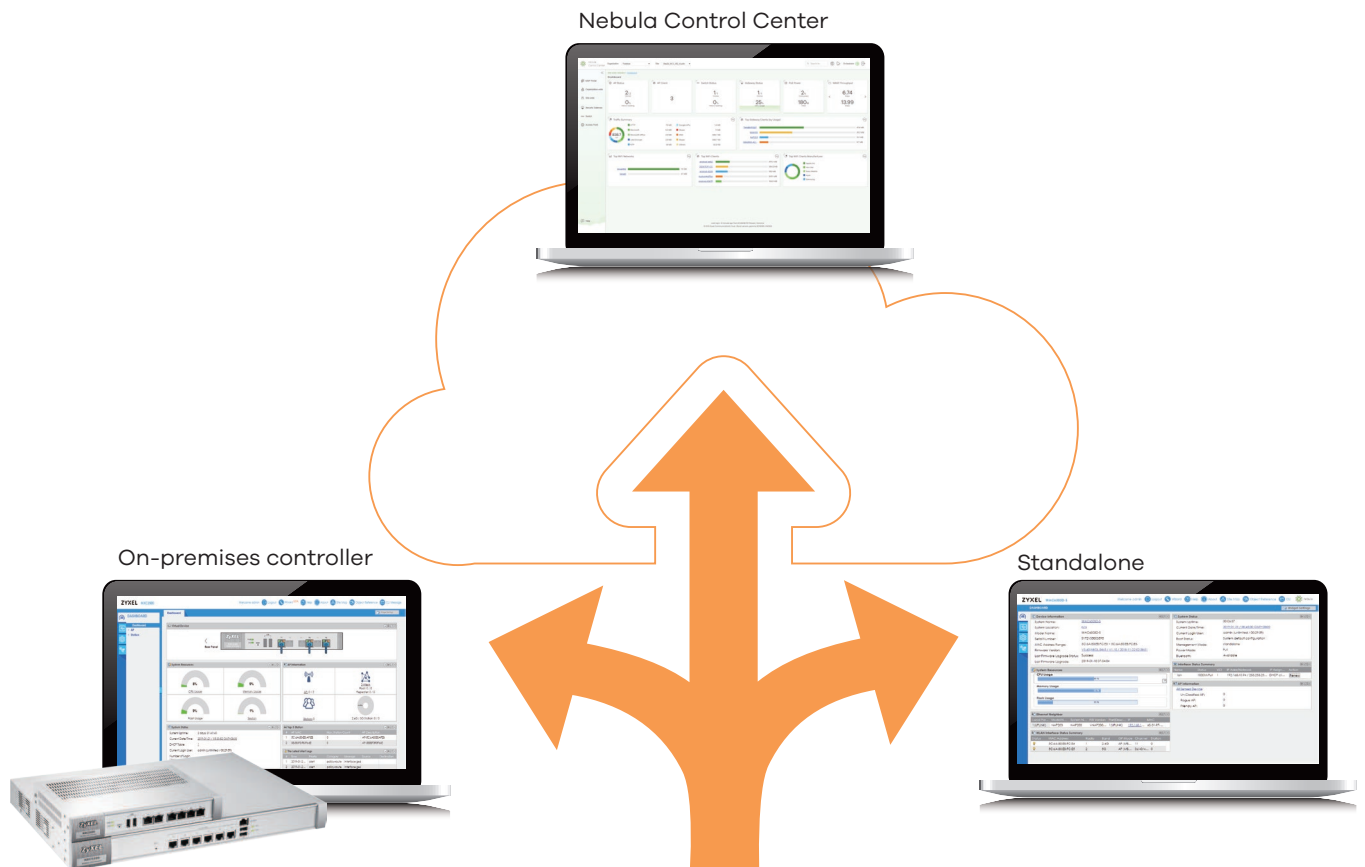
With the growing pervasiveness of mobile devices in the wireless network, users start to experience degraded performance, such as ping drops and high latency, however whenever user shutdown the mobile equipment, wireless service resumes working smooth. Thus, to enable 4G/5G cellular network coexistence and minimize interference from 4G/5G antennas or signal boosters, the WAX610D 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.

*1: The licensing terms may vary depending on part numbers or regions
Please contact your local sales representative.

Powerful Hardware Design



Switch Among Triple Modes



Specifications

Model		WAX610D
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	• USA (FCC): 2.412 to 2.462 GHz • Europe (ETSI): 2.412 to 2.472 GHz
	5 GHz	• 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	US (2.4 GHz/5 GHz)	23/28 dBm
	EU (2.4 GHz/5 GHz)	19/25 dBm
RF Design		
Antenna type		Dual-optimized antenna
Antenna gain	2.4 GHz	Peak gain 5 dBi
	5 GHz	Peak gain 6 dBi
Minimum receive sensitivity		Min. Rx sensitivity up to -101 dBm
WLAN Feature		
Band steering		Yes
WDS/Mesh		Yes (V6.10)
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/WPA3-Enterprise/EAP/IEEE 802.1X/RADIUS authentication
Access management		L2-isolation/MAC filtering/Rogue AP detection
Networking		
IPv6		Yes
VLANs		Yes
WMM		Yes
U-APSD		Yes
DiffServ marking		Yes

Model		WAX610D
Management		
Operating mode		Nebula Cloud managed/controller-managed/standalone
ZON Utility		• Discovery of Zyxel switches, APs and gateways • Centralized and batch configurations ▪ IP configuration ▪ IP renew ▪ Device reboot ▪ Device locating ▪ Web GUI access ▪ Firmware upgrade ▪ Password configuration
Zyxel Wireless Optimizer		• 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.)	545/1.20
Packing	Dimensions (WxDxH)(mm/in.)	229 x 216 x 64/9.02 x 8.50 x 2.52
	Weight (g/lb.)	780/1.72
Included accessories		• Mount plate • Mounting screws
MTBF (hr)		329,004
Physical Interfaces		
Ethernet port		1 x 10/100/1000/2500M LAN 1 x 10/100/1000M LAN
Power		• PoE (802.3)at: power draw 19 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	-30°C to 70°C/-22°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

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

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