



NWA50AX Pro

AX3000 Dual-Radio Multi-gig PoE Access Point

Delivering AX3000 WiFi speed with 2.5G Ethernet uplink port, the Zyxel NWA50AX Pro provides the powerful and fastest WiFi 6 speed for small businesses, SoHo, and home offices. Small business owners looking for an affordable WiFi 6 access point with multi-gig connectivity, Zyxel NWA50AX Pro is no doubt the ideal choice for them to support more connected devices and applications with the fastest speeds.

To better leverage the faster speeds in 5 GHz band, Zyxel NWA50AX Pro equips with 3x high-gain antennas to boost WiFi signals and extend coverage, especially to previously hard-to-reach areas. The AP also supports the use of 160MHz channels, doubling the throughput compared to 80MHz channels for faster network speeds. In addition to the WiFi boost, NWA50AX Pro also comes with the premium multi-gig Ethernet connections. As it can run on the common-type Cat5e cabling, a 2.5G uplink port breaks through the 1.0G bottleneck without re-cabling, making it easy to create an affordable high-speed network environment for your business or home.

The NWA50AX Pro with NebulaFlex offers the flexible manageability for you to freely choose between the local GUI management or onboarding to our super easy Nebula cloud management interface that you never need to worry about forgetting the IP address or lost account and password as you can manage everything on cloud.



AX3000 (3x3:2 in 5 GHz; 2x2:2 in 2.4 GHz) AP provides maximum data rate of 3000 Mbps



The 2.5G uplink port enables multi-gig connectivity for small biz networks, making it easy to upgrade to high-speed networks without re-cabling



The Multi-gig Connection Stabilization Pad secures the connection between the Cat 5E cable and the RJ45 connector to ensure the 2.5G speed is linked for maximum throughput



Easy self-installation/configuration with right-fit feature set, perfect for small business and SOHO



NebulaFlex allows users to switch between standalone or intuitive Nebula cloud managed modes as needed

Benefits

Bringing WiFi 6 to life

WiFi 6 made tremendous improvement by introducing new technologies, such as orthogonal frequency-division multiple access (OFDMA), and spatial re-use, which is also referred to as Basic Service Set (BSS) coloring. It aims to simultaneously satisfy all requirements from rapidly growing mobile users. Zyxel's NWA50AX Pro is a true WiFi 6 access point which supports essential 11ax functions that delivers faster performance and increased capacity, making the user experience even better. Apart from running at 25% faster speed, NWA50AX Pro can also maximize WiFi efficiency by allowing simultaneous data transmission for multiple clients; thus, the air time contention is no longer an issue here.

2.5G multi-gig WiFi 6 connectivity for small businesses

In the world of wireless transmission, the sustained rates of 2x2 or 3x3 AX client devices deliver real-world speed faster than Gigabit (> 1 Gbps). And, the 2.5 Gbps uplink will ensure that there is no bottleneck in the data transmission traveling upwards to connect to the switch, router, and the broadband Internet.

The upgrade to the 2.5G network infrastructure requires no re-cabling, as it can run on the common-type Cat5e cable, making it easy to create an affordable high-speed network environment for your business or home.

Multi-gig connection stabilization

Oftentimes, when deploying a new AP, especially in the small business settings, the network admins will choose to use the common-type Cat5e cable they have on hand. However, due to the wear and tear of the cable (deterioration in the metal surface and the plastic fatigue), it is very likely to encounter a speed drop in the connection.

To improve the stability of the multi-gig connection between the Cat5e cable and the RJ45 connector, the connection stabilization rubber pad is designed for this purpose. The multi-gig connection stabilization pad helps secure the connection between the cable and the connector to ensure the 2.5G speed is linked to obtain the total internet throughput.

Boosting 5 GHz WiFi range

To better leverage the faster speeds in 5 GHz band, Zyxel NWA50AX Pro equips with 3x high-gain antennas to boost WiFi signals and extend coverage, especially to previously hard-to-reach areas.

In addition to the WiFi boost, NWA50AX Pro also comes with the premium multi-gig Ethernet connections. As it can run on the common-type Cat5e cabling, a 2.5G uplink port breaks through the 1.0G bottleneck without re-cabling, making it easy to create an affordable high-speed network environment for your business or home.


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 NWA50AX Pro 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.

NebulaFlex – simply manage it your way!

The NebulaFlex provides extended flexibility, allowing users to easily switch between standalone and our intuitive cloud-managed NCC (Nebula Control Center) mode any time according to your needs without additional cost while protecting wireless technology investments. The Nebula cloud management platform provides centralized control and visibility over all Nebula networking devices. You simply need to register the device on NCC, and it will automatically join, auto provision and begin to give real-time information. The intuitive platform allows you to group your access points together, control centrally, gain access to diagnostics tools all under a single platform.

Specifications

Model	NWA50AX Pro	
Product name	802.11ax (WiFi 6) Dual-Radio PoE 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	US (2.4 GHz/5 GHz)	23/28 dBm
	EU (2.4 GHz/5 GHz)	20/28 dBm
RF Design		
Antenna type	Internal antenna	
Antenna gain	2.4 GHz	3 dBi, 2x2: 2SS
	5 GHz	4 dBi, 3x3: 2SS
Minimum receive sensitivity	Min. Rx sensitivity up to -99 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	No	
Advanced cellular coexistence	Yes	
Security		
Encryption	WPA/WPA2/WPA3 personal	
Authentication	No	
Access management	L2-isolation/MAC filtering/Rogue AP detection	
Networking		
IPv6	Yes	
VLANs	Yes	
WMM	Yes	
U-APSD	Yes	

*1: Maximum transmit power is limited by local regulatory settings.

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

Model		NWA50AX Pro
Management		
Operating mode	Cloud 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 	
Web UI/CLI	Yes	
SNMP	No	
Physical Specifications		
Item	Dimensions (WxDxH)(mm/in.)	140 x 140 x 37.5/5.51 x 5.51 x 1.48
	Weight (g/lb.)	352/0.78
Packing	Dimensions (WxDxH)(mm/in.)	240 x 155 x 60/9.45 x 6.10 x 2.36
	Weight (g/lb.)	668/1.47
Included accessories	<ul style="list-style-type: none"> • Power adapter • Mount plate • Mounting screws 	
MTBF (hr)	420,539	
Physical Interfaces		
Ethernet port	1 x 1/2.5 Gbps LAN	
Power	<ul style="list-style-type: none"> • Power adapter: AC 100 - 240 V - 50/60 Hz 0.3 A; Output: DC +12 V 2 A • PoE (802.3at): power draw 20.5 W 	
PoE modes	IEEE 802.3af	Not supported
	IEEE 802.3at	Unrestricted
	IEEE 802.3bt	Unrestricted
Environmental Specifications		
Operating	Temperature	0°C to 50°C/32°F to 122°F
	Humidity	10% to 90% (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, EN 60601-1-2	
EMC	FCC Part 15B, EN 301 489-1; EN 301 489-17, EN55022, EN55024, EN61000-3-2/-3, BSMI CNS13438	
Safety	EN 60950-1, IEC 60950-1; BSMI CNS14336-1	

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