NWA50AX Pro

802.11ax (WiFi 6) Dual-Radio 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. 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.

AX 802.11 — 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

nebula

Zyxel **one** network
Redefining network integration

Benefits

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.

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	• 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-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		3x3 + 2x2 MIMO embedded antenna
Antenna gain	2.4 GHz	3 dBi
	5 GHz	4 dBi
Minimum receive sensitivity		Min. Rx sensitivity up to -99 dBm

WLAN Feature	
Band steering	Yes
WDS/Mesh*2	Yes
Fast roaming	Yes
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		• Discovery of Zyxel switches, APs and gateways
		• Centralized and batch configurations
		  ▪ IP configuration ▪ Web GUI access
		  ▪ IP renew ▪ Firmware upgrade
		  ▪ Device reboot ▪ Password configuration
		  ▪ Device locating

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		• Power adapter • Mount plate • Mounting screws
MTBF (hr)		420,539
Physical Interfaces		
Ethernet port		1 x 1/2.5 Gbps LAN
Power		• Input: 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

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

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Datasheet NWA50AX Pro