ZYXEL
NETWORKS

NWA50AX
802.11ax (WiFi 6) Dual-Radio PoE Access Point

The Zyxel NWA50AX is the true WiFi 6 access point that comes with the right-fit feature set for small businesses and SoHo users looking to upgrade to 11ax (WiFi 6) without an expensive price tag. Supporting both local GUI management and Nebula Cloud networking management, the simple setup of Zyxel NWA50AX allows you to quickly configure the AP with only a few clicks, making it super easy to set up guest and employee network on your own and start enjoying the ultra-fast WiFi 6 speeds in no time.

Supporting both 2.4Ghz and 5Ghz frequencies, the NWA50AX is aimed to empower you to enjoy all the best things WiFi 6 has to offer such as faster speeds even when congested or in high-density environments, expanded range in your wireless network, increased capacity for IoT deployments, and a lot more.

The NWA50AX 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 whatsoever.

Easy configuration allows you to set up guest and employee network in no time

Dual-radio (dual 2x2) 802.11ax AP provides maximum data rate of 1800 Mbps

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

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

The WPA3 Personal provides safer encryption

Smart Mesh automatically forms dynamic wireless links and mitigates complex, inconvenient cabling WiFi deployments

nebula

Zyxel one network
Redefining network integration

Benefits

Bringing next generation WiFi within reach

WiFi 6 made tremendous improvement by introducing new technologies, such as orthogonal frequency-division multiple access (ODFMA), 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 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 can also maximize WiFi efficiency by allowing simultaneous data transmission for multiple clients; thus, the air time contention is no longer an issue here.

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.

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 must 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 NWA50AX 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.

Specifications

Model	NWA50AX
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	1200 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 (limited by local regulatory requirements)	US (2.4 GHz/5 GHz)	23/26 dBm
	EU (2.4 GHz/5 GHz)	20/25 dBm

RF Design		
Antenna type		Internal antenna
Antenna gain	2.4 GHz	3 dBi, 2x2: 2SS
	5 GHz	4 dBi, 2x2: 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

Security	
Encryption	WPA/WPA2/WPA3 Personal
Authentication	No
Access management	L2-isolation/MAC filtering/Rogue AP detection (V6.29)

Networking	
IPv6	Yes
VLANs	Yes
WMM	Yes
U-APSD	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	NWA50AX
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.)	290/0.64
Packing	Dimensions (WxDxH)(mm/in.)	240 x 155 x 60/9.45 x 6.10 x 2.36
	Weight (g/lb.)	600/1.32
Included accessories		• Power adapter • Mount plate • Mounting screws
MTBF (hr)		1,010,980

Physical Interfaces	
Ethernet port	1 x 10/100/1000M LAN
Power	• Power adapter: AC 100 - 240 V - 50/60 Hz 0.3 A; Output: DC +12 V 1.5 A • PoE (802.3at): power draw 16 W

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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