NWA55AXE

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

Thinking of upgrading to the 11ax (WiFi 6) technology for your outdoor wireless network? Zyxel NWA55AXE is your answer! Designed for harsh outdoor environments, the IP55-rated, weatherproof NWA55AXE is the best WiFi 6 outdoor access point to extend your wireless network outside.

The embedded Zyxel Smart Mesh Technology not only forms dynamic wireless links between APs for extended range, but can also bridge the wireless connectivity from one building to another. It is no doubt that NWA55AXE is an ideal choice for a simple expansion of your outdoor wireless network or forming an interconnected wireless network through outdoor inter-building links.

The downward pointing antenna position of NWA55AXE provides better protection against rain and moisture, whereas the traditional, upward pointing antenna design is prone to water leaks, having a potential of damaging the access point's internals. The external, detachable antenna design allows users to attach other antennas to better suit different demands.

Perfect for small business owners or SOHO users, the NWA55AXE supports both local GUI management and Nebula Cloud networking management. The simple setup 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.

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

Smart Mesh automatically forms dynamic wireless links to bridge networks for inter-building settings and mitigates complex, inconvenient cabling WiFi deployments

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

External, detachable antenna design allows users to attach other antennas that better suit different demands

Easy configuration setup with Zyxel's intuitive Nebula Cloud to get the network up and running in no time

Designed for harsh outdoor environment with up to IP55 weatherproof rating

nebula

Zyxel **one** network
Redefining network integration

Benefits

Effortless deployments and lower initial investment

Deployment of outdoor access points is a complex task that involves cabling, installation and maintenance. The NWA55AXE simplifies the process with its Smart Mesh Technology and external, detachable antennas that save your effort to install and adjust signal patterns. This makes NWA55AXE an ideal solution to extend reliable wireless connectivity to outdoor environments at an affordable price.

Bringing next generation WiFi within reach

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 NWA55AXE is a true WiFi 6 access point which support essential 11ax functions that delivers faster performance and massive increased capacity, making the user experience even better.

Apart from running at 25% faster speed, NWA55AXE can also maximize WiFi efficiency by allowing simultaneous data transmission for multiple clients; thus, the airtime contention is no longer an issue here.

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 NWA55AXE has built-in 4G/5G interference filters. As a result, the visible or invisible 4G/5G 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 and additional features all under a single platform.

Specifications

Model	NWA55AXE
Product name	802.11ax (WiFi 6) Dual-Radio Outdoor 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		2x2 external antenna
Antenna gain	2.4 GHz	4 dBi
	5 GHz	5 dBi
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 Personal • WPA2 Personal • 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	NWA55AXE
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.)	308 x 136.4 x 49.6/12.13 x 5.37 x 1.95
	Weight (g/lb.)	580/1.28
Packing	Dimensions (WxDxH)(mm/in.)	221 x 188 x 59/8.70 x 7.40 x 2.32
	Weight (g/lb.)	887/1.96
Included accessories		• PoE injector • Mounting screws
MTBF (hr)		1,091,186

Physical Interfaces	
Ethernet port	1 x 10/100/1000M LAN
Power	PoE (802.3at): power draw 16 W

Environmental Specifications		
Weather protection		IP55
Operating	Temperature	-20°C to 60°C/-4°F to 140°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	CC 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

14/03/24

Datasheet NWA55AXE