



NWA130BE

BE11000 (WiFi 7) Triple-Radio NebulaFlex Access Point

Designed specifically for the modern workplace, the Zyxel NWA130BE is equipped with a Qualcomm quad-core CPU, ensuring blazingly fast WiFi 7 speeds of up to 11 Gbps and a notable boost in capacity.

The 2 x 2.5G Ethernet ports are the right and cost-effective fit, not only providing users with an easy upgrade to enjoy the WiFi 7 performance but also enabling seamless integration with the existing infrastructure without the need for costly re-cabling.

Coupled with Zyxel Nebula's extensive suite of management and security innovations, it guarantees robust connectivity and reliability for enterprise-grade demands for today's workplace.

The NWA130BE, equipped with NebulaFlex technology, offers users complete flexibility to seamlessly switch between standalone mode or the intuitive Nebula cloud-managed mode as needed.

Benefits

Bringing next generation WiFi within reach

WiFi 7, also known as IEEE 802.11be, represents the next evolution in WiFi standards, supporting all three frequency bands – 2.4 GHz, 5 GHz, and 6 GHz. With its revolutionary technological advancements, it promises to redefine the concept of speed, delivering unprecedented rates to elevate online experiences in the digital realm.

Coupled with Zyxel's comprehensive range of management and security innovations, the NWA130BE ensures the utmost connectivity and reliability for demanding enterprise-grade connectivity.

Datasheet NWA130BE

- BE11000 (2x2 in 2.4, 5, and 6 GHz) tri-radio access point provides blazingly fast WiFi 7 speeds up to 11 Gbps and lower latency for real-time responsiveness
- The 2 x 2.5G Ethernet ports enable seamless integration with the existing infrastructure without re-cabling
- The advanced RF filter prevents interference between the 5 GHz and 6 GHz bands while guaranteeing performance in all channels
- Advanced Cellular Coexistence minimizes interferences from 4G/5G cellular networks
- NebulaFlex allows users to switch between standalone or intuitive Nebula cloud managed modes as needed

nebula

Zyxel one network
Redefining network integration

MLO: Transforming WiFi 7 for unprecedented connectivity

Fundamentally, one of the most pioneering advancements of WiFi 7 is the introduction of MLO (Multiple Link Operation). MLO represents a WiFi technology that empowers devices linked to a WiFi access point (AP) to concurrently transmit and/or receive data through various frequency bands and channels. This entails simultaneous connections across the 2.4 GHz, 5 GHz, and 6 GHz bands, a capability absent in earlier WiFi generations where devices were restricted to a solitary WiFi band connection.

The result is a significant amplification in data throughput, a reduction in latency, and an enhancement in reliability. These outcomes undeniably enhance the user experience and unveil novel opportunities for emerging applications such as VR/AR, online gaming, remote office setups, and cloud computing.

RF first by design

The advanced RF filter design eliminates interference between the 5 GHz and 6 GHz bands, while the built-in 4G/5G interference filter allows seamless coexistence with 4G/5G cellular networks and minimizes interference, all of which guarantees a seamless WiFi experience without interruptions.

Additionally, 4K QAM (MCS-13) requires a good Signal-to-Noise Ratio (SNR). The rectangular design helps maintain excellent isolation between antennas, meeting this requirement more effectively than a circular design.

NebulaFlex – simply manage it your way!

NebulaFlex offers extended flexibility, enabling users to effortlessly switch between standalone mode and our intuitive cloud-managed NCC (Nebula Control Center) modes at any time, without incurring additional costs. This ensures adaptability to changing needs while safeguarding investments in wireless technology.

Nebula, the intelligent cloud management

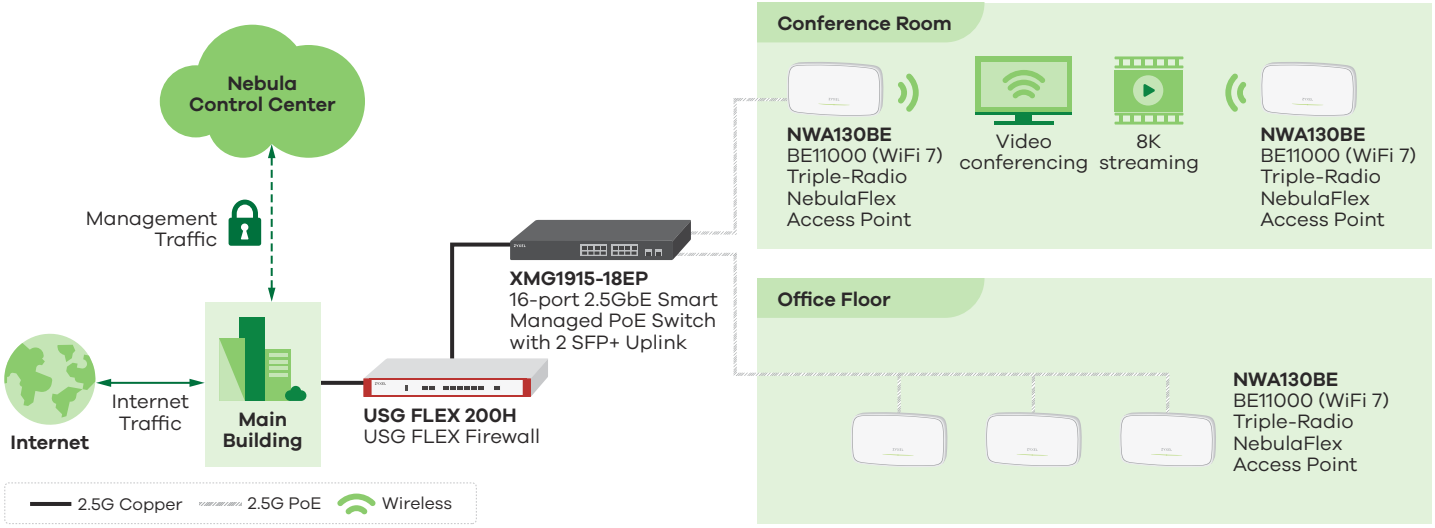
Nebula offers comprehensive monitoring and reporting capabilities, including real-time notifications for critical events via the mobile app. With Nebula, you can enjoy a streamlined experience for network installation and management, without the need for an additional cost for software or hardware controllers.

- **Automated WLAN management & optimization**
  With features like WiFi Aid and Wireless health, Nebula enables automated wireless network management and optimization, ensuring the best possible WiFi user experience.
- **Enhanced privacy & security**
  Powerful security add-on features like CNP/CNP+, DPPSK, and advanced authentication methods work together to create a robust and protected environment for your network.

Optimized wireless experience with advanced features

The NWA130BE ensures an optimized wireless experience for users with a range of wireless features such as Dynamic Channel Selection (DCS), Load Balancing and Smart Client Steering. DCS minimizes the interference of co-channel and overlapping channels. Load Balancing enables administrators to set limits on the number of clients associated with each AP. Furthermore, Smart Client Steering features with Band Select, Signal Threshold and Band Balancing combine to deliver stable, reliable wireless connections. Band Select and Signal Threshold monitor the capabilities of each wireless client and steer them to the less-congested band and AP with better signals. Band Balancing detects dual-radio and triple-radio clients and distributes clients across 2.4 GHz, 5 GHz, and 6 GHz bands on AP. All of these deliver a smooth, consistent and uninterrupted wireless experience to its users.

Application Diagram



Specifications

Model		NWA130BE
Product name		BE11000 (WiFi 7) Triple-Radio NebulaFlex Access Point
		
Wireless		
Standard		IEEE 802.11 be/ax/ac/n/g/b/a
MIMO		MU-MIMO
Wireless speed	**2.4 GHz**	688 Mbps
	5 GHz	4324 Mbps
	6 GHz	5764 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
	6 GHz	• USA (FCC): 5.925 to 6.425 GHz; 6.525 to 7.125 GHz • European (ETSI): 5.925 to 6.425 GHz
Bandwidth		20-, 40-, 80-, 160-, 240- and 320-MHz
Conducted typical transmit output power*1 (limited by local regulatory requirements)	**US (2.4 GHz/5 GHz/6 GHz)**	27/25/23 dBm
	EU (2.4 GHz/5 GHz/6 GHz)	19/25/21 dBm
RF Design		
Antenna type		Internal antenna
Antenna gain	**2.4 GHz**	3 dBi, 2x2: 2SS
	5 GHz	4 dBi, 2x2: 2SS
	6 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		Yes
Advanced cellular coexistence		Yes
Security		
Encryption		WEP/WPA/WPA2-PSK/WPA3
Authentication		WPA/WPA2-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

*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		NWA130BE
Management		
Operating mode		Nebula 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		Yes
Physical Specifications		
Item	**Dimensions (WxDxH)(mm/in.)**	250 x 160 x 47/9.84 x 6.30 x 1.85
	Weight (g/lb.)	808/1.79
Packing	**Dimensions (WxDxH)(mm/in.)**	279.5 x 180.5 x 66/11.00 x 7.11 x 2.60
	Weight (g/lb.)	1032/2.28
Included accessories		• Mount plate • Mounting screws
MTBF (hr)		698,312
Physical Interfaces		
Ethernet port		2 x 1/2.5 Gbps LAN
Power		• PoE (802.3at) power draw 24 W • DC input: 12 VDC 2 A
PoE modes	**IEEE 802.3af**	No wireless
	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 95% (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, FCC Part 2.1091, ETSI EN 300 328, EN 301 893, Draft EN 303 687, EN 50385, EN 50665, EN IEC 62311, LP0002
EMC		FCC Part 15B, EN 301 489-1, EN 301 489-17, EN55032, EN55035, EN61000-3-2/-3, EN60601-1-2, BSMI CNS15936
Safety		EN 62368-1, IEC 62368-1, BSMI CNS15598-1

Recommended Accessories

Mounting Accessory

Model	ACCESSORY-ZZ0105F
Product photo	
Description	BAR ceiling clips for ceiling mount Zyxel AP (5 sets)

PoE Injector

Model	PoE12-30W
Product photo	
Description	• RJ-45 (Data) input: 1 • RJ-45 (Data + Power) output: 1 • Data rate: 100 Mbps and 1/2.5 Gbps • PoE standard: PoE, PoE+ • Total PoE budget: 30 watts

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

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