# ZYXEL
### NETWORKS

# NWA130BE
## BE11000 6-Stream 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 × 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 (2×2 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 × 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

## 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.

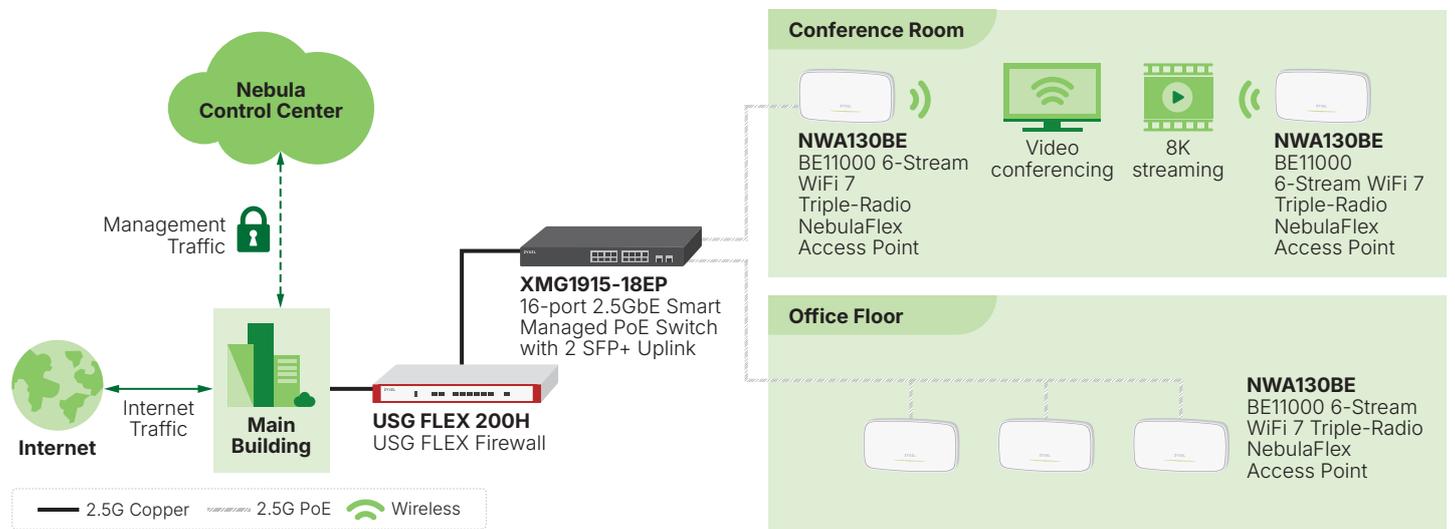## Nebula, the intelligent cloud management

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



**Nebula Control Center**

Management Traffic

Internet Traffic

**Internet**

**Main Building**

**USG FLEX 200H**
USG FLEX Firewall

**XMG1915-18EP**
16-port 2.5GbE Smart Managed PoE Switch with 2 SFP+ Uplink

— 2.5G Copper   ···· 2.5G PoE   🟢 Wireless

**Conference Room**

**NWA130BE**
BE11000 6-Stream WiFi 7 Triple-Radio NebulaFlex Access Point

Video conferencing

8K streaming

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**Office Floor**

**NWA130BE**
BE11000 6-Stream WiFi 7 Triple-Radio NebulaFlex Access Point

# Specifications

| Model | NWA130BE | |
|---|---|---|
| Product name | BE11000 6-Stream 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<br>• Europe (ETSI): 2.412 to 2.472 GHz |
| | 5 GHz | • USA (FCC): 5.15 to 5.35 GHz; 5.470 to 5.850 GHz<br>• 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<br>• 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, 2×2: 2SS |
| | 5 GHz | 4 dBi, 2×2: 2SS |
| | 6 GHz | 4 dBi, 2×2: 2SS |
| Minimum receive sensitivity | Min. Rx sensitivity up to -99 dBm | |

| WLAN Feature | |
|---|---|
| Band steering | Yes |
| WDS/Mesh[2] | Yes |
| Wireless Bridge | 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/WPA3 |
| Authentication | 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, 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<br>• Centralized and batch configurations<br>  ▪ IP configuration ▪ Web GUI access<br>  ▪ IP renew ▪ Firmware upgrade<br>  ▪ Device reboot ▪ Password configuration<br>  ▪ Device locating |
| **Web UI/CLI** | Yes |
| **SNMP** | Yes |

| **Physical Specifications** | | |
|---|---|---|
| **Item** | Dimensions (WxDxH)(mm/in.) | 250 × 160 × 47/9.84 × 6.30 × 1.85 |
| | Weight (g/lb.) | 808/1.79 |
| **Packing** | Dimensions (WxDxH)(mm/in.) | 279.5 × 180.5 × 66/11.00 × 7.11 × 2.60 |
| | Weight (g/lb.) | 1032/2.28 |
| **Included accessories** | | • Mount plate<br>• Mounting screws |
| **MTBF (hr)** | | 698,312 |

| **Physical Interfaces** | | |
|---|---|---|
| **Ethernet port** | | 2 × 1/2.5 Gbps LAN |
| **Power** | | • PoE (802.3at) power draw 24 W<br>• DC input: USB PD 15 VDC 2A (Type C)∗3 or 12 VDC 2A |
| **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 |

∗3: All models released after June, 2025—those with serial numbers starting from S250Y13073732—are equipped with a USB Type-C port.

# Recommended Accessories

## PoE Injector

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

Datasheet NWA130BE