



## NWA110AX

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

The NWA110AX is truly the next generation of wireless (WiFi 6) AP for businesses looking for a most economical upgrade path to 11ax. Its built-in 2nd Generation WiFi 6 (Qualcomm 802.11ax 2.0) chipset allows the access point to take advantage of the full range of WiFi 6 technologies including uplink OFDMA and MU-MIMO which can't be found in earlier releases of 802.11ax products. Also, it uses the second generation transmit beamforming technology incorporating Low End Sensitivity Improvements and Time Domain Channel Smoothing allowing data rates to increase for not only MU-MIMO clients, but for all existing ones as well.

The NWA110AX has been designed to be highly efficient in PoE budget, allowing for an easy upgrade path for those wishing to experience all that WiFi6 has to offer without the need to upgrade existing PoE+ switches.

The NWA110AX with NebulaFlex offers the full flexibility for users to switch among standalone or cloud-managed modes.

### Benefits

#### 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 satisfy the all requirements from rapidly growing mobile users simultaneously. Zyxel's new NWA110AX is a true WiFi 6 access point which support essential 11ax functions that delivers faster performance and massive increased-capacity make the user experience even better.



Dual-radio (dual 2x2 MIMO) 802.11ax AP provides maximum data rate of 1775 Mbps



OFDMA is arguably the best innovation of WiFi, delivering the highest performance and low latency for all scenarios



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 latest WPA3 security protocol provides safer connectivity



Next generation beamforming technology delivers maximum coverage

Apart from running at 25% faster speed, NWA110AX can also maximize the WiFi efficiency by allowing simultaneous data transmission for multiple clients; thus, the air time contention is no longer an issue here.

### 4G/5G cellular network coexistence

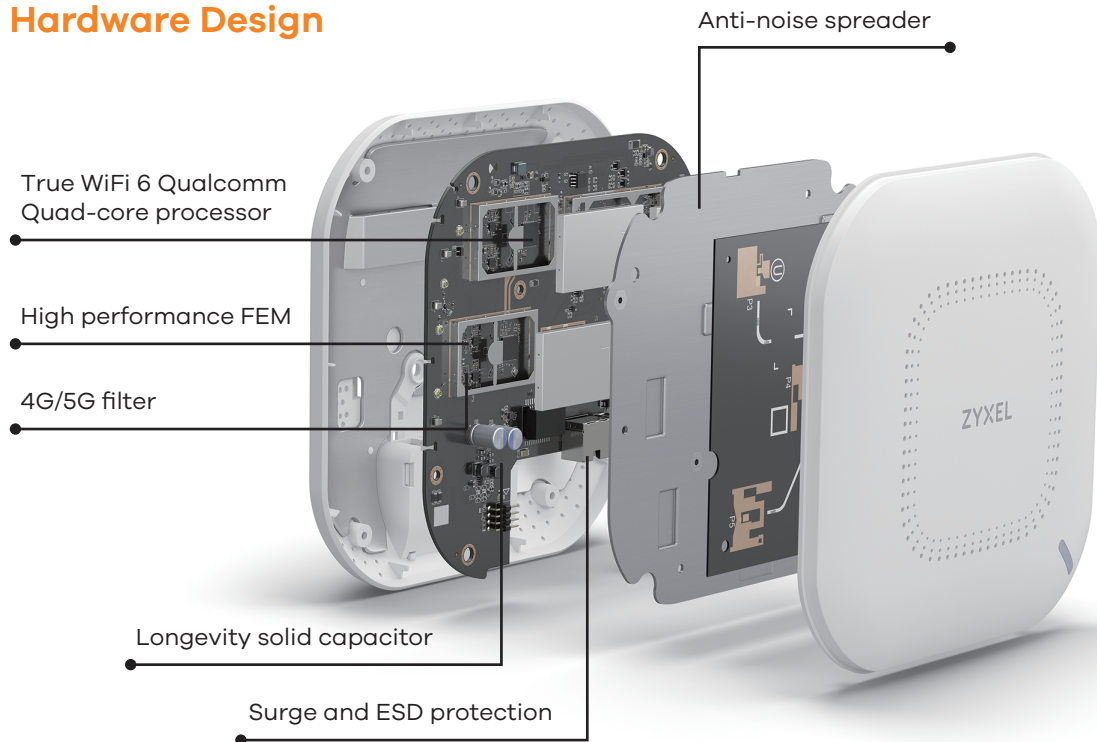
With the exponential growth of mobile devices in the wireless network, users start to experience degraded performance, such as ping drops and high latency, however whenever user shutdown the mobile equipment, wireless service resumes working smooth. Thus, to enable 4G/5G cellular network coexistence and minimize interference from 4G/5G antennas or signal boosters, the NWA110AX 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.

### NebulaFlex – simply manage it your way!

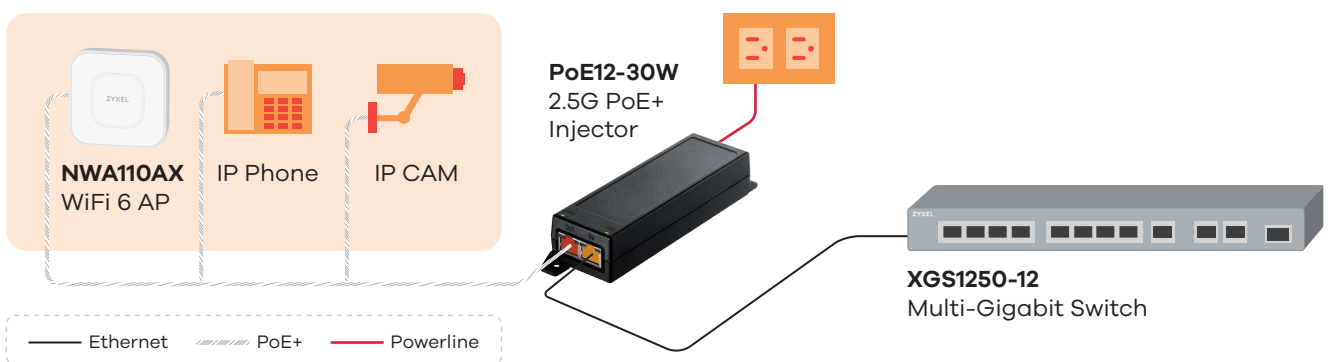
The NebulaFlex provides extended flexibility, allowing users to easily switch among standalone, or our intuitive cloud-managed NCC (Nebula Control Center) modes any time according to your needs without additional cost while protecting wireless technology investments.

The Nebula cloud management platform provides centralized control and visibility over all Nebula networking devices. Simply you only 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 like captive portal all under a single platform.


## Powerful Hardware Design



## Suggested PoE Injector




## Specifications

|   |   |  |
|---|---|--|
| <b>Model</b>  | <b>NWA110AX</b>   |  |
| <b>Product name</b>   | 802.11ax (WiFi 6) Dual-Radio PoE Access Point   |  |
|  |   |  |
| <b>Wireless</b>   |   |  |
| <b>Standard</b>   | IEEE 802.11 ax/ac/n/g/b/a   |  |
| <b>MIMO</b>   | MU-MIMO   |  |
| <b>Wireless speed</b>   | <b>2.4 GHz</b>  | 575 Mbps   |
|   | <b>5 GHz</b>  | 1200 Mbps  |
| <b>Frequency band</b>   | <b>2.4 GHz</b>  | <ul style="list-style-type: none"> <li>USA (FCC): 2.412 to 2.462 GHz</li> <li>Europe (ETSI): 2.412 to 2.472 GHz</li> </ul>                                       |
|   | <b>5 GHz</b>  | <ul style="list-style-type: none"> <li>USA (FCC): 5.15 to 5.35 GHz; 5.470 to 5.850 GHz</li> <li>European (ETSI): 5.15 to 5.35 GHz; 5.470 to 5.725 GHz</li> </ul> |
| <b>Bandwidth</b>  | 20-, 40-, 80-MHz  |  |
| <b>Conducted typical transmit output power</b>                                    | <b>US (2.4 GHz/5 GHz)</b>   | 23/23 dBm  |
|   | <b>EU (2.4 GHz/5 GHz)</b>   | 20/22 dBm  |
| <b>RF Design</b>  |   |  |
| <b>Antenna type</b>   | 2x2 + 2x2 MIMO embedded antenna   |  |
| <b>Antenna gain</b>   | <b>2.4 GHz</b>  | Peak gain 5 dBi  |
|   | <b>5 GHz</b>  | Peak gain 6 dBi  |
| <b>Minimum receive sensitivity</b>  | Min. Rx sensitivity up to -101 dBm  |  |
| <b>WLAN Feature</b>   |   |  |
| <b>Band steering</b>  | Yes   |  |
| <b>WDS/Mesh</b>   | Yes (V6.10)   |  |
| <b>Fast roaming</b>   | Pre-authentication, PMK caching and 802.11r/k/v   |  |
| <b>DCS</b>  | Yes   |  |
| <b>Load balancing</b>   | Yes   |  |
| <b>Security</b>   |   |  |
| <b>Encryption</b>   | WEP/WPA/WPA2-PSK/WPA3   |  |
| <b>Authentication</b>   | WPA/WPA2/WPA3-Enterprise/EAP/IEEE 802.1X/RADIUS authentication  |  |
| <b>Access management</b>  | L2-isolation/MAC filtering  |  |
| <b>Networking</b>   |   |  |
| <b>IPv6</b>   | Yes   |  |
| <b>VLANs</b>  | Yes   |  |
| <b>WMM</b>  | Yes   |  |
| <b>U-APSD</b>   | Yes   |  |
| <b>DiffServ marking</b>   | Yes   |  |
| <b>Management</b>   |   |  |
| <b>Operating mode</b>   | Cloud managed/standalone  |  |
| <b>ZON Utility</b>  | <ul style="list-style-type: none"> <li>Discovery of Zyxel switches, APs and gateways</li> <li>Centralized and batch configurations <ul style="list-style-type: none"> <li>IP configuration</li> <li>IP renew</li> <li>Device reboot</li> <li>Device locating</li> <li>Web GUI access</li> <li>Firmware upgrade</li> <li>Password configuration</li> </ul> </li> </ul> |  |

|                                     |                                   |   |
|-------------------------------------|-----------------------------------|---|
| <b>Model</b>                        |                                   | NWA110AX  |
| <b>Management</b>                   |                                   |   |
| Zyxel Wireless Optimizer            |                                   | <ul style="list-style-type: none"> <li>• WiFi AP planning</li> <li>• WiFi coverage detection</li> <li>• Wireless health management</li> </ul> |
| Web UI/CLI                          |                                   | Yes   |
| SNMP                                |                                   | Yes   |
| <b>Physical Specifications</b>      |                                   |   |
| <b>Item</b>                         | <b>Dimensions (WxDxH)(mm/in.)</b> | 180 x 180 x 39/7.09 x 7.09 x 1.54   |
|                                     | <b>Weight (g/lb.)</b>             | 453/1.00  |
| <b>Packing</b>                      | <b>Dimensions (WxDxH)(mm/in.)</b> | 329 x 212 x 64/12.95 x 8.35 x 2.52  |
|                                     | <b>Weight (g/lb.)</b>             | 985/2.17  |
| Included accessories                |                                   | <ul style="list-style-type: none"> <li>• Mount plate</li> <li>• Mounting screws</li> <li>• Power adapter</li> </ul>                           |
| MTBF (hr)                           |                                   | 635,837   |
| <b>Physical Interfaces</b>          |                                   |   |
| Ethernet port                       |                                   | 1 x 10/100/1000M LAN  |
| Power                               |                                   | <ul style="list-style-type: none"> <li>• PoE (802.3) at: power draw 17 W</li> <li>• DC input: 12 VDC 1.5 A</li> </ul>                         |
| <b>Environmental Specifications</b> |                                   |   |
| <b>Operating</b>                    | <b>Temperature</b>                | 0°C to 50°C/32°F to 122°F   |
|                                     | <b>Humidity</b>                   | 10% to 95% (non-condensing)   |
| <b>Storage</b>                      | <b>Temperature</b>                | -30°C to 70°C/-22°F to 158°F  |
|                                     | <b>Humidity</b>                   | 10% to 90% (non-condensing)   |
| <b>Certifications</b>               |                                   |   |
| Radio                               |                                   | FCC Part 15C, FCC Part 15E, ETSI EN 300 328, EN 301 893, LP0002   |
| EMC                                 |                                   | FCC Part 15B, EN 301 489-1, EN 301 489-17, EN55022, EN55024, EN61000-3-2/-3, EN60601-1-2, BSMI CNS13438                                       |
| Safety                              |                                   | Safety EN 60950-1, IEC 60950-1, BSMI CNS14336-1   |

## Accessory

|   |  |                         |
|---|--|-------------------------|
| <b>Model</b>  |  | PoE12-30W               |
|  |  |                         |
| 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                |
| Suggested WiFi 6 AP   |  | NWA110AX                |

For more product information, visit us on the web at [www.zyxel.com](http://www.zyxel.com)

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