ZyXEL

Quick Sales Guide

# Wireless LAN

# Wireless LAN Controller Quick Finder

| Segment | | | Model |
|---|---|---|---|
| **Medium-Sized Business to Enterprise** | • Centralized WLAN Management<br>• User/Application Management | • Wireless LAN Controller | NXC5500 |
| **Small- to Medium-Sized Business** | • Centralized WLAN Management<br>• User/Application Management | • Wireless LAN Controller | NXC2500 |

# Wireless LAN Access Point Quick Finder

| Segment | | | Model |
|---|---|---|---|
| **Medium-Sized Business to Enterprise** | • Centralized WLAN Management<br>• Unified AP: Controller/Managed AP<br>Standalone AP | • 802.11ac dual radio concurrent 2.4 and 5 GHz support<br>• Smart antenna technology<br>• 3 spatial streams | WAC6503D-S |
| | | • 802.11ac dual radio concurrent 2.4 and 5 GHz support<br>• Smart antenna technology<br>• 2 spatial streams | WAC6502D-S |
| | | • 802.11ac dual radio concurrent 2.4 and 5 GHz support<br>• External antenna<br>• 2 spatial streams | WAC6502D-E |
| | | • 802.11ac dual radio concurrent 2.4 and 5 GHz support<br>• Outdoor coverage<br>• 3 spatial streams | WAC6553D-E |
| | | • 802.11ac dual radio concurrent 2.4 and 5 GHz support<br>• Dual-optimized antenna<br>• 3 spatial streams | WAC6103D-I |
| | | • 802.11n support for dual radio concurrent 2.4 and 5 GHz<br>• GbE interface | NWA3560-N |
| | | • 802.11n support in 2.4/5 GHz<br>• Single radio<br>• GbE interface | NWA3160-N |

# Key Features

| Model | Description | Key Features |
|---|---|---|
| NXC5500 | Wireless LAN Controller | • Auto provisioning and centralized management of up to 512 APs<br>• Advanced ZyMesh technology for simplified AP deployment and WLAN extension<br>• Enhanced RF management with auto healing<br>• Flexible traffic forwarding with tunnel and distributed modes<br>• Comprehensive guest network management and granular access control |
| NXC2500 | Wireless LAN Controller | • Auto provisioning and centralized management of up to 64* APs<br>• ZyXEL Wireless Optimizer for easily planning, deployment and maintenance<br>• Advanced ZyMesh technology for simplified AP deployment and WLAN extension<br>• Enhanced RF management with auto healing<br>• Flexible traffic forwarding with tunnel and distributed modes<br>• Comprehensive guest network management and granular access control |

** Management of 64 APs is supported with firmware version V4.10 or above*

# Key Features

| Model | Description | Key Features |
|---|---|---|
| WAC6503D-S | Unified Pro AP | • ZyXEL smart antenna provides premium performance anywhere<br>• Advanced IEEE 802.11ac offers up to 1.75 Gbps combined data rates<br>• Dynamic Channel Selection, Load Balancing and Smart Client Steering ensure optimal wireless experience in high density environments<br>• APFlex™ and tool-less bracket design ease deployment<br>• 2-in-1 standalone/managed AP design<br>• Enterprise-grade security for the wireless network edge<br>• Streamlined network initialization, troubleshooting and configuration by supporting ZON utility, ZyXEL Smart Connect and ZAC<br>• Simplified Wi-Fi planning, deployment and management by supporting ZWO<br>• Plenum rated housing |
| WAC6502D-S | Unified Pro AP | |
| WAC6502D-E | Unified Pro AP | |
| WAC6553D-E | Unified Pro AP | |
| WAC6103D-I | Unified Pro AP | • Enterprise class 3x3 802.11ac AP supports combined data rates of up to 1.75 Gbps<br>• "Dual-optimized antenna" allows pattern optimization adapting to wall- or ceiling-mount installations<br>• Dynamic Channel Selection, Load Balancing and Smart Client Steering ensure optimal wireless experience in medium to high density environments<br>• Stylish, ultra-slim ID design as the 32 mm height blends perfectly into modern interior decorations<br>• APFlex™ and ZyXEL One Network utilities make deployment simple and fast |
| NWA3560-N | Unified Pro AP | • High bandwidth & superior performance with IEEE 802.11n standard support<br>• The 3-in-1 solution: a WLAN controller, a standalone AP or a managed AP<br>• Brand new centralized graphic management interface for up to 24 WLAN APs<br>• Back-up redundancy supported to provide reliable connection service (Device HA)<br>• Secured tunnels for communication between controller and managed AP to prevent leaking of configurations<br>• Streamlined network configuration by supporting ZAC<br>• Simplified Wi-Fi planning, deployment and management by supporting ZWO |
| NWA3160-N | Unified Pro AP | |

| Segment | | | Model |
|---|---|---|---|
| **Medium-Sized Business to Enterprise** | • Centralized WLAN Management<br>• Unified AP: Controller/Managed AP<br>Standalone AP | • Dual radio 2.4 and 5 GHz support<br>• Embedded antenna | NWA5123-AC |
| | | • Dual radio 2.4 and 5 GHz support<br>• Embedded antenna | NWA5123-NI |
| | | • Single radio 2.4 GHz support<br>• External antenna | NWA5121-N |
| | | • Single radio 2.4 GHz support<br>• Embedded antenna | NWA5121-NI |
| | | • Single radio 2.4 GHz support<br>• Embedded antenna | NWA5301-NJ  |
| **Small Business** | • Web Managed<br>• SNMP Management | • 802.11ac support<br>• Dual radio concurrent 2.4 and 5 GHz<br>• GbE interface<br>• IPv6 support | NWA1123-AC |
| | | • 802.11n support<br>• Single radio 2.4 GHz support<br>• GbE interface<br>• IPv6 support | NWA1121-NI |
| | | • 802.11n support<br>• Long range AP<br>• GbE interface<br>• IPv6 support | NWA1100-NH |

| Model | Description | Key Features |
|---|---|---|
| NWA5123-AC | Unified AP | • Ceiling and wall mountable<br>• Plenum rated housing<br>• 2-in-1 standalone/managed AP design<br>• CAPWAP management supported<br>• 2.4 GHz and 5 GHz concurrent dual-band (NWA5123-AC and NWA5123-NI)<br>• High-performance RF technology: Tx Beamforming and Rx Maximum Likelihood Demodulation (MLD)<br>• Streamlined network initialization, troubleshooting and configuration by supporting ZON utility, ZyXEL Smart Connect and ZAC<br>• Simplified Wi-Fi planning, deployment and management by supporting ZWO |
| NWA5123-NI | Unified AP | |
| NWA5121-N | Unified AP | |
| NWA5121-NI | Unified AP | |
| NWA5301-NJ | Unified AP | • Unique back panel design that fits the majority of outlet boxes in the world<br>• 2.4 GHz 802.11n technology providing data rates of up to 300 Mbps<br>• High-gain antenna that optimizes Wi-Fi services for mobile devices<br>• LED suppress mode for comfortable room services<br>• Layer-2 isolation to secure personal data from leaking<br>• Streamlined network initialization, troubleshooting and configuration by supporting ZON utility, ZyXEL Smart Connect and ZAC<br>• Simplified Wi-Fi planning, deployment and management by supporting ZWO |
| NWA1123-AC | Web-Managed AP | • Compact ceiling-mount design with optimized RF performance<br>• High performance for better Wi-Fi experiences (IEEE 802.11n/IEEE 802.11ac)<br>• Easy RF planning with the same 2.4 GHz and 5 GHz signal coverage (NWA1123-AC)<br>• Flexible operating modes (stand-alone, client mode, root-AP/repeater mode)<br>• Streamlined network initialization and configuration by supporting ZON utility and ZAC<br>• Simplified Wi-Fi planning, deployment and management by supporting ZWO |
| NWA1121-NI | Web-Managed AP | |
| NWA1100-NH | Web-Managed AP | • High output power of up to 28 dBm delivers extended coverage<br>• 2 external antennas with high 5 dBi gain optimized for mobile devices<br>• Fast 802.11n Wi-Fi with speed up to 300 Mbps improves transmission of large files or videos<br>• Easy deployment via client mode or repeater AP and IEEE 802.3af PoE support<br>• Certified WPA2 Enterprise, access control management and user traffic control for strict network protection<br>• Streamlined network initialization and configuration by supporting ZON utility and ZAC<br>• Simplified Wi-Fi planning, deployment and management by supporting ZWO |

# Wireless LAN Feature Matrix

| Model | NXC Controller | |
|---|---|---|
| | NXC5500 | NXC2500 |
| **Port Density** | | |
| 10/100/1000 Mbps RJ-45 ports | 6 | 6 |
| USB | 2 | 2 |
| **Capacity & Performance** | | |
| Managed APs (default/max.) | 64/512 | 8/64 |
| Throughput (Gbps) | 6 | 1 |
| **Deployment Tools** | | |
| AP planning | - | Yes |
| Coverage detection | - | Yes |
| WLAN quality map | - | Yes |
| **WLAN Management** | | |
| CAPWAP | Yes | Yes |
| Controller address assignment | Manual/Auto discovery/DHCP option/DNS | Manual/Auto discovery/DHCP option/DNS |
| Auto provisioning | Yes | Yes |
| NAT pass-through | Yes | Yes |
| Encrypted managed frame (DTLS) | Yes | Yes |
| Primary/Backup controller | Yes | Yes |
| Manged AP firmware auto upgrade | Yes | Yes |
| Scheduled firmware upgrade | Yes | Yes |
| Dynamic channel selection | Yes | Yes |
| Client RSSI threshold | Yes | Yes |
| Wireless multicst setting | Yes | Yes |
| ZyMesh* | Yes | Yes |
| ZyMesh with multiple SSIDs and VLANs (tunnel mode) | Yes** | Yes** |
| Auto healing | Yes | Yes |
| **Authentication & Security** | | |
| Authentication protocol | 802.1x, MS AD, LDAP | 802.1x, MS AD, LDAP |
| MAC authentication | Yes | Yes |
| Embedded RADIUS server | Yes (4,096 users) | Yes (512 users) |
| Rogue AP detection | Yes | Yes |
| Rogue AP containment | Yes | Yes |
| Customizable captive portal | Yes | Yes |
| External captive portal | Yes | Yes |
| Guest account (dynamic) | Yes (1,024) | Yes (512) |
| L2 isolation | Yes | Yes |
| **Network Features** | | |
| VLAN | Yes (512) | Yes (256) |
| DHCP client/server/relay | Yes/Yes/Yes | Yes/Yes/Yes |
| NAT | Yes | Yes |
| Static routing | Yes | Yes |
| Policy routing | Yes | Yes |
| Firewall | Yes | Yes |
| **QoS** | | |
| WMM power save | Yes | Yes |
| Diffserv marking | Yes | Yes |
| AP load balancing | Yes | Yes |
| Rate limiting (firewall) | Yes | Yes |
| Station bandwidth limit (per SSID) | Yes | Yes |
| Data tunneling | Yes** (up to 64 APs suggested) | Yes** (up to 16 APs suggested) |
| **Management Features** | | |
| CLI with SSH | Yes | Yes |
| Web UI with SSL | Yes | Yes |
| SNMP | v1, v2c, v3 | v1, v2c, v3 |
| Multi-level administration roles | Yes | Yes |
| Remote configuration and management | Yes | Yes |
| Management VLAN | Yes | Yes |
| System log | Yes | Yes |
| System log save to USB drive | Yes | Yes |
| **Others** | | |
| Packet capture | Yes | Yes |
| High availability | Primay/Seconday controller | Primay/Seconday controller |
| 2nd controller configuration | Yes | Yes |
| System diagnostic tool | Yes | Yes |
| Band select (steering) | Yes | Yes |
| IPv6 host | Yes | Yes |
| Power supply | 270 W ATX SPS; Input: 100 - 240 V @50 - 60 Hz | 12 V DC, 100 - 240 V AC |
| MTBF (hr) | 55,555 | 815,464 |
| Heat dissipation (BTU/hr) | 467 | 64.83 |
| **Physical Specifications** | | |
| Dimensions (WxDxH)(mm/in.) | 520 x 435 x 42/20.47 x 17.13 x 1.65 | 242 x 175 x 35.5/9.53 x 6.89 x 1.38 |
| Weight (g/lb.) | 5,350/11.79 | 805/1.77 |
| Included accessories | • Ethernet cable<br>• Console cable<br>• Power cord<br>• Rack mounting kit | • Power adapter<br>• Rack mounting kit |

*: ZyMesh can be enabled with a license upgrade. Without a license, 1 root AP is supported as a trial
**: Supported when working with the NWA3160-N, NWA3560-N, NWA3550-N

| Model | Unified Pro AP Series | | | | | | |
|---|---|---|---|---|---|---|---|
| | WAC6503D-S | WAC6502D-S | WAC6502D-E | WAC6553D-E | WAC6103D-I | NWA3560-N | NWA3160-N |
| Product Description | 802.11ac Dual Radio Smart Antenna 3x3 Access Point | 802.11ac Dual Radio Smart Antenna 2x2 Access Point | 802.11ac Dual Radio External Antenna 2x2 Access Point | 802.11ac Dual Radio External Antenna 3x3 Outdoor Access Point | 802.11ac Dual Radio Dual-optimized Antenna 3x3 Access Point | 802.11n Unified Pro Dual-Radio Access Point | 802.11n Unified Pro Access Point |
| **Basic Design** | | | | | | | |
| Wireless frequency | 2.4 and 5 GHz | 2.4 and 5 GHz | 2.4 and 5 GHz | 2.4 and 5 GHz | 2.4 and 5 GHz | 2.4 and 5 GHz | 2.4/5 GHz |
| Radio | 2 | 2 | 2 | 2 | 2 | 2 | 1 |
| **RF Specifications** | | | | | | | |
| Number of antenna | 6 embedded smart antenna | 4 embedded smart antenna | 4 external | 6 N-type connectors** | 6 internal dual-optimized antenna | 4 external dipole | 2 external dipole |
| Antenna gain | 4 dBi @2.4 GHz<br>6 dBi @5 GHz | 4 dBi @2.4 GHz<br>6 dBi @5 GHz | 5 dBi @2.4 GHz<br>7 dBi @5 GHz | 4.5 dBi @2.4 GHz<br>7 dBi @5 GHz | Ceiling:<br>3 dBi @2.4 GHz<br>4 dBi @5 GHz<br>Wall:<br>4 dBi @2.4 GHz<br>5 dBi @5 GHz | 3 dBi | 3 dBi |
| **LAN** | | | | | | | |
| Number of 10/100M LAN | - | - | - | - | - | - | - |
| Number of 10/100/1000M LAN | 2 | 2 | 2 | 1 | 2 | 1 | 1 |
| PoE | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| PoE power draw (watt) | 17.04 | 15.12 | 15.12 | 25 | 12.48 | 14 | 11 |
| **WLAN Features** | | | | | | | |
| WLAN maximum net throughput | Up to 900 Mbps | Up to 600 Mbps | Up to 600 Mbps | Up to 900 Mbps | Up to 900 Mbps | Up to 140 Mbps | Up to 120 Mbps |
| Mesh AP (By license) | Yes (V4.21) | Yes (V4.21) | Yes (V4.21) | Yes (V4.21) | Yes (V4.21) | Yes (V4.1) | Yes (V4.1) |
| Mesh AP for Multiple SSID with VLAN (through tunnel mode) | Yes (V4.21) | Yes (V4.21) | Yes (V4.21) | Yes (V4.21) | Yes (V4.21) | Yes (V4.1) | Yes (V4.1) |
| **Wireless Security** | | | | | | | |
| WEP | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| WPA/WPA2-PSK | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| WPA/WPA2-Enterprise | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| WMM (Wi-Fi Certified) | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| EAP types | EAP-TLS, EAP-TTLS, EAP-PEAP, EAP-FAST, EAP-AKA and EAP-SIM | | | | | TLS, TTLS, PEAP, FAST, AKA and SIM | |
| IEEE 802.1X | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Number of SSID | 16 | 16 | 16 | 16 | 16 | 16 | 16 |
| Web authentication | Yes | Yes | Yes | Yes | Yes | Yes* | Yes* |
| MAC filtering | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Layer-2 isolation | Yes | Yes | Yes | Yes | Yes | Yes,<br>Multiple profile | Yes,<br>Multiple profile |
| RADIUS authentication | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Microsoft AD authentication | Yes | Yes | Yes | Yes | Yes | Yes* | Yes* |
| LDAP authentication | Yes | Yes | Yes | Yes | Yes | Yes* | Yes* |
| MAC authentication | Yes | Yes | Yes | Yes | Yes | Yes* | Yes* |
| Embedded RADIUS server | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Rogue AP detection | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Rogue AP containment | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Firewall | Yes | Yes | Yes | Yes | Yes | Yes* | Yes* |
| **Network** | | | | | | | |
| IPv6 host | Yes | Yes | Yes | Yes | Yes | - | - |
| VLANs | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| DHCP client | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| **Management** | | | | | | | |
| Controller mode | - | - | - | - | - | Yes | Yes |
| Standalone AP mode | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Managed AP mode | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| CLI | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Web UI | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| SNMP | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| **Others** | | | | | | | |
| Plenum rating | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Power supply | DC input: 12 VDC 2 A;PoE: 802.3at compliant | | | PoE12-HP | PoE only:<br>802.3at compliant | Input: AC 100 - 240 V ~ 50/60 Hz 0.3 A<br>Output: DC +12 V 1.5 A | |
| MTBF (hr) | 1,202,489 | 1,407,374 | 1,427,755 | 562,413 | 1,005,235 | 173,386 | 189,393 |
| Heat dissipation (BTU/hr) | 56.6 | 48.17 | 48.17 | 85.3 | 42.58 | 47.77 | 37.53 |
| **Physical Specifications** | | | | | | | |
| Dimensions (WxDxH)(mm/in.) | 236 x 227 x 62/<br>9.28 x 8.95 x 2.43 | 236 x 227 x 62/<br>9.28 x 8.95 x 2.43 | 236 x 227 x 62/<br>9.28 x 8.95 x 2.43 | 255 x 256 x 62/<br>10.04 x 10.08 x 2.44 | 203.9 x 191.7 x 34.7/<br>8.03 x 7.55 x 1.37 | 198 x 138 x 45/<br>7.80 x 5.43 x 1.77 | 198 x 138 x 45/<br>7.80 x 5.43 x 1.77 |
| Weight (g/lb.) | 982/2.17 | 961/2.12 | 841/1.86 | 1,708/3.77 | 445/0.98 | 462/1.02 | 439/0.97 |
| Included accessories | • Ceiling mount plate<br>• Mounting screws | • Ceiling mount plate<br>• Mounting screws | • External antenna<br>• Ceiling mount plate<br>• Mounting screws | • Pole/wall mounting kits<br>• PoE injector<br>• Power cord | • Wall/ceiling mount plate<br>• Mounting screws | • Power adapter<br>• Ethernet cable<br>• Mounting screws<br>• Console cable | • Power adapter<br>• Ethernet cable<br>• Console cable |

*: Supported when working with the NXC2500 and NXC5500
**: The antenna is not embedded and external antennas are separately sold

| Model | Unified AP Series | | | | Wall-Plate AP |
|---|---|---|---|---|---|
| | NWA5123-AC | NWA5123-NI | NWA5121-N | NWA5121-NI | NWA5301-NJ |
| Product Description | 802.11ac Unified Dual Radio Access Point | 802.11n Unified Dual Radio Access Point | 802.11n Unified Access Point | 802.11n Unified Access Point | 802.11n Unified In-wall Access Point |
| **Basic Design** | | | | | |
| Wireless frequency | 2.4 and 5 GHz | 2.4 and 5 GHz | 2.4 GHz | 2.4 GHz | 2.4 GHz |
| Radio | 2 | 2 | 1 | 1 | 1 |
| **RF Specifications** | | | | | |
| Number of antenna | 4 embedded | 4 embedded | 2 external | 2 embedded | 2 embedded |
| Antenna gain | 3 dBi @2.4 GHz<br>4 dBi @5 GHz | 5 dBi @2.4 GHz<br>6 dBi @5 GHz | 3 dBi | 7 dBi | 5 dBi |
| **LAN** | | | | | |
| Number of 10/100M LAN | - | - | - | - | Uplink: 1; Downlink: 3 |
| Number of 10/100/1000M LAN | 1 | 1 | 1 | 1 | - |
| PoE | Yes | Yes | Yes | Yes | Yes |
| PoE power draw (watt) | 9 | 7 | 4 | 4 | 13 (Include 7 W for PoE PSE) |
| **WLAN Features** | | | | | |
| WLAN maximum net throughput | Up to 110 Mbps | Up to 110 Mbps | Up to 110 Mbps | Up to 110 Mbps | Up to 90 Mbps (Limited by 10/100 uplink) |
| Mesh AP (By license) | Yes (V4.22) | Yes (V4.1) | Yes (V4.1) | Yes (V4.1) | Yes (V4.1) |
| Mesh AP for Multiple SSID with VLAN (through tunnel mode) | - | - | - | - | - |
| **Wireless Security** | | | | | |
| WEP | Yes | Yes | Yes | Yes | Yes |
| WPA/WPA2-PSK | Yes | Yes | Yes | Yes | Yes |
| WPA/WPA2-Enterprise | Yes | Yes | Yes | Yes | Yes |
| WMM (Wi-Fi Certified) | Yes | Yes | Yes | Yes | Yes |
| EAP types | TLS, TTLS, PEAP, FAST, AKA and SIM | TLS, TTLS, PEAP, FAST, AKA and SIM | TLS, TTLS, PEAP, FAST, AKA and SIM | TLS, TTLS, PEAP, FAST, AKA and SIM | TLS, TTLS, PEAP, FAST, AKA and SIM |
| IEEE 802.1X | Yes | Yes | Yes | Yes | Yes |
| Number of SSID | 16 | 16 | 8 | 8 | 8 |
| Web authentication | Yes* | Yes* | Yes* | Yes* | Yes* |
| MAC filtering | Yes | Yes | Yes | Yes | Yes |
| Layer-2 isolation | Yes, Multiple Profile | Yes, Multiple Profile | Yes, Multiple Profile | Yes, Multiple Profile | Yes, Multiple Profile |
| RADIUS authentication | Yes | Yes | Yes | Yes | Yes |
| Microsoft AD authentication | Yes* | Yes* | Yes* | Yes* | Yes* |
| LDAP authentication | Yes* | Yes* | Yes* | Yes* | Yes* |
| MAC authentication | Yes* | Yes* | Yes* | Yes* | Yes* |
| Embedded RADIUS server | - | - | - | - | - |
| Rogue AP detection | Yes | Yes | Yes | Yes | Yes |
| Rogue AP containment | Yes (V4.22) | Yes (V4.1) | Yes (V4.1) | Yes (V4.1) | Yes (V4.1) |
| Firewall | Yes* | Yes* | Yes* | Yes* | Yes* |
| **Network** | | | | | |
| IPv6 host | Yes (V4.22) | Yes (V4.1) | Yes (V4.1) | Yes (V4.1) | Yes (V4.1) |
| VLANs | Yes | Yes | Yes | Yes | Yes |
| DHCP client | Yes | Yes | Yes | Yes | Yes |
| **Management** | | | | | |
| Controller mode | - | - | - | - | - |
| Standalone AP mode | Yes | Yes | Yes | Yes | Yes |
| Managed AP mode | Yes | Yes | Yes | Yes | Yes |
| CLI | Yes | Yes | Yes | Yes | Yes |
| Web UI | Yes | Yes | Yes | Yes | Yes |
| SNMP | Yes | Yes | Yes | Yes | Yes |
| **Others** | | | | | |
| Plenum rating | Yes | Yes | Yes | Yes | - |
| Power supply | Input: AC 100 - 240 V ~ 50/60 Hz 0.3 A; Output: DC +12 V 1 A | | | | PoE only |
| MTBF (hr) | 1,727,244 | 781,396 | 627,152 | 627,152 | 531,785 |
| Heat dissipation (BTU/hr) | 30.7 | 23.9 | 13.66 | 13.66 | 17.709 |
| **Physical Specifications** | | | | | |
| Dimensions (WxDxH)(mm/in.) | 130 x 130x 54.7/<br>5.12 x 5.12 x 2.17 | 130 x 130 x 54.5/<br>5.12 x 5.12 x 2.17 | 150 x 130 x 54.5/<br>5.9 x 5.12 x 2.17 | 130 x 130 x 54.5/<br>5.12 x 5.12 x 2.17 | 85 x 138 x 37.4/<br>3.35 x 5.43 x 1.47 |
| Weight (g/lb.) | 300/0.67 | 250/0.55 | 230/0.51 | 230/0.51 | 172 /0.379 |
| Included accessories | • Power adapter<br>• Wall/ceiling mount plate | • Power adapter<br>• Wall/ceiling mount plate | • Power adapter<br>• Wall/ceiling mount plate | • Power adapter<br>• Wall/ceiling mount plate | • Wall/ceiling mount plate |

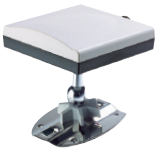
*: Supported when working with the NXC2500 and NXC5500
**: The antenna is not embedded and external antennas are separately sold

| Model | Standalone AP Series | | |
|---|---|---|---|
| | NWA1123-AC | NWA1121-NI | NWA1100-NH |
| Product Description | 802.11ac Dual-Radio Ceiling Mount PoE Access Point | 802.11n PoE Access Point | 802.11n Long Range PoE Access Point |
| **Basic Design** | | | |
| Wireless frequency | 2.4 and 5 GHz | 2.4 GHz | 2.4 GHz |
| Radio | 2 | 1 | 1 |
| **RF Specifications** | | | |
| Number of antenna | 4 embedded | 2 embedded | 2T2R MIMO |
| Antenna gain | 4 dBi @2.4 GHz; 6 dBi @5 GHz | 7 dBi | 5 dBi |
| **LAN** | | | |
| Number of 10/100M LAN | - | - | - |
| Number of 10/100/1000M LAN | 1 | 1 | 1 |
| PoE | Yes | Yes | Yes |
| PoE power draw (watt) | 7 | 4 | 6 |
| **WLAN Features** | | | |
| WLAN maximum net throughput | Up to 110 Mbps | Up to 110 Mbps | Up to 110 Mbps |
| Mesh AP (By license) | - | - | - |
| Mesh AP for Multiple SSID with VLAN (through tunnel mode) | - | - | - |
| **Wireless Security** | | | |
| WEP | Yes | Yes | Yes |
| WPA/WPA2-PSK | Yes | Yes | Yes |
| WPA/WPA2-Enterprise | Yes | Yes | Yes |
| WMM (Wi-Fi Certified) | Yes | Yes | Yes |
| EAP types | TLS, TTLS, PEAP, FAST, AKA and SIM | TLS, TTLS, PEAP, FAST, AKA and SIM | PEAP, EAP-TLS, -TTLS, -SIM, -FAST, -AKA, -MD5 and -GTC |
| IEEE 802.1X | Yes | Yes | Yes |
| Number of SSID | 16 | 8 | 8 |
| Web authentication | - | - | - |
| MAC filtering | Yes | Yes | Yes |
| Layer-2 isolation | Yes | Yes | Yes |
| RADIUS authentication | Yes | Yes | Yes |
| Microsoft AD authentication | - | - | - |
| LDAP authentication | - | - | - |
| MAC authentication | - | - | - |
| Embedded RADIUS server | - | - | - |
| Rogue AP detection | - | - | - |
| Rogue AP containment | - | - | - |
| Firewall | - | - | - |
| **Network** | | | |
| IPv6 host | Yes | Yes | Yes |
| VLANs | Yes | Yes | Yes |
| DHCP client | Yes | Yes | Yes |
| **Management** | | | |
| Controller mode | - | - | - |
| Standalone AP mode | Yes | Yes | Yes |
| Managed AP mode | - | - | - |
| CLI | Yes | Yes | Yes |
| Web UI | Yes | Yes | Yes |
| SNMP | Yes | Yes | Yes |
| **Others** | | | |
| Plenum rating | Yes | Yes | - |
| Power supply | Input: AC 100 - 240 V ~ 50/60 Hz 0.3 A Output: DC +12 V 1 A | Input: AC 100 - 240 V ~ 50/60 Hz 0.3 A Output: DC +12 V 1 A | Input: AC 100 - 240 V ~ 50/60 Hz 0.3 A Output: DC +12 V 1 A |
| MTBF (hr) | 656,972 | 627,152 | 1,018,460 |
| Heat dissipation (BTU/hr) | 23.9 | 13.66 | 23.9 |
| **Physical Specifications** | | | |
| Dimensions (WxDxH)(mm/in.) | 130 x 130 x 54.5/5.12 x 5.12 x 2.17 | 130 x 130 x 54.5/5.12 x 5.12 x 2.17 | 153 x 110 x 38/6.02 x 4.33 x 1.5 |
| Weight (g/lb.) | 260/0.57 | 230/0.51 | 240/0.529 |
| Included accessories | • Power adapter<br>• Wall/ceiling mount plate | • Power adapter<br>• Wall/ceiling mount plate | • Power adapter<br>• Mounting screws |

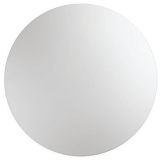
*: Supported when working with the NXC2500 and NXC5500
**: The antenna is not embedded and external antennas are separately sold

# Accessories

## Antenna

| Model | EXT-108 | EXT-109 | EXT-114 | EXT-118 |
|---|---|---|---|---|
| Product Photo | |  | | |
| Space | Outdoor | Outdoor | Outdoor | Outdoor |
| Frequency Band (MHz) | 2400 - 2500 | 2400 - 2500 | 2400 - 2500 | 2400 - 2500 |
| Gain | 8 dBi | 8.5 dBi | 14 dBi | 18 dBi |
| VSWR | 2.0:1 Max. | 1.5:1 Max. | 1.5:1 Max. | 1.5:1 Max. |
| Polarisation | Linear, vertical | Linear, vertical | Linear, vertical | Linear, vertical |
| HPBW/ Horizontal | 360° | 65° | 30° | 15° |
| HPBW/ Vertical | 15° | 60° | 30° | 15° |
| Connector | N type jack | N type jack | N type jack | N type jack |
| Temperature | -40°C to 80°C/-40°F to 176°F | -40°C to 80°C/-40°F to 176°F | -40°C to 80°C/-40°F to 176°F | -40°C to 80°C/-40°F to 176°F |
| Weight (g/lb.) | 340/0.75 | 107/0.24 | 407/0.90 | 1,600/3.53 |
| Dimensions (mm/in.) | 80 x 78 x 520/ 3.15 x 3.07 x 20.47 | 114 x 114 x 40/ 4.49 x 4.49 x 1.57 | 200 x 200 x 50/ 7.87 x 7.87 x 1.97 | 360 x 360 x 16/ 14.17 x 14.17 x 0.63 |
| Accessory kit | • Screw kit<br>• N-plug adapter<br>• Mounting kit<br>• Quick installation guide | • Cable: N-plug, RP-SMA plug; 3 m<br>• Mounting plate<br>• Quick installation guide | • Cable: N-plug, RP-SMA plug; 3 m<br>• Mounting kit<br>• Quick installation guide | • Cable: N-plug, RP-SMA plug; 3 m<br>• Mounting set<br>• Quick installation guide |

| Model | ANT2206 | | ANT2105 | | ANT3108 | ANT3218 |
|---|---|---|---|---|---|---|
| Product Photo | | | | | | |
| Space | Indoor | | Outdoor | | Outdoor | Outdoor |
| Frequency Band (MHz) | 2400 - 2500 | 4900 - 5875 | 2400 - 2483 | 5150 - 5875 | 5150 - 5875 | 5150 - 5875 |
| Gain | 6 dBi | 8 dBi | 4.5 dBi | 7 dBi | 8 dBi | 18 dBi |
| VSWR | 2.0:1 Max. | 2.0:1 Max. | 2.0:1 Max. | 2.0:1 Max. | 2.0:1 Max. | 2.0:1 Max. |
| Polarisation | Linear, vertical | Linear, vertical | Linear, vertical | Linear, vertical | Linear, vertical | Linear, vertical |
| HPBW/ Horizontal | 65° | 50° | 360° | 360° | 360° | 15.5° |
| HPBW/ Vertical | 75° | 50° | 30° | 15° | 20° | 15.5° |
| Connector | RP-SMA plug | | N type plug | | N type jack | N type jack |
| Temperature | -10°C to 55°C/14°F to 131°F | | -10°C to 70°C/14°F to 158°F | | -40°C to 80°C/-40°F to 176°F | -40°C to 80°C/-40°F to 176°F |
| Weight (g/lb.) | 110/0.24 | | 70/0.15 | | 206/0.46 | 700/1.54 |
| Dimensions (mm/in.) | 76 x 86 x 118/2.99 x 3.39 x 4.65 | | f 22 x 183 | | f 20 x 260 | 210 x 210 x 73/ 8.27 x 8.27 x 2.87 |
| Accessory kit | • Screw kit<br>• Quick installation guide | | - | | • Mounting kit<br>• Quick installation guide | • Mounting kit<br>• Quick installation guide |

| Model | ANT1310 | | ANT1313 | ANT1314 | ANT3315 | ANT3316 |
|---|---|---|---|---|---|---|
| Product Photo |  | | | | | |
| Space | Indoor | | Outdoor | Outdoor | Outdoor | Outdoor |
| Frequency Band (MHz) | 2300 - 2700 | | 2400 - 2500 | 2400 - 2500 | 5150 - 5875 | 5150 - 5875 |
| Gain | 9 - 10 dBi | | 13 - 13.5 dBi | 14 ±0.5 dBi | 15 ±0.5 dBi | 15 - 16 dBi |
| VSWR | 1.5:1 Max. | | 2.0:1 Max. | 2.0:1 Max. | 2.0:1 Max. | 2.0:1 Max. |
| Polarisation | Linear/Horizontal | Linear/Vertical | Cross polarization ±45° | Linear; ±45° | Linear, ±45° | Linear, ±90° |
| HPBW/ Horizontal | 51° | 66° | 33° | 60° | 60° | 19° |
| HPBW/ Vertical | 66° | 51° | 35° | 13° | 8° | 21° |
| Side lobes level | -14 dB Max. | -14 dB Max. | -13 dB Max. | - | -5 dB Max. | - |
| Front to back ratio | -13 dB Max. | -13 dB Max. | -25 dB Max. | -25 dB Max. | -30 dB Max. | -20 dB Max. |
| Connector | SMA jack x 2 | | N type jack x 2 | N type jack x 2 | N type jack x 2 | N type jack x 2 |
| Temperature | -10°C to 55°C/14°F to 131°F | | -40°C to 80°C/ -40°F to 176°F | -40°C to 80°C/ -40°F to 176°F | -40°C to 80°C/ -40°F to 176°F | -40°C to 80°C/ -40°F to 176°F |
| Weight (g/lb.) | 130/0.29 | | 800/1.76 | 800/1.76 | 1.4/3.09 | 800/1.76 |
| Dimensions (mm/in.) | ø133 x 42/ø5.24 x 1.65 | | 210 x 210 x 73/ 8.27 x 8.27 x 2.87 | 560 x 120 x 145/ 22.04 x 4.72 x 5.71 | 560 x 120 x 145/ 22.04 x 4.72 x 5.71 | 210 x 210 x 73/ 8.27 x 8.27 x 2.87 |
| Accessory kit | • Mounting kit<br>• Quick installation guide | | • Mounting kit<br>• Quick installation guide | • Mounting kit<br>• Quick installation guide | • Mounting kit<br>• Quick installation guide | • Mounting kit<br>• Quick installation guide |

## Cable

| Product | LMR 200-N | LMR 400-N | EXT-300 |
|---|---|---|---|
| Product Photo | | | |
| Description | RP-SMA plug to N-plug<br>Cable length: 3 m, 9 m | N-plug to N-plug<br>Cable length: 1 m, 9 m | RP-SMA plug, N-jack (Jumper Cable)/ N-plug, N-jack (Surge Arrestor): 0.5 m |

## Others

| Product | Ceiling Mounting Kit |
|---|---|
| Product Photo | |
| Description | For NWA3160-N, NWA3560-N |

# Wireless LAN License

| Item | Description | For |
|---|---|---|
| Managed AP Scalability | The NXC2500 Managed AP License increases the number of APs that can be managed by the NXC2500.<br>The maximum number of APs supported is 64*. | NXC2500 |
| | The NXC5500 Managed AP License increases the number of APs that can be managed by the NXC5500.<br>The maximum number of APs supported is 512. | NXC5500 |
| ZyMesh | This license enables the ZyMesh function on the NXC5500 and NXC2500. | NXC2500<br>NXC5500 |

** Management of 64 APs is supported with firmware version V4.10 or above*

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