

ZYXEL



NWA1123-ACv2

802.11ac Dual-Radio Ceiling Mount PoE Access Point

Zyxel delivers speed and convenience with its refreshed NWA1123-ACv2 802.11ac 2x2 PoE access point (AP), offering streamlined controller-less deployment for a trouble-free wireless LAN experience. Building on the solid reputation of its predecessor, this ultra-fast AP brings together remarkable performance and coverage enhancements, along with a user-friendly interface and robust design components. The smoke detector-style exterior makes this AP ideal for indoor ceiling-mount installation, providing smooth Wi-Fi service without detracting from interior design aesthetics. The NWA1123-ACv2 also supports repeater operating mode, making it a flexible solution for small businesses, hotels, and school environments.

Benefits

Best interior performance in a smoke detector design

Users no longer have to choose between performance and environmental cohesion when deploying business wireless APs. The smoke detector-style form factor of the Zyxel NWA1123-ACv2 with embedded antenna module and optimized radiation pattern is suitable for ceiling installation. This design element not only helps it outperform comparable APs, but also allows it to blend seamlessly into interior spaces and prevent equipment theft. The Zyxel NWA1123-ACv2 is constructed from non-toxic casing materials, making it safe to install in plenum areas, as it won't release hazardous vapor emissions in the event of a fire. This is life-critical issue, particularly when deploying in public venues such as offices, hotels, and schools.



Compact ceiling-mount design with optimized RF performance



Enterprise class 2x2 802.11ac AP supports combined data rates of up to 1200 Mbps



Better coverage with optimized antenna and RF design



Flexible operating modes (stand-alone, root-AP/repeater mode)



Reliable software and robust hardware design



Set up and forget offers better-than-ever WLAN experience



ZyXEL **one**network
Redefining network integration

Zyxel One Network experience

Aiming for relieving our customers from repetitive operations of deploying and managing a network, Zyxel One Network is designed to simplify the configuration, management, and troubleshooting, allowing our customers to focus on the business priorities. Zyxel One Network presents an easy-to-use tool, Zyxel One Network Utility (ZON Utility), to realize speed network setup. Zyxel Smart Connect^{*1} allows Zyxel networking equipment to be aware and recognize each other and further facilitating the network maintenance via one-click remote functions such as factory reset or power cycling. Zyxel One Network redefines the network integration across multiple networking products from switch to Wi-Fi AP and to Gateway.

Best-ever user experience

The biggest achievement with the NWA1123-ACv2 is optimized antenna and RF design that create a thoroughly enhanced Wi-Fi experience via a combination of improved software and hardware. Additional improvements to the NWA1123-ACv2 include dynamic channel selection (DCS) and load balancing. DCS avoids interference from co-channel and channel overlapping at initialization, while load balancing allows administrators to easily limit the number of clients associated with each AP. These advanced functions ensure that users can enjoy a stable wireless networking experience over the ideal Wi-Fi channel on the optimal AP.

Blending multi-operation flexibility with practical business features

Along with support for stand-alone operating mode, the Zyxel NWA1123-ACv2 PoE access point also provides repeater/root-AP mode compatibility with Zyxel's Unified Pro Series and Unified Series APs.^{*2} By taking advantage of these features, users can extend wireless connectivity to challenging locations without the bother of troublesome cabling. The NWA1123-ACv2 offers the ideal solution for small businesses through an array of useful features designed for business deployments, including multiple SSID and solid Wi-Fi security provided by WPA2 Enterprise and Layer-2 isolation. All of these practical enhancements coupled with high-performance RF design make the Zyxel NWA1123-ACv2 the best solution for creating flexible Wi-Fi networks for smaller-scale enterprises.

Set up and forget streamlines controller-less deployment

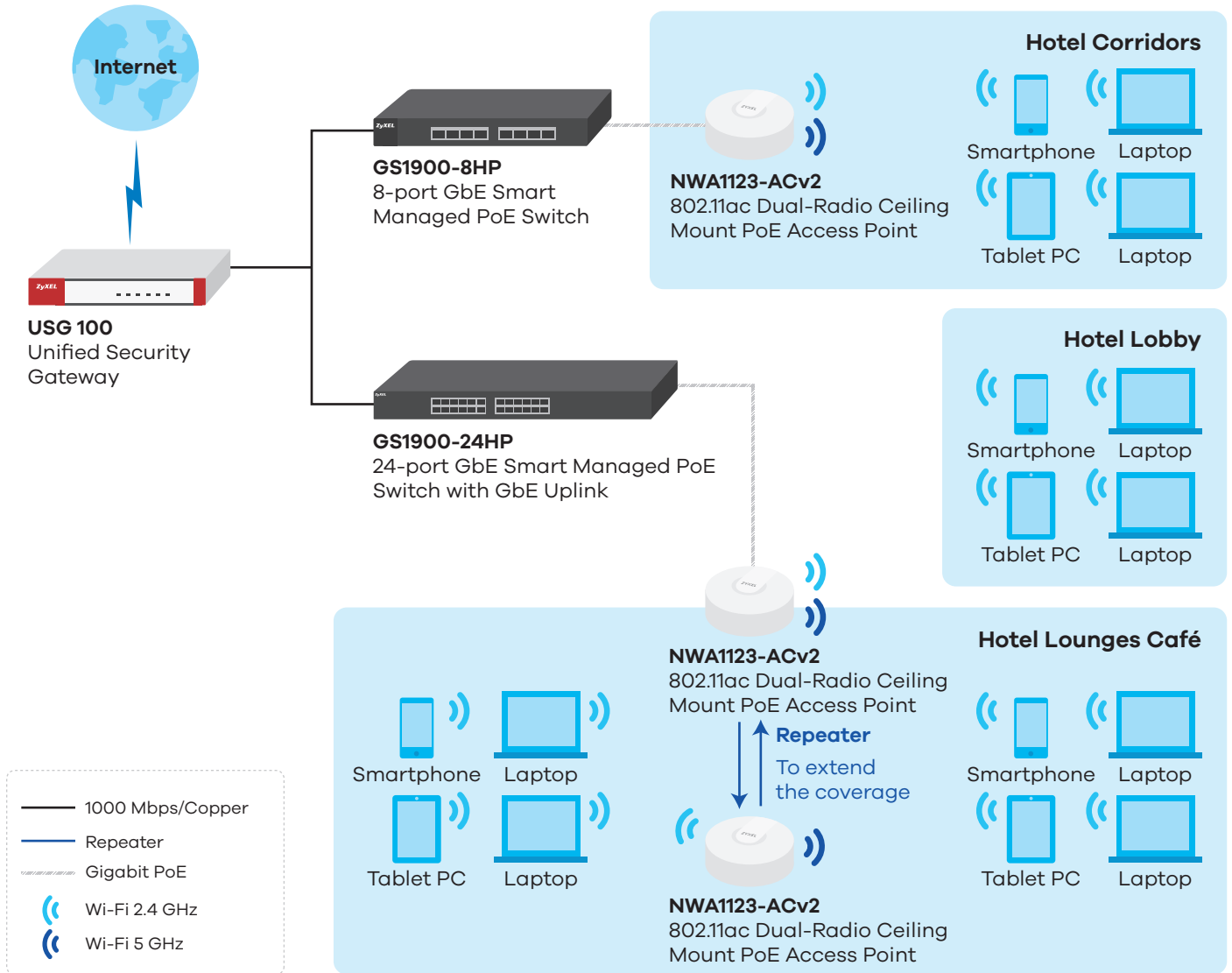
The refreshed NWA1123-ACv2 introduces streamlined controller-less deployment with ZyXEL Access Point Configurator (ZAC)^{*3}. Just install the AP wherever desired out of the box and the device will automatically acquire its IP address. ZAC will take over the multiple-AP configuration and help to complete firmware upgrades and profile backups when needed in three easy steps, significantly reducing time and effort. Once the configuration has been completed, the NWA1123-ACv2 is able to operate autonomously without additional maintenance via computer or special management tool. The administrator can easily monitor status using any available SNMP tool, making management simple enough for even networking novices to handle.

*1: Zyxel Smart Connect is supported on selected models. Please refer to specifications for more detail.

*2: NWA1123-ACv2 repeater/root mode is incompatible with other models of NWA1120 series, and do not support AP client mode.

*3: ZAC will support in firmware 1.1.2 or above.

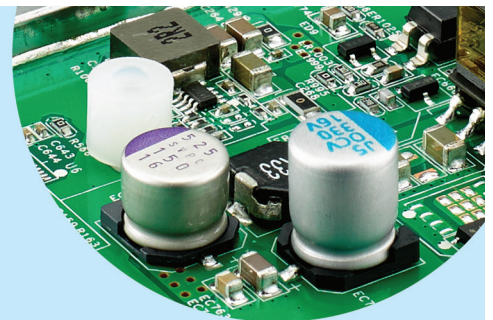
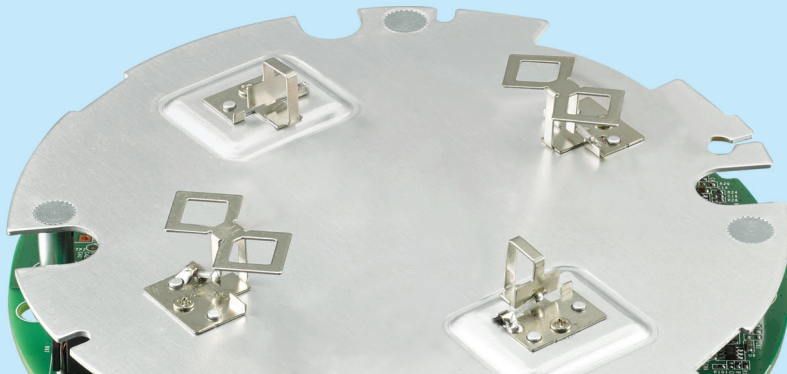
Applications Diagram



Robust Hardware

Advanced antenna design

NWA1123-ACv2 antenna module provides better coverage in TX/RX and eliminates dead spots with same output power by using reflector to optimize pattern for better coverage.



Solid capacitor for longevity

All-solid capacitor design provides up to 6 times lifespan than electrolytic capacitors that delivers better stability and reliability.

Specifications

Model	NWA1123-ACv2
Product name	802.11ac Dual-Radio Ceiling Mount PoE Access Point



Main Design

Wireless frequency	2.4 GHz & 5 GHz
Radio	2

RF Specifications

Frequency band	2.4 GHz	<ul style="list-style-type: none"> • 2.4 GHz (IEEE802.11 b/g/n) • USA (FCC): 2.412 to 2.462 GHz • Europe (ETSI): 2.412 to 2.472 GHz
	5 GHz	<ul style="list-style-type: none"> • 5 GHz (IEEE 802.11 a/n/ac) • USA (FCC): 5.15 to 5.35 GHz; 5.725 to 5.850 GHz • Europe (ETSI): 5.15 to 5.35 GHz; 5.470 to 5.725 GHz

802.11 premium features	2x2 multiple-input multiple-output (MIMO) with two spatial streams <ul style="list-style-type: none"> • Maximal ratio combining (MRC) • 20-, 40- and 80-MHz channels • PHY data rates total up to 300 Mbps (11n) + 866 Mbps (11ac) • Packet aggregation: A-MPDU (Tx/Rx), A-MSDU (Tx/Rx) • Cyclic Delay diversity (CSD) support • Maximum Likelihood Demodulation (MLD) support • Low Density Parity Check (LDPC) support
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Conducted typical transmit output power*1	US (FCC) 2.4 GHz	23 dBm, 2 antennas
	US (FCC) 5 GHz	26 dBm, 2 antennas
	EU (ETSI) 2.4 GHz	20 dBm, 2 antennas
	EU (ETSI) 5 GHz	26 dBm, 2 antennas

Number of antenna	2T2R MIMO	
Antenna gain	2.4 GHz	3 dBi
	5 GHz	4 dBi

Support data rate	<ul style="list-style-type: none"> • 802.11a/g: 1, 2, 5.5, 6, 9, 11, 12, 18, 24, 36, 48, and 54 Mbps • 802.11n: up to 300 Mbps in MCS15 (40MHz; GI=400ns) • 802.11ac: up to 866 Mbps in MCS9 (80MHz; 2 spatial Streams; GI=400ns)
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Receive sensitivity	2.4 GHz	5 GHz
	<ul style="list-style-type: none"> • 802.11b/g, min. up to -99 dBm • 802.11n/20 MHz, min. -93 dBm • 802.11n/40 MHz, min. up to -88 dBm 	<ul style="list-style-type: none"> • 802.11a, min. up to -95 dBm • 802.11ac/n/20 MHz, min. -94 dBm • 802.11ac/n/40 MHz, min. -92 dBm • 802.11ac/80 MHz, min. -89 dBm

LAN

Number of 10/100/1000M LAN	1
PoE	Yes
PoE power draw	9 W

*1: Maximum output power is limited by regional regulatory.

WLAN Security	
WEP	Yes
WPA/WPA2-PSK	Yes
WPA/WPA2-Enterprise	Yes
EAP type	EAP-TLS, EAP-TTLS, EAP-PEAP, EAP-FAST, EAP-AKA and EAP-SIM
WMM	Wi-Fi compliant
IEEE 802.1X	Yes
Number of multiple SSID	16
MAC filtering	Yes
L2 Isolation	Yes, multiple profile
RADIUS authentication	Yes
Network	
IPv6 support	Yes
VLANs	Yes
DHCP client	Yes
Zyxel One Network	
ZON Utility	<ul style="list-style-type: none"> • Discovery of Zyxel switches, APs and gateways • Centralized and batch configurations <ul style="list-style-type: none"> - IP configuration - IP renew - Device reboot - Device locating - Web GUI access - Firmware upgrade - Password configuration - One-click quick association with Zyxel AP Configurator (ZAC)
Management	
ZAC*2	<ul style="list-style-type: none"> • Batch AP configuration • Batch AP firmware upgrade • Batch AP profile backup
Standalone AP mode	Yes
CLI	Yes, SSH
SNMP	Yes
Others	
Plenum rating	Yes
Power supply	Input: AC 100 - 240 V - 50/60 Hz 0.3 A; Output: DC +12 V 1 A
MTBF (hr)	1,727,244
Standard Compliance	
Ethernet	IEEE 802.3, IEEE 802.3u, IEEE802.11ac, IEEE 802.3az, IEEE 802.3af
WLAN	<ul style="list-style-type: none"> • 802.11b: DBPSK, DQPSK, CCK • 802.11g: BPSK, QPSK, 16-QAM, 64-QAM • 802.11a: BPSK, QPSK, 16-QAM, 64-QAM • 802.11n: BPSK, QPSK, 16-QAM, 64-QAM • 802.11ac: BPSK, QPSK, 64-QAM, 256-QAM
Certifications	
Radio	FCC 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

*2: Support from firmware V1.1.2 or above

Physical Specifications

Item	Dimensions (WxDxH)(mm/in.)	130 x 130 x 54.7/5.12 x 5.12 x 2.17
	Weight (g/lb.)	300/0.67
Packing	Dimensions (WxDxH)(mm/in.)	278 x 209 x 72/10.94 x 8.23 x 2.83
	Weight (g/lb.)	700/1.54
Included accessories		<ul style="list-style-type: none">• Power adapter• Wall/Ceiling-mount plate

Environmental Specifications

Operating environment	Temperature	0°C to 50°C/32°F to 122°F
	Humidity	10% to 90% (non-condensing)
Storage environment	Temperature	-30°C to 70°C/-22°F to 158°F
	Humidity	10% to 90%

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Datasheet [NWA1123-ACv2](#)



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