

ZYXEL



NWA1123-AC PRO

802.11ac Dual-Radio Dual Mount PoE Access Point

Zyxel delivers speed and convenience with its NWA1123-AC PRO 802.11ac PoE access point (AP), which offers streamlined controller-less deployment for a trouble-free small business or home office wireless LAN experience. Building with innovative dual-optimized antenna design, the ultra-fast AP brings together remarkable performance and coverage enhancements, along with a user-friendly interface and robust components. The stylish exterior makes the AP ideal for not only in ceiling mount installation but also in wall-mount deployment without creating inter-floor interference, meanwhile the device provides smooth Wi-Fi services without detracting from interior design aesthetics. The NWA1123-AC PRO also supports repeater mode that makes it a flexible solution for small businesses, hotels and school environments.

Benefits

Best interior Wi-Fi performance in style

Users no longer have to compromise between performance and environmental cohesion when deploying business wireless APs. With ultra-slim stylish outlook the 3x3 dual-optimized antenna on NWA1123-AC PRO is capable of deliver two different patterns for ceiling- or wall-mount deployment. That frees the AP from being limited to ceiling fixture while maintaining reliable connectivity without causing extra interference.

The Zyxel NWA1123-AC PRO is constructed with non-toxic casing materials, making it safe to install in plenum areas, as it doesn't release hazardous vapor emissions in case of fire. This is a life-critical issue – particularly when deploying in public venues such as offices, hotels and schools.

Best-ever user experience

The biggest achievement with the NWA1123-AC PRO is optimized antenna



Dual-optimized antenna for wall/ceiling-mount installations



Enterprise class 802.11ac AP supports combined data rates of up to 1.75 Gbps



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

and RF design that create a thoroughly enhanced Wi-Fi experience via a combination of improved software and hardware. Additional improvements to the NWA1123-AC PRO 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.

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 Connect¹ 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.

Blending multi-operation flexibility with practical business features

Along with support for stand-alone operating mode, the Zyxel NWA1123-AC PRO 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-AC PRO 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-AC PRO the best solution for creating flexible Wi-Fi networks for smaller-scale enterprises.

Set up and forget streamlines controller-less deployment

The NWA1123-AC PRO 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-AC PRO 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: For standalone series AP, NWA1123-AC PRO is only compatible with NWA1123-ACv2.

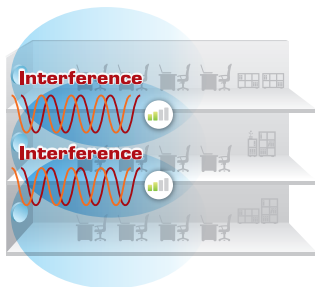
*3: With ZAC v1.1.2 or above.

Dual-optimized Antenna

The unprecedented Dual-optimized Antenna is an adjustable internal antenna with "just fit" pattern options optimized for wall- or ceiling-mount that the installation technician can instantly change the antenna pattern simply via the physical antenna switch without booting the device. If needed, administrators can base on their know-how to perform granular signal optimization per floor plan via software configuration remotely. With the flexibility, the NWA1123-AC PRO can fit for wall-mount or ceiling-mount deployment without the hassles of antenna accessory selection and signal coverage adjustment.

Traditional (Side View)

Pattern for wall-mount (H-plane, side view)



Dual-optimized (Side View)

Pattern for wall-mount (H-plane, side view)



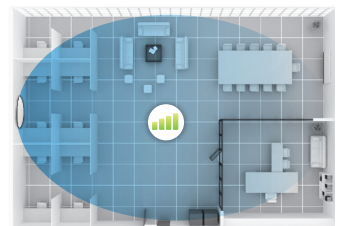
Traditional (Top View)

Pattern for wall-mount (E-plane, top view)

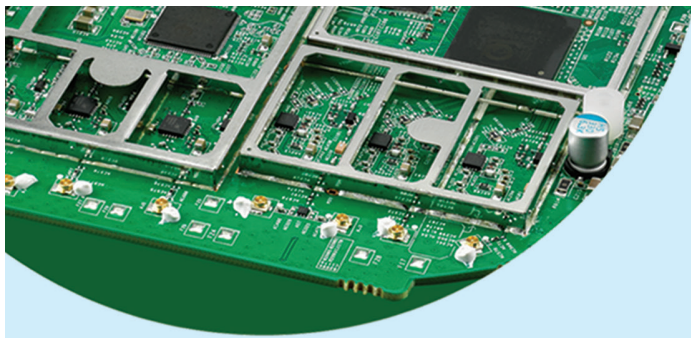


Dual-optimized (Top View)

Pattern for wall-mount (E-plane, top view)



Robust Hardware

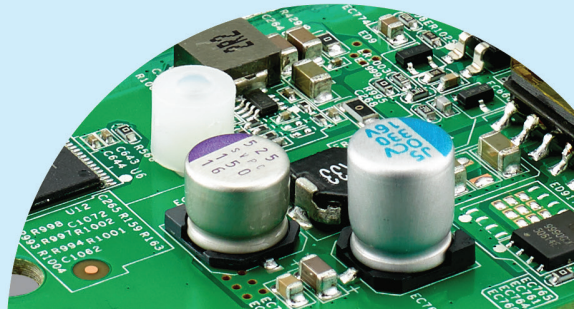


Fine art of RF design

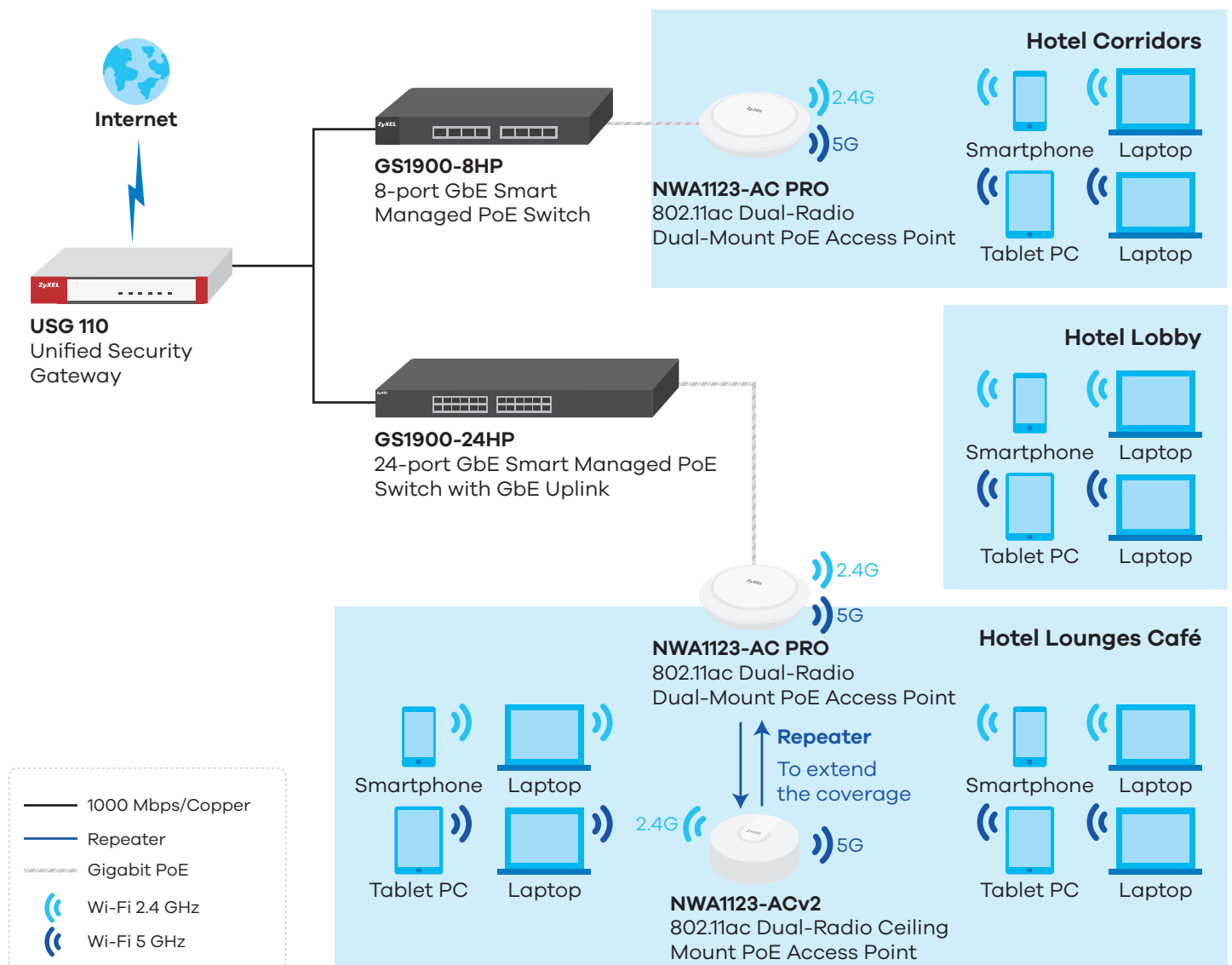
The NWA1123-AC PRO isolates RF circuits by solid shielding frames. Thus, RF noise and electromagnetic interference (EMI) is mitigated meanwhile RF performance is enhanced as well.

Solid capacitor for longevity

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



Applications Diagram



Specifications

Model	NWA1123-AC PRO
--------------	-----------------------

Product name 802.11ac Dual-Radio Dual-Mount PoE Access Point



Main Design

Wireless frequency 2.4 GHz & 5 GHz

Radio 2

RF Specifications

Frequency band 2.4 GHz (802.11 b/g/n) • USA (FCC): 2.412 to 2.462 GHz
• Europe (ETSI): 2.412 to 2.472 GHz

5 GHz (802.11 a/n/ac) • USA (FCC): 5.15 to 5.25 GHz; 5.725 to 5.850 GHz
• European (ETSI): 5.15 to 5.35 GHz;
• 5.470 to 5.725 GHz

802.11 premium features • 3x3 Multiple-Input Multiple-Output (MIMO) with three spatial streams
• Maximal Ratio Combining (MRC)
• 20-, 40- and 80-MHz channels
• PHY data rates total up to 450 Mbps (11n) + 1.3 Gbps (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

Conducted typical transmit output power ^{*1}	US (FCC) 2.4 GHz	27 dBm
	US (FCC) 5 GHz	27 dBm
	EU (ETSI) 2.4 GHz	18 dBm
	EU (ETSI) 5 GHz	24 dBm

Number of antenna 3T3R MIMO

Antenna gain	2.4 GHz	• Ceiling: 3 dBi • Wall: 4 dBi
	5 GHz	• Ceiling: 4 dBi • Wall: 5 dBi

Support data rate • 802.11a/g: 1, 2, 5.5, 6, 9, 11, 12, 18, 24, 36, 48, and 54 Mbps
• 802.11n: up to 450 Mbps in MCS15 (40 MHz)
• 802.11ac: up to 1300 Mbps in MCS9 (80 MHz)

RF Specifications

Receive sensitivity Min. Rx sensitivity to -102 dBm

LAN

Number of 10/100/1000M LAN 2

PoE Yes

PoE power draw 12.48 W (802.3at PoE)^{*2}

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

Model		NWA1123-AC PRO
WLAN Security		
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 ³		<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		802.3at PoE only (No DC jack)
MTBF (hr)		1,005,235
Standard Compliance		
Ethernet		IEEE 802.3, IEEE 802.3u, IEEE 802.11ab, IEEE 802.3au, IEEE 802.3az, IEEE 802.3at
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
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
Physical Specifications		
Item	Dimensions (WxDxH) (mm/in.)	203.9 x 191.7 x 34.7/8.03 x 7.55 x 1.37
	Weight (g/lb.)	445/0.98
Packing	Dimensions (WxDxH) (mm/in.)	240 x 235 x 100/9.45 x 9.25 x 3.94
	Weight (g/lb.)	1210/2.67

Model	NWA1123-AC PRO
--------------	-----------------------

Physical Specifications	
--------------------------------	--

- | | |
|----------------------|---|
| Included accessories | <ul style="list-style-type: none">• PoE Injector• Ethernet 45 cable• 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	-40°C to 70°C/-40°F to 158°F
	Humidity	10% to 90% (non-condensing)

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

*2: Max. power draw is 12.48 W. In extreme cases, the inrush current is greater than 802.3af limit, thus 802.3at PoE is required.

*3: Support from ZAC Utility V1.1.2 or above

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

Copyright © 2017 Zyxel Communications Corp. All rights reserved. Zyxel, Zyxel logo are registered trademarks of Zyxel Communications Corp. All other brands, product names, or trademarks mentioned are the property of their respective owners. All specifications are subject to change without notice.



5-100-00717006 02/17