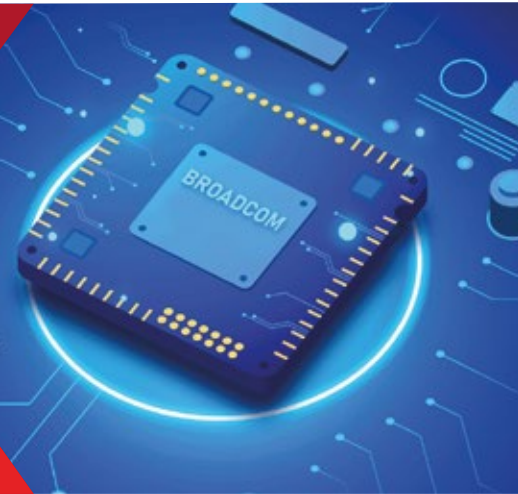**NODEXON**®
redefining networks

Outdoor Access Point Switch NX-AP8500 Series

OVERVIEW

For next-generation high-speed wireless network applications, the NX-AP8500 series is a top-class 802.11ac wireless access point. Security, RF control, mobile access, QoS, seamless roaming, and other Wi-Fi features are all handled by the switch. The APs provide Wi-Fi user data forwarding, sophisticated security, and access control with simplicity when paired with Nodexon NX-WS Wireless Controller Series/ Cloud AC. The IP67-rated industrial-class AP enclosure can resist harsh outside conditions, making device installation and maintenance easier.

Internal omnidirectional antenna is included in the NX-AP8500 series. To overcome various deployment problems, a large selection of external antennas is also available. Automatic switching between external and internal antennas is supported by both AP types.

FEATURES HIGHLIGHTS

❯ Lightning Arrester & Built-in Omnidirectional Antenna (External Antenna Optional)

❯ Outstanding Environmental Adaptability (IP67, -40-55°C

❯ 802.11ac Superior Wireless Performance

❯ Flexible Gigabit Uplink

❯ Comprehensive Remote Management

❯ Intelligent Device Recognition

❯ Hybrid management: from a single AP to thousands of APs, including appliance, private cloud, and public cloud deployment choices.

**Outdoor Access Point Switch
NX-AP8500 Series**

PRODUCT FEATURES

HIGH PERFORMANCE & RELIABILITY

802.11ac Superior Wireless Performance

The NX-AP8500 series supports 802.11n@2.4GHz and 802.11ac@5GHz, with access speeds of up to 1.75Gbps for NX-AP8530-5, 2.533Gbps for the NX-AP8520-5. The excellent wireless performance improves the user experience, increases the number of concurrent users, and improves signal coverage.

Intelligent Device Recognition

End devices running popular operating systems like iOS and Android are intelligently recognized by the APs.

The Industry's Most Flexible Gigabit Uplink

The NX-AP8500 Series have a 10/100/1000Base-T Ethernet uplink port that eliminates the LAN port as a wireless access bottleneck, as well as a 1000M SFP combo port that adapts to wired networking structures in various user situations. The data transmission duty is taken up by the SFP Base-X port for efficient network setup.

Easy-to-use Mount-Kit

For easy deployment optimization, an adjustable mount-kit is included by default. To adapt to varied circumstances, the APs may be simply changed from -60° to 60° horizontally and -60° to 90° vertically.

Flexible WDS Mode

WDS (Wireless Distribution System) is used by the APs to allow connectivity of multiple APs or wireless bridging with less than five hops. Even across great distances, wireless bridging is possible. Point-to-multipoint is also supported by the outdoor APs. The characteristics overcome the difficulties of outside deployment to enable large-scale and remote high-speed wireless coverage.

Industry-leading Local Forwarding Technology

The 2 Deploying with the Nodexon NX-WS Wireless Controller Series, outdoor APs use industry-leading local forwarding technology. The APs also have control over whether or not the data is transmitted through the wireless controller. The 802.11ac network can advance large-scale, delay-sensitive, and real-time transmissions thanks to local forwarding technology.

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Seamless Roaming Experience

The APs function in perfect harmony with the NX-WS Wireless Controllers, allowing wireless users to travel freely over Layer 2 and Layer 3 networks without losing data.
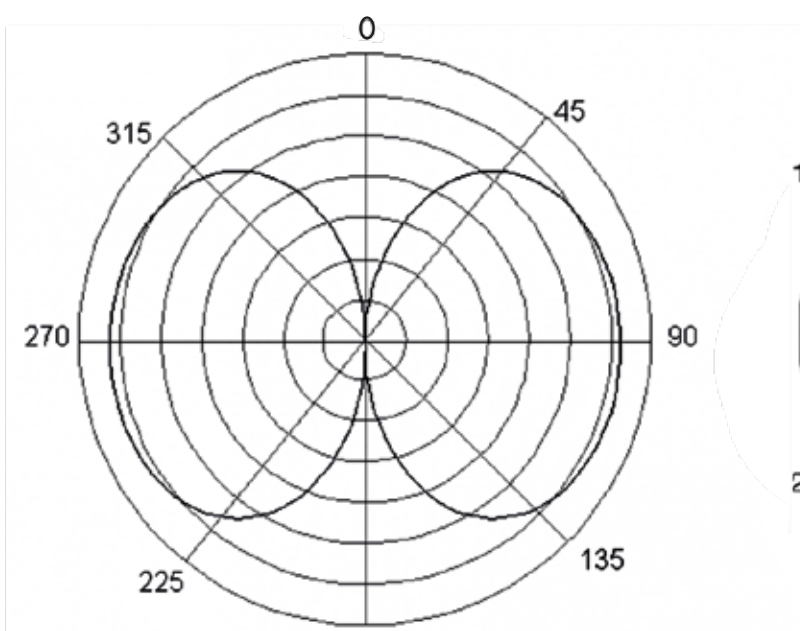
Abundant QoS Policies

A wide range of QoS rules are supported by the AP. WLAN/AP/STA-based bandwidth limiting modes, for example, favor important services over others.
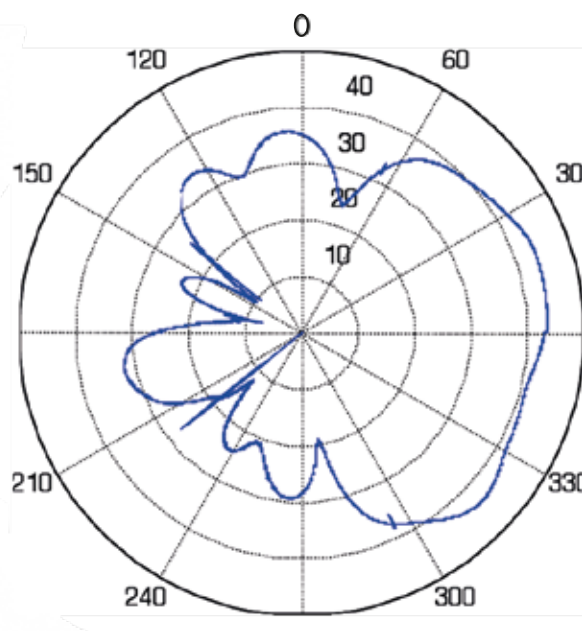
Built-in Smart Antenna

The NX-AP8500 series, which have built-in antennas, may accomplish real-time antenna beam switching based on the position of access devices, guaranteeing an ideal wireless experience. Internal and exterior antenna swapping is also supported by the APs.
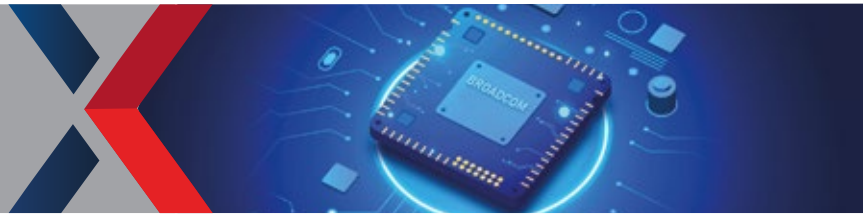
Omnidirectional Antenna Gain   Directional Antenna Gain

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COMPREHENSIVE SECURITY POLICIES

User Data Encryption

The NX-AP8500 series provides complete data security protection using encryption methods such as WEP, TKIP, and AES, ensuring the wireless network's data transfer security.

RF Security

The APs use the RF probe scanning mechanism in conjunction with Nodexon's NX-SNC Smart Network Commander and NX-WS Wireless Controllers to detect illegal access points or other RF interference sources. Once discovered, the APs will send an alert to the network administrator, allowing them to keep an eye on possible threats and use in the wireless environment.

Virtual AP Technology

The AP can support up to 16 ESSIDs (per radio) and 16 802.1Q VLANs using virtual AP technology. Subnets or VLANs with the same SSID can be encrypted and isolated independently by the network administrator. Separate authentication and encryption modes are available.

User Access Control

Web, 802.1x, MAC address, and local authentication are among the authentication methods supported by the APs. Nodexon's sophisticated Security Management is also supported by the APs. Platform (SMP) BYOD Solution that adheres to a defined access control scheme. In terms of user access, authorisation, host compliance check, network activity monitoring, network attack defense, and so on, the system has a set of control rules. All of these security mechanisms guarantee that users are verified before they may safely access network services.

Wireless IPv6 Access

To enable IPv6 forwarding on a wireless network, comprehensive IPv6 functionalities are provided. Users of IPv4 and IPv6 can connect to the ACs through tunnels, allowing IPv6 apps to run over the wireless network.

Flexible Authentication Modes

Protected Extensible Authentication Protocol (PEAP), SMS Authentication, and QR Code Authentication are all supported by the APs. PEAP Authentication allows users to authenticate their passwords just once. This implies that users are just needed to. If SMS authentication is used, customers must first sign in using their cell phone numbers, after which they will get an SMS containing their login information username and password for network access. Another feature of wireless security is QR code authentication. Users will receive a QR code on their end devices after connecting to a wireless network, which they can simply ask any authorized employee to scan for network access.

Wireless Protection

The APs provide a powerful range of wireless security features such as Wireless Intrusion Detection System (WIDS), RF Interference Location, and Rogue AP when used in conjunction with Nodexon's NX-SNC Smart Network Commander and NX-WS Wireless Controllers, resulting in a truly secure and reliable wireless network.

FLEXIBLE DEVICE MANAGEMENT MODE

Flexible Switching Between the FAT & FIT Modes

Based on the networking needs of various sectors When there are few APs, users can utilize the FAT mode to create a self-contained network. When installed with the NX-WS Wireless Controllers, the APs may operate in FIT mode for large-scale networks, allowing centralized control of all APs as well as other features such as security, traffic management, QoS, and IP management. The APs provide a seamless transition from one to the next, fully protecting the user's investment. Before deploying in the FIT mode, no AP setup is necessary. On-site installation, maintenance, and replacement do not require any manual configuration. Autofeature can help you save time and money by reducing the amount of work you have to do.

Comprehensive Remote Management

All AP activities, including as channel, power ranking, SSID configuration, security configuration, VLAN division, and so on, may be managed remotely and centrally by the NX-WS Wireless Controllers or Cloud AC. The function improves security while also maximizing cost savings.

PoE Port For Easy Deployment & Maintenance

The 802.3at PoE standard is supported by the Series. Outdoor APs can obtain power and allow data transfer through cables by connecting to an HPoE switch via the AP Ethernet port. The network administrator may save money as much as possible.

Outdoor Access Point Switch
NX-AP8500 Series

TECHNICAL SPECIFICATIONS

SPECIFICATIONS	NX-AP8520-5	NX-AP8530-5
Target Deployments	For big campus, wireless city, harbor, storage room, mine	
Radio	Concurrent dual-radio dual-band	
Operating Bands	802.11b/g/n: 2.4GHz to 2.483GHz, Operating Bands 802.11a/n/ac: 5.150GHz to 5.350GHz, 5.47GHz to 5.725GHz, 5.725GHz to 5.850GHz (vary depending on countries)	
Protocol	802.11a/b/g/n/ac Wave2	802.11a/b/g/n/ac
Antenna	Built-in Directional Smart Antenna (Support eternal/internal antenna switching)	Built-in Omniirectional Smart Antenna (Support eternal/internal antenna switching)
Max Throughput	Build-in antenna model: 800Mbps@2.4G 1733Mbps@5G	2.533Gbps per AP; External antenna model: 600Mbps@2.4G 1300Mbps@5G 1.9Gbps per AP	1.75Gbps per AP	1.3Gbps@5GHz	450Mbps@2.4GHz
Antenna Gain	10dBi	4dBi
Antenna Lobe Orientation	Internal Direction: Horizontal: 60 degrees, Vertical: 30 degrees	Internal Omnidirectional Gain of External Antenna depends on the configured antenna
Spatial Streams	4	3
Modulation	OFDM: BPSK@6/9Mbps	QPSK@12/18Mbps	16-QAM@24Mbps	64-QAM@48/54Mbps DSSS: DBPSK@1Mbps	DQPSK@2Mbps	CCK@5.5/11Mbps	MIMO-OFDM: BPSK, QPSK, 16QAM, 64QAM and 256QAM	
Receiver Sensitivity	11b: -99dBm(1Mbps), -93dBm(5.5Mbps), -90dBm(11Mbps)	11a/g:-93dBm(6Mbps), -85dBm(24Mbps), -82dBm(36Mbps), - 77dBm(54Mbps)	11n:-92dBm@MCS0, -73dBm@MCS7, -92dBm@MCS8, -73dBm@MCS15 11ac HT20: -90dBm (MCS0) , -63dBm (MCS9)	11ac HT40: -85dBm(MCS0) , -60dBm (MCS9) 11ac HT80: -82dBm(MCS0) , -58dBm (MCS9)	
Maximum Transmit Power	27dBm (transmit power depends on local laws and regulations.)	
Adjustable Power	1dBm	
IP Rating	IP67	
Management Port	1 console port (RJ45)	1 console port (RJ45 or Bluetooth)
Wi-Fi Alliance	1 10/100/1000 Base-T ETH1/PoE IN port, 1 10/100/1000 Base-T ETH2 port, 1 1000M SFP port (combo)	1 10/100/1000 /Mbps ETH1/PoE IN port (RJ45 connector), 1 SFP port (combo)
Power Supply	PoE+ (802.3at)	PoE+ (802.3at)
Power Consumption	<25W	<25W
Maximum clients per AP	Up to 512	Up to 256
BSSID capacity	Up to 16 per radio	Up to 32 per AP	

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SPECIFICATIONS	NX-AP8520-5	NX-AP8530-5
SSID hiding	Support	
Configuring authentication mode, encryption mechanism, and VLAN attributes for each SSID	Support	
Remote Intelligent Perception Technology (RIPT)	Support	
X-speed	Support	
Intelligent load balancing based on the number of users or traffic	Support	
STA control	SSID/radio-based	
Bandwidth control	STA/SSID/AP-based speed control	
Preference for 5 GHz (band select)	Support	
Dynamic Frequency Selection (DFS)	Future Release Support	
PSK, Web, & 802.1x Aauthentication	Support	
Data encryption	WPA (TKIP) , WPA2 (AES), WPA-PSK, and WEP (64 or 128 bits)	
Rogue AP detection & countermeasure	Support	
QR code authentication	Support	
SMS authentication	Support	
PEAP authentication	Support	
Data Frame Filtering	Whitelist, static/dynamic blacklist	
User isolation	Support	
WIPS	Support	
Dynamic ACL Assignmnet	Support	
RADIUS	Support	
CPU Protection Policy (CPP)	Support	
WIDS	Support	
NFPP	Support	
IPv4 address	Static IP address or DHCP reservation	

Datasheet

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SPECIFICATIONS	NX-AP8520-5	NX-AP8530-5
IPv6 CAPWAP tunnel	Support	
ICMPv6	Support	
ISATAP	Support	
Statistics and logs	Support	
Multicast	Support	Multicast to unicast conversion
Network management	SNMP v1/v2C/v3, Telnet, SSH, TFTP and web management	SNMP v1/v2C/v3, Telnet, SSH, TFTP and FTP and web management
Visualized wireless heat map analysis	Support (needs to integrated with SNC)	
Real-time spectrum analysis	Support (needs to integrated with SNC)	
Fault detection and alarm	Support	
Cloud AC management	Support	
Statistics and logs	Support	
FAT/FIT switching	The AP working in FIT mode can switch to the FAT mode through the NX-WS wireless FAT/FIT switching. The AP working in FAT mode can switch to the FIT mode through a local console port or Telnet.	
Wi-Fi Alliance Certification	Support	
LED Indicators	Power status and WDS signal strength	
Lock	Support	
Safety Standard	GB4943, EN/IEC 60950-1, EN/IEC 60950-22	GB4943, UL/CSA 60950-1, EN/IEC 60950-1, EN/IEC 60950-22
EMC Standard	GB9254-2008, EN301 489, EN55022	GB9254-2008, EN301 489, EN55022, FCC Part15
Health Standard	EN 50385	FCC Bulletin OET-65C, EN 50385, IC Safety Code 6
Radio Standard	FCC Part15, EN300328, EN301893	
Vibration Standard	GB/T 2423	
Dimensions (W x D x H) (mm)	276 × 246 × 90	
Weight	<2.5kg	
Temperature	Operating Temperature: -40°C to 65°C (heater module will be enabled at -15°C) Storage Temperature: -40°C to 85°C	Operating Temperature: -440°C to 55°C (heater module will be enabled at -15°C) Storage Temperature: -40°C to 85°C

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TECHNICAL SPECIFICATIONS

SPECIFICATIONS	NX-AP8520-5	NX-AP8530-5
Humidity	Storage Humidity: 0% to 100% (non-condensing)	Storage Humidity: 5% to) 95% (non-condensing)