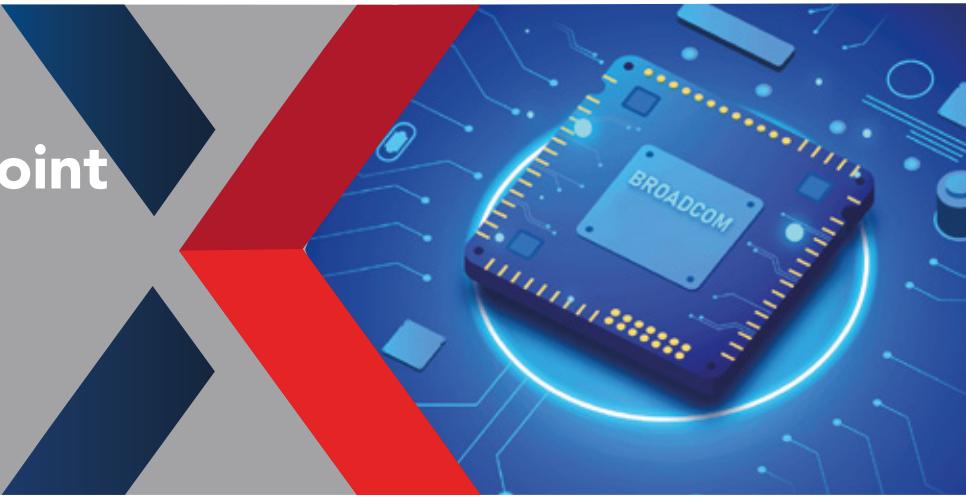


Triple-radio Outdoor Access Point Switch NX-AP8630-O6



OVERVIEW

NODEXON NX-AP8630-O6 is new generation smart outdoor 802.11ax Access Point (AP) with triple-band, 10 streams and large RF radiated power. It provides up to 5.4Gbps throughput and multi-rate 10GE uplink which are suitable for high-density outdoor scenarios and make wireless multimedia application reality.

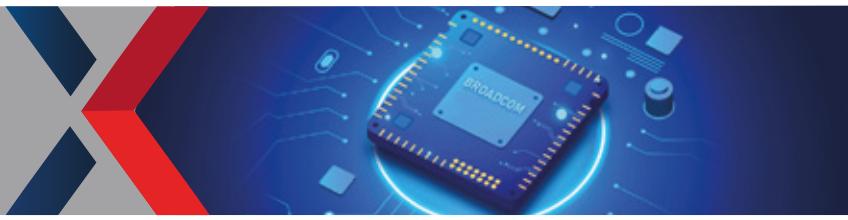
Based on 802.11ax technology, NODEXON NX-AP8630-O6 is integrated with smart RF optimizing technology. It can address outdoor WLAN coverage problems and enhance accuracy and stability. Professional & beautiful design and wide -temperature range resistance make it convenient for outdoor installation and debugging. It's widely deployed for professional smart coverage in outdoor scenarios such as wireless city, big stadium and scenic spot. With enhanced IoT interface, NODEXON NX-AP8630-O6 can be combined with NODEXON IoT solution and deployed for smart campus and other IoT applications.

FEATURES HIGHLIGHTS

- New-generation Wi-Fi standard 802.11ax (Wi-Fi 6)
- Remote probing and analysis
- DL/UL MU-MIMO
- Smart cloud access and optimal WLAN TCO
- Spatial multiplexing
- Green design
- Local forwarding
- Orthogonal frequency division multiple access (OFDMA)
- IPv4 and IPv6 dual stack (Native IPv6)
- End user Admission Defense (EAD)



Indoor Access Point Switch NX-AP8630-O6



PRODUCT FEATURES

HIGH-DENSITY WIFI EXPERIENCE

Advanced industrial design concept

NODEXON NX-AP8630-O6 adopts perfect spherical design, which effectively improves the image of the campus or city, and meets the increasing requirements of users for outdoor wireless access such as wireless cities and scenic spots.

DL/UL MU-MIMO (Wi-Fi 6)

NODEXON NX-AP8630-O6 supports DL/UL MU-MIMO technology, which is the most important feature of 802.11ax. DL/UL MU-MIMO technology allows AP to send data to multiple STAs simultaneously, which can highly improve transmission efficiency and access experience.

Smart cloud access and optimal WLAN TCO

The NX-AP8630-O6 complies with the 802.11ax standard. It works on dual radio and provides high-speed transmission that is at least 2 times faster than 802.11ac products under the same conditions. The NX-AP8630-O6 is available for easy maintenance and management from the NODEXON Cloudnet platform. Through smart RF optimization technologies, the series provides mobile cloud access in coverage scope, access density, and operation stability, and achieves the optimal wireless network Total Cost of Ownership (TCO).

Spatial multiplexing

802.11ax assigns a different color per BSS to help NX-AP8630-O6 identify co-channel interference and stop transmission in time. If a radio detects 802.11ax signals from a BSS that has the same color as the radio's BSS, it determines that co-channel interference exists and stops data transmission. This optimizes frequency reuse and improves network capacity.

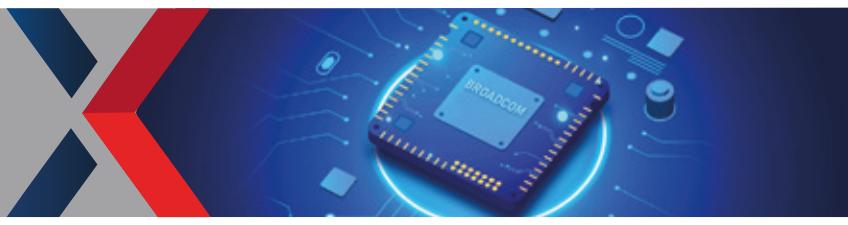
Orthogonal frequency division multiple access (OFDMA)

802.11ax uses OFDMA to allow multiple users to transmit data simultaneously. OFDMA splits a channel into sub-channels, known as resource units (RUs), with specific subcarriers, and assigns RUs to different users for simultaneous transmission. OFDMA enables simultaneous multi-user transmission and reduces latency caused by channel contention.

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Local forwarding

NX-AP8630-O6 supports both centralized forwarding and local forwarding. With centralized forwarding, APs tunnel incoming data frames to the AC and the AC forwards the data frames. With local forwarding, APs directly forward data frames. The local forwarding mode significantly saves wired bandwidth.

Real Time Spectrum Guard (RTSG)

- Real Time Spectrum Guard (RTSG) is the innovative NODEXON professional state-monitoring program for the wireless spectrum. NODEXON 802.11ax series AP supports the internal RF data acquisition module to achieve deeply integrated monitoring and real time spectrum protection.
- The RTSG Console is integrated into the iMC (intelligent Management Center), and performs data acquisition through the CAPWAP tunnel management and Sensor AP. It can achieve 24x7 wireless signal quality monitoring, trend assessment and unauthorized interference alert. Through active probe and 2.4GHz/5GHz RF interference source (WiFi or non-WiFi) in every band, it provides a graphic representation of real-time FFT plot of the spectral density plot, spectrum diagram, the duty cycle map, event spectrum diagram, channel gain and interference gain. It can also automatically identify the source of interference, to determine the location of rogue wireless equipment, to ensure the wireless network is always in great shape. Combined with NODEXON iMC IAR (Intelligent Analysis Report) module, it can maintain a complete history of RF quality in the coverage area, including its trace and playback, automatically generate customized trend, compliance and audit reports.

Intelligent unified wired and wireless management

- The whole series of NODEXON wireless products can be managed by the Wireless Service Manager (WSM) component of NODEXON Intelligent Management Center (IMC). WSM provides unified management of wired and wireless networks, adding wireless network management functions into existing wired network management systems.
- WSM offers a simple and user friendly management platform for wireless network administrators. It implements panel management, troubleshooting, performance monitoring, software version control, configuration management, and user access management of wireless devices. In addition, it can manage wired devices by cooperating with other components in IMC.

Cloud-based Management

NODEXON cloud-managed APs were developed based on the Cloudnet platform, on which network administrators can manage the cloud-managed APs directly, for example, view cloud-managed AP status in real time and deploy configurations from the cloud to cloud-managed APs. This greatly improves network efficiency and enhances security and stability.

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High-efficiency uplink ports with support of multiple rates

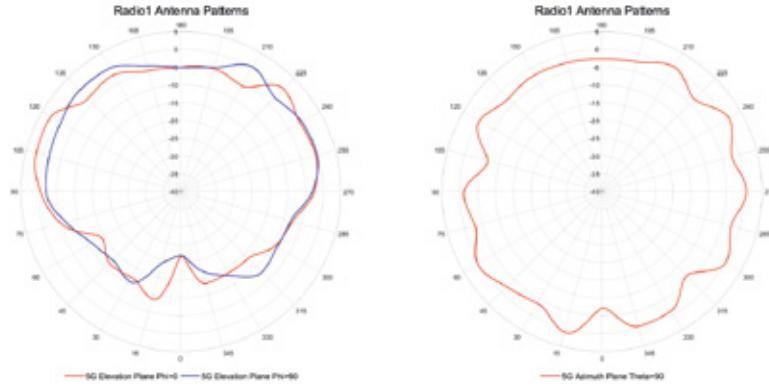
The uplink ports on the NX-AP8630-O6 supports auto-negotiation of various transmit rates, including 100Mbps, 1000Mbps, 2.5Gbps, 5Gbps and 10Gbps.

RF Optimizing Engine (ROE)

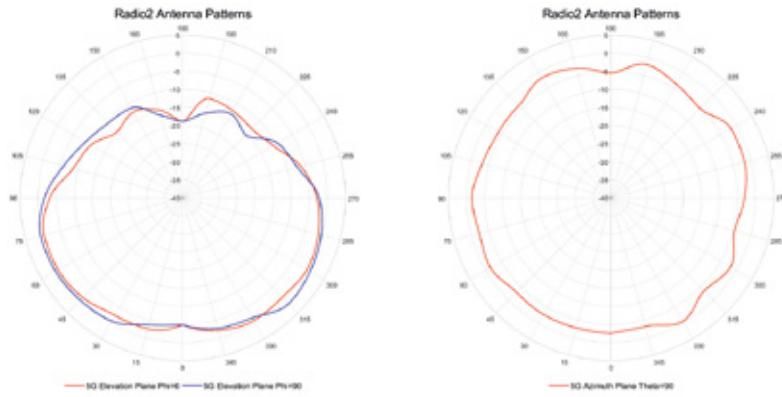
ROE, through feature- and protocol-based RF optimization, provides greater speed and QoS in middle- to high-density access and streaming media transmission scenarios. It provides features such as multi-user fairness, mixed access fairness, interference filtering, speed optimization, band navigation, multicast optimization (IPv4/IPv6), per-packet power control, and intelligent bandwidth guarantee.

Antenna Patterns

Radio1:



Radio2:



Indoor Access Point Switch NX-AP8630-O6



TECHNICAL SPECIFICATIONS

SPECIFICATIONS		NX-AP8630-O6
Ports		1×100M/1000M/2.5G/5G/10G Ethernet multi-rate ports 2×100M/1000M Ethernet port, GE*2 support IoT extension, PSE:802.3af 1×Console port (RJ45)
Dimensions (WxDxH)		260mm x 260mm x 394mm
Weight		4.0kg
Protection degree		IP68
Local Power supply		54V DC
Built-in antenna		Built-in Omnidirectional 5dBi antenna gain @2.4GHz 4dBi antenna gain @5GHz 4dBi antenna gain @5GHz
Operating frequencies		802.11ax/ac wave2/ac/n/a : 5.725GHz-5.850GHz; 5.47~5.725GHz; 5.15~5.35GHz 802.11ax/b/g/n : 2.4GHz-2.483GHz
Modulation technology		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 (11n): MCS 0-31, MIMO-OFDM (11ac): MCS 0-9, MIMO-OFDM (11ax): MCS 0-11
Maximum radio power		2.4GHz: 24dBm 5GHz: 24dBm (Transmit power is multi-chain combined power, no antenna gain is included. The actual transmit power depends on local laws and regulations)
Power Source		PoE Injector+55V DC Adapter(Optional)
Working Temperature		Operating Tem: -30°C~55°C(Recommended); -40 °C~65°C ; Storage Tem: -40° C~85° C
Working Humidity		0% to 100% (non-condensing)
power consumption		≤55W
Safety compliance		IEC 60950-1, EN 60950-1, IEC 60950-22, EN 60950-22
Radio frequency certification		EN 300 328, EN 301 893, FCC Part 15
Adjustable power granularity		1 dBm
Health		FCC Bulletin OET-65C, EN 50385, IC Safety Code 6
MTBF		>250000 hours

Indoor Access Point Switch NX-AP8630-O6



TECHNICAL SPECIFICATIONS

SPECIFICATIONS	NX-AP8630-O6
Maximum transmission speed	5.375Gbps (2.4Gbps+2.4Gbps+575Mbps)
Working frequencies and MIMO	5GHz (1), 4x4:4 MU-MIMO 2.4Gbps, 5GHz (2), 4x4:4 MU-MIMO 2.4Gbps 2.4GHz, 2x2:2 MU-MIMO 0.575Gbps
Maximum users per radio	512
Advanced Traffic Management	Supported
Restrict low rate/sticky terminals access	Supported
Maximum number of SSIDs for each radio	16
Station related	Abnormal offline check, station aging, statistics and status query
Client number limit	Supported
Link integrity check & Repeater mode	Supported
Repeater mode	Supported
Encryption	WEP-64/128/152bit, dynamic WEP, TKIP, CCMP, WPA3, AES, EAP Multiple encryption key triggered dynamic unicast/multicast key update
Authentication	802.1X authentication, MAC authentication, PSK authentication, Portal authentication, PPSK
Forwarding security	Packet filtering, MAC address filtering, Broadcast storm suppression
User Isolation	Supported: 1. Layer 2 user isolation, 2. SSID-based user isolation
SSID and VLAN binding	Supported
WIDS/WIPS	Supported
Rogue device detection & countermeasure	Supported
IP address configuration	Static IP (available only in fat AP mode) DHCP assigned IP (Option 60)
Native IPv6	Supported
Local forwarding	Local forwarding based on SSID and VLAN
SSID-based VLAN assignment	Supported
Multicast	IGMP Snooping/MLD Snooping

Indoor Access Point Switch NX-AP8630-O6



TECHNICAL SPECIFICATIONS

SPECIFICATIONS		NX-AP8630-O6
802.11e	Wi-Fi Multimedia (WMM)	
Priority	Ethernet port based 802.1p identification and marking, Priority mapping for wired and wireless packets	
Layer 2 to Layer 4 packet filtering and traffic classification	Supported	
Layer 4-7 application identification	Coupled with H3C WLAN ACs, the APs can identify variety of applications and policy control can be implemented including priority adjustment, scheduling, blocking, and rate limiting on users	
Strategic QoS mapping	Distinctive QoS strategies based on individual SSID/VLAN	
Load balancing	User/traffic/radio (dual frequencies) based	
User bandwidth management	Bandwidth allocation per STA, or all STAs sharing bandwidth with a common SSID	
Multicast enhancement	Multicast to Unicast (IPv4, IPv6)	
CAC(Call Admission Control)	Session-based CAC, Channel usage-based CAC	
PPC	Supported	
Green AP mode	Supported	
Dynamic MIMO power saving	Supported	
E-APSD	Supported	
Network management	Trap, HTTP(S), SSH, Telnet, FTP/TFTP, SNMP V1/V2/V3 only applicable in Cloud/Fat mode	
Management SSID	Supported	
Syslog	Supported	
AP Working Mode	Fit/Anchor/Cloud/Fat	
Remote probing and analysis	Supported	
Wi-Fi Certified	IEEE 802.11a/b/g/n/ac/ax, WMM, WPA, WPA2 and WPA3 – Enterprise, Personal (SAE), Enhanced Open (OWE), Wi-Fi Alliance	

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