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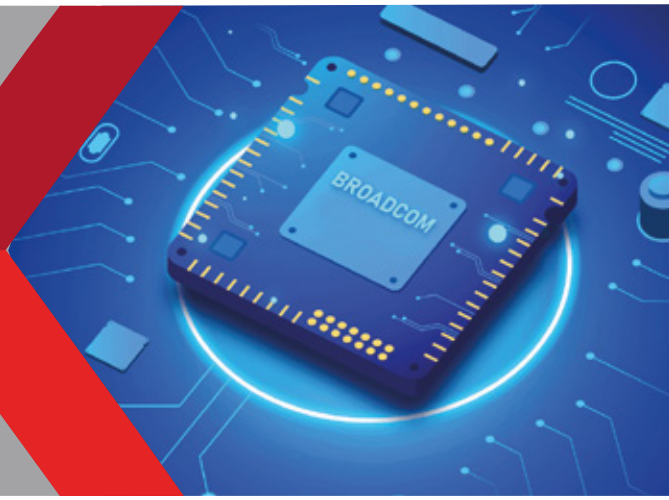
Indoor Access Point Switch NX-AP5722-C6



OVERVIEW

NODEXON NX-AP5722-C6 access points are the latest generation wireless access points developed based on 802.11ax standard. They are designed with dual-radio or creative triple-radio 802.11ax technology standard respectively, and provide a transmission speed at least 2 times faster than 802.11ac products. This makes the series suitable for high-density access scenarios, such as hotel, stadium, and enterprise campus, and eschoolbag applications.

NODEXON NX-AP5722-C6 includes built-in antennas, both WA6622 and WA6628 support dual radio. All models support multirate uplink ports with the max speed of 5Gbps or 10Gbps. They are compact in appearance and support both wall mounting and ceiling mounting.

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)

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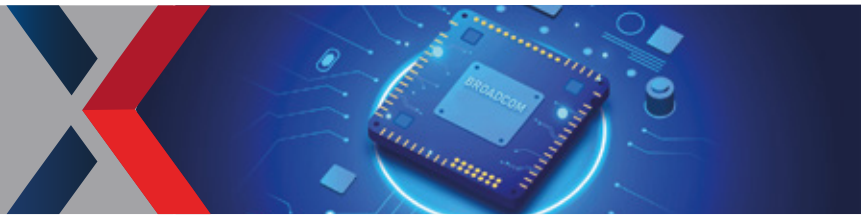

PRODUCT FEATURES

HIGH-DENSITY WIFI EXPERIENCE

New-generation Wi-Fi standard 802.11ax (Wi-Fi 6)

802.11ac, the fifth-generation wireless technology, provides a transmit rate of up to 1733Mbps per radio. 802.11ax, the sixth-generation wireless technology, provides a maximum of eight spatial streams per 5GHz radio and up to 4.8Gbps in transmission speed. For example, the dual-radio AP can provide up to 5.95Gbps access rate (4.8Gbps on 5GHz plus 1.15Gbps on 2.4GHz), which is suitable for all high-density access scenarios and provides better access experience

DL/UL MU-MIMO

NODEXON NX-AP5722-C6 AP 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 stations simultaneously, breaking through the traditional wireless serial communication mechanism, increasing the utilization rate of wireless spectrum resources, improving the number of effective access users and access experience under highdensity deployment.

Smart cloud access and optimal WLAN TCO

The NX-AP5722-C6 6 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-AP5722-C6 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-AP5722-C6 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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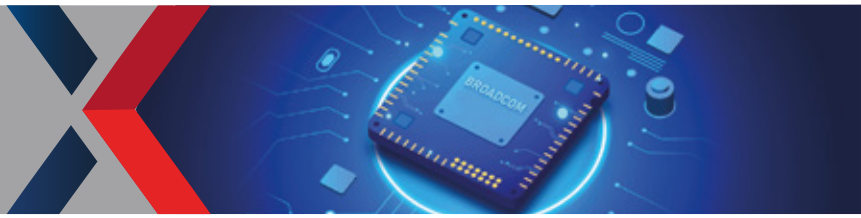

Local forwarding

NX-AP5722-C6 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.

Could-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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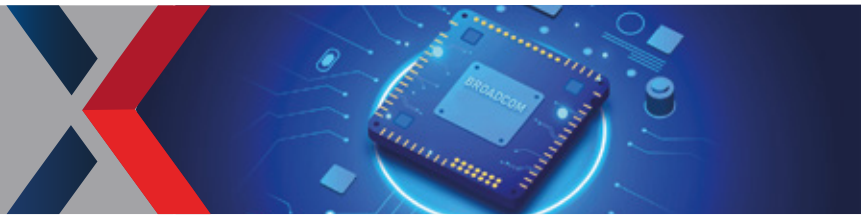


Built-in Bluetooth

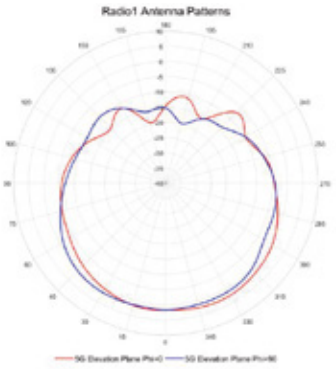
NODEXON NX-AP5722-C6 adopts built-in Bluetooth module which can support 10m long-distance Console function, avoid additional workload in the process of equipment installation and maintenance, reduce the difficulty of troubleshooting, and support iBeacon shaking.

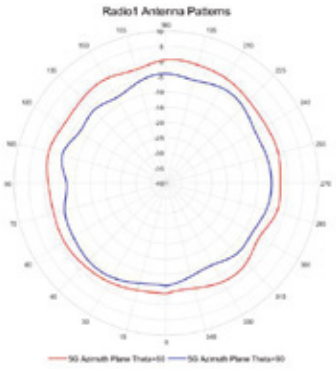
RF Optimizing Engine (ROE)

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.

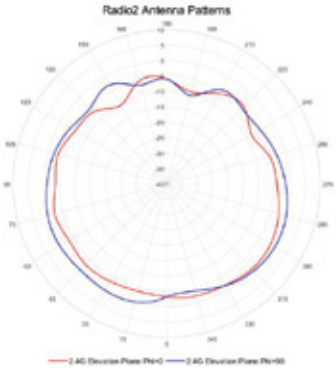
Antenna Patterns

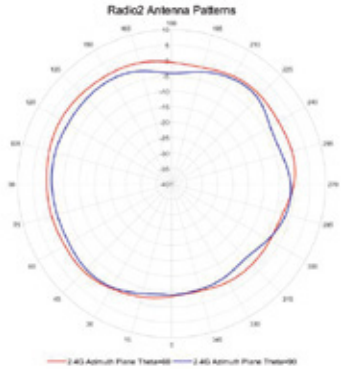
Radio1: 5GHz (AP front facing right)





Radio2: 2.4GHz (AP front facing right)





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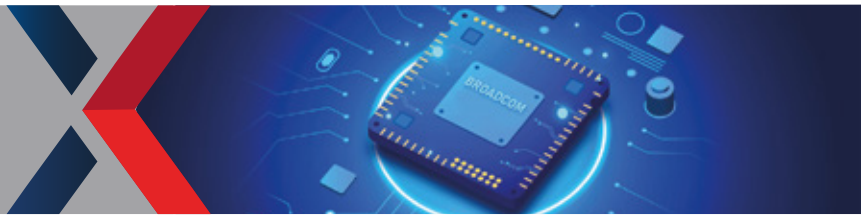

TECHNICAL SPECIFICATIONS

SPECIFICATIONS	NX-AP5722-C6
Ports	Port 1: 100M/1000M/2.5G/5G, RJ45 Port 2: 100/1000M, RJ-45, IoT
Dimensions (WxDxH)	43 × 210 × 210 mm (1.69 × 8.27 × 8.27 in)
Weight	0.94 kg
IoT Extension	BLE, RFID, ZigBee, etc.
Local Power supply	54V DC
Built-in antenna	Built-in omni-directional antenna 5dBi antenna gain @2.4GHz 5dBi antenna gain @5GHz
Built-in Bluetooth	Built-in Bluetooth 5.0(Support to switch RFID through software)
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 (file://dbpsk@1mbps、dqpsk@2mbps、cck@5.5/11Mbps) MIMO-OFDM (11n) : MCS 0-31, MIMO-OFDM (11ac) : MCS 0-11, MIMO-OFDM(11ax) : MCS 0-11
Maximum transmit power	2.4G: 25dBm, 5G: 30 dBm (Transmit power is multi-chain combined power, no antenna gain is included. The actual transmit power depends on local laws and regulations)
State LED	Alternating flashing mode, orange/green/blue for different working states, breathing mode
Working Temperature	-10°C～55°C(32°F to 113°F)/-40°C～70°C(–40°F to +158°F)
Working Humidity	5%~95%(non-condensing)
Overall power consumption	≤30W
Safety compliance	GB4943, EN60601-1-2, UL/CSA 60950-1, EN/IEC 60950-1, EN/IEC 60950-22
Radio frequency certification	FCC Part 15, EN 300 328, EN 301 893, and MIIT SRRC
Adjustable power granularity	1 dBm
Health	FCC Bulletin OET-65C, EN 50385, IC Safety Code 6
MTBF	>250000Hws

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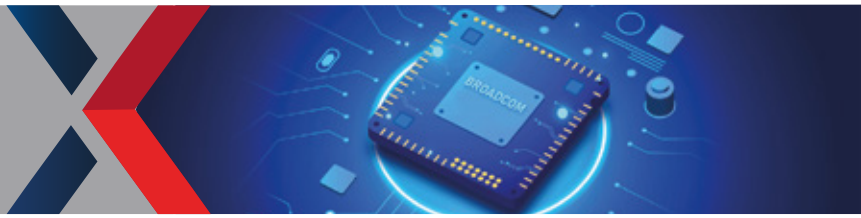

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SPECIFICATIONS	NX-AP5722-C6
Maximum transmission speed	2.975 Gbps
Working frequencies and MIMO	5GHz, 4×4:4 MU-MIMO 2.4Gbps 2.4GHz, 2×2:2 MU-MIMO 0.575Gbps
Maximum number of clients per radio	512
Advanced Traffic Management	Supported
Restrict low rate/sticky terminals access	Supported
Concurrent login of WPA, WPA2, WPA3 and PreRSNA users	Supported
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 triggering conditions for unicast andbroadcast key update
Authentication	802.1X authentication, MAC authentication, PSK authentication, Portal authentication, PPSK
Forwarding security	Packet filtering, MAC address filtering, Broadcast storm suppression
Wireless terminal access	Wireless EAD
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

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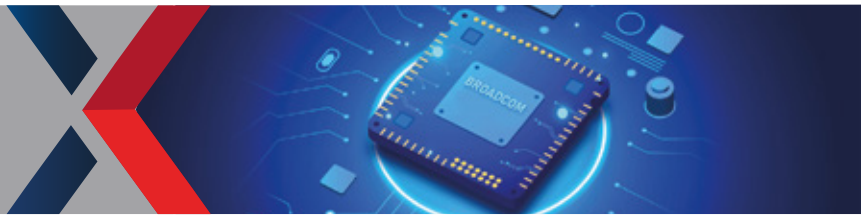

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SPECIFICATIONS	NX-AP5722-C6
802.11e	Wi-Fi Multimedia (WMM)
Priority	802.1p priority and marking on Ethernet ports, Priority mapping for wired and wireless packets
Layer 2 to Layer 4 packet filtering and traffic classification	Supported
Layer 4-7 application 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
QoS policy mapping	SSID/VLAN and QoS policy mapping
Load balancing	Traffic-based load balancing, Session-based load balancing, Frequency-based load balancing (supports dualband)
Client bandwidth management	Station-based bandwidth allocation SSID-based bandwidth allocation
Multicast optimization (IPv4/IPv6)	Supported
Band navigation(5G priority)	Supported
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/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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