INDOOR ACCESS POINT
QN-I-870

Up to 5.9 Gbps
Data Rate

5 GbE
Connectivity

2.4 GHz - 4x4,
5 GHz – 8x8

MU MIMO
With OFDMA

3 Years
Warranty

PRODUCT OVERVIEW

QN-I-870 is a Wi-Fi 6 Access Point offering high-performance connectivity for any organization experiencing largely growing numbers of IoT and mobility requirements. With a maximum real-world data rate of up to 5.9 Gbps, it delivers high speed, secure, reliable and seamless performance.

QN-I-870 offers a dual-band, dual-concurrent Wi-Fi 6 Access Point that supports 12 Spatial streams (8x8:8 in 5GHz, 4x4:4 in 2.4GHz). OFDMA technology provides highly efficient fast speed, wide coverage and smoother performance. Its ability to manage high-traffic indoor places like auditoriums, stadiums, conference halls and transit hubs makes it an ideal solution for data-demanding streaming Multimedia Applications like 4K video transmissions while assisting latency-sensitive voice and data applications with firm Quality-of-Service.

Easily deploy futuristic customer engagement solutions using BLE Beacon powered by a USB port.

QN-I-870 is managed by Quantum Rudder. Easily deploy futuristic customer engagement solutions using BLE Beacon powered by a USB port.

KEY FEATURES

- **Packed with the latest 802.11ax technology.**
  QN-I-870 is packed with all the advances of High-Efficiency supported 11ax Access Point. It supports Wi-Fi 6 features such as OFDMA, Target Wake Time, BSS Colouring, and Spatial Reuse.

- **Phenomenal Wi-Fi performance.**
  Engineered for phenomenal Wi-Fi performance even in high-density environments for demanding voice and video applications. Provides improved coverage, increased capacity, and seamless performance in dense environments.

- **Build next-generation guest Wi-Fi networks.**
  Deploy next-generation customer service hotspots with integrated splash portal and BLE Beacons.

- **Theft prevention functionality.**
  Access Point is locked for deployment in any other network until decommissioned from the existing network.

- **Three-years warranty.**
  Three-year limited liability manufacturer's warranty from the date of activation of the device.

Wi-Fi		
Wi-Fi Standards	5 GHz	IEEE 802.11a/n/ac/ax
	2.4 GHz	IEEE 802.11b/g/n/ax
Operating Mode	Access point, Router, Mesh mode	
Networking Mode	IPv4, IPv6, IPv4v6 (Dual stack), Gateway mode(NAT), Bridge mode	
Maximum Data Rates	5 GHz	802.11ax@ 160 MHz: 4804 Mbps
		802.11ax@ 80 MHz: 4804 Mbps
		802.11ax@ 40 MHz: 2294.1 Mbps
		802.11ax@ 20 MHz: 1147.1 Mbps
		802.11ac@ 80 MHz: 3466.7 Mbps
		802.11ac@ 40 MHz: 1600 Mbps
		802.11ac@ 20 MHz: 693.3 Mbps
	2.4 GHz	802.11ax@ 40 MHz: 1147.1 Mbps
		802.11ax@ 20 MHz: 573.5 Mbps
		802.11n@ 40 MHz: 917.6 Mbps
		802.11a/g@ 20 MHz: 54 Mbps
		802.11b@ 20 MHz: 11 Mbps
Maximum Receiver Sensitivity	5 GHz	-98 dBm
	2.4 GHz	-93 dBm
Supported Channels	5 GHz	36-64, 100-144, 149-165 (UNII-1, UNII-2, UNII-2e, UNII-3 compliant) (As per country regulations)
	2.4 GHz	1-13 (As per country regulations)
	Dynamic frequency selection (DFS) optimizes the use of available RF spectrum	
Channel Bands	5 GHz	5.15-5.25 GHz (U-NII-1), 5.25-5.35 GHz (U-NII-2A), 5.47-5.725 GHz (U-NII-2C), 5.725-5.85 GHz (U-NII-3) (As per country regulations)
	2.4 GHz	2.4-2.484GHz (ISM) (As per country regulations)
Modulation Schemes	802.11ax	BPSK, QPSK, 16-QAM, 64-QAM, 256- QAM, 1024-QAM
	802.11ac	BPSK, QPSK, 16-QAM, 64-QAM, 256-QAM
	802.11a/g/n	BPSK, QPSK, 16-QAM, 64-QAM
	802.11b	BPSK, QPSK, CCK
Spatial Streams	8x8:8	Streams in 5GHz-OFDMA with MU-MIMO
	4x4:4	Streams in 2.4GHz- OFDMA with MU-MIMO
Channel Size	802.11n	20/40 (HT) MHz
	802.11ac	20/40/80 (VHT) MHz
	802.11ax	20/40/80/160 (HE) MHz
Wireless Security	WPA3-AES personal, Enhanced open (OWE)	
	WPA3-Enterprise (802.1x/EAP-TLS, EAP-TTLS)	
	WPA3-WPA2 Mixed- AES personal, Open	
	WPA2-TKIP/AES personal, Open	
	WPA2-Enterprise (802.1x/EAP-PEAP, EAP-TLS, EAP-TTLS)	
	WPA personal, WPA Mixed-Enterprise (802.1x/EAP-PEAP)	

	WEP-64, WEP-128	
	802.11 w MFP (Management Frame Protection)	
	MAC based authentication	
Wireless Security	Captive portal-based authentication	
	802.11i	
	Quantum SECURE	
	Hide SSID in beacons	
External DB Support	Radius, Active directory, LDAP, TACACS+	
Web Authentication	QN-Secure+, RADIUS, Active directory, LDAP	
User Authentication	Methods	Captive portal, QN-Secure+, 802.1x (Radius)
	Directory	QIM, Microsoft active directory, LDAP, Gsuite, Oauth
	Mode	Via Controller /Access points
Roaming	IEEE 802.11k (Assisted Roaming)	
	IEEE 802.11v (BSS Transition Management)	
	IEEE 802.11r (Fast BSS Transition (FT))	
	Pairwise Master Key (PMK) caching	
	Opportunistic key caching	
	Seamless roaming for captive portal users	
Channel / Tx Power Management	Auto / Manual channel selection	
	Speedy channel for performance optimization	
	Channel switch for performance optimization	
	ATP-Automatic Transmit Power management	
Client Management	Band steering	
	Band balancing	
	Airtime fairness	
Guest Management	WISPr – Captive portal, HotSpot 2.0	
Native Guest Portal	Customized Template	Yes (User define, Theme based)
	Authentication Method	Click-through, Access code, Self-sign-up (SMS, Email), Sponsor based (Domain-based, Individual Email ID based)
	Guest Profile Support	Pass validity, Bandwidth restriction, Quota based
Access Control List	Force DHCP	
	URL & Application filtering / Whitelisting	
	Full Client Isolation, Deny inter user bridging, Deny intra VLAN traffic	
	Bandwidth Restriction per SSID/per User	
	OS restriction	
	L2 (MAC) filtering	
	L3 (IP) / L4 (Port) filtering	
	MAX clients per radio	
	Internet freeze per SSID / user, Session control	
	Random MAC Detection	

Meshing	Wireless (singlehop / multihop)
	Wired
WDS	Point to Point
	Point to MultiPoint
Radio Management	DTIM interval
	OFDM Only (Disables 802.11b)
	BSS Rate and management rate
	UAPSD (Power save)
	Inactivity timeout
	Radio mode control
	RTS/CTS Threshold
Network Management	IEEE 802.11d/h (DFS) support
	LLDP discovery, SFlow
	Proxy ARP
	DHCP options 43, 60 and 82
	Port forwarding in router mode
Administration	WLAN scheduling
	Internet speed test
	Schedule reboot
Radius Integration	CoA (Change of Authorization)
	MAC Authentication
	Dynamic VLAN
Wi-Fi6 Features	Target wake time
	BSS colouring
	Spatial reuse
	Orthogonal frequency division multiple access (OFDMA)
	Preamble puncturing
Advance Features	Advanced Cellular Coexistence (ACC) minimizes interference from cellular networks
	Cyclic delay/shift diversity (CDD/CSD) to enable the use of multiple transmit antennas
	Short guard interval for 20-MHz, 40-MHz, 80-MHz and 160-MHz
	Space-time block coding (STBC) for increased range and improved reception
	Low-density parity check (LDPC) for high-efficiency error correction and increased throughput
	Transmit beam-forming (TxBF) for increased signal reliability and range
HawkEye – Rogue/WIDS / WIPS / NIPS	
Rogue AP	Rogue SSID
	MAC Spoofing
	SSID Spoofing
	Honeypot / Evil twin attack
	Null Probe request attack

WIDS	RTS/CTS Abuse attack
	Auth attack
	Assoc attack
	Fata jack tool attack
	Man in the Middle attack
	DHCP snooping server detection
	AP flood attack
	Block ACK DoS attack
	Power saves frame attack
	Malformed frame-Auth/Assoc attack
WIDS/WIPS	Deauth attack
	Disassoc attack
	Omerta attack
	Password guessing attack
	Ad-Hoc connection
NIPS	Dos attack
	DDos attack
	Port scanning
Diagnostics	
Network Diagnostics	Ping, Traceroute, Nslookup, Internet speed, Host discovery, Port connectivity, ARP scanner
RF Diagnostics	PCAP capture, Spectrum Analysis, Spectrum Channel metric, Spectrum FFT Duty cycle, WiFi Analyzer, Airbender
Networking	
Ethernet WAN	WAN (DHCP/Static/PPPoE)
USB WAN	USB dongle (3G/4G), Mobile tethering (USB)
Protocols	Static, RIP v2, OSPF v2
Tunneling	GRE, IPSec, Wire guard, OVPN
Multi WAN	Yes, Auto Failover
DHCP Server	4 Scope, DHCP lease, DHCP MAC reservation, DNS proxy
WAN Security	Ethernet / USB port block management
PPP Interface	PPPoE, L2TP, L2TP with IPSec
DNS	Static, Caching, Dynamic DNS
NAT	Masquerade (SNAT), Port forwarding (DNAT)
VLAN Support	802.1Q (1 per BSSID), Port-based (Tagged, untagged),
IoT	Supported (With BLE)
IGMP	IGMP v2
	IGMP Snooping
Supported Features	Safe Search, ALG Control
	UPnP, DMZ Host, Adblock

Quality of Service		
Auto QoS, 802.11e,		
Manual QoS (DSCP based, Voice, Video, BE and BK)		
WMM		
802.1p		
WiFi Calling		
DiffServ		
DSCP Tagging		
Performance & Capacity		
Peak PHY Rates	5 GHz	4804 Mbps (802.11ax)
	2.4 GHz	1147 Mbps (802.11ax)
Client Capacity	Up to 1024 clients per Access point	
SSID	Up to 32 per access point (16 per Radio)	
RF		
Maximum Aggregate Transmit Power (Adjusted as per country regulations)	5 GHz	24 dBm
	2.4 GHz	27 dBm
Antenna Type		Built-in integrated antenna for both radios and BLE
Antenna Gain (Max)	5 GHz	4 dBi
	2.4 GHz	1.7 dBi
	BLE	4 dBi
EIRP (Adjusted as per country regulations)	5 GHz	28 dBm
	2.4 GHz	28.7 dBm
Radio Interfaces	Sensor radio optional	
Power		
Rating	802.3 at / bt (PoE++)- Fully functional with all components	
	12V DC 3A - Fully functional with all components	
Physical Interfaces		
Ethernet	WAN: 1 x 10/100/1000/2.5G/5G N Base -T ethernet, Auto MDIX, RJ-45 with 802.3bt PoE	
	LAN: 1 x 10/100/1000/2.5G N Base -T ethernet, Auto MDIX, RJ-45	
USB	1 x USB 3.0 port	
Buttons	Restart/Reset	
LED Indicators	2.4 GHz, 5 GHz, Power, Uplink	

Management	
Device Management	Standalone, Local (web UI), SSH (CLI)
	Quantum Rudder (Controller based)
	Quantum Rudder (On-premises VM)
	Quantum Rudder appliances (RR-200, RR-300, RR400)
	Through NMS using SNMP MIBs
	Local device web management
Device /System Monitoring	SNMP v1, v2c, v3, Syslog
NTP Server Configuration	Supported
Traffic Monitoring	Application Statistics
	IPDR Logs (IPFix , Netflow v9)
	URL Logs (Syslog)
Controller DR (Disaster Recovery)	Supported
Device Security	
Certificate	Locally-significant certificates using PKI
Controller Communication	Encrypted
Switch Port Access	802.1x RADIUS supplicant
Application Integration	
PM WANI,	
NMS Integration - ZABBIX, PRTG Monitor, Open NMS	
Environmental	
Operating Temperature	-10°C (14°F) to 55°C (131°F)
Humidity	Up to 95%, non-condensing
Standard	Plenum-rated (UL2043)
Physical	
Dimensions	19.5 cm (L) x 20.1 cm (W) x 3.98 cm (H)
Weight	0.7 kg (1.54 lbs)
Mounting kit	Ceiling mount, Wall mount
Firmware Management	
Cloud manage Firmware Update	
Scheduled Firmware Update	
Security Update	

Certification and Compliances		
Certifications	**Parameter**	**Standards**
Regulatory (USA)	FCC	
Regulatory (IN)	BIS	IEC-60950
	IPv6 Ready	
	ETA (WPC)	NABL 2.4, NABL 5
Environmental	CE, RoHS	

ORDERING INFORMATION

Part Code	Description
QN-I-870	Quantum Networks QN-I-870 dual-band 802.11ax indoor wireless access point, 8x8:8 streams in 5 GHz and 4x4:4 streams in 2.4GHz, 1x1/2.5G/5G N Base-T Ethernet port and 1x1/2.5G N Base-T Ethernet ports, onboard BLE support, 802.3 bt PoE support. Includes 3-year limited liability manufacturer's warranty for the access point. Does not include PoE injector or power adaptor. Does not include cloud controller license.