INDOOR ACCESS POINT
QN-I-210

QUANTUM® NETWORKS

In areas with a medium population density, the demand for wireless infrastructure is frequently high due to consistent data-intensive applications and content usage. Users in these areas expect dependable and robust connectivity. QN-I-210 effectively fulfils these needs without incurring excessive expenses.

PRODUCT OVERVIEW

The QN-I-210 represents a cutting-edge Wi-Fi 6 access point designed to cater to the escalating mobility demands of modern organizations. With an impressive maximum data rate of up to 1.7 Gbps, this device boasts lightning-fast data transfer speeds. This access point provides the fast, secure, dependable and uninterrupted performance essential for enterprises of all sizes.

Leveraging simultaneous dual-band, 802.11ax wireless networking solutions, the QN-I-210 harnesses the power of OFDMA technology to deliver remarkably efficient high-speed connectivity, expansive coverage and uninterrupted performance in densely populated environments.

Managed by Quantum Rudder, the QN-I-210 includes anti-theft features designed to protect assets from unauthorized usage.

KEY FEATURES

Exceptional Wi-Fi performance
Utilizing cutting-edge Wi-Fi 6 (802.11ax) technology for performance enhancement and interference mitigation, it provides extended coverage and an unmatched user experience.

Mesh technology
Effortlessly establish a self-organizing and self-repairing mesh network using Mesh technology, significantly reducing the need for costly wiring and complex setups.

Economical enterprise-level solution
The QN-I-210 provides an exceptional price-to-performance ratio by delivering an extended range at a budget-friendly cost.

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

The access point features include support for 1024 QAM, BSS coloring, Target Wake Time, Spatial Reuse which collectively contribute to a more efficient, faster and reliable wireless network, catering to the growing demands of high-bandwidth applications and providing an enhanced user experience.

Up to 1.7 Gbps Data Rate

1 GbE Connectivity

2.4 GHz 5 GHz

2.4 GHz - 2x2, 5 GHz - 2x2

MU-MIMO With OFDMA

3 Years Warranty

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@ 80 MHz:1201 Mbps
		802.11ax@ 40 MHz: 573.5 Mbps
		802.11ax@ 20 MHz: 286.8 Mbps
		802.11ac@ 80 MHz: 1083.3 Mbps
		802.11ac@ 40 MHz: 500 Mbps
		802.11ac@ 20 MHz: 240.5 Mbps
	2.4 GHz	802.11ax@ 40 MHz: 573.5Mbps
		802.11ax@ 20 MHz: 286.8 Mbps
		802.11n@ 40 MHz: 500 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
Radio Chains and Spatial Streams	2x2:2	Streams in 5GHz-OFDMA with MU-MIMO
	2x2:2	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 (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	
	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, G suite, 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 RF optimization	
	Channel switch for RF optimization	
	ATP-Automatic Transmit Power management	
Radio Resource Monitoring	Airbender RF monitoring	Dedicated mode
		Concurrent overlay mode
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/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	
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-Fi 6 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/WIPS	Password guessing attack	
	Ad-Hoc connection	
NIPS	Port scanning	

Diagnostics

Network Diagnostics	Ping, Traceroute, Nslookup, Internet speed, Host discovery, Port connectivity, ARP scanner
RF Diagnostics	PCAP capture

Networking

Ethernet WAN	WAN (DHCP/Static/PPPoE)
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 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 or dynamic per user based on RADIUS), Port-based (Tagged, untagged)
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

Performance & Capacity

Peak PHY Rates	5 GHz	1201 Mbps (802.11ax)
	2.4 GHz	573.5 Mbps (802.11ax)
Client Capacity	Up to 256 clients per access point	
SSID	Up to 16 per access point (8 per Radio)	

RF

Maximum Aggregate Transmit Power (Adjusted as per country regulations)	5 GHz	23 dBm
	2.4 GHz	25 dBm

Performance & Capacity		
Antenna Type		Built-in integrated antenna for both radios
Antenna Gain (Max)	5 GHz	3 dBi
	2.4 GHz	3 dBi
EIRP (Adjusted as per country regulations)	5 GHz	26 dBm
	2.4 GHz	28 dBm
Power		
Rating	802.3 af PoE (Class 0) /at PoE+(Fully functional with all components)	
	12V DC 2A - Fully functional with all components	
Physical Interfaces		
Ethernet	WAN: 1 x 10/100/1000 Base-T ethernet, Auto-MDIX, RJ-45 with 802.3at PoE	
	LAN: 1 x 10/100/1000 Base-T ethernet, Auto-MDIX, RJ45	
	802.3az Energy Efficient Ethernet (EEE)	
Buttons	Restart/Reset	
Kensington Security Slot	Available	
LED indicators	Quick Setup, Cloud / Standalone	
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	URL Logs (Syslog)	
	IPDR Logs (IPFix , Netflow v9)	
Controller DR (Disaster Recovery)	Supported	
Device Security		
Certificate	Locally-significant certificates using PKI	
Controller Communication	Encrypted	
Port Access	802.1x RADIUS supplicant	
Application Integration		
PM WANI		
NMS Integration - ZABBIX, PRTG Monitor, Open NMS		

Environmental	
Operating Temperature	–20°C (-4F) ~ +65°C (+149F)
Humidity	5% ~ 100% non-condensing
Standard	Plenum-rated (UL2043)
Physical	
Dimensions	18.5 cm (L), 18.5 cm (W), 3.3 cm (H)
Mounting Kit	Suspended ceiling mount, Ceiling mount, Wall mount
Firmware Management	
Cloud-managed firmware update	
Scheduled firmware and security update	
Firmware upgrade via Access Point local GUI	

Certification and Compliances		
Certifications	**Parameter**	**Standards**
Regulatory (USA)	FCC	
Regulatory (IN)	BIS	
	IPv6 Ready	
	ETA (WPC)	NABL 2.4, NABL 5
	MTCTE (ER)	EMI/EMC (IEC / EN-61000* & CISPR 32), Safety (IS-13252 & IEC-60950), Radio, Technical (IPv4 & IPv6)
Environmental Compliances	CE, RoHS	

ORDERING INFORMATION

Part Code	Description
QN-I-210	Quantum Networks QN-I-210 dual-band 802.11ax indoor wireless access point, 2x2:2 streams, 2x1G Base-T Ethernet ports, 802.3 af/at 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.

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