INDOOR ACCESS POINT
QN-I-490

Up to 5.9 Gbps
Data Rate

Multi-Gig
Connectivity

2.4 GHz - 4x4,
5 GHz – 4x4

MU-MIMO
With OFDMA

3 Years
Warranty

The QN-I-490 establishes itself as a forefront player in Wi-Fi technology by harnessing the advancements of the latest Wi-Fi 6 standard. This innovation caters to the growing demand for faster and more efficient wireless connectivity.

PRODUCT OVERVIEW

QN-I-490 is a Wi-Fi 6 access point offering high-performance connectivity for any organization experiencing growing 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 for any enterprise environment.

QN-I-490 provides concurrent dual-band 802.11ax wireless networking solutions. OFDMA technology offers highly efficient fast speed, excellent coverage and smooth performance in high-density areas like railway stations, hospitals, malls, public places, universities etc.

Airbender using Speedy Channel will frequently scan over the air interference (of co-channel, adjacent, noise floor) and allocate the most reliable channel to AP for the best performance.

Quickly deploy futuristic customer engagement solutions like location and asset tracking with analytics using a BLE Beacon. QN-I-490 is managed by Quantum Rudder.

KEY FEATURES

Enhance the performance of the device
Enable the capability to connect multiple devices simultaneously with utilizing the built-in 8-spatial streams (4x4:4 in 5GHz, 4x4:4 in 2.4GHz), along with MU-MIMO and OFDMA technology for enhanced connections.

Exceptional Wi-Fi performance
Offers an exceptional end-user experience in expansive environments. The Converged Access Point facilitates the integration of diverse networks by utilizing built-in BLE capabilities.

Theft prevention functionality
The access point remains restricted from deployment in any other network until it is decommissioned from the current network.

Advanced Security
Experience heightened security with the latest Wi-Fi standard, WPA3, providing enhanced protection against wireless intrusion attacks in the most secure manner.

Three-year 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@ 160/80 MHz: 2402 Mbps
		802.11ax@ 40 MHz: 1147.1 Mbps
		802.11ax@ 20 MHz: 573.5 Mbps
		802.11ac@ 80 MHz: 2166.7 Mbps
		802.11ac@ 40 MHz: 1000 Mbps
		802.11ac@ 20 MHz: 481 Mbps
	2.4 GHz	802.11ax@ 40 MHz: 1147.1 Mbps
		802.11ax@ 20 MHz: 573.5 Mbps
		802.11n@ 40 MHz: 1000 Mbps
		802.11b/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	4x4:4	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)	

Wireless Security	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 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/User	
	OS restriction	
	L2 (MAC) filtering	
	L3 (IP) / L4 (Port) filtering	
	MAX clients per radio	
	Internet freeze per SSID / user	

Access Control List	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-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	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)
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), 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	1147.1 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	7.6 dBi
	2.4 GHz	5.5 dBi
	BLE	5.5 dBi
EIRP (Adjusted as per country regulations)	5 GHz	31.6 dBm
	2.4 GHz	32.5 dBm
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 N Base -T Ethernet, Auto-MDIX, RJ-45 with 802.3at PoE	
	LAN: 1 x 10/100/1000/2.5G N Base -T Ethernet, Auto-MDIX, RJ-45 with 802.3at PoE	
Console	1 x RJ-45 Ethernet	
USB	1 x USB 2.0 port	
Buttons	Restart/Reset	
LED Indicators	Power, 2.4 GHz, 5 GHz, 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
Port Access	802.1x RADIUS supplicant
Application Integration	
PM WANI,	
NMS Integration - ZABBIX, PRTG Monitor, Open NMS	
Environmental	
Operating temperature	0°C (32°F) to 50°C (122°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	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	IS-13252, IEC-60950
	ETA (WPC)	NABL 2.4, NABL 5
	IEC-60215	
	TEC (ER)	EMI/EMC (IEC / EN-61000* & CISPR 32), Safety (IS-13252 & IEC-60950), Radio, Technical (IPv4 & IPv6)
	IPv6 Ready	
Industry Association	Wi-Fi Alliance	
Environmental Compliances	CE, RoHS	

ORDERING INFORMATION

Part Code	Description
QN-I-490	Quantum Networks QN-I-490 dual-band 802.11ax indoor wireless access point, 4x4:4 streams, 2x1/2.5G Base-T Ethernet ports, 1x USB port, 802.3 at PoE support. Includes onboard BLE support and 3-year limited liability manufacturer's warranty for the access point. PoE injector, power adapter and cloud controller license is not included.

DEVICE UPGRADE*

Part Number	Description
QN-I-490-PF	Quantum Networks QN-I-490-PF dual-band 802.11ax indoor wireless access point, featuring 4x4:4 streams, 2x 1/2.5G Base-T Ethernet ports, 1x 10G Base-X SFP port, 1x USB port, and 1x RJ45 console. Includes onboard BLE support and 802.3bt PoE support. Comes with a 3-year limited liability manufacturer's warranty for the access point. PoE injector, power adapter and cloud controller license is not included.
QN-I-490-PE	Quantum Networks QN-I-490-PE dual-band 802.11ax indoor wireless access point, featuring 4x4:4 streams, 1x 1/2.5/5/10G Base-T Ethernet port, 2x 1/2.5G Base-T Ethernet ports, 1x USB port, and 1x RJ45 console. Includes onboard BLE support and 802.3bt PoE support. Comes with a 3-year limited liability manufacturer's warranty for the access point. PoE injector, power adapter and cloud controller license is not included.
QN-MR-25	The add-on dedicated Wi-Fi radio module (QN-MR-25) supports dual-band, making it ideal for applications such as WIPS/WIDS sensors, improving RRM decisions through continuous spectrum visibility, and enhancing network assurance and troubleshooting. This module supports hardware QN-I-490-PF and QN-I-490-PE and must be ordered with them.