

INDOOR ACCESS POINT

QN-I-720



The Quantum Networks QN-I-720 Wi-Fi 7 indoor access point delivers multigigabit speeds, enhanced security and resilient Wi-Fi and IoT connectivity for high-density environments. Wi-Fi 7 introduces new possibilities with advancements in speed, capacity and latency, transforming experiences such as streaming, gaming and IoT. It benefits industries like hospitality, education, multi-dwelling units (MDUs), public venues and service providers with unprecedented performance.

PRODUCT OVERVIEW

The QN-I-720 Wi-Fi 7 (802.11be) indoor access point features a 2x2 MIMO configuration, multi-link operation (MLO) for channel aggregation and 4K QAM for higher throughput and lower latency. It unlocks the 6 GHz band, more than doubling the available capacity, making it an advanced connectivity solution tailored for high-performance environments and modern, high-traffic demands.

KEY FEATURES

Wi-Fi 7 Standard

The QN-I-720 provides extensive coverage across 2.4 GHz, 5 GHz and 6 GHz, achieving a maximum tri-band aggregate data rate of 8.7 Gbps. It also offers configurable high availability through 2.5 Gbps Ethernet ports for seamless failover of both data and power, along with 10G SFP+ ports that ensure business continuity for mission-critical applications.

Extend the Benefits of Wi-Fi 7

The QN-I-720 access point, based on the 802.11be standard, provides efficiency and security enhancements on the 6 GHz band. It fully supports Wi-Fi 7 features like OFDMA and BSS Coloring and introduces new capabilities such as wide 320 MHz bandwidth channels, multi-link operation (MLO) for channel aggregation and failover and 4096 QAM (4K QAM) for higher peak data rates.

Unified Security Center for Wireless and Wired Network Protection

Quantum Hawkeye simplifies wireless device security management through automated categorization using a proprietary method, while delivering comprehensive defense against rogue access points, soft APs, Wi-Fi DoS attacks, and more, ensuring robust protection across wireless and wired networks, all while enhancing core network security to empower administrators with confident risk identification and mitigation.

Versatile management options

Experience versatility in management with a range of options, including cloud-based management or operation without a dedicated controller.

Theft prevention functionality

Implement robust theft prevention measures with a secure access point locking mechanism. Ensure access points remain exclusive to their designated networks until they are properly decommissioned. This security feature safeguards against unauthorized deployment in other networks, enhancing overall network integrity.



Up to 8.7 Gbps
Data Rate



10G SFP+
Connectivity



2.4 GHz - 2x2,
5 GHz - 2x2
6 GHz - 2x2



MU-MIMO
With OFDMA



3 Years
Warranty

Wi-Fi		
Wi-Fi Standards	6 GHz	IEEE 802.11a/n/ac/ax/be
	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	6 GHz	802.11be@ 320 MHz: 5765 Mbps
		802.11be@ 160 MHz: 2882 Mbps
		802.11be@ 80 MHz: 1441 Mbps
		802.11be@ 40 MHz: 688 Mbps
		802.11be@ 20 MHz: 344 Mbps
	5 GHz	802.11ax@ 160 MHz: 2402 Mbps
		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
	2.4 GHz	802.11ac@ 20 MHz: 240.5 Mbps
		802.11ax@ 40 MHz: 573.5 Mbps
		802.11ax@ 20 MHz: 286.8 Mbps
		802.11n@ 40 MHz: 500 Mbps
802.11b/g@ 20 MHz: 54 Mbps		
802.11b@ 20 MHz: 11 Mbps		
Maximum Receiver Sensitivity	6 GHz	-95 dBm
	5 GHz	-98 dBm
	2.4 GHz	-93 dBm
Supported Channels	6 GHz	1-29, 33-61, 65-93, 97-125, 129-157, 161-189, 193-221 (UNII-1, UNII-2A, UNII-2C, UNII-3, UNII-4, UNII-5, UNII-6, UNII-7, UNII-8 compliant) (As per country regulations)
	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	6 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) 5.925-6.425 GHz(U-NII-5), 6.425-6.525 GHz(U-NII-6), 6.525-6.875 GHz(U-NII-7), 6.875-7.125 GHz(U-NII-8)
	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)
	2.4 GHz	2.4-2.484GHz (ISM)

Modulation Schemes	802.11be	BPSK, QPSK, 16-QAM, 64-QAM, 256-QAM, 1024-QAM, 4096-QAM
	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 6GHz-OFDMA with MU-MIMO
	2x2:2	Streams in 5GHz-OFDMA (802.11ax) and OFDM (802.11ac) with MU-MIMO
	2x2:2	Streams in 2.4GHz- OFDM (802.11a/g/n) and DSSS (802.11b) 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
	802.11be	20/40/80/160/320 (EHT) 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	
WIPS/WIDS for Various Attack Signatures	Rogue Station Detection	
	Deauth attack detection, RTS and CTS abuse attack detection	
	Assoc attack detection, Fata jack tool detection	
	DHCP snooping server detection, Honeypot / Evil Twin attacks detection	
	Misconfigured AP detection	
	SSH Brute force attacks detection, Man in the middle attack's detection	
	Port scanning detection, Ad-Hoc connection detection, Password guessing attacks detection	
External DB Support	Radius, Active directory, LDAP	
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 RF optimization	
	Channel switch for RF 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
Diagnostics	Ping, Traceroute, Nslookup, Internet speed, Host discovery, Port connectivity, PCAP capture (Wired and Wireless), ARP scanner	
Access Control List	Force DHCP	
	URL & Application filtering	
	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	
Meshing	Wireless (singlehop / multihop)	
	Wired	
Radio Management	DTIM interval	
	OFDM Only (Disables 802.11b)	
	BSS Rate and management rate	
	UAPSD (Power save)	
Network Management	Inactivity timeout	
	IEEE 802.11d/h (DFS) support	
	LLDP discovery, SFlow	
	Proxy ARP	
	DHCP options 60 and 82	
	Port forwarding in router mode	

Administration	WLAN scheduling	
	Internet speed test	
	Schedule reboot	
Wi-Fi7/6 Features	Target wake time	
	Multi-Link Operation	
	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	
Networking		
SFP/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)	
Quality of Service		
Auto QoS, 802.1le,		
Manual QoS (DSCP based, Voice, Video, BE and BK)		
WMM		
802.1p		
Performance & Capacity		
Peak PHY Rates	6 GHz	5765 Mbps (802.11be)
	5 GHz	2402 Mbps (802.11ax)
	2.4 GHz	573.5 Mbps (802.11ax)
Client Capacity	Up to 1536 clients per Access point	
SSID	Up to 32 per access point (16 per Radio)	

RF		
Maximum Aggregate Transmit Power (Adjusted as per country regulations)	6 GHz	22 dBm
	5 GHz	23 dBm
	2.4 GHz	24 dBm
Antenna Type	Built-in integrated antenna for both radios and BLE	
Antenna Gain (Max)	6 GHz	5 dBi
	5 GHz	6 dBi
	2.4 GHz	6 dBi
	BLE	5 dBi
EIRP (Adjusted as per country regulations)	6 GHz	27 dBm
	5 GHz	29 dBm
	2.4 GHz	30 dBm
Power		
Rating	802.3 at PoE+ / bt PoE++ (Class 6) (Fully functional with all components)	
	12V DC 5A - 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	
	802.3bz specifications, 802.3az Energy Efficient Ethernet (EEE)	
SFP	WAN/LAN: 1 x 10G Base-X (SX / LX) SFP+ port	
Console	1 x RJ-45 Ethernet	
USB	1 x USB 3.0	
Buttons	Restart/Reset	
LED Indicators	Power, 2.4 GHz, 5 GHz, 6GHz, 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	
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 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	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	

ORDERING INFORMATION

Certifications	
QN-I-720	The Quantum Networks QN-I-720 is a tri-band 802.11be indoor wireless access point with 2x2:2 streams in the 6 GHz, 5 GHz, and 2.4 GHz bands. It features 2x1/2.5G Base-T Ethernet ports, 1x10G Base-X SFP+ port, onboard BLE support, and 802.3at/bt PoE+/PoE++ support. The access point includes a 3-year limited liability manufacturer's warranty. Does not include PoE injector or power adaptor. Does not include cloud controller license.