# INROOM ACCESS POINT QN-H-220







Up to 1.2 Gbps Data Rate



MU-MIMO



2x2, AC Wave2



Dual-Band Dual-Concurrent



3 Years Warranty Wi-Fi has become an essential amenity as users bring an increasing number of devices into hotel rooms, conference rooms, and classrooms.

### **PRODUCT OVERVIEW**

The Quantum QN-H-220 is meticulously crafted for individual room installations, serving as an 802.11ac Wave 2 Wi-Fi access point. This device boasts a compact, inconspicuous design that prioritizes security and easy mounting.

The QN-H-220 offers a concurrent dual-band solution for 802.11ac Wave 2 wireless networking. With MU-MIMO technology, it delivers impressive speed alongside extensive coverage. Managed by Quantum Rudder.

## **KEY FEATURES**

#### Loaded with cutting-edge Wave 2 technologies

QN-H-220 encompasses all the latest advancements of an ac wave 2 access point, including channel bonding, MU-MIMO and more.

#### **Exceptional Wi-Fi capabilities**

Designed to deliver exceptional Wi-Fi performance, even in medium-density environments with demanding voice and video applications. Enhances coverage, boosts capacity and ensures seamless performance in such settings.

#### Establish advanced guest Wi-Fi networks for the next-generation

Implement cutting-edge customer service hotspots featuring integrated splash portals and beacons via USB.

#### **Stunning performance**

Extends coverage, connects more devices simultaneously with dual MU-MIMO spatial streams and concurrent dual-band 2.4/5GHz radios.

#### Security against unauthorized use

The access point remains locked for deployment in any other network until decommissioned from the existing network.

#### Three-year warranty coverage

Benefit from a three-year limited liability manufacturer's warranty starting from the date of device activation.

Wi-Fi			
Wi-Fi Standards	5 GHz	IEEE 802.11a/n/ac	
	2.4 GHz	IEEE 802.11b/g/n	
<b>Operating Mode</b>	Access point, Router, Mesh mode		
Networking Mode	IPv4, IPv6, IPv4v6 (Dual stack), Gateway mode (NAT), Bridge mode		
Maximum Data Rates		802.11ac@ 80 MHz:866.7 Mbps	
	5 GHz	802.11ac@ 40 MHz:400 Mbps	
		802.11ac@ 20 MHz:173.3 Mbps	
		802.11n@ 40 MHz: 300 Mbps	
	2.4 GHz	802.11a/g@ 20 MHz: 54 Mbps	
		802.11b@ 20 MHz: 11 Mbps	
<b>Maximum Receiver</b>	5 GHz	-98 dBm	
Sensitivity	2.4 GHz	-93 dBm	
	5 GHz	36-64, 100-144, 149-165 (U-NII-1, U-NII-2A, U-NII-2C, UNII-3 compliant) (As per country regulations)	
Supported Channels	2.4 GHz	1-13 (As per country regulations)	
	Dynamic frequency sele	ction (DFS) optimizes the use of available RF spectrum	
Channel Bands	5 GHz	5.15-5.25GHz (U-NII-1), 5.25-5.35GHz (U-NII-2A), 5.47- 5.725GHz (U-NII-2C), 5.725-5.85GHz (U-NII-3) (As per country regulations)	
	2.4 GHz	2.4-2.484GHz (ISM) (As per country regulations)	
	802.11ac	BPSK, QPSK, 16-QAM, 64-QAM, 256-QAM	
<b>Modulation Schemes</b>	802.11a/g/n	BPSK, QPSK, 16-QAM, 64-QAM	
	802.11b	BPSK, QPSK, CCK	
Radio Chains and	2x2:2	Streams in 5 GHz- MU-MIMO	
Spatial Streams	2x2:2	Streams in 2.4 GHz- MU-MIMO	
Channel Size	802.11n	20/40 (HT) MHz	
	802.11ac	20/40/80 (VHT) MHz	
	WPA3-AES personal, en	hanced 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)		
Wireless Security	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 I DAP_TACACS+		
Web Authentication	QN-Securet RADIUS Active directory I DAP		
	Methods - Captive portal QN-Secure+ 802.1x (Radius)		
User Authentication	Directory - QIM Microsoft active directory I DAP G suite Qauth		
	Mode - Via Controller /Access points		
	IFEF 802 11k (Assisted Roaming)		
Roaming	IFEE 802.11v (BSS Transition Management)		
	IEEE 802.11r (East BSS Transition (FT))		
	Pairwise Master Key (PMK) caching		
	Opportunistic key caching		
	Seamless roaming for captive portal users		
	Auto / Manual channel selection		
Channel / Tx Power	Speedy channel for RF optimization		
Management	Channel switch for RF optimization		
	ATP-Automatic Transmit Power management		
	Band steering		
<b>Client Management</b>	Band balancing		
	Airtime fairness		
Guest Management	WISPr – Captive portal, HotSpot 2.0		
	Customized Template		
Native Guest Portal	Authentication Method		
	Guest Profile Support		
	Force DHCP		
	URL & Application filtering / Whitelisting		
	Full Client Isolation,		
	Deny inter-user bridging		
	Deny Intra-VLAN traffic		
Access Control List			
	L2 (MAC) Intering		
	MAX clients per radio		
	Internet freeze per SSID /Liser		
	Session control		
	Random MAC Detection		
	Wireless (singlehop / multihop)		
Meshing	Wired		
	Point to Point		
WDS	Point to MultiPoint		
	DTIM interval		
Radio Management	OFDM Only (Disables 802.11b)		
	BSS Rate and management rate		
	UAPSD (Power save)		



	Inactivity timeout		
	Radio mode control		
	RTS/CTS Threshold		
	IEEE 802.11d/h (DFS) support		
	LLDP discovery, SFlow		
Network Management	Proxy ARP		
	DHCP options 43, 60 and 82		
	Port forwarding in router mode		
	WLAN scheduling		
Administration	Internet speed test		
	Schedule reboot		
	CoA (Change of Authorization)		
<b>Radius Integration</b>	MAC Authentication		
	Dynamic VLAN		
HawkEye – Rogue/WIDS	/ WIPS		
	Rogue SSID		
	MAC Spoofing		
Rogue AP	SSID Spoofing		
	Honeypot / Evil twin attack		
	Null Probe request attack		
	Password guessing attack		
WIDS/WIPS	Ad-Hoc connection		
Diagnostics			
Diagnostics Network Diagnostics	Ping, Traceroute, Nslookup, Internet speed, Host discovery, Port connectivity, ARP		
Diagnostics Network Diagnostics RE Diagnostics	Ping, Traceroute, Nslookup, Internet speed, Host discovery, Port connectivity, ARP scanner PCAP capture, Airbender		
Diagnostics Network Diagnostics RF Diagnostics Networking	Ping, Traceroute, Nslookup, Internet speed, Host discovery, Port connectivity, ARP scanner PCAP capture, Airbender		
Diagnostics Network Diagnostics RF Diagnostics Networking Ethernet WAN	Ping, Traceroute, Nslookup, Internet speed, Host discovery, Port connectivity, ARP scanner PCAP capture, Airbender WAN (DHCP/Static/PPPoE)		
Diagnostics Network Diagnostics RF Diagnostics Networking Ethernet WAN USB WAN	Ping, Traceroute, Nslookup, Internet speed, Host discovery, Port connectivity, ARP scanner PCAP capture, Airbender WAN (DHCP/Static/PPPoE) USB dongle (3G/4G), Mobile tethering (USB)		
Diagnostics Network Diagnostics RF Diagnostics Networking Ethernet WAN USB WAN Tunneling	Ping, Traceroute, Nslookup, Internet speed, Host discovery, Port connectivity, ARP scanner PCAP capture, Airbender WAN (DHCP/Static/PPPoE) USB dongle (3G/4G), Mobile tethering (USB) GRE, IPSec, Wire quard, OVPN		
Diagnostics Network Diagnostics RF Diagnostics Networking Ethernet WAN USB WAN Tunneling Multi-WAN	Ping, Traceroute, Nslookup, Internet speed, Host discovery, Port connectivity, ARP scanner PCAP capture, Airbender WAN (DHCP/Static/PPPoE) USB dongle (3G/4G), Mobile tethering (USB) GRE, IPSec, Wire guard, OVPN Yes, Auto-Failover		
Diagnostics Network Diagnostics RF Diagnostics Networking Ethernet WAN USB WAN Tunneling Multi-WAN DHCP Server	Ping, Traceroute, Nslookup, Internet speed, Host discovery, Port connectivity, ARP scanner PCAP capture, Airbender WAN (DHCP/Static/PPPoE) USB dongle (3G/4G), Mobile tethering (USB) GRE, IPSec, Wire guard, OVPN Yes, Auto-Failover 4 Scope, DHCP lease, DHCP MAC reservation, DNS proxy		
DiagnosticsNetwork DiagnosticsRF DiagnosticsNetworkingEthernet WANUSB WANTunnelingMulti-WANDHCP ServerWAN Security	Ping, Traceroute, Nslookup, Internet speed, Host discovery, Port connectivity, ARP scanner PCAP capture, Airbender WAN (DHCP/Static/PPPoE) USB dongle (3G/4G), Mobile tethering (USB) GRE, IPSec, Wire guard, OVPN Yes, Auto-Failover 4 Scope, DHCP lease, DHCP MAC reservation, DNS proxy Ethernet / USB port block management		
DiagnosticsNetwork DiagnosticsRF DiagnosticsNetworkingEthernet WANUSB WANTunnelingMulti-WANDHCP ServerWAN SecurityPPP Interface	Ping, Traceroute, Nslookup, Internet speed, Host discovery, Port connectivity, ARP scanner PCAP capture, Airbender WAN (DHCP/Static/PPPoE) USB dongle (3G/4G), Mobile tethering (USB) GRE, IPSec, Wire guard, OVPN Yes, Auto-Failover 4 Scope, DHCP lease, DHCP MAC reservation, DNS proxy Ethernet / USB port block management PPPoE		
DiagnosticsNetwork DiagnosticsRF DiagnosticsNetworkingEthernet WANUSB WANTunnelingMulti-WANDHCP ServerWAN SecurityPPP InterfaceDNS	Ping, Traceroute, Nslookup, Internet speed, Host discovery, Port connectivity, ARP scanner PCAP capture, Airbender WAN (DHCP/Static/PPPoE) USB dongle (3G/4G), Mobile tethering (USB) GRE, IPSec, Wire guard, OVPN Yes, Auto-Failover 4 Scope, DHCP lease, DHCP MAC reservation, DNS proxy Ethernet / USB port block management PPPoE Static, Caching		
DiagnosticsNetwork DiagnosticsRF DiagnosticsNetworkingEthernet WANUSB WANTunnelingMulti-WANDHCP ServerWAN SecurityPPP InterfaceDNSNAT	Ping, Traceroute, Nslookup, Internet speed, Host discovery, Port connectivity, ARP scanner PCAP capture, Airbender WAN (DHCP/Static/PPPoE) USB dongle (3G/4G), Mobile tethering (USB) GRE, IPSec, Wire guard, OVPN Yes, Auto-Failover 4 Scope, DHCP lease, DHCP MAC reservation, DNS proxy Ethernet / USB port block management PPPoE Static, Caching Masquerade (SNAT), Port forwarding (DNAT)		
Diagnostics Network Diagnostics RF Diagnostics Networking Ethernet WAN USB WAN Tunneling Multi-WAN DHCP Server WAN Security PPP Interface DNS NAT VLAN Support	Ping, Traceroute, Nslookup, Internet speed, Host discovery, Port connectivity, ARP scanner PCAP capture, Airbender WAN (DHCP/Static/PPPoE) USB dongle (3G/4G), Mobile tethering (USB) GRE, IPSec, Wire guard, OVPN Yes, Auto-Failover 4 Scope, DHCP lease, DHCP MAC reservation, DNS proxy Ethernet / USB port block management PPPoE Static, Caching Masquerade (SNAT), Port forwarding (DNAT) 802.1Q (1 per BSSID or dynamic per user-based on RADIUS), Port-based (Tagged, untagged)		
Diagnostics Network Diagnostics RF Diagnostics Networking Ethernet WAN USB WAN USB WAN Tunneling Multi-WAN DHCP Server WAN Security PPP Interface DNS NAT VLAN Support	Ping, Traceroute, Nslookup, Internet speed, Host discovery, Port connectivity, ARP scanner PCAP capture, Airbender WAN (DHCP/Static/PPPoE) USB dongle (3G/4G), Mobile tethering (USB) GRE, IPSec, Wire guard, OVPN Yes, Auto-Failover 4 Scope, DHCP lease, DHCP MAC reservation, DNS proxy Ethernet / USB port block management PPPoE Static, Caching Masquerade (SNAT), Port forwarding (DNAT) 802.1Q (1 per BSSID or dynamic per user-based on RADIUS), Port-based (Tagged, untagged) Safe Search, ALG Control		
DiagnosticsNetwork DiagnosticsRF DiagnosticsNetworkingEthernet WANUSB WANTunnelingMulti-WANDHCP ServerWAN SecurityPPP InterfaceDNSNATVLAN SupportSupported Features	Ping, Traceroute, Nslookup, Internet speed, Host discovery, Port connectivity, ARP scannerPCAP capture, AirbenderWAN (DHCP/Static/PPPoE)USB dongle (3G/4G), Mobile tethering (USB)GRE, IPSec, Wire guard, OVPNYes, Auto-Failover4 Scope, DHCP lease, DHCP MAC reservation, DNS proxyEthernet / USB port block managementPPPoEStatic, CachingMasquerade (SNAT), Port forwarding (DNAT)802.1Q (1 per BSSID or dynamic per user-based on RADIUS), Port-based (Tagged, untagged)Safe Search, ALG ControlUPNP, DMZ Host, Adblock		
DiagnosticsNetwork DiagnosticsRF DiagnosticsNetworkingEthernet WANUSB WANTunnelingMulti-WANDHCP ServerWAN SecurityPPP InterfaceDNSNATVLAN SupportSupported FeaturesQuality of Service	Ping, Traceroute, Nslookup, Internet speed, Host discovery, Port connectivity, ARP scannerPCAP capture, AirbenderWAN (DHCP/Static/PPPoE)USB dongle (3G/4G), Mobile tethering (USB)GRE, IPSec, Wire guard, OVPNYes, Auto-Failover4 Scope, DHCP lease, DHCP MAC reservation, DNS proxyEthernet / USB port block managementPPPoEStatic, CachingMasquerade (SNAT), Port forwarding (DNAT)802.1Q (1 per BSSID or dynamic per user-based on RADIUS), Port-based (Tagged, untagged)Safe Search, ALG ControlUPNP, DMZ Host, Adblock		
DiagnosticsNetwork DiagnosticsRF DiagnosticsNetworkingEthernet WANUSB WANTunnelingMulti-WANDHCP ServerWAN SecurityPPP InterfaceDNSNATVLAN SupportSupported FeaturesQuality of ServiceAuto QoS, 802.11e,	Ping, Traceroute, Nslookup, Internet speed, Host discovery, Port connectivity, ARP scanner PCAP capture, Airbender WAN (DHCP/Static/PPPoE) USB dongle (3G/4G), Mobile tethering (USB) GRE, IPSec, Wire guard, OVPN Yes, Auto-Failover 4 Scope, DHCP lease, DHCP MAC reservation, DNS proxy Ethernet / USB port block management PPPoE Static, Caching Masquerade (SNAT), Port forwarding (DNAT) 802.1Q (1 per BSSID or dynamic per user-based on RADIUS), Port-based (Tagged, untagged) Safe Search, ALG Control UPNP, DMZ Host, Adblock		

WMM, 802.1p

WiFi Calling

DiffServ
----------

DITSelv			
Performance & Capacity			
Peak PHY Rates	5 GHz - 866.7 Mbps		
	2.4 GHz - 300 Mbps		
<b>Client Capacity</b>	Up to 128 clients per access point		
SSID	Up to 16 per ac	cess point (8 per Radio)	
RF			
Maximum Aggregate	5 GHz	24 dBm	
Transmit Power	2.4.011		
country regulations)	Z.4 GHZ	26 dBm	
Antenna Type		Internal Omni-directional antennas	
Antenna Gain (Max)	5 GHz	3 dBi	
	2.4 GHz	3 dBi	
EIRP (Adjusted as per	5 GHz	27 dBm	
country regulations)	2.4 GHz	29 dBm	
Power			
	802.3 af PoE (	Class 0) /at PoE+ (Fully functional with all components)	
Rating	12V DC 2A - Fu	Illy functional with all components	
Physical Interfaces	I		
	WAN:1 x 10/100	)/1000 Base-T Ethernet, Auto-MDIX, RJ-45 with 802.3at PoE	
	LAN: 2 x 10/100/1000 Base-T Ethernet, Auto-MDIX, R I-45		
Ethernet	PoE Out/LAN: 1 x 10/100/1000 Base-T Etherpet Auto-MDIX P I_45		
	Pass-Thru (Input and Output): 2 x R. 145 based Ethernet		
Buttons	Restart/Reset		
USB	1 x USB 2.0		
LED Indicators	Quick Setup, C	Cloud / Standalone	
Management			
	Standalone, Lo	ocal (web UI), SSH (CLI)	
	Quantum Rudder (Controller based)		
	Quantum Rudder (On-premises VM)		
Device Management	Quantum Rudder appliances (RR-200, RR-300, RR400)		
	Through NMS using SNMP MIBs		
	Local device web management		
Device / System Monitoring	SNMP v1, v2c,	SNMP v1, v2c, v3, Syslog	
NTP Server Configuration	Supported		
	IPDR Logs (IPFix ,Netflow v9)		
Trattic Monitoring	URL Logs (Sys	log)	
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, Ope	n NMS	
Environmental			
Operating Temperature	-20°C (-4F) ~ +55°C (+131F)		
Humidity	10% ~ 90% non-condensing		
Standard	Plenum-rated (UL2043)		
Physical			
Dimensions	15cm(L), 8.6cm(W)	, 2.5cm(H)	
Weight	184g (0.40 lbs)		
Mounting Kit	Suspended ceiling r	Suspended ceiling mount, Ceiling mount, Wall mount	
Firmware Management			
Cloud-managed firmware u	pdate		
Scheduled firmware and se	curity update		
Firmware upgrade via Acce	ss Point local GUI		
<b>Certification and Compli</b>	ances		
Certifications	Parameter	Standards	
Regulatory (USA)	FCC		
	BIS		
	IPv6 Ready		
Regulatory (IN)	MTCTE (ER)	EMI/EMC (IEC / EN-61000* & CISPR 32), Safety (IS-13252 & IEC- 60950), Radio, Technical (IPv4 & IPv6)	
	ETA (WPC)	NABL 2.4, NABL 5	
Environmental Compliances	CE, RoHS		

### **ORDERING INFORMATION**

Part Code	Description
QN-H-220	Quantum Networks QN-H-220 dual-band 802.11ac wave2 in room wireless access point, 2x2:2 streams, 4x1G Base-T Ethernet ports, 2x2 passthru 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.