# OUTDOOR ACCESS POINT QN-0-240







Up to 3 Gbps Data Rate



2.5 GbE Connectivity



2.4 GHz - 2x2, 5 GHz - 2x2



MU-MIMO With OFDMA



1 Year Warranty

## **PRODUCT OVERVIEW**

QN-O-240 built-in with a smart antenna and MU-MIMO technology provides high data-rates even in high-density and high-interference environments.

QN-O-240 provides concurrent dual-band, 802.11ax wireless networking solutions. OFDMA technology provides highly efficient fast speed, awesome coverage and smooth performance in high-density areas like railway stations, hospitals, malls, public places, universities etc.

QN-O-240 is manageable through a centralized platform and supported by Quantum Rudder. QN-O-240 can also be deployed as a standalone Access Point.

Each Access Point comes with a one-year limited liability manufacturer's warranty from the date of activation and theft prevention functionality to protect assets from misuse.

## **KEY FEATURES**

### Delivering high-performance outdoor Wi-Fi access.

Deploy secure and reliable outdoor hotspots at Transportation hubs, Stadiums, Smart cities and Rural Wi-Fi setups.

## 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.

#### **Cost-Efficient Connectivity.**

Reduces operational costs and the expense of additional hardware required for deployment by service providers/telcos. SFP port provides high-speed fiber backhaul without any additional hardware.

#### Theft prevention functionality.

Access Point is locked for deployment in any other network until decommissioned from the existing network.

#### Industrial-grade IP67 enclosure.

IP67 rating can withstand challenging environments with extreme temperatures and dusty environments.

#### Easy to manage.

Easily manage Wi-Fi infrastructure through the feature-rich Quantum Rudder management console.



S GH2	Wi-Fi				
		5 GHz	IEEE 802.11a/n/ac/ax		
Operating Mode         Access point, Router, Mesh mode           Networking Mode         IPv4, IPv6, IPv4/6 (Dual stack), Gateway mode (NAT), Bridge mode           Bo2.llax@ 80 MHz: 2400 Mbps         802.llax@ 80 MHz: 200 Mbps           Bo2.llax@ 40 MHz: 600 Mbps         802.llax@ 20 MHz: 286.8 Mbps           Bo2.llax@ 20 MHz: 286.9 Mbps         802.llax@ 20 MHz: 280.5 Mbps           Bo2.llax@ 20 MHz: 240.5 Mbps         802.llax@ 20 MHz: 240.5 Mbps           Bo2.llax@ 20 MHz: 286.8 Mbps         802.llax@ 20 MHz: 286.8 Mbps           Bo2.llax@ 20 MHz: 286.8 Mbps         802.llax@ 20 MHz: 286.8 Mbps           Bo2.llax@ 20 MHz: 286.8 Mbps         802.llax@ 20 MHz: 540 Mbps           Bo2.llax@ 20 MHz: 540 Mbps         802.llax@ 20 MHz: 540 Mbps           Bo2.llax@ 20 MHz: 540 Mbps         802.llax@ 20 MHz: 540 Mbps           Bo2.llax@ 20 MHz: 540 Mbps         802.llax@ 20 MHz: 540 Mbps           Bo2.llax@ 20 MHz: 540 Mbps         802.llax@ 20 MHz: 540 Mbps           Bo2.llax@ 20 MHz: 540 Mbps         802.llax@ 20 MHz: 540 Mbps           Bo2.llax@ 20 MHz: 540 Mbps         802.llax@ 100 Mbz: 540 Mbps           Bo2.llax@ 20 MHz: 540 Mbps         802.llax@ 100 Mbz: 540 Mbps           Bo2.llax@ 20 MHz: 540 Mbps         802.llax@ 100 Mbz: 540 Mbps           Bo2.llax@ 20 Mbz: 540 Mbps         802.llax@ 100 Mbz: 540 Mbps           Bo2.llax@ 20 Mbz: 540 Mbps         802.lla	Wi-Fi Standards				
Networking Mode	Operating Mode	, 3, ,			
S GHz					
Maximum Data Rates		, ,	802.11ax@ 160 MHz:2400 Mbps		
Maximum Data Rates			802.11ax@ 80 MHz:1201 Mbps		
Maximum Data Rates         802.11ac@ 80 MHz: 1083.3 Mbps           Maximum Data Rates         802.11ac@ 40 MHz: 500 Mbps           Moz.11ac@ 20 MHz: 240.5 Mbps         802.11ac@ 20 MHz: 240.5 Mbps           802.11ac@ 20 MHz: 286.8 Mbps         802.11ac@ 20 MHz: 560 Mbps           802.11b@ 20 MHz: 550 Mbps         802.11b@ 20 MHz: 54 Mbps           802.11b@ 20 MHz: 11 Mbps         802.11b@ 20 MHz: 11 Mbps           Sensitivity         5 GHz         -98 dBm           Supported Channels         5 GHz         -93 dBm           Supported Channels         2.4 GHz         1-13 (As per country regulations)           Supported Channels         2.4 GHz         1-13 (As per country regulations)           Channel Bands         5 GHz         5 GHz (U-NII-1), 5.25-5.35 GHz (U-NII-2A), 5.47-5.725 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-1), 5.25-5.35 GHz (U-NII-2A), 5.47-5.725 GHz (U-NII-2C), 5.725-5.85 GHz (U-NII-2C), 5.7			- '		
Maximum Data Rates         802.11ac@ 20 MHz: 500 Mbps           Maximum Data Rates         802.11ac@ 20 MHz: 240.5 Mbps           802.11ac@ 20 MHz: 600 Mbps         802.11ac@ 20 MHz: 586.8 Mbps           802.11ac@ 20 MHz: 500 Mbps         802.11ac@ 20 MHz: 54 Mbps           802.11ac@ 20 MHz: 54 Mbps         802.11bc@ 20 MHz: 11 Mbps           Maximum Receiver Sensitivity         5 GHz         -98 dBm           Supported Channels         5 GHz         -93 dBm           5 GHz         -93 dBm <t< th=""><th></th><td>5 GHz</td><td colspan="2">802.11ax@ 20 MHz: 286.8 Mbps</td></t<>		5 GHz	802.11ax@ 20 MHz: 286.8 Mbps		
S02.11ac@ 20 MHz: 240.5 Mbps			802.11ac@ 80 MHz: 1083.3 Mbps		
			802.11ac@ 40 MHz: 500 Mbps		
Rolling   Solition   Solition	Maximum Data Rates		802.11ac@ 20 MHz: 240.5 Mbps		
A GHz			802.11ax@ 40 MHz: 600 Mbps		
S02.1la/g@ 20 MHz: 54 Mbps			802.11ax@ 20 MHz: 286.8 Mbps		
802.11b@ 20 MHz: 11 Mbps		2.4 GHz	802.11n@ 40 MHz: 500 Mbps		
S GHz			802.11a/g@ 20 MHz: 54 Mbps		
Sensitivity			802.11b@ 20 MHz: 11 Mbps		
S GHz	Maximum Receiver	5 GHz	-98 dBm		
Supported Channels   2.4 GHz   1-13 (As per country regulations)	Sensitivity	2.4 GHz	-93 dBm		
Dynamic frequency selection (DFS) optimizes the use of available RF spectrum		5 GHz			
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)           Modulation Schemes         802.11ax         BPSK, QPSK, 16-QAM, 64-QAM, 256-QAM, 1024-QAM           802.11ac         BPSK, QPSK, 16-QAM, 64-QAM, 256-QAM           802.11b         BPSK, QPSK, 16-QAM, 64-QAM           802.11b         BPSK, QPSK, CCK           Streams in 5GHz-OFDMA with MU-MIMO           802.11c         20/40 (HT) MHz           802.11a         20/40 (HT) MHz           802.11ac         20/40/80 (VHT) MHz           802.11ax         20/40/80/160 (HE) MHz           WPA3-AES personal, enhanced open (OWE)           WPA3-Enterprise (802.1x/EAP-TLS, EAP-TTLS)           WPA3-WPA2 Mixed- AES personal, Open           WPA2-Enterprise (802.1x/EAP-PEAP, EAP-TLS, EAP-TTLS)	<b>Supported Channels</b>	2.4 GHz	1-13 (As per country regulations)		
Channel Bands         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)           Modulation Schemes         802.11ax         BPSK, QPSK, 16-QAM, 64-QAM, 256-QAM, 1024-QAM           802.11ac         BPSK, QPSK, 16-QAM, 64-QAM, 256-QAM           802.11b         BPSK, QPSK, 16-QAM, 64-QAM           802.11a         SPSK, QPSK, 16-QAM, 64-QAM           802.11a         20/40/80 (HT) MID           802.11a         20/40/80 (HT) MHz           802.11a         20/40/80 (HT) MHz           802.11a         20/40/80 (HT) MHz           802.11a         20/40/80 (HT) MHz           802.11a         802.11a					
Channel Bands         5 GHz         GHz (U-NII-2C), 5.725-5.85 GHz (U-NII-3) (As per country regulations)           Z.4 GHz         2.4-2.484GHz (ISM) (As per country regulations)           Modulation Schemes         802.11ax         BPSK, QPSK, 16-QAM, 64-QAM, 256-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           Spatial Streams         2x2:2         Streams in 2.4GHz- OFDMA with MU-MIMO           Channel Size         802.11a         20/40 (HT) MHz           802.11ac         20/40/80 (VHT) MHz           802.11ax         20/40/80/160 (HE) MHz           WPA3-AES personal, enhanced open (OWE)           WPA3-Enterprise (802.1x/EAP-TLS, EAP-TTLS)           WPA3-WPA2 Mixed- AES personal, Open           WPA2-Enterprise (802.1x/EAP-PEAP, EAP-TLS, EAP-TTLS)			'		
2.4 GHz   2.4-2.484GHz (ISM) (As per country regulations)	Channel Bands	5 GHz	GHz (U-NII-2C), 5.725-5.85 GHz (U-NII-3)		
Modulation Schemes		2.4 GHz			
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     802.11a   20/40 (HT) MHz     802.11a   20/40/80 (VHT) MHz     802.11ax   20/40/80/160 (HE) MHz     WPA3-AES personal, enhanced open (OWE)     WPA3-WPA2 Mixed- AES personal, Open     WPA2-TKIP/AES personal, Open     WPA2-Enterprise (802.1x/EAP-TLS, EAP-TTLS)		802.11ax			
802.11a/g/n   BPSK, QPSK, 16-QAM, 64-QAM     802.11b   BPSK, QPSK, CCK     Radio Chains and   2x2:2   Streams in 5GHz-OFDMA with MU-MIMO     Spatial Streams   2x2:2   Streams in 2.4GHz- OFDMA with MU-MIMO     802.11n   20/40 (HT) MHz     802.11ac   20/40/80 (VHT) MHz     802.11ax   20/40/80/160 (HE) MHz     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)		802.11ac			
802.11b   BPSK, QPSK, CCK	Modulation Schemes	802.11a/g/n			
Spatial Streams         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         20/40/80/160 (HE) MHz           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)			BPSK, QPSK, CCK		
Spatial Streams         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         20/40/80/160 (HE) MHz           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)	Radio Chains and				
Channel Size         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)		2x2:2	Streams in 2.4GHz- OFDMA with MU-MIMO		
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)		802.11n	20/40 (HT) MHz		
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)	Channel Size	802.11ac	20/40/80 (VHT) MHz		
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)		802.11ax	20/40/80/160 (HE) MHz		
WPA3-WPA2 Mixed- AES personal, Open  WPA2-TKIP/AES personal, Open  WPA2-Enterprise (802.1x/EAP-PEAP, EAP-TLS, EAP-TTLS)	Wireless Security	, , , , , ,			
WPA2-TKIP/AES personal, Open WPA2-Enterprise (802.1x/EAP-PEAP, EAP-TLS, EAP-TTLS)		WPA3-Enterprise (802.1x/EAP-TLS, EAP-TTLS)			
WPA2-TKIP/AES personal, Open  WPA2-Enterprise (802.1x/EAP-PEAP, EAP-TLS, EAP-TTLS)		WPA3-WPA2 Mixed- AES personal, Open			
		WPA2-TKIP/AES personal, Open			
WDA LWDANG LE COSCO (FIRE DECE)		WPA2-Enterprise (802.1x/EAP-PEAP, EAP-TLS, EAP-TTLS)			
WPA personal, WPA Mixed-Enterprise (802.1x/EAP-PEAP)		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, A	Active directory, LDAP		
	Methods	Captive portal, QN-Secure+, 802.1x (Radius)		
User Authentication	Directory	QIM, Microsoft active directory, LDAP, G suite, Oauth		
	Mode	Via Controller / Access points		
	IEEE 802.11k (Assisted R	Roaming)		
	IEEE 802.11v (BSS Trans	sition Management)		
	IEEE 802.11r (Fast BSS	Transition (FT))		
Roaming	Pairwise Master Key (PN	MK) caching		
	Opportunistic key cachi	ng		
	Seamless roaming for ca	aptive portal users		
	Auto / Manual channel s	selection		
Channel / Tx Power	Speedy channel for perf	formance optimization		
Management	Channel switch for perfo	ormance optimization		
	ATP-Automatic Transm	it Power management		
	Band steering			
Client Management	Band balancing			
	Airtime fairness			
Guest Management	WISPr – Captive portal,	HotSpot 2.0		
	Customized Template	Yes (User define, Theme-based)		
Native Guest Portal	Authentication	Click-through, Access code, Self-sign-up (SMS, Email),		
	Method	Sponsor based (Domain-based, Individual Email ID based)		
	Guest Profile Support	Pass validity, Bandwidth restriction, Quota based		
	Force DHCP			
	URL & Application filtering / Whitelisting			
	Full Client Isolation, Deny inter-user bridging, Deny intra-VLAN traffic  Bandwidth Restriction per SSID/User			
	OS restriction			
Access Control List	L2 (MAC) filtering			
	L3 (IP) / L4 (Port) filter	ing		
	MAX clients per radio			
	Internet freeze per SSID/user			
	Session control			
	Random MAC Detection	1		



Wired   Point to Point		Wireless (singlehop / multihop)
Point to MultiPoint  Point to MultiPoint  DTIM interval  OFDM Only (Disables 802.1lb) BSS Rate and management rate UAPSD (Power save) Inactivity timeout Radio mode control RTS/CTS Threshold  IEEE 802.1ld/h (DFS) support  LLDP discovery, SFlow Proxy ARP DHCP options 43, 60 and 82 Port forwarding in router mode CoA (Change of Authorization) MAC Authentication Dynamic VLAN  Administration  WLAN scheduling Internet speed test Schedule reboot  Target wake time BSS colouring Spatial reuse Orthogonal frequency division multiple access (OFDMA) Preamble puncturing Advance Features  Advance Features  Advance Features  Advance Features  Point to MultiPoint UAPSD (Nose) DFOW Only (Disables 802.1lb) BSS Radio Management rate UAPSD (Power save) UAPSD (Valory Support ULDP discovery, SFlow Proxy ARP DHCP options 43, 60 and 82 Port forwarding in router mode CoA (Change of Authorization) MAC Authorization) MAC Authorization Dynamic VLAN  WLAN scheduling Internet speed test Schedule reboot  Target wake time BSS colouring Spatial reuse Orthogonal frequency division multiple access (OFDMA) Preamble puncturing 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	Mesning	Wired
Point to MultiPoint  DTIM interval  OFDM Only (Disables 802.1tb)  BSS Rate and management rate  UAPSD (Power save) Inactivity timeout Radio mode control RTS/CTS Threshold  IEEE 802.1td/h (DFS) support LLDP discovery, SFlow Proxy ARP DHCP options 43, 60 and 82 Port forwarding in router mode  CoA (Change of Authorization)  MAC Authentication Dynamic VLAN  Mulan scheduling Internet speed test Schedule reboot Target wake time BSS colouring Spatial reuse Orthogonal frequency division multiple access (OFDMA) Preamble puncturing  Advance Features  Advance Features  Advance Features  Point to MultiPoint DTIM interval DFD (Power save) D	WDC	Point to Point
Radio Management  Radio Management  Radio Management  ESS Rate and management rate  UAPSD (Power save)  Inactivity timeout Radio mode control RTS/CTS Threshold  IEEE 802.11d/h (DFS) support  LLDP discovery, SFlow Proxy ARP  DHCP options 43, 60 and 82 Port forwarding in router mode  CoA (Change of Authorization)  MAC Authentication Dynamic VLAN  Administration  WLAN scheduling Internet speed test Schedule reboot Target wake time BSS colouring Spatial reuse Orthogonal frequency division multiple access (OFDMA) Preamble puncturing  Advance Features  Advance Features  Advance Features  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	WDS	Point to MultiPoint
Radio Management  BSS Rate and management rate  UAPSD (Power save) Inactivity timeout Radio mode control RTS/CTS Threshold  RTS/CTS Threshold  IEEE 802.11d/h (DFS) support  LLDP discovery, SFlow Proxy ARP  DHCP options 43, 60 and 82 Port forwarding in router mode CoA (Change of Authorization)  MAC Authentication Dynamic VLAN  Administration  WLAN scheduling Internet speed test Schedule reboot Target wake time BSS colouring Spatial reuse Orthogonal frequency division multiple access (OFDMA) Preamble puncturing  Advance Features  Advance Features  Advance Gellular 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		DTIM interval
Network Management   Radio mode control   RTS/CTS Threshold   REEE 802.11d/h (DFS) support   LLDP discovery, SFlow   Proxy ARP   DHCP options 43, 60 and 82   Port forwarding in router mode   Poyamic VLAN   Poyamic VLAN   MLAN scheduling   Internet speed test   Schedule reboot   Schedule reboot   Schedule reboot   Preamble puncturing   Spatial reuse   Orthogonal frequency division multiple access (OFDMA)   Preamble puncturing   Advance Features   Advance Features   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 / NIPS   Rogue SSID   Presented   Radio mode control   Radio mode control   Radio mode control   Radio mode control   RTS/CTS Threshold   Radio mode control   RTS/CTS Threshold   Radio mode control   RTS/CTS Threshold   REEE 802.11d/h (DFS) support   Low-density parity check (LDPC) for high-efficiency error correction and increased throughput   Transmit beam-forming (TxBF) for increased signal reliability and range   Radio mode control   RTS/CTS Threshold   RTS/CTS Threshold   Radio mode control   RTS/CTS Threshold   Radio mode control   RTS/CTS Threshold   RTS/CTS Thresho		OFDM Only (Disables 802.11b)
Network Management   Radio mode control   RTS/CTS Threshold		BSS Rate and management rate
Radio mode control RTS/CTS Threshold  IEEE 802.1Id/h (DFS) support  LLDP discovery, SFlow Proxy ARP DHCP options 43, 60 and 82 Port forwarding in router mode  CoA (Change of Authorization) MAC Authentication Dynamic VLAN  Administration  WLAN scheduling Internet speed test Schedule reboot Target wake time BSS colouring Spatial reuse Orthogonal frequency division multiple access (OFDMA) Preamble puncturing  Advance 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 APP  Rogue SSID	Radio Management	UAPSD (Power save)
RTS/CTS Threshold    IEEE 802.1Id/h (DFS) support   LLDP discovery, SFlow   Proxy ARP   DHCP options 43, 60 and 82   Port forwarding in router mode   CoA (Change of Authorization)   MAC Authentication   Dynamic VLAN   Mac Authentication   Dynamic VLAN   WLAN scheduling   Internet speed test   Schedule reboot   Target wake time   BSS colouring   Spatial reuse   Orthogonal frequency division multiple access (OFDMA)   Preamble puncturing   Advance 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 APP   Rogue SSID		Inactivity timeout
IEEE 802.11d/h (DFS) support   LLDP discovery, SFlow     Proxy ARP     DHCP options 43, 60 and 82     Port forwarding in router mode     CoA (Change of Authorization)     MAC Authentication     Dynamic VLAN     Mulan scheduling     Internet speed test     Schedule reboot     Target wake time     BSS colouring     Spatial reuse     Orthogonal frequency division multiple access (OFDMA)     Preamble puncturing     Advance Features     Advance 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		Radio mode control
LLDP discovery, SFlow Proxy ARP DHCP options 43, 60 and 82 Port forwarding in router mode CoA (Change of Authorization) MAC Authentication Dynamic VLAN  Mathistration WLAN scheduling Internet speed test Schedule reboot Target wake time BSS colouring Spatial reuse Orthogonal frequency division multiple access (OFDMA) Preamble puncturing Advance Features  Advance Features  Advance Features  Advance Features  LLDP discovery, SFlow Proxy ARP DHCP options 43, 60 and 82 Port forwarding in router mode CoA (Change of Authorization) MAC Authorization  WLAN Scheduling Internet speed test Schedule reboot Target wake time BSS colouring Spatial reuse Orthogonal frequency division multiple access (OFDMA) Preamble puncturing 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		RTS/CTS Threshold
LLDP discovery, SFlow Proxy ARP DHCP options 43, 60 and 82 Port forwarding in router mode CoA (Change of Authorization) MAC Authentication Dynamic VLAN MAN scheduling Internet speed test Schedule reboot Target wake time BSS colouring Spatial reuse Orthogonal frequency division multiple access (OFDMA) Preamble puncturing Advance Features  Advance Features  Advance Features  LUDP discovery, SFlow Proxy ARP  MAC Authentication Dynamic VLAN WLAN scheduling Internet speed test Schedule reboot  Target wake time BSS colouring Spatial reuse Orthogonal frequency division multiple access (OFDMA) Preamble puncturing 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	Notwork Management	IEEE 802.11d/h (DFS) support
DHCP options 43,60 and 82 Port forwarding in router mode  CoA (Change of Authorization)  MAC Authentication Dynamic VLAN  WLAN scheduling Internet speed test Schedule reboot  Target wake time BSS colouring Spatial reuse Orthogonal frequency division multiple access (OFDMA) Preamble puncturing  Advance Features  Advance Features  Advance Features  Advance Features  DHCP options 43,60 and 82 Port forwarding in router mode CoA (Change of Authorization)  MAC Authentication Dynamic VLAN  WLAN scheduling Internet speed test Schedule reboot  Target wake time BSS colouring Spatial reuse Orthogonal frequency division multiple access (OFDMA) Preamble puncturing  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	Network Management	LLDP discovery, SFlow
Port forwarding in router mode  CoA (Change of Authorization)  MAC Authentication  Dynamic VLAN  MLAN scheduling Internet speed test Schedule reboot  Target wake time BSS colouring Spatial reuse Orthogonal frequency division multiple access (OFDMA) Preamble puncturing  Advance Features  Advance Features  Advance Features  Post did revel 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 AP		Proxy ARP
CoA (Change of Authorization)  MAC Authentication Dynamic VLAN  MLAN scheduling Internet speed test Schedule reboot  Target wake time BSS colouring Spatial reuse Orthogonal frequency division multiple access (OFDMA) Preamble puncturing  Advance Features  Rogue AP  Rogue AP  Agent Authorization  MAC Authorization  MIL Autho		DHCP options 43, 60 and 82
MAC Authentication         Dynamic VLAN         Administration       WLAN scheduling         Internet speed test         Schedule reboot         Target wake time         BSS colouring         Spatial reuse         Orthogonal frequency division multiple access (OFDMA)         Preamble puncturing         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		Port forwarding in router mode
Dynamic VLAN  WLAN scheduling Internet speed test Schedule reboot  Target wake time BSS colouring Spatial reuse Orthogonal frequency division multiple access (OFDMA) Preamble puncturing  Advance Features  BSS colouring Spatial reuse Orthogonal frequency division multiple access (OFDMA) Preamble puncturing  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		CoA (Change of Authorization)
Administration  WLAN scheduling Internet speed test Schedule reboot  Target wake time BSS colouring Spatial reuse Orthogonal frequency division multiple access (OFDMA) Preamble puncturing  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	Radius Integration	MAC Authentication
Internet speed test Schedule reboot  Target wake time BSS colouring Spatial reuse Orthogonal frequency division multiple access (OFDMA) Preamble puncturing  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		Dynamic VLAN
Schedule reboot  Target wake time  BSS colouring  Spatial reuse  Orthogonal frequency division multiple access (OFDMA)  Preamble puncturing  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	Administration	WLAN scheduling
Target wake time  BSS colouring  Spatial reuse  Orthogonal frequency division multiple access (OFDMA)  Preamble puncturing  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		Internet speed test
BSS colouring  Spatial reuse  Orthogonal frequency division multiple access (OFDMA)  Preamble puncturing  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		Schedule reboot
Spatial reuse Orthogonal frequency division multiple access (OFDMA) Preamble puncturing  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		Target wake time
Orthogonal frequency division multiple access (OFDMA)  Preamble puncturing  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		BSS colouring
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	Wi-Fi 6 Features	Spatial reuse
Advance 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		Orthogonal frequency division multiple access (OFDMA)
Advance Features  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		Preamble puncturing
Advance Features  Advance Features  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		Advanced Cellular Coexistence (ACC) minimizes interference from cellular networks
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		
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		
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	Advance Features	
throughput Transmit beam-forming (TxBF) for increased signal reliability and range  HawkEye - Rogue/WIDS / WIPS / NIPS  Rogue AP  Rogue AP		
Transmit beam-forming (TxBF) for increased signal reliability and range  HawkEye - Rogue/WIDS / WIPS / NIPS  Rogue AP		
Rogue AP		
Roque AP	HawkEye – Rogue/WIDS	
MAC Spoofing	D A.D.	Rogue SSID
3	Rogue AP	MAC Spoofing



	SSID Spoofing	
Rogue AP	Honeypot / Evil twin attack	
	Null Probe request attack	
	RTS/CTS Abuse attack	
_	Auth attack	
_	Assoc attack	
_	Fata jack tool attack	
	Man in the Middle attack	
WIDS	DHCP snooping server detection	
_	AP flood attack	
	Block ACK DoS attack	
	Power saves frame attack	
	Malformed frame-Auth/Assoc attack	
_	Deauth attack	
_	Disassoc attack	
	Omerta attack	
	Password guessing attack	
	Ad-Hoc connection	
	Dos attack	
NIPS	DDos attack	
	Port scanning	
Diagnostics		
Network Diagnostics	Ping, Traceroute, Nslookup, Internet speed, Host discovery, Port connectivity, ARP scanner	
RE 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)	
VI AN SIIDDOFT	802.1Q (1 per BSSID or dynamic per user-based on RADIUS), Port-based (Tagged, untagged)	
	IGMP v2, IGMP Snooping	
IGMP	101111 VZ, 101111 31100ping	
	Safe Search, ALG Control	



Quality of Service						
Auto-QoS, 802.11e,						
Manual QoS (DSCP based,	Voice, Vide	eo, BE and BK)				
WMM, 802.1p						
WiFi Calling						
DiffServ						
Performance & Capacity						
Darda DUIV Datas	5 GHz		2400 Mbps (8	02.11ax)		
Peak PHY Rates	2.4 GHz		600 Mbps (80	2.11ax)		
Client Capacity	Up to 512	clients per Acc	cess point			
SSID	Up to 16 p	er access poin	it (8 per Radio)			
RF		QN-0-240	QN-0-240-N			
			QN-ANT-5-5DB / QN-ANT-2-5DB	QN-ANT-5-8DB / QN-ANT-2-8DB	QN-ANT-5-12DB/ QN-ANT-2-12DB	QN-ANT-5-15DB/ QN-ANT-2-15DB
Maximum Aggregate	5 GHz	26 dBm	26 dBm	24 dBm	24 dBm	24 dBm
Transmit Power (As per country regulations)	2.4 GHz	27 dBm	27 dBm	25 dBm	25 dBm	25 dBm
Antenna Gain (Max)	5 GHz	6 dBi	5 dBi	8 dBi	12 dBi	15 dBi
	2.4 GHz	6 dBi	5 dBi	8 dBi	12 dBi	15 dBi
EIRP (As per country	5 GHz	32 dBm	31 dBm	32 dBm	36 dBm	39 dBm
regulations)	2.4 GHz	33 dBm	32 dBm	33 dBm	37 dBm	40dBm
Antenna Type	Built-in integrated antenna for both radios  External antennas connectors					
Power						
Rating	802.3 af PoE / at PoE+ (Class 4) (Fully functional with all components)			)		
Physical Interfaces						
Ethernet	WAN/LAN: 1 x 10/100/1000/2.5G N Base-T Ethernet, Auto-MDIX, RJ-45 with 802.3at PoE			45 with		
Eiban	802.3bz specifications, 802.3az Energy Efficient Ethernet (EEE)					
Fiber Buttons	WAN/LAN: 1 x 1 G Base-X (SX / LX) SFP port					
LED Indicators	Restart/Reset					
	Power, 2.4 GHz, 5 GHz, Uplink					
Management	Standalor	ne Local (web	III) SSH (CLI)			
Device Management	Standalone, Local (web UI), SSH (CLI)  Quantum Rudder (Controller based)					
	Quantum Rudder (On-premises VM)					
2 Trice management	Quantum Rudder appliances (RR-200, RR-300, RR400)					
	Through NMS using SNMP MIBs					
	Local dev	ice web manaç	gement			



Device/System Monitoring	SNMP v1, v2c, v3, Syslog
NTP Server Configuration	Supported
Traffic Monitoring	Application Statistics
Traffic Monitoring	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	-40°C (-40F) ~ +70°C (+158F)
Humidity	5% ~ 100% non-condensing
Wind Resistance	160 kmph for sustained wind, 250 kmph for wind gusts
Standard	IP67
Physical	
Dimensions	23.9cm(L), 19.5cm(W), 8.3cm(H)
Weight	1575 g (3.47 lbs)
Mounting kit	Pole mount
Firmware Management	

# **Certification and Compliances**

Scheduled firmware and security update
Firmware upgrade via Access Point local GUI

Certifications	Parameter	Standards	
Regulatory (USA)	FCC		
	BIS	IS-13252, IEC-60950	
Regulatory (IN)	MTCTE (ER)	MI/EMC (IEC / EN-61000* & CISPR 32), Safety (IS-13252 & IEC-60950), Radio, Technical (IPv4 & IPv6)	
ineganicery (inc)	IPv6 Ready		
	ETA (WPC)	NABL 2.4, NABL 5	
	IEC-60215		
<b>Environmental Compliances</b>	CE, RoHS, IP67		



# **ORDERING INFORMATION**

Part Code	Description	
QN-O-240	Quantum Networks QN-O-240 dual-band 802.11ax outdoor wireless access point, 2x2:2 streams, 1x1/2.5G N Base-T Ethernet port and 1x1G base-X SFP port, 802.3 at PoE support. Includes 1-year limited liability manufacturer's warranty for the access point. Does not include PoE injector or power adaptor. Does not include cloud controller license.	
QN-0-240-N	Quantum Networks QN-O-240-N connectorized dual-band 802.11ax outdoor wireless access point, 2x2:2 streams, 1x1/2.5G N Base-T Ethernet port and 1x1G base-X SFP port, 802.3 at PoE support. Includes 1-year limited liability manufacturer's warranty for the access point. Does not include PoE injector or power adaptor. Does not include cloud controller license.	
QN-O-240-PE	Quantum Networks QN-O-240-PE dual-band 802.11ax outdoor wireless access point, 2x2:2 streams, 1x1/2.5G N Base-T Ethernet port and 1x1G Base-T Ethernet port, 802.3 at PoE support. Includes 1-year limited liability manufacturer's warranty for the access point. Does not include PoE injector or power adaptor. Does not include cloud controller license.	
Accessories Part Code*	Description	
QN-ANT-2-5DB	2.4GHz External Outdoor Antennae with N-Connector, Gain: 5dBi	
QN-ANT-2-8DB	2.4GHz External Outdoor Antennae with N-Connector, Gain: 8dBi	
QN-ANT-2-12DB	2.4GHz External Outdoor Antennae with N-Connector, Gain: 12dBi	
QN-ANT-2-15DB	2.4GHz External Outdoor Antennae with N-Connector, Gain: 15dBi	
QN-ANT-5-5DB	5GHz External Outdoor Antennae with N-Connector, Gain: 5dBi	
QN-ANT-5-8DB	5GHz External Outdoor Antennae with N-Connector, Gain: 8dBi	
QN-ANT-5-12DB	5GHz External Outdoor Antennae with N-Connector, Gain: 12dBi	
QN-ANT-5-15DB	5GHz External Outdoor Antennae with N-Connector, Gain: 15dBi	

# **DEVICE UPGRADE**

Part Code	Description	
QN-O-240-loT	Additional BLE module for IoT-related applications.	
QN-O-240-DPOE	Additional PoE support on the LAN interface.	

<sup>\*</sup>The antenna connection cable (N-Type) is not included in the device packaging and must be purchased separately, as per requirement.