QUANTUM® NETWORKS

QQ-R-5000

Wi-Fi 6 access point delivering unparalleled capacity, coverage, and cost-efficiency in high-demand environments.

Ideal for modern offices, schools, retail and hospitality businesses.

PRODUCT OVERVIEW

Introducing the QQ-R-5000 Access Point: a state-of-the-art Wi-Fi 6 (802.11ax) solution designed for high-demand environments such as education, enterprise, and medium-sized venues.

It offers enhanced capacity, superior coverage, and cost efficiency, with peak data rates of up to 1774 Mbps and support for four spatial streams. Featuring OFDMA technology, it delivers efficient high-speed connectivity and seamless performance, along with Target Wake Time, BSS Coloring, and spatial reuse.

Managed by Quantum Compass, it comes with a two-year warranty and theft prevention functionality.

Up to 1.7 Gbps Data Rate

2.5 GbE Connectivity

2.4 GHz - 2x2, 5 GHz - 2x2
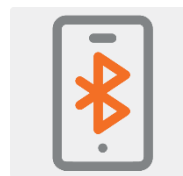
MU-MIMO With OFDMA
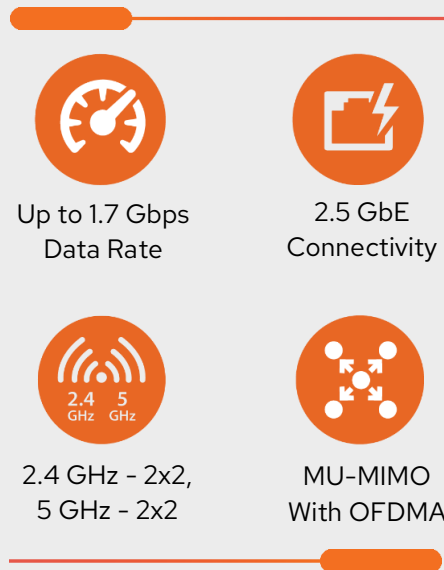
HIGHLIGHTS

Exceptional Wi-Fi Performance

Theft Prevention Functionality

Advanced Wi-Fi 6 Features

Built-in BLE, Zigbee USB Support

2 Years Warranty

TECHNICAL SPECIFICATIONS

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	
Networking Mode	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)
	2.4 GHz	2.4-2.484GHz (ISM)
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)	
	802.11i	

	Hide SSID in beacons
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
Channel / Tx Power Management	Auto / Manual channel selection
	ATP-Automatic Transmit Power management
Client Management	Band steering
Diagnostics	Ping, Traceroute, Nslookup, Internet speed, Host discovery, Port connectivity, PCAP capture (Wired and Wireless), ARP scanner
Access Control List	Bandwidth Restriction per SSID
	L2 (MAC) filtering
	MAX clients per radio
	Internet freeze per SSID/User
Administration	WLAN scheduling
	Schedule reboot
Wi-Fi 6 Features	Target wake time
	BSS colouring, Spatial reuse
	Orthogonal frequency division multiple access (OFDMA)
	Preamble puncturing

Networking

Ethernet WAN	WAN (DHCP/Static)
USB WAN	USB dongle (3G/4G), Mobile tethering (USB)
VLAN Support	802.1Q (1 per BSSID), Port-based (Tagged, untagged)
IoT	Supported (With BLE, Zigbee)

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 32 per access point (16 per Radio)	

RF

Maximum Aggregate Transmit Power	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	6 dBi
Antenna Gain (Max)	2.4 GHz	5 dBi
EIRP	BLE	4.6 dBi
	5 GHz	30 dBm
	2.4 GHz	32 dBm

Power	
Rating	802.3 af PoE / at PoE+ (Class 4) (Fully functional with all components)
	12V DC 2A - 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: 2 x 10/100/1000 Base-T Ethernet, Auto MDIX, RJ45 Console: 1 x RJ-45 Ethernet
	802.3bz specifications, 802.3az Energy Efficient Ethernet (EEE)
Console	1 x RJ-45 Ethernet
USB	1 x USB 3.0
Buttons	Restart/Reset
Kensington Security Slot	Available
LED indicators	2.4 GHz, 5 GHz, Power
Management	
Device Management	Standalone, Local (web UI), SSH (CLI)
	Quantum Compass
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 x 19.5 cm x 3.9 cm
Mounting Kit	Ceiling mount
Firmware Management	
Cloud-managed firmware update	
Firmware upgrade via Access Point local GUI	

ORDERING INFORMATION

Part Code	Description
QQ-R-5000	Quantum QQ-R-5000 dual-band 802.11ax indoor wireless access point, 2x2:2 streams, 1x1/2.5G base-T Ethernet port and 2x1G Base-T Ethernet ports, onboard BLE support, 802.3 at PoE support. includes 2-year limited liability manufacturer's warranty for the access point. Does not include PoE injector or power adaptor. Does not include cloud controller license.