



# Qualcomm Networking Pro 800 Platform

## 8-stream Wi-Fi 6 networking platform ideal for densely congested infrastructure applications

The Qualcomm® Networking Pro 800 platform is a broad market Wi-Fi 6 (802.11ax) network solution, supporting up to 8 spatial streams of Wi-Fi 6 connectivity, and designed to meet the growing demands of increasingly crowded and dense Wi-Fi environments.

The Qualcomm Networking Pro 800 platform includes next-generation Wi-Fi 6 features like optimized multi-user scheduling of both uplink and downlink MU-MIMO and OFDMA across all 8 spatial streams. Additional Wi-Fi 6 features such as 1024QAM, BSS coloring, and WPA3 security are delivered on an architecture perfected to successfully associate and maintain connectivity for up to 1500 client devices simultaneously.

This makes the Qualcomm Networking Pro 800 platform ideal for premium-tier retail routers, three-radio mesh networking systems, broadband gateways, as well as enterprise and carrier-class applications.

## Highlights

### Superior Connectivity

Up to 8 spatial streams of Wi-Fi 6 connectivity across both 5 and 2.4 GHz bands, dual or tri-radio configurability, and multi-user scheduling across downlink and uplink MU-MIMO and OFDMA to simultaneously manage up to 1500 users.



### Powerful Computing

A 64-bit quad-core CPU gives this platform computing power, and, when combined with our superior design architecture, offers additional capabilities for dynamic data processing and management.



### Advanced Data Management

Our deep packet buffer capabilities allow for better data management in densely congested environments.



### Powerful Networking Acceleration

Programmable network acceleration for complex and secure data transfer and Wi-Fi driver offload for all 8 streams to free up CPU subsystem. Advanced networking interfaces for 10 GbE WAN and LAN, as well as 5G CPE delivering fixed wireless access.



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## Features

- Up to 8 spatial streams for delivery of maximum Wi-Fi 6 capacity
- Multi-user scheduling architecture uses advanced algorithms and deep packet buffer for a deterministic approach to resource allocation
- Downlink/Uplink MU-MIMO supports 8 streams of Wi-Fi to simultaneously connect to MU-MIMO capable clients
- Downlink/Uplink OFDMA to provide efficient use of spectrum for small data packets supporting up to 37 users
- 1024 QAM support
- Up to 512 users per radio, flexible based on memory configuration
- Multi-Band Simultaneous Wi-Fi configurations for improved data rate efficiency across all bands of Wi-Fi
- Advanced network interfaces for 10 GbE WAN and LAN and PCIe interface for platform extensions

## Specifications

<b>CPU</b>	
CPU Clock Speed:	Up to 1.4 GHz
CPU Cores:	4x ARM Cortex A53
<b>Process</b>	
Process Technology:	14 nm FinFET
<b>Wi-Fi</b>	
Wi-Fi Standards:	802.11ax, 802.11ac, 802.11a/b/g, 802.11n
Wi-Fi Spectral Bands:	2.4 GHz, 5 GHz
Spatial Streams:	Up to 8
Peak speed:	4.1 Gbps
Wi-Fi Features:	1024 QAM, Advanced QoS, MU-MIMO, OFDMA, Uplink scheduling, TxBF, Qualcomm® Wi-Fi SON
<b>Security Support</b>	
Wi-Fi Security:	WPA3, WPA2, WPS, 802.11i security, AES-CCMP, AES-GCMP, PRNG, TKIP, WAPI, WEP
WPA3 Security:	Personal, Enterprise, Enhanced Open, Easy Connect
<b>Memory</b>	
Flash:	eMMC, NAND, Serial NOR
Memory Type:	DDR3L, DDR4
<b>Interface</b>	
Platform extensions:	Bluetooth, 4G/5G FWA, 15.4
Supported Interfaces:	PCIe 3.0, PTA Coex, I <sup>2</sup> S, I <sup>2</sup> C, Ethernet, PCIe 2.0, PCM SD/eMMC, SDIO, SPI, UART, USB 3.0
<b>Package</b>	
Package Type:	FCBGA
Package Size:	21 x 21 mm
<b>Part Number:</b>	
	IPQ8173, IPQ8174

For additional Qualcomm product information go to:  
[createpoint.qti.qualcomm.com](http://createpoint.qti.qualcomm.com)

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