

Qualcomm

# Qualcomm<sup>®</sup> Networking Pro 610 Platform

**Qualcomm<sup>®</sup> Tri-Band Wi-Fi 6, 6-stream networking platform with Wi-Fi 6E support, for congested Wi-Fi environments.**

The Qualcomm Networking Pro 610 Platform is a fully integrated Wi-Fi 6E platform ideally suited for home mesh networks and broadband gateways. It is a 6-stream offering featuring Qualcomm Tri-Band Wi-Fi 6. The Qualcomm Networking Pro 610 Platform can simultaneously use 2.4, 5, and 6 GHz spectrum bands with 160 MHz channel support and advanced Qualcomm<sup>®</sup> 4K QAM to deliver peak speeds of up to 5.4 Gbps, support VR-class low-latency performance, and offer extended range.

Qualcomm<sup>®</sup> Multi-User Traffic Management brings advanced algorithmic expertise to the Qualcomm Networking Pro 610 Platform, supporting optimized scheduling of both uplink and downlink data using MU-MIMO and OFDMA across all 6 spatial streams of Wi-Fi 6/E connectivity, delivered on an architectural design that can simultaneously associate and maintain connectivity for up to 1500 client devices.

## Highlights

### Superior Wi-Fi 6E Connectivity

Experience Qualcomm Tri-Band Wi-Fi 6 with up to 6 spatial streams simultaneously supporting our differentiated Wi-Fi 6 feature portfolio across the 2.4, 5, and 6GHz bands.



### Peak Performance

The Qualcomm Networking Pro 610 Platform accesses all the Wi-Fi 6E channels, including 160MHz, and brings unique differentiated features like Qualcomm 4K QAM support to deliver peak speeds of up to 5.4 Gbps.



### Next generation Mesh Wi-Fi

With 6GHz spectrum, multi-gigabit wireless backhaul offers a whole new freeway to migrate traffic, minimizing congestion and boosting speed, latency, and overall performance.



### Qualcomm Multi-User Traffic Management

Brings algorithmic optimization across all spectrum bands, universal uplink and downlink support for MU-MIMO and OFDMA, spatial multiplexing for 6 overlapping device transactions, and more.



## Features

- Qualcomm Tri-Band Wi-Fi 6 delivers access to the massively expanded range of Wi-Fi channels in the 6 GHz spectrum, including 160 MHz, with simultaneous operation in 2.4, 5, and 6 GHz spectrum bands.
- Qualcomm Tri-Band Wi-Fi 6 for Mesh Networks migrates traffic between mesh Wi-Fi nodes to the 6 GHz band, where multi-gigabit backhaul and rock-solid stability await, clearing the way for all the connected devices in the smart home to surge performance.
- Qualcomm 4K QAM supported across 6 GHz spectrum for peak throughput.
- Qualcomm Multi-User Traffic Management provides advanced scheduling algorithms and buffering with universal uplink data support, up to 37-user OFDMA support per channel and spatial multiplexing up to 6-user MU-MIMO support.
- Qualcomm® Max User Architecture offers network stability and sustained throughput for up to 1500 users, supporting 512 Wi-Fi users per radio, and flexibility based on memory configuration.
- Qualcomm® Wi-Fi Security Suite offers the most comprehensive WPA3 implementation coupled with state-of-the-art embedded crypto accelerators designed to provide secure transactions across a full range of Wi-Fi data touchpoints.
- Qualcomm® Wi-Fi SON is a foundational mesh feature suite for the network that self-manages, self-configures, self-heals, and self-defends.
- Advanced network interfaces for 5GbE WAN and LAN standard networking protocols and PCIe interface for platform extensions.

## Specifications

<b>CPU Clock Speed</b>	1.8 GHz
<b>CPU Cores</b>	Quad-core Cortex-A53 Arm
<b>Process Technology</b>	14nm
<b>Wi-Fi Standards</b>	Wi-Fi 6E, Wi-Fi 6, 802.11ac wave 2, 802.11a/b/g, 802.11n
<b>Wi-Fi Spectral Bands</b>	2.4 GHz, 5 GHz, 6 GHz
<b>Spatial Streams</b>	Up to 6
<b>Peak Speed</b>	Up to 5.4 Gbps
<b>Wi-Fi Features</b>	Up to 4K QAM, Advanced QoS, UL/DL MU-MIMO, UL/DL OFDMA, Uplink scheduling, TxBF, Qualcomm Wi-Fi SON
<b>Wi-Fi Security</b>	WPA3 Personal, WPA3 Enterprise, WPA3 Enhanced Open, WPA3 Easy Connect, WPA2, WPS, 802.11i security, AES-CCMP, AES-GCMP, PRNG, TKIP, WAPI1, WEP
<b>Flash</b>	eMMC, NAND, Serial NOR
<b>Memory Type</b>	DDR3L, DDR4
<b>Platform Extensions</b>	Bluetooth, 4G/5G FWA
<b>Supported Interfaces</b>	PCIe 3.0, PCIe 2.0, PTA Coex, I <sup>2</sup> S, I <sup>2</sup> C, Ethernet, SD/eMMC, SDIO, SPI, UART, USB 3.0
<b>Package Type</b>	FCBGA
<b>Package Size</b>	18 x 18 mm <sup>2</sup>

To learn more visit: [qualcomm.com](http://qualcomm.com)

Qualcomm Max User Architecture, Qualcomm Wi-Fi Security Suite and Qualcomm Wi-Fi SON are products of Qualcomm Technologies, Inc. and/or its subsidiaries.