



Qualcomm® Networking Pro 1610 Platform

Qualcomm® Tri-Band Wi-Fi 6, 16-stream networking platform with Wi-Fi 6E support, for congested Wi-Fi environments.

The Qualcomm Networking Pro 1610 Platform is a fully integrated Wi-Fi 6E platform ideally suited for enterprise-class applications like large corporate campuses and venues. It is an industry-leading 16-stream offering featuring Qualcomm Tri-Band Wi-Fi 6. The Qualcomm Networking Pro 1610 Platform can simultaneously use both 8 streams of 5 GHz spectrum and 4 streams of 6 GHz spectrum with 160 MHz channel support to create massive capacity. Paired with advanced Qualcomm® 4K QAM, the Qualcomm Networking Pro 1610 Platform can deliver ground-breaking peak speeds of up to 10.8 Gbps, can support VR-class low-latency performance, and offers extended range.

Qualcomm® Multi-User Traffic Management brings advanced algorithmic expertise to the Qualcomm Networking Pro 1610 Platform, supporting optimized scheduling of both uplink and downlink data using MU-MIMO and OFDMA across all 16 spatial streams of Wi-Fi 6/E connectivity, delivered on an architectural design that can simultaneously associate and maintain connectivity for up to 2000 client devices.

The Qualcomm Networking Pro 1610 Platform sets a new benchmark for premium-tier networking by harnessing 16-streams of Wi-Fi 6E connectivity, powerful computing, and an architecture built for the most challenging infrastructure environments.

Highlights

Superior Wi-Fi 6E Connectivity

Experience Qualcomm Tri-Band Wi-Fi 6 with up to 16 spatial streams simultaneously supporting our differentiated Wi-Fi 6 feature portfolio across the 2.4, 5, and 6GHz bands.



Massive Capacity

Industry-leading 16-stream Wi-Fi 6E offering with full 8-streams available for legacy 5GHz traffic.



Peak Performance

The Qualcomm Networking Pro 1610 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 10.8 Gbps.



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 8 overlapping device transactions, and more.



Qualcomm® Max User Architecture

Architecture to leverage Wi-Fi 6 features, with a unique and differentiated design developed for extreme high-density deployments, able to associate and maintain connectivity stability and ideal throughput to up to 2000 clients simultaneously.



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 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 8-user MU-MIMO support per channel.
- Qualcomm Max User Architecture offers network stability and sustained throughput for up to 2000 users, 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 10GbE WAN and LAN standard networking protocols and PCIe interfaces for platform extensions.

Specifications

CPU Clock Speed	2.2 GHz
CPU Cores	Quad-core Cortex-A53 Arm
Process Technology	14nm
Wi-Fi Standards	Wi-Fi 6E, Wi-Fi 6, 802.11ac wave 2, 802.11a/b/g, 802.11n
Wi-Fi Spectral Bands	2.4 GHz, 5 GHz, 6 GHz
Spatial Streams	Up to 16
Peak Speed	Up to 10.8 Gbps
Wi-Fi Features	Up to 4K QAM, Advanced QoS, MU-MIMO, OFDMA, Uplink scheduling, TxBF, Qualcomm Wi-Fi SON
Wi-Fi Security	WPA3 Personal, WPA3 Enterprise, WPA3 Enhanced Open, WPA3 Easy Connect, WPA2, WPS, 802.11i security, AES-CCMP, AES-GCMP, PRNG, TKIP, WAPI2, WAPI1, WEP
Flash	eMMC, NAND, Serial NOR
Memory Type	DDR3L, DDR4
Platform Extensions	Bluetooth, 4G/5G FWA
Supported Interfaces	PCIe 3.0, PCIe 2.0, PTA Coex, I ² S, I ² C, Ethernet, SD/eMMC, SDIO, SPI, UART, USB 3.0
Package Type	FCBGA
Package Size	21 x 21 mm ²

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