

Qualcomm

Qualcomm® Immersive Home 316 Platform

Qualcomm Immersive Home 316 Platform is a 6-stream, Wi-Fi 6E networking platform with Qualcomm® Tri-Band Wi-Fi 6 enabling simultaneous high-end performance across three spectrum bands.

The next generation successor to our groundbreaking mesh networking platforms, Qualcomm Immersive Home Platforms are designed with novel modular architecture, advanced network packet processing, and next generation Wi-Fi 6 to deliver Gigabit-speed wireless performance to every room in the home with devices that fit in the palm of the hand.

With Qualcomm Tri-Band Wi-Fi 6E supporting migration of performance limiting backhaul traffic to the 6GHz band, Qualcomm Immersive Home 316 Platform is future-proofing the network for devices set to support emerging 6GHz applications.

Plus, advanced Qualcomm® Multi-User Traffic Management technologies balance and support all the Wi-Fi connected devices in a modern smart home, while high-performance Bluetooth integration supports seamless onboarding and integration of advanced applications leveraging either connectivity technology.

Highlights

High-Performance Wi-Fi 6E

Six spatial streams of Qualcomm Tri-Band Wi-Fi 6 simultaneously supporting our differentiated Wi-Fi 6 feature portfolio across the 2.4, 5, and 6GHz bands, accessing 160MHz channels to deliver corner-to-corner gigabit class connectivity.



Advanced Intelligence

The Qualcomm Immersive Home 316 Platform delivers our signature network intelligence for powerful local computing and connectivity coexistence, centralizing smart home interfaces like voice assistance and emergent technologies like RF sensing to finally deliver a truly immersive smart home experience.



Application Optimization

Utilizing innovative modular platform architecture, this platform is built to be small enough to go unnoticed, scalable in design to deploy densely for every size home, and powerful enough to support the demands of today's smart home network.





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Features

- Qualcomm Tri-Band Wi-Fi 6 is designed to deliver simultaneous operation in 2.4, 5, and the 6GHz spectrum band, including 160MHz channels.
- Qualcomm Tri-Band Wi-Fi 6 for Mesh Networks is designed to migrate traffic between mesh Wi-Fi nodes to the 6GHz band, where Gigabit backhaul and rock-solid stability await, clearing the way for all the connected devices in the smart home to realize maximum performance.
- Qualcomm Multi-User Traffic Management provides advanced scheduling algorithms and buffering with universal uplink data support.
- 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.
- Carrier-grade enhancements with open API porting for multi-source development.
- Mesh Wi-Fi options include Qualcomm® Wi-Fi SON, the Wi-Fi Alliance's Wi-Fi CERTIFIED EasyMesh™ standard, and the OpenSync™ open-source software.
- Advanced powerful local computing using dual-core A53 processors paired with powerful network accelerators.

Specifications

CPU Clock Speed	1.0GHz
CPU Cores	Dual-core Cortex-A53 Arm
Wi-Fi Standards	Wi-Fi 6E, Wi-Fi 6, Wi-Fi 5, 802.11a/b/g/n
Wi-Fi Spectral Bands	2.4GHz, 5GHz, 6GHz
Spatial Streams	6
Peak Speed	Up to 54 Gbps*
Wi-Fi Features	160MHz channel support, Advanced QoS, MU-MIMO, OFDMA, TxBF, TWT, Qualcomm Wi-Fi SON, Wi-Fi Alliance's Wi-Fi CERTIFIED EasyMesh™
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, WEP
Flash	eMMC, NAND, SPI NOR
Memory Type	DDR3L
Bluetooth	Bluetooth 5.1
Platform Extensions	4G/5G FWA

*Peak PHY rate

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

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