



Qualcomm® 10G Fiber Gateway Platform

Flexible broadband gateway platform pairing 10G Fiber access with application-optimized Wi-Fi 7 for superior subscriber's quality of experience.

The future of the connected home starts with the Qualcomm® 10G Fiber Gateway Platform. It is designed to harness the full potential of next generation 10G Fiber broadband and pairs it with uncompromising Wi-Fi 7 connectivity for 10 Gbps¹ performance to and through the home.

The platform's open software architecture, advanced network processing, and application-optimized Wi-Fi transform the home gateway to an intelligent services-delivery platform—empowering broadband providers to drive deeply immersive experiences, increase subscriber engagement, and continuously bring innovation to the smart home.

¹ Performance claims refer to maximum physical layer (PHY) performance.

Highlights

Open Software Architecture

With standard and open APIs, software-defined networking, powerful compute, and comprehensive support for leading open-source software and middleware elements, the Qualcomm 10G Fiber Gateway Platform provides the building blocks to fully leverage the broadband gateway as a vehicle for continuous smart home innovation via value-added applications and agile deployment of differentiated services.



Service Defined Wi-Fi

Qualcomm® Service Defined Wi-Fi, a groundbreaking cloud-to-device Quality of Experience (QoE) framework, empowers broadband service providers with orchestration and insights into their subscriber's quality of experience. This enables differentiated services optimized for gaming, streaming, and working from home, to attract, satisfy, and retain subscribers. Qualcomm Service Defined Wi-Fi unlocks operational efficiencies by providing actionable insights into applications and devices, proactively helping to resolve performance issues.



High-Performance Wi-Fi 7 Connectivity

The Qualcomm 10G Fiber Gateway Platform unleashes the full potential of next-generation broadband access technologies with high-performance Wi-Fi 7 connectivity. The full high-speed and low-latency potential of 10G Fiber access is delivered seamlessly through the home to the end device with expert implementation of advanced Wi-Fi 7 features delivering up to 33 Gbps¹ peak aggregate wireless system capacity.



10G Broadband Access

The Qualcomm 10G Fiber Gateway Platform architecture delivers flexibility and scalability for next-gen high performance broadband gateways with 10G Passive Optical Network (PON) technology and 10G Ethernet to adapt to broadband service providers' unique needs and deployment types. This integrated and flexible platform can be scaled to serve all service tiers with a common framework that allows carriers to quickly deploy new offerings and OEMs to offer a diverse product portfolio.



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The Qualcomm 10G Fiber Gateway Platform is designed for broadband service providers to deliver optimized in-home connectivity with application-aware Wi-Fi 7 subscriber experiences in a modular form factor to fit their network and deployment types.

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Features

Wi-Fi 7

- Flexibility with up to quad-band and 16 streams
- Simultaneous operation in the 2.4 GHz, 5 GHz and 6 GHz spectrum bands
- Delivering up to 33 Gbps² peak aggregate wireless system capacity
- Expert implementation of advanced Wi-Fi 7 features with 320 MHz channel support, 4K QAM, multi-link operation, and adaptive interference puncturing
- Turnkey Qualcomm® Automated Frequency Coordination (AFC) Solution³
- Premium Mesh Wi-Fi with Qualcomm® Multi-Link Mesh technology
- Enabling a new level of user experience with Qualcomm Service Defined Wi-Fi technology

10G Fiber

- 10G PON technology
- Streamlined Optical Network Unit (ONU) management with virtualized ONU Management Control Interface (OMCI)
- Proven interoperability with leading operator Optical Line Terminal (OLT) platforms
- BBF.247 Certified Product
- Modular support for disaggregated and aggregated broadband gateway architectures
- Industry-leading low power consumption⁴

Platform

- Software-defined data path for powerful flow optimization and hardware acceleration to ensure peak performance for the most demanding applications
- Comprehensive support for leading open-source software and middleware elements (OpenWRT, RDK, TiP OpenWiFi, prpIOS, OpenSync™)
- Powerful compute with quad-core CPU

² Capacity claims refer to maximum physical layer (PHY) capacity.

³ Pending regulatory approvals

⁴ In SFP+ form factor

Specifications

Passive Optical Network (PON)

Standards	ITU-compliant 10G PON technology
Deployment Types	XGS-PON Residential Gateway (HGS/ONT), XGS-PON SFU/ONU, XGS-PON SFP+ ONU
Peak Downstream	10 Gbps
Peak Upstream	10 Gbps

Wi-Fi

Peak PHY Rate	Up to 33 Gbps
Generations	Wi-Fi 7, Wi-Fi 6E, Wi-Fi 6, Wi-Fi 5, Wi-Fi 4
Standards	802.11be, 802.11ax, 802.11ac, 802.11n, 802.11g, 802.11b, 802.11a
Spectral Bands	6 GHz, 5 GHz, 2.4 GHz
Maximum Band Configuration	Quad-band
Channels	320 MHz, 240 MHz, 160 MHz, 80 MHz, 40 MHz, 20 MHz
Spatial Streams	Up to 16 streams

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