



Qualcomm® FastConnect™ 8800 Mobile Connectivity System

Next-generation Wi-Fi 8, Bluetooth® wireless technology, Ultra Wideband (UWB), and Thread mobile connectivity system for the fastest peak speeds^{1,2}, up to 3x longer gigabit range³, and seamless proximity experiences.

FastConnect 8800 is designed to bring unmatched speeds and range for the agentic AI era. It integrates Wi-Fi 8, Bluetooth® High Data Throughput (HDT)⁴, UWB, and Thread in a single-chip 4x4 offering on a leading-edge 6 nm process node. FastConnect 8800 is packed with premium innovation, building on an advanced implementation of Proximity AI with Wi-Fi Ranging, UWB, and Bluetooth Channel Sounding to enable users to efficiently find, connect, and interact with nearby devices like earbuds, smart tags, or other mobile devices.

FastConnect 8800 is complemented with all-new RF front-end module (FEM) offerings, including the QXM110x and the QXM210x.

FastConnect 8800 is at the core of seamless multi-device experiences with all new Proximity AI, Qualcomm® Expanded Personal Area Network Technology (XPAN), and Snapdragon Seamless™ experience.

¹ Peak speed refers to maximum physical layer (PHY) rate.

² As of 2 March 2026.

³ Provided 4x4 system architecture, 320MHz, RF FEMs, and Wi-Fi 8 ELR. Testing in internal labs through iperf at 1 Gbps compared to previous generation.

⁴ Based on a working draft of a potential Bluetooth Specification subject to change.

Highlights

Fastest Mobile Wi-Fi Speeds²

FastConnect 8800 is redesigned to a 4x4 radio configuration, delivering double-digit throughput for the agentic AI era. With peak speeds up to 11.6 Gbps¹, FastConnect 8800 doubles the speeds compared to the previous generation.



Longer Wi-Fi Range

FastConnect 8800 enables up to 3x longer gigabit range of your connected experiences through the 4x4 architecture, all-new RF FEMs, and Wi-Fi 8 features like Extended Long Range (ELR).³



Next-Gen, Most Integrated Mobile Connectivity System

FastConnect 8800 packs four technologies, including the latest in Wi-Fi, Bluetooth, UWB, and Thread. Stay connected and smoothly connect across devices thanks to these technologies.



Most Advanced Proximity Stack

FastConnect 8800 offers all-new Proximity AI experiences, working across Wi-Fi Ranging, Bluetooth Channel Sounding, and UWB to find your devices. By delivering direction and distance and now leveraging GPS, you can easily locate your lost devices.



FastConnect delivers advanced Wi-Fi, Bluetooth, UWB, and Thread connectivity features supporting mobile devices.



SMARTPHONES

FastConnect is designed to provide unmatched speeds, farthest range, and next-generation connectivity. Use your phone to discover, track, and connect to multiple devices simultaneously.

Features

- 4x4 architecture for fastest mobile connectivity speeds up to 11.6 Gbps¹
- Up to 3x farther gigabit range thanks to 4x4 architecture, RF FEMs, and Wi-Fi 8 features
- Most integrated mobile connectivity system with Wi-Fi, Bluetooth, UWB, and Thread
- Wi-Fi 8 with advanced features like Extended Long Range (ELR)
- Bluetooth High Data Throughput⁴ and Bluetooth Channel Sounding
- UWB, including NBA-MMS and RADAR
- Support for Snapdragon Sound™ Technology Suite, Bluetooth® High Data Throughput (HDT), and Qualcomm XPAN
- Proximity AI for direction and distance across the globe

¹ Peak speed refers to maximum physical layer (PHY) rate.
⁴ Based on a working draft of a potential Bluetooth Specification subject to change.

Ordering Information

Product / Part Number

FastConnect 8800 / WCN885x

Related Products

FastConnect 7900

AI-optimized and integrating Wi-Fi 7, Bluetooth, and UWB together in a 6 nm single-chip connectivity system for unparalleled performance across mobile, compute, and XR experiences.

FastConnect 7800

Leading Wi-Fi 7, premium Wi-Fi 6/6E, and advanced Bluetooth audio come together in this powerful and versatile connectivity system to unlock extreme performance for mobile, compute, and XR experiences.

Specifications

Category	Specifications
Wi-Fi	<p>Peak Speed: 11.6 Gbps¹</p> <p>Generations: Wi-Fi 8, Wi-Fi 7, Wi-Fi 6E, Wi-Fi 6</p> <p>Standards: IEEE 802.11bn, 802.11be, 802.11ax, 802.11ac, 802.11n, 802.11g, 802.11a, 802.11b</p> <p>Wi-Fi Spectral Bands: 6GHz, 5GHz, 2.4GHz</p> <p>Peak QAM: 4k</p>
Wi-Fi Features	<p>High Band Simultaneous Multi-Link, 320MHz (single channel, or 160 + 160), MU-MIMO (Uplink and Downlink), OFDMA (Uplink and Downlink), Target Wake Time (TWT), Passpoint, Wi-Fi Aware R3, Wi-Fi Location, Wi-Fi Optimized Connectivity, Wi-Fi QoS Management, TDLS, Miracast, Voice-Enterprise</p>
Wi-Fi Security Support	<p>Protected Management Frames, WPA3-Enterprise, WPA3-Personal, Enhanced Open, Wi-Fi Easy Connect, WPA2, 802.1x (EAP-TLS, EAP-TTLS, PEAP), PAP, TLS, MSCHAP, MS-CHAPv2, 64-bit AND 128-bit WEP, TKIP, 128-bit AES-CCMP, 128-bit and 256-bit AES-GCMP, WPA2-PSK, AES-CCMP, FIPS 140-2</p>
Bluetooth	<p>Bluetooth High Data Throughput</p>
Audio	<p>Technology: Qualcomm XPAN, Snapdragon Sound, LE Audio, Low-Latency Gaming Mode with Voice Back-Channel, Stereo Recording, Spatial Audio</p> <p>Qualcomm® aptX™ Audio Playback Support: aptX Lossless, aptX Adaptive, aptX Voice</p>
UWB	<p>Standards: IEEE 802.15.4ab, FiRa, CCC, CSA Aliro</p> <p>Features: Support for RADAR</p>
Thread	<p>Standards: 1.4</p>

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