



Qualcomm® FastConnect™ 7700

Mobile Connectivity System

High-performance Wi-Fi 7, advanced proximity capabilities, and leading Bluetooth® features come together to bring premium features to mid-tier smartphones.

The Qualcomm FastConnect 7700 Mobile Connectivity System is an advanced 14 nm 2x2 Wi-Fi and Bluetooth mobile connectivity system designed to deliver ultra-high speeds (up to a peak speed of 5.8 Gbps*) with 320MHz channels and premium Bluetooth features.

FastConnect 7700 packs in core Wi-Fi 7 features, including wide 320MHz channels, 4K QAM, and Multi-Link Operation (MLO) for fast speeds and low latency.

FastConnect 7700 also brings advanced proximity capabilities through Wi-Fi Ranging and Bluetooth Channel Sounding, where users can unlock seamless new ways to interact with nearby devices.

7700 also supports Bluetooth 6.0, Snapdragon Sound™ Technology Suite, and Qualcomm® Expanded Personal Area Network (XPAN) technology for breakthrough audio experiences.

Related Products

Our versatile mobile connectivity systems combine Wi-Fi, Bluetooth, and more for extreme performance across mobile, compute, and XR experiences.

[FastConnect 7900](#)

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Highlights

Multi-gigabit performance

Wi-Fi speeds up to 5.8 Gbps, with ultra-wide 320MHz channels for high-speed, low-latency connections at range.



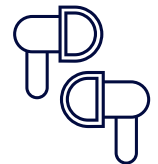
Proximity capabilities

Easily find your Wi-Fi and Bluetooth-enabled devices with FastConnect 7700 proximity capabilities. By using Wi-Fi Ranging and Bluetooth Channel Sounding, users unlock seamless new ways to interact with nearby devices.



Bluetooth Audio & Snapdragon Sound

Robust, long-range lossless music streaming support with Qualcomm XPAN and Snapdragon Sound. Users can listen for longer with up to 50% lower Bluetooth power consumption compared to the previous generation**.



* Speed claims refer to maximum physical layer (PHY) rate
** Testing performed in Qualcomm Technologies laboratories
Materials are subject to change without notice.
87-86899-1 Rev. A

FastConnect 7700

FastConnect 7700 delivers advanced Wi-Fi and Bluetooth connectivity features supporting mobile applications and devices.



Features

- Built for Wi-Fi 7 Certification
- 6GHz, 5GHz, and 2.4GHz support
- Up to a peak speed of 5.8 Gbps data rate using 4K QAM modulation and 320MHz channel bandwidth*
- Premium Wi-Fi 7 experience when paired with a compatible AP
- Qualified against Bluetooth Core 6.0, LE Audio, and ANT+ support
- Snapdragon Sound
- Support for Qualcomm XPAN
- LE Audio for personal audio sharing and broadcast for listeners to share streams or join others
- Long-range, crystal-clear audio
- Multi-stream audio support for true wireless earbuds

Ordering Information

Product	Part Number
FastConnect 7700	WCN7550



Smartphones

By applying feature innovation on top of the latest Wi-Fi and Bluetooth technology standards, FastConnect is designed to provide fast, responsive, reliable, and high-quality gaming, streaming, and sharing experiences, at home and on the go.

Specifications

Category	Label	Specifications
Wi-Fi	Peak Speed	5.8 Gbps
	Standards	Wi-Fi 7, Wi-Fi 6E, Wi-Fi 6 (802.11ax), 802.11ac wave 2, 802.11a/b/g, 802.11n
	Spectral Bands	2.4GHz, 5GHz, 6GHz
	Peak QAM	4K QAM
	Features	320MHz, 8x8 Sounding, 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
	Security Support	Protected Management Frames, WPA3-Enterprise, WPA3-Personal, Enhanced Open, Wi-Fi Easy Connect, WPA2, 802.1x (EAP-TLS, EAP-TTLS, PEAP), PAP, TLS, MS-CHAP, MS-CHAPv2, 64-bit and 128-bit WEP, TKIP, 128-bit AES-CCMP, 128-bit and 256-bit AES-GCMP, WPA2-PSK, AES-CCMP
Bluetooth	Bluetooth Core Specification	Bluetooth 6.0
Audio	Audio Technology	Snapdragon Sound, LE Audio, Qualcomm® aptX™ Lossless (CD-quality audio), low-latency gaming mode with voice back-channel, Stereo Recording, Qualcomm TrueWireless™ Technology, Qualcomm TrueWireless Stereo Plus technology, Qualcomm XPAN
	aptX Audio Playback Support	aptX Lossless (CD-quality audio), aptX Adaptive, aptX Voice

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



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