

Qualcomm Dragonwing™ Mobile Broadband (MBB) Platform Gen 3



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Robust mmWave performance starts with our third-generation mmWave module, the Qualcomm® QTM567 mmWave Antenna Module, and is enhanced by Qualcomm® RF Sensing Suite technology, which helps provide a reliable and robust mmWave connection in indoor environments.

Related Products

The [Snapdragon X75 5G Modem-RF](#) is a modem-RF system with an integrated AI tensor accelerator, enabling breakthrough 5G performance and continuous enhancements.

Highlights

A GLOBAL MBB ACCELERATOR:

The Dragonwing MBB Platform Gen 3 is designed for high-throughput broadband in mobile, high-demand environments. It features the Snapdragon X75 5G Modem-RF, supporting mmWave + Sub-6GHz aggregation and Wi-Fi 6E with 4-stream DBS. This platform is ideal for OEMs delivering next-gen mobile broadband solutions with robust AI and spectrum flexibility.



BREAKTHROUGH, NEXT-GENERATION CONNECTIVITY FEATURES

The fully integrated platform architecture features the Snapdragon X75 5G modem-RF with 5G Sub-6GHz and mmWave, a GNSS receiver, and Tri-Band Wi-Fi 7. Excellent 5G speeds and flexibility are supported by: a 3GPP Rel-17 5G modem, 10 CC aggregation (mmWave), 256 QAM support on ten 100MHz carriers, 5x carrier aggregation (Sub-6), FDD Uplink MIMO, Uplink CA with FDD+FDD, and eight Rx with support for 2 CC aggregation. Unmatched power efficiency comes from Qualcomm® 5G PowerSave Gen 4.



Features

- Integrated 3GPP Rel-17 5G modem (2G to 5G and including GNSS) with support for Sub-6GHz and mmWave connectivity, a quad-core CPU, and Tri-Band Wi-Fi 7.
- Extended-range mmWave and Sub-6GHz with eight receiver antennas and support for power class 1.5 (PC 1.5)
- Sub6-mmWave convergence (one transceiver)
- 8 Rx enhancements – 3CC (F+T)
- Excellent carrier aggregation and dual-connectivity supports Qualcomm® Tri-Band Wi-Fi 7 with expert Multi-Link Operation (MLO) for blazing-fast lower latency, reliable connections, and mesh capability for seamless coverage
- Support for 5G Dual-SIM Dual-Standby (DSDS) configurations
- Flexible software architecture with support for multiple frameworks, including OpenWRT and RDK-B
- Global 5G band support, including n259 (41GHz), n70, and n53

Specifications

Modem	<ul style="list-style-type: none">• Snapdragon X75 5G Modem-RF• mmWave: QTM567
Cellular	<ul style="list-style-type: none">• Modem-RF specs: 300MHz bandwidth (Sub-6GHz), 8 carriers (mmWave), 800MHz bandwidth (mmWave), 2x2 MIMO (mmWave), 4x4 MIMO (Sub-6)• Performance Enhancement Technologies: Qualcomm® 5G Ultra-Low Latency Suite, Dual-layer polarization in downlink and uplink (mmWave), Beam tracking (mmWave), Beam steering (mmWave), Beam forming (mmWave), Qualcomm® Smart Transmit™ Gen 4 technology, Qualcomm 5G PowerSave Gen 4, Wide Scan Angle (mmWave), Qualcomm® 5G RF Sensing Suite, Qualcomm® Dynamic Antenna Steering Gen 2• Technology: 5G NR, Sub-6GHz, Dynamic Spectrum Sharing (DSS), SA (standalone), NSA (non-standalone), 5G mmWave, WCDMA (DB-DC-HSDPA), WCDMA (DC-HSUPA), Sub-6 carrier aggregation (FDD-FDD), Sub-6 carrier aggregation (TDD-TDD), 5G FDD, 5G TDD, Sub-6 carrier aggregation (FDD-TDD), mmWave-Sub6 aggregation
Peak 5G DL/UL	<ul style="list-style-type: none">• Download: 10 Gbps• Upload: 3.7 Gbps
Wi-Fi/Bluetooth®	<ul style="list-style-type: none">• Generation: 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: 6GHz, 5GHz, 2.4GHz• Peak QAM: Up to 4K QAM• Features: OFDMA (UL/DL), MU-MIMO (UL/DL), Simultaneous & Alternating Multi-Link, Adaptive Interference Puncturing• 4-stream DBS• Peak Wi-Fi DL/UL: 3.6 Gbps / 2.9 Gbps• 160MHz channels• Bluetooth 5.2

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