

Qualcomm Dragonwing™ FWA Gen 6 Elite Platform



High-performance 5G Advanced with Rel-19 and Wi-Fi 8, built to revolutionize network performance for the Agentic AI era.

The Dragonwing FWA Gen 6 Elite Platform combines 5G Advanced, mmWave, Sub-6GHz, and tri-band Wi-Fi 8. The Wi-Fi architecture boasts a 5x5 radio configuration, bringing power, speed, lower latency, and lower power consumption.

The platform brings native AI compute to the FWA network edge, complete with the Dragonwing Network AI Suite. The groundbreaking on-device inference and local centralization unlock new levels of privacy, personalization, and reliability in real time.

The Dragonwing FWA Gen 6 Elite Platform features the Qualcomm® X105 Modem-RF with 5G NR over satellite support, quad-frequency GNSS (L1, L2, L5, and L6), Qualcomm® Turbo DSDA, a quad-core CPU and integrated NPU, LPDDR4x and LPDDR5/5x, and is quantum-secure (CNSA 2.0 compliant). It offers 500MHz of aggregated bandwidth, 6- and 8-layer MIMO, peak download speeds of 14.8 Gbps (13.1 Gbps on Sub-6GHz), and peak upload speeds of 4.2 Gbps on Sub-6GHz.

Ordering Information

Product	Part Number
Dragonwing FWA Gen 6 Elite Platform	QMX105

Highlights

New, Groundbreaking Platform Innovation

The Dragonwing FWA Gen 6 Elite Platform is designed to support 3GPP Rel-19, paving the way for 6G as well as 5x5 Wi-Fi 8 system architecture for next-generation connectivity.



Native AI Compute for the FWA Edge

The Dragonwing FWA Gen 6 Elite Platform evolves the 5G AI Gateway with a 5th-generation integrated Qualcomm® 5G AI processor, introducing agentic AI support for the ultimate 5G Advanced user experience and peak performance.



Revolutionary Qualcomm X105 5G Modem-RF

This cutting-edge modem-RF solution delivers outstanding performance and spectrum flexibility. It is the first 5G modem to reach peak download speeds of 14.8 Gbps, and 13.1 Gbps specifically on Sub-6GHz.



Related Products

The [Qualcomm X105 5G Modem-RF](#) delivers unmatched performance, power efficiency, and spectrum flexibility, accelerating adoption of 5G Advanced across smartphones, FWA, automotive, XR, PCs, and IoT.





Dragonwing FWA Gen 6 Elite Platform

Features

- 5th-generation Qualcomm 5G AI processor with dedicated tensor accelerator hardware, optimized for 5G Advanced and ready for agentic AI
- Qualcomm 5G Agentic AI Suite—offering agentic AI for:
 - OTT traffic detection for apps (chatbots, social media)
 - 5G gaming traffic prioritization
 - Smooth 5G-to-Wi-Fi transitions
 - 8Rx/6Rx/4Rx antenna management for mobile/FWA
- Agentic AI for enabling advanced sensing software that can predict and adapt to real RF conditions such as cell congestion detection and mitigation and mobility condition
- Next-gen modem-RF architecture with world's first 6 nm node RFIC transceiver (Sub-6GHz/mmW), reducing power consumption by 30%* and reducing PCB footprint by 15%*
- 3GPP Rel-19 hardware readiness
- 8L MIMO on DL and 4L MIMO on UL; up to 4Tx on UL
- Advanced satellite communications integrated with NR-NTN, NB-NTN, and RFFE modules and filters
- Qualcomm® Advanced Modem-RF Software Suite
 - Location Suite
 - Qualcomm Turbo DSDA—with 60% higher throughput (in comparison to previous generation) with Multi-SIM CA support
- Smart Network Selection
- Qualcomm® Smart Transmit™ Plus technology with enhanced spatial averaging of power support—up to 1.5 dB gain in simultaneous Tx in comparison to previous generation
- Tri-band Wi-Fi 8 with 5x5 radio architecture

* In comparison to previous generation.

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



Specifications

Cellular	
Modem	Qualcomm X105 5G Modem-RF
mmWave	QTM567
Technology	3GPP Rel-19 hardware FR1 + FR2 DC DL CA with 500MHz bandwidth and 1024 QAM 6-layer and 8-layer MIMO support FDD + FDD Sub-6GHz uplink carrier aggregation FDD + TDD Sub-6GHz downlink carrier aggregation with mmWave DC 1024-QAM Sub-6GHz Dynamic Spectrum Sharing (DSS) LTE, WCDMA, LAA, GSM/EDGE, CBRS, mmWave 5G SA (standalone) and NSA (non-standalone)
Download	14.8 Gbps (FR1 + FR2), 13.1 Gbps (FR1) with 500MHz BD and 1024 QAM
Upload	4.2 Gbps with 4Tx UL CA
Wi-Fi	
Generation	Wi-Fi 8, Wi-Fi 7, Wi-Fi 6E, Wi-Fi 6, Wi-Fi 5, Wi-Fi 4
Standards	802.11bn/be/ax/ac/n/g/b/a
Wi-Fi Spectral Bands	6GHz, 5GHz, 2.4GHz
Max Band Configuration	Tri-band
Security	WPA3 Personal, WPA3 Enterprise, WPA3 Enhanced Open, WPA3 Easy Connect, WPA2, WPS, 802.11i security, PRNG, TKIP, WAPI2, WAPI1, WEP
Encryption	AES-CCMP, AES-GCMP
Spatial Streams	Up to 12
Peak QAM	4K QAM
Features	Simultaneous & Alternating Multi-Link, Adaptive Interference Puncturing, OFDMA (UL/DL), MU-MIMO (UL/DL)
Artificial Intelligence	
Specifications	Up to 10 TOPS
Development	Qualcomm® AI Stack
Technology	Qualcomm 5G AI Processor, Qualcomm® Hexagon™ NPU
Features	Qualcomm 5G AI Suite, Dragonwing Networking AI Suite
Ethernet	
Number of Ports	2
Ports	10 Gbps GE, configurable
Software	
Software Supported	OpenWRT, RDK-B, prpIOS