

# SNAPDRAGON® 7 GEN 3 MOBILE PLATFORM

**Amplify your experiences with the brand-new Snapdragon® 7 Gen 3 Mobile Platform. Exhilarating AI optimizes features at a fraction of the power. Magnify every moment with unyielding performance that drives fan-favorite gaming, a creativity-charged camera, and unstoppable 5G. Do what you do, better with Snapdragon 7-series.**



## Exhilarating AI

Bask in next-gen artificial intelligence that works behind-the-scenes to make your everyday tasks effortless. Chat in real-time with global gamers or follow livestreams of international influencers with multi-language translation and transcription. Plus, the contextually aware Qualcomm® Sensing Hub recognizes your routines to intuitively open apps at the precise moment you need them.

- Qualcomm® AI Engine offers 60% better AI performance per watt
- Qualcomm® Hexagon™ NPU improves AI network performance
- Brand new INT4 precision support in the Snapdragon 7-series enhances power efficiency for longer-lasting communication, productivity, and more

## Unyielding performance

Thrive in the fast lane with accelerated processing. Enjoy seamless experiences from our Qualcomm® Kryo™ CPU reaching blazing speeds of 2.63 GHz—nearly 15% improvement from previous generation. Plus, surround yourself in sound using spatial audio with head tracking—new to the Snapdragon 7-series. And recharge from 0-50% in five minutes, thanks to Qualcomm® Quick Charge™ 5 Technology.

- Improved CPU and GPU performance contributes to 20% overall power savings
- Snapdragon Sound™ Technology Suite support enables lossless-quality audio output and stereo-quality recording
- LE Audio with Auracast enables revolutionary use cases, like public TV audio access, easy sound sharing, and enhanced hearing aid performance

## Fan-favorite gaming

Heighten your competitive edge with immersive gaming, brought to life on an ultra-smooth display. Select Snapdragon Elite Gaming™ features take graphics from standard to staggering. Experience near zero lag with Qualcomm® Game Quick Touch and achieve longer battery life through intelligent upscaling by Snapdragon Game Super Resolution.

- Qualcomm® Adreno™ GPU delivers over 50% faster graphics rendering for high-quality HDR gaming
- Adreno Frame Motion Engine can double frame rates to upscale content while maintaining the same power consumption

## Creativity-charged camera

Revel in your memories with advanced photo capture in up to 200 MP—made even more vivid with intelligent enhancements. Eliminate grainy discoloration for higher-res results with a new AI Remosaic feature, while AI Noise Reduction produces clearer, more vibrant images, even in dim environments. Plus, achieve crisp, HDR-quality footage to delight in every detail using AI Video Retouch.

- Qualcomm Spectra™ Triple ISP enables capture from three cameras at once, with super-fast parallel processing and smooth zooming
- Computational 4K HDR Video Capture boasts incredible contrast, sharpness, and realism
- Support for Google Ultra HDR photo format renders incredible detail in both shadows and highlights

## Unstoppable connectivity

Speedy and reliable 5G and Wi-Fi coverage provide you with the utmost confidence from almost anywhere. Blazing download speeds up to 5 Gbps deliver unceasing mobile gaming, work-from-anywhere productivity, and more—thanks to the Snapdragon X63 5G Modem-RF System. And Wi-Fi-based entertainment and communication soar with the Qualcomm® FastConnect™ 6700 Mobile Connectivity System, aided by jitter-free Bluetooth® 5.4 technology.

- 5G Dual-SIM Dual-Active (DSDA) enables simultaneous use of two 5G+5G or 5G+4G SIM cards for ultimate user flexibility
- Wi-Fi speeds up to 2.9 Gbps
- New triple frequency location support in the Snapdragon 7-series provides greater location accuracy user experience, even for devices with lower quality GNSS antenna

# SPECIFICATIONS & FEATURES



## Artificial Intelligence

Qualcomm® Adreno™ GPU

Qualcomm® Kryo™ CPU

Qualcomm® Hexagon™ NPU

- Fused AI Accelerator
- Hexagon Tensor Accelerator
- Hexagon Vector eExtensions
- Hexagon Scalar Accelerator
- Support for mix precision (INT4, INT8, and INT16)

Qualcomm® Sensing Hub

## 5G Modem-RF System

Snapdragon® X63 5G Modem-RF System

- 5G mmWave and sub-6 GHz, standalone (SA) and non-standalone (NSA) modes, FDD, TDD
- Dynamic Spectrum Sharing
- mmWave: 4 carriers, 2x2 MIMO
- Sub-6 GHz: 4x4 MIMO
- Qualcomm® 5G PowerSave 2.0
- Qualcomm® Smart Transmit™ 2.0 technology
- Qualcomm® Wideband Envelope Tracking
- Qualcomm® AI-Enhanced Signal Boost
- Global 5G multi-SIM, including 5G/4G DSDA

Downlink: Up to 5 Gbps

Multimode support: 5G NR, LTE support for CBRS, WCDMA, HSPA, CDMA 1x, EV-DO, GSM/EDGE

## Wi-Fi & Bluetooth®

Qualcomm® FastConnect™ 6700 System

- Wi-Fi Generation: Wi-Fi 6E, Wi-Fi 6
- Wi-Fi Standards: 802.11ax, 802.11ac, 802.11a/b/g/n
- Wi-Fi Spectral Bands: 6 GHz, 5 GHz, 2.4 GHz
- Peak speed: 2.9 Gbps
- Channel Bandwidth: 20/40/80/160 MHz
- 8-stream sounding (for 8x8 MU-MIMO)
- MIMO Configuration: 2x2 (2-stream)
- MU-MIMO (Uplink & Downlink)
- 4K QAM
- OFDMA (Uplink & Downlink)
- 4-Stream (2x2 + 2x2) Dual Band Simultaneous (DBS)
- Wi-Fi Security: WPA3-Enterprise, WPA3-Enhanced Open, WPA3 Easy Connect, WPA3-Personal

Integrated Bluetooth

- Bluetooth features: Bluetooth 5.4, LE Audio
- Bluetooth audio: Snapdragon Sound™ Technology with support for Qualcomm® aptX™ Voice, aptX Lossless, aptX Adaptive, and LE Audio

## Camera

Qualcomm Spectra™ Image Signal Processor

- Triple 12-bit ISPs
- Up to 3.0 Gigapixels per second computer vision ISP (CV-ISP)
- Up to 21 MP triple camera @ 30 FPS with Zero Shutter Lag
- Up to 32+21 MP dual camera @ 30 FPS with Zero Shutter Lag
- Up to 64 MP single camera @ 30 FPS with Zero Shutter Lag
- Up to 200 MP Photo Capture

Rec. 2020 color gamut photo and video capture

Up to 10-bit color depth photo and video capture

4K HDR Video Capture + 64 MP Photo Capture

10-bit HEIF: HEIC photo capture, HEVC video capture

Video Capture Formats: HDR10+, HDR10, Adaptive HDR10, HLG, Dolby Vision

4K HDR Video Capture @ 60 FPS

Slow-mo video capture at 1080p @ 120 FPS

Bokeh Engine for Video Capture

Multi-Frame Noise Reduction (MFNR)

Locally Motion Compensated Temporal Filtering

Multi-frame and triple exposure staggered/digital overlap HDR dual-sensor support

AI-based face detection, auto-focus, and autoexposure

## Audio

Qualcomm Aqstic™ audio codec

Qualcomm Aqstic smart speaker amplifier

Total Harmonic Distortion + Noise (THD+N)

Playback: -108dB

Qualcomm® Audio & Voice Communication Suite

## Display

On-Device Display Support:

- 4K @ 60 Hz
- WFHD+ @ 168 Hz
- WQHD+ @ 120 Hz

Maximum External Display Support:

- Up to 4K @ 60 Hz
- 10-bit color depth, Rec. 2020 color gamut
- HDR10 and HDR10+, Adaptive HDR10, Ultra HDR

## CPU

Kryo CPU

- 1 Prime core, up to 2.63 GHz
- 3 Performance cores, up to 2.4 GHz
- 4 Efficiency cores, up to 1.8 GHz
- 64-bit architecture

## Visual Subsystem

Adreno GPU

- HDR gaming (10-bit color depth, Rec. 2020 color gamut)
- Physically Based Rendering
- Volumetric Rendering
- Adreno Frame Motion Engine
- API Support: OpenGL® ES 3.2, OpenCL™ 2.0 FP, Vulkan 1.3
- Hardware-accelerated H.265 and VP9 decoder
- HDR Playback Codec support for HDR10+, HDR10, HLG, and Dolby Vision

## Security

Platform Security Foundations, Qualcomm® Trusted Execution Environment & Services (TEE)

Trust Management Engine (Root of Trust)

Qualcomm® wireless edge services (WES) and premium security features

Qualcomm® 3D Sonic Sensor and Qualcomm® 3D Sonic Max (fingerprint sensor)

Qualcomm® Type-1 Hypervisor

## Charging

Qualcomm® Quick Charge™ 5 Technology

## Location

GPS, Glonass, BeiDou, Galileo, QZSS, NavIC capable

Triple Frequency GNSS (L1/L5/L2)

Sensor-Assisted Positioning

- Urban pedestrian navigation with sidewalk accuracy
- Global freeway lane-level vehicle navigation

## Memory

Support for LP-DDR5 memory, up to 3200 MHz

Support for LP-DDR4x memory, up to 2133 MHz

Memory Density: Up to 16 GB

## General Specifications

Select Snapdragon Elite Gaming™ features

4 nm Process Technology

USB Version 3.1 Gen 2; USB Type-C Support

Storage: UFS 3.1

Part Number: SM7550-AB

