



## Snapdragon® 7s Gen 3 Mobile Platform

The Snapdragon 7s Gen 3 Mobile Platform exceeds expectations system-wide, with **breakthrough performance** powering specially selected Snapdragon experiences. **Savvy on-device AI** with Gen AI support delivers efficiency across the board, while **captivating gaming**, **stunning 200 MP photo** and **4K HDR video capture**, and **complete audio absorption** provide exactly what you need and more—**all backed by remarkable 5G and Wi-Fi connectivity.**

### Improved performance

Experience the Snapdragon difference, delivering improvements across the board from the previous generation. Plus, Snapdragon Seamless™ experience allows all your devices connect to each other effortlessly for nonstop recreation.

- Multitask seamlessly with the Qualcomm® Kryo™ CPU, delivering nearly 20% better performance and 45% power savings.
- Immerse yourself in vivid content and smooth gaming from the Qualcomm® Adreno™ GPU—with up to 40% performance improvement.
- Qualcomm® AI Engine delivers over 30% better AI performance\*.
- Scroll, stream, and stay connected for longer with 12% power savings.

### Savvy on-device AI

Reinvigorate your everyday interactions with on-device generative AI capabilities, making every action effortless with contextual detection while boosting your device efficiency.

- Save on power with the Qualcomm® AI Engine dedicated NPU.
- Your connections know no bounds, with support for multi-language translation and transcription.
- Communicate confidently with AI-based noise cancellation and noise reduction, enabled by the Qualcomm® Sensing Hub.
- 2x performance increase from the Micro NPU within the Qualcomm Sensing Hub.

### Stunning photo and video capture

Make vivid memories—and share them proudly—with an AI-enhanced camera in your pocket. Plus, relish every detail with the clarity you deserve with 200 MP photo and 4K HDR video capture.

- Qualcomm Spectra™ Triple ISP enables concurrent photo and video capture, with ultra-fast parallel processing and smooth zooming.
- Capture like a pro with AI Remosaic, producing sharp, higher-resolution photos without discoloration and grain.
- AI Video Retouch yields clear, punchy footage that's full of detail by applying tone mapping in real-time.

### Captivating gaming

Embark on epic gaming adventures with stellar visuals and performance, fueled by select Snapdragon Elite Gaming™ features and support for FHD+ 144 Hz displays.

- Adaptive Performance Engine (APE 3.0) renders incredible performance for modern gaming workloads to keep your games running better for longer.
- Variable Rate Shading improves performance by dynamically rendering objects in a scene providing stunning visuals without sacrificing power.
- Adreno HDR Fast Blend renders dynamic, complex scenes 2x faster than smartphones without Adreno HDR Fast Blend.
- Support for Vulkan® 1.3 API future-proofs mobile gaming with performance efficiency and dazzling graphics.

### Complete audio absorption

Immerse yourself in crystal-clear, lag-free audio with the Snapdragon Sound™ Technology Suite enhancing every note and sound effect for next-level auditory experiences.

- Revel in complete surround-sound from anywhere, enabled by spatial audio with smart head-tracking.
- Get the best with Qualcomm Aqstic™ Hi-Fi DAC balancing performance, power consumption, and authentic sound to hear just as the artist intended.
- Qualcomm Aqstic Speaker Max Technology reduces distortion in music played at high volumes directly from the device speaker.

### Remarkable connectivity

Feel unstoppable with lag-free 5G and Wi-Fi connections as you game, stream, share, and communicate—wherever the day takes you.

- Snapdragon 5G Modem-RF System offers unparalleled speeds while supporting more networks, frequencies, and bandwidths globally compared to the previous generation.
- Dual-SIM Dual Active 5G+5G/4G delivers ultimate global flexibility at lightning-fast speeds.
- Qualcomm® FastConnect™ Mobile Connectivity System enables rapid, responsive Wi-Fi 6E with speeds up to 2.9 Gbps.
- Bluetooth® 5.4 improves reliability and efficiency for a multitude of enhanced listening experiences.



# Specs & Features

## Artificial Intelligence

Qualcomm® Adreno™ GPU

Qualcomm® Kryo™ CPU

Qualcomm® Hexagon™ NPU

- Fused AI Accelerator Architecture
- Hexagon Tensor Accelerator
- Hexagon Vector eXtensions
- Hexagon Scalar Accelerator
- Support for all precisions (INT4, INT8, and INT16)
- Qualcomm® Sensing Hub
- Dedicated NPUs for audio and sensors

## 5G Modem-RF System

Snapdragon® 5G Modem-RF System

- 5G mmWave and sub-6 GHz, standalone (SA) and non-standalone (NSA) modes, FDD, TDD
- Dynamic Spectrum Sharing
- mmWave: 2 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 2.9 Gbps

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

## Wi-Fi & Bluetooth®

Qualcomm® FastConnect™ Mobile Connectivity System

- Wi-Fi Standards: Wi-Fi 6E, Wi-Fi 6 (802.11ax), Wi-Fi 5 (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: 160/80/40/20MHz
- MIMO Configuration: 8x8 Sounding
- MU-MIMO (Uplink and Downlink)
- 4K QAM
- OFDMA (Uplink & Downlink)
- Wi-Fi Security: WPA3-Enterprise, WPA3-Enhanced Open, WPA3 Easy Connect, WPA3 Personal, FIPS 140-2-support, 256-bit encryption

Integrated Bluetooth

- Bluetooth features: Bluetooth 5.4, LE Audio

Snapdragon Sound™ Technology Suite, with support for Qualcomm® aptX™ Voice, aptX Lossless, aptX Adaptive

## Camera

Qualcomm Spectra™ Image Signal Processor

- Triple 12-bit ISPs
- 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 megapixel photo capture

Deep learning-based face detection, facial landmark detection, auto-focus, and auto-exposure AI De-noiser (AIDE) for low-light snapshot

Rec. 2020 color gamut photo and video capture

Up to 10-bit color depth photo and video capture

4K @ 30 FPS HDR video capture + 64 MP photo capture

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

Video capture HDR formats: HDR10, HLG

Slow-mo video capture at 1080p @ 120 FPS

Support for 4K staggered HDR, multi-frame HDR, and limited-blanking multi-frame HDR image sensors

Multi-Frame Noise Reduction (MFNR)

Motion Compensated Temporal Filtering

## Audio

Qualcomm Aqstic™ audio codec

Qualcomm Aqstic smart speaker amplifier

Total Harmonic Distortion + Noise (THD+N),

Playback: -108dB

Qualcomm® Audio and Voice Communication Suite

## Display

On-Device Display Support:

- FHD+ @ 144 Hz

Maximum External Display Support:

- Up to 4K @ 60 Hz
- 10-bit color depth
- HDR10 and HDR10+

## CPU

Kryo CPU

64-bit Architecture

- 1 Prime core, up to 2.5 GHz
- 3 Performance cores, up to 2.4 GHz
- 4 Efficiency cores, up to 1.8 GHz

## Visual Subsystem

Adreno GPU

- HDR gaming (10-bit color depth)
- 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 HLG, HDR10+, HDR10, and HDR vivid

## Security

Platform Security Foundations

Trusted Execution Environment & Services (TEE)

Trust Management Engine

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

Qualcomm® Type-1 Hypervisor

## Location

Concurrent GPS, Glonass, BeiDou, Galileo, QZSS, NavIC

Triple frequency GNSS (L1/L5/L2)

Sensor-Assisted Positioning

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

## Charging

Qualcomm® Quick Charge™ 4+ Technology

## 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

4nm Process Technology

USB Version 3.1; USB Type-C Support

Part Number: SM7635

Storage: UFS 3.1

