

# Snapdragon 6 Gen 3 Launched: Rebranded Version of Snapdragon 7s Gen 2?

Qualcomm has quietly introduced a new mid-range mobile processor called Snapdragon 6 Gen 3 (code name SM6475-AB).

Snapdragon 6 Gen 3 will power affordable smartphones.

In fact, this processor can essentially be introduced as a downclocked version of the Snapdragon 7s Gen 2. However, it must be affirmed that the Snapdragon 6 Gen 3 is an important chipset in Qualcomm's market-shaping plan. Through this chip, Qualcomm wants to provide manufacturers with a processor solution for the next generation of mid-range smartphones that has high performance but is more affordable.

Architecturally, the Snapdragon 6 Gen 3 is an octa-core processor, with four 2.4 GHz Cortex-A78 cores aimed at high performance, and four 1.8 GHz Cortex-A55 cores aimed at energy efficiency. In terms of graphics processing, the SoC uses the Adreno 710 GPU. The chipset supports LPDDR4x and LPDDR5 RAM, as well as UFS 3.1 storage.

As a quick comparison, the Snapdragon 7s Gen 2 has four 2.4GHz Cortex-A78 cores for high performance and four 1.95GHz Cortex-A55 cores for efficiency, paired with the Adreno 710 GPU. So the 6 Gen 3 and 7s Gen 2 are very similar chipsets. The only major difference is that the 7s Gen 2 supports a 144Hz refresh rate at FHD+ resolution, while the 6 Gen 3 does not. There are no other differences, and the Snapdragon 6 Gen 3 does not offer any new features.



## Specs & Features

### Artificial Intelligence

Qualcomm® Adreno™ GPU

Qualcomm® Kryo™ CPU

Qualcomm® Hexagon™ NPU

- Fused AI Accelerator
- Hexagon Tensor Accelerator
- Hexagon Vector eXTensions
- Hexagon Scalar Accelerator
- Support for mix precision (INT8+INT16)

Qualcomm® Sensing Hub

### 5G Modem-RF System

Snapdragon® 5G Modem-RF System

- 5G mmWave and sub-6 GHz
- SA, NSA, TDD, FDD, TDD-FDD aggregation
- Dynamic Spectrum Sharing
- mmWave: 200 MHz bandwidth, 2 carriers
- Sub-6 GHz: 140 MHz bandwidth
- Qualcomm® 5G PowerSave 2.0
- Qualcomm® Smart Transmit™ 2.0 technology
- Qualcomm® Wideband Envelope Tracking
- Qualcomm® AI-Enhanced Signal Boost
- Global 5G multi-SIM

Downlink: Up to 2.9 Gbps

Multimode support: 5G NR, LTE, mmWave sub6 dual connectivity (NR-DC), EN-DC, CBRS, WCDMA, HSPA, CDMA 1x, EV-DO, GSM/EDGE

### Wi-Fi & Bluetooth®

Qualcomm® FastConnect™ Mobile Connectivity System

- Wi-Fi Generation: Wi-Fi 6E
- Standards: 802.11ax, 802.11ac, 802.11a/b/g/n
- Peak speed: 2.9 Gbps
- Channel Bandwidth: 20/40/80/160 MHz
- 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® 5.2, LE Audio, Dual Bluetooth antennas, 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 16 MP triple camera @ 30 FPS with Zero Shutter Lag

Up to 32+16 MP dual camera @ 30 FPS with Zero Shutter Lag

Up to 48 MP single camera @ 30 FPS with Zero Shutter Lag

Up to 200 MP Photo Capture

4K HDR Video Capture + 48 MP Photo Capture

Video Capture Formats: HEVC, H.264

4K HDR Video Capture @ 30 FPS

Slow-Mo Video Capture at 720p @ 240 FPS

Hardware-Based Multi-Frame Noise Reduction (MFNR)

Hardware-Based Locally Motion Compensated Temporal Filtering

Support for staggered HDR image sensors

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

### Audio

Qualcomm Aqstic™ audio codec

New Qualcomm Aqstic smart speaker amplifier

Total Harmonic Distortion + Noise (THD+N) Playback: <math>-108\text{dB}</math>

Snapdragon Sound Technology Suite

### Display

On-Device Display Support:

- FHD+ @ 120 Hz

### CPU

Kryo CPU

- 64-bit Architecture
- 4 Performance cores, up to 2.4GHz
- 4 Efficiency cores, up to 1.8GHz

### Visual Subsystem

Adreno GPU

- Vulkan™ 1.1 API support
- HDR gaming (10-bit color depth, Rec. 2020 color gamut)
- API Support: OpenGL® ES 3.2, OpenCL™ 2.0 FP, Vulkan 1.1
- Hardware-accelerated H.265 and VP9 decoder
- HDR Playback Codec support for HLG

### Security

Platform Security Foundations and Qualcomm® Trusted Execution Environment (TEE) for use cases requiring higher processing assurance

Trust Management Engine

Qualcomm® wireless edge services (WES) for secure attestation and provisioning

Qualcomm® Type-1 Hypervisor

### Charging

Qualcomm® Quick Charge™ 4+ technology

### Location

GPS, Glonass, BeiDou, Galileo, QZSS, NavIC

Dual Frequency GNSS (L1/L5)

Sensor-Assisted Positioning

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

### Memory

Support for LP-DDR4x memory, up to 2100 MHz

Support for LP-DDR5 memory, up to 3200 MHz

Memory Density: Up to 12 GB

### General Specifications

4nm Process Technology

Storage: UFS 3.1

USB Version 3.1; USB Type-C Support

Part Number: SM6475-AB



Quick Charge 4+ designs may increase the battery charge of a device by up to 50% in 15 minutes. Actual results may vary depending on device design. Certain optional features available subject to Carrier and OEM selection for an additional fee. Snapdragon and Qualcomm branded product are products of Qualcomm Technologies, Inc. and/or its subsidiaries. Qualcomm wireless edge services are offered by Qualcomm Technologies, Inc. and/or its subsidiaries. Qualcomm, Snapdragon Elite Gaming, Snapdragon Sound, Smart Transmit, Snapdragon, Adreno, FastConnect, Kryo, Qualcomm Spectra, Qualcomm Aqstic, Hexagon, and Quick Charge are trademarks or registered trademarks of Qualcomm Incorporated. aptX is a trademark or registered trademark of Qualcomm Technologies, Inc. and/or its affiliated companies. All rights reserved.

In terms of performance, the Snapdragon 6 Gen 3 improves CPU performance by up to 10% and GPU performance by 30% compared to its predecessor, the Snapdragon 6 Gen 1. According to Qualcomm, the Snapdragon 6 Gen 3 promises to bring the device smooth multitasking, fast application loading and better gaming than the previous generation. This processor also comes with advanced AI features similar to many of Qualcomm's current new chip models.

There is still no information regarding the first smartphone models equipped with Snapdragon 6 Gen 3 processor to be launched on the market in the future.

You finished reading the article "**Snapdragon 6 Gen 3 Launched: Rebranded Version of Snapdragon 7s Gen 2?**" edited by the [TipsMake](#) team. We hope this article has provided you with many useful tech tips and tricks. You can search for similar articles on tips and guides. Thank you for reading and for following us regularly.