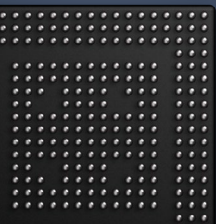




Snapdragon
778G+ 5G mobile platform



778G+

The Snapdragon® 778G+ 5G Mobile Platform delivers power at every turn, designed for superior communication, gaming, audio, and more. Harness pumped-up performance, enhanced AI, and truly global 5G, taking every achievement and activity to new levels of greatness.



Pumped-up performance

Stream, game, or video chat backed by power and efficiency. With both GPU and CPU packing upgrades since the predecessor, every on-device experience is seamless and lasting. Plus, performance is never on pause for long thanks to Qualcomm® Quick Charge™ 4+ Technology, engineered to take devices from 0-50% in just 15 minutes.

- Enhanced Qualcomm® Kryo™ 670 CPU and Qualcomm® Adreno™ 642L GPU
- Ultra-efficient 6nm process for smooth performance that won't drain battery
- Quick Charge 4+ offers conveniently fast charging



Elevated AI

Smarter, faster, better—the 6th Gen Qualcomm® AI Engine unites intelligence with every on-device move. Engage with loved ones near or far with immersive video calls, featuring context-based volume adjustment, mic switching, and background blur. Plus, capture intuitively with low-light video, smooth zoom, and autofocus, or play mobile games in desktop quality—all thanks to best-in-class AI.

- Always-aware 2nd Gen Qualcomm® Sensing Hub processes at less than 1 mA of power
- Qualcomm® Hexagon™ 770 Processor packs fused AI-accelerator architecture for fast, efficient data transfer
- AI-enhanced cameras produce professional quality captures



Power to prevail

Conquer every foe with select Snapdragon Elite Gaming™ features in your arsenal. Qualcomm® Game Quick Touch offers real-time responses that give you a competitive edge, while Variable Rate Shading (VRS) enables hyper-realism while preserving power. Get lost in game worlds that dazzle in over a billion colors with true 10-bit HDR—and conspire with competitors almost anywhere via truly global 5G.

- Adreno 642L GPU is improved since the predecessor for efficient graphics rendering
- Qualcomm Game Quick Touch boasts 20% faster responses
- Truly global 5G connectivity supports all frequencies and modes for gaming virtually anywhere



Series-defying connectivity

Industry-leading and lightning fast—harness incredible connectivity to stream, communicate, or game from anywhere. Truly global, multi-gigabit 5G enables near-instant uploads and downloads, smooth streaming, and real-time sharing—whether you're on a remote getaway or in a bustling metropolis. Advanced Wi-Fi 6 and 6E features also push astonishing multi-gig speeds even with multiple devices on the same network.

- Snapdragon 5G X53 Modem-RF System supports mmWave and Sub-6 GHz frequencies, NSA and SA modes, plus TDD, FDD, and DSS
- Qualcomm® FastConnect™ 6700 System offers up to 2.9 Gbps speeds with leading Wi-Fi 6 and 6E features such as 4K QAM, advanced two-way traffic management and more."
- Bluetooth® 5.2, dual Bluetooth Antennas, and Snapdragon Sound™ Technology add rich, reliable and immersive audio.

To learn more visit
snapdragon.com

All comparisons made are in reference to previous generation. Results will vary depending on OEM implementation and other factors. Battery life varies significantly based on device, setting, usage, and other factors.

Snapdragon, Qualcomm Quick Charge, Qualcomm Kryo, Qualcomm Adreno, Qualcomm AI Engine, Qualcomm Sensing Hub, Qualcomm Hexagon, Snapdragon Sound, and Snapdragon Elite Gaming are products of Qualcomm Technologies, Inc. and/or its subsidiaries.

Snapdragon®

778G+ 5G mobile platform



SPECIFICATIONS & FEATURES

Artificial Intelligence

- 6th gen Qualcomm® AI Engine
- Qualcomm® Adreno™ 642L GPU
- Qualcomm® Kryo™ 670 CPU
- Qualcomm® Hexagon™ 770 Processor
 - Fused AI Accelerator architecture
 - Hexagon Tensor Accelerator
 - Hexagon Vector eXtensions
 - Hexagon Scalar Accelerator
- Qualcomm® Sensing Hub (2nd Generation)
 - Ultra low power hub for audio, voice and sensors
 - Supports AI algorithms at low power
 - Background processing for sensors, Wi-Fi, Location, Mobile, BLE
 - Support for fusing contextual data streams including sensors, audio and voice
 - Supports multiple hardware accelerated always-on voice assistants
 - Multi-mic far-field detection and echo cancellation

5G Modem-RF System

- Snapdragon X53 5G Modem-RF System
 - 5G mmWave and Sub-6 GHz, standalone (SA) and non-standalone (NSA) modes, FDD, TDD
 - Dynamic Spectrum Sharing
 - mmWave: 400 MHz, 2x2 MIMO
 - Sub-6 GHz: 120 MHz bandwidth, 4x4 MIMO
 - Qualcomm® 5G PowerSave
 - Qualcomm® Smart Transmit™ technology
 - Qualcomm® Wideband Envelope Tracking
 - Qualcomm® AI-Enhanced Signal Boost
 - Global 5G multi-SIM
- Downlink: Up to 3.7 Gbps
- Uplink: Up to 1.6 Gbps
- Multimode support: 5G NR, LTE including CBRS, WCDMA, HSPA, CDMA 1x, EV-DO, GSM/EDGE

Wi-Fi & Bluetooth

- Qualcomm® FastConnect™ 6700 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: 2.4 GHz, 5 GHz, 6 GHz
 - Peak speed: 2.9 Gbps
 - Channel Utilization: 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)
 - Wi-Fi Security: WPA3-Enterprise, WPA3-Enhanced Open, WPA3 Easy Connect, WPA3-Personal

- Integrated Bluetooth
- Bluetooth Version: Bluetooth 5.2
 - Bluetooth features: Dual Bluetooth antennas, LE Audio Features (one-to-many broadcast), Qualcomm® aptX™ suite
 - Bluetooth audio: Snapdragon Sound™ Technology with 24-bit 96-kHz music streaming, Ultra-low latency <90 milliseconds, 32-kHz Super wideband Voice

Camera

- Qualcomm Spectra™ 570L Image Signal Processor
- Triple 14-bit ISPs
- Up to 2 Gigapixels per Second
- Up to 22 MP triple camera @ 30 FPS with Zero Shutter Lag and Multi-Frame Noise Reduction
- Up to 36+22 MP dual camera @ 30 FPS with Zero Shutter Lag and Multi-Frame Noise Reduction
- Up to 64 MP single camera @ 30 FPS with Zero Shutter Lag and Multi-Frame Noise Reduction
- Up to 192 MP Photo Capture
- Rec. 2020 color gamut photo and video capture
- Up to 10-bit color depth photo and video capture
- 10-bit HDR HEIF photo capture
- 4K Video Capture + 36 MP Photo
- Slow-mo video capture at 720p @ 240 FPS
- HEIF: HEIC photo capture, HEVC video capture
- Video Capture Formats: HDR10+, HDR10, HLG
- 4K Video Capture
- 4K HDR Video Capture with Portrait Mode (Bokeh)
- Staggered HDR sensor support
- AI-based auto-focus and auto-exposure

Audio

- Dedicated HW AI Acceleration for always-on, low-power processing
- Qualcomm® AI-based Echo Cancellation and Noise Suppression
- Snapdragon® Voice Activation
- Snapdragon Sound™ Technology:
 - Total Harmonic Distortion + Noise (THD+N), Playback: -108dB
 - Hi-Fi Audio with up to 384 kHz/32-bit
 - Qualcomm Aqstic™ smart speaker amplifier (up to WSA8831)
 - Qualcomm Aqstic™ audio codec (up to WCD9385)

Display

- On-Device Display Support:
 - FHD+ @ 144 Hz
- Maximum External Display Support: up to 4K @ 60 Hz
 - 10-bit color depth, Rec. 2020 color gamut
 - HDR10 and HDR10+

CPU

- Kryo 670 CPU
 - Up to 2.5 GHz
 - 64-bit Architecture

Visual Subsystem

- Adreno 642L GPU
- API Support: OpenGL® ES 3.2, OpenCL™ 2.0 FP, Vulkan 1.1
- Physically Based Rendering, Variable Rate Shading (VRS)
- HDR gaming (10-bit color depth, Rec. 2020 color gamut)
- Hardware-accelerated H.265 and VP9 decoder
- HDR Playback Codec support for HDR10+, HDR10, HLG

Security

- Platform Security Foundations: Secure Boot, Debug Security, HW Crypto Cores, HW/SW Key Management, HW/SW storage security, Peripherals Security
- Trusted Execution Environment and Services:
 - Qualcomm® Type-1 Hypervisor, Qualcomm Trusted Execution Environment (TEE), DSP Secure domain
 - Qualcomm® Content Protection (Widevine™ V16), Camera Security Framework, Trusted UI Framework
- Qualcomm® wireless edge services (WES): Chip-to-Cloud services to establish and maintain device trust
 - Qualcomm® WES Attestation Service, Qualcomm® WES Provisioning Service

Charging

- Qualcomm® Quick Charge™ 4+ Technology

Location

- GPS, Glonass, BeiDou, Galileo, QZSS, NavIC capable
- Dual Frequency Support (L1/L5)
- Sidewalk/Lane-level Navigation
- Sensor-Assisted Positioning

Memory

- Support for LP-DDR5 memory up to 3200 MHz
- Memory Density: up to 16 GB

General Specifications

- Select Snapdragon Elite Gaming features
- 6nm Process Technology
- USB Version 3.1; USB Type-C Support
- Part Number: SM7325-AE

Certain optional features available subject to Carrier and OEM selection for an additional fee.

Qualcomm 5G PowerSave, Qualcomm Smart Transmit, Qualcomm Wideband Envelope Tracking, Qualcomm AI-Enhanced Signal Boost, Qualcomm aptX, Qualcomm Spectra, Qualcomm Sensor Assisted Positioning, Qualcomm TrueWireless, Qualcomm Type-1 Hypervisor, Snapdragon Elite Gaming, Qualcomm Game Quick Touch, Qualcomm TEE, Qualcomm WES, Qualcomm WCD9385, Qualcomm Quick Charge, Snapdragon Sound, Qualcomm Aqstic, and Qualcomm Content Protection are products of Qualcomm Technologies, Inc. and/or its subsidiaries.

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