The Qualcomm® Snapdragon™ 865+ 5G mobile platform delivers revved-up performance for insanely-fast, superior gameplay. Truly global 5G, ultra-intuitive AI, game-changing Wi-Fi, and a full suite of Qualcomm® Snapdragon Elite Gaming™ features complete this unstoppable platform.

Superior gameplay
Defend, dominate, and defeat with Snapdragon’s most advanced gaming arsenal. A boosted GPU, 5G connectivity, and Snapdragon Elite Gaming features break mobile barriers in cloud-based gameplay and desktop-quality visuals. Get the latest tech gains with updateable GPU drivers, plus experience phenomenal graphics with 144 Hz display support and accelerated rendering.

- Qualcomm® Adreno™ 650 GPU packs a 10% faster graphics rendering compared to Snapdragon 865
- Full suite of Snapdragon Elite Gaming features, including Desktop Forward Rendering, Qualcomm® Game Color Plus, True 10-bit HDR Gaming, and Qualcomm® Game Smoother

Revved-up performance
Conquer continually, without compromise. Our amplified Qualcomm® Kryo™ CPU enables high-intensity gaming at utmost efficiency, so you can focus on prevailing instead of powering up. And, Qualcomm® Quick Charge™ AI Technology monitors battery health for prolonged performance. Play at breakneck speeds—no breaks required.

- Kryo 585 CPU boasts a 10% performance improvement compared to Snapdragon 865
- Quick Charge AI helps to extend battery life cycles up to 200 days

Truly global 5G gaming
Take advantage of lightning-fast, multi-gigabit 5G gaming and defeat foes from around the world. Compete with multiple players in real-time, and stream PC-quality games right to your device. With peak 5G speeds up to 7.5 Gbps, make every move seamless and every warrior a winner.

- Snapdragon X55 5G Modem-RF System
- Supports all key regions and frequency bands including mmWave, sub-6, TDD, FDD and Dynamic Spectrum Sharing (DSS)
- Supports both standalone and non-standalone modes, global roaming and global multi-SIM

Ultra-intuitive AI
Our leading 5th gen Qualcomm® Artificial Intelligence (AI) Engine lets you outsmart the competition with more intuitive moves. AI real-time translation eliminates language barriers for seamless communication with global teammates. This platform’s combined speed, strength, and smarts enable super-responsive gameplay—all without draining power.

- Qualcomm® Hexagon 698 Processor
- Qualcomm® Sensing Hub provides always-on contextual awareness while gaming
- AI-based noise suppression & echo cancellation for in-game communication

Game-changing Wi-Fi
The Snapdragon 865+ 5G mobile platform makes connectivity history with Qualcomm® FastConnect™ 6900 System compatibility, featuring the fastest mobile Wi-Fi in the industry at up to 3.6 Gbps. By harnessing the 6 GHz spectrum, Wi-Fi 6E is less congested, insanely-fast, and shockingly smooth. Experience VR-class low latency for highly responsive mobile gaming and XR applications, even in crowded places with many devices competing for data.

- 4-stream (2x2 + 2x2) Dual Band Simultaneous (DBS) implementation for faster, more responsive connectivity
- Qualcomm® 4K QAM and 160 MHz channel support for enhanced gaming and HD streaming
- Integrated Bluetooth 5.2 and advanced audio features for crisp, reliable and responsive wireless audio

To learn more visit snapdragon.com

All comparisons made are in reference to previous generation Snapdragon 865 mobile platform. Results will vary depending on OEM implementation and other factors. Battery life varies significantly based on device, settings, usage, and other factors.

Qualcomm Snapdragon, Qualcomm Snapdragon Elite Gaming, Qualcomm Adreno, Qualcomm Game Color Plus, Qualcomm Game Smoother, Qualcomm Hexagon, Qualcomm Quick Charge, Qualcomm AI Engine, Qualcomm Hexagon, Qualcomm Sensing Hub, Qualcomm FastConnect, and Qualcomm 4K QAM are products of Qualcomm Technologies Inc. and/or its subsidiaries.
Qualcomm® Snapdragon™
865+ 5G Mobile Platform

SPECIFICATIONS & FEATURES

Artificial Intelligence
- Adreno 650 GPU
- Kryo 585s
- Hexagon 698 Processor
  - Hexagon Tensor Accelerator
  - Hexagon Vector Extensions
  - Hexagon Scalar Accelerator
- Qualcomm Sensing Hub
  - Ultra low power hub for audio, voice and sensors
  - Supports AI algorithms at low power
  - Support for fusing contextual data streams including sensors, audio and voice
  - Supports multiple voice assistants
  - Multi-mic far-field detection and echo cancellation

5G Modem-RF System
- Snapdragon X55 5G Modem-RF System
- 5G mmWave and sub-6 GHz, standalone (SA) and non-standalone (NSA) modes, FDD, TDD
- Dynamic Spectrum Sharing
- mmWave: 800 MHz bandwidth, 8 carriers, 2x2 MIMO
- Sub-6 GHz: 200 MHz bandwidth, 4x4 MIMO
- Qualcomm® 5G PowerSave
- Qualcomm® Smart Transmit™ technology
- Qualcomm® Wideband Envelope Tracking
- Qualcomm® Signal Boost
- Qualcomm® TrueWireless™ Technology
- Global 5G multi-SIM
- Downlink: Up to 7.5 Gbps
- Uplink: Up to 3 Gbps
- Multimode support: 5G NR, LTE including CBRS, 5G mmWave and sub-6 GHz, standalone (SA) and non-standalone (NSA) modes, FDD, TDD
- Dynamic Spectrum Sharing
- mmWave: 800 MHz bandwidth, 8 carriers, 2x2 MIMO
- Sub-6 GHz: 200 MHz bandwidth, 4x4 MIMO
- Qualcomm® 5G PowerSave
- Qualcomm® Smart Transmit™ technology
- Qualcomm® Wideband Envelope Tracking
- Qualcomm® Signal Boost
- Qualcomm® TrueWireless™ Technology
- Global 5G multi-SIM
- Downlink: Up to 7.5 Gbps
- Uplink: Up to 3 Gbps
- Multimode support: 5G NR, LTE including CBRS, WCDMA, HSPA, TD-SCDMA, CDMA 1x, EV-DO, GSM/EDGE

Wi-Fi & Bluetooth
- FastConnect 6900 System
  - Wi-Fi Standards: Wi-Fi 6E, Wi-Fi 6 (802.11ax), 802.11ac Wave 2, 802.11a/b/g/n
  - Wi-Fi Spectral Bands: 2.4 GHz, 5 GHz, 6 GHz
  - Peak speed: 3.6 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
  - Dual-band simultaneous (2x2 + 2x2)
  - Wi-Fi Security: WPA3-Enterprise, WPA3-Enhanced Open, WPA3 Easy Connect, WPA3-Personal

Camera
- Qualcomm Spectra™ 480 Image Signal Processor
- Dual 14-bit ISPs
- Up to 2 Gigapixels per Second
- Hardware accelerator for computer vision (CV-ISP)
- Up to 200 Megapixel Photo Capture
- Up to 25 MP dual camera @ 30 FPS with Zero Shutter Lag
- Up to 64 MP single camera @ 30 FPS with Zero Shutter Lag
- Rec. 2020 color gamut video capture
- Up to 10-bit color depth video capture
- 4K Video Capture + 64 MP Photo
- 8K Video Capture @ 30 FPS
- Slow-mo video capture at 720p @ 960 FPS
- HEIF: HEIC photo capture, HEVC video capture
- Video Capture Formats: HDR10+, HDR10, HLG, Dolby Vision
- 4K Video Capture @ 120 FPS
- 4K HDR Video Capture with Portrait Mode (Bokeh)
- Multi-frame Noise Reduction (MFNR)
- Real-time object classification, segmentation and replacement

Audio
- Hexagon Voice Assistant Accelerator for hardware accelerated voice signal processing
- Qualcomm Acoustic™ audio codec (Up to WCD9385)
  - Total Harmonic Distortion + Noise (THD+N), Playback: -108dB
  - Native DSD support, PCM up to 384 kHz/32-bit
  - Customizable “Golden Ears” filter
- Qualcomm Acoustic smart speaker amplifier (up to WSA8815)

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

CPU
- Kryo 585s, Octa-core
- Up to 3.1 GHz
- 64-bit Architecture

Visual Subsystem
- Adreno 650 GPU
- Vulkan™ 11 API support
- HDR (10-bit color depth, Rec. 2020 color gamut)
- Physically Based Rendering
- API Support: OpenGL® ES 3.2, OpenCL® 2.0 FP, Vulkan 11
- Hardware-accelerated H.265 and VP9 decoder
- HDR Playback Codec: support for HDR10+, HDR10, HLG and Dolby Vision

Security
- Qualcomm® Secure Processing Unit: Mobile Payment, Dual SIM, Dual Standby
- Qualcomm® 3D Sonic Sensor and Qualcomm 3D Sonic Max
- Biometric Authentication: Fingerprint, Iris, Voice, Face

Charging
- Quick Charge 4+ technology
- Quick Charge AI

Location
- GPS, Glonass, BeiDou, Galileo, QZSS, NavIC capable, and SBAS
- Dual Frequency Support
- Low Power Geofencing and Tracking, Sensor-assisted Navigation
- Near Field Communications (NFC): Supported

Memory
- Support for LPDDR5 memory up to 2750 MHz
- Support for LPDDR4x memory up to 2133 MHz
- Memory Density: up to 16 GB

General Specifications
- Full Suite Snapdragon Elite Gaming features
- 7 nm Process Technology
- USB Version 3.1, USB Type-C Support
- Part Number: SM8250-AB