

The Qualcomm® Snapdragon™ 888 5G Mobile Platform packs industry-leading innovations in 5G, AI, gaming, and photography. This new class of technology transforms your flagship device into a professional-quality camera, intelligent personal assistant, and elite gaming rig—all connected with truly global 5G multi-gigabit speeds to deliver the premium experiences you deserve.



### The biggest leap forward in AI

Experience mobile intelligence like never before with our brand-new 6th Gen Qualcomm® Artificial Intelligence (AI) Engine—uniting AI with everything from photography to gaming to connectivity. The completely re-engineered Qualcomm® Hexagon™ 780 Processor features a fused AI-accelerator architecture and brings the total Qualcomm AI Engine performance up to an astonishing 26 TOPS.

- Tensor Accelerator with 2x compute capacity and Scalar Accelerator with 50% performance improvement
- Up to 3 times performance per watt improvement
- New, 16x larger shared AI memory, up to 1000x improvement for hand-off time in certain use cases
- Contextually aware 2nd Gen Qualcomm® Sensing Hub with dedicated AI processor and truly on-demand AI



### A true connectivity powerhouse

Introducing the world's most advanced connectivity platform—ever. With our 3rd Gen Qualcomm® Snapdragon X60 5G Modem-RF System, we are enhancing 5G globally across more networks than before, with support for all-day battery life. And, the Qualcomm® FastConnect™ 6900 Mobile Connectivity System features groundbreaking Wi-Fi 6E, plus leading Bluetooth audio capabilities. Experience multi-gigabit speeds and unmatched performance, no matter where or how you connect.

- World's first platform with 5G carrier aggregation across TDD-FDD bands
- World's fastest uplink and downlink 5G speeds
- Fastest Wi-Fi 6 speeds of any mobile Wi-Fi offering in the industry (up to 3.6 Gbps)



### Triple down on the future of computational photography

Our first Snapdragon with a Triple ISP allows you to capture three 4K HDR videos, or three 28 MP photos, simultaneously. It's also our first mobile platform with true 10-bit HDR photo capture—for memories that come alive in over a billion shades of color. Plus, with new Low Light architecture you'll get brighter photos even in near-complete darkness.

- The Qualcomm Spectra™ 580 ISP is 35% faster than the previous generation with 2.7 Gigapixels per second processing and 12 MP Burst Photo Capture at 120 fps
- 4K HDR with computational HDR Video Capture delivers brilliant imagery with extreme dynamic range



### Unrivaled speed and stamina for elite gamers everywhere

Arm yourself with the full Qualcomm® Snapdragon Elite Gaming™ arsenal—because winning is everything. Conquer with desktop-level features new to mobile: Variable Rate Shading (VRS) provides an up to 30% performance improvement for richer game worlds, while Qualcomm® Game Quick Touch dramatically lowers latency for the ultimate competitive advantage.

- Qualcomm® Adreno™ 660 GPU delivers 35% faster graphics rendering
- Qualcomm® Game Quick Touch increases responsiveness by up to 20%
- Qualcomm® Kryo™ 680 CPU enables 25% higher performance and incredible power efficiency with new architecture based on Arm Cortex-X1 technology



### Securing the future of photography

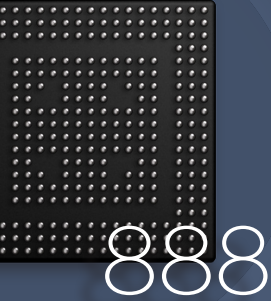
Security is vital in an increasingly mobile world. The Snapdragon 888 5G supports Truepic cryptography, making it the world's first camera compliant with the Content Authenticity Initiative. Now you can ensure the validity and security of images before you share, purchase, or utilize.

- First Snapdragon to feature Hypervisor: run multiple OSes simultaneously with enhanced security
- Qualcomm® Mobile Security and Qualcomm® Content Protection

To learn more visit  
[snapdragon.com](https://www.qualcomm.com/snapdragon)

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 AI Engine, Qualcomm Hexagon, Qualcomm Sensing Hub, Qualcomm FastConnect, Qualcomm Spectra, Qualcomm Snapdragon Elite Gaming, Qualcomm Adreno, Qualcomm Kryo, Qualcomm Mobile Security, Qualcomm Game Quick Touch, and Qualcomm Content Protection are products of Qualcomm Technologies Inc. and/or its subsidiaries.





## SPECIFICATIONS &amp; FEATURES

**Artificial Intelligence**

- Adreno 660 GPU
- Kryo 680 CPU
- Hexagon 780 Processor
  - Fused AI Accelerator
    - Hexagon Tensor Accelerator
    - Hexagon Vector eXTensions
    - Hexagon Scalar Accelerator
- Qualcomm Sensing Hub (2nd Generation)

**5G Modem-RF System**

- Snapdragon X60 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® AI-Enhanced Signal Boost
  - 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), Wi-Fi 5 (802.11ac), 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 (Uplink & Downlink)
  - Dual-band simultaneous (2x2 + 2x2)
  - Wi-Fi Security: WPA3-Enterprise, WPA3-Enhanced Open, WPA3 Easy Connect, WPA3-Personal
- Integrated Bluetooth
  - Bluetooth Version: Bluetooth 5.2
  - Bluetooth features: LE Audio Features (one-to-many broadcast), Dual Bluetooth antennas
  - Bluetooth audio: Qualcomm® aptX™ Voice audio for crystal-clear voice calls, aptX Adaptive audio for robust, low latency, high quality audio, Qualcomm TrueWireless™ Mirroring

**Camera**

- Qualcomm Spectra 580 Image Signal Processor
  - Triple 14-bit ISPs
  - Up to 2.7 Gigapixels per Second computer vision ISP (CV-ISP)
  - Up to 200 Megapixel Photo Capture
  - Up to 28 MP triple camera @ 30 FPS with Zero Shutter Lag
  - Up to 64+25 MP dual camera @ 30 FPS with Zero Shutter Lag
  - Up to 84 MP single camera @ 30 FPS with Zero Shutter Lag
- 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 + 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
- Locally compensated Multi-Frame Noise Reduction
- Multi-Frame and Staggered HDR sensor support
- Low light photography architecture
- Video super resolution
- AI-based auto-focus and auto-exposure
- Advanced HW-based face detection with deep learning filter

**Audio**

- Hexagon Voice Assistant Accelerator for hardware accelerated voice signal processing
- Qualcomm Aqstic™ 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
- New Qualcomm Aqstic smart speaker amplifier (up to WSA8835)

**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+
- Demura and subpixel rendering for OLED Uniformity

**CPU**

- Kryo 680 CPU
  - Up to 2.84GHz, with Arm Cortex-X1 technology
  - 64-bit Architecture

**Visual Subsystem**

- Adreno 660 GPU
  - Vulkan® 1.1 API support
  - HDR gaming (10-bit color depth, Rec. 2020 color gamut)
  - Physically Based Rendering
  - 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 HDR10+, HDR10, HLG and Dolby Vision

**Security**

- Platform Security Foundations, Trusted Execution Environment & Services, Secure Processing Unit (SPU)
- 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, and SBAS
- Dual Frequency Support
- Low Power Geofencing and Tracking, Sensor assisted Navigation
- Near Field Communications (NFC): Supported

**Memory**

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

**General Specifications**

- Full Suite of Snapdragon Elite Gaming features
- 5 nm Process Technology
- USB Version 3.1; USB Type-C Support
- Part Number: SM8350

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

Qualcomm Quick Charge, Qualcomm 3D Sonic Sensor, Qualcomm Smart Transmit, Qualcomm 5G PowerSave, Qualcomm TrueWireless Mirroring, Qualcomm Aqstic, Qualcomm Wideband Envelope Tracking, Qualcomm AI-Enhanced Signal Boost, and Qualcomm aptX 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, Kryo, Adreno, Qualcomm Spectra, Qualcomm TrueWireless, Qualcomm Aqstic, Hexagon, Quick Charge, Snapdragon Elite Gaming, Smart Transmit, and FastConnect are trademarks or registered trademarks of Qualcomm Incorporated. aptX is a trademark or registered trademark of Qualcomm Technologies International, Ltd. Other products and brand names may be trademarks or registered trademarks of their respective owners.

©2020 Qualcomm Technologies, Inc. and/or its affiliated companies.