

The Qualcomm<sup>®</sup> Snapdragon<sup>™</sup> 780G 5G Mobile Platform is a content-creating powerhouse with powerful AI and brilliant capture. Backed by tons of 7-series firsts like a triple ISP, the 6th gen Qualcomm<sup>®</sup> AI Engine, and lightning-fast Wi-Fi 6, you'll create, enhance, and share endlessly.

# **Powerful AI**

Take an intelligent leap forward with the first-in-series 6th gen Qualcomm AI Engine, offering powerful AI that fuels photography, gaming, and more. At its core is our Qualcomm<sup>\*</sup> Hexagon<sup>\*\*</sup> 770 processor, featuring a fused AI accelerator that pushes platform performance.

- Industry-leading 12 TOPS performance
- 2x performance improvement compared to previous generation



## **Brilliant camera capture**

Get your hands on a true triple-camera experience. Snap three 25 MP photos at once with our very first 7-series triple ISP powered by the Qualcomm Spectra<sup>®</sup> 570 ISP. You'll also enjoy smooth zooming and HDR10+ video capture, for jaw-dropping, share-worthy content in over a billion shades of color.

- New low-light architecture captures clear images even in extreme low light conditions
- 4K HDR with computational HDR capture combines the best aspects of each photo for pro-level color, contrast and detail

# Al-powered video & voice calls

Our 2nd gen Qualcomm<sup>\*</sup> Sensing Hub packs a dedicated always-on low-power AI accelerator another 7-series first. This AI processor works to intuitively cancel out background noise so callers can hear you crystal clear—while using extremely low power.

- Stay productive with 25% longer voice calls
- · Ultra-efficient processing at less than 1 mA power consumption

# Industry-leading Wi-Fi 6 & Bluetooth audio

Share your content in a flash. The Qualcomm<sup>\*</sup> FastConnect<sup>™</sup> 6900 Mobile Connectivity System makes its 7-series debut to support blazing Wi-Fi 6, plus premium Bluetooth<sup>\*</sup> 5.2. Capture photos and instantly upload them to social feeds or livestream your latest work in high quality—because your creativity demands notice.

- Wi-Fi 6 pushes connectivity speeds up to 3.6 Gbps
- Premium audio experiences are delivered via Bluetooth 5.2, dual antennas and Qualcomm<sup>\*</sup> Snapdragon Sound<sup>™</sup> Technology



## Smooth, immersive gaming

Game on—and conquer—with select Qualcomm<sup>®</sup> Snapdragon Elite Gaming<sup>®</sup> Features in your arsenal. A new CPU architecture delivers improved performance for flawless gameplay and increased power efficiency. Plus, up to 144 Hz display support enables action and adventure to unfold smoothly with lifelike visuals.

- Qualcomm® Kryo™ 670 CPU with new architecture delivers up to 40% performance uplift
- Qualcomm<sup>®</sup> Adreno<sup>™</sup> 642 GPU produces immersive detail and fluid rendering, even in complex games

## To learn more visit snapdragon.com

All comparisons made are in reference to previous generation, Snapdragon 788G SG 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 Snaparagon, Qualcomm Al Engine, Qualcomm Hexagon, Qualcomm Sensing Hub, Qualcomm FastConnect, Qualcomm Spectro, Qualcomm Adreno, Qualcomm Snapdragon Sound, and Qualcomm Kryo are products of Qualcomm Technologies Inc. and/or its subsidiaries.

# <sup>Snapdragon</sup> 780G 5G Mobile Platform

# **SPECIFICATIONS & FEATURES**

## **Artificial Intelligence**

- 6th gen Qualcomm AI Engine
- Adreno 642 GPU
- Kryo 670 CPU
- Hexagon 770 Processor
  - Fused AI Accelerator architecture
  - Hexagon Tensor Accelerator
  - Qualcomm<sup>®</sup> Hexagon<sup>™</sup> Vector eXtensions (HVX)
  - Hexagon Scalar Accelerator
- Qualcomm Sensing Hub (2nd Generation)

### 5G Modem-RF System

- Snapdragon X53 5G Modem-RF System
- Sub-6 GHz, standalone (SA) and nonstandalone (NSA) modes, FDD, TDD
- Dynamic Spectrum Sharing
- Sub-6 GHz: 100 MHz bandwidth, 4x4 MIMO
- Qualcomm<sup>®</sup> 5G PowerSave
- Qualcomm® Smart Transmit™ technology
- Qualcomm<sup>®</sup> Wideband Envelope Tracking
- Qualcomm<sup>®</sup> AI-Enhanced Signal Boost
- Global 5G multi-SIM
- Downlink: Up to 3.3 Gbps
- Multimode support: 5G NR, LTE including CBRS, WCDMA, HSPA, 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)
  - 4-stream 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: Dual Bluetooth antennas, LE Audio Features (one-to-many broadcast), Qualcomm<sup>®</sup> aptX<sup>™</sup> suite
  - Bluetooth audio: Snapdragon Sound with 24-bit 96-kHz music streaming, Ultra-low latency <90 milliseconds, 32-kHz Super wideband Voice

### Camera

- Qualcomm Spectra 570 Image Signal Processor
- Triple 14-bit ISPs
- Up to 2.5 Gigapixels per Second computer vision ISP (CV-ISP)
- Up to 192 MP Photo Capture
- Up to 25 MP triple camera @ 30 FPS with Zero Shutter Lag
- Up to 64+20 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 HDR with computational HDR video capture
- 4K Video Capture + 64 MP Photo
- Slow-mo video capture at 720p @ 480 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)
- Multi-frame Noise Reduction (MFNR)
- Real-time object classification, segmentation, and replacement
- Local motion compensated temporal filtering
- Multi-Frame and Staggered HDR sensor support
- Low light photography architecture
- Al-based auto-focus and auto-exposure
- Advanced hardware-based face detection with deep learning filter

#### **Audio**

- Qualcomm<sup>®</sup> Voice Assistant Accelerator for hardware accelerated voice signal processing
- Qualcomm Aqstic" audio codec (Up to WCD9385)
- Total Harmonic Distortion + Noise (THD+N), Playback: -108dB
- Customizable "Golden Ears" filter
- New Qualcomm Aqstic smart speaker amplifier (up to WSA8835)

#### 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

Qualcomm 5G PowerSave, Qualcomm Smart Tiansit, Qualcomm Wideband Envelope Tiacking, Qualcomm Al-Enhanced Signal Boost, Qualcomm aptX, Qualcomm Agstic, Qualcomm 3D Sonic Sensor, Qual Qualcomm Type-1 Hypervisor, and Qualcomm Quick Charge are products of <u>Qualcomm Technologies Inc. and/or its subsidiaries. Qualcomm wireless edge services are offered by Qualcomm Technologies Inc. and/or its subsidiaries. Qualcomm wireless edge services are offered by Qualcomm Technologies Inc. and/or its subsidiaries. Qualcomm wireless edge services are offered by Qualcomm Technologies Inc.</u>

- Up to 2.4 GHz
- 64-bit Architecture

## Visual Subsystem

- Adreno 642 GPU
  - API Support: OpenGL\* ES 3.2, OpenCL<sup>\*\*</sup> 2.0 FP, Vulkan 1.1

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- Physically Based Rendering
- 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, Trusted Execution Environment & Service
- Qualcomm<sup>®</sup> wireless edge services (WES) and premium security features
- Qualcomm<sup>®</sup> 3D Sonic Sensor and Qualcomm<sup>®</sup>
  3D Sonic Max (fingerprint sensor)
- Qualcomm® Type-1 Hypervisor

#### Charging

• Qualcomm® Quick Charge™ 4+ Technology

#### Location

Memory

 GPS, Glonass, BeiDou, Galileo, QZSS, NavIC capable

• Support for LP-DDR4 memory up to 2.1 GHz

Select Snapdragon Elite Gaming features

omm Voice Assistant Accelerator, Qualcomm 3D Sonic Max Ind/or its subsidiaries

USB Version 3.1; USB Type-C Support

- Dual Frequency Support (L1/L5)
- Sidewalk/lane-level Positioning
- Sensor-Assisted Positioning

• Memory Density: up to 16 GB

**General Specifications** 

5 nm Process Technology

Part Number: SM7350-AB