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Qualcomm® Snapdragon™ 665 Mobile Platform provides highly intelligent experiences for great mobile gaming, brilliant camera capabilities and remarkable, security-rich performance.



Leading on-device AI

Our 3rd gen Qualcomm® AI Engine powers advanced mobile features to enhance your daily life. It performs smart biometrics for features like 3D Face Unlock and Object Detection. Plus, it opens up brilliant camera capabilities including Portrait Mode and Low Light Night Mode, so you can capture more than ever before.

- Qualcomm® Hexagon™ 686 DSP and Hexagon Vector eXtensions (HVX) for advanced imaging and computing
- Supports Portrait Mode, Low Light Night Mode, AR translate and scene detection



Make every pixel count

When it comes to making memories, every detail matters. Take remarkable, high-quality shots in almost any setting—or use the Triple Cameras to get up close, go wide or go ultra-wide. For larger-than-life moments, try capturing at 48 Megapixels. The Qualcomm Spectra™ 165 ISP is reinforced with AI, providing intuitive scene recognition and auto adjustments like HDR.

- Advanced features including Hybrid Autofocus, Optical Zoom, Zero Shutter Lag and more
- Triple Camera with support for Telephoto, Wide and Ultra-Wide



Optimized gaming experiences

For gaming enthusiasts, Snapdragon 665 will empower your boldest moves. Play in optimal game-world conditions with fast frame rates, smooth interactions, surround-sound audio and extremely realistic graphics. Plus, the Vulkan 1.1 graphics driver provides more vivid visuals and enhanced realism so you can be completely immersed in the action.

- Qualcomm® Adreno™ 610 GPU delivers improved performance across a variety of use cases
- Qualcomm® aptX™ Adaptive Audio and Qualcomm Aqstic™ deliver a smooth, crystal-clear audio experience



Strong signals

Staying connected is key—and the Snapdragon 665 is engineered to support reliable connections at incredible speeds. The Snapdragon X12 LTE Modem is designed to support quick response on the go, while improved Wi-Fi can enable a strong signal at home. So, you can download music, stream movies or share videos super-fast and with less lag from almost anywhere.

- Snapdragon X12 LTE Modem offers LTE download speeds up to 600 Mbps
- Integrated 802.11ac Wi-Fi with MU-MIMO enables high capacity and broad range



Super-fast, security-rich performance

This platform packs robust technologies beneath the surface, including the Qualcomm® Kryo™ 260 CPU, urging you to perform at your peak. An energy-efficient, long-lasting battery is designed to fuel hours of entertainment so you can listen to your favorite playlist, binge-watch movies or game until you win. Plus, with integrated security, access your device, make payments and cross-task with increased confidence.

- Kryo 260 CPU disperses tasks between 4 performance and 4 efficiency cores
- Qualcomm® Quick Charge™ 3.0 technology is designed to charge up to 4x faster than conventional charging*

To learn more visit
snapdragon.com

*Actual results may vary depending on device design.

All comparisons made are in reference to previous generation, Snapdragon 660 mobile platform. Results will vary depending on OEM implementation and other factors.

Qualcomm Snapdragon, Qualcomm Hexagon, Qualcomm Adreno, Qualcomm AI Engine, Qualcomm aptX, Qualcomm Aqstic, Qualcomm Quick Charge, Qualcomm Spectra, and Qualcomm Kryo are products of Qualcomm Technologies Inc. and/or its subsidiaries.



Qualcomm® Snapdragon™

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SPECIFICATIONS & FEATURES

Qualcomm AI Engine

- Adreno 610 GPU
- Kryo 260 CPU
- Hexagon 686 DSP
- Hexagon Vector eXtensions (HVX)
- Qualcomm All-Ways Aware™ Hub
- Qualcomm® Neural Processing SDK
- Caffe, Caffe2, and Tensorflow support

Modem

- Snapdragon X12 LTE Modem
- Support for 600 Mbps LTE
- Downlink: LTE Cat 12 up to 600 Mbps, 3 x 20 MHz carrier aggregation, up to 256-QAM
- Uplink: LTE Cat 13 up to 150 Mbps, Qualcomm® Snapdragon™ Upload+ (2 x 20 MHz carrier aggregation, up to 64-QAM)
- Dual SIM Dual Standby (DSDS)
- Qualcomm® All Mode with support for all major cellular modes plus LAA. Support for:
 - VoLTE with SRVCC to 3G and 2G, HD and Ultra HD Voice (EVS), CSFB to 3G and 2G
 - Voice over Wi-Fi (VoWiFi) with LTE call continuity

Connectivity

- Qualcomm® Wi-Fi
- Wi-Fi: integrated 1x1 802.11ac (Wi-Fi 5), 802.11a/b/g/n
- MU-MIMO
- Dual Band Wi-Fi: 2.4 GHz and 5 GHz
- WPA3 Security
- Bluetooth Version 5.0 with proprietary enhancements:
 - aptX Adaptive
 - Qualcomm TrueWireless™ Stereo earbud support
 - Tx Broadcast audio
 - Lower power consumption for Bluetooth audio

Camera

- Qualcomm Spectra 165 ISP
- Dual 14-bit ISPs
- Dual camera: up to 16 MP, MFNR, ZSL, 30 fps
- Single camera: up to 25 MP, MFNR, ZSL, 30 fps
- Single camera: up to 48 MP
- Video capture:
 - Up to 4K video capture @ 30 fps
 - Slow motion: up to 1080p at 120 fps or 720p at 240 fps
- Qualcomm® Clear Sight™ camera features, Hybrid Autofocus, Optical Zoom, Zero Shutter Lag
- H.264 (AVC), H.265 (HEVC), VP9

Audio

- Qualcomm Aqstic audio codec (up to WCD934i) and speaker amplifier (up to WSA8815)
 - Native DSD support, PCM up to 384 kHz/32-bit
 - Supports two wake words simultaneously for voice assistant
- aptX audio playback with support for aptX Classic and HD

Display

- Maximum On-Device Display Support: FHD+ (2520x1080)
- Maximum External Display Support: FHD (1920 x 1080)
- Qualcomm® Low Power Picture Enhancement
- Qualcomm® TruPalette™ Display Feature

CPU

- Kryo 260, Octa-core CPU
- Up to 2.0 GHz
- 11nm FinFET process technology

Visual Subsystem

- Adreno 610 Visual Processing Subsystem
- OpenGL ES 3.2, OpenCL 2.0 full, Vulkan 1.1, DX12 DSP
- DisplayPort and USB Type-C support

RF Front-End

- Qualcomm® Adaptive Antenna Tuning
- Qualcomm® Envelope Tracking
- Qualcomm® Signal Boost™ adaptive antenna tuning
- High-power transmit (HPUE)

Security

- Qualcomm® Processor Security
- Qualcomm® Mobile Security
- Qualcomm® Content Protection

General Specifications

- Memory Type: LPDDR3/LPDDR4x
- Memory Speed: Up to 1866 MHz, 8 GB RAM
- Memory Interface: eMMC and UFS
- GPS, Glonass, BeiDou, Galileo, QZSS, and SBAS
- Low Power Geofencing and Tracking, Sensor-assisted Navigation
- Quick Charge 3.0 technology
- Part Number: SM6125

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

Qualcomm All-Ways Aware, Qualcomm Processor Security, Qualcomm Mobile Security, Qualcomm Content Protection, Qualcomm All Mode, Qualcomm Neural Processing SDK, Qualcomm Clear Sight, Qualcomm Signal Boost, Qualcomm Low Power Picture Enhancement, Qualcomm TruPalette, Qualcomm Envelope Tracker, Qualcomm Adaptive Antenna Tuning, TruPalette Qualcomm Wi-Fi, Qualcomm TrueWireless, and Qualcomm Snapdragon Upload+ are products of Qualcomm Technologies Inc. and/or its subsidiaries.

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