Qualcomm[®] Snapdragon[™] 4K Ultra HD

The biggest generator of 4K content is in your pocket.

Snapdragon 4K Ultra HD is changing the way consumers capture, view and share their world. Smartphones and tablets powered by Snapdragon 800 processors are driving this mobile revolution, supporting Ultra HD imagery with more clarity, depth and impact so you don't miss a thing.

3rd Generation 4K

Qualcomm® Snapdragon™ 800 series processors support the ultimate 4K user experience.

- Comprehensive 4K support with capture & playback, native & external displays, and HEVC encode & decode in hardware
- Qualcomm® Snapdragon StudioAccess™ supports premium video protection so users can enjoy the latest high resolution content from movie studios.



Mobile is driving 4K

Mobile is leading the deployment of 4K technology, selling more 4K devices than any other 4K technology

- Currently ~150 million 4K-capable mobile devices with 500 million expected by 2018*
- ~3 year upgrade cycles of smartphones versus
 ~5 years for PCs and ~8–10 years for TVs*







The Snapdragon difference

Snapdragon processors enable your smartphone camera to capture incredible amounts of visual information that you can edit, color correct, and make entirely your own.

- System on a chip designed for comprehensive 4K mobile user experience
- 4K features with capture and playback, native and external displays, and integrated encode & decode
- HEVC (H.265) playback/capture at 4K resolution
- Integrated hardware HEVC 4K encode support @30fps
- HEVC offers up to 50% better video compression at the same visual quality of H.264, allowing significant bandwidth and content storage savings
- 4K video @30 fps and 1080p video @120 fps
- Primary DSI and secondary HDMI 4K display support
- 3:1 Frame Buffer Compression integrated in Display Engine

Benefits of Ultra HD

Snapdragon 800 series processors are the first mobile processors with 4K Ultra HD video support, for four times the resolution of Full HD 1080p.

- Higher visual fidelity
- Increased picture detail
- Crisper text, enhanced graphics
- Expanded color gamut for more realistic colors
- View high quality content on your phone, tablet and TV
- Multiple video windows at Full HD quality



4K boasts nearly 4 times the resolution of standard 1080 HD.

Snapdragon 4K Ultra HD

Now in their 3rd generation, Snapdragon 800 series processors support superior 4K solutions.

	800/801 1st Generation	805 2nd Generation	810 3rd Generation
Camera	12-bit dual ISP for high picture quality and color depth	12-bit dual ISP for high picture quality and color depth	14-bit dual ISP for richer picture quality and color depth
Compression	H.264 hardware encode/decode	HEVC H.265 hardware decode for high file compression with high power savings	HEVC H.265 hardware encode and decode for maximum file compression with high power savings
Graphics	Qualcomm® Adreno™ 330 GPU for rich graphics and gaming	Adreno 420 for rich 4K native UI and console quality graphics	Adreno 430 for highest 4K performance graphics and UI with increased power savings
Memory	LPDDR2 high speed memory	LPDDR3 high speed memory	LPDDR4 high speed memory
Connectivity	4G LTE Cat 4 for peak data rates of 150Mbps	4G LTE Cat 6 with 2x20MHz CA for peak data rates of 300Mbps	4G LTE Cat 9 with 3x20MHz CA for peak data rates of 450Mbps
Processing	Qualcomm® Krait™ CPU 32-bit processor up to 2.5GHz with ARMv7 ISA	32-bit Krait processor up to 2.8GHz with ARMv7 ISA	64-bit ARM A57/A53 with ARMv8-A ISA

Learn more at snapdragon.com/4K

