

# Qualcomm® Snapdragon™ 710 mobile platform

**Kedar Kondap**

Vice President, Product Management  
Qualcomm Technologies, Inc.



# High Profile Launches



Nokia 7 plus



OPPO R15 Pro



vivo X21



Motorola X4



ASUS ZenFone 4



Xiaomi Mi Note 3



HTC U11 Life



Lenovo Phab 2 Pro



Xiaomi Redmi Note 5 Pro



Samsung Galaxy S Light Luxury



Xiaomi Mi 6X



Meizu 15  
Meizu 15 Lite



vivo X20  
vivo X20 Plus



moto g6 plus



OPPO R11  
OPPO R11 Plus



Asus Zenfone 3 Ultra



Sony Xperia X



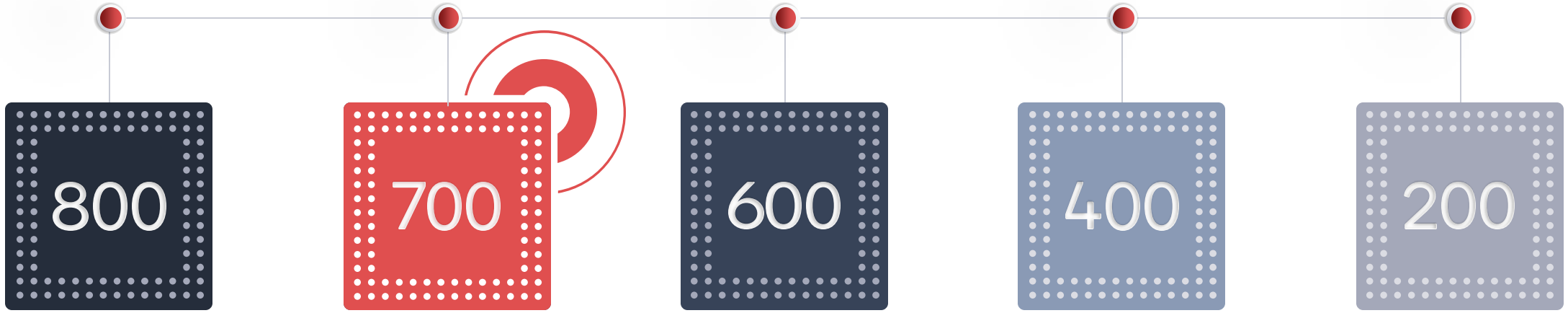
Samsung Galaxy A9 Pro



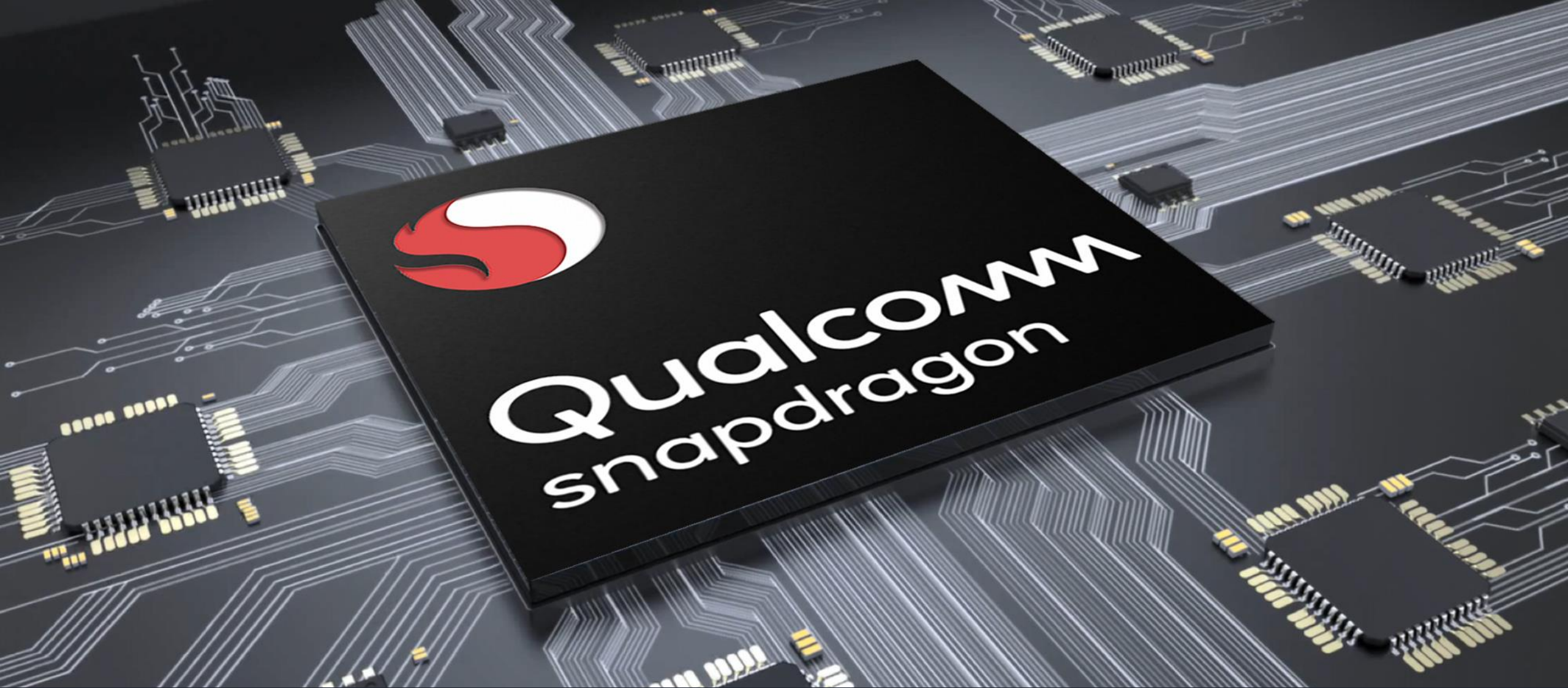
Vivo x9 Plus



# Snapdragon 600 tier

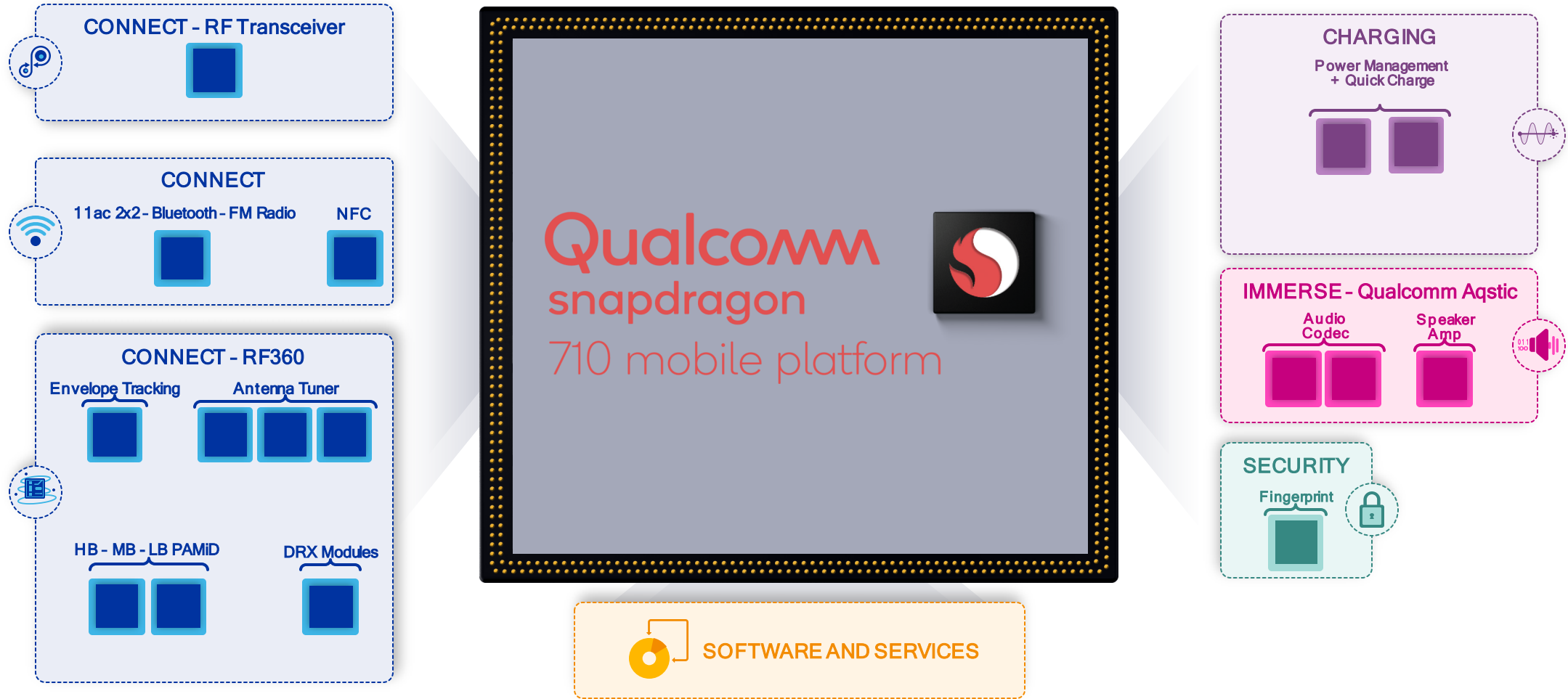


# Snapdragon Mobile Platform Tiers



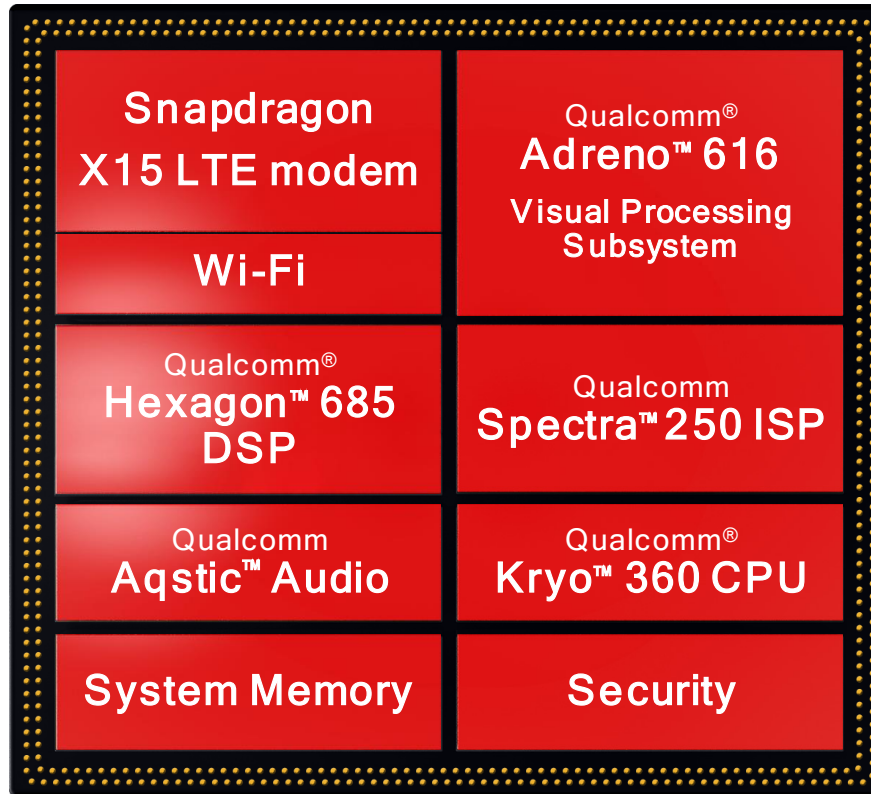
# Snapdragon 710 Mobile Platform

Elevate your mobile experience



Much more than a Processor



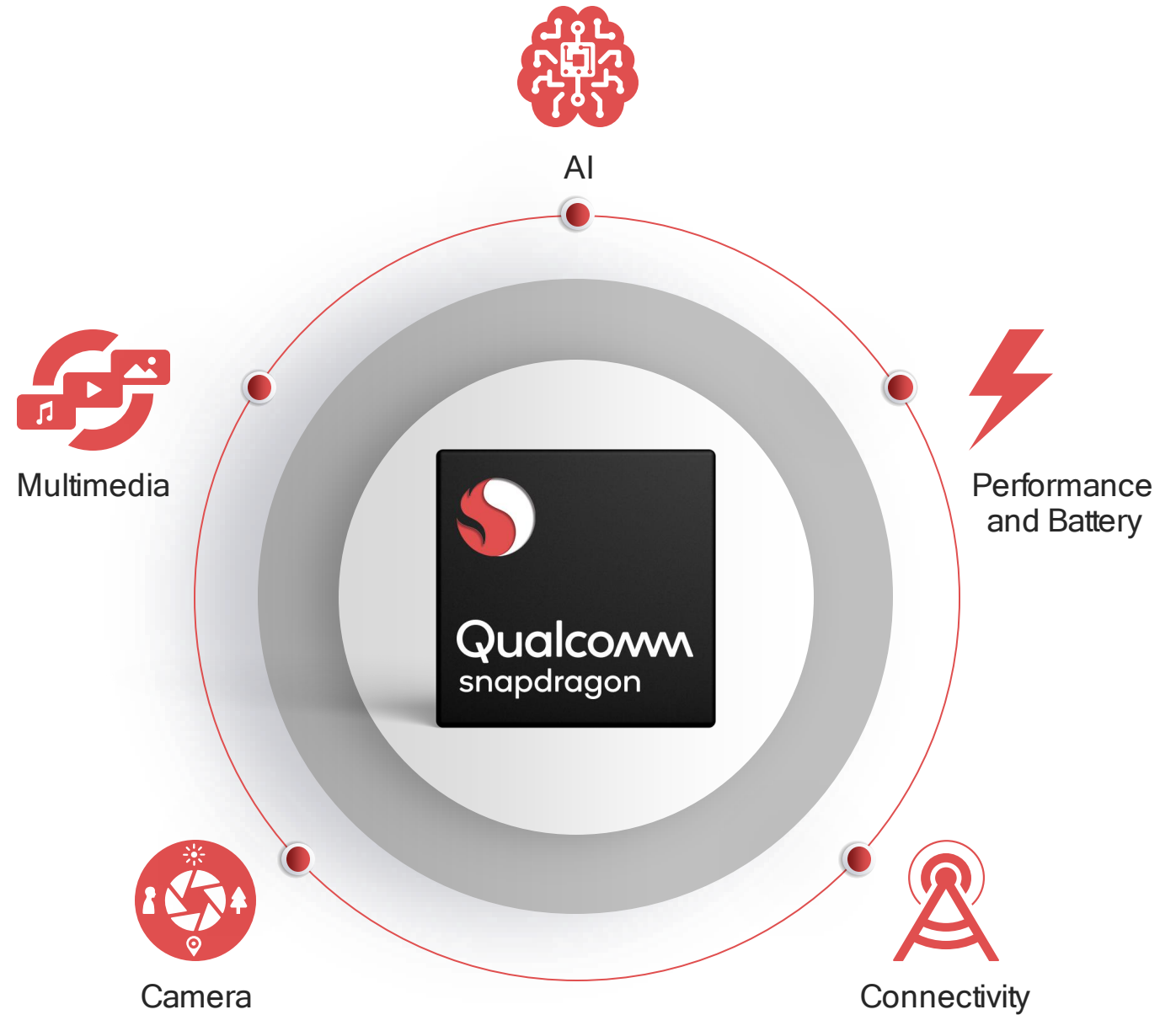


Qualcomm Adreno, Qualcomm Spectra, Qualcomm Hexagon, Qualcomm Kryo and Qualcomm Aqstic are products of Qualcomm Technologies, Inc. and/or its subsidiaries.

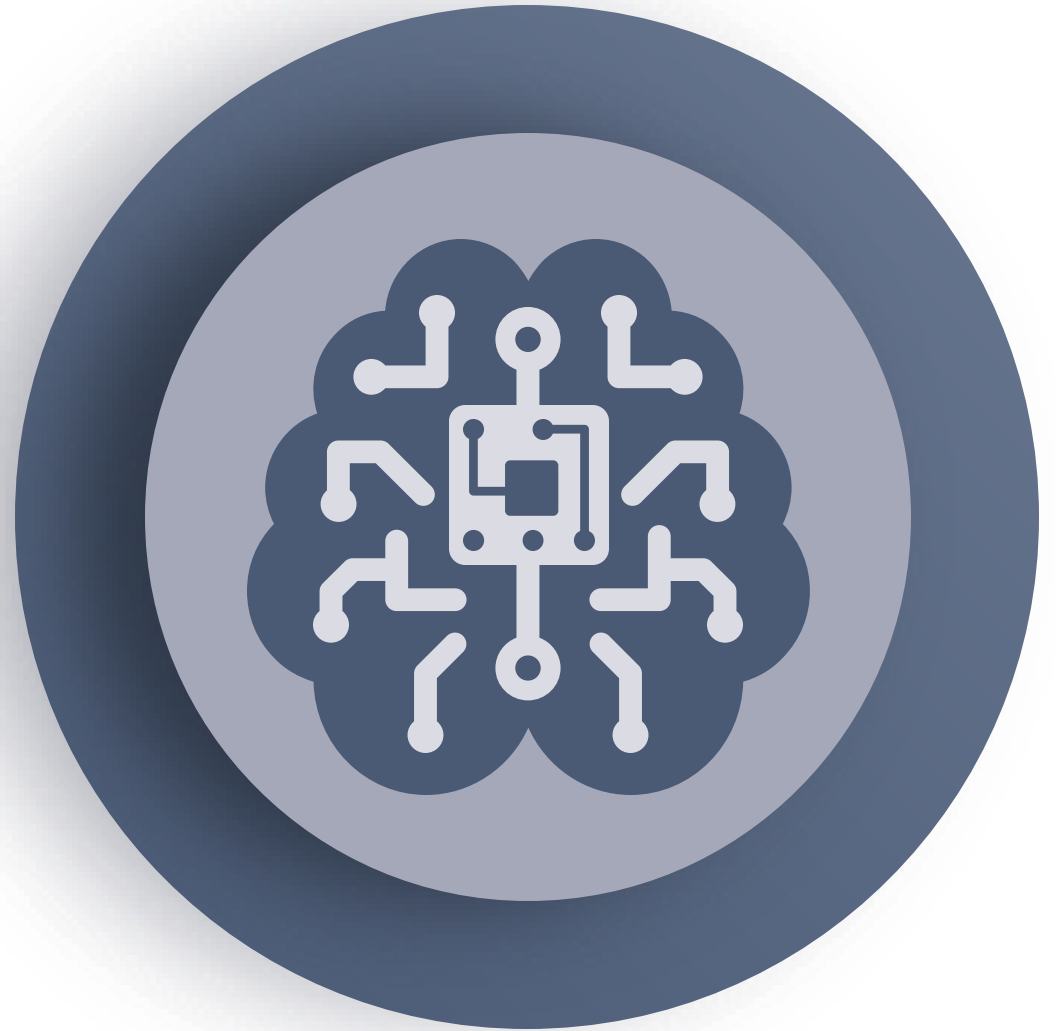
# Premium architectures for AI, power and performance



Designed to  
deliver  
exceptional  
user  
experiences



AI





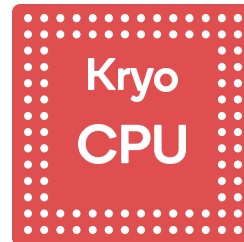
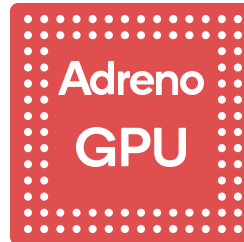
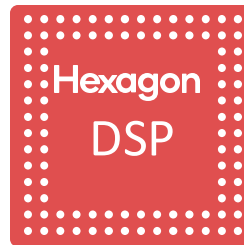


with AI Engine

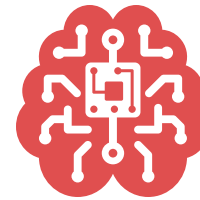
# Snapdragon 710 Supports a Full AI Experience

up to **2X** AI performance of Snapdragon 660

## Hardware



## Tools



- Snapdragon Neural Processing (SDK)
- Android NNAPI
- Hexagon NN

## Frameworks



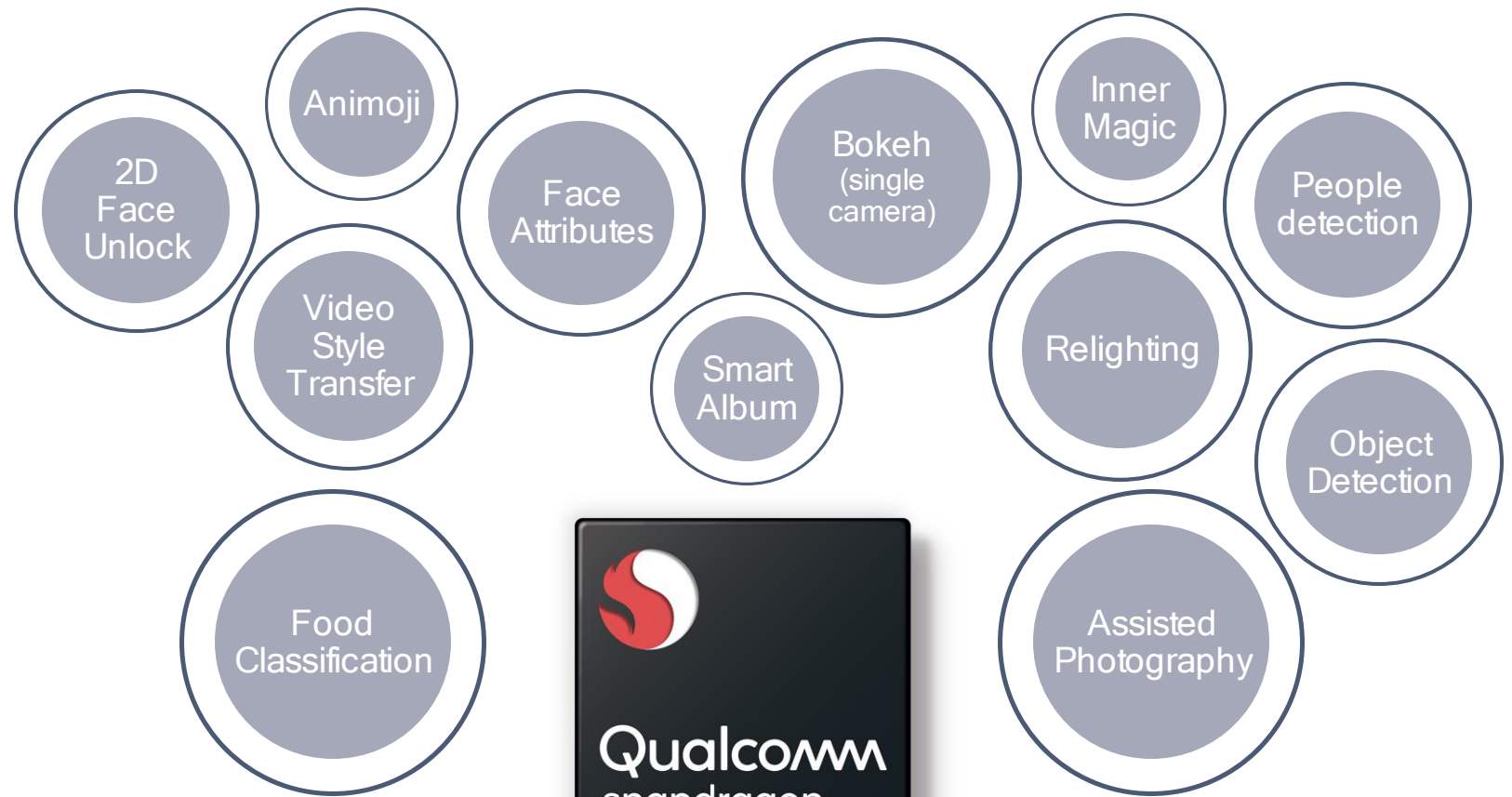
TensorFlow



ONNX



# AI ISVs & AI phone features for Snapdragon



with AI Engine

ellipticlabs

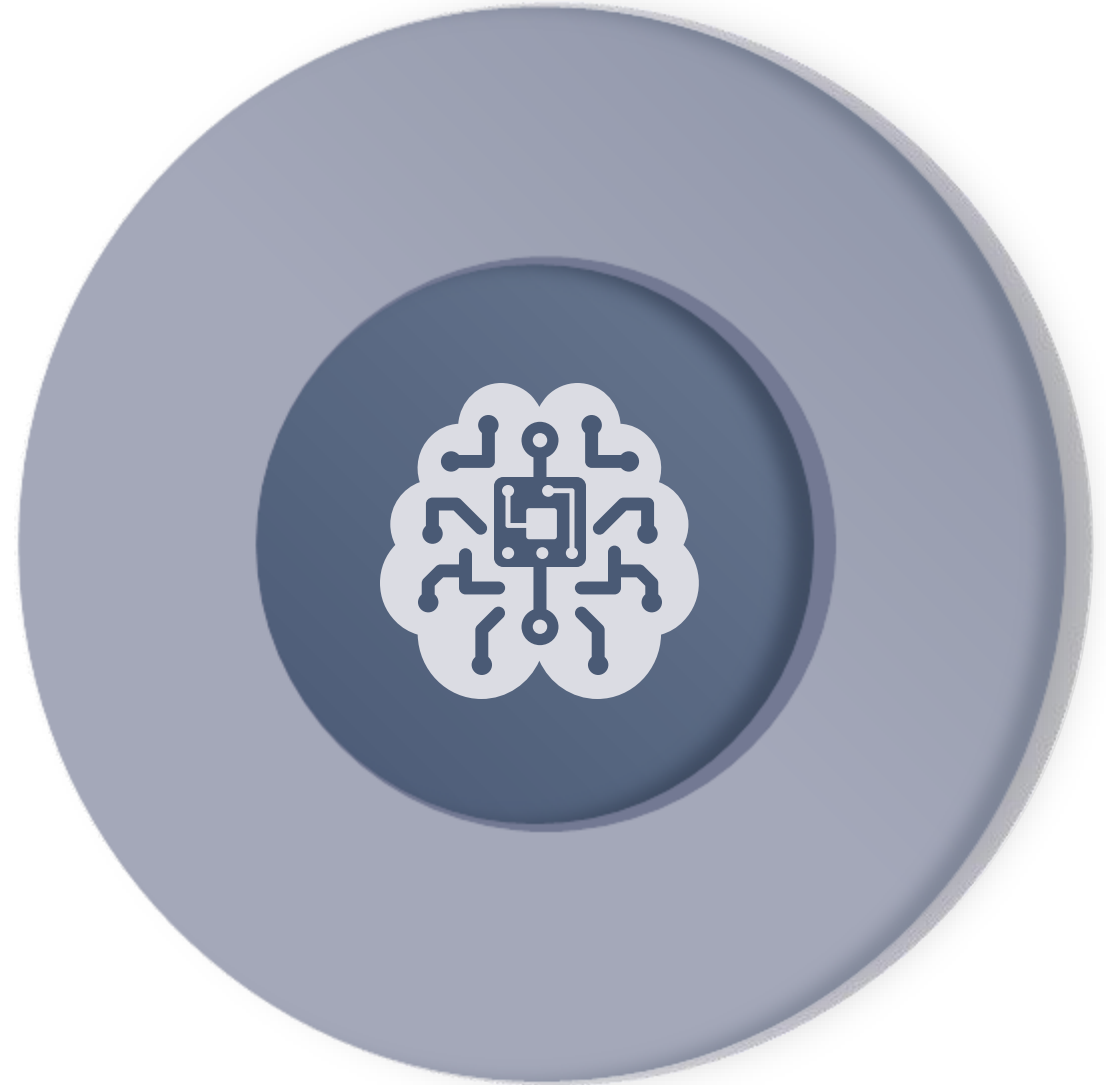
Face++ 旷视



Uncanny Vision®

# AI Highlights

- 2X AI performance\*
- Platform-wide optimizations
- Robust ISV ecosystem
- On device AI processing of voice UI, photography and biometrics



# Connectivity



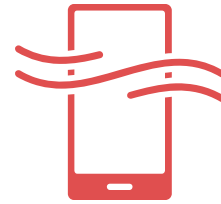
Integrated  
**Snapdragon**  
X15 LTE modem

Helping keep you  
connected quickly,  
worldwide



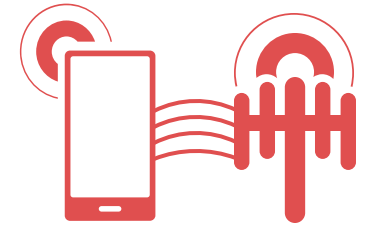
**800 Mbps**

Breakthrough  
mobile user  
experience



**LAA**

Improved capacity,  
spectrum flexibility



**4x4 MIMO**

Superior signal  
quality and  
faster speeds

Up to  
**2.5X** faster downlink  
than Cat 7 LTE in  
real world use\*

\* Based on Cat 15 downlink speed of 800 Mbps and Cat 7 downlink speed of 300 Mbps

# Browsing Download Speed

Snapdragon 710 versus competing Cat 7 device

Strong  
Signal  
**118%**  
Faster



Average  
Signal  
**116%**  
Faster



Weak  
Signal  
**125%**  
Faster





# X15 advantages in **poor signal quality**

Stream movie  
(resolution)

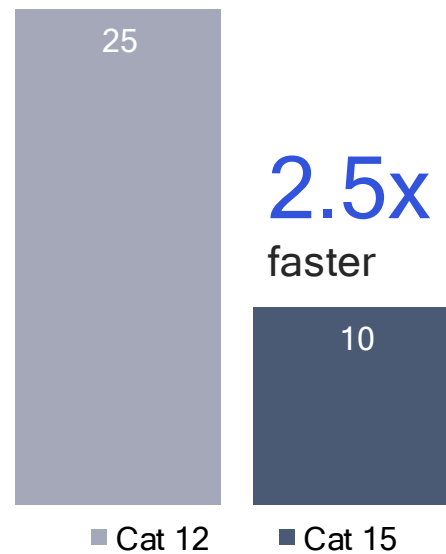
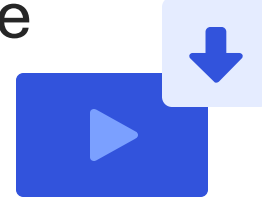


Cat 12

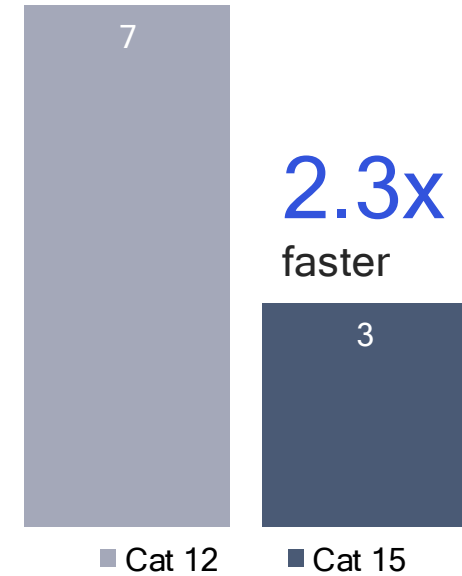


Cat 15

Download movie  
(minutes)



Download 20 albums  
(minutes)



# Connectivity Highlights

- X15 LTE Modem
- 2.5X faster download than Cat 7
- >30% faster than Snapdragon 660
- 4X4 MIMO
- LAA
- Up to 800 Mbps
- 2x2 Wi-Fi (802.11ac)
- Bluetooth 5
- Qualcomm TrueWireless™ Stereo Plus
- Qualcomm® Broadcast Audio



# Camera





# Qualcomm Spectra 250

New architecture  
for higher  
performance  
and lower power\*



**Noise Reduction**  
HW accelerated,  
multi-frame



**Active Depth Sensing**  
For security use-cases,  
with high accuracy



**Ultra HD Video Capture**  
40% lower power\*



**Slow Motion Video Capture**  
Lower power, better quality



**Super Resolution**  
HW accelerated,  
multi-frame

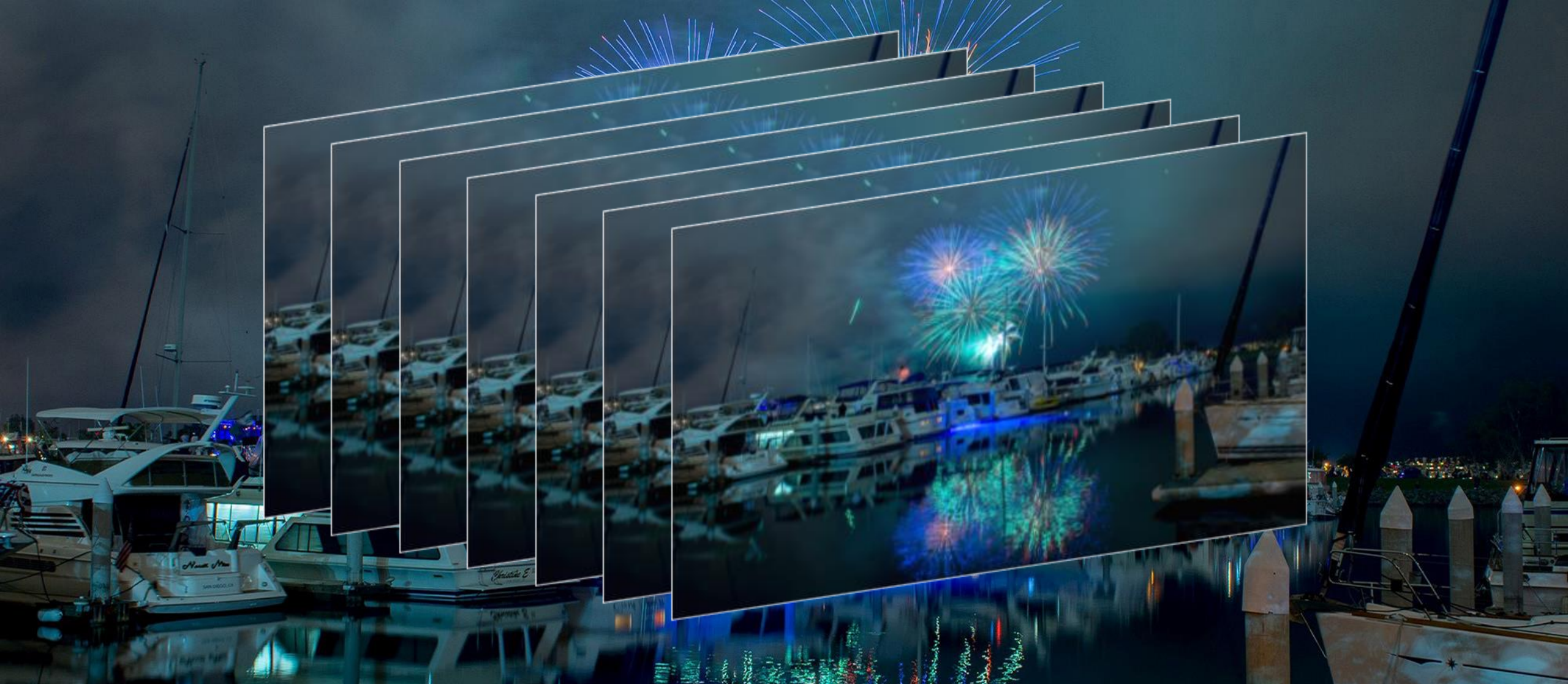


**Video Noise Reduction**  
With motion  
compensation filter



**Image Stabilization**  
HW accelerated,  
in-line for low power

\* Compared to Snapdragon 660



# Multi-frame Noise Reduction

Sharp and colorful photos – even in low light





# Active Depth Sensing

Increasing camera based security



Qualcomm  
snapdragon



710 mobile platform

Other



Up to 40% Lower Power\*

Capture up to 4 hours of Ultra HD Video per charge

\* Compared to Snapdragon 660

# Camera Highlights

- Qualcomm Spectra 250 ISP
- Noise Reduction
- Active Depth Sensing
- Ultra HD Video Capture, 40% lower power
- Slow Motion Video Capture
- Super Resolution
- Video Noise Reduction
- Image Stabilization
- Up to 32MP single, 20MP dual ISP



# Multimedia





4K SDR







↑ Snapdragon 710  
will bring a  
**164x**  
increase in shades of color



10-bit

1.07 billion colors



Uncompressed 10-bit



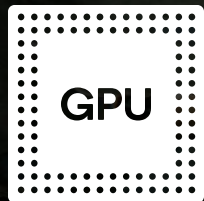
8-bit

16.78 million colors



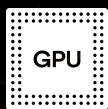


# Advanced gaming capabilities with Adreno 616



UP TO **35%**  
faster graphics rendering

## Vulkan API support on Adreno GPU:



Supported in  
Unreal Engine  
4.1.2 / Unity 5.6



Console-like  
gaming  
experience



Stunning  
graphics at  
lower power





“

At Unity our mission is to democratize development and a big part of that is providing the highest quality performance on the latest mobile devices. We are excited about the Snapdragon 710 and its Adreno 616 visual processor and look forward to working with Qualcomm Technologies to bring the next level of visual compute experiences to mobile.

”

Ralph Hauwert  
Director of Development



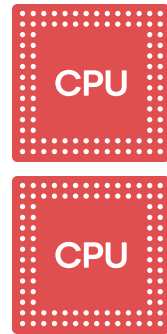
“

Tencent Games is committed to enabling the ultimate gaming experiences by working closely with ecosystem partners. Engaging with Qualcomm Technologies on multiple mobile platforms, including Snapdragon 845, 835 and 660, has enabled *King of Honor* to run smoothly and efficiently. These joint optimization efforts have achieved very good results. We look forward the same on the new Snapdragon 700 tier.

Deng Jun  
Engineering Director  
King of Honor

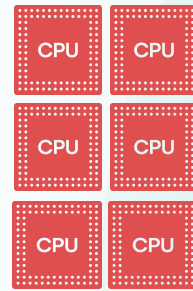
”

# Kryo 360 CPU



**Performance**

Up to 2.2GHz



**Efficiency**

1.7GHz



# Snapdragon 710



+



ARCore

Google and Qualcomm are collaborating on enabling qualified Snapdragon 710 based smartphones for users to enjoy high performing immersive and realistic AR applications



# Snapdragon 710 Supports ARCore



# Snapdragon and SenseAR



## SenseAR

Optimizing performance for games and applications  
on Snapdragon 710 based smartphones

# Qualcomm Aqstic Voice UI

Low power voice  
activation with  
Aqstic Voice suite



Google

amazon alexa

Baidu 百度

# Multimedia

## Highlights

- 4K HDR video playback
- Adreno 616 GPU: 35% faster graphics rendering, 62 times more display colors\*
- Kryo 360 CPU (3<sup>rd</sup> generation)
- Qualcomm Aqstic and Qualcomm® aptX™ Audio
- Qualcomm Aqstic Voice UI
- QHD+ (2K) display





# Performance and Battery

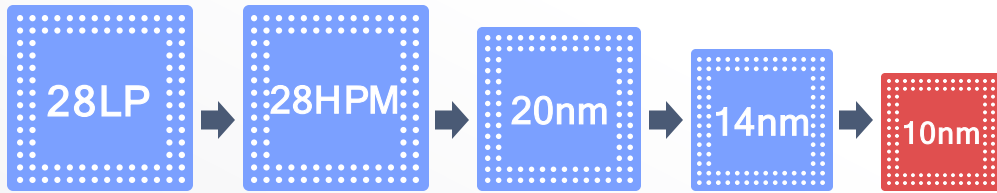


The Samsung logo, consisting of the word "SAMSUNG" in white, bold, sans-serif capital letters, is centered within a blue, horizontally-oriented oval shape. The background of the entire slide is a solid, dark blue color.

# SAMSUNG

Jong Shik Yoon  
Executive Vice President  
Samsung Foundry

# Significant power improvements as a result of...



## New architectures

Innovative engineering,  
faster processing



## Core improvements

Qualcomm Spectra -  
Kryo - Adreno - Hexagon

Further optimizations working with the ecosystem:  
game developers, ISVs, and more




# Performance and power advancements

## Higher Performance

 Up to **20%**  
Overall uplift<sup>1</sup>

 Up to **25%**  
faster web browsing<sup>2</sup>

 Up to **15%**  
faster app launch

## Lower Power

 ↓ Up to **40%**  
4K Video Playback

 ↓ Up to **40%**  
Gaming

 ↓ Up to **20%**  
Video Streaming



**1+ DAY** Talk Time



**5+ DAYS** Music Playback



**13 HRS** 4K Video Playback



Do more throughout your day



**11+ HRS** Streaming Video



**4 HRS** 4K Video Capture



**9+ HRS** Gaming

# Performance and Battery Highlights

- 10nm process technology
- 20% performance uplift
- New GPU, CPU and ISP architectures
- Qualcomm® Quick Charge™ 4+



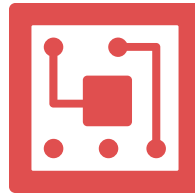
\* Compared to Snapdragon 660

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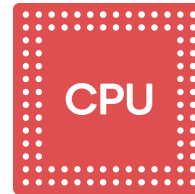
# The Many Firsts Outside our Premium Tier



10 nm



3<sup>rd</sup> gen  
Kryo CPU



2<sup>nd</sup> gen  
Spectra ISP



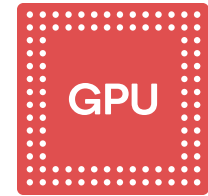
4K HDR  
Playback



X15 LTE Modem  
4x4 MIMO



Adreno 6  
series GPU





# Qualcomm

## snapdragon



### 710 mobile platform

#### AI



The high-performance engine that makes AI even smarter

#### Connectivity



Helping to keep you connected faster, worldwide

#### Performance and Battery



Greater power, performance and intelligence for a new level of mobile experiences

#### Camera



Capture photos and videos with stunning quality and enhanced features

#### Multimedia



Advanced audio, video and display for premium HDR experiences, virtually anywhere

## Elevate your mobile experiences

Devices expected in Q2 2018





# Thank you

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