Dec 2, 2020

Qualcomm

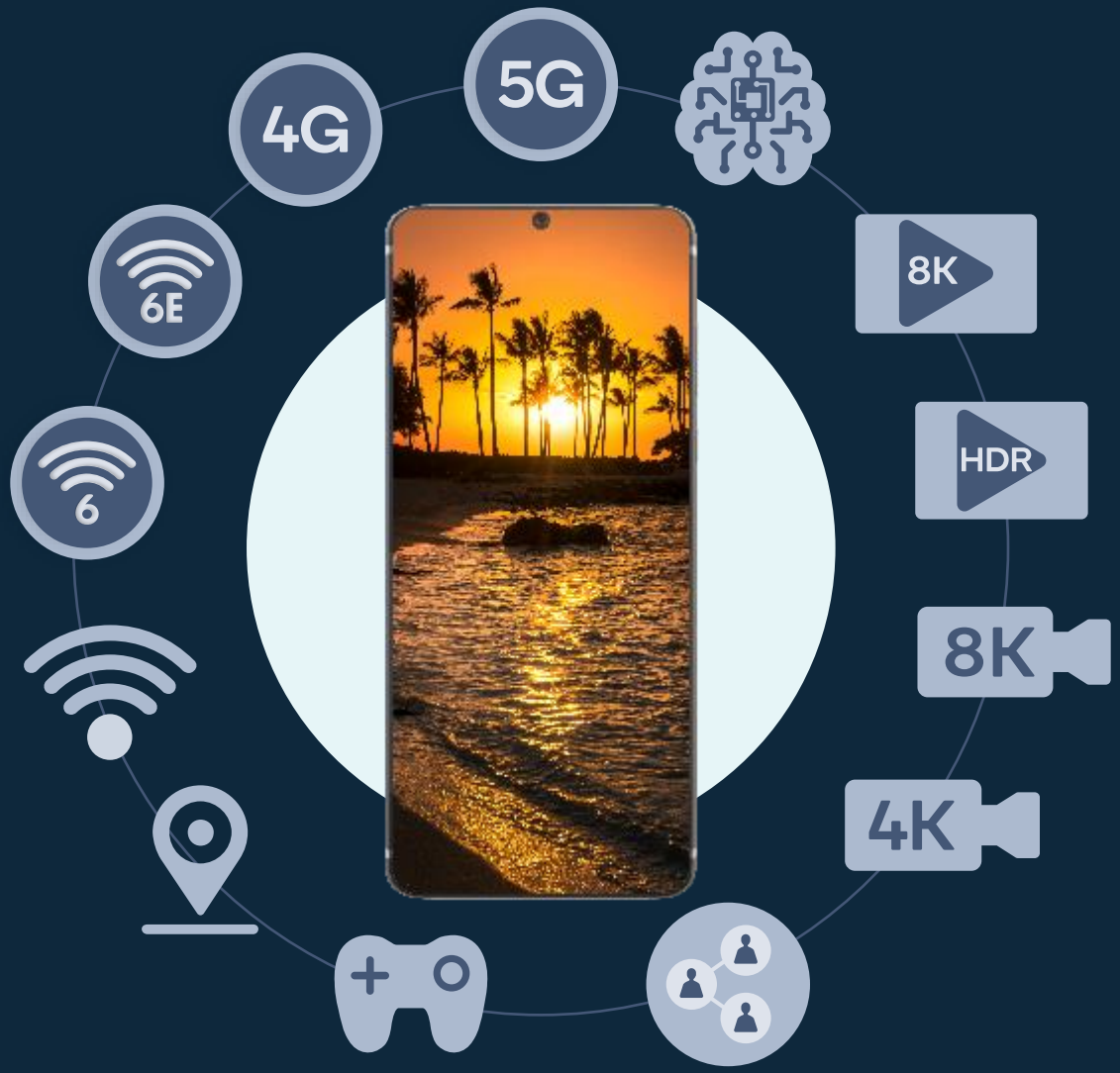
Snapdragon® Tech Summit Introduction

Ziad Asghar

VP, Product Management

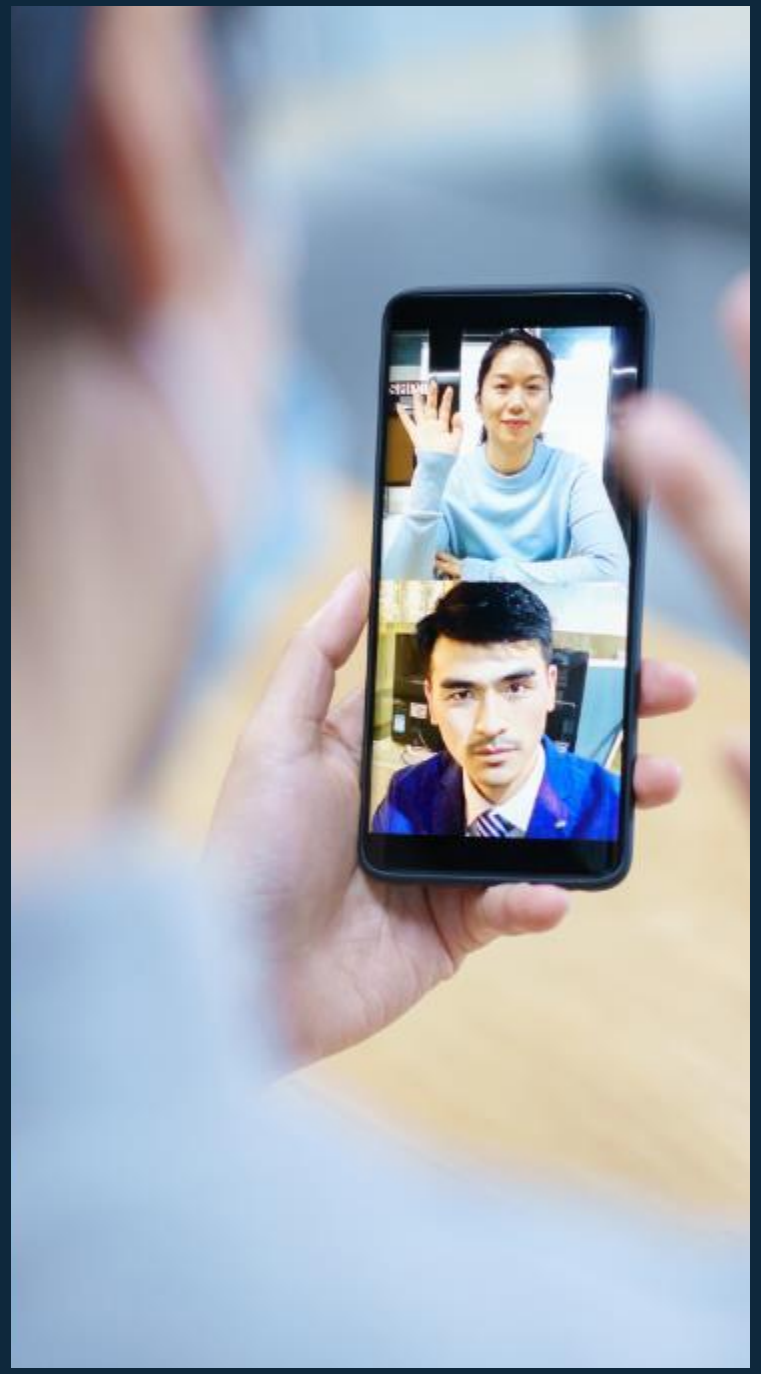
Qualcomm Technologies, Inc.

Stand-alone device X



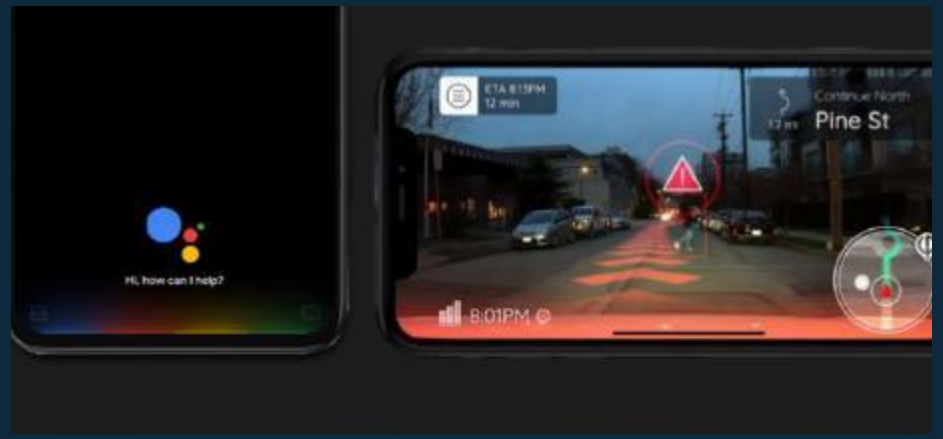
Stand-alone device X

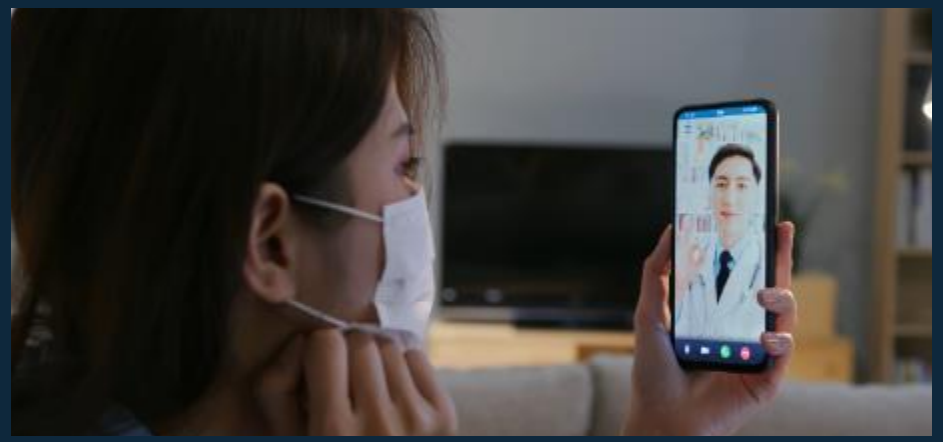
Smartphones exceed in capabilities

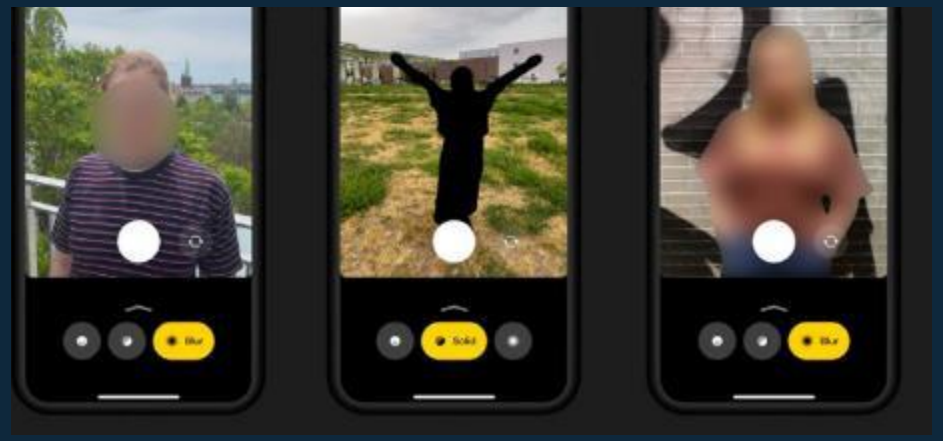


https://focus.mylio.com/tech-today/how-many-photos-will-be-taken-in-2020

https://www.limelight.com/resources/white-paper/state-of-online-gaming-2020/

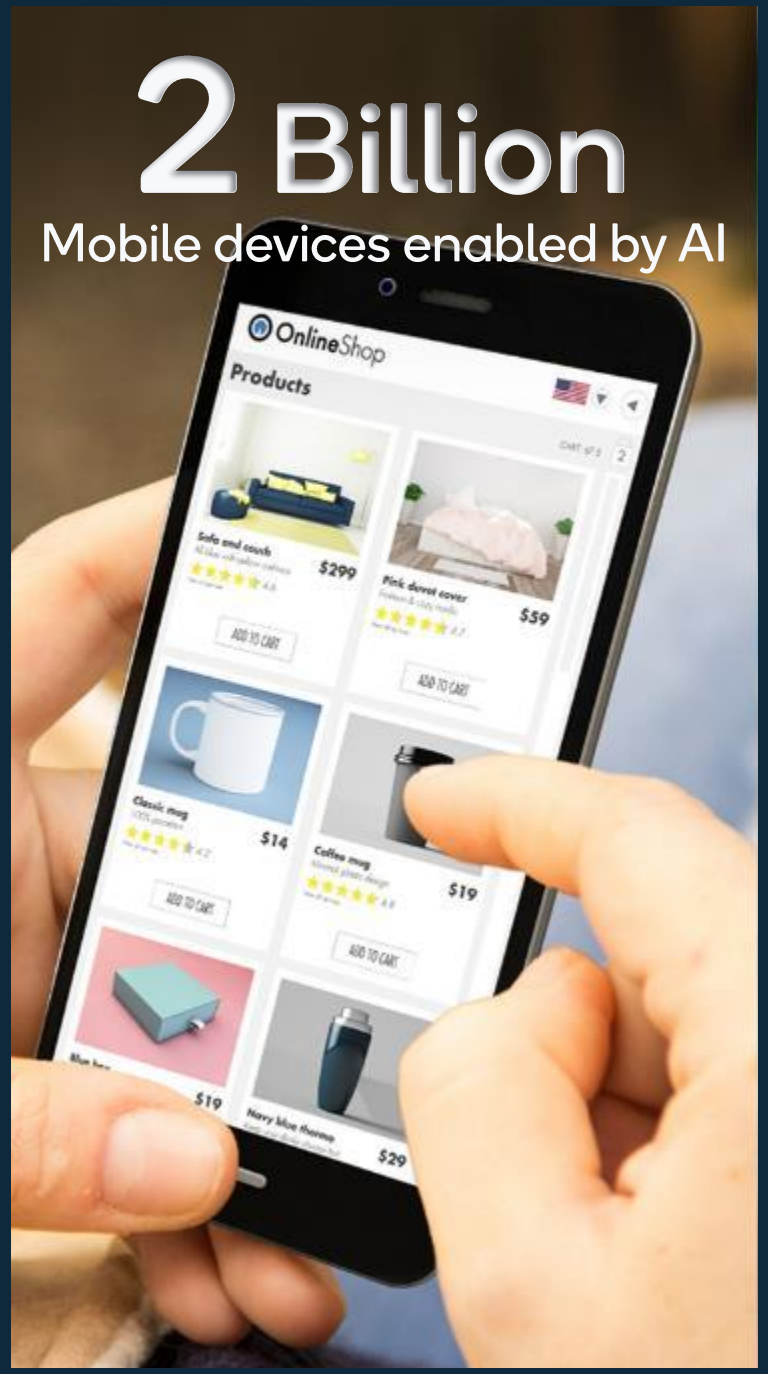


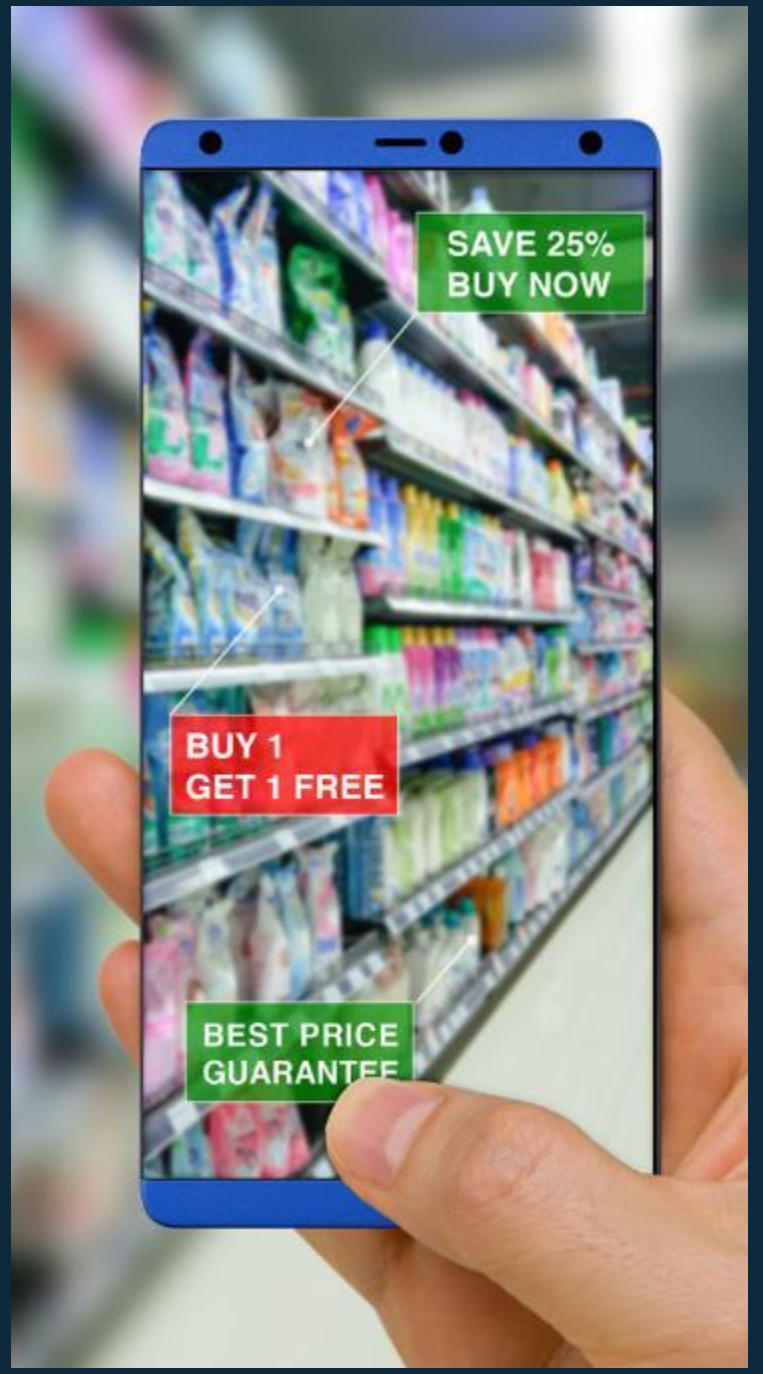




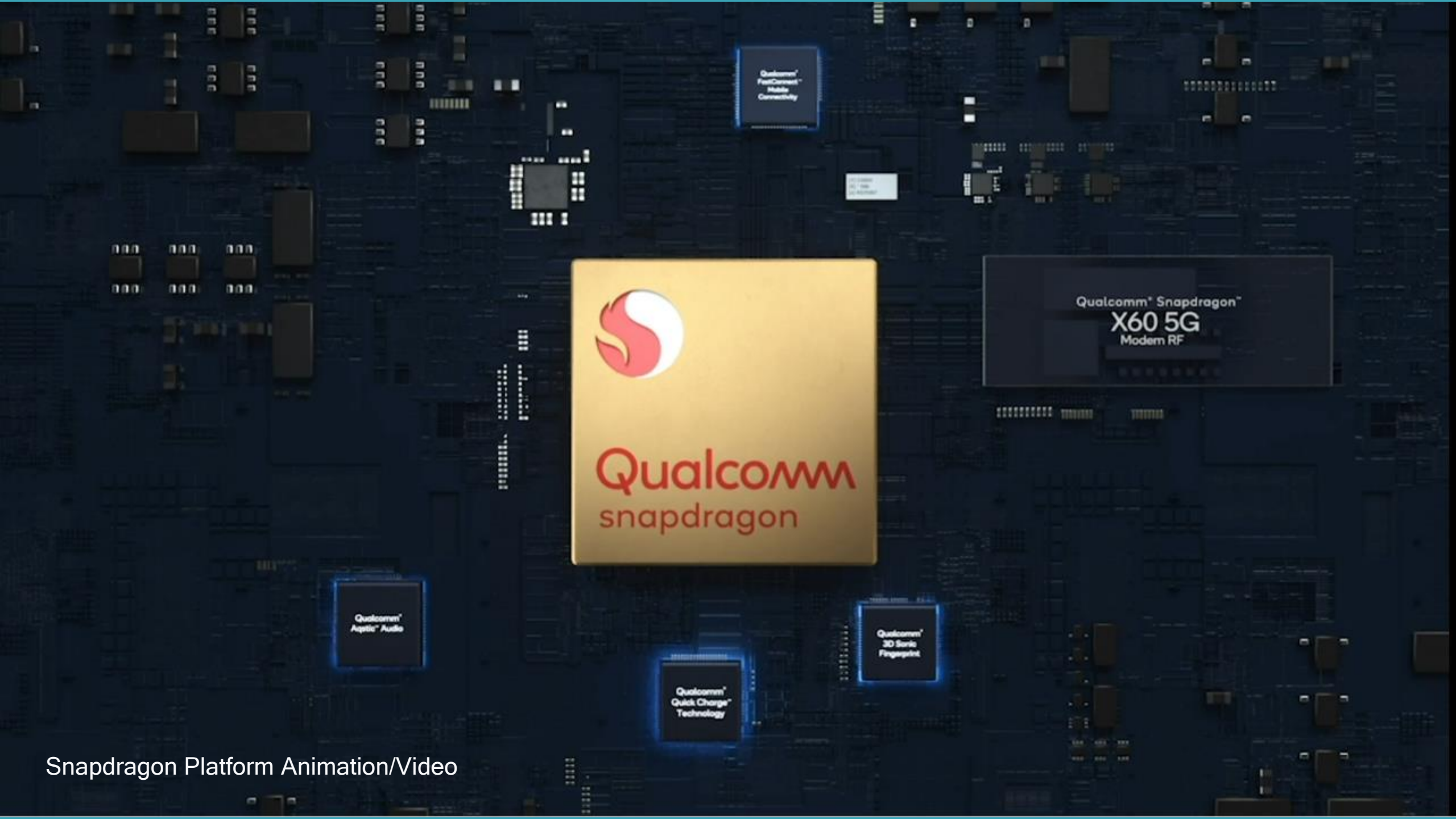
2 Billion

Mobile devices enabled by AI





Source: IDC Mobile Phone Tracker 1Q2020

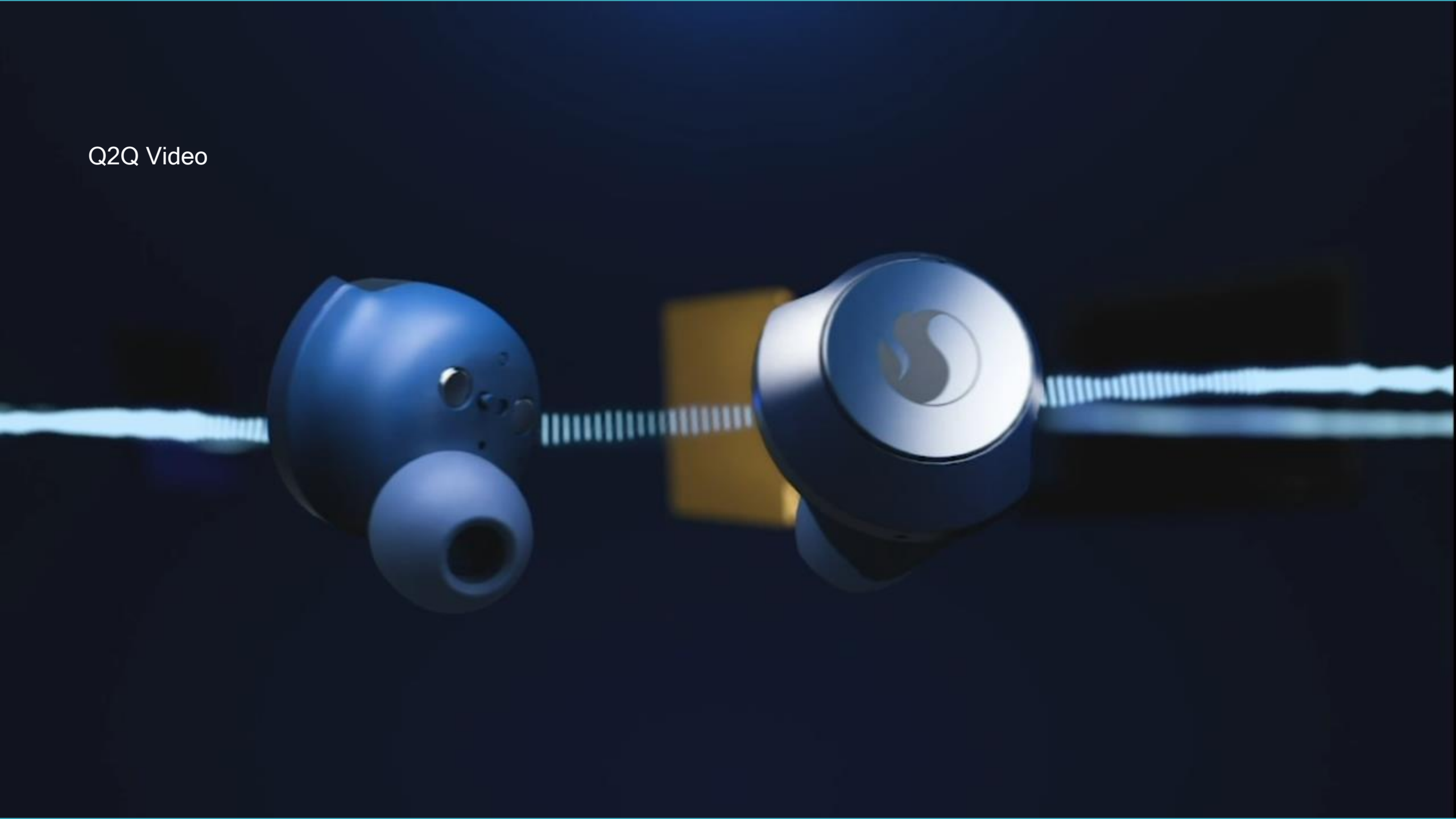


Snapdragon Platform Animation/Video

Snapdragon Sound Video

Qualcomm QCC is a product of Qualcomm Technologies, Inc. and/or its subsidiaries

Q2Q Video



For the premium experiences you deserve

Qualcomm Snapdragon is a product of Qualcomm Technologies, Inc. and/or its subsidiaries.

Connectivity

Qualcomm® Snapdragon™ X60 Modem-RF System

3rd Gen mmWave, Sub6 1st

5G Carrier Aggregation across FDD, TDD* 1st

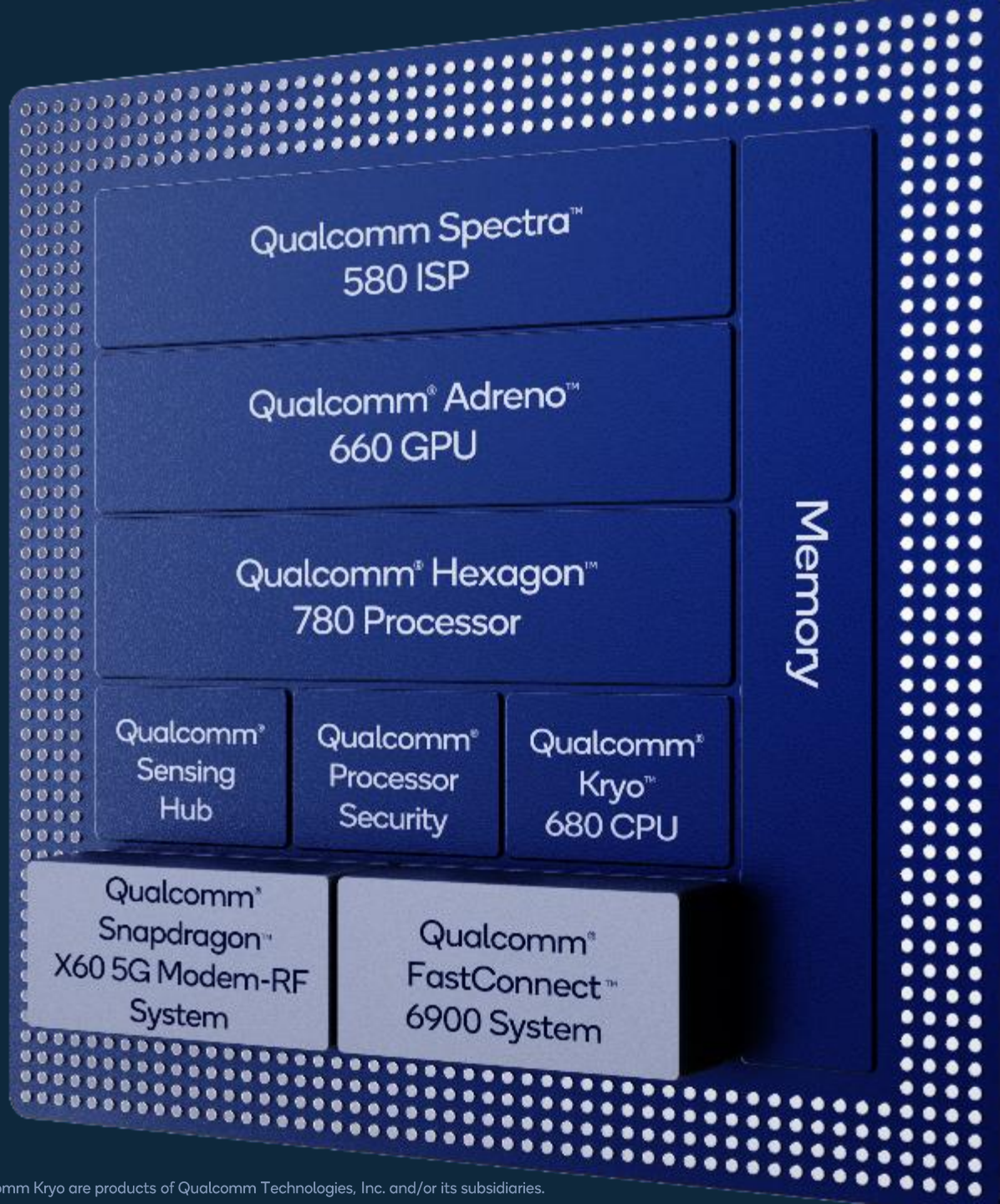
7.5 Gbps DL, 3 Gbps UL

Qualcomm® FastConnect™ 6900 System

Wi-Fi 6 and Wi-Fi 6E (6 GHz) 1st

4K QAM, 160MHz channels, 4-stream DBS 1st

Bluetooth 5.2, dual antennas, premium audio 1st



* Across all key 5G sub-6 GHz bands and combinations using frequency division duplex (FDD) and time division duplex (TDD)

Qualcomm FastConnect, Qualcomm Spectra, Qualcomm Adreno, Qualcomm Hexagon, Qualcomm Sensing Hub, Qualcomm Processor Security and Qualcomm Kryo are products of Qualcomm Technologies, Inc. and/or its subsidiaries.

Qualcomm Spectra™ 580 CV-ISP

Professional quality camera

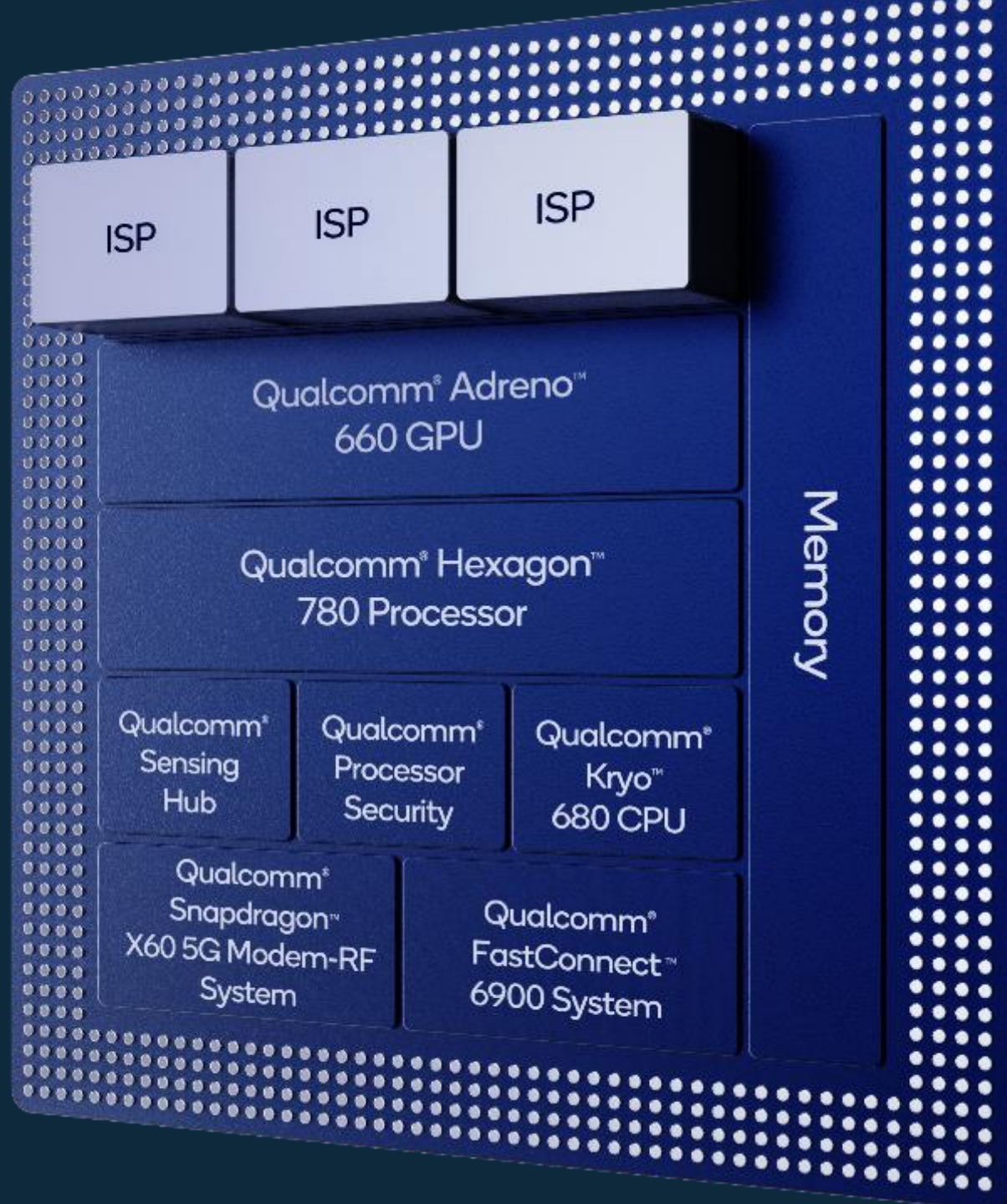
Triple ISP

Staggered HDR Sensors

2.7
Gigapixels/sec

35%
speed increase

Compared to previous generation



Qualcomm® Adreno™ 660

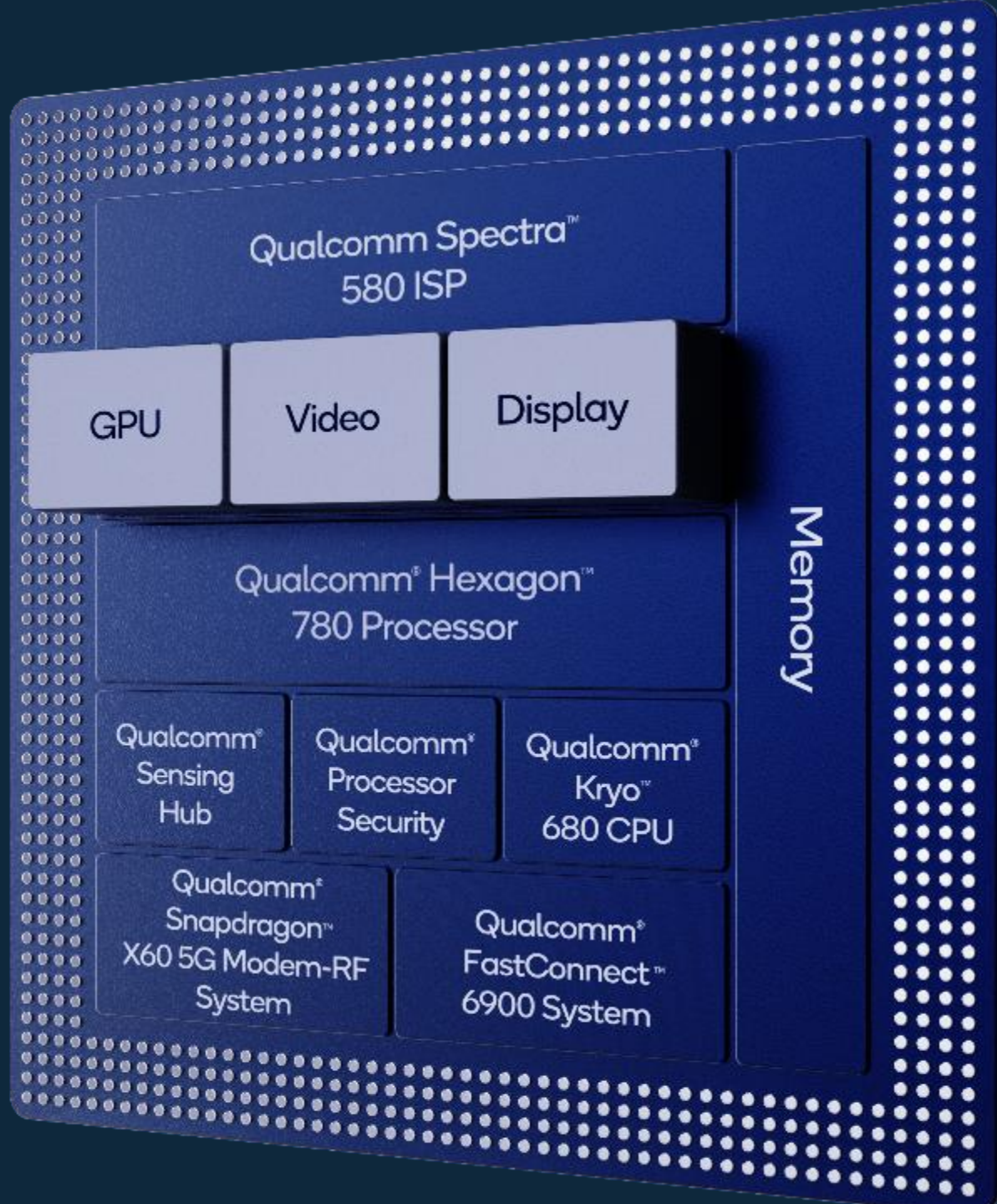
35%
Faster graphics rendering

20%
More power efficient

Display enhancements

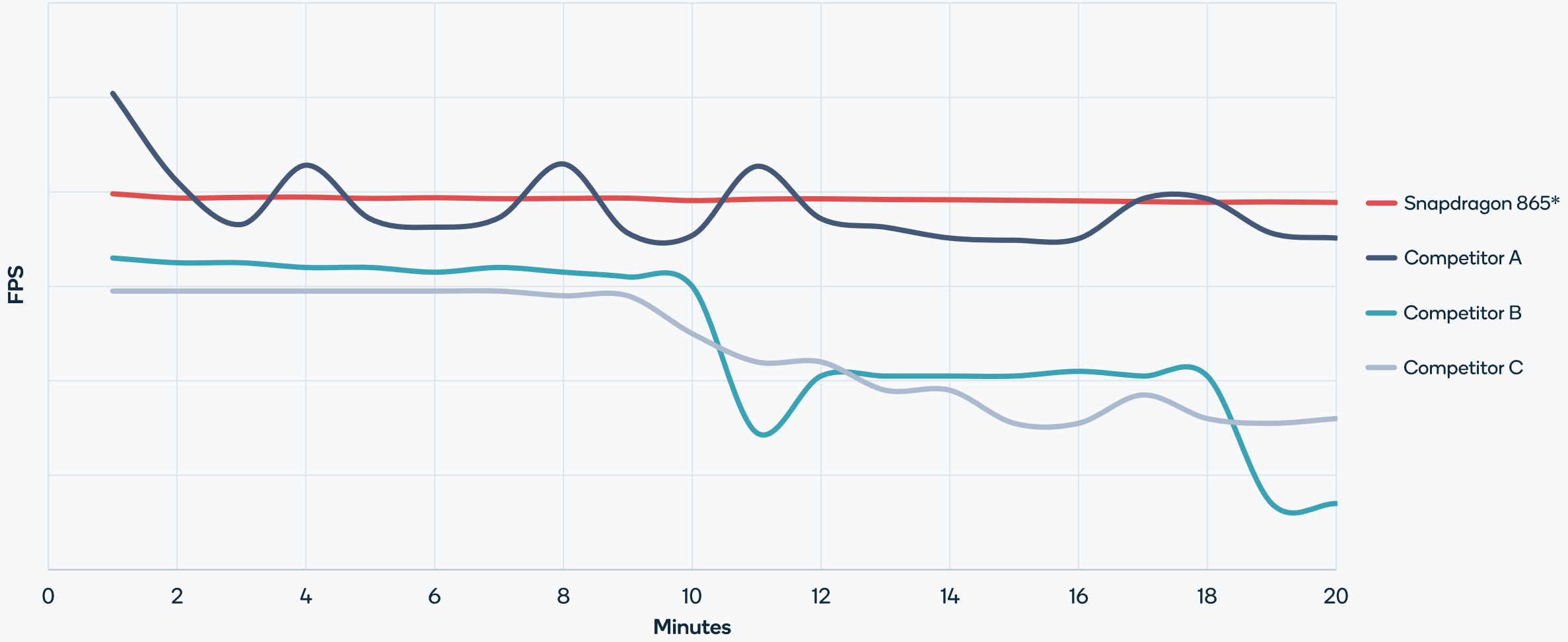
OLED display uniformity
Picture quality improvements
Demura & sub-pixel Rendering

Based ion internal testing for performance and power efficiency
Compared to previous generation



Graphics sustained performance

Manhattan 3.0 Sustained @ Peak perf



Based on internal testing for performance and power efficiency

Qualcomm® Hexagon™ 780 Processor

Fused AI accelerators
New

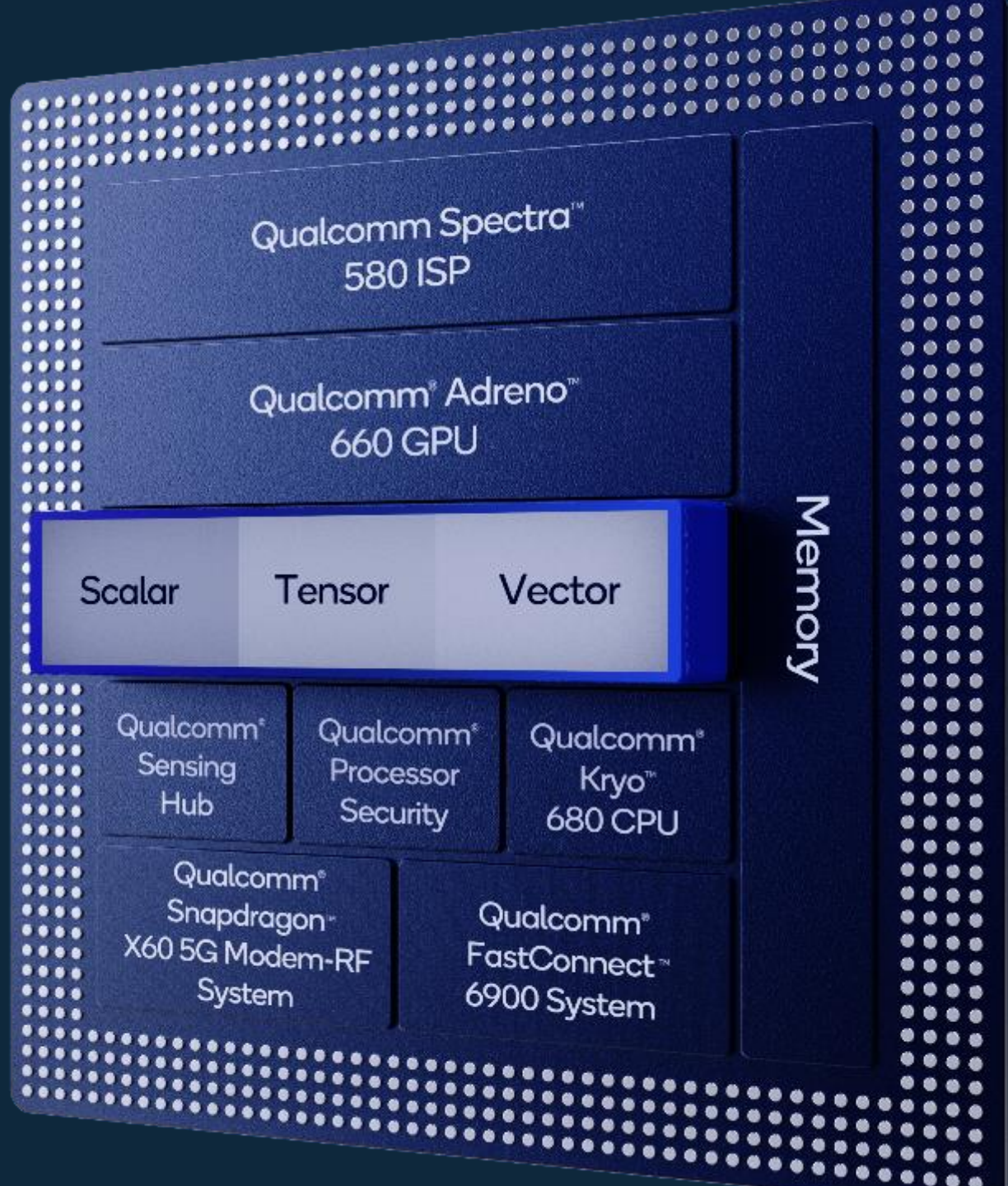
16x
Dedicated Memory

Up to 3x
Performance per watt

Up to 1000x
Hand off time

2x
Tensor Accelerator Compute capacity

Compared to previous generation



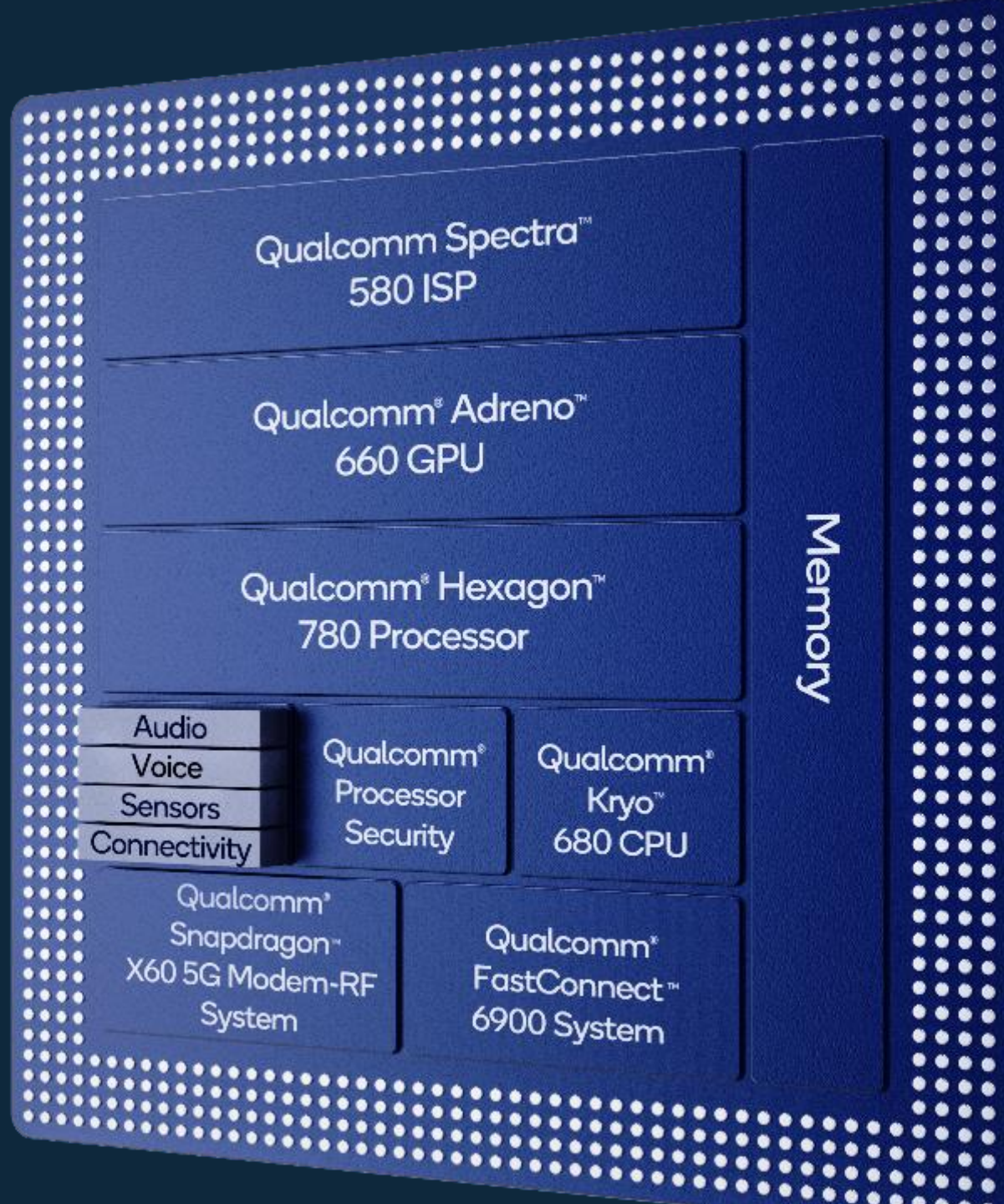
2nd Generation Qualcomm® Sensing Hub

Connectivity streams 1st

Multiple data streams from
5G, WiFi, BT, Location

Dedicated AI processor 1st

Low power AI cases

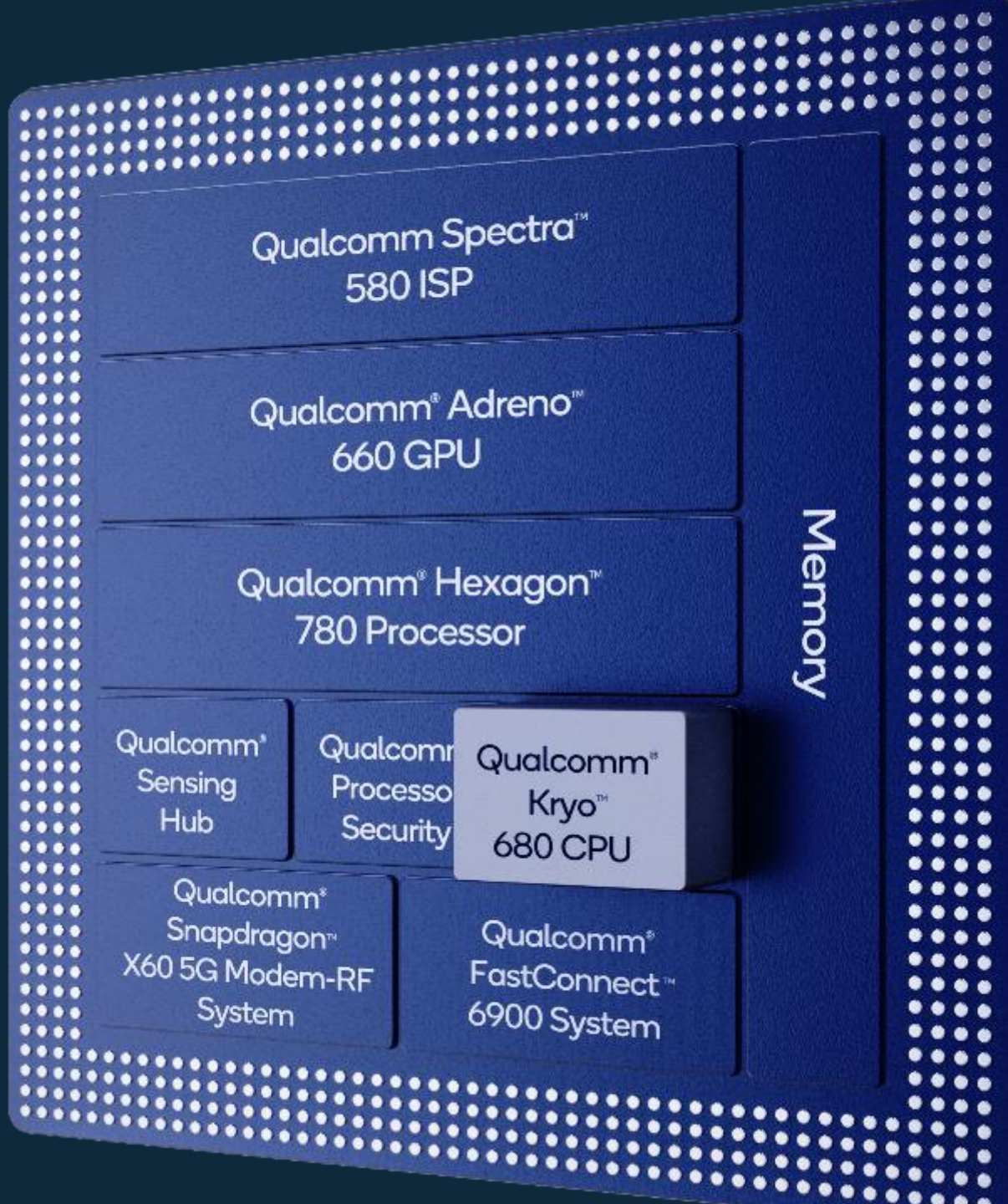


Compared to previous generation

Qualcomm® Kryo™ 680 CPU

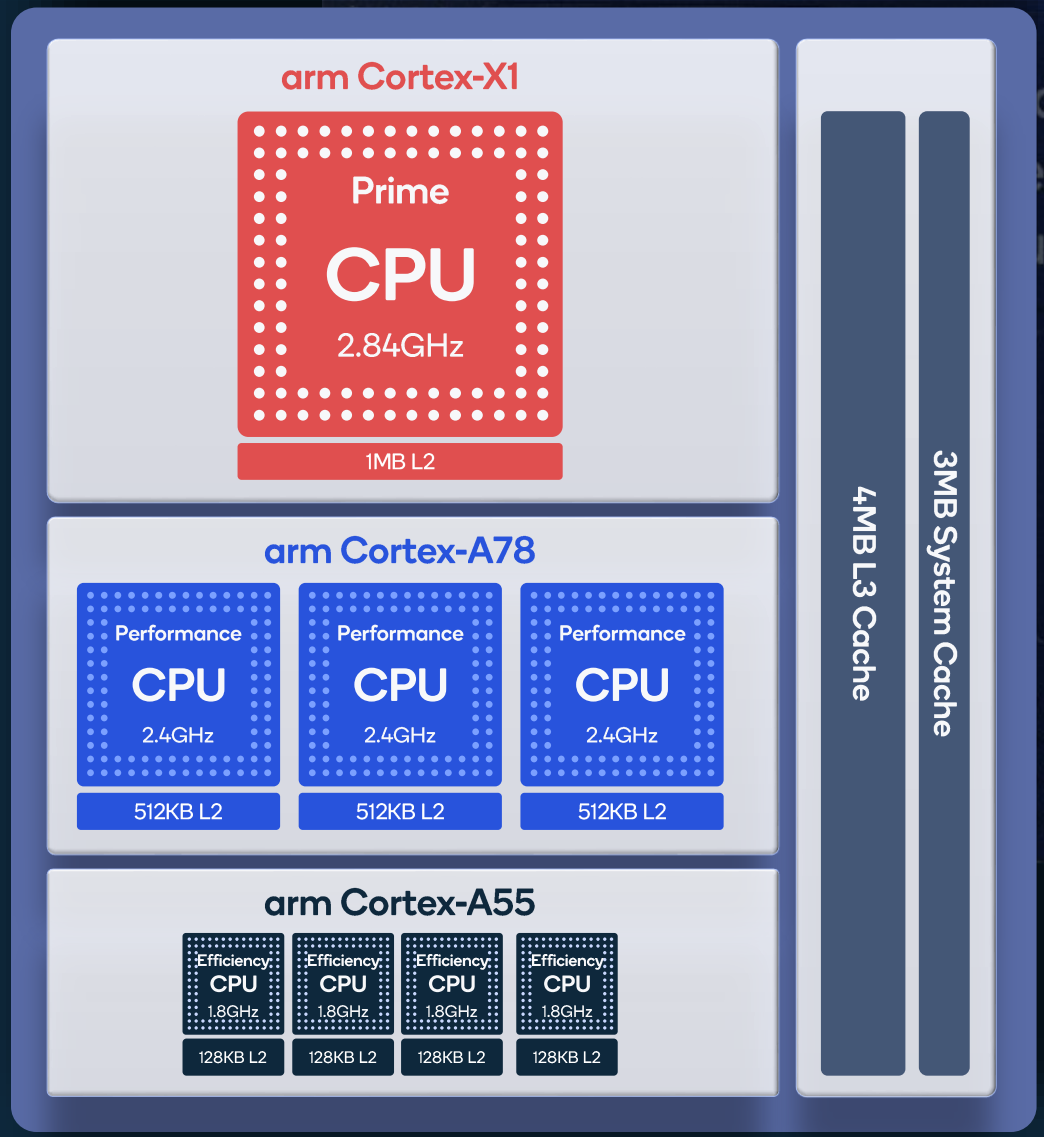
25%
Performance uplift

25%
More power efficient



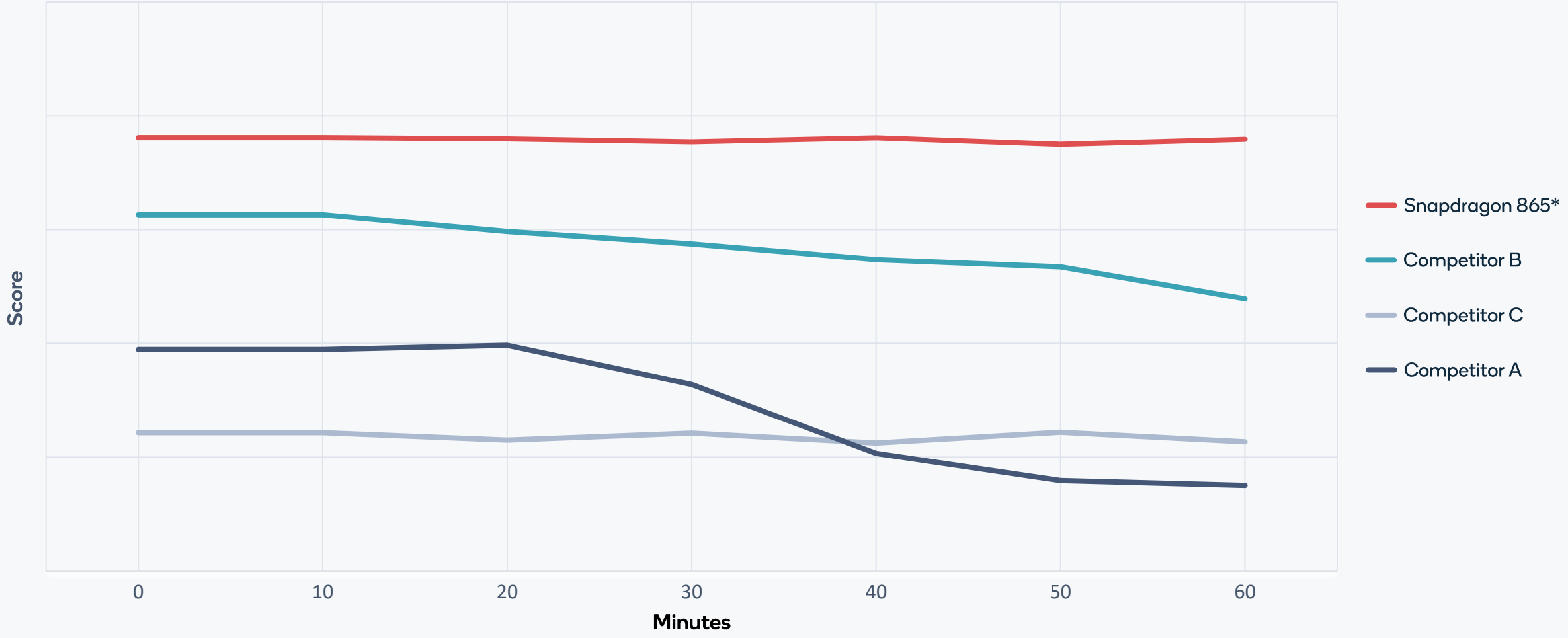
Compared to previous generation

New architecture



AnTuTu sustained performance

Antutu v8 sustained performance

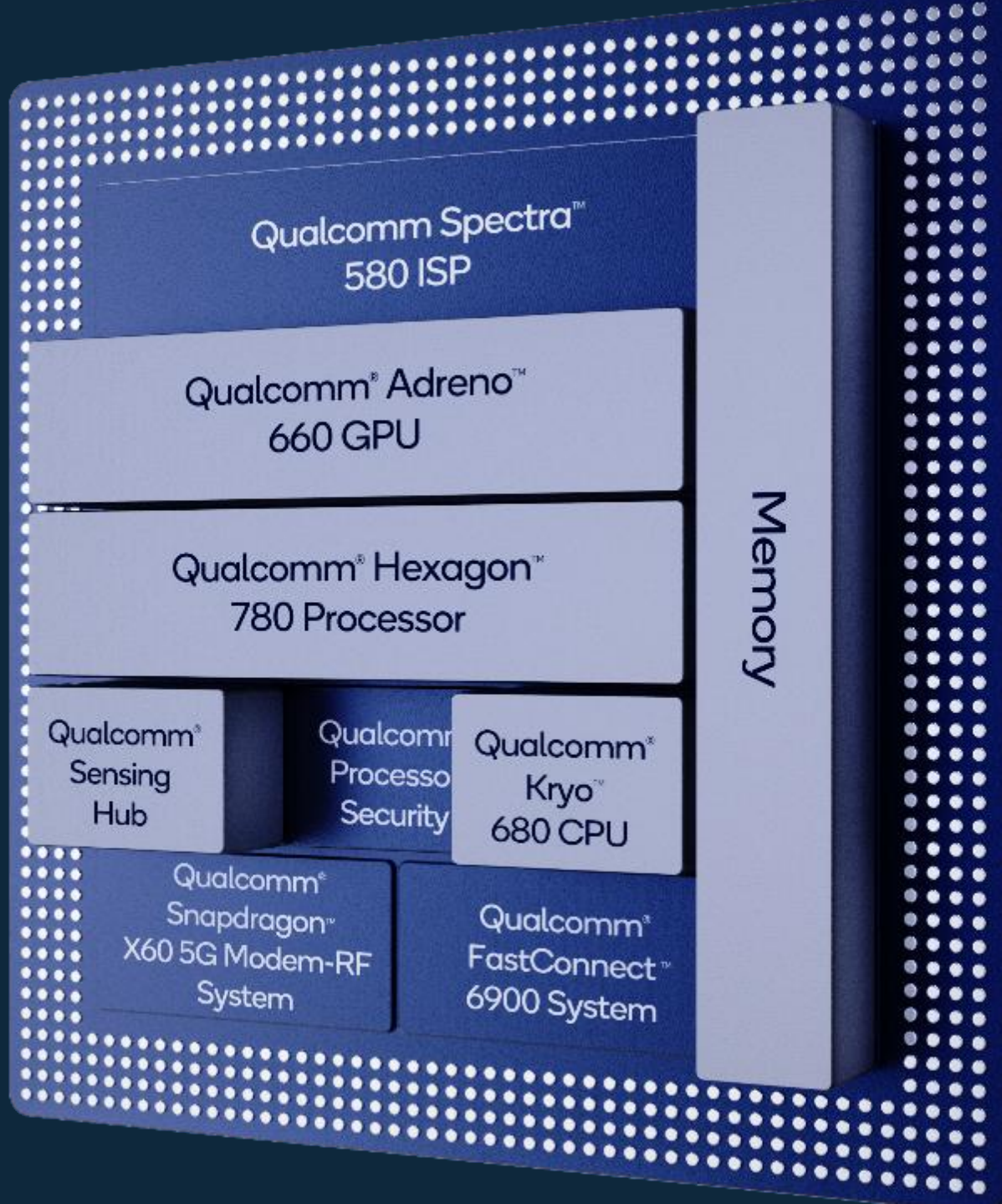


Based on internal testing for performance and power efficiency

6th Gen Qualcomm® AI Engine

26 TOPS
1st
Fastest & biggest
leap in AI performance

Qualcomm AI Engine direct
1st
for faster AI software performance



Compared to previous generation

Qualcomm AI Engine is a product of Qualcomm Technologies, Inc. and/or its subsidiaries.

Dec 2, 2020

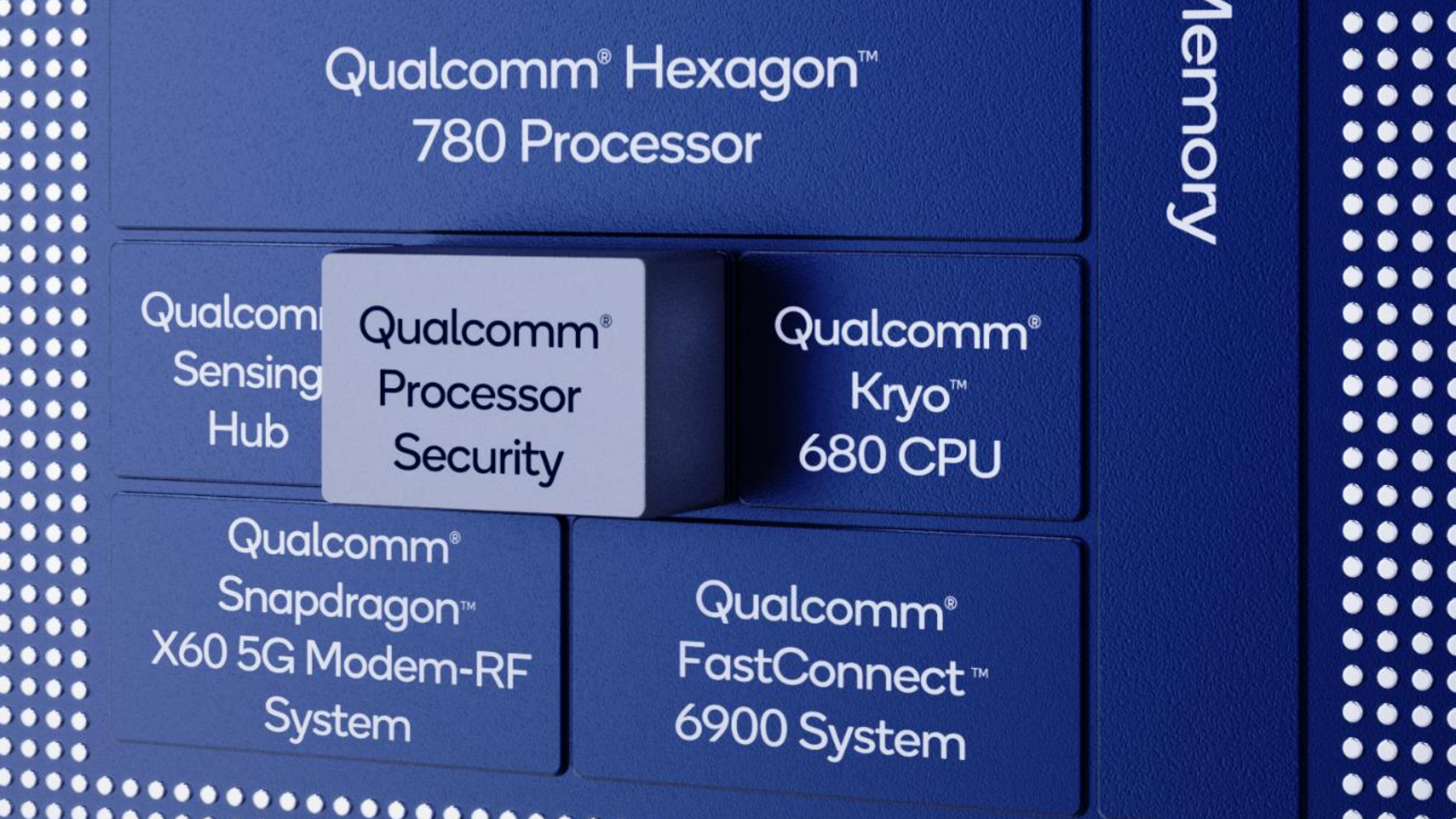
Qualcomm

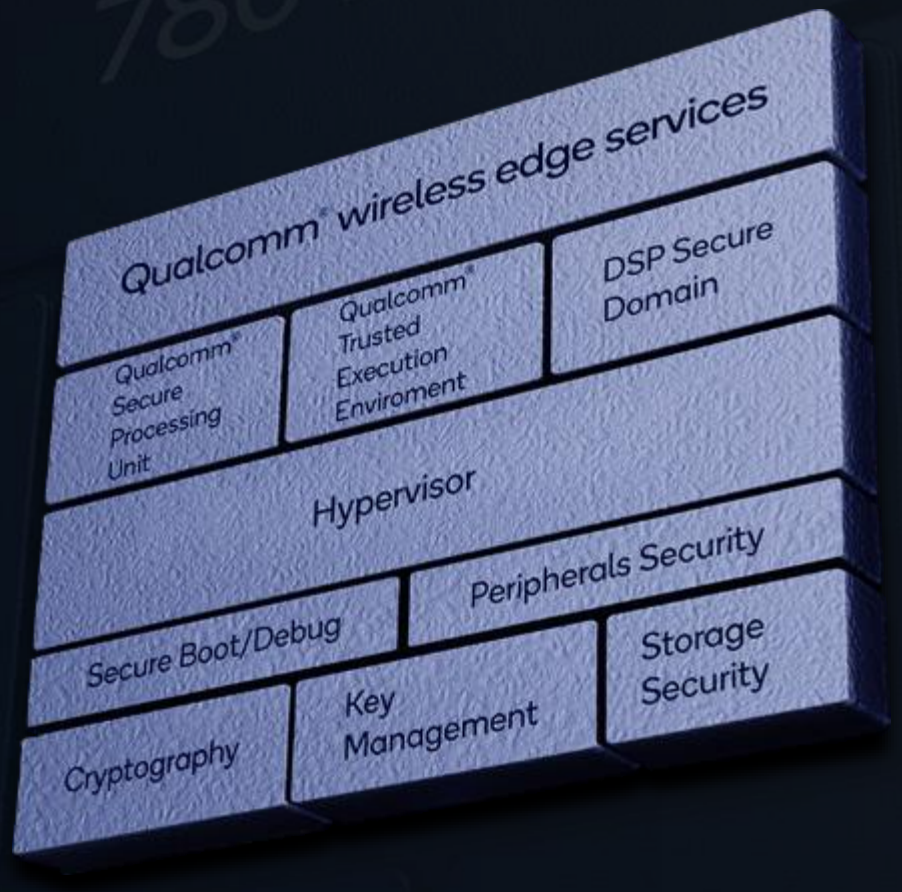
Security

Saritha Sivapuram

Senior Director, Product Management

Qualcomm Technologies, Inc.


Qualcomm® Hexagon™
780 Processor
Qualcomm
Sensing
Hub
Qualcomm®
Processor
Security
Qualcomm®
Kryo™
680 CPU
Qualcomm®
Snapdragon™
X60 5G Modem-RF
System
Qualcomm®
FastConnect™
6900 System
Memory



1st

Snapdragon with Hypervisor

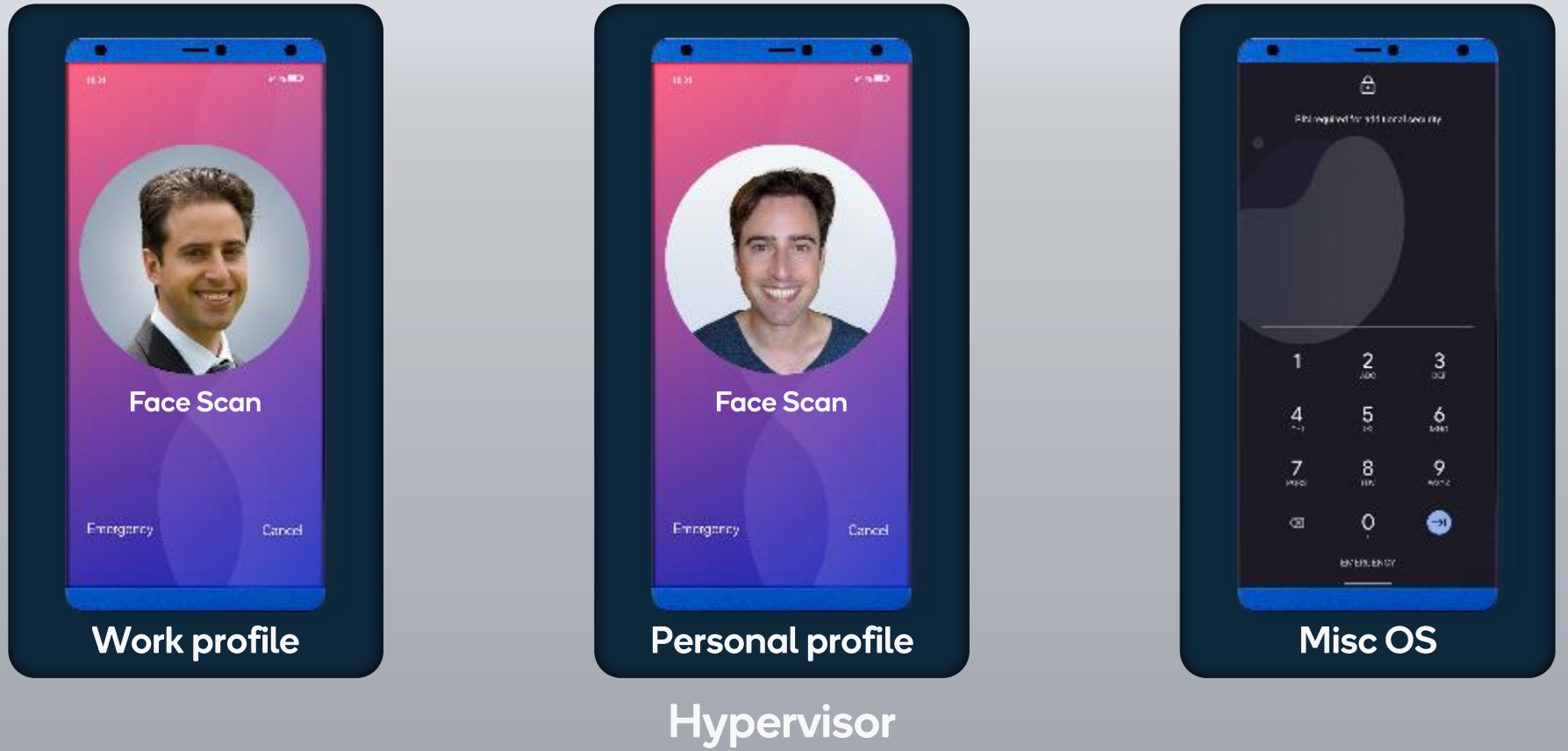
Instantly switch between isolated OSes

Provide an isolated OS for each app

Qualcomm wireless edge services are offered by Qualcomm Technologies Inc. and/or its subsidiaries. Qualcomm Secure Processing Unit and Qualcomm Trusted Execution Environment are products of Qualcomm Technologies, Inc. and/or its subsidiaries.

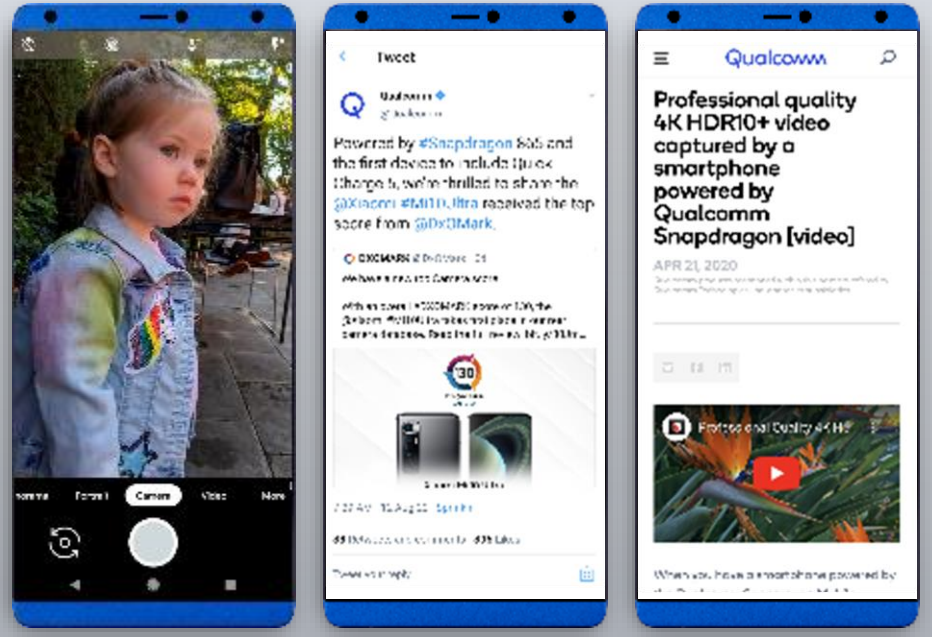
Hypervisor

Instant switch between isolated OSes



Hypervisor

An isolated OS for each app



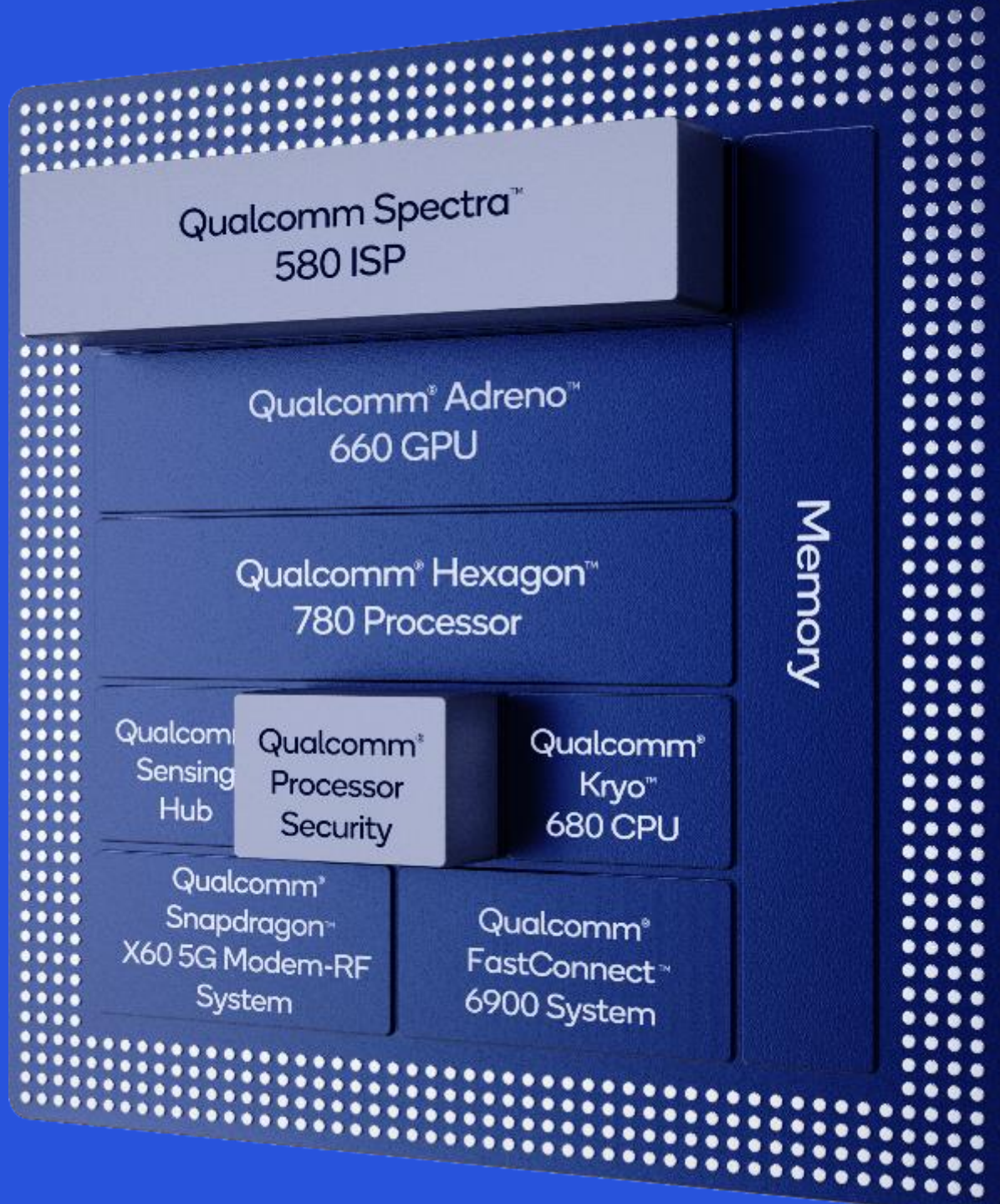
Primary OS

Isolated OS for each app

Hypervisor

Security

Preserving the future of photography



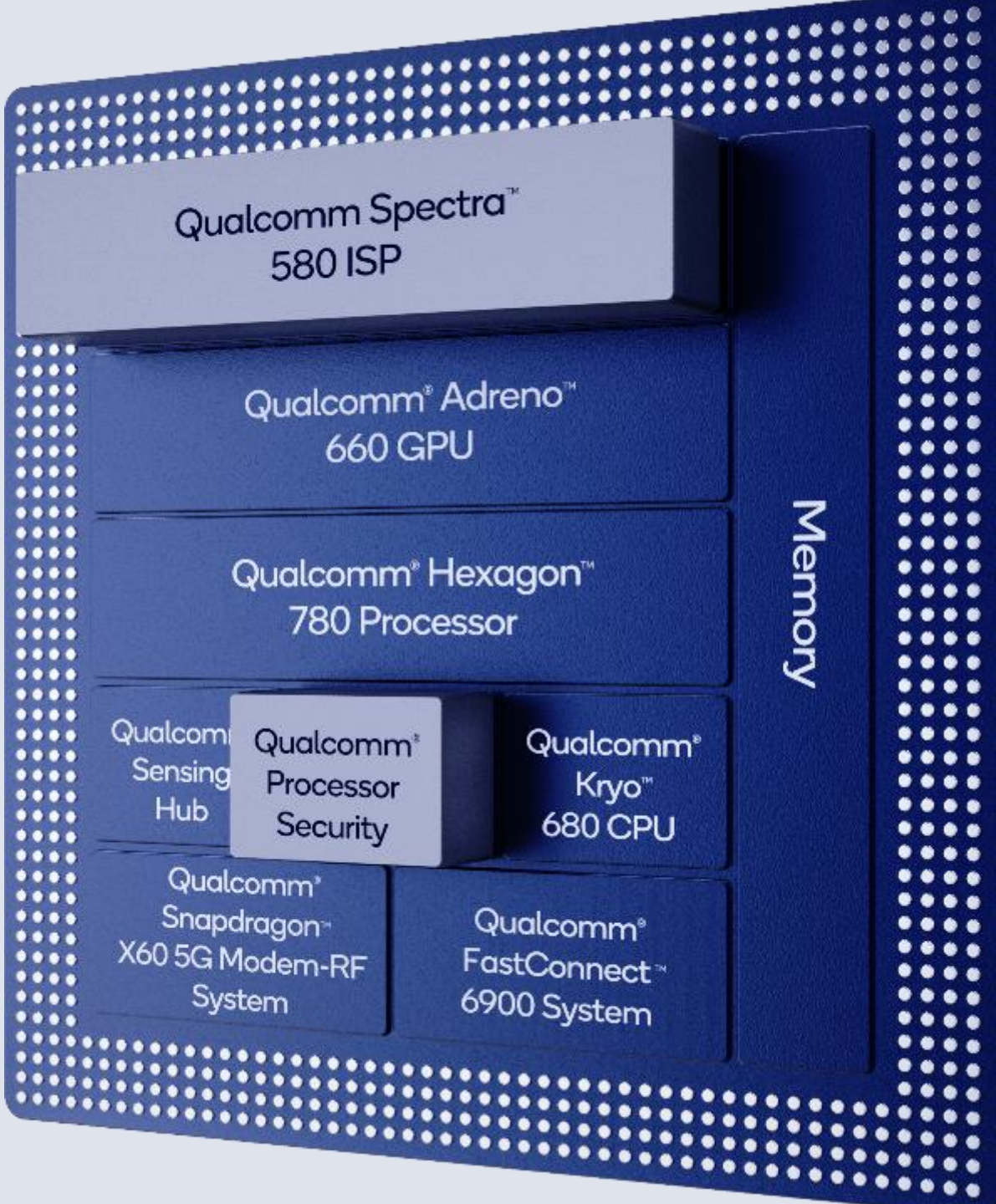
How do you **know** if a photo is **authentic?**

Truepic

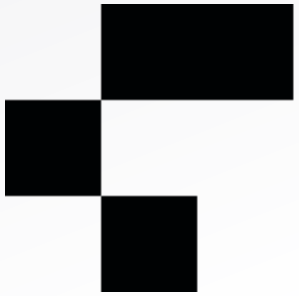
New security standard for capturing photos

Cryptographic-seal

For pixels, date, time, location, and depth map



Truepic



Content
Authenticity
Initiative

Qualcomm

TRUEPIC

Adobe

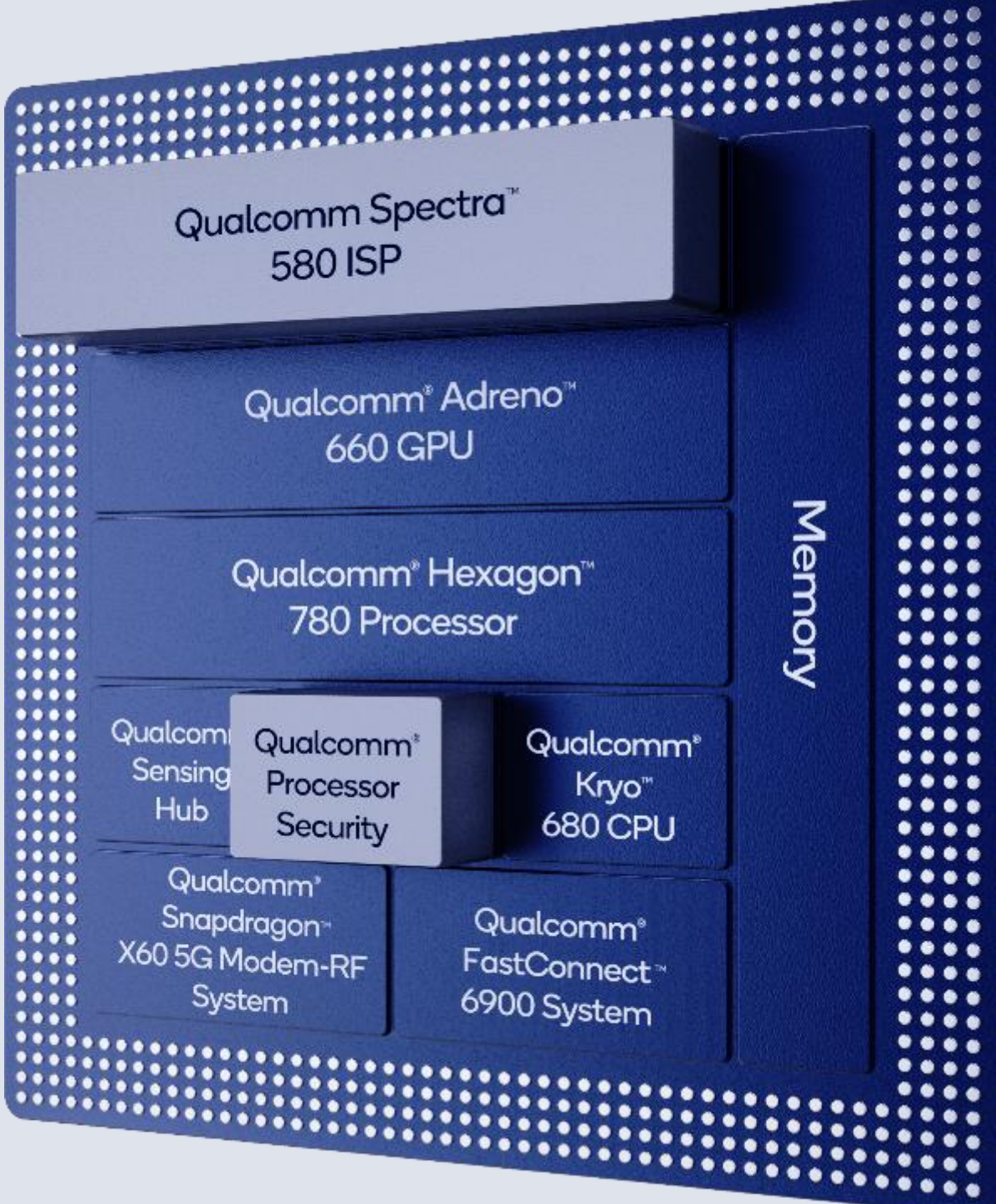
The New York Times

Collaborative technology demonstration at live event on December 8th

Snapdragon is world's first CAI compliant smartphone camera

Truepic

Content Authenticity Initiative



Qualcomm

Thank you

Follow us on:

For more information, visit us at:

www.qualcomm.com & www.qualcomm.com/blog

Nothing in these materials is an offer to sell any of the components or devices referenced herein.

©2018-2020 Qualcomm Technologies, Inc. and/or its affiliated companies. All Rights Reserved.

Qualcomm, Snapdragon, FastConnect, Adreno, Hexagon, Kryo, Quick Charge and Qualcomm Snapdragon Elite Gaming are trademarks or registered trademarks of Qualcomm Incorporated. Other products and brand names may be trademarks or registered trademarks of their respective owners.

References in this presentation to "Qualcomm" may mean Qualcomm Incorporated, Qualcomm Technologies, Inc., and/or other subsidiaries or business units within the Qualcomm corporate structure, as applicable. Qualcomm Incorporated includes Qualcomm's licensing business, QTL, and the vast majority of its patent portfolio. Qualcomm Technologies, Inc., a wholly-owned subsidiary of Qualcomm Incorporated, operates, along with its subsidiaries, substantially all of Qualcomm's engineering, research and development functions, and substantially all of its product and services businesses, including its semiconductor business, QCT.