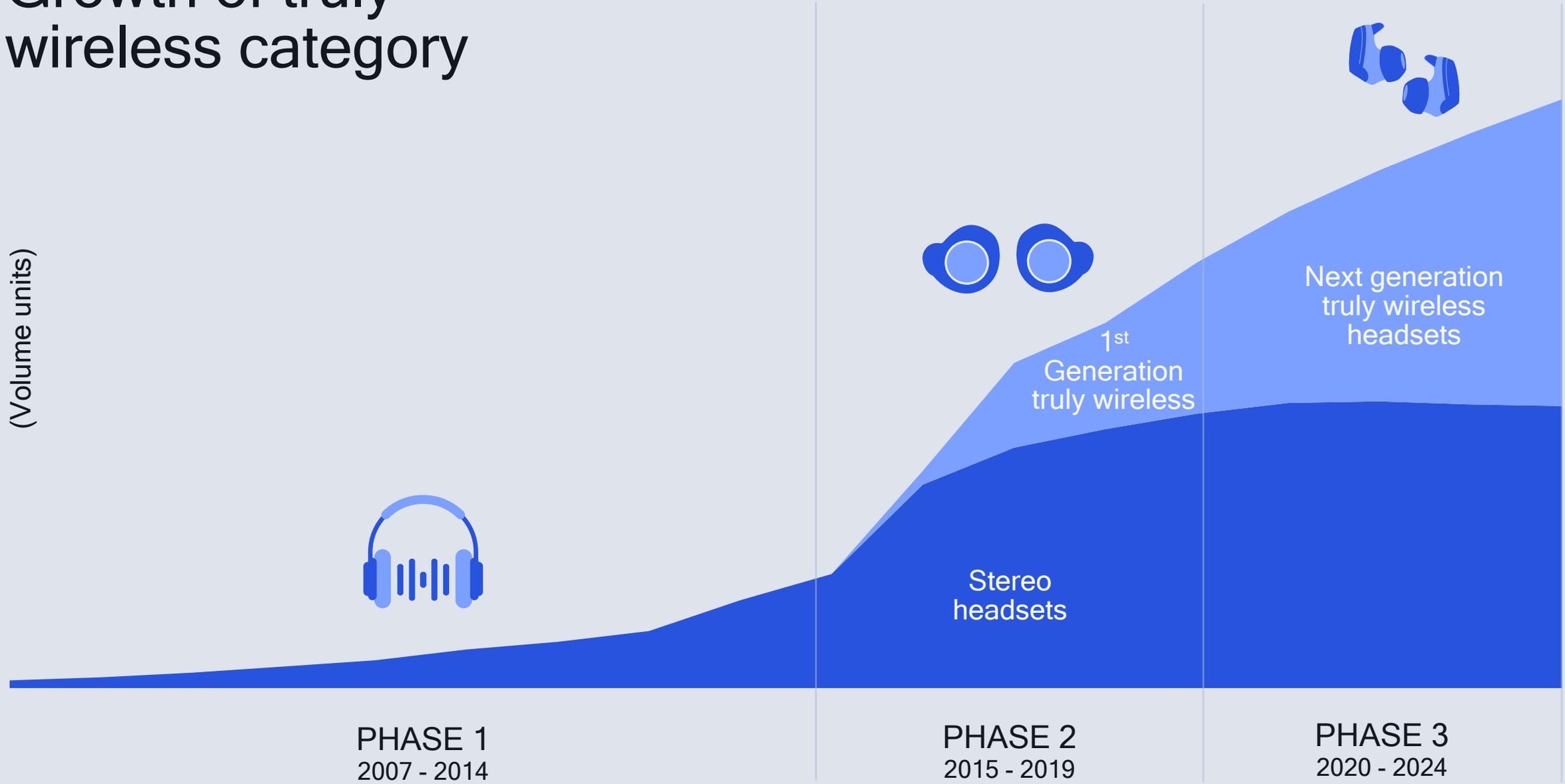**Qualcomm**

Introducing our next generation Bluetooth Audio SoCs

James Chapman, VP and GM, Voice, Music & Wearables

Qualcomm Technologies International, Ltd. (QTIL)
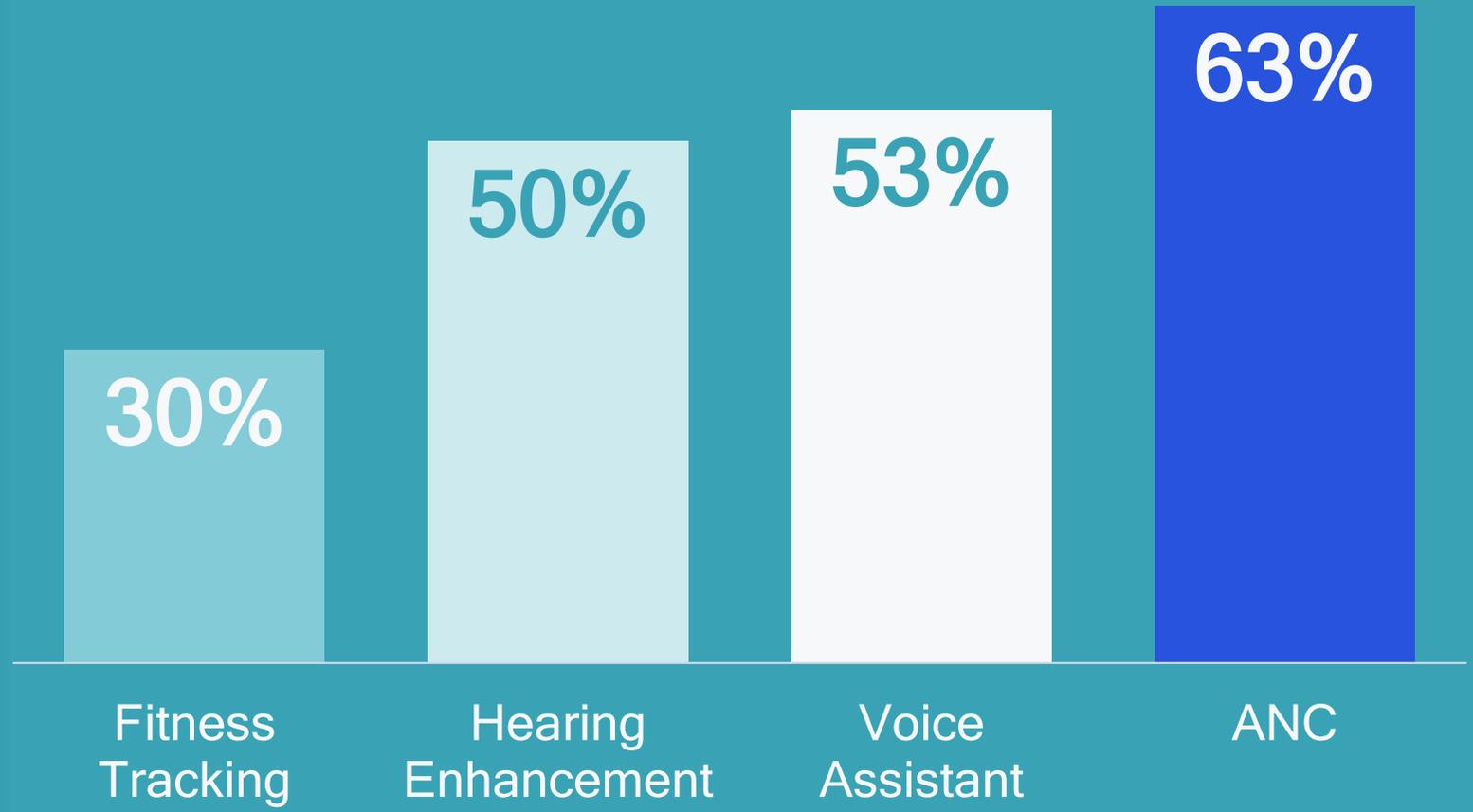
Growth of truly wireless category

(Volume units)

Stereo headsets

1st Generation truly wireless

Next generation truly wireless headsets

PHASE 1
2007 - 2014

PHASE 2
2015 - 2019

PHASE 3
2020 - 2024

2

Wireless acceptance...

...but consumers also want richer features

66%

believe wireless sound is equal to or better than wired

30% Fitness Tracking

50% Hearing Enhancement

53% Voice Assistant

63% ANC

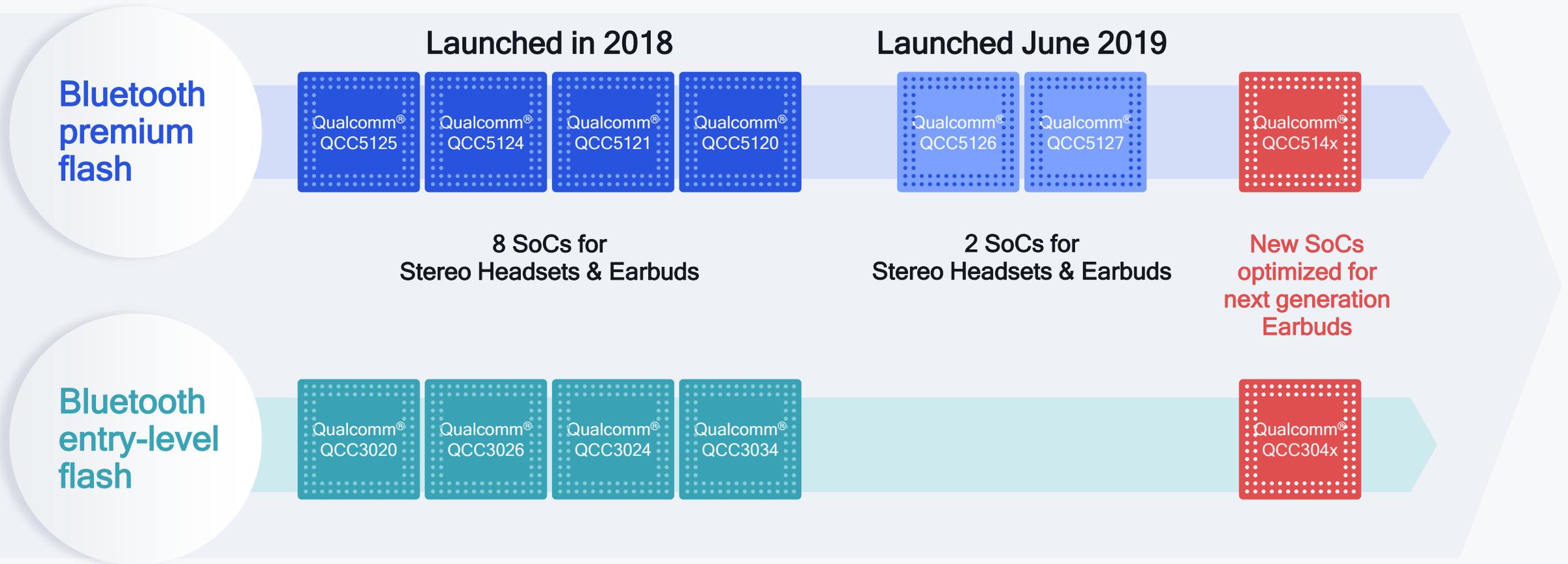# Products launched based on Qualcomm® QCC512x and Qualcomm® QCC302x

Introducing next generation low-power Bluetooth audio SoCs

Qualcomm® QCC514x and Qualcomm® QCC304x

Comprehensive audio portfolio

Qualcomm® QCC51xx and Qualcomm® QCC30xx Series

Bluetooth premium flash

Launched in 2018

Qualcomm® QCC5125 | Qualcomm® QCC5124 | Qualcomm® QCC5121 | Qualcomm® QCC5120

Launched June 2019

Qualcomm® QCC5126 | Qualcomm® QCC5127

Qualcomm® QCC514x

8 SoCs for
Stereo Headsets & Earbuds

2 SoCs for
Stereo Headsets & Earbuds

New SoCs optimized for next generation Earbuds

Bluetooth entry-level flash

Qualcomm® QCC3020 | Qualcomm® QCC3026 | Qualcomm® QCC3024 | Qualcomm® QCC3034

Qualcomm® QCC304x

Introducing Qualcomm® QCC514x and Qualcomm® QCC304x

Ultra-small form-factor

Ultra-low power

Robust Connectivity

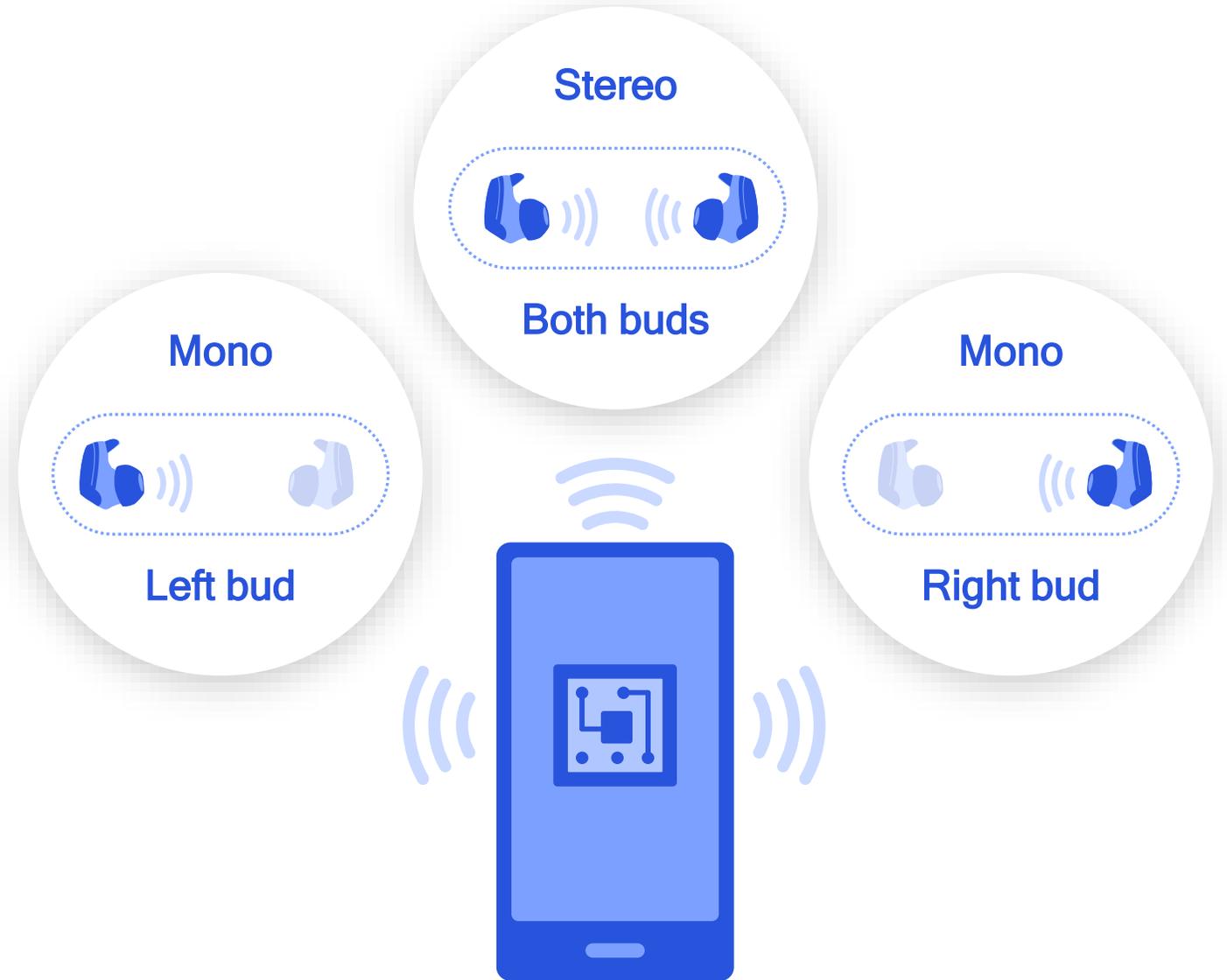High Quality Audio

Integrated ANC

Integrated Voice Assistants

Qualcomm TrueWireless™ Mirroring

Next generation Qualcomm TrueWireless™ Mirroring

Supported on Qualcomm® QCC514x and Qualcomm® QCC304x devices

Stereo

Both buds

Mono

Left bud

Mono

Right bud

Choose any earbud combination and switch between them dynamically with no interruption to the audio

Qualcomm® Active Noise Cancellation
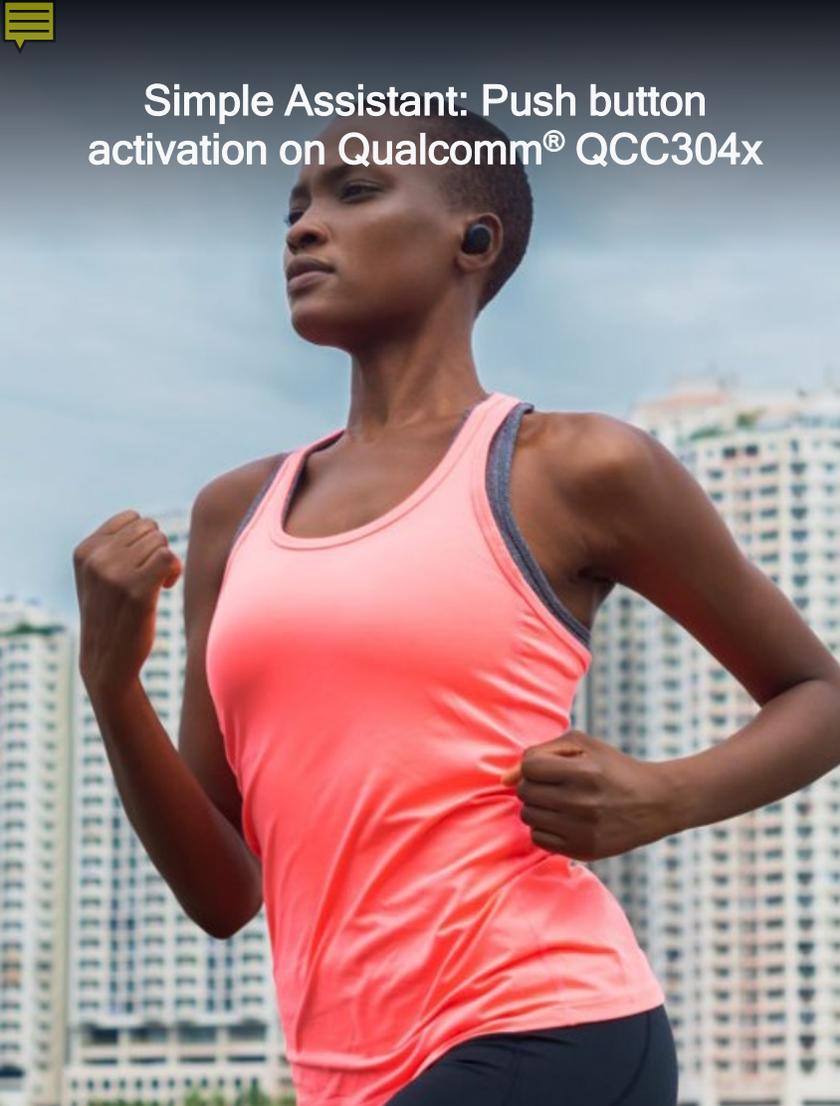
Small Size

Low-power

Performance

UX

Leak-through

Simple Assistant: Push button activation on Qualcomm® QCC304x

Push button voice assistant activation on Qualcomm® QCC304x

Wake word voice assistant activation on Qualcomm® QCC514x
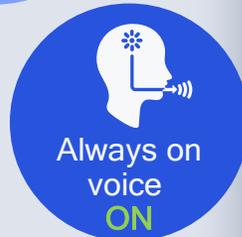
Integrated Voice Assistants at all tiers

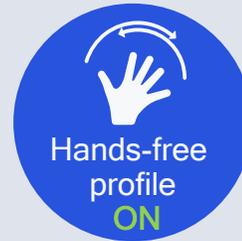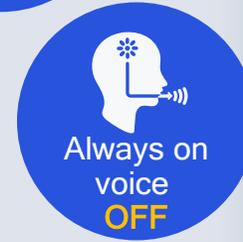# Qualcomm® QCC514x provides improved power consumption for real world use cases

Percentages shown for the QCC514x and for the end-product from Competitor X leverage data from limited internal testing and measurement by Qualcomm Technologies International, Ltd., modelling similar like-for-like use cases.

Battery life varies significantly with settings, usage, and other factors.
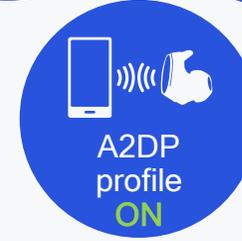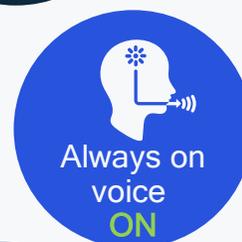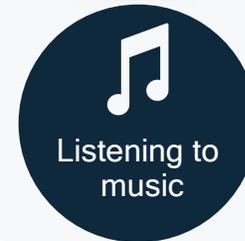
Qualcomm QCC514x and Qualcomm cVc are products of Qualcomm Technologies, Inc. and/or its subsidiaries.

Idle, earbuds in ear

ANC
ON

Always on voice
ON

QCC514x lasts up to 86% longer than Competitor X

Phone calls

ANC
ON

Always on voice
OFF

Hands-free profile
ON

Qualcomm® cVc™
ON

QCC514x lasts up to 26% longer than Competitor X

Listening to music

ANC
ON

Always on voice
ON

A2DP profile
ON

QCC514x lasts up to 22% longer than Competitor X

Qualcomm® aptX™ Adaptive audio

Robust
Enhanced tolerance to RF interference
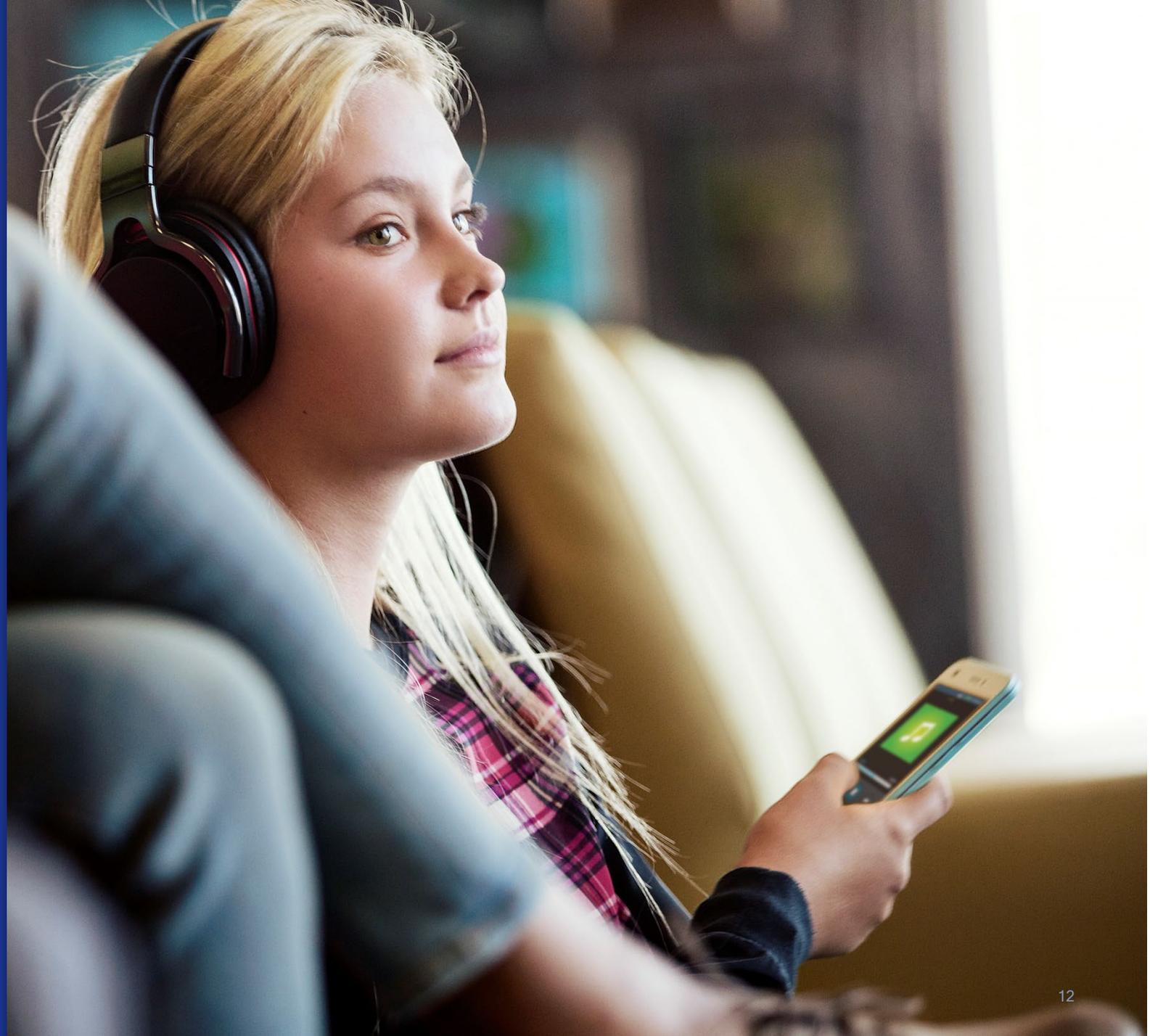
Audio quality
CD and high resolution

Latency
Gaming, interactive and audio visual

Voice
High resolution voice

Driving the truly wireless revolution

Voice UI	ANC	All day wear*
Seamless role swapping	Premium audio	Multi-core processing
Low-latency	Robust connectivity	Optimized for small form factors

For a variety of use cases

Productivity

Workout

Travel

Gaming

Watch & Listen

At all tiers

Qualcomm® QCC51xx Series

Premium

Qualcomm® QCC30xx Series

Mid

QCC30xx Series
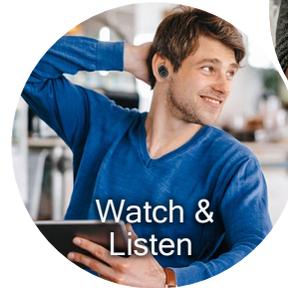
Entry Level

Helping developers to innovate

Reference designs & tools

Unique & scalable software ADK
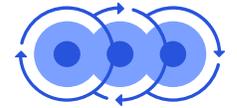
Ecosystem partnerships

Leveraging innovations from mobile

The foundation for next generation devices

Qualcomm

Thank you

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