## Highlights

### Powerful tri-core processing designed to support flexible innovation

Tri-core processing is delivered by two dedicated configurable 32-bit application processor subsystems and a Qualcomm® Kalimba™ DSP audio subsystem. A new feature-rich audio development kit (ADK) and enhanced development tools are designed to help reduce time needed for integration and commercialization.

### Ultra-low power

The QCC302x/QCC303x/QCC304x series is designed for unprecedented efficiency in power consumption compared to our previous technology. These SoCs support the development of very small form factor, richly-featured earbuds that can be used for up to 10 hours with a 65mHA battery.\(^1\)

### High quality wireless audio

Qualcomm® aptX™ Audio and aptX HD audio technologies are designed to deliver consistent, high quality audio streaming over Bluetooth. The internal 24-bit end-to-end audio pipeline and high-performance DACs are designed to deliver high resolution audio through the audio processing chain.

### Qualcomm TrueWireless Mirroring

The QCC304x devices feature Qualcomm TrueWireless Mirroring, a new topology that combines the best of our eavesdropping and relay solutions to deliver robustness while also supporting role-swapping and bud-to-bud Bluetooth address handover, dynamically and with virtually no interruption to the audio.

### Digital Assistant ready

Support for voice services is available via button-press activation. This feature is designed to relay the audio stream and voice control capabilities to a handset to process and execute commands.

---

\(^1\) Battery life varies significantly with settings, usage, and other factors.
Home Entertainment

Toys

QCC302x/QCC303x/QCC304x Block Diagram

- Highly integrated SoC with extremely low-power design *
- Support for digital assistants with minimal integration effort
- Fully programmable digital ANC
- Qualcomm TrueWireless Stereo / Qualcomm TrueWireless Mirroring support
- Support for aptX and aptX HD audio
- QCC302x/QCC303x qualified to Bluetooth 5.1 and QCC304xx qualified to Bluetooth 5.2 (LE Audio ready)
- 2Mbps Bluetooth low energy (LE) support
- 4mm x 4mm ultra-small form factor
- Dual core 32-bit processor application and Kalimba DSP Audio subsystem
- Embedded ROM + RAM and external Q-SPI Flash
- High-performance low power audio codec
- 2-ch 98dBA headset class D
- 2-ch 99dBA line inputs (single-ended) 192kHz 24-bit I2S & SPDIF interfaces
- Flexible software platform with powerful new IDE support
- Integrated battery charger supporting

* up to 73% improved compared with our CSR867x series

Bluetooth Audio Applications

- Truly Wireless Earbuds
- Bluetooth Stereo Headphones or Headsets
- Bluetooth Stereo Portable Speakers

©2020 Qualcomm Technologies International, Ltd. All Rights Reserved. Qualcomm and Qualcomm TrueWireless are trademarks of Qualcomm Incorporated, registered in the United States and other countries. aptX, cVc and Kalimba are trademarks of Qualcomm Technologies International, Ltd., registered in the United States and other countries. The Bluetooth word mark and logos are registered trademarks owned by the Bluetooth SIG, Inc. and any use of such marks by Qualcomm Technologies International, Ltd. is under license. Other products and brand names may be trademarks or registered trademarks of their respective owners.