

January 8, 2018



# Qualcomm Introduces Breakthrough Low Power Bluetooth Audio SoC Series for Wireless Earbuds and Hearables

## New Low Power, Feature-rich Bluetooth® Solution Includes Support for Voice Assistant Services, Qualcomm TrueWireless Stereo, Qualcomm aptX HD audio and Integrated Hybrid ANC

LAS VEGAS, Jan. 8, 2018 /PRNewswire/ -- At CES® 2018, Qualcomm Incorporated (NASDAQ: QCOM) today announced that its subsidiary, Qualcomm Technologies International, Ltd., introduced the new Qualcomm® Low Power Bluetooth SoC QCC5100 series that is designed to help manufacturers develop a new generation of compact, feature-rich, wireless earbuds, hearables and headsets. To help meet consumer demand for superior audio quality as well as extended battery life and playback time in wireless audio devices, the breakthrough SoC series is engineered to reduce power consumption by up to 65 percent for both voice calls and music streaming, compared to previous single-chip Bluetooth audio solutions.

The SoC architecture supports low power performance and includes a Bluetooth 5 dual-mode radio, low power audio and application subsystems. Designed to serve various "on-the-go" consumer use cases requiring robust, high quality, truly wireless listening experiences, the platform supports advanced features including Qualcomm® TrueWireless™ Stereo, Qualcomm® aptX™ HD audio, Integrated Hybrid Active Noise Cancellation (ANC) and third-party voice assistant services.

"This breakthrough single-chip solution is designed to dramatically reduce power consumption and offers enhanced processing capabilities to help our customers build new life-enhancing, feature-rich devices. This will open new possibilities for extended-use hearable applications including virtual assistants, augmented hearing and enhanced listening," said Anthony Murray, senior vice president and general manager, voice & music, Qualcomm Technologies International, Ltd. "Without sacrificing our superior sound quality, we can now help to pack tremendous functionality into small, wireless hearable devices. Audio designers are looking for a platform solution that brings an ideal combination of power, size and functionality and user experience – and the QCC5100 series is designed to deliver exactly that."

### QCC5100 Series Technical Highlights

**Low power, high-performance quad-core processing:** The QCC5100 series is designed to offer OEMs the freedom and flexibility to innovate, with a dedicated application processor sub-system, dual DSP architecture and next generation ADK software with enhanced development tools. The device family is also designed to support multiple use cases with concurrent software operation, meaning users can transition smoothly between functions including; listening to music, making calls, running biometric sensors and using voice assistant services.

**Superior quality wireless sound:** The platform features integrated hybrid ANC to help reduce the complexity and cost of adding ANC to earbuds, hearables and other portable audio devices by eliminating the need for a separate ANC chip. This helps manufacturers reduce the development time for premium audio experiences in much smaller form factor designs. Support for aptX and aptX HD audio technologies also helps to bring consistent, high-quality audio streaming over Bluetooth.

**Digital Assistant Ready with Support for Voice Assistant Services:** The QCC5100 series can help reduce development time and cost of voice activated products by combining local voice recognition algorithms running on the Bluetooth audio SoC with leading cloud services running on mobile applications.

**Enhanced Qualcomm TrueWireless functionality:** Qualcomm TrueWireless Stereo technology is engineered to eliminate the need for wires entirely – not only between the media source and stereo headset, but also between left and right earbuds. The QCC5100 series is designed to deliver improved low power connectivity and enhanced user experiences for truly wireless in-ear applications.

### Qualcomm® Low Power Bluetooth SoC QCC5100 Series Features

- Low power design and ultra-small form factor
- Dual-core 32-bit processor application subsystem

- Dual-core Qualcomm® Kalimba™ DSP Audio subsystem
- Support for aptX and aptX HD, Qualcomm TrueWireless Stereo, and Enhanced ANC (Feed-Forward, Feed-Backward, Hybrid)
- Voice Assistant Services, low power wake word detection
- Bluetooth 5.0 and 2 Mbps Bluetooth® Low Energy support
- Embedded ROM + RAM and support for external Flash memory
- 2-ch 98dBA headset class D (integrated amplifier)
- 2-ch 99dBA line inputs (single ended)
- 192kHz 24-bit I2S & SPDIF interfaces
- Flexible software platform with powerful new IDE support

A number of example designs based on QCC5100 series are planned to be available in the first half of 2018 (subject to change) which are designed to demonstrate how Qualcomm can help manufacturers overcome common and significant design challenges for ultra-small form factor headsets and hearables and commercialize their own products more quickly.

For additional information and to start developing audio products using the new platform, please visit <https://www.qualcomm.com/products/qcc5100-series>.

#### **About Qualcomm**

Qualcomm's technologies powered the smartphone revolution and connected billions of people. We pioneered 3G and 4G – and now we are leading the way to 5G and a new era of intelligent, connected devices. Our products are revolutionizing industries, including automotive, computing, IoT, healthcare and data center, and are allowing millions of devices to connect with each other in ways never before imagined. Qualcomm Incorporated includes our licensing business, QTL, and the vast majority of our patent portfolio. Qualcomm Technologies, Inc., a subsidiary of Qualcomm Incorporated, operates, along with its subsidiaries, all of our engineering, research and development functions, and all of our products and services businesses, including, our QCT semiconductor business. For more information, visit Qualcomm's [website](#), [OnQ blog](#), [Twitter](#) and [Facebook](#) pages.

Qualcomm is a trademark of Qualcomm Incorporated, registered in the United States and other countries. aptX and Kalimba are trademarks of Qualcomm Technologies International, Ltd., registered in the United States and other countries. Qualcomm TrueWireless is a trademark of Qualcomm Incorporated.

Qualcomm Low Power Bluetooth SoC QCC5100 series, Qualcomm aptX, Qualcomm Kalimba and Qualcomm TrueWireless are products of Qualcomm Technologies, Inc. and/or its subsidiaries.

#### Qualcomm Contacts:

Pete Lancia, Corporate Communications  
Phone: 1-858-845-5959  
Email: [corpcomm@qualcomm.com](mailto:corpcomm@qualcomm.com)

John Sinnott, Investor Relations  
Phone: 1-858-658-4813  
Email: [ir@qualcomm.com](mailto:ir@qualcomm.com)

View original content: <http://www.prnewswire.com/news-releases/qualcomm-introduces-breakthrough-low-power-bluetooth-audio-soc-series-for-wireless-earbuds-and-hearables-300578964.html>

SOURCE Qualcomm Incorporated