

# BlueCore<sup>®</sup> CSR8675 BGA



#### **Product Overview**

The BlueCore® CSR8675 BGA development kit contains everything required for rapid evaluation and development of Bluetooth stereo and mono audio applications. It is based on CSR's latest generation single chip Bluetooth audio solution: BlueCore® CSR8675.

The BlueCore® CSR8675<sup>™</sup> BGA consumer audio platform for wired and wireless applications integrates an ultra-low-power DSP and application processor with embedded flash memory, a high-performance stereo codec, a power management subsystem, LED and LCD drivers and capacitive touch sensor inputs in a SOC IC. The dual-core architecture with flash memory enables manufacturers to easily differentiate their products with new features without extending development cycles.

Along with CSR's Audio Development Kit (ADK) software suite and the CSR configuration tools, the development kit provides a very flexible and powerful development platform for designing advanced, high-quality, Bluetooth stereo and mono products based on the BlueCore® CSR8675 single chip Bluetooth audio solution.

#### **Product Key Features**

- Bluetooth® v4.2 specification compliant hardware
- Radio includes integrated balun and RF performance of 10dBm transmit power and -90dBm receive sensitivity
- 120MHz Kalimba DSP providing upto 120MIPS of DSP processing
- High performance stereo CODEC
- Support for 24bit digital audio processing
- Support for ANC feed-forward architecture
- Support for up to 6 digital microphone inputs
- 2 digital audio interface ports (I<sup>2</sup>S, PCM and SPDIF)
- 16Mb internal flash memory (64-bit wide); optional support for 64Mb of external serial flash memory or serial RAM
- Support for CSR's latest CVC technology for narrow-band and wideband voice connections including wind noise reduction
- Integrated dual switch-mode regulators, linear regulators and battery charger
- 3 hardware LED controllers (for RGB) and ability to drive LCD segment display directly
- Support for up to 6 capacitive touch sensors



### **Applications**

Home Entertainment Ecosystem

- Stereo speakers and headphones
- TVs
- Smart remote controllers
- Soundbars

Tablets / PCs / Mobile Connectivity

- Wearable audio (on-the-go)
- Wired or wireless stereo headphones for music/gaming/multimedia content
- Wired or wireless speakers
- Speakerphones and in-car kits
- Mono headsets for voice



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## **Development Kit Contents**

CSR8675 Software Development Board (H13179)



This board features the latest CSR BlueCore® CSR8675 BGA Bluetooth audio solution. It interfaces with microphones and has flexible LED and push-button assignments. Battery current measurements can be performed, and a PIO header allows for connection of further application hardware, such as displays.

Headphone Amplifier Plug-in Board (H13223)



## **Ordering Information**

Development Kit Part Number: **Development Board Only:** 

DK-CSR8675-10197-2A DB-CSR8675-10200-2A

Visit the website www.csr.com for a list of distributors and representatives [Contact > Sales Representatives] or request more information from a CSR representative [Contact > CSR Customer Support]. Visit the website for further information on other related products.

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## USB-SPI Converter (CNS10020)



The kit includes an USB-SP converter to allow software development via USB

Additional kit Contents:

- **Quick Start Guide**
- Headphones
- **USB** Cable
- **Proprietary Programming Cable**
- Stub Antenna
- Battery