

Features Include

- Supports Headset and Hands-free profiles
- Pre-qualified Bluetooth communications stack and profile software in mask ROM
- Configurable headset user interface
- Built in audio CODEC
- No software development required
- Full reference design provided (including gerbers)
- Small footprint 6 x 6mm VFBGA package
- Easy to use 10 x 10mm package with integrated RF components

Easy to Use Bluetooth Chip

BlueCore2-Headset Extra makes it easier than ever to design and manufacture a Bluetooth wireless technology headset.

Every aspect of the chip has been optimised to reduce time to market and make the chip easier to use.

BlueCore2-Headset Extra comes with the necessary communications stack, headset profile and user interface software in mask ROM, therefore no new software is required.

BlueCore2-Headset Extra comes with a comprehensive reference design including schematic, gerbers and BOM, thus greatly reducing design time.

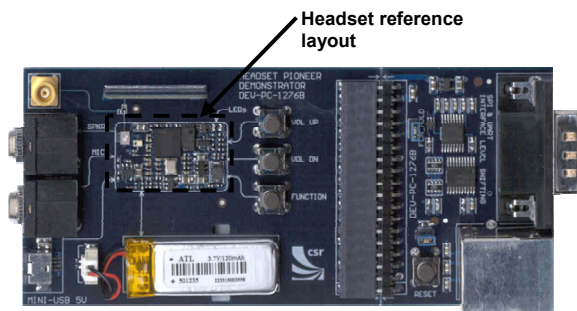


Figure 1: BlueCore2-Headset Extra Development Kit

BlueCore™2-Headset Extra

Single Chip Bluetooth® Device for Wireless Headsets

Product Brief

June 2003

Supported Features

CSR's BlueCore family of devices are renowned for their ease of use in single-chip applications and BlueCore2-Headset Extra is no exception. It provides on-chip support for the following Bluetooth profiles:

Headset Profile is supported in virtually all Bluetooth enabled mobile phones. This ensures the maximum potential market for customer headsets.

Hands-free Profile provides additional features such as last number redial when connected to compatible phones. BlueCore2-Headset Extra automatically detects the capabilities of the phone and switches between the headset and hands-free profiles.

Reference Design

BlueCore2-Headset Extra comes with a detailed reference design, including schematic, PCB layout (gerbers) and BOM. The layout is extremely compact but contains all the circuit elements required for a complete product.

The design makes use of CSR's latest RF layout, ensuring excellent range and voice quality. Although classified as a Class 2 Bluetooth radio, it will exceed 10m range in most circumstances.

A dedicated chip is used to manage (Li) battery charging. The battery voltage is efficiently reduced to the chip operating voltage (1.8V) by a switch mode regulator to ensure long battery life.

CSR has negotiated extremely attractive prices and terms with approved suppliers for most of the components used in the reference design. Contact your local CSR representative for details.

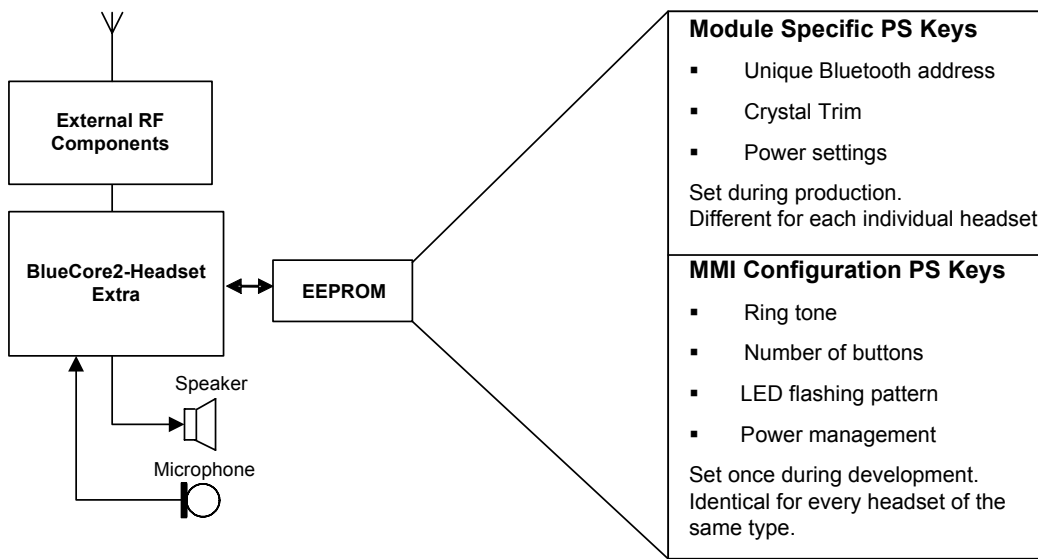


Figure 2: BlueCore2-Headset Extra Software Architecture

Configurable Headset User Interface



Unlike other mask ROM-based headset chips, BlueCore2-Headset Extra allows the user interface to be fine-tuned to meet the requirements of different product lines. Changeable parameters include:

- Number of buttons
- Number of LEDs
- Ring tone
- Battery management
- LED flashing patterns

Such flexibility means that the same basic electronic design can be used in many different products, even if they have radically different physical form factors.

The headset development kit includes a simple Windows® based application to provide configurability. No software development is required.

The only way to ensure high quality is to test both the RF and audio performance of each manufactured headset. However designing an efficient mass production test system for Bluetooth headsets can be complex. Developing test software and cost of test equipment can impact on delivery of product to market.

CSR has developed the TrueTest system to help resolve such problems. TrueTest is a complete test system for Bluetooth headsets based on CSR chips.

Using TrueTest accelerates time to market because there is no need to develop custom testing equipment and software. All of this is available off the shelf from CSR.

TrueTest reduces the cost of the system. Low cost dedicated hardware (available from CSR) replaces traditional RF testing instruments.

Ordering Information

Version	Package	Order Number
BlueCore2-Headset Extra	6 x 6 mm VFBGA (with Pb)	BC213159A16-EK-E4
BlueCore2-Headset Extra	6 x 6 mm VFBGA (without Pb)	BC213159A16-RK-E4
BlueCore2-Headset Extra	10 x 10mm BGA with integrated RF components (with Pb)	BC213159A16-BK-E4

To contact a CSR representative, send e-mail to sales@csr.com or go to www.csr.com/contacts.htm.

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