Changing the way the world connects

Product Brief

BlueTunes2
BlueCore5-Multimedia audio development kit

- **BC5-MM audio development kit contains everything to design superior Bluetooth audio applications**
- **Based on best-in-class BC5-MM single chip Bluetooth audio solution**
- **On-chip audio codec, 64MIPS DSP, Bluetooth radio, SMPS and battery charger**
- **Superior audio performance and long battery life**
- **< 50 BOM count for low cost and small PCB footprint**

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The BlueTunes2 development kit contains everything 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: BlueCore5-Multimedia. The BC5-MM chip offers best in class performance with an integrated 64 MIPS DSP, audio codec, SMPS, battery charger and Bluetooth radio, thereby enabling advanced and ultra-compact stereo and mono headset solutions with less than 50 external components. Users can start evaluating straight away as the BlueTunes2 kit comes pre-loaded with stereo headset application software, including CVC echo and noise cancellation.

Along with CSR's BlueLab 3.6 software development suite and the CSR headset configurator tools (available separately) the development kit provides a very flexible and powerful development platform for designing advanced, high-quality, Bluetooth stereo and mono headsets based on the BlueCore5-Multimedia single chip Bluetooth audio solution.

A wilde range of 3rd party software is available for the BC5-MM's open platform Kalimba DSP through CSR's eXtension software partner program. Extra features provided by eXtension partners include single and dual microphone echo cancellation and noise reduction, music enhancement and speech processing. See **www.csr.com/eXtension** for details.

Key Features

- Complete Bluetooth audio solution
- Pre-loaded stereo headset application including single microphone CVC echo/noise cancellation
- Wide range of 3rd party DSP software available through eXtension partner program.
- Support for SBC, MP3 and AAC audio formats
- Hardware and software to support simultaneous music and voice calls from phone or VOIP
- Fully qualified Bluetooth v2.0+EDR system with support for A2DP and AVRCP profiles
- -95dB SNR integrated stereo CODEC
- Integrated 64 MIPS Kalimba DSP Co-processor for advanced audio processing schemes through eXtension program
- Integrated switched-mode regulator and battery charger
- 32Mbits external Flash

Key Applications

- High quality stereo headsets
- Low-cost stereo headsets
- High quality mono headsets
- Single and dual mic echo and noise cancellation
- Hands-free car kits
- Wireless speakers
- VOIP phones
- Analogue and USB multimedia dongles

Bluetooth®

BlueTunes2 audio development kit contents

BC5-MM Stereo headset application board

This board features the latest CSR BlueCore5-Multimedia Bluetooth audio solution. It interfaces with stereo headphones and microphones and has flexible LED and push-button assignments. Battery current measurements can be carried out with a standard multimeter, and a PIO header allows for connection of further application hardware, such as displays.

Analogue Audio Adaptor board

The analogue audio adaptor board has a 3.5mm jack input for connection with analogue audio sources such as MP3 players or radios. This board will stream stereo audio from these sources over Bluetooth to A2DP Bluetooth audio sinks, such as the BC5-MM Stereo headset application board.

VOIP & Music USB dongles

The BlueTunes2 kit comes with USB music and VOIP dongles for streaming music or VOIP voice calls (Skype) from a PC over Bluetooth.

Headset, cables and quick-start guide

Included in the kit are a pair of high-quality stereo headphones with microphones as well as a quick-start guide, cables and programming hardware.

Applications

The BlueTunes2 boards come preloaded with firmware and application software for rapid evaluation of the following user scenarios:

Streaming of high-quality stereo audio over Bluetooth:

- From Bluetooth enabled phone or music player
- Using analog audio Bluetooth adaptor board
- From a PC using included USB Multimedia Bluetooth dongle

Take calls whilst streaming music from:

- Bluetooth enabled phone
- Skype VOIP network using included USB VOIP dongle

Software and support

Please visit **www.csrsupport.com** for the latest support documentation, software and firmware.

Turn-key mono and stereo headset designs with configuration tools are available from CSR. Please visit **http://www.csr.com/development/bc_headsets**

Ordering Information

Description	Features	Order Number
BlueTunes2 Development Kit	Development system for Bluetooth stereo headset and other advanced audio applications using BlueCore5-Multimedia	BTN-002-2A

- Buy online at **www.csr.com/order**

- Or contact your local CSR distributor, see **www.csr.com/distributor**

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