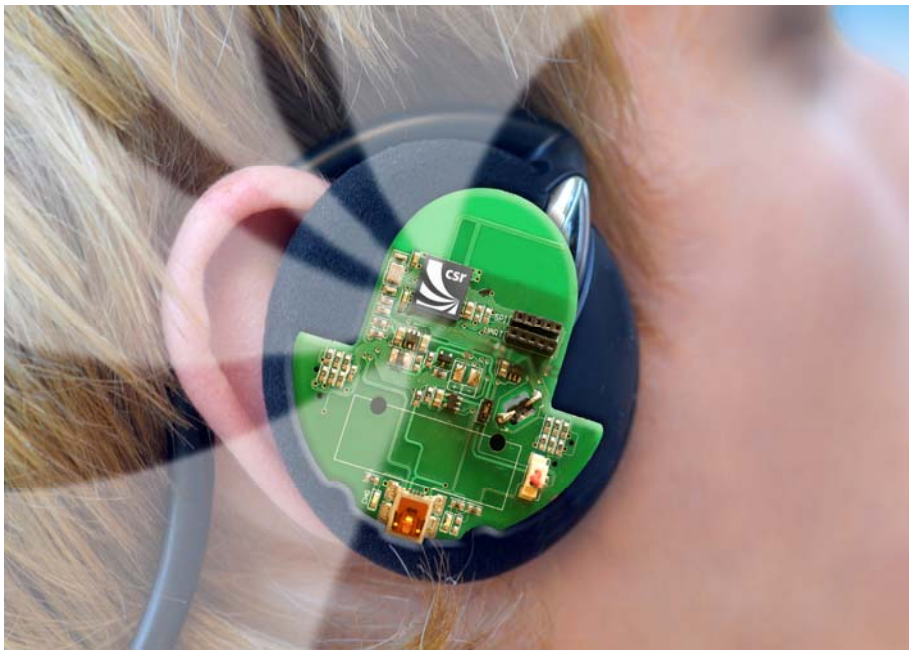
BlueTunes1 Solution for Stereo Bluetooth Headsets



CSR: The World Leader in Bluetooth

CSR's BlueCore solutions are used in 85% of all Bluetooth audio products. CSR has been consistently first to market with all new versions of the standard:

- 1st to market with single chip CMOS radio
- 1st to market with BT 1.1 compliant radio
- 1st to market with BT 1.2 compliant radio
- 1st to market with BT 2.0 compliant radio
- 1st to market with EDR
- 1st to market with a DSP based audio solution

Clear Voice Capture

Customers expect Bluetooth stereo headsets to support voice calls but achieving good voice quality is a big challenge in devices designed primarily for music playback. CSR's cVc technology, included as standard in BlueTunes1, provides outstanding voice quality, even in noisy environments

- Less than 95mW power dissipation when streaming audio
- Support for MP3 to improve range and reduce current consumption in the music player

  Note: Headsets that do not support MP3 drain the batteries in the music player fast.
- Enhanced data rate (EDR) to improve range and reduce current consumption
- Full support for simultaneous music and voice calls
- Internal stereo codec to reduce BOM
- Reference design with less than 30 external components
- cVc for outstanding voice quality, even in noisy environments
- eSCO for improved voice link reliability
- Bluetooth A2DP profile for streaming music
- Bluetooth AVRCP profile: control the music player from the headset
- Bluetooth Headset and Hands-free profiles for interoperability with all Bluetooth phones
- Total electronic bill of material of less that $8

MP3: Why is it Important?

Supporting MP3 in a Bluetooth stereo headset reduces current drain in the music player. Many end-users store their music collection as MP3, by far the most popular compression standard. When connected to a headset based on BlueTunes the music player can simply transfer these files directly over the Bluetooth link.

Many non-BlueTunes based headsets support only the basic SBC compression scheme. End-users do not store their music collections in this format. As a result the music player has to convert files from MP3 to SBC before streaming out to the Bluetooth headset.

Converting between different file formats (known as transcoding) is a computationally intensive task. The player has to uncompress the MP3 file and then recompress it using the SBC standard. This is no problem for a mains powered PC with a large processor, but for many small battery powered devices it presents a huge challenge.

At the very least transcoding consumes a large amount of additional power. This greatly reduces the battery life of the player, which could cause the end-user to be dissatisfied with their headset.

In some cases the player simply cannot handle the additional processor load, meaning that end-users are forced to convert their music collection to SBC, a long process that results in a reduction in music quality.

In addition, MP3 needs a much lower datarate than SBC for the same music quality. With less data passing between the player and the headset the link is more reliable, leading to an increase in the effective range of the headset.

All in all, support for the MP3 standard is essential for all mainstream wireless headphones.

Take the next step: purchase the BlueTunes development and start streaming!

Audio Solution	Features	Price	Part Number
BlueTunes1 Development kit	• A stereo headset reference design development board • A NanoSira Multimedia USB dongle allowing plug and play music streaming from any PC • Access to software, reference designs and other useful material in the BlueTunes1 area of www.csrsupport.com • Cables, documents, tools and everything else you need to start developing stereo headsets	**$500**	**BTN-001A**

For CSR contact information see http://www.csr.com/contacts.htm

For the location of your local CSR stockist see http://www.csr.com/distributor.htm