



BLUETOOTH® WIRELESS AUDIO PROCESSOR

FEATURES

- Single-chip Bluetooth device for wireless audio applications
- Powerful on-chip ARM7TDMI™ CPU capable of running from 12 MHz to 48 MHz
- Integrated 64 kB on-chip SRAM enabling simultaneous management of Bluetooth and audio algorithms
- BT1.2 compliant including support for adaptive frequency hopping and fast connection
- Bundled with production-proven stereo software suite for mono and stereo headsets
- Available in 100-ball LTCC BGA package with integrated RF eliminating the need for external matching circuits

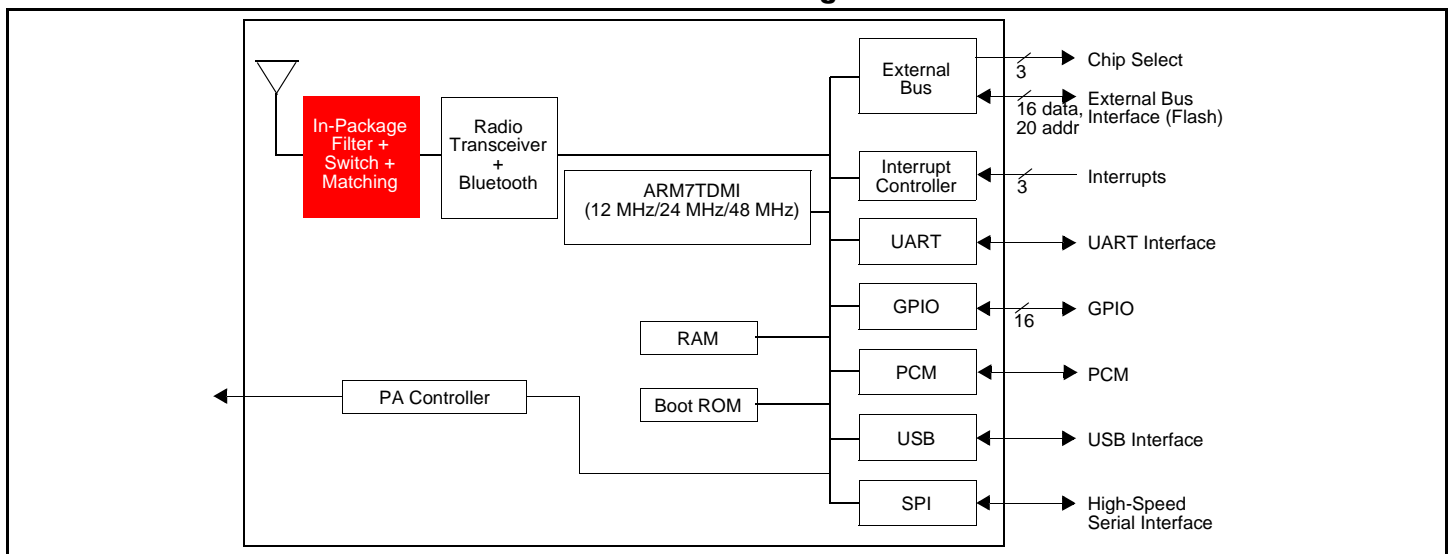
SUMMARY OF BENEFITS

- **Low-cost, high-quality solution for stereo audio applications**
 - Single-chip Bluetooth transceiver that manages Bluetooth, man-machine interface, and audio compression algorithms
 - Eliminates the need for external DSP for algorithms
 - Direct connection to high-quality stereo codecs providing superior digital stereo audio quality rivaling compressed audio over wire
- **Low power consumption provides greater than eight hours of stereo playback.**
- **Robust solution incorporating adaptive frequency hopping eliminates interference within the 2.4-GHz band while ensuring coexistence with WLAN.**

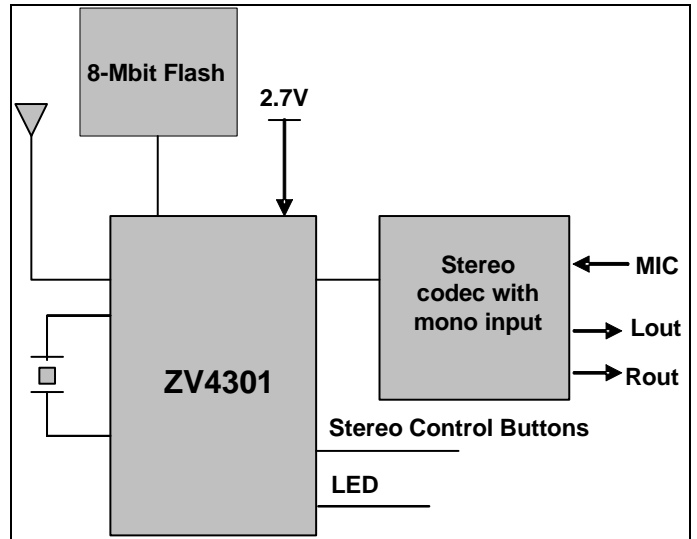
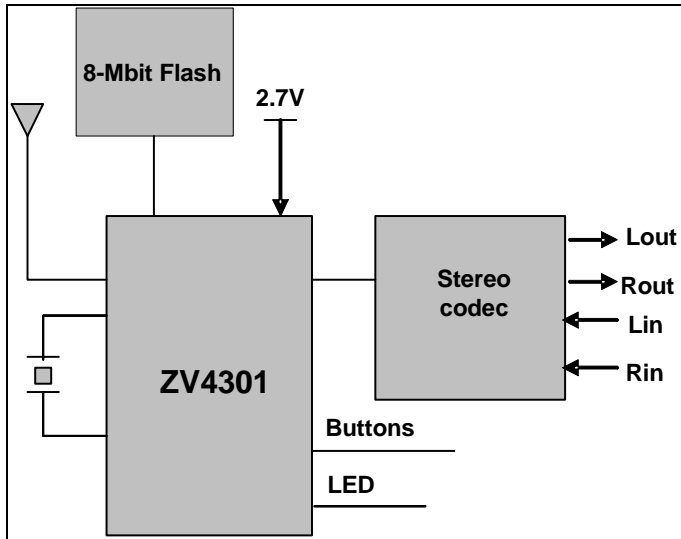
APPLICATIONS

- Wireless stereo headphones
- Wireless stereo headsets
- Line-in adaptors
- Plug-n-play USB dongles

ZV4301 Block Diagram



OVERVIEW



ZV4301 Stereo Headphone & Line-in Adaptors

The ZV4301 enables a low-cost, low-power stereo headset solution by eliminating the need for external circuitry such as programmable DSPs commonly used for audio compression. Used in conjunction with a high quality external stereo codec, the ZV4301 solution delivers end-to-end streaming digital stereo at near CD quality. In addition, support for the remote control profile allows the headphone to control a remote player providing another feature benefit over other wireless audio solutions.

The ZV4301 solution enables unmatched time-to-market by bundling in a complete production-ready, qualified software package including application, Bluetooth profiles and protocol stack. These features make the ZV4301 ideal for enabling wireless stereo from a variety of existing sources including stereo enabled cellular phones and portable players.

By combining a ZV4301 stereo enabled headphone with companion adaptors based on the ZV4301, existing audio devices can be instantly transformed into wireless solutions allowing consumers to enjoy an untethered music experience using their existing audio devices.

ZV4301 Stereo Headset Diagram

The ZV4301 can be combined with stereo codecs that also support a mono input. The result is a stereo headset that behaves as stereo headphones during music playback and will also accept incoming cellular phone calls from all major bluetooth-enabled cellular phones.

The ZV4301 stereo headset solution permits the consumer to seamlessly switch over from streaming stereo to an incoming cellular phone. This multimode capability, coupled with high quality digital wireless stereo and remote control capability, dramatically increases consumer value perception over the traditional stereo headphone. The ZV4301 stereo headset solution comes complete with all the software including application, profiles, and protocol stacks required to enable a production-level consumer audio product.

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ZV4301-PB00-R 05/12/05



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