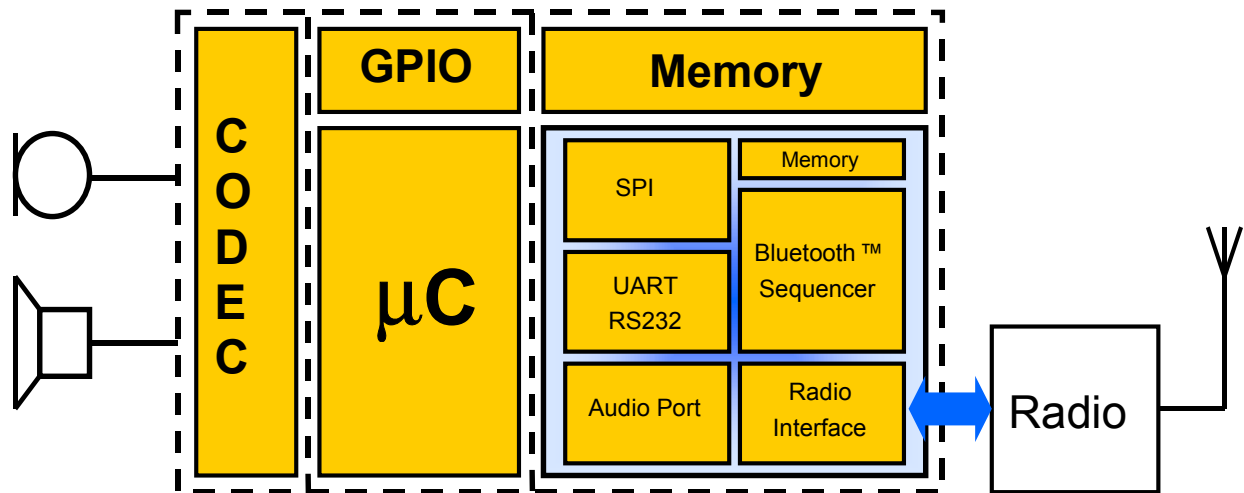




XEMICS

Preliminary Product Brief
XE143x – Bluetooth™ Headset



XE143x

Highly integrated ultra low power Bluetooth™ headset solutions from XEMICS

General Description

The XE1400 series is a family of highly optimized Bluetooth™ integrated circuits. The XE1400 series offers generic Bluetooth™ baseband solutions to enable your battery operated applications with the Bluetooth™ wireless communication standard in the worldwide available 2.4 GHz ISM band.

The upcoming XE143x series of products will additionally include an on-chip voice CODEC as well as an application controller. This product series is highly optimized to serve all kind of Bluetooth™ headset applications. All devices are designed for ultra low power consumption as well as low cost.

The intention of the XE143x series is to offer a very high level of integration requiring a minimum of external components to build up a complete Bluetooth™ wireless headset.

By combining one of our Headset specific Bluetooth™ Baseband Controllers with a 3rd party 2.4GHz radio device (e.g. Conexant CX72303) an ultra low power Bluetooth™ solution can be built consuming less than 20mW @1.8V (HV3).

Applications

- Bluetooth™ headset
- Cell phones
- General wireless human interface applications.

Product Features

- Highly integrated Bluetooth™ headset baseband solution including voice CODEC.
- Fully integrated lower layer Bluetooth™ protocol, compliant to revision 1.1
- Built in upper protocol and application layer
- Embedded CODEC allows direct connection to the microphone and speaker.
- Supports simultaneously one SCO (HV, DV packages)
- Supports various Bluetooth™ radio interfaces, e.g. Conexant CX72303.
- 13 MHz or 16 MHz clock sources supported.
- Small form factor.
- Operating voltage 1.8V.
- Ultra low power consumption.

Cool Solutions for Wireless Connectivity

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Headset controller IC

The Bluetooth™ Headset Controller IC series, XE143x, includes the XEMICS Bluetooth™ baseband Controller, the XEMICS CODEC as well as a micro-controller for upper layer Bluetooth™ and application software.

The on chip application controller is based on XEMICS' proprietary micro-controller, the CoolRISC™. The embedded controller operates totally independent from the Bluetooth™ sequencer.

The on chip voice CODEC enables a complete headset solution with only a few external components.

Software

Some devices of XE143x series even incorporate the complete Bluetooth™ protocol stack software.

State of the art Development Tools will be provided by our partners to program and configure the target devices.

Radio

The XE143x devices will supports several 3rd party radio devices. To benefit most from the low power features of the baseband chip, XEMICS recommends the Conexant CX72303 Bluetooth™ transceiver.

Reference Design

XEMICS will offer reference designs demonstrating the XE143x technology and a way to implement it into a Bluetooth Headset application.

The OEM will then be able to focus on design integration rather than complex product development.

XEMICS customization service

In the extremely dynamic business of wireless communications XEMICS fully understands our customer needs to further optimize their Bluetooth™ solutions. To support our clients in bringing the most competitive Bluetooth™ headsets onto the market; XEMICS offers to customize the fully embedded software as well as peripherals according to your needs.

Out of a great variety of existing SC building blocks the most optimized system configuration, in terms of cost, size and performance can be defined. Existing building blocks can be used for fast prototyping and system verification.

Circuits availability

For further information about the availability of our XE143x catalogue products or customization service, please contact our local representatives or mail directly to: bluetooth@xemics.com

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