

KLR3012

Fully-Integrated, Wireless Audio Transceiver Based on Klear® Technology



SMSC's KLR3012 wireless audio transceiver is designed to transmit lossless CD-quality digital stereo audio over a robust, 2.4GHz radio link while consuming minimal power — making it the technology of choice for battery-powered and line-powered audio sources and receivers. The KLR3012 delivers RF connectivity between products in a variety of markets including portable and home audio. Additionally, SMSC's TrueAuto™ automotive-grade KLR83012 device is expected to be available in 2011.

Highlights

- Fully-integrated, 2.4GHz KlearStream™ radio architecture
- Industry-leading low power consumption
- Industry-leading WiFi® coexistence
- 10–25m range with integrated 1.5dBm PA
- 16-bit, 44.1kS/s stereo audio throughput
- Standard Inter-IC Sound (I²S) digital audio interface
- KlearControl™ technology controls connectivity, audio volume and music playback
- ListenIn™ technology allows multiple users to share a single music source
- Integrated microcontroller to manage buttons, LEDs and external devices
- Integrated LDO and Power-On-Reset (POR)
- Integrated battery voltage monitor and audio activity monitor
- Configurable firmware
- Host control interface (optional)
- KlearCertified™ program to guarantee interoperability

Target Applications

- Earphones
- Headphones
- Speakers
- Portable Audio/Media Players (PAPs/PMPs)
- Laptops
- Home Stereo/Theater Systems
- Home Theater-In-A-Box (HTIB)
- Televisions
- Set-top Boxes (STBs)
- USB Adapters
- SPDIF Adapters
- iPod®/iPhone® Adapters
- Headphone Jack Adapters
- Gaming Systems
- Automotive Infotainment Systems

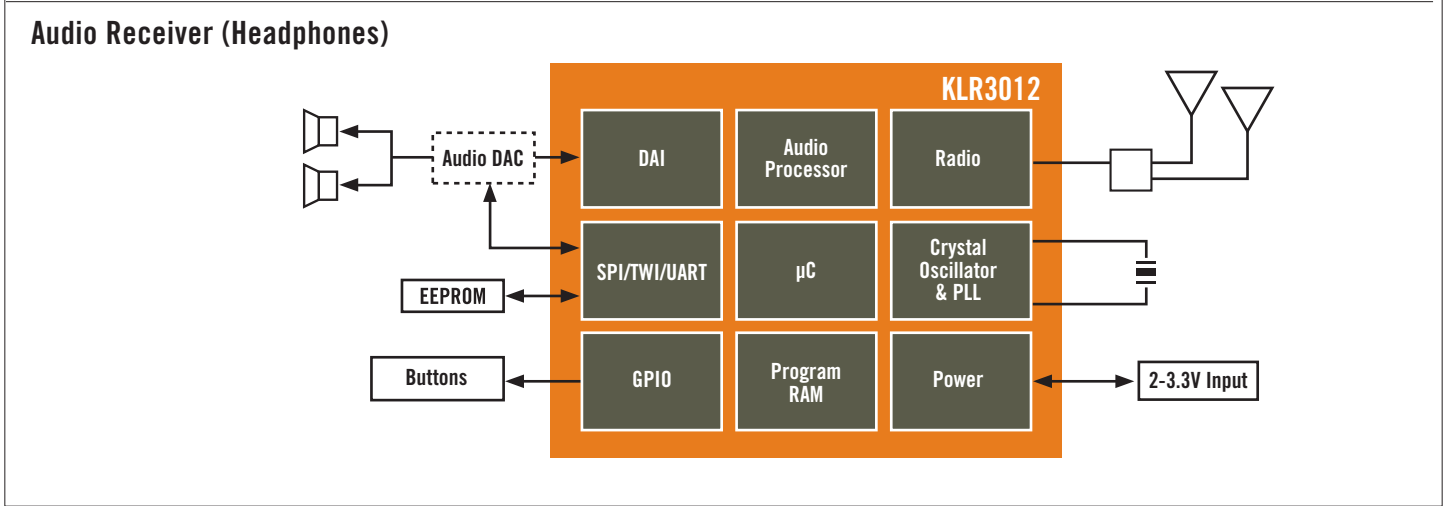
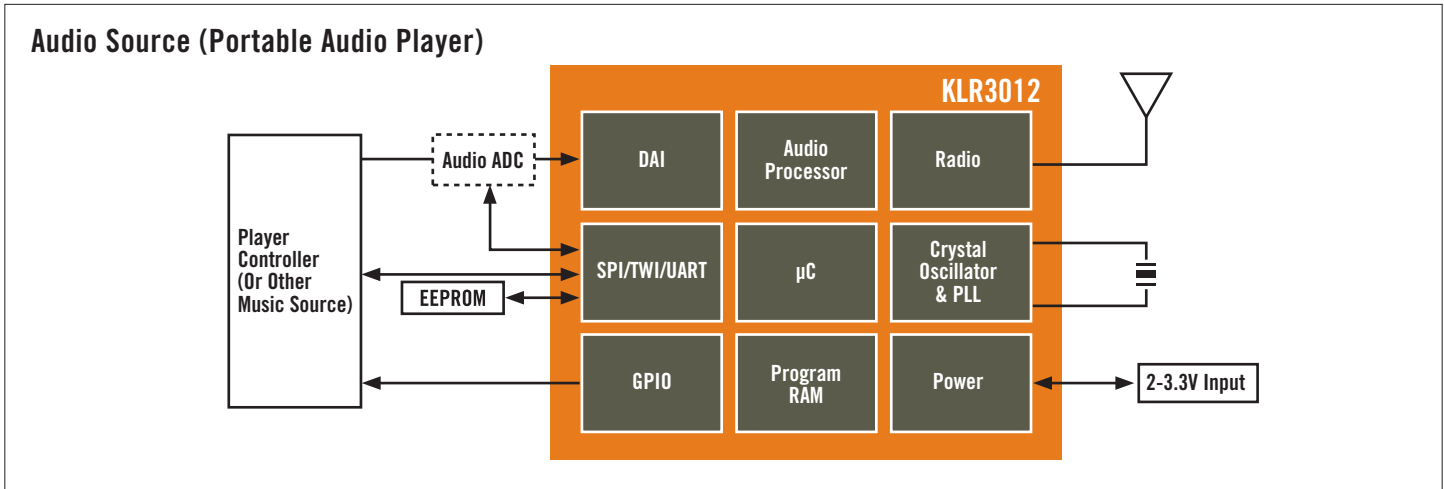
Key Features

Benefits

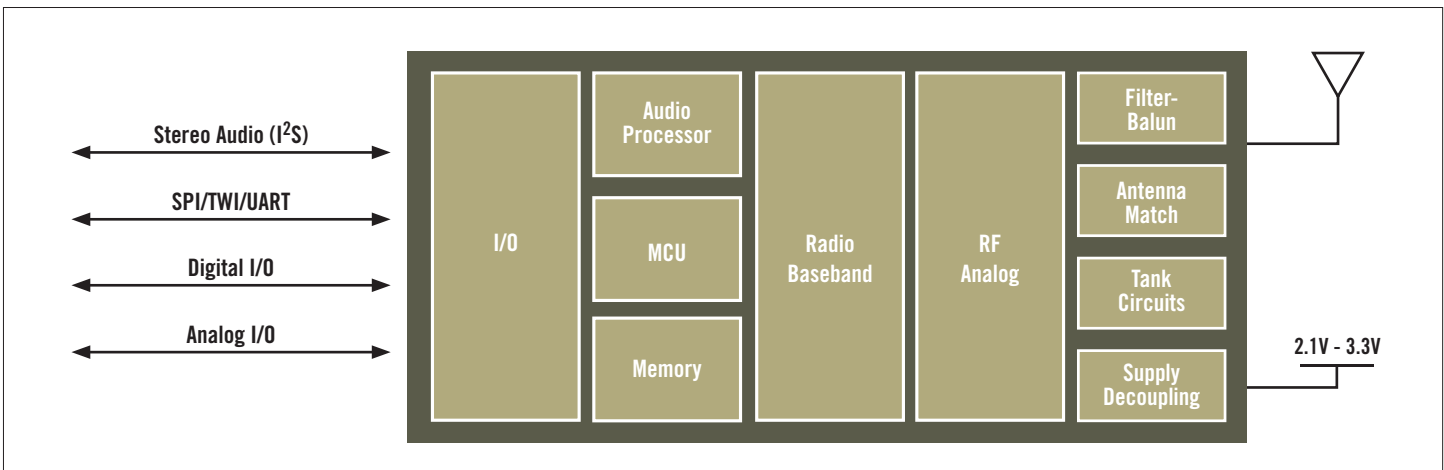
KlearStream Radio Architecture and Protocol	Fully-integrated 2.4GHz RF and baseband reduces system cost; minimizes need for RF design expertise
Low Power Consumption	Increases battery life; reduces battery size/cost
WiFi Coexistence	Minimizes impact of WiFi on audio; minimizes impact of audio on WiFi throughput
CD-quality Audio	Klear technology can be used in high-end audio systems
ListenIn Technology	Listeners can share single music source; left-right speakers can be untethered
KlearControl Technology	Connectivity and music selection can be controlled from source, receiver or dedicated controller
KlearCertified Interoperability	KlearCertified logo on retail package tells consumer that product will interoperate with all other KlearCertified products



KLR3012 Application Examples



KLR3012 Block Diagram



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