

Product Overview

EZAIRO 7150 SL: Audio Processor, Wireless-Enabled DSP for Hearing Aids



For complete documentation, see the data sheet.

Enabling wireless connectivity in hearing aids, Ezairo® 7150 SL is an open-programmable DSP-based hybrid module that supports Bluetooth® low energy technology and other 2.4 GHz wireless protocols.

What's Included in Ezairo 7150 SL

Ezairo 7100 Digital Signal Processor (DSP): Includes a high precision, quad-core architecture that delivers 375 MIPS without sacrificing power consumption.

Radio IC: Powerful wireless transceiver to support Bluetooth low energy technology and proprietary 2.4 GHz protocols

EA2M: 2 Mb EEPROM memory for storing important hearing aid parameters and firmware

Development Tools

Ezairo Preconfigured Suite

Open-Programmable Evaluation & Development Kit (EDK)

To access Ezairo-based development tools, please contact your Sales Representative or Authorized Distributor.

Features

- **Advanced Wireless Functionality:** Supports Stereo Audio Streaming, Control Over Bluetooth Low Energy (CoBLE). Wirelessly control hearing aid features from smartphones, and stream audio from external sources (e.g., smartphones, televisions) through a remote dongle.
- **Ultra-Low Power Consumption:** 1090 μ A while running the Ezairo Pre Suite firmware bundle at 10.24 MHz with all algorithms active.
- **Ultra-Miniature:** Integrates Ezairo 7100 DSP, radio IC, 2 Mb EEPROM memory, and necessary passive components into one single hybrid module to minimize overall system size.
- **Flexible Programmability:** Open-programmable DSP-based system can be customized to the specific signal-processing needs of any manufacturer. Modify or add new algorithms or features without making changes to the chip.
- **Quad-Core Architecture:** Industry's most integrated, flexible, and power efficient single-chip solution. Features a CFX DSP, HEAR Configurable Accelerator, ARM® Cortex®-M3 processor, and programmable Filter Engine.
- **Ultra-High Audio Fidelity:** Provides 85 dB system dynamic range with up to 110 input signal dynamic range to preserve a more detailed sound.
- **Configurable System Clock Speeds:** Twelve clocking speeds to maximize computing performance versus power consumption.
- **Low Audio Delay:** Programmable Filter Engine supports 0.044 ms audio delay.

Applications

- Wireless Connectivity
- Audio Processing
- Stereo Audio Streaming
- Control Over Bluetooth Low Energy

End Products

- Hearing Aids

For more information please contact your local sales support at www.onsemi.com.

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