

Wireless Dolby® Headphone System *System solutions for digital audio*

Features

- An advanced and robust 48KHz 16-bit 2 channels digital uncompressed audio link powered by FreeSpan™ RF core technology.
- 2.4GHz GFSK wireless link with 8 selectable channels
- Support I2S Digital Input at 32KHz to 48KHz.
- Support DTS, Pro Logic® II, Dolby® Digital 5.1, Dolby® Headphone (DH), Dolby® Virtual Speaker (DVS).
- Support Audio Video Mode Latency (12ms ~ 40ms)
- System designed to conform to various standards such FCC 15.247, ETSI 300-328 and ARIB STD-T66
- Up to 30m indoor range (Line of Sight)
- 6 V DC supply
- Highly integrated, Low BOM cost
- Lead Free and ROHS compliant

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General Description

FreeSystems's Wireless Dolby® Headphone System is designed to transmit both uncompressed CD-quality stereo audio and Dolby® headphone virtualization. This high performance system can support multiple wireless headphones or speakers that are integrated with FS2207L modules.

By leveraging on FreeSystems' existing and already qualified hardware and DSP firmware, this off-the-shelf product aim to help CE manufacturers to realize their wireless audio products or applications rapidly, without the need to understand RF or develop any embedded firmware.

The transmitter comes with advanced input selection options:

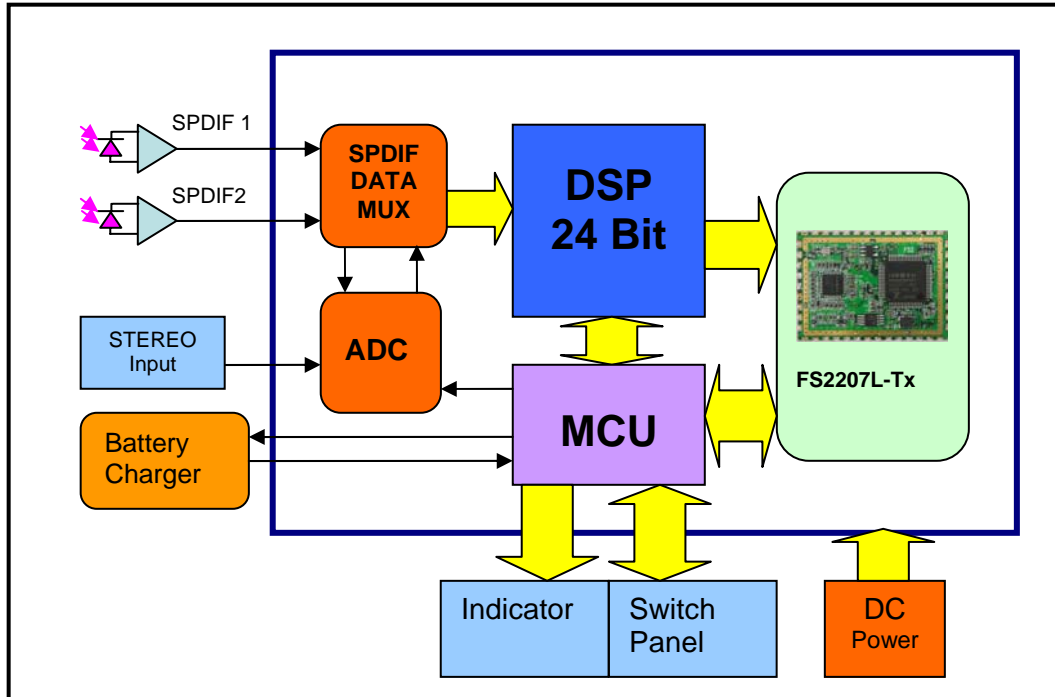
- Pro Logic® II mode control (Movie/Music/Off)
- Multiple input sources (Analog, SPDIF1 or SPDIF)
- Analog level input (1 or 2Vrms)
- Anti-interferences level
- Wireless headphone or wireless speaker mode
- RF channels or ID Train.

In added to that, the system will trigger an auto power off sequence when it can't detect any signal and then perform a total system shutdown when no further audio source is detected.

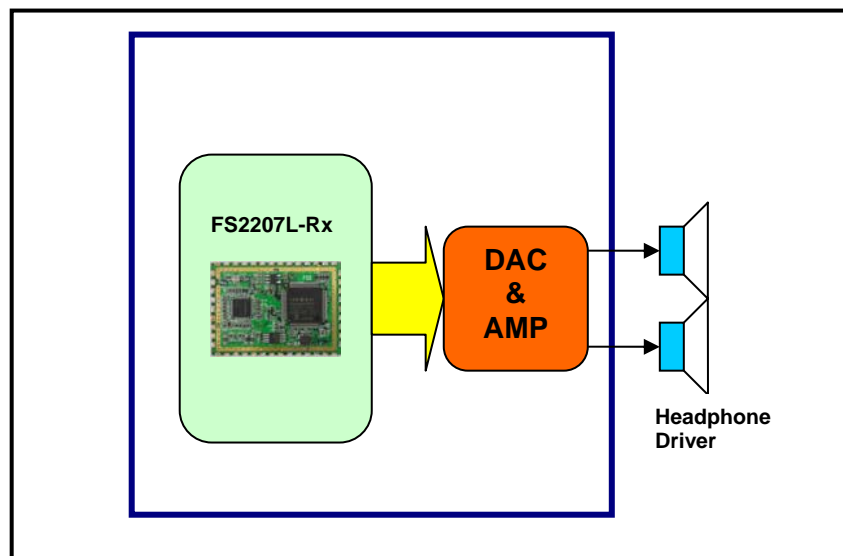


Block Diagram

Wireless Dolby System Architecture (Transmitter Module)



Wireless Headphone Architecture (Receiver Module)



Wireless Dolby® Headphone System

System solutions for digital audio

Benefits

- **Proven solution** → low risk.
- **Cost effective solution** → reducing time to market and internal costs.
- **“Drop-in” modular design** → easy integration.
- **Conform to Dolby standard** → reduced time/cost for Dolby certification

FreeSystem Advantages

FreeSystems has vast experience in developing RF and Baseband ICs as well as designing full wireless audio systems. With the know how in RF technologies, Digital Signal Processing and audio processing algorithms, FreeSystems had developed a unique set of core competencies in

- RF, Antenna design and EMI Optimization
- System Architecture and Design
- Signal Processing
- Design for Manufacturing

Typical advantages of FreeSystems products include:

- High quality mass production capability
- Industry endorsed **Freespan™** core technology
- Support for all current and emerging international standards.

About FreeSystems

FreeSystems Pte Ltd was incorporated in June 1999. The company provides both Infra Red and RF wireless digital audio solutions. FreeSystems has strong IP portfolio of more than 48 patents filed, issued or pending worldwide. Over the years, FreeSystems has also demonstrated the capability and capacity to support major CE customers and technology partners in rapid product realization.

***Note:** Dolby and Pro Logic are registered trademarks of Dolby Laboratories. DTS is a registered trademark of DTS, Inc.*