

FS2207

Advanced Wireless Audio Transmitter/Receiver IC

Features

- An advanced and robust 48KHz 16-bit 2 channels uncompressed digital audio via FreeSpan™ RF core technology
- Integrated baseband supporting transmitter and receiver
 - Advanced ECC with low latency
 - Advanced anti-interference engine
 - Advanced muting management
 - Jitter reduction management
 - I²S digital interface
 - System power management
 - Patented receiver dual antenna diversity support
 - Receiver auto-scanning support
 - Virtual keys support
- 3.3V supply
- Lower power consumption
- Supports RF wireless transmission at 2.4GHz ISM bands
- Support transceiver mode
- Fine pitch 64-pin LQFP package
- Lead Free and RoHS compliant

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General Description

FS2207 can be configured either at transmitter or receiver mode.

The transmitter sub-system consists of one stereo ADC should the input be analog, a FS2207 configured in the transmit mode, and a suitable RF back end (e.g. FS2251-T).

The receiver sub-system consists of one stereo DAC should the output be analog, a FS2207 configured in the receive mode, and a suitable RF front end (e.g. FS2251-R).

The system allows programmable power management to conserve power especially in the battery operated solutions. Advanced muting is implemented by FS2207 to offer pleasant audio experience to the users.

Control signals can be transmitted or received via virtual keys.

A serial EEPROM data interface allows customization and configuration of the specific function of the FS2207 device and it exists in both the transmitter and receiver mode.

Applications

Low cost/High performance wireless audio solutions such as

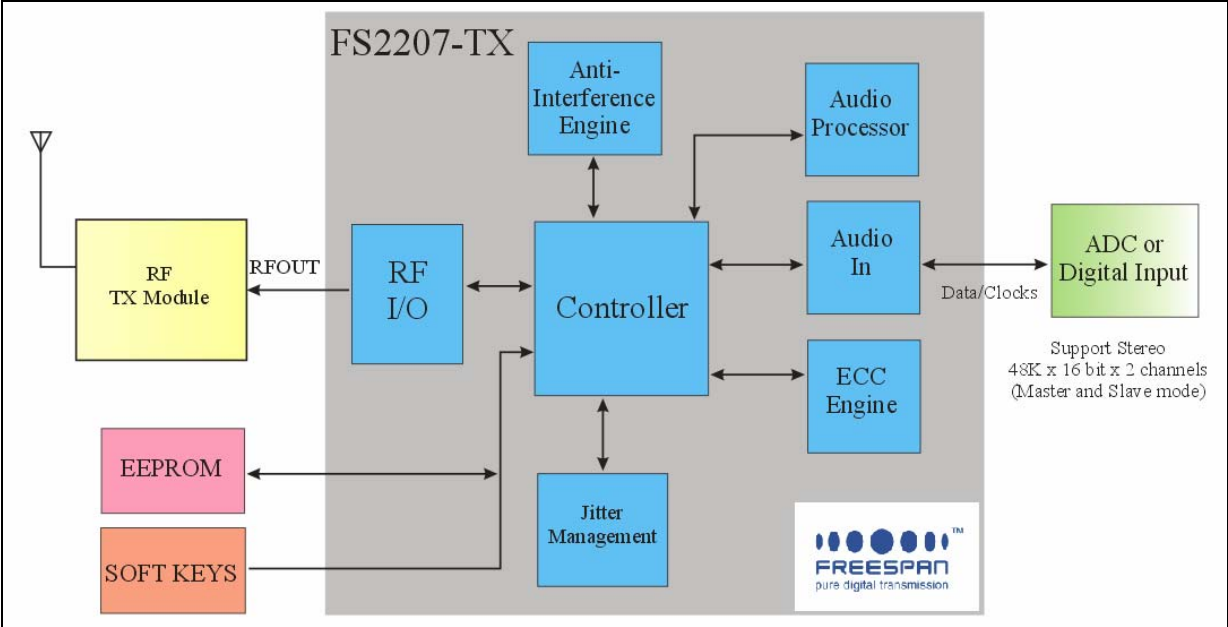
- Wireless Home Entertainment System
- Wireless Automotive Applications
- Personal Digital Entertainment devices such as MP3 Player or PMP



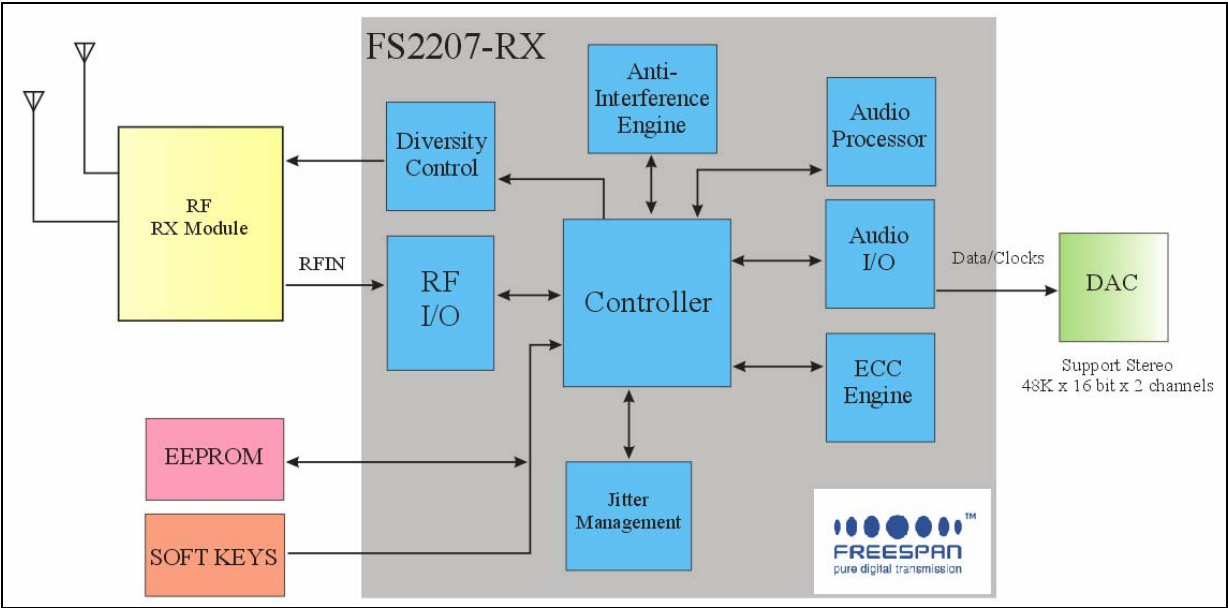
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Block Diagrams



Transmitter Sub System Block Diagram



Receiver Sub System Block Diagram

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Benefits

- **Proven IC solution** → 4th Generation technology
- **Cost effective** → reducing time to market.
- **Low power** → ideal for battery powered applications

FreeSystem Advantages

FreeSystems has vast experience in developing RF and Baseband ICs as well as designing full wireless audio systems. With 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.