



nRF2471™

A complete 4Mbit/s digital 2.4GHz wireless audio streaming device in a 6x6mm package



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nRF24Z1™

A complete 4Mbit/s digital 2.4GHz wireless audio streaming device in a 6x6mm package

nRF24Z1™ is a unique single chip solution for wireless streaming of crystal clear CD quality stereo audio up to 16-bit 48 kspl/s without using any compression. The nRF24Z1 also features input support of up to 24 bit 96 kspl/s. Operating in the global 2.4GHz band the nRF24Z1 offers unrivalled performance and integration coupled with an ultra low solution cost. Based on the Nordic MegaZstream™ architecture the nRF24Z1 provides all Quality of Service (QoS) needed through the use of extensive on-chip hardware and firmware resources, to ensure high quality transmission of audio. In addition to streaming audio up to 4Mbit/s the nRF24Z1 also boasts a digital control information channel for transfer of control information such as volume, balance and display information. Using industry standard I2S and S/PDIF interfaces for audio, the nRF24Z1 can interface without glue logic to virtually any digital audio source, or external industry standard low cost A/D and D/A converters for analog audio input and output. Control information uses SPI or 2-wire (I2C compatible).

MegaZstream™ features

- Full Quality of Service (QoS) for fault free reception
- Connect/reconnect supporting different power down modes
- Extensive built in signalling features between master and slave for control of headset/speaker
- Programmable low latency 2-18mS
- Control data stream up to 50Kbit/s bi-directional
- Extremely few external components

Applications

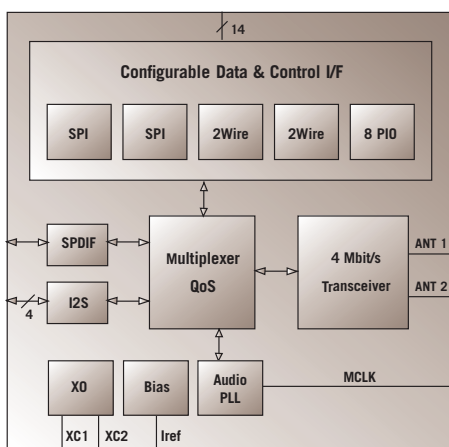
- Compact Disk, CD headset
- Wireless speakers
- Wireless surround speakers
- Audio streaming from PC soundcard to HiFi system
- MP3 audio headset
- Mini Disk, MD audio headset
- Download MP3 files from PC to MP3 player

Wireless features

- 4Mbit/s datarate
- Uses global 2.4GHz band
- Digital modulation
- Advanced frequency hopping scheme for robustness and interference avoidance
- Extremely low peak and average currents for RX and TX

General features

- I2S interface for glueless audio support
- S/PDIF interface for direct connection to PC soundcard and surround receivers
- Input supports audio up to 24 bit 96kspl/s directly
- Output supports audio up to 16bit 48kspl/s directly
- Single chip 2.4GHz RF transceiver, protocol and Quality of Service (QoS) engine
- SPI or 2-wire interface for up to 50kbit/s bi-directional digital control/AUX data
- Up to 4Mbit/s data rate
- Single chip low cost 0.18µ CMOS implementation in 36 pin 6x6mm QFN package
- Extremely few external components
- On chip voltage regulators
- 1.9V to 3.6V supply
- 5 mA average current streaming continuous @ 192kbit/s MP3 data
- 1.5mA average current streaming continuous @ 1.5Mbit/s LPCM data



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