

CMX264

1 December 2017

Frequency Domain Split-band Scrambler IC

The CMX264 is a frequency domain voice scrambler which is used in analogue cellular phone systems and fixed and rolling code voice scrambler applications. It contains separate Tx and Rx paths for full duplex operation and operates under μ processor control via a simple serial interface.

In the Tx path, scrambling is achieved by splitting the audio band into two parts (sub-bands) and frequency inverting each one. Descrambling is achieved by a receive device set to the same split-point as the remote transmitter. The frequency at which the signal is split (split-point), can be fixed or rolling between four settings, via a 4.433619MHz crystal, resulting in a transmitted audio signal that is unintelligible to eavesdroppers.

Therefore, if the Tx and Rx devices are synchronised to the same split-point sequence, a clear recovered signal will emerge at the output of the receiver.

Features

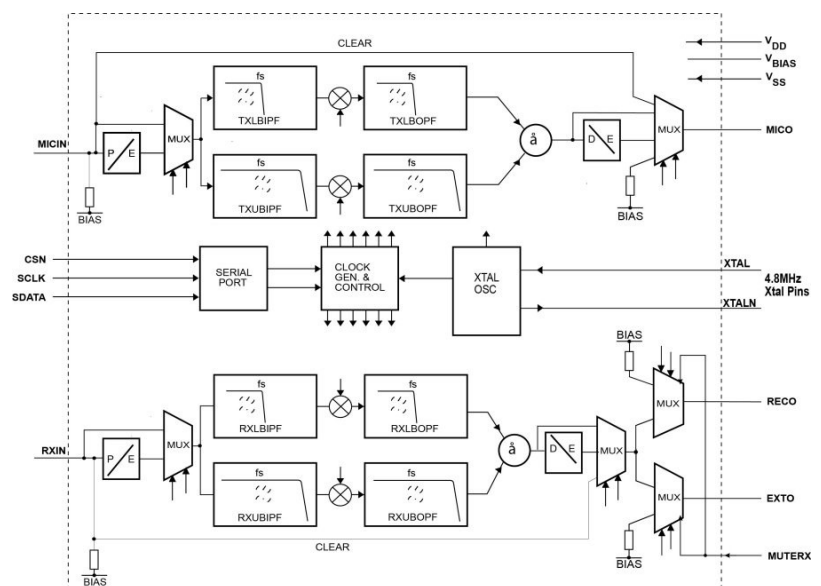
- Full duplex operation
- High recovered audio quality
- Uses split-band inversion
- Fixed or rolling code capabilities
- Simple serial interface
- Low power requirement with standby mode

Applications

- Mobile radio
- Fixed code voice scramblers
- Rolling code voice scramblers

Supply Requirement

- 3.0V



CMX264 Block Diagram



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