CMX649

Adaptive Delta Modulation (ADM) Voice Codec

The CMX649 Adaptive Delta Modulation (ADM) Voice Codec provides full duplex codec functions optimised for cost effective, portable, wireless applications.

Robust ADM coding (CVSD) simplifies protocol and host software design by eliminating the forward error correction and framing protocols required by other codec algorithms.

Integrated filters reduce external components and adjust to match the selected codec sample rate.

Features

- CVSD for Digital Voice Communication
- Adaptive Delta Modulation (ADM)
- Non Linear PCM: μ-Law and A-Law Modes
- 13-Bit Linear PCM Codec
- Programmable Analogue Inputs and Outputs, Time Constants for ADM Codec and Anti-Alias and Anti-Image filters
- Clock and Data Recovery
- Wide Data-Rate Range: 16 to 128 kb/s
- Programmable Voice Activity Detector (VAD)
- Transcoding, internal/external sample clocking and flexible μC interfaces

Applications

- Digital Cordless Headsets and Telephones
- Personal Area Network (PAN) Voice Links
- Wireless Digital PBX
- Full-Duplex Digital Radio Systems
- Time-Division Duplex (TDD) Systems
- Portable Digital Voice Communicators
- Voice Storage and Voice Delay

Supply Requirement

- 2.7 to 5.5V

Independent encoder and decoder powersave controls minimise power for half duplex wireless links.

Baseband interfaces to microphone, loudspeaker, host μC and RF transceiver circuits do not require external transcoders or complex voice frame transfer protocols.

Evaluation and Demonstration:

The DE6491 is a CMX649-based wireless voice link demonstration kit that demonstrates CMX649 ADM Codec IC operation in a low-power, cordless headset application.

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WHAT TO DO NEXT

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CML Microcircuits Benefits

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Developing proven high performance and field tested ASSP ICs, CML is helping engineers to cope with increasing
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