CMX138A

Audio Scrambler and Sub-audio Signalling Processor

The CMX138A is a half-duplex audio scrambler and sub-audio signalling processor for analogue two-way radio applications. This makes it a suitable device for the leisure radio markets (FRS, MURS, PMR446 and GMRS).

This device provides a user programmable frequency inversion audio scrambler with compander and pre/de-emphasis performing simultaneous processing of sub-audio and in-band signalling. Other features include: an auxiliary ADC channel and auxiliary DAC interface (with optional RAMDAC) to facilitate transmitter power ramping. The device has flexible powersaving modes and is available in a 28-pin (E1) TSSOP package.

This product supersedes the CMX138.

Features

- Programmable audio scrambler

- Auxiliary ADC and DAC

- C-BUS serial control/data interface to host µcontroller

- Two analogue inputs (Mic and discriminator)

- Selectable audio processing order

- CTCSS and DCS sub-audio signalling

- Programmable in-band tone encoder and decoder

- Auxiliary system clock output

- Full audio-band processing:

    - Pre and de-emphasis

    - Compander

    - Scrambler

    - Selectable 2.55 and 3.0 kHz filters

- Single-point modulation Tx output

- Flexible powersave mode

Applications

- Leisure radio system:

    - FRS, MURS, PMR446 and GMRS

Supply Requirement

- 3.0 to 3.6V

CMX138A

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