8300 Data Sheet

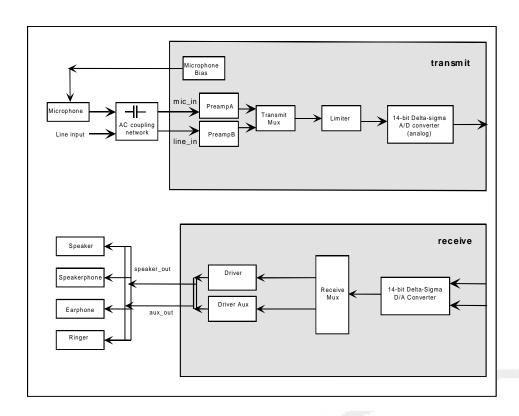


Version 1

8300: 14-Bit Voice CODEC

DESCRIPTION

The 8300 consists of a transmit section that is composed of dual low-noise, programmable-gain microphone pre-amps, a transmit MUX, and a 14-bit Delta-Sigma A/ D converter. The pre-amps amplify the microphone signal to take full advantage of the dynamic range of the following A/D converter and also acts as an anti-aliasing filter before the Delta-Sigma modulator to suppress input bandwidth close to the sampling frequency of the modulator. The receive site of the 8300 involves a digital Delta-Sigma D/A converter followed by a receive MUX and a set of speaker/earphone drivers. These drivers also act as smoothing filters after the switched cap reconstruction filter to further filter-out quantization noise as well as sampling noise. The microphone preamp and speaker driver gains can be programmed internally at startup. All necessary bias circuitry are provided internally.



FEATURES

- G711 and G712 compliant Integrated microphone, pre-amp, and speaker drives
- Dual multiplexed input/output channels
- Low power Delta Sigma based design
- All reference rottage generated internally
- Programmable gain input/output amplifiers

APPLICATIONS

- Cellular telephony
- Multimedia
- Answering machines

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