ChipCorder®
TECHNOLOGY BY ISD

ISD1200 Series

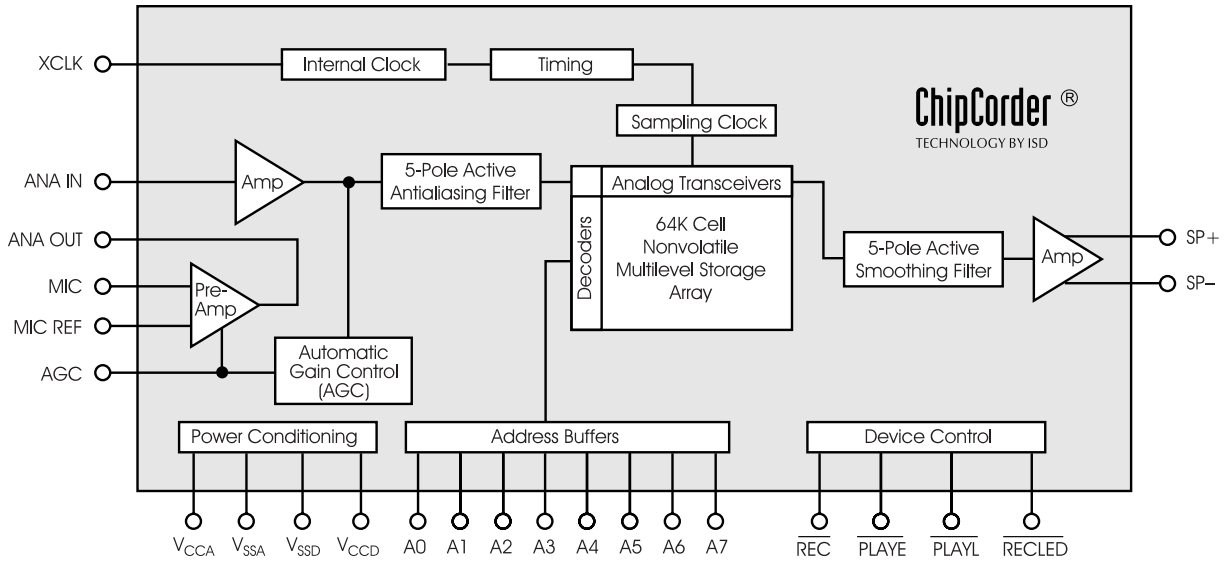
Single-Chip Voice Record/Playback Devices
10- and 12-Second Durations

GENERAL DESCRIPTION

Information Storage Devices' ISD1200 ChipCorder® series provides high-quality, single-chip record/playback solutions to 10- and 12-second messaging applications. The CMOS devices include an on-chip oscillator, microphone preamplifier, automatic gain control, antialiasing filter, smoothing filter, and speaker amplifier. A minimum Record/Playback subsystem can be configured with a microphone, a speaker, several passives, two push-buttons, and a power source.

Recordings are stored in on-chip nonvolatile memory cells, providing zero-power message storage. This unique, single-chip solution is made possible through ISD's patented multilevel storage technology. Voice and audio signals are stored directly into memory in their natural form, providing high-quality, solid-state voice reproduction.

Figure: ISD1200 Series Block Diagram



FEATURES

- Easy-to-use single-chip voice record/playback solution
- High-quality, natural voice/audio reproduction
- Push-button interface
  - Playback can be edge- or level-activated
- Single-chip durations of 10 and 12 seconds
- Automatic power-down mode
  - Enters standby mode immediately following a record or playback cycle
  - Standby current 0.5 μA (typical)
- Zero-power message storage
  - Eliminates battery backup circuits
- Fully addressable to handle multiple messages
- 100-year message retention (typical)
- 100,000 record cycles (typical)
- On-chip clock source
- No programmer or development system needed
- Single +5 volt power supply
- Available in die form, DIP, and SOIC packaging

Table: ISD1200 Series Summary

Part Number	Minimum Duration (Seconds)	Input Sample Rate (KHz)	Typical Filter Pass Band (KHz)
ISD1210	10	6.4	2.6
ISD1212	12	5.3	2.2

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