



ISD2560/75/90/120 Products

Single-Chip Voice Record/Playback Devices

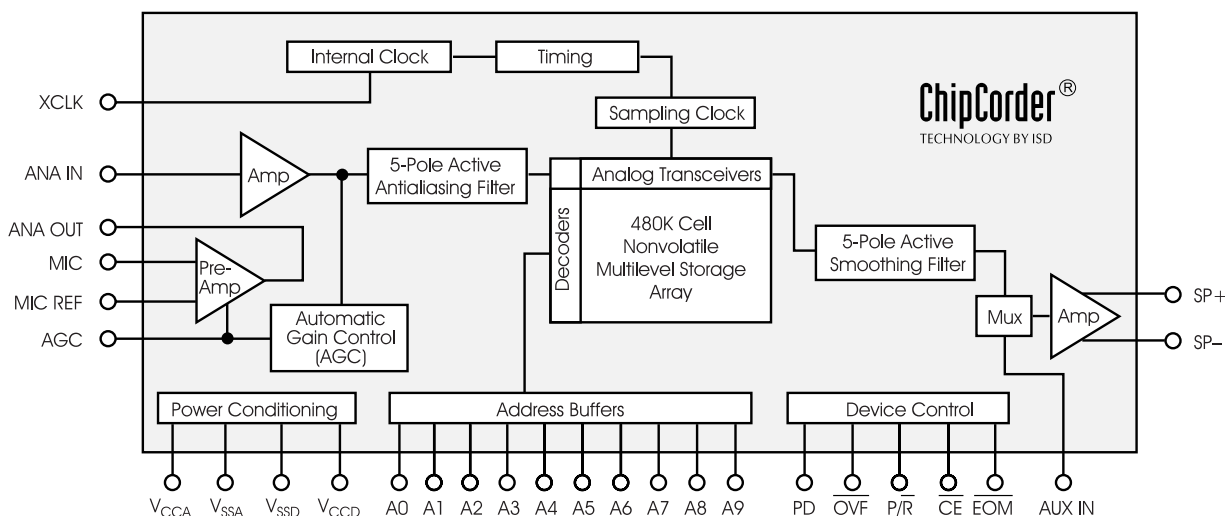
60-, 75-, 90-, and 120-Second Durations

GENERAL DESCRIPTION

Information Storage Devices' ISD2500 ChipCorder® Series provides high-quality, single-chip record/playback solutions for 60- to 120-second messaging applications. The CMOS devices include an on-chip oscillator, microphone preamplifier, automatic gain control, antialiasing filter, smoothing filter, speaker amplifier, and high density multilevel storage array. In addition, the ISD2500 is microcontroller compatible, allowing complex messaging and addressing to be achieved.

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: ISD2560/75/90/120 Device Block Diagram



FEATURES

- Easy-to-use single-chip voice record/playback solution
 - High-quality, natural voice/audio reproduction
 - Manual switch or microcontroller compatible playback can be edge- or level-activated
 - Single-chip durations of 60, 75, 90, and 120 seconds
 - Directly cascadable for longer durations
 - Automatic Power-Down (Push-Button Mode)
 - Standby current 1 μ A (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
 - Programmer support for play-only applications
 - Single +5 volt power supply
 - Available in die form, DIP, and TSOP packaging
 - Industrial temperature (-40°C to $+85^{\circ}\text{C}$) versions available
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Table: ISD2560/75/90/120 Product Summary

Part Number	Duration (Seconds)	Input Sample Rate (KHz)	Typical Filter Pass Band (KHz)
ISD2560	60	8.0	3.4
ISD2575	75	6.4	2.7
ISD2590	90	5.3	2.3
ISD25120	120	4.0	1.7

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