

ISD1400 Series

Single-Chip Voice Record/Playback Devices
16- and 20-Seconds Durations



The ISD1400 ChipCorder® Series provides high-quality, single-chip record/playback solutions to short-duration 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.

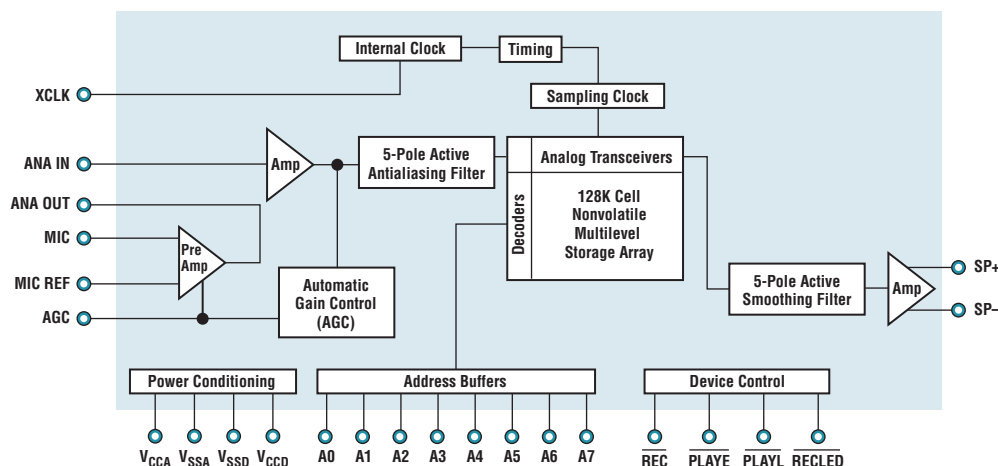
ISD1400 SERIES CAN BE USED IN VARIOUS APPLICATIONS:

- Toys
- Portable recorders
- Point of sale displays
- Promotional items
- Novelties
- Telephone answering machines
- Greeting cards
- Warning signs
- PBXs
- Security systems

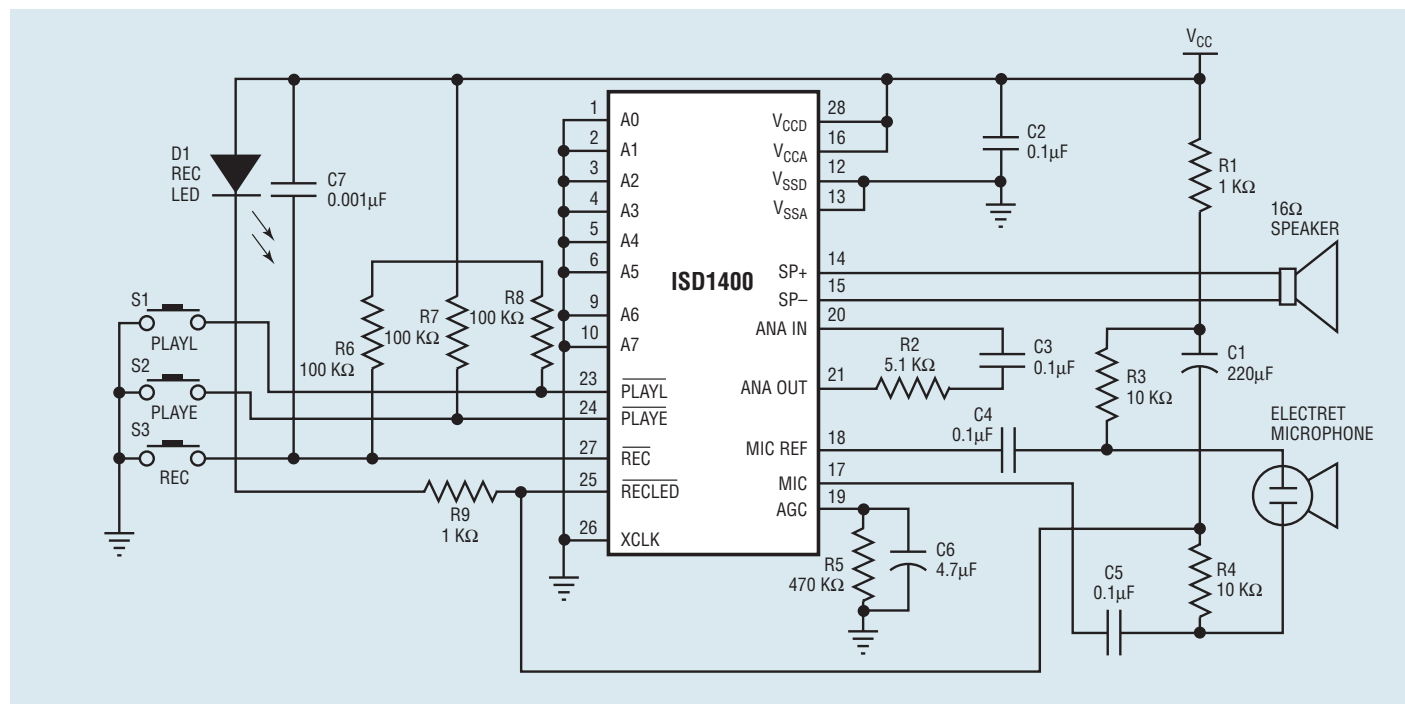
FEATURES

- 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 16 and 20 seconds
- Automatic power-down mode
- Enters standby mode immediately following a record or playback cycle
- Standby current 0.5 μ A (typical)
- Zero-power message storage
- Eliminates battery backup circuits
- Fully addressable to handle multiple messages
- 100-year message retention (typical)
- On-chip clock source
- No programmer or development system needed
- Single +5 volt power supply
- 100,000 record cycles (typical)
- Available in die form, PDIP and SOIC packaging
- Industrial temperature (-40°C to $+85^{\circ}\text{C}$) versions available

ISD1400 SERIES BLOCK DIAGRAM



ISD1400 SERIES APPLICATION EXAMPLE



ISD1400 SERIES PACKAGE AND TEMPERATURE AVAILABILITY

	ISD1416 (16 Seconds)			ISD1420 (20 Seconds)		
	PDIP	SOIC	DIE	PDIP	SOIC	DIE
Commercial Die (0° to +50°)			•			•
Commercial Packaged (0° to +70°)	•	•		•	•	
Industrial (-40° to +85°)	•	•		•	•	

ORDERING THE ISD1400 PRODUCTS

ISD14

Product Series

Duration

Package Type

Special Temperature Field

ISD1400 Series

16 = 16 seconds
20 = 20 secondsP = 28 Lead 0.600-inch PDIP
S = 28 Lead 0.300-inch SOIC
X = DieBlank = Commercial Die
(0°C to +50°C)
or Commercial Packaged
(0°C to +70°C)
I = Industrial
(-40°C to +85°C)ISD and ChipCorder are
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Printed in the U.S.A. ISD1400BP1-699

A Winbond Company

To Order Products or More Information:

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