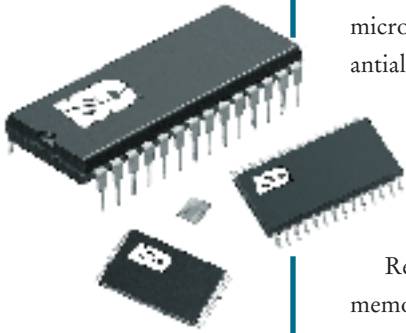




ISD2500 Series

Single-Chip Voice Record/Playback Devices
32-, 40-, 48-, 64-, 60-, 75-, 90- and 120-Second Durations



The ISD2500 ChipCorder® Series provides high-quality, single-chip record/playback solutions for 32- 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.

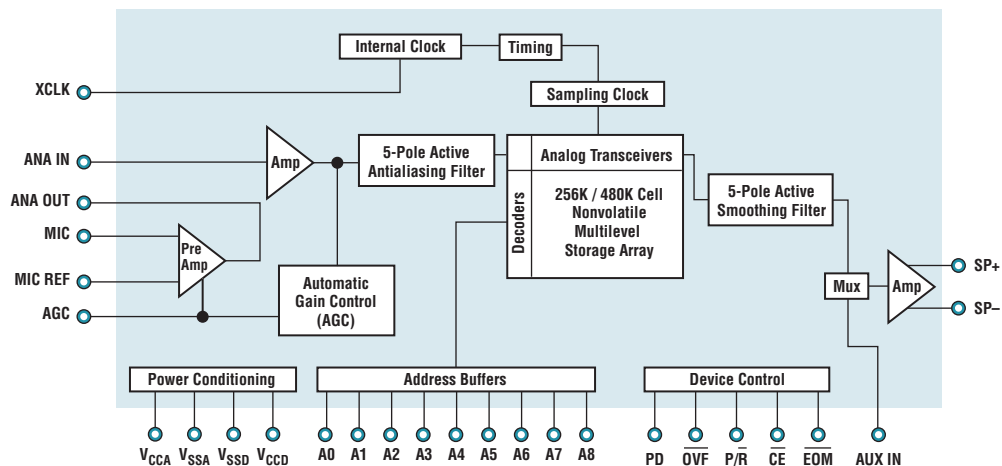
ISD2500 SERIES CAN BE USED IN VARIOUS APPLICATIONS:

- Personal message recorders
- Medical applications
- Caller ID systems
- Point of sale displays
- Announcement systems
- Toys
- Pagers
- Car stereos
- Security systems

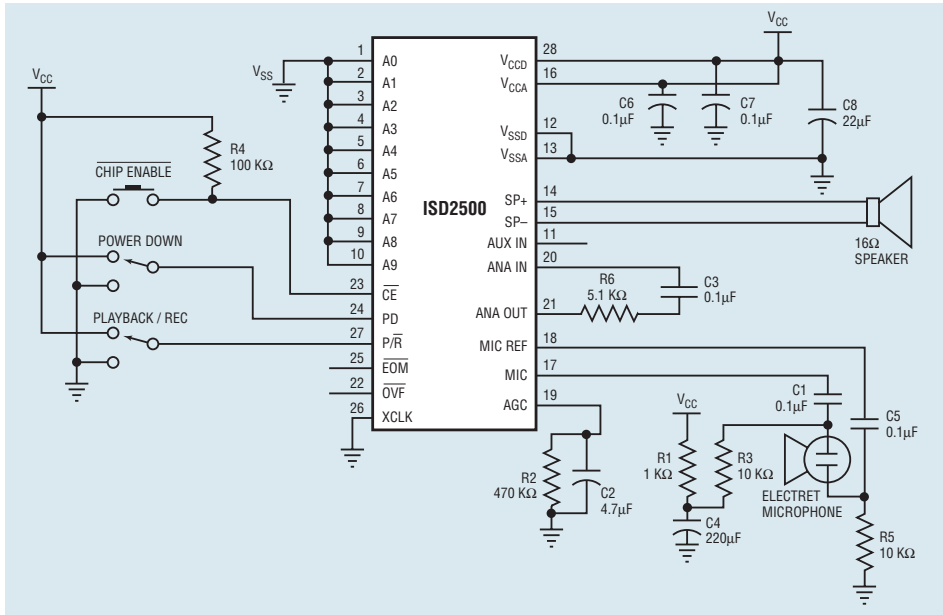
FEATURES

- 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 32, 40, 48, 64, 60, 75, 90, and 120 seconds
- Directly cascadable for longer durations
- Automatic Power-Down (Push-Button Mode)
- Standby current 1µA (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, PDIP, SOIC and TSOP packaging
- Industrial temperature (-40°C to +85°C) versions available

ISD2500 SERIES BLOCK DIAGRAM



ISD2500 SERIES APPLICATION EXAMPLE



ISD2500 SERIES PACKAGE AND TEMPERATURE AVAILABILITY

	ISD2532 (32 Seconds)				ISD2540 (40 Seconds)				ISD2548 (48 Seconds)				ISD2564 (64 Seconds)			
	TSOP	PDIP	SOIC	DIE	TSOP	PDIP	SOIC	DIE	TSOP	PDIP	SOIC	DIE	TSOP	PDIP	SOIC	DIE
Commercial Die (0° to +50°)				•				•				•				•
Commercial Packaged (0° to +70°)		•	•			•	•			•	•			•		
Industrial (-40° to +85°)		•	•			•	•									
	ISD2560 (60 Seconds)				ISD2575 (75 Seconds)				ISD2590 (90 Seconds)				ISD25120 (120 Seconds)			
	TSOP	PDIP	SOIC	DIE	TSOP	PDIP	SOIC	DIE	TSOP	PDIP	SOIC	DIE	TSOP	PDIP	SOIC	DIE
Commercial Die (0° to +50°)				•				•				•				•
Commercial Packaged (0° to +70°)	•	•	•		•	•	•		•	•	•		•	•		

ORDERING THE ISD2500 PRODUCTS

ISD25 -

Product Series	Duration	Package Type	Special Temperature Field
ISD2500 Series	32 = 32 seconds 40 = 40 seconds 48 = 48 seconds 64 = 64 seconds 60 = 60 seconds 75 = 75 seconds 90 = 90 seconds 120 = 120 seconds	E = 28 Lead 8 × 14.4mm TSOP P = 28 Lead 0.600-inch PDIP S = 28 Lead 0.300-inch SOIC X = Die	Blank = 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 registered trademarks of ISD. Printed in the U.S.A. ISD2500PBI-699



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