DALLAS SEMICONDUCTOR

DS2270/E
Speech Recorder Stik

T-77-21

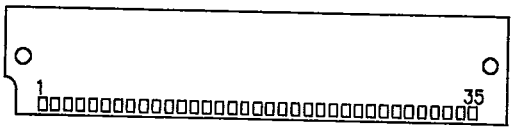
FEATURES

- Solid-state audio recording/reproducing subsystem with DTMF detection/generation
- 50 seconds of recording capacity at 8 Kbps, expandable with external memory
- Selectable record and playback rates from 8 to 32 Kbps
- Uses ADPCM compression/expansion algorithms for high fidelity record/playback
- Digital audio level monitoring
- Instant random-access playback of recorded messages
- Programmable input/output gain for optimum record/playback levels
- Nonvolatile SRAM retains speech data for 10 years (DS2270 only)
- Mates with JEDEC-standard 35-pin SIMM connectors (right angle and vertical)

DESCRIPTION

The DS2270 Speech Recorder Stik is a complete solid-state audio recording/reproducing subsystem that replaces mechanical tape-based recording for embedded applications. An advanced audio compression/expansion DSP engine provides excellent playback quality even at low bit rates. Selectable compression bit rates permit the user to trade off audio fidelity against storage capacity. Gains for the audio input and outputs are software programmable for providing optimum record and playback levels. DTMF detection and generation is also available under software control.

PIN CONNECTIONS



ORDERING INFORMATION

DS2270	64Kx8 onboard SRAM; expandable with external memory.
DS2270E	8Kx8 onboard program SRAM; all speech memory provided externally by user.

A synchronous 3-wire serial interface provides the means for external control by a host microcontroller such as the DS5000 Soft Microcontroller. Speech data can also be loaded or retrieved through this port.

The DS2270 comes standard with 64Kx8 of nonvolatile SRAM which provides up to 50 seconds of speech capacity at a bit rate of 8 Kbps. Additional external memory can be easily attached for increasing the recording time capacity. The DS2270E is a lower-cost version without onboard speech RAM; the user supplies memory using the serial expansion memory port.