MC145541

Product Preview

2 V ADPCM Codec

The MC145541 ADPCM Codec is a single chip implementation of a PCM Codec–Filter and an ADPCM encoder/decoder. This device provides an efficient solution for applications requiring the digitization and compression of voiceband signals. The MC145541 is designed to operate over the voltage range 1.8 to 3.6 V, and is ideal for battery–powered as well as ac–powered applications. The MC145541 ADPCM Codec also includes a serial control port and internal control and status registers that permit a microcontroller to exercise many built–in features. The MC145541 ADPCM Codec is designed to meet the 32 kbps ADPCM conformance requirements of CCITT Recommendation G.721–1988 and ANSI T1.301–1987. It also meets ANSI T1.303 and CCITT Recommendation G.723–1988 for 24 kbps ADPCM operation, and the 16 kbps ADPCM standard of CCITT Recommendation G.726. This device also meets the PCM conformance specification of the CCITT G.714 Recommendation.

The MC145541 package is a 44–pin 10 mm body, Thin Quad Flat Package (TQFP).

- Single 1.8 to 3.6 V Power Supply
- Typical Active Power Dissipation at 3.0 V of 20 mW
- ADPCM Transcoding Rates of 32, 24, and 16 kbps
- Independent Access to the 64 kbps PCM Data
- Complete Mu–Law or A–Law Companding PCM Codec–Filter
- Transmit VOX Function to Determine if Speech is Present
- Comfort Noise Generator for Receive Side
- Receive Noise Burst Detect Circuit
- Universal Dual Tone Generator

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