



# AK2305

## Dual PCM CODEC for ISDN TERMINAL ADAPTER

### GENERAL DESCRIPTION

AK2305 is a dual PCM CODEC-Filter most suitable for ISDN Terminal Adapter. A-law/u-law is selected by the internal register. In addition to CODEC, this device has dual DTMF receiver and External Tone Input pin.

Input/output operational amplifiers included in this device are used for transmit/receive gain adjustment. AK2305 has internal volume control to attenuate signal from 0dB to -12dB by 3dB step control which is defined by an internal register written through the serial interface.

PCM interface of AK2305 accepts several clock formats, which are Long Frame, Short Frame, GCI, IDL. 64k-4096kHz clock input is available for PCM interface.

### FEATURE

- Dual PCM CODEC and Filtering systems for ISDN Terminal Adapter
- Dual DTMF Receiver
- External Tone Input(AUX)
- Independent functions on each channel
  - Frame Sync Signal(8kHz)
  - Power Down Mode(Pin/Register operation)
  - Mute(Pin/Register operation)
  - Gain Adjustment: 0 to -12dB (3dB step)
- Selectable PCM Data Interface Timing: Long Frame / Short Frame / GCI / IDL
- Variable PCM Data Rate: 64k x N [Hz] (64k - 4.096MHz)
- Operational Amplifier for Gain Adjustment
- A-law/u-law Register Selectable
- Serial Interface
- Power on Reset
- Single +5V  $\pm$  5% CMOS technology
- Low Power Consumption (85mW typ)

### PACKAGE

- 48LQFP  
9.0 x 9.0 mm (0.5mm pin pitch)