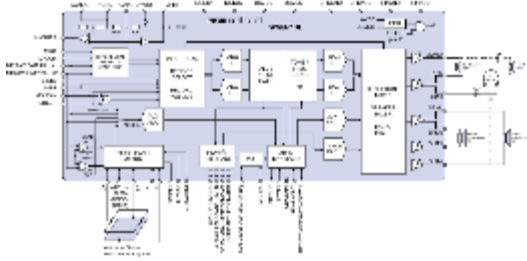


Voice and audio CODEC with touchpanel controller



FEATURES

- AC'97 Rev 2.2 compatible stereo codec >
- DAC SNR 94dB, THD -85dB
- ADC SNR 87dB, THD -86dB
- Variable Rate Audio, supports all WinCE sample rates
- Tone Control, Bass Boost and 3D Enhancement
- On-chip 45mW headphone driver
- On-chip 400mW mono or stereo speaker drivers
- Stereo, mono or differential microphone input
- Automatic Level Control (ALC)
- Mic insert and mic button press detection
- Auxiliary mono DAC (ring tone or DC level generation)
- Seamless interface to wireless chipset
- Resistive touchpanel interface
- Supports 4-wire and 5-wire panels
- 12-bit resolution, INL ± 2 LSBs (<0.5 pixels)
- X, Y and touch-pressure (Z) measurement
- Pen-down detection supported in Sleep Mode
- Additional PCM/I2S interface to support voice CODEC
- PLL derived audio clocks.
- Supports input clock ranging from 2.048MHz to 78.6MHz
- 1.8V to 3.6V supplies (digital down to 1.62V, speaker up to 4.2V)
- 7x7mm 48-lead QFN package

DESCRIPTION

The WM9713L is a highly integrated input/output device designed for mobile computing and communications.

The chip is architected for dual CODEC operation, supporting Hi-Fi stereo Codec functions via the AC link interface, and additionally supporting voice Codec functions via a PCM type Synchronous Serial Port (SSP). A third Aux DAC is provided which may be used to support generation of supervisory tones, or ring-tones etc. at different sample rates to the main codec.

The device can connect directly to a 4-wire or 5-wire touch-panel, mono or stereo microphones, stereo headphones and a stereo speaker, reducing total component count in the system. Cap-less connections to the headphones, speakers, and earpiece may be used, saving cost and board area. Additionally, multiple analog input and output pins are provided for seamless integration with analog connected wireless communication devices.

All device functions are accessed and controlled through a single AC-Link interface compliant with the AC97 standard. The 24.576 MHz masterclock can be input directly or generated internally from a 13MHz (or other frequency) clock by an onboard PLL. The PLL supports a wide range of input clock from 2.048Mhz to 78.6Mhz.

The WM9713L operates at supply voltages from 1.8 to 3.6 Volts. Each section of the chip can be powered down under software control to save power. The device is available in a small leadless 7x7mm QFN package, ideal for use in hand-held portable systems.