

Stereo Click and Pop Eliminator with Audio Muting

The Intersil ISL54406 is a Dual SPST (Single Pole/Single Throw) switch that provides a very low distortion audio path for a stereo headphone or high impedance line-in load. This path can be interrupted to provide >110dB of off-isolation for signal muting purposes into 32Ω or high impedance loads such as consumer entertainment system line-inputs, MP3 docking systems for powered speaker or automotive entertainment system in-line or cassette interfaces. Recovery from muting is instant even with very large DC blocking capacitors.

The ISL54406 also has comprehensive Click and Pop elimination measures to prevent these artifacts from occurring in the load due to system power-up/power-down, codec enable/disable, headphone hot plug in, and audio muting on/off situations. The Click and Pop elimination is effective into low and high impedance loads and requires no external timing components to deal with DC blocking capacitors placed between the single supply codec and the load.

The ISL54406 is available in a 10 Ld TDFN (3mmx3mm) or a tiny 10 Ld μTQFN (1.8mmx1.4mm) ultra-thin package. It operates over a temperature range of -40 to +85°C.

Related Literature

- Technical Brief TB363 "Guidelines for Handling and Processing Moisture Sensitive Surface Mount Devices (SMDs)"

Features

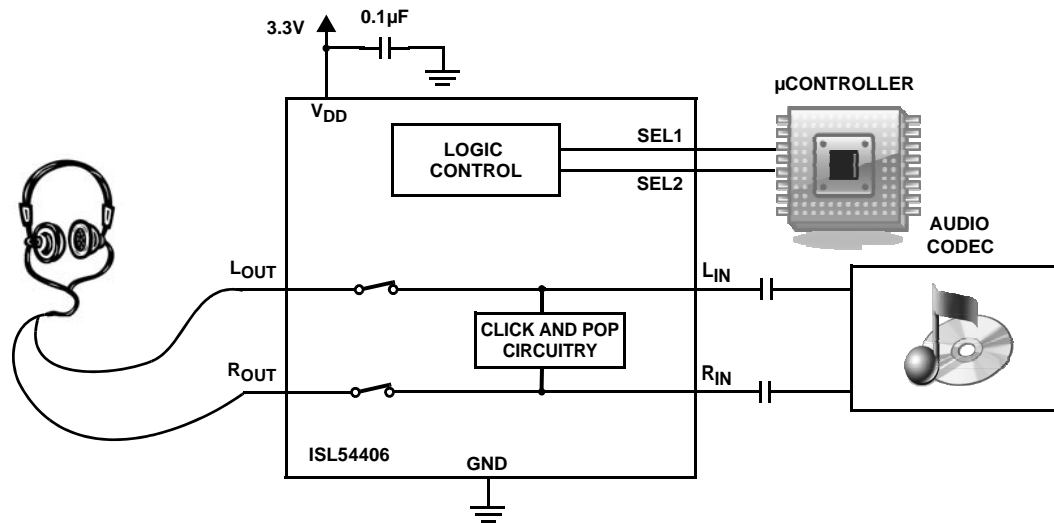
- Single Supply Operation (V_{DD}) +2.7V to +5.0V
- Negative Signal Swing Capability -1.5V
- Low THD
 - THD+N at 1mW into 32Ω Load <0.02%
- Click and Pop Elimination >60dB
- Audio Muting. >110dB
- Low Power Consumption 21μW with 3V supply
- Low Power Shutdown Mode
- 1.8V Logic Compatible
- Available in 10 Ld TDFN (3mmx3mm) or tiny 10 Ld (1.8mmx1.4mm) μTQFN Package
- Pb-Free (RoHS Compliant)

Applications

- Consumer Entertainment Systems
- MP3 and other Personal Media Players
- Cellular/Mobile Phones
- PDA's
- Audio Switching and Muting

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Typical Application Diagram



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