

# FSA2270 / FSA2270T Low-Voltage, Dual-SPDT (0.4Ω) Analog Switch with Negative Swing Audio Capability

## Features

- 0.4Ω Typical On Resistance ( $R_{ON}$ ) for +3.0V Supply
- 0.25Ω Maximum  $R_{ON}$  Flatness for +3.0V Supply
- -3db Bandwidth: > 50MHz
- Low- $I_{CCT}$  Current Over Expanded Control Input Range
- Packaged in Pb-free, 10-Lead UMLP
- Power-Off Protection on Common Ports
- Broad  $V_{CC}$  Operating Range: 1.65 to 4.3V
- Noise Immunity Termination Resistors in FSA2270T
- Low Electrostatic Discharge (ESD)
  - Human Body Model (JEDEC: JESD22-A114)
    - Power to GND 16kv
    - I/O to GND 11kv
    - All other pins 8kv
  - Charged Device Model (JEDEC: JESD22-A101)

## Applications

- Cell Phone, PDA, Digital Camera, and Notebook
- LCD Monitor, TV, and Set-Top Box

## Description

The FSA2270 is a high-performance, dual Single-Pole Double-Throw (SPDT) analog switch with negative swing audio capability. The FSA2270 features ultra-low  $R_{ON}$  of 0.4Ω (typical) at 3.0V  $V_{CC}$ . The FSA2270 operates over a wide  $V_{CC}$  range of 1.65V to 4.3V, is fabricated with sub-micron CMOS technology to achieve fast switching speeds, and is designed for break-before-make operation. The select input is TTL-level compatible.

The FSA2270 features very low quiescent current even when the control voltage is lower than the  $V_{CC}$  supply. This feature suits mobile handset applications by allowing direct interface with baseband processor general-purpose I/Os with minimal battery consumption.

The FSA2270T includes termination resistors that improve noise immunity during overshoot excursions, off-isolation coupling, or “pop-minimization.”

## IMPORTANT NOTE:

For additional performance information, please contact [analogswitch@fairchildsemi.com](mailto:analogswitch@fairchildsemi.com).

## Ordering Information

Part Number	Top Mark	Pb-Free	Package Description
FSA2270UMX (Preliminary)	HJ	Yes	10-Lead, Quad Ultrathin Molded Leadless Package (UMLP), 1.4 x 1.8mm, 0.4mm pitch
FSA2270TUMX	HK	Yes	10-Lead, Quad Ultrathin Molded Leadless Package (UMLP), 1.4 x 1.8mm, 0.4mm pitch

## Analog Symbols

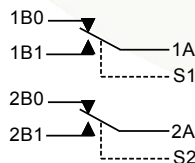


Figure 1. FSA2270

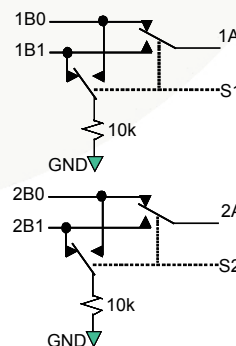


Figure 2. FSA2270T



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