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FSA2271T — Low-Voltage, Dual-SPDT (0.4Ω) Analog Switch with Negative Swing Audio Capability

FSA2271T

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

Features

- 0.4Ω Typical On Resistance 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 10-Lead UMLP
- Power-off Protection on Common Ports
- Broad V_{CC} Operating Range: 1.65 to 4.3V
- Noise Immunity Termination Resistors
- ESD JEDEC: JESD22-A114 Human Body Model:
 - Power to GND: 16KV
 - I/O to GND: 10kV
 - All other Pins: 7kV
- ESD JEDEC: JESD22-A101 Charged Device Model:
 - CDM: 2kV

Applications

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

Description

The FSA2271T is a high-performance, dual - single pole double throw (SPDT) analog switch with negative swing audio capability. It features ultra-low R_{ON} of 0.4Ω (typical) at 3.0V V_{CC}. The FSA2271T operates over a wide V_{CC} range of 1.65V to 4.3V and is fabricated with sub-micron CMOS technology to achieve fast switching speeds. Designed for break-before-make operation, the FSA2271T select input is TTL level compatible.


The FSA2271T features very low quiescent current, even when the control voltage is lower than the V_{CC} supply. This feature is optimized for the mobile handset applications, allowing direct interface with baseband processor general-purpose I/Os with minimal battery consumption.

The FSA2271T includes termination resistors that improve noise immunity during overshoot excursions, “pop-minimization,” or off-isolation coupling.

IMPORTANT NOTE:

For additional performance information, please contact analogswitch@fairchildsemi.com.

Ordering Information

Part Number	Termination Resistors	Operating Temperature Range	 Eco Status	Package
FSA2271TUMX	Yes	-40°C to 85°C	Green	10-Lead Quad Ultrathin Molded Leadless Package (UMLP), 1.4 x 1.8mm, 0.4mm pitch

 For Fairchild's definition of “green” Eco Status, please visit: http://www.fairchildsemi.com/company/green/rohs_green.html.



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PRODUCT STATUS DEFINITIONS

Definition of Terms

Datasheet Identification	Product Status	Definition
Advance Information	Formative / In Design	This datasheet contains the design specifications for product development. Specifications may change in any manner without notice.
Preliminary	First Production	This datasheet contains preliminary data; supplementary data will be published at a later date. Fairchild Semiconductor reserves the right to make changes at any time without notice to improve design.
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