

Email Analog.Switch@fairchildsemi.com to request the full datasheet.

March 2012

# FSA8008/FSA8008A **Audio Jack Detection and Configuration Switch**

## **Features**

Detection	Accessory Plug-In		
	3- or 4-Pole Audio Jack		
	Send/End Key Pressed		
	FSA8008		
Functionality	FSA8008A	Decreased Timing	
		for Sensitive	
		Send/End Keys	
Switch Type		MIC	
$V_{DD}$		2.5 to 4.4V	
V <sub>IO</sub>		$1.6$ to $V_{DD}$	
THD (MIC)		0.01% Typica	
ESD (Air Gap)		15kV	
Operating Temperature		-40°C to 85°C	
Dookogo	10-Lead UMLP		
Package	1.4x1.8x0.5mm, 0.4mm Pitch		
Top Mark	FSA8008	KC	
	FSA8008A	KD	
Ordering Information	FSA8008UMX		
		FSA8008AUMX	

## **Applications**

- 3.5mm and 2.5mm Audio Jacks
- Cellular Phones, Smartphones
- MP3 and PMP

## **Typical Application**

### 2.5 to 4.4V 1.6 to V<sub>DD</sub> Baseband VIO Processo VDD Φ Normally Open LOW = plugged HIGH = unplugge (NO) Switch DET GPI01 ΕN GPIO2 JPOL GPI03 L R GND MIC GPIO<sub>4</sub> Oscillator and Logic Audio J\_MIC MIC Bias MIC 16-32Ω L SPKR HIGH⇒J\_MIC=0V LOW=>J\_MIC>0.2V GND R SPK

Figure 1. Mobile Phone Example

## **Description**

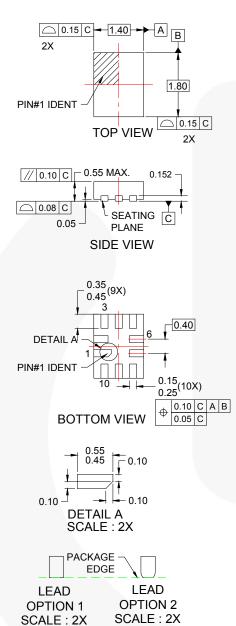
The FSA8008/FSA8008A is an audio jack detector and switch for 3- or 4-pole accessories. In addition to detection. the FSA8008/A features an integrated MIC switch that allows the processor to configure the audio jack. The architecture is designed to allow common third-party headphones to be used for listening to music from mobile handsets, personal media players, and portable peripheral devices.

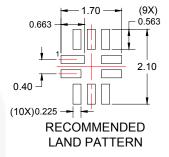
- Determines 3- or 4-Pole Audio Jacks
- Removes Audio Jack Pop-n-Click Caused by MIC Bias
- **Detects Audio Jack Accessories:** 
  - Standard Headphones
  - Headsets with MIC
  - Send / End Button Presses
- Integrates a MIC Switch for 4-Pole Configuration

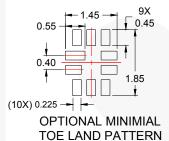
## **Related Resources**

- FSA8008/FSA8008A Demonstration Board
- For samples and questions, please contact: Analog.Switch@fairchildsemi.com.

## **Physical Dimensions**







## NOTES:

- A. PACKAGE DOES NOT FULLY CONFORM TO JEDEC STANDARD.
- B. DIMENSIONS ARE IN MILLIMETERS.
- C. DIMENSIONS AND TOLERANCES PER ASME Y14.5M, 1994.
- D. LAND PATTERN RECOMMENDATION IS BASED ON FSC DESIGN ONLY.
- E. DRAWING FILENAME: MKT-UMLP10Arev3.

Figure 4. 10-Lead UMLP Package Drawing

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## **Ordering Information**

Part Number	Operating Temperature Range	Top Mark	Package
FSA8008UMX	-40 to +85°C	KD	10-Lead, 1.4 x 1.8 x 0.55mm, 0.4mm Pitch,
FSA8008AUMX	-40 to +65 C	KC	Ultrathin Molded Leadless Package (UMLP)





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Definition of Terms		
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