

August 2007

# FSA2567 — Low-Power, Dual SIM Card Analog Switch

## **Features**

- Low On Capacitance for Data Path: 10pF Typical
- Low On Resistance for Data Path: 6Ω Typical
- Low On Resistance for Supply Path: 0.4Ω Typical
- Low Power Consumption: 1µA Maximum
  - 15μA Maximum I<sub>CCT</sub> Over Expanded Voltage Range (V<sub>IN</sub>=1.8V, V<sub>CC</sub>=4.3V)
- Wide -3db Bandwidth: > 160MHz
- Packaged in:
  - Pb-free 16-Lead MLP
  - Pb-free 16-Lead UMLP (1.8 x 2.6mm)
- 8kV ESD Rating, >16kV Power/GND ESD Rating

# **Applications**

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

# **IMPORTANT NOTE:**

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

# Description

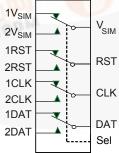
The FSA2567 is a bi-directional, low-power, dual double-pole, double-throw (4PDT) analog switch targeted at dual SIM card multiplexing. It is optimized for switching the WLAN-SIM data and control signals and dedicates one channel as a supply-source switch.

The FSA2567 is compatible with the requirements of SIM cards and features a low on capacitance ( $C_{ON}$ ) of 10pF to ensure high-speed data transfer. The  $V_{SIM}$  switch path has a low  $R_{ON}$  characteristic to ensure minimal voltage drop in the dual SIM card supply paths.

The FSA2567 contains special circuitry that minimizes current consumption when the control voltage applied to the SEL pin is lower than the supply voltage ( $V_{\text{CC}}$ ). This feature is especially valuable in ultra-portable applications, such as cell phones; allowing direct interface with the general-purpose I/Os of the baseband processor. Other applications include switching and connector sharing in portable cell phones, PDAs, digital cameras, printers, and notebook computers.

# Ordering Information

Part Number	Top Mark	Pb-Free	Operating Temperature Range	Package
FSA2567MPX	FSA2567		-40 to +85°C	16-Lead, Molded Leadless Package (MLP) Quad, JEDEC MO-220, 3mm Square
FSA2567UMX (Preliminary)	GX		-40 to +85°C	16-Lead, Quad, Ultrathin Molded Leadless Package (UMLP), 1.8 x 2.6mm







#### **TRADEMARKS**

The following are registered and unregistered trademarks and service marks Fairchild Semiconductor owns or is authorized to use and is not intended to be an exhaustive list of all such trademarks.

ACEX<sup>®</sup>
Build it Now™
CorePLUS™
CROSSVOLT™

Current Transfer Logic™ EcoSPARK<sup>®</sup>

**F**® Fairchild®

Fairchild Semiconductor® FACT Quiet Series™

FACT<sup>®</sup>
FAST<sup>®</sup>
FastvCore™
FPS™
FRFET<sup>®</sup>

Global Power Resource<sup>SM</sup>

Green FPS™

Green FPS™ e-Series™ GTO™

i-Lo™ IntelliMAX™ ISOPLANAR™ MegaBuck™

MICROCOUPLER™
MicroFET™
MicroPak™
Motion-SPM™
OPTOLOGIC®
OPTOPLANAR®

PDP-SPM™ Power220® Power247<sup>®</sup> POWEREDGE<sup>®</sup> Power-SPM<sup>™</sup> PowerTrench<sup>®</sup>

Programmable Active Droop™

QFET® QS™

QT Optoelectronics™ Quiet Series™ RapidConfigure™ SMART START™ SPM®

STEALTH™
SuperFET™
SuperSOT™-3
SuperSOT™-6

SuperSOT™-8 SvncFET™

The Power Franchise®

TinyBoost™
TinyBoost™
TinyBoost™
TinyBoost™
TinyPopTo™
TinyPopTo™
TinyPower™
TinyWire™
USerDes™

TinyWire™
µSerDes™
UHC®
UniFET™
VCX™

### DISCLAIMER

FAIRCHILD SEMICONDUCTOR RESERVES THE RIGHT TO MAKE CHANGES WITHOUT FURTHER NOTICE TO ANY PRODUCTS HEREIN TO IMPROVE RELIABILITY, FUNCTION, OR DESIGN. FAIRCHILD DOES NOT ASSUME ANY LIABILITY ARISING OUT OF THE APPLICATION OR USE OF ANY PRODUCT OR CIRCUIT DESCRIBED HEREIN; NEITHER DOES IT CONVEY ANY LICENSE UNDER ITS PATENT RIGHTS, NOR THE RIGHTS OF OTHERS. THESE SPECIFICATIONS DO NOT EXPAND THE TERMS OF FAIRCHILD'S WORLDWIDE TERMS AND CONDITIONS, SPECIFICALLY THE WARRANTY THEREIN, WHICH COVERS THESE PRODUCTS.

### LIFE SUPPORT POLICY

FAIRCHILD'S PRODUCTS ARE NOT AUTHORIZED FOR USE AS CRITICAL COMPONENTS IN LIFE SUPPORT DEVICES OR SYSTEMS WITHOUT THE EXPRESS WRITTEN APPROVAL OF FAIRCHILD SEMICONDUCTOR CORPORATION.

### As used herein:

- Life support devices or systems are devices or systems which, (a) are intended for surgical implant into the body, or (b) support or sustain life, and (c) whose failure to perform when properly used in accordance with instructions for use provided in the labeling, can be reasonably expected to result in significant injury to the user.
- A critical component is any component of a life support device or system whose failure to perform can be reasonably expected to cause the failure of the life support device or system, or to affect its safety or effectiveness.

# PRODUCT STATUS DEFINITIONS

### **Definition of Terms**

Datasheet Identification	Product Status	Definition	
Advance Information	Formative or 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.	
No Identification Needed	Full Production	This datasheet contains final specifications. Fairchild Semiconductor reserves the right to make changes at any time without notice to improve design.	
Obsolete	Not In Production	This datasheet contains specifications on a product that has been discontinued by Fairchild semiconductor. The datasheet is printed for reference information only.	

Rev. 130