



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of "Quality Parts,Customers Priority,Honest Operation,and Considerate Service",our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



Contact us

Tel: +86-755-8981 8866 Fax: +86-755-8427 6832

Email & Skype: info@chipsmall.com Web: www.chipsmall.com

Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China



WIRELESS & SENSING PRODUCTS

Features

- 2.7V – 5.5V core supply (VDD)
 - ♦ 1.65V – 2V host interface supply (SVDD)
 - ♦ 1.65V – 5.5V compliant host interface (VPULL)
- Up to three SAR capacitive sensor inputs
 - ♦ Patented on-chip smart engine for SAR (Body versus inanimate object detection)
 - ♦ Capacitance resolution down to 0.08fF
 - ♦ Capacitance offset compensation up to 100pF
 - ♦ Integrated RF shield
 - ♦ Advanced temperature compensation
- Automatic calibration
- Built-in startup proximity detection
- Ultra-low power consumption
 - ♦ Active mode: 70µA
 - ♦ Doze mode: 8µA
 - ♦ Sleep mode: 2.5µA
- 400kHz I2C serial interface
- Programmable interrupt or real-time status pin
- User NVM for custom default registers values (Standalone mode)
- Two reset sources: POR and soft reset
- -40°C to +85°C operation
- Compact Size: 1.362 x 1.332mm WLCSP package
- Pb & halogen free, RoHS/WEEE compliant

Applications

- Mobile phones
- Wearable devices
- Tablets
- Notebooks
- Mobile hotspots

Description

The SX9310 is a capacitive Specific Absorption Rate (SAR) controller. The SX9310 can use two of the three sensor inputs coupled to its smart engine for SAR to accurately discriminate between an inanimate object and human body. The third sensor input can be used independently for standard capacitive sensing.

The resulting detection is used in portable electronic devices to reduce and control radio-frequency (RF) emission power in the presence of a human body, enabling significant performance advantages for manufacturers of electronic devices with electromagnetic radiation sources to meet stringent emission regulations' criteria and SAR standards.

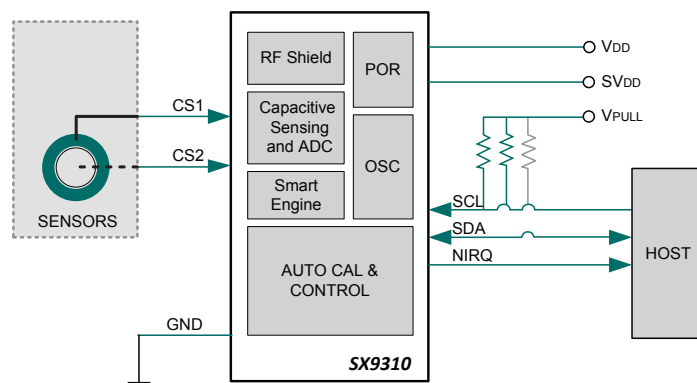
The SX9310 operates directly from an input supply voltage of 2.7V to 5.5V, while the I2C serial communication bus port is compatible with 1.8V host control to report body detection/proximity and to facilitate parameter settings adjustment. Upon proximity detection, the NIRQ output asserts, enabling the user to either determine the relative proximity distance, or simply obtain an indication of detection.

The SX9310 includes an on-chip auto-calibration controller that regularly performs sensitivity adjustments to maintain peak performance over a wide variation of temperature, humidity and noise environments, providing simplified product development and enhanced performance.

Ordering Information

Part Number	Package	Marking	Units/Reel
SX9310ICSTRT	WLCSP-9	MO8B	3000
SX9310EVKA	Eval. Kit	-	-

Typical Application Circuit





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Contact Information

Semtech Corporation
Wireless & Sensing Products
200 Flynn Road, Camarillo, CA 93012
Phone: (805) 498-2111, Fax: (805) 498-3804
www.semtech.com