

PRODUCT SUMMARY

SKYA21038: 0.9 to 6.0 GHz SPDT Switch

Applications

- Automotive WLAN 802.11 a/b/g/n/ac networks
- WLAN repeaters
- ISM band radios
- Low-power transmit/receive systems
- Automotive infotainment
- IoT M2M modules requiring enhanced robustness

Features

- AEC-Q100 grade 2 qualified
- Low insertion loss: 0.5 dB typical @ 2.45 GHz
- High isolation: 38 dB typical @ 2.45 GHz
- Excellent linearity performance: $IP0.1dB = +31$ dBm
- Single control logic
- 1.8 V and 3.3 V logic compatibility
- Wide 3 to 5 V supply voltage range
- Integrated DC blocking capacitors
- Wide $-40^{\circ}C$ to $+105^{\circ}C$ operating temperature range
- Ultra-miniature, MLPD (6-pin, $1 \times 1 \times 0.5$ mm) package (MSL1, $260^{\circ}C$ per JEDEC J-STD-020)



Skyworks Green™ products are compliant with all applicable legislation and are halogen-free. For additional information, refer to *Skyworks Definition of Green™*, document number SQ04-0074.

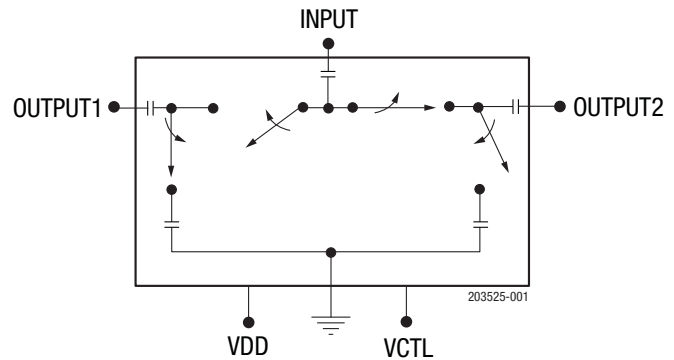


Figure 1. SKYA21038 Block Diagram

Description

The SKYA21038 is a single-pole, double-throw (SPDT) switch intended for mode switching in WLAN applications. Using advanced switching technologies, the SKYA21038 maintains low insertion loss and high isolation for all switching paths.

The high-linearity performance and low insertion loss achieved by the switch make it an ideal choice for low-power transmit/receive applications. Depending on the logic voltage applied to the control pin (VCTL), the INPUT pin is connected to one of the two switched RF outputs (OUTPUT1 or OUTPUT2) using a low insertion loss path, while the path between the INPUT pin and the other OUTPUT pin is in a high-isolation state. The switch is "reflective short" on the isolated port.

The SKYA21038 has integrated DC blocking capacitors, so no external DC blocking capacitors are required.

The switch is manufactured in a compact, $1 \times 1 \times 0.5$ mm, 6-pin exposed pad plastic Micro Leadframe Package Dual (MLPD) package.

A functional block diagram is shown in Figure 1.

Ordering Information

Part Number	Product Description	Evaluation Board Part Number
SKYA21038	0.9 to 6.0 GHz SPDT Switch	SKYA21038-EVB

Copyright © 2018 Skyworks Solutions, Inc. All Rights Reserved.

Information in this document is provided in connection with Skyworks Solutions, Inc. (“Skyworks”) products or services. These materials, including the information contained herein, are provided by Skyworks as a service to its customers and may be used for informational purposes only by the customer. Skyworks assumes no responsibility for errors or omissions in these materials or the information contained herein. Skyworks may change its documentation, products, services, specifications or product descriptions at any time, without notice. Skyworks makes no commitment to update the materials or information and shall have no responsibility whatsoever for conflicts, incompatibilities, or other difficulties arising from any future changes.

No license, whether express, implied, by estoppel or otherwise, is granted to any intellectual property rights by this document. Skyworks assumes no liability for any materials, products or information provided hereunder, including the sale, distribution, reproduction or use of Skyworks products, information or materials, except as may be provided in Skyworks Terms and Conditions of Sale.

THE MATERIALS, PRODUCTS AND INFORMATION ARE PROVIDED “AS IS” WITHOUT WARRANTY OF ANY KIND, WHETHER EXPRESS, IMPLIED, STATUTORY, OR OTHERWISE, INCLUDING FITNESS FOR A PARTICULAR PURPOSE OR USE, MERCHANTABILITY, PERFORMANCE, QUALITY OR NON-INFRINGEMENT OF ANY INTELLECTUAL PROPERTY RIGHT; ALL SUCH WARRANTIES ARE HEREBY EXPRESSLY DISCLAIMED. SKYWORKS DOES NOT WARRANT THE ACCURACY OR COMPLETENESS OF THE INFORMATION, TEXT, GRAPHICS OR OTHER ITEMS CONTAINED WITHIN THESE MATERIALS. SKYWORKS SHALL NOT BE LIABLE FOR ANY DAMAGES, INCLUDING BUT NOT LIMITED TO ANY SPECIAL, INDIRECT, INCIDENTAL, STATUTORY, OR CONSEQUENTIAL DAMAGES, INCLUDING WITHOUT LIMITATION, LOST REVENUES OR LOST PROFITS THAT MAY RESULT FROM THE USE OF THE MATERIALS OR INFORMATION, WHETHER OR NOT THE RECIPIENT OF MATERIALS HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

Skyworks products are not intended for use in medical, lifesaving or life-sustaining applications, or other equipment in which the failure of the Skyworks products could lead to personal injury, death, physical or environmental damage. Skyworks customers using or selling Skyworks products for use in such applications do so at their own risk and agree to fully indemnify Skyworks for any damages resulting from such improper use or sale.

Customers are responsible for their products and applications using Skyworks products, which may deviate from published specifications as a result of design defects, errors, or operation of products outside of published parameters or design specifications. Customers should include design and operating safeguards to minimize these and other risks. Skyworks assumes no liability for applications assistance, customer product design, or damage to any equipment resulting from the use of Skyworks products outside of stated published specifications or parameters.

Skyworks and the Skyworks symbol are trademarks or registered trademarks of Skyworks Solutions, Inc. or its subsidiaries in the United States and other countries. Third-party brands and names are for identification purposes only, and are the property of their respective owners. Additional information, including relevant terms and conditions, posted at www.skyworksinc.com, are incorporated by reference.

Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

[Skyworks:](#)

[SKYA21038](#)