

**PRODUCT SUMMARY**

# SKY96500-11: 0.4 to 2.7 GHz LTE Diversity Receive Module with MIPI RFFE Interface

**Applications**

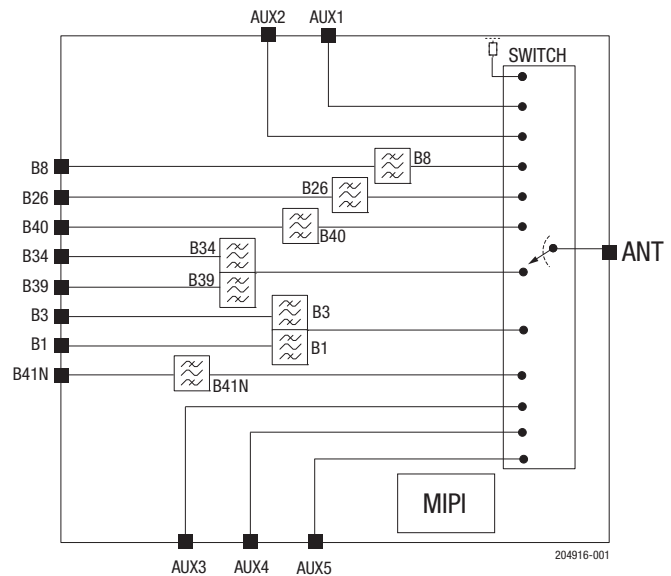
- 2G/3G/4G multimode cellular tablets and handsets (GSM, EDGE, LTE, UMTS, CDMA2000)
- Embedded data cards

**Features**

- Broadband frequency range: 0.4 to 2.7 GHz
- Low insertion loss, 0.6 dB typical @ 2.7 GHz
- High isolation and linearity
- Integrated, programmable MIPI Version 2.0 interface
- Multi-ON switch technology to enable carrier aggregation
- High-performance TC-SAW filter technology
- Carrier aggregation support for B1+B3+B5/B8 and B34+B39+B41N
- Twelve linear TRX ports with isolation greater than 20 dB @ 2.7 GHz
- Small QFN (22-pin, 3.2 x 3.0 x 0.65 mm) package (MSL3, 260 °C per JEDEC J-STD-020)
- Rx Diversity FEM with 8 integrated bands:
  - B8 (925 to 960 MHz)
  - B26 (859 to 894 MHz)
  - B3 (1805 to 1880 MHz)
  - B39 (1880 to 1920 MHz)
  - B1 (2110 to 2170 MHz)
  - B34 (2010 to 2025 MHz)
  - B41N (2535 to 2655 MHz)
  - B40 (2300 to 2400 MHz)
  - AUX1 and AUX2 (400 to 1000 MHz)
  - AUX3, AUX4, and AUX5 (1800 to 2700 MHz)



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. SKY96500-11 Block Diagram**

**Description**

The SKY96500-11 is a single-pole, twelve-throw (SP12T) antenna switch module with integrated filters and a Mobile Industry Processor Interface (MIPI), Version 2.0. Receive filters for bands 1, 3, 26(5), 8, 34, 39, 40, and 41N are integrated into the module.

Using advanced switching technologies, the SKY96500-11 maintains low insertion loss and high isolation for receive switching paths. The high-linearity performance and low insertion loss achieved by the SKY96500-11 makes it an ideal choice for UMTS, CDMA2000, and LTE applications.

Switching is controlled by an integrated MIPI interface. Depending on the logic applied to the decoder, the antenna pin is connected to as many as 3 of 12 switched RF ports using a low insertion loss path, while the paths between the antenna pin and the other RF pins are in a high isolation state. No external DC blocking capacitors are required on the RF paths.

The SKY96500-11 is manufactured in a compact, 3.2 x 3.0 x 0.65 mm, 22-pin surface-mount Quad Flat No-Lead (QFN) package.

A functional block diagram is shown in Figure 1.

## Ordering Information

Product Description	Product Part Number	Evaluation Board Part Number
SKY96500-11: DiFEM Receive Module with MIPI RFFE Interface	SKY96500-11	SKY96500-11EK1

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](http://www.skyworksinc.com), are incorporated by reference.