

PRODUCT SUMMARY

SKY53735-21 Sky5[®]: LB /MLB / MB /HB and MIMO Diversity **Receive Module**

Applications

- Antenna cable loss compensation circuit
- 2G / 3G / 4G / 5G multimode cellular handsets (5G NR, LTE, UMTS, CDMA2000, EDGE, and GSM)
- Embedded data cards

Features

- Rx diversity FEM with the following integrated filter bands:
 - (925 to 960 MHz) – B8
 - B26/5/18/19 (859 to 894 MHz)
 - B3 (1805 to 1880 MHz)
 - B39 (1880 to 1920 MHz)
 - B25(2) (1930 to 1995 MHz)
 - (2010 to 2025 MHz) – B34
 - B66(1/4) (2110 to 2200 MHz)
 - B40 (2300 to 2400 MHz)
 - B41(38) (2496 to 2690 MHz)
 - B7 (2620 to 2690 MHz)
- Low insertion loss
- Integrated downlink carrier aggregation (CA) support for B1-3-7, B34-39-41, B1-3-41, B1-3-40, B7-40, B40-41, B1-40-41, and B3-40-41
- High-performance variable gain LNAs
- High-performance Multi-On, N-Plexing technology enabling superior non-CA and CA performance
- TRX switch ports:
 - MHB TRX1
 - LB TRX1
 - LB TRX2
 - LB TRX3



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.

Description

- Auxiliary LNA ports:
 - LNA AuxIN MHB1 4x4 (1805 to 2690 MHz)
 - LNA AuxIN MHB3 4x4 (2300 to 2690 MHz)
 - LNA AuxIN HB (2300 to 2690 MHz) (1452 to 2400 MHz)
 - LNA_AuxIN_MB1
 - LNA AuxIN MB2 (1452 to 2200 MHz)
 - LNA AuxIN LB1 (717 to 803 MHz)
 - LNA AuxIN LB2 (617 to 960 MHz)
 - LNA AuxIN LB3 (729 to 768 MHz)
- Integrated MIPI RFFE interface
- Small size $4.2 \times 6.2 \times 0.7$ (max) mm 47-lead package
- Lead (Pb)-free and RoHS-compliant (MSL3 @ 260 °C per JEDEC J-STD-020)

Description

The SKY53735-21 is a low-band (LB) / mid-low band (MLB) / mid-band (MB) / high-band (HB) diversity receive module to be used in a cellular mobile device. The device supports cellular diversity receiver functions and is scalable to support 4x4 MIMO regional and roaming band requirements.

The diversity module supports all key 2, and 3 carrier aggregation band combinations.

High-performance, multi-gain mode LNAs are integrated enabling compatibility to next generation LNA-less LTE transceivers.

The SKY53735-21 is compatible with 3GPP GSM, WCDMA, LTE, LTE-A and 5G standards and includes filters for the following service bands: B8, B26/5/18/19, B3, B39, B25(2), B34, B66(1/4), B40. B41(38), and B7.

The SKY53735-21 is part of our Sky5[®] product portfolio.

A functional block diagram is shown in Figure 1.



Figure 1. SKY53735-21 Functional Block Diagram

Ordering Information

Part Number	Product Description	Evaluation Board Part Number
SKY53735-21	LB / MLB / MB / HB / UHB Diversity Receive Module	SKY53735-21EK1

Copyright © 2020 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, Skyworks GreenTM, Sky5[®], 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.