



**SKYWORKS®**

## PRODUCT SUMMARY

# SKY5A5003: Sky5® LB/LMB/MB/HB and 4x4 MIMO Diversity Receive Module

## Applications

- Automotive telematics enabled by 4G/5G Network Access Devices (NADs)

## Features

- RX diversity FEM with the following integrated filter bands:
  - B71: 617 to 652 MHz
  - B29: 717 to 728 MHz
  - B12/13/17: 729 to 756 MHz
  - B14: 758 to 768 MHz
  - B28A: 758 to 788 MHz
  - B28B: 773 to 803 MHz
  - B20: 791 to 821 MHz
  - B8: 925 to 960 MHz
  - B26/5/18/19: 859 to 894 MHz
  - B32: 1452 to 1496 MHz
  - B3: 1805 to 1880 MHz
  - B39: 1880 to 1920 MHz
  - B25(2): 1930 to 1995 MHz
  - B34: 2010 to 2025 MHz
  - B66(1/4): 2110 to 2200 MHz
  - B30: 2350 to 2360 MHz
  - B40: 2300 to 2400 MHz
  - B41(38): 2496 to 2690 MHz
  - B7: 2620 to 2690 MHz
- Low insertion loss
- Integrated downlink CA support for B1-3-7-40, B1-3-7-32, B1-3-41, B2-66-7, B34-39-41, B7-40, B40-41, B2-66-30, B25-66-41, and B1-21 (Aux)
- High-performance variable gain LNAs
- High-performance Multi-On, N-Plexing technology enabling superior non-CA and CA performance
- Automotive support:
  - AEC-Q104 Grade 2
  - Product Part Approval Process (PPAP)
  - IMDS material declaration

- TRX switch ports:
  - MHB\_TRX1
  - MHB\_TRX2
- Auxiliary LNA ports:
  - LNA\_AuxIN\_MHB1 4x4: 1805 to 2700 MHz
  - LNA\_AuxIN\_MHB2 4x4: 1805 to 2700 MHz
  - LNA\_AuxIN\_MHB3 4x4: 2300 to 2700 MHz
  - LNA\_AuxIN\_HB: 2300 to 2700 MHz
  - LNA\_AuxIN\_MB1: 1452 to 2400 MHz
  - LNA\_AuxIN\_MB2: 1452 to 2200 MHz
  - LNA\_AuxIN\_LMB: 1452 to 2200 MHz
- Integrated Mobile Industry Processor Interface (MIPI®) RFFE interface
- Small 4.2 x 6.2 x 0.7 (max) mm 47-lead package
- MSL3 @ 260 °C per JEDEC J-STD-020
- For RoHS and other product compliance information, see the [Skyworks Certificate of Conformance](#)

## Description

The SKY5A5003 is a low-band (LB)/low-mid-band (LMB)/mid-band (MB)/high-band (HB) diversity receive module for automotive, telematics, and NAD. 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, 3, and 4 CA band combinations. The SKY5A5003 is part of our Sky5® product portfolio.

High-performance, multi-gain mode LNAs are integrated enabling compatibility to next generation LNA-less LTE transceivers. The device is compatible with 3GPP GSM, WCDMA, LTE, LTE-A and 5G standards and includes filters for the following service bands: B71, B29, B12/13/17, B14, B28A, B28B, B20, B8, B26/5/18/19, B32, B3, B39, B25(2), B34, B66(1/4), B30, B40, B41(38), and B7.

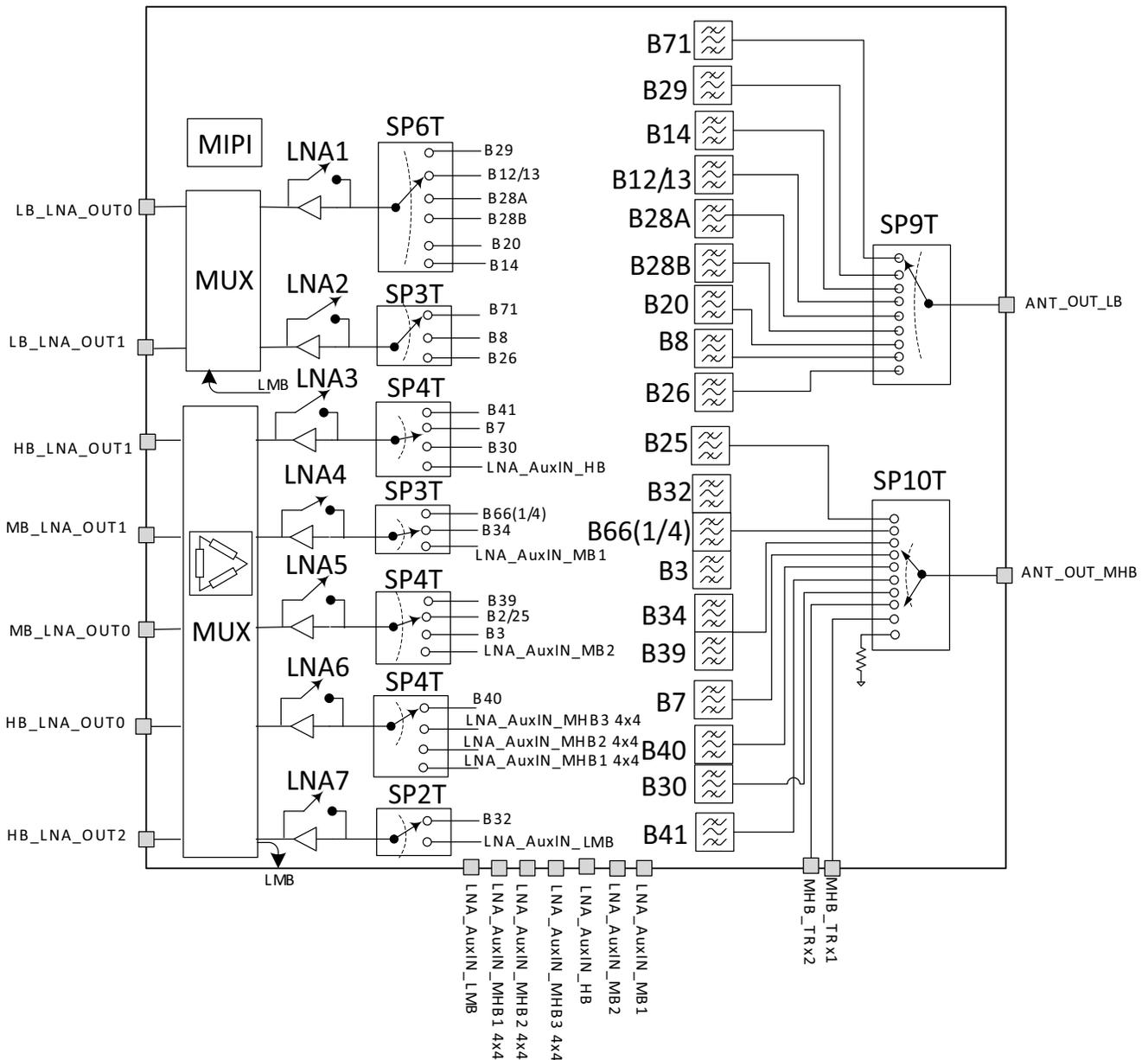


Figure 1. Functional Block Diagram

Ordering Information

Part Number	Description	Evaluation Board Part Number
SKY5A5003	Sky5® LB/LMB/MB/HB and 4x4 MIMO Diversity Receive Module	SKY5A5003EK1

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