

PRODUCT SUMMARY

SKY5A5012: Sky5® LB/MB/HB Diversity Receive Module

Applications

- 4G/5G automotive and telematics Network Attached Device (NAD)

Features

- RX diversity front-end module (FEM) with integrated filter bands:
 - B8: 925 to 960 MHz
 - B26/5/18/19: 859 to 894 MHz
 - B20-28F: 758 to 821 MHz
 - B3: 1805 to 1880 MHz
 - B39: 1880 to 1920 MHz
 - B25 (2) + B70: 1930 to 2020 MHz
 - B34: 2010 to 2025 MHz
 - 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:
 - CA: 1+3+7, 1+3+40, 1+3+41, 7+40, 40+41, 34+39+41, 25+66+41, 25+66+7, 1+3+7+40, L+M/HB CA
 - 2CA MIMO: 1-3, 1-7, 3-7, 1-40, 3-40, 1-41, 3-41, 39-41, 25-66, 2-7, 66-7, 25-41, 66-41
- High-performance variable gain LNAs
- High-performance multi-on, N-plexing technology enabling superior non-CA and CA performance
- One LB RX switch port (LB_RX1) and one LB TRX switch port (LB_TRX1)
- Automotive support:
 - AEC-Q104 Grade 2
 - Production Part Approval Process (PPAP)
 - IMDS material declaration
- One MHB RX port (MHB_RX1) and one MHB TRX port (MHB_TRX1)
- Integrated package shielding

Features

- Auxiliary LNA ports:
 - LNA_AUX_MHB1: 1805 to 2690 MHz
 - LNA_AUX_MHB2: 1805 to 2400 MHz
 - LNA_AUX_MHB3: 1805 to 2690 MHz
 - LNA_AUX_MHB4: 1805 to 2690 MHz
 - LNA_AUX_MHB5: 1805 to 2690 MHz
 - LNA_AUX_MHB6: 1427 to 2400 MHz
 - LNA_AUX_LB1: 617 to 960 MHz
 - LNA_AUX_LB2: 617 to 960 MHz
- Integrated MIPI® RFFE v3.0 interface
- Small, low profile package:
 - 3.5 x 3.6 x 0.7 mm (max.)
 - 56-pad configuration
- SkyShield™ self-shielded module
- Lead (Pb)-free MSL3 at 260 °C per JEDEC J-STD-020
- For RoHS and other product compliance information, see the [Skyworks Certificate of Conformance](#)

Description

The SKY5A5012 is a low-band (LB)/mid-band (MB)/high-band (HB) diversity receive module for automotive and telematics NAD. The device supports cellular diversity receiver functions. The SKY5A5012 is part of our Sky5® product portfolio.

The diversity module supports all key two- and three-carrier aggregation band combinations. High-performance, multi-gain mode LNAs are integrated enabling compatibility to next generation LNA-less LTE transceivers.

The SKY5A5012 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, B28A, B28B, B3, B39, B25 (2), B34, B66 (1/4), B40, B41 (38), and B7.

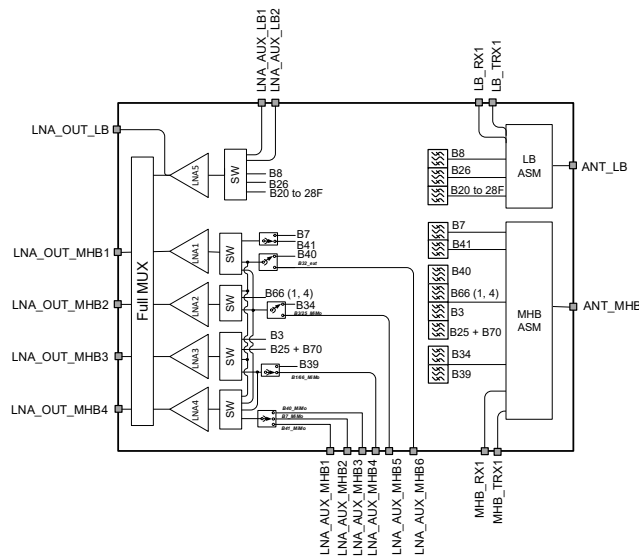


Figure 1. Functional Block Diagram

Ordering Information

Part Number	Part Description	Evaluation Board Part Number
SKY5A5012	LB/MB/HB Diversity Receive Module	SKY5A5012EK1

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