



**SKYWORKS®**

## PRODUCT SUMMARY

# SKY5A3300: Sky5® Front-End Module for LTE and NR

## Applications

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

## Features

- UHB LPAMiF for B42, B43, B48, n77, and n78
- Fully baseband-agnostic design
- Full power average power tracking (APT) support without digital predistortion (DPD)
- n78 PC2 power support
- Integrated n77, n78 primary and MIMO RX path
- MIPI® v3.0 compliant 52 MHz RFFE bus
- High-performance APT/envelope tracking (ET) power amplifier (PA) cores
- Supports 2 x 2 UL-MIMO using two TX placements
- Supports Fast SRS Hopping timing requirements
- Integrated antenna (ANT) swap switch
- Integrated SRS\_IN/OUT port supports full SRS connectivity
- Switchable LAA input
- 50 Ω I/O impedance with internal dc-blocking
- Continuous bias control via RFFE interface
- Low leakage current in power-down mode
- High-performance, integrated low noise amplifier (LNA) with MIPI® control features:
  - Up to seven gain modes
  - Independent gain and bias control
- Integrated wide bandwidth filters
- Automotive support:
  - AEC-Q104 Grade 2
  - Production Part Approval Process (PPAP)
  - IMDS material declaration
- For RoHS and other product compliance information, see the [Skyworks Certificate of Conformance](#).

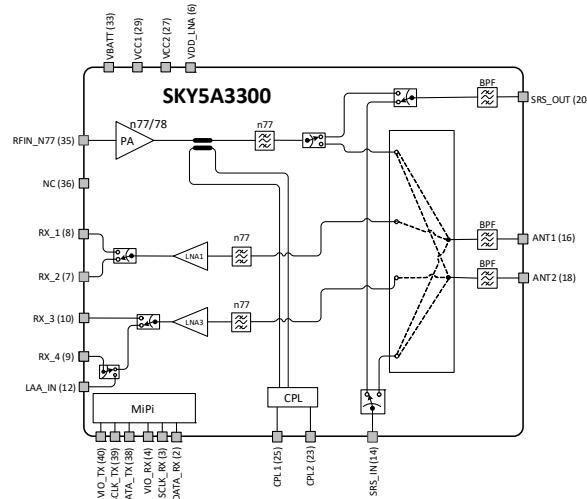


Figure 1. Functional Block Diagram

## Description

The SKY5A3300 Front-End Module (FEM) for LTE and NR is a new addition to our Sky5® portfolio of 5G technology products. Key advances compared to previous generation dual-band UHB modules are integrated MIMO RX path and increased output power.

A higher Pout enables PC2 support for n78.

This versatile and fully matched FEM supports multi-band 4G/5G and LTE/NR applications.

Using an enhanced architecture, the device covers multiple bands and meets the spectral linearity and error vector magnitude (EVM) requirements of CP-OFDM and DFTS-OFDM modulations up to 256 QAM.

Output power is controlled by varying input power and adjusting VCC to maximize efficiency. Extremely low leakage current maximizes standby time. Packaged in a single 4.5 mm x 5.5 mm x 0.7 mm (max.) form factor, the 42-pad surface mount (SMT) module consists of PA blocks, input and output matching, a MIPI standard digital control block, single-ended filters, antenna- and band-select switches, and LNA.

## Ordering Information

Part Number	Description	Evaluation Board Part Number
SKY5A3300	Sky5® Front-end Module for LTE and NR	SKY5A3300EK1

Copyright © 2025, Skyworks Solutions, Inc. All Rights Reserved.

Information in this document is provided in connection with Skyworks Solutions, Inc., and its subsidiaries ("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 INFORMATION IN THIS DOCUMENT AND THE MATERIALS AND PRODUCTS DESCRIBED THEREIN 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 designed, intended, authorized, or warranted for use or inclusion in life support or life endangering applications, devices, or systems where failure or inaccuracy might cause death or personal injury. Skyworks customers agree not to use or sell the Skyworks products for such applications, and further agree to, without limitation, fully defend, indemnify, and hold harmless Skyworks and its agents from and against any and all actions, suits, proceedings, costs, expenses, damages, and liabilities including attorneys' fees arising out of or in connection with such improper use or sale.

Skyworks assumes no liability for applications assistance, customer product design, or damage to any equipment resulting from the use of Skyworks products outside of Skyworks' published specifications or parameters. Customers are solely responsible for their products and applications using the Skyworks products.

"Skyworks" and the Skyworks Starburst logo are registered trademarks of Skyworks Solutions, Inc., 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.