



# SKY58254-11 Front End Module for LTE and NR

## **Applications**

- Multi-band 4G / 5G handsets
  - -Band 41 and n41

#### **Features**

- Fully Baseband Agnostic Design
- Full Power APT support without DPD
- HB PAMiF covering Band n41
- MIPI<sup>®</sup> v2.1 compliant 52 MHz RFFE bus
- High performance ET/APT PA core
- 50 ohm input/output impedance with internal DCblocking
- Continuous bias control via RFFE interface
- Low leakage current in power-down mode
- Integrated Tx-Rx switches
- Small, low profile package
  - 5.0 mm x 3.0 mm x 0.7 mm (Max.)
  - 30-pad surface mount (SMT) configuration



Skyworks Green<sup>™</sup> products are compliant with all applicable legislation and are halogen-free. For additional information, refer to *Skyworks Definition of Green*<sup>™</sup>, document number SQ04–0074.

### Description

The SKY58254-11 is a recent addition to our Sky5 portfolio of 5G Technology products. This versatile and fully matched Front-End Module (FEM) supports 5G band 41 and NR applications.

Packaged in a single 5.0 mm x 3.0 mm x 0.7 mm (Max.) form factor, the 30-pad surface mount (SMT) module consists of PA blocks, input/output impedance matched to 50 ohms, an MIPI standard digital control block, single-ended filters, Tx-Rx switches and forward/reverse coupler.

Utilizing an enhanced architecture, the SKY58254-11 covers full Band 41 and meets the spectral linearity requirements of CP-OFDM and DFTS-OFDM modulations with up to 100 MHz bandwidth and up to 273 resource block allocations.

Varying the input power controls the output power and adjusting VCC maximizes efficiency. Extremely low leakage current maximizes handset stand-by time.



Figure 1. SKY58254-11 Functional Block Diagram

## **Ordering Information**

Part Number	Part Description	Evaluation Board Part Number
SKY58254-11	Front End Module for LTE and NR	SKY58254-11EK1

Copyright © 2023, 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 COM-PLETENESS 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 LIM-ITATION, 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 Skyworks' published specifications or parameters.

Skyworks, the Skyworks symbol, Sky5<sup>®</sup>, SkyOne<sup>®</sup>, SkyBlue<sup>™</sup>, Skyworks Green<sup>™</sup>, ClockBuilder<sup>®</sup>, DSPLL<sup>®</sup>, ISOmodem<sup>®</sup>, ProSLIC<sup>®</sup>, SiPHY<sup>®</sup>, and RFelC<sup>®</sup> 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.