



PRODUCT SUMMARY

SKY66524-11: 3300 to 3800 MHz Wide Instantaneous Bandwidth High-Efficiency Power Amplifier

Applications

- 5G NR and 4G LTE systems
- Enterprise small-cell and massive MIMO
- Driver amplifier for micro base stations
- Driver amplifier for macro base stations

Features

- Wide instantaneous bandwidth: 400 MHz
- High-efficiency: PAE = 27% @ +30 dBm
- High linearity: < -45 dBc ACLR at +30 dBm with pre-distortion (400 MHz IBW, 9 dB PAR signal)
- High gain: 33 dB
- Input and output matched to 50 Ω
- Integrated active bias
- Integrated enable ON/OFF function
- Pin-to-pin compatible with PA family supporting major 3GPP bands
- Compact (16-pin, 5 x 5 x 1.04 mm) package (MSL3, 260 per JEDEC J-STD-020)



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.

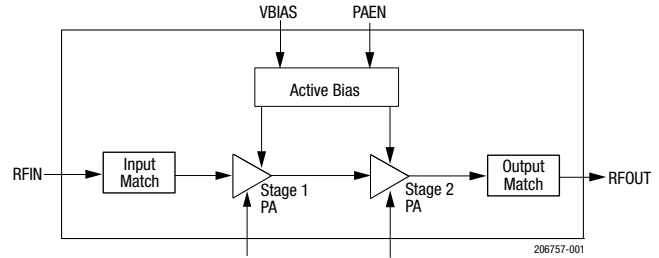


Figure 1. SKY66524-11 Block Diagram

Description

The SKY66524-11 is a highly efficient, wide instantaneous bandwidth, fully input/output matched power amplifier (PA) with high gain and linearity. The compact 5 × 5 mm PA is designed for 5G NR and 4G LTE systems operating from 3300 to 3800 MHz.

The active biasing circuitry is integrated to compensate PA performance over temperature, voltage, and process variation.

The SKY66524-11 is part of a pin-to-pin compatible family of high efficiency PAs supporting major 3GPP bands.

A block diagram of the SKY66524-11 is shown in Figure 1. Table 1 lists the pin-to-pin compatible PA family.

Table 1. Pin-to-Pin Compatible PA Family

Part Number	Frequency (MHz)	3GPP Band	IBW (MHz)
SKY66522-11	2300 to 2700	B7, B38, B40, B41, and n41	200
SKY66520-11	3300 to 3800	n78, B42, and B43	200
SKY66523-11	3550 to 4200	n77	200
SKY66524-11	3300 to 3800	n78, B42, and B43	400
SKY66525-11	3450 to 4200	n77	400

Ordering Information

Part Number	Part Description	Evaluation Board Part Number
SKY66524-11	3300 to 3800 MHz Wide Instantaneous Bandwidth High-Efficiency Power Amplifier	SKY66524-11EK1

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 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, the Skyworks symbol, Sky5®, SkyOne®, SkyBlue™, Skyworks Green™, ClockBuilder®, DSPLL®, ISOModem®, ProSLIC®, SiPHY®, and RFelC® 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.