

#### PRODUCT SUMMARY

# SKY66298-11: 900 to 990 MHz High-Efficiency 4 W Power Amplifier

## **Applications**

- FDD and TDD 2G/3G/4G LTE systems
- . 3GPP band 8 small cell base stations
- Driver amplifier for micro and macro base stations
- Active antenna array and massive MIMO

#### **Features**

- High efficiency: PAE = 40% @ +28 dBm
- High linearity: +28 dBm with < -50 dBc linearized ACLR (20 MHz LTE, 8.5 dB PAR signal)
- High gain: 34 dB
- $\bullet$  Excellent input and output return loss: to 50  $\Omega$  system
- Integrated active bias: performance compensated over temp
- Integrated enable On/Off function: PAEN = 1.7 to 2.5 V
- Single supply voltage: 5.0 V
- Pin-to-pin compatible PA family supporting all 3GPP bands
- Compact (16-pin,  $5 \times 5 \times 1.3$  mm) package (MSL3, 260 °C per JEDEC J-STD-020)



Skyworks Green<sup>TM</sup> products are compliant with all applicable legislation and are halogen-free. For additional information, refer to *Skyworks Definition of Green*<sup>TM</sup>, document number SQO4-0074.

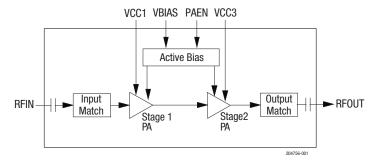


Figure 1. SKY66298-11 Block Diagram **Description** 

SKY66298-11 is a high-efficiency fully input/output matched power amplifier (PA) with high gain and linearity. The compact  $5 \times 5$  mm PA is designed for FDD and TDD 2G/3G/4G LTE small cell base stations operating from 900 to 990 MHz. The active biasing circuitry is integrated to compensate PA performance over temperature, voltage, and process variation.

The SKY66298-11 is part of high efficiency, pin-to-pin compatible PA family supporting all 3GPP bands. Table 1 lists the pin-to-pin compatible parts in the PA family.

A block diagram of the SKY66298-11 is shown in Figure 1.

**Table 1. Pin-to-Pin Compatible PA Family** 

Part Number	Frequency (MHz)	3GPP Band
SKY66296-11	700 to 800	Band 12, 13, 14, 17, 29, and 44
SKY66289-11	791 to 821	Band 20
SKY66295-11	800 to 900	Band 5, 18, 19, 20, 26 and 27
SKY66298-11	900 to 990	Band 8
SKY66291-11	1805 to 1880	Bands 3 and 9
SKY66299-11	1900 to 2000	Band 2, 25, 33, 36, and 37
SKY66294-11	2000 to 2300	Band 1, 4, 10, and 23
SKY66292-11	2300 to 2400	Band 30 and 40
SKY66297-11	2490 to 2690	Band 7, 38, and 41
SKY66293-11	3400 to 3600	Band 22 and 42
SKY66288-11	5150 to 5925	LTE-U

### **Ordering Information**

Model Name	Manufacturing Part Number	Evaluation Board Part Number
SKY66298-11: 900 to 990 MHz High-Efficiency 4 W Power Amplifier	SKY66298-11	SKY66298-11-EVB

Copyright © 2017 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 and the Skyworks symbol are trademarks or 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, are incorporated by

# **X-ON Electronics**

Largest Supplier of Electrical and Electronic Components

Click to view similar products for RF Development Tools category:

Click to view products by Skyworks manufacturer:

Other Similar products are found below:

MAAM-011117 MAAP-015036-DIEEV2 EV1HMC1113LP5 EV1HMC6146BLC5A EV1HMC637ALP5 EVAL-ADG919EBZ ADL5363EVALZ LMV228SDEVAL SKYA21001-EVB SMP1331-085-EVB EV1HMC618ALP3 EVAL01-HMC1041LC4 MAAL-011111-000SMB
MAAM-009633-001SMB 107712-HMC369LP3 107780-HMC322ALP4 SP000416870 EV1HMC470ALP3 EV1HMC520ALC4
EV1HMC244AG16 124694-HMC742ALP5 SC20ASATEA-8GB-STD MAX2837EVKIT+ MAX2612EVKIT# MAX2692EVKIT#
SKY12343-364LF-EVB 108703-HMC452QS16G EV1HMC863ALC4 EV1HMC427ALP3E 119197-HMC658LP2 EV1HMC647ALP6
ADL5725-EVALZ 106815-HMC441LM1 EV1HMC1018ALP4 UXN14M9PE MAX2016EVKIT EV1HMC939ALP4 MAX2410EVKIT
MAX2204EVKIT+ EV1HMC8073LP3D SIMSA868-DKL SIMSA868C-DKL SKY65806-636EK1 SKY68020-11EK1 SKY67159-396EK1
SKY66181-11-EK1 SKY65804-696EK1 SKY13396-397LF-EVB SKY13380-350LF-EVB SKY13373-460LF-EVB