PRODUCT SUMMARY

SKY77767 SkyHi™ Power Amplifier Module for LTE – Band 7 (2500–2570 MHz)

Applications

- LTE

Features

- Low voltage positive bias supply 3.0 V to 4.5 V
- Good linearity
- Large dynamic range
- Small, low profile package
  - 3 mm x 3 mm x 0.9 mm
  - 10-pad configuration
- Power down control
- InGaP
- Supports low collector voltage operation
- Digital Enable
- No V_{REF} required
- CMOS compatible control signals
- Integrated Directional Coupler
- For RoHS and other product compliance information, see the Skyworks Certificate of Conformance

Description

The SKY77767 Power Amplifier Module (PAM) is a fully matched, 10-pad, surface mount (SMT) module. This small and efficient module packs full 2500–2570 MHz bandwidth coverage into a single compact package. Because of high efficiencies attained throughout the entire power range, the SKY77767 delivers unsurpassed talk-time advantages. The SKY77767 meets the stringent spectral linearity requirements of Long Term Evolution (LTE) data transmission with high power added efficiency. An integrated directional coupler eliminates the need for any external coupler.

The Gallium Arsenide (GaAs) Microwave Monolithic Integrated Circuit (MMIC) contains all amplifier active circuitry, including input and interstage matching circuits. The silicon CMOS support die, providing precision biasing for the MMIC affords a true CMOS-compatible control interface. Output match into a 50-ohm load, realized off-chip within the module package, optimizes efficiency and power performance.

The SKY77767 is manufactured with Skyworks' InGaP GaAs Heterojunction Bipolar Transistor (HBT) process which provides for all positive voltage DC supply operation and maintains high efficiency and good linearity. While primary bias to the SKY77767 can be supplied directly from any suitable battery with an output of 3.2 V to 4.2 V, optimal performance is obtained with VCC2 sourced from a DC-DC power supply adjusted within 0.5 V to 3.6 V based on target output power levels. Power down executes by setting VENABLE to zero volts. No external supply side switch is needed as typical "off" leakage is 1 µA with full primary voltage supplied from the battery.

DISCONTINUED

Ordering Information

Product Name	Order Number	Evaluation Board Part Number
SKY77767 SkyHi™ Power Amplifier Module	SKY77767	EN40-D345-003 V 1



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