PRODUCT SUMMARY

SKY77737 SkyHi™ Power Amplifier Module for LTE Bands 12/17 (698–716 MHz)

Applications

- Long-Term Evolution (LTE)
- Handsets and Data Cards

Features

- QPSK, 16QAM modulations
- Bands XII / XVII linear power at 3.4 V
  - LTE 28 dBm
- Low voltage positive bias supply 3.0 V to 4.5 V
- Excellent linearity and efficiency
- Large dynamic range
- Small, low profile package
  - 3 mm x 3 mm x 0.9 mm
  - 10-pad configuration
- InGaP BiFET Technology

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.

Description

The SKY77737 SkyHi™ Power Amplifier Module (PAM) is a fully matched, surface mount module developed for LTE applications. This small and efficient module packs full coverage of LTE Bands XII / XVII into a single compact package. The SKY77737 meets the stringent spectral linearity requirements of LTE modulation with QPSK / 16QAM modulations from 5 MHz to 10 MHz bandwidth and full or partial resource block allocations with high power added efficiency.

The single Gallium Arsenide (GaAs) Microwave Monolithic Integrated Circuit (MMIC) contains all active circuitry in the module, including the PA, input, and interstage matching. Output match is realized off-chip within the module package to optimize efficiency and power performance into a 50 Ω load. The SKY77737 is manufactured with Skyworks' BiFET process which provides for all positive voltage DC supply operation while maintaining high efficiency and good linearity. Primary bias is supplied via the VCC1 and VCC2 pads directly from battery output in the 3.0 to 4.5 volt range. Power-down is accomplished by setting a logic low level on the VEN pad. No external supply side switch is needed as typical "off" leakage is a few microamperes with full primary voltage supplied from the battery. The VMODE0 and VMODE1 pads are used to switch between high, medium and low power modes to reduce current consumption and gain in the back-off conditions.

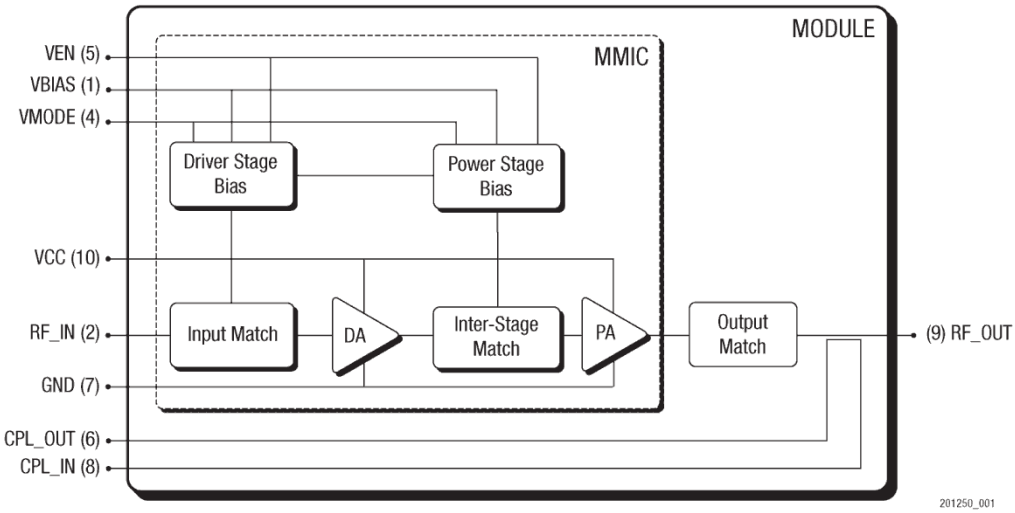

Figure 1. SKY77737 Functional Block Diagram

Ordering Information

Order Number	Manufacturing Part Number	Evaluation Board Part Number
SKY77737	SKY77737-15	EN21-D395-001 REV A VARIANT 1