PRODUCT SUMMARY

SKY77824-11 SkyLite™ Power Amplifier Module for FDD LTE (Bands 7 and 30), TDD LTE (Bands 38/41, 40, and AXGP Band)

Applications

- Long-Term Evolution (LTE)
- Evolved Universal Terrestrial Radio Access Networks (EUTRAN)
- Handsets and Data Cards

Features

- Optimized for Average Power Tracking (APT)
- High efficiency Broadband 2.3 GHz to 2.69 GHz
- MIPI® RFFE interface
- Integrated output switch including TDD Tx/Rx function for single SAW architecture
- RF I/O internally matched to 50 ohms
- Small, low profile package
  - 4.0 x 3.65 x 0.8 mm Max.
  - 28-pad configuration
- Uplink Carrier Aggregation (CA) support for B40/41 (40 MHz)
- For RoHS and other product compliance information, see the Skyworks Certificate of Conformance.

Description

The SKY77824-11 Power Amplifier Module (PAM) is a fully matched, 28-pad surface mount (SMT) module developed for LTE applications. The module includes broadband coverage of FDD LTE Bands 7 and 30, TDD LTE Bands 38/40, and Band 41 in a compact 4.0 x 3.65 mm package. Attaining high efficiencies throughout the entire power range while meeting the stringent linearity requirements of LTE, the SKY77824-11 delivers unsurpassed savings in current consumption for data-intensive applications.

The Gallium Arsenide (GaAs) Microwave Monolithic Integrated Circuit (MMIC) contains all amplifier active circuitry, including input, interstage, and output matching circuits. Output match into a 50-ohm load is realized off-chip within the module package to optimize efficiency and power performance. Silicon-on-insulator (SOI) switch follows the wideband power amplifier to direct the RF output signal to either a band 7 duplexer or one of three TDD filters supporting bands 38, 40, and 41. Additional throws in the SOI switch allow the reuse of TDD filters in Rx mode by providing paths to either the band 40 Rx port (T/R1) or a shared band 38/41/7 Rx port (T/R2). Bias for the PA MMIC and switch is generated on a CMOS IC controlled through a MIPI RFFE interface.

The SKY77824-11 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. Optimal performance is obtained with VCC1 and VCC2 sourced from a DC-DC power supply based on target output power. No external supply side switch is required as typical "off" leakage is a few microamperes.

Ordering Information

Product Name	Order Number	Evaluation Board Part Number
SKY77824-11 Power Amplifier Module	SKY77824-11	TBD