PRODUCT SUMMARY

SKY77741 SkyHi™ Dual-Band Power Amplifier Module for CDMA2000/ WCDMA/ HSDPA/ HSUPA Band I (1920–1980 MHz) Band VIII (880–915 MHz)

APPLICATIONS

- WCDMA handsets
- HSDPA
- HSUPA
- CDMA2000
- EVDO

Features

- Low voltage positive bias supply: 3.0 V to 4.5 V
- Good linearity
- High efficiency
  Band I: 47% at 28.3 dBm
  Band VIII: 47% at 28.5 dBm
- Large dynamic range
- Small, low profile package
  - 4 mm x 3 mm x 0.9 mm
  - 16-pad configuration
- Power down control
- InGaP
- Supports low collector voltage operation
- Digital Enable
- No V_{REF} required
- CMOS compatible control signals
- Integrated Directional Coupler

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.

The SKY77741 SkyHi™ Power Amplifier Module (PAM) is a fully matched, 16-pad, surface mount module developed for Code Division Multiple Access (CDMA) and Wideband Code Division Multiple Access (WCDMA) applications. This small and efficient module packs full WCDMA Band I and Band VIII coverage into a single compact package. The SKY77741 meets the stringent spectral linearity requirements of WCDMA transmission, with high power added efficiency for power output to 28.3 dBm (Band I) and 28.5 dBm (Band VIII). The SKY77741 meets the stringent spectral linearity requirements of High Speed Downlink Packet Access (HSDPA) data transmission with high power added efficiency. A directional coupler is integrated into the module thus eliminating the need for any external coupler.

The single Gallium Arsenide (GaAs) Microwave Monolithic Integrated Circuit (MMIC) contains all active circuitry in the module. The MMIC contains on-board bias circuitry, as well as input and interstage matching circuits. Output match into a 50-ohm load is realized off-chip within the module package to optimize efficiency and power performance.

The SKY77741 PAM is manufactured with Skyworks' InGaP GaAs Heterojunction Bipolar Transistor (HBT) BiFET process that provides for all positive voltage DC supply operation while maintaining high efficiency and good linearity. No VREF voltage is required. Power down is accomplished by setting the voltage on VEN_HB and VEN_LB to zero volts. No external supply side switch is needed as typical "off" leakage is a few microamperes with full primary voltage supplied from the battery.

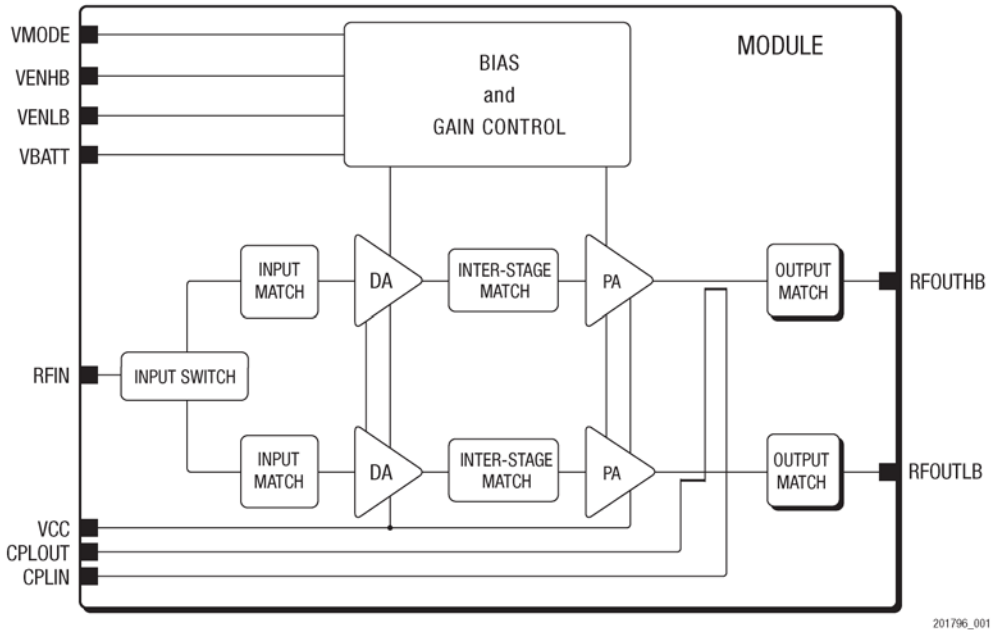


Figure 1. SKY77741 Functional Block Diagram

Ordering Information

Product Name	Order Number	Evaluation Board Part Number
SKY77741 SkyHi™ Dual-Band Power Amplifier Module	SKY77741	EN21-D406-001 REV A V1

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