

**PRODUCT SUMMARY**

# **SKY77751-12 Dual-Band SkyHi™ Power Amplifier Module for WCDMA/ HSDPA/ HSUPA/ HSPA+ / LTE (Bands I, VIII) CDMA (Band I)**

**APPLICATIONS**

- WCDMA handsets
- HSDPA
- HSUPA
- CDMA2000
- EVDO
- LTE

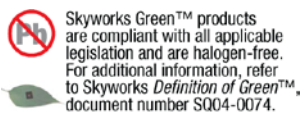
The SKY77751-12 SkyHi™ Power Amplifier Module (PAM) is a fully matched, 16-pad, surface mount module developed for Wideband Code Division Multiple Access (WCDMA), Code Division Multiple Access (CDMA), and Long Term Evolution (LTE) applications. This small and efficient module packs full coverage WCDMA Bands I and VIII into a single compact package. The SKY77751-12 meets stringent spectral linearity requirements for WCDMA transmission up to maximum power output. The PAM also meets stringent spectral linearity requirements for WCDMA, HSDPA, HSUPA, HSPA, and CDMA2000 data transmission with high power-added efficiency. A directional coupler is integrated into the module thus eliminating the need for any external coupler.

**Features**

- Low voltage positive bias supply:  $V_{BATT}$  3.0 V to 4.5 V
- Good linearity
- High efficiency
  - Bands I and VIII: 44% at maximum power output
- Large dynamic range
- Small, low profile package
  - 3 mm x 4 mm x 0.9 mm
  - 16-pad configuration
- Power down control
- InGaP
- Supports low collector voltage VCC operation
- Digital Enable
- No  $V_{REF}$  required
- CMOS compatible control signals
- Integrated Directional 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 SKY77751-12 PAM is manufactured with Skyworks' InGaP GaAs Heterojunction Bipolar Transistor (HBT) process that provides for all positive voltage DC supply operation while maintaining high efficiency and good linearity. No  $V_{REF}$  voltage is required. Power down is accomplished by setting the voltage on VENHB and VENLB 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.



## Ordering Information

Order Number	Manufacturing Part Number	Evaluation Board Part Number
SKY77751	SKY77751-	

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