

PRODUCT SUMMARY

SKY77759-51 Multimode Multiband Power Amplifier Module for Penta-Band (I, II, IV, V, VIII) WCDMA / HSDPA / HSUPA / HSPA+ / LTE Bands 1, 2, 4, 5, 8, 26, 27, 34, 39

Applications

- Multiband 3G handsets
- WCDMA/ HSDPA/ HSUPA/ LTE-modulated handsets for Bands I, II, IV, V, VIII

Features

- 50 ohm input and output impedances, integrated DC blocking on all ports
- CMOS-compatible, two-wire MIPI® logic inputs (SCLK, SDATA)
- VCC stages can attach to battery or buck DC/DC
- Small, low profile package:
5.3 mm x 4.3 mm x 0.75 mm (Max.)
32-pad configuration

3G FEATURES:

WCDMA mode supports output power, bandwidth for bands I, II, IV, V, VIII (and sub-bands IX, X, XVIII, IXX, XXVI) through an integrated band-select switch
Digital bias optimization through RFFE interface for best efficiency / linearity tradeoff

4G FEATURES:

Optimized for Average Power Tracking system
LTE supports output power bandwidth bands 1, 2, 4, 5, 8, 26, 27, 34, 39 (and sub-bands 9, 10, 18, 19, 26)

Description

The SKY77759-51, a multimode multiband (MMMB) Power Amplifier Module (PAM), supports 3G/4G handsets and operates efficiently in WCDMA and LTE modes. The PAM includes separate WCDMA blocks operating in low and high bands, a logic control block for multiple power control levels, and band enable functions in both cellular and UMTS. RF I/O ports are internally matched to 50 Ω to minimize external components. Extremely low leakage current maximizes handset standby time. The InGaP/GaAs die and passive components are mounted on a multi-layer laminate substrate and the assembly encapsulated in plastic overmold.

WCDMA: The SKY77759-51 enhanced architecture supports WCDMA, High-Speed Downlink Packet Access (HSDPA), High-Speed Uplink Packet Access (HSUPA) and LTE modulations; it covers multiple bands for 3GPP including bands I, II, IV, V, VIII, and operates at different power modes. The module is fully controllable via MIPI interface.

LTE: The SKY77759-51 meets spectral linearity requirements of LTE modulation with QPSK/16QAM up to 20 MHz bandwidth, including various resource block allocations, with good power-added efficiency.



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.



Ordering Information

Product Name	Order Number	Evaluation Board Part Number
SKY77759-51 Multimode Multiband Power Amplifier Module	SKY77759-51	EN40-D875-001



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