

PRODUCT SUMMARY

SKY77806 Multiband Front-End Module for LTE Bands 12 / 17, 13

Applications

- Multiband 2G, 3G/4G handsets
 - LTE-modulated handsets for Bands 12 / 17, 13

Features

- SkyShield™ shielded module
- Average Power Tracking (APT)
- 50 ohm input/output impedance with internal DC-blocking
- Temperature Sensor
- MiPi RFFE Control Interface w/ 1.8 V Nominal Supply, Separate Vcc1/Vcc2, Completely Operable for VIO High and Vbatt Low, Continuous Bias Adjustment vs. Power
- Downlink Carrier Aggregation for LTE with state-of-the-art de-sense performance•
- Low Supply voltage
- Excellent harmonic and noise coexistence performance for radiated emissions, enabled by Skyshield™ and product partitioning, to manage simultaneous requirements with GPS/WiFi and B12/17+B4 CA
- Small, low profile package
 - 4.6 x 5.2 x 0.8 mm
 - 34-pad configuration
- Carrier Aggregation (CA):
 - B12/17, 13 PAiD supports DL CA capabilities for CA band combinations
 - B2-B12, B2-B17, B4-B17, B4-B12, B4-B13, B2-B13

Description

The SKY77806, a multiband LTE Front-End Module (FEM), efficiently supports 4G handset operation. The FEM consists of a PA block, a logic control block for multiple power control levels, band enable functions, and integrated duplex filters with single-ended receive outputs. The RF I/O ports internally matched to 50 ohms minimize the need for 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 silver plated plastic overmold.

LTE: SKY77806 meets spectral linearity requirements of LTE modulation with QPSK/16QAM up to 10 MHz bandwidth, including various resource block allocations, with good power-added efficiency.

Receiver Section: The SKY77806's integrated Duplexers provide 4G Rx paths from antenna to LNA port of RFIC. Carrier Aggregation (CA) requirements for noise and harmonics are designed-in for best de-sense performance. Additionally, GPS and LB/HB WiFi coexistence are designed-in for exceptional support to maintain all radio performance, even in user scenarios of simultaneous use. Optimized low insertion-loss Rx paths, matching circuits, and well-grounded guard traces (high Tx–Rx isolation) inside the module mitigate de-sense problems and enhance sensitivity performance.

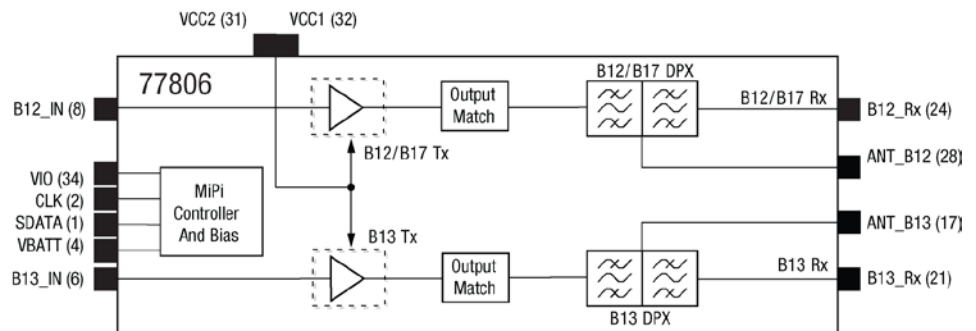
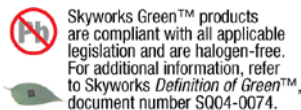


FIGURE 1. SKY77806 FUNCTIONAL BLOCK DIAGRAM



Ordering Information

Product Name	Order Number	Evaluation Board Part Number
SKY77806	SKY77806	

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