



SKYWORKS®

PRODUCT SUMMARY

SKY5A3047 Sky5® Front-End Module for LTE and NR Bands 1, 3, 25, 66, 34, 39, 7, 40 and 41

Applications

- Multi-band 4G and 5G Automotive Telematics
- Network Attached Device (NAD)
- Long Term Evolution (LTE)
 - Up to 60 MHz bandwidth/300 resource blocks
- 5G New Radio: Up to 190 MHz bandwidth

Features

- Multiple Gain State Average Power Tracking Mode
- 50 ohm input/output impedance with internal DC-blocking
- Integrated LNAs for Bands 1, 3, 25 (70), 66, 34, 39, 7, 40, 41, 11, 21
- Two fully programmable MIPI™ v3.0 digital controls
- Continuous bias control via MIPI/RFFE interface
- Low supply voltage
- Low leakage current in power-down mode
- Temperature sensor
- Autonomous over voltage protection
- Integrated filters for Bands 1, 3, 25 (70), 66, 34, 39, 7, 40, 41
- Integrated antenna and band select switches
- Small, low profile package
 - 6.5 mm x 6.25 mm x 0.8 mm Max
 - 135-pad configuration
- Integrated duplexers
- SkyShield™ self-shielded module
- Automotive Support:
 - AEC-Q104 Grade2 qualification
 - PPAP
 - IMDS material declaration

Description

The SKY5A3047 Front-End Module (FEM) is a fully matched, 135-pad Dual-Sided Mold Grid Array (DSMGA) module developed for 4G LTE and 5G NR applications. The FEM is a low profile 6.5 mm x 6.25 mm x 0.8 mm (Max.) package which consists of PA blocks, LNA blocks, RF inputs and outputs matched to 50 ohms, two Mobile Industry Processor Interface (MIPI®) standard digital control blocks and integrated duplexers for bands Front-End Module for LTE Bands 1, 3, 25 (70), 66, 34, 39, 7, 40, 41.

The enhanced SKY5A3047 architecture covers multiple bands and meets the spectral linearity requirements of LTE QPSK, 16QAM, and 64QAM modulations and New Radio DFTS-OFDM and CP-OFDM modulations up to 190 MHz bandwidth. Power output is controlled by varying the input power. An extremely low leakage current maximizes handset standby time.

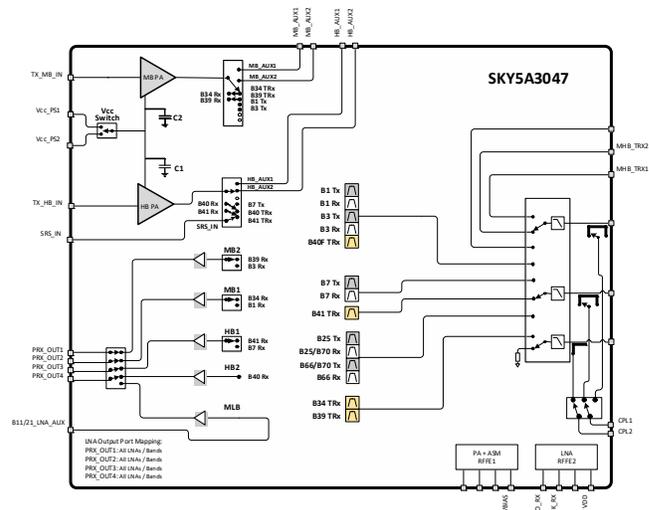


Figure 1. SKY5A3047 Functional Block Diagram

 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

Part Number	Part Description	Evaluation Board Part Number
SKY5A3047	Front-End Module for LTE and NR Bands 1, 3, 25, 66, 34, 39, 7, 40 and 41	SKY5A3047EK1

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