

PRODUCT SUMMARY

SKY58503-16: Sky5® Front-End Module for LTE, NR, and NTN Bands 1, 3, 7, 25, 30, 32 (75/76), 40, 41, 66, 70, 255, and 256 (23)

Applications

- Multiband 4G, 5G and NTN handsets
- Long Term Evolution (LTE), up to 60 MHz bandwidth/300RB
- 5G New Radio: Up to 190 MHz bandwidth

Features

- Highly integrated 1T2R support
- Multiband NTN support for emergency
- High efficiency average power tracking (APT) mode
- Integrated bands 1, 3, 7, 25, 30, 32 (75/76), 40, 41, 66, 70 (66 TX and 25 RX), 255, and 256 (23)
- Two fully programmable Mobile Industry Processor Interface (MIPI®) v3.0 digital controls
- Continuous bias control via MIPI/RFEE interface
- Low leakage current in power-down mode
- Autonomous over voltage protection
- Integrated antenna and band select switches
- One auxiliary MB TX outputs for external filter
- Two auxiliary TRX ports to support additional bands
- Four auxiliary LNA AUX ports to support additional bands
- Integrated bidirectional RF coupler with cascade support
- Integrated SRS_IN and SRS_OUT functions for B40 and B41 support
- Small, low-profile package:
7.1 mm x 6.8 mm x 0.75 mm (max.)
MSL3, 260 °C per JEDEC J-STD-020
- SkyShield™ self-shielded module
- For RoHS and other product compliance information, see the [Skyworks Certificate of Conformance](#).

Description

The SKY58503-16 is a fully matched, Dual-Sided Mold Grid Array (DSMGA) module developed for 4G LTE and 5G NR applications. The SKY58503-16 is part of our Sky5® product portfolio.

The FEM is housed in a low profile package which includes PAs, LNAs, and RF inputs and outputs matched to 50 Ω.

Also included are MIPI standard digital control blocks and integrated duplexers for LTE bands 1, 3, 7, 25, 30, 32 (75/76), 40, 41, 66, and 70.

The enhanced SKY58503-16 architecture covers multiple bands and meets the spectral linearity requirements of LTE QPSK, 16QAM, and 64QAM modulations and New Radio DFTS-OFDM and CPOFDM modulations up to 190 MHz bandwidth.

Power output is controlled by varying the input power. An extremely low leakage current maximizes handset standby time.

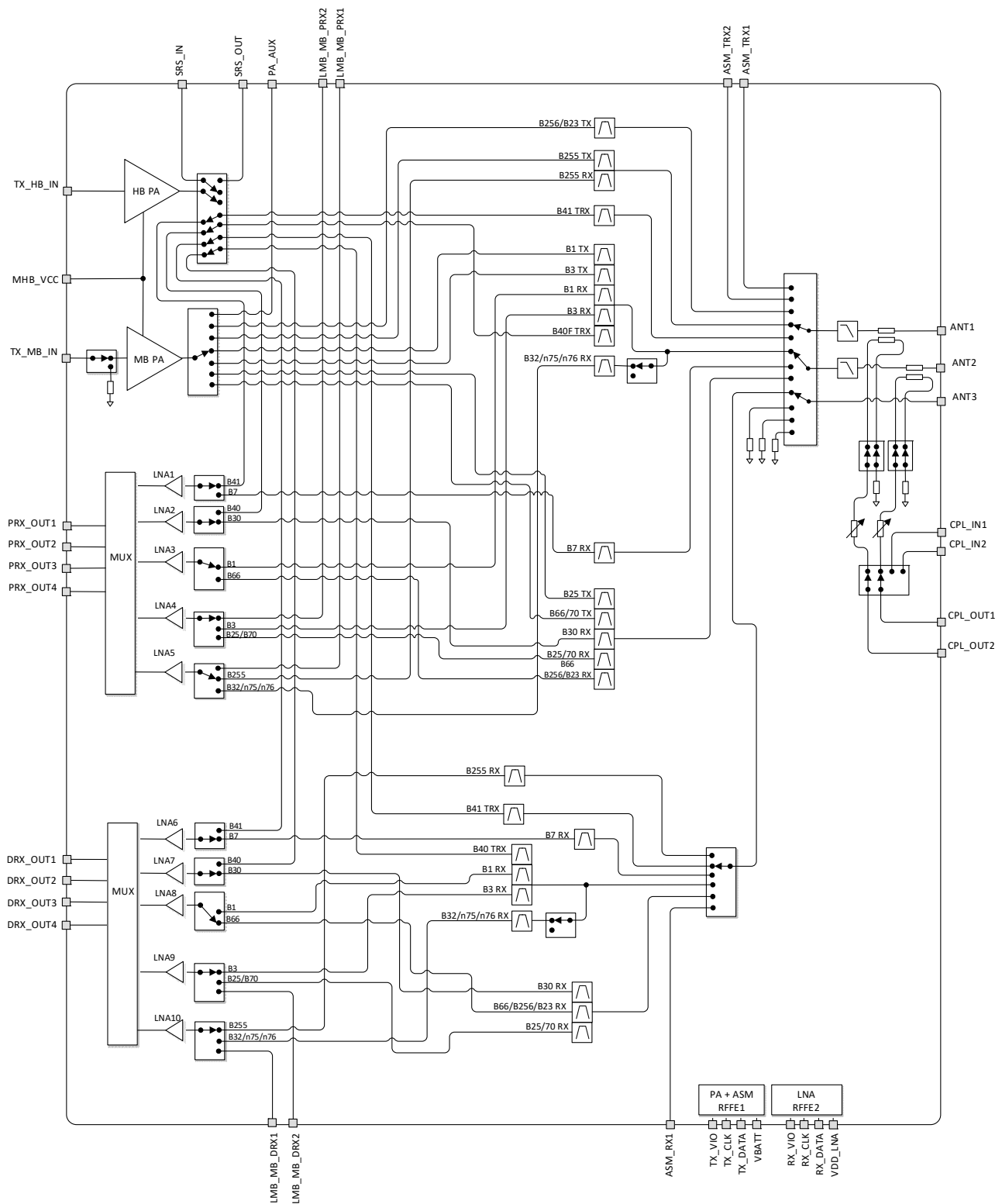


Figure 1. Functional Block Diagram

Ordering Information

Part Number	Description	Evaluation Board Part Number
SKY58503-16	Sky5® Front-End Module for LTE, NR, and NTN Bands	SKY58503-16EK1

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