

PRODUCT SUMMARY

SKY58504-15: Sky5® Front-End Module for 4G and 5G Applications

Applications

- Multiband 4G and 5G mobile devices
- Handsets
- Data cards
- Machine-to-Machine (M2M) networked devices

Features

- Supports 4G/5G NR bands:
 - B42, B43, B48, n48, n77, n78, and n79
- Full power average power tracking (APT) support
- Enhanced high efficiency APT PA core
- Fully baseband agnostic design
- Supports 2-Carrier Aggregation (2CA) n77 and n79 downlink (DL)
- Supports fast SRS hopping timing requirements
- Low leakage current in power-down mode
- Integrated TX-RX switch
- Integrated SRS switch
- Integrated duplexers
- Two integrated low noise amplifiers (LNAs), filter/switch paths support primary and MIMO receive within same module
- MIPI® v2.1 compliant 52 MHz RFFE bus
- MIPI v3.0 compliant RX function support
- Double-sided molded ball grid array (DSMGA) package with conformal shielding:
 - 3.8 mm x 3.8 mm x 0.75 mm (max)
 - MSL3, 260 °C per JEDEC J-STD-020
- For RoHS and other product compliance information, see the [Skyworks Certificate of Conformance](#).

Description

The SKY58504-15 is a 51-pad surface mount (SMT) module consisting of PA blocks, input and output matching, a MIPI standard digital control block, single-ended filters, antenna and band select switches, duplexers and low noise amplifier (LNA).

The SKY58504-15 is part of our Sky5® product portfolio. Key advances compared to previous generation dual band UHB modules are integrated MIMO RX path, duplexers, wider bandwidth, 2 CA n77 and n79 DL, and increased output power.

The high-power output enables PC2 support for n77 and n79. This front-end module (FEM) supports multiband 4G/5G and LTE/NR applications.

Utilizing an enhanced architecture, the SKY58504-15 covers multiple bands and meets the spectral linearity requirements of CP-OFDM and DFTS-OFDM modulations with up to 100 MHz bandwidth and up to 273 resource block allocations.

Output power is controlled by varying input power and adjusting VCC to maximize efficiency. Extremely low leakage current maximizes handset standby time.

Block Diagram

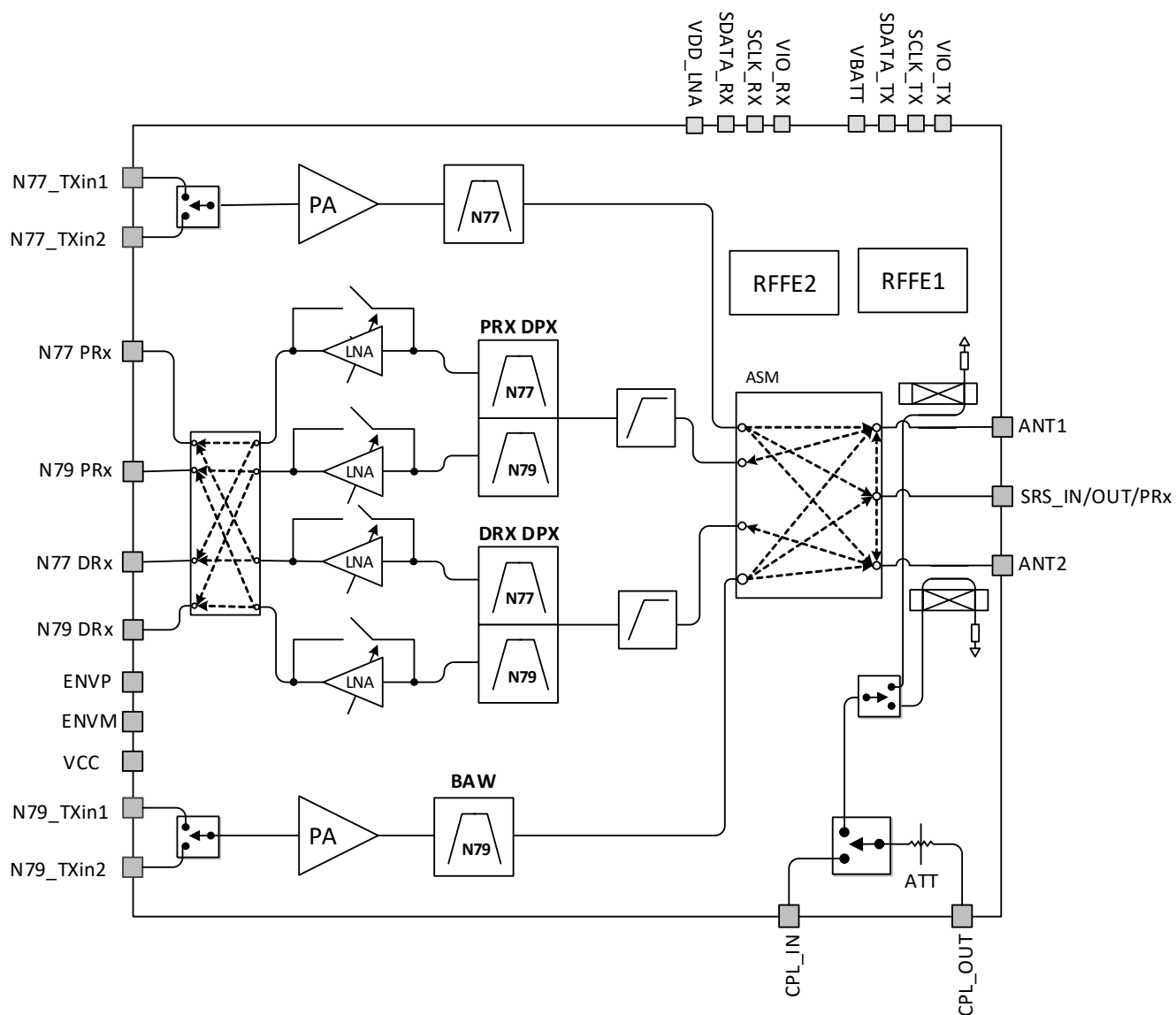


Figure 1. Functional Block Diagram

Ordering Information

Part Number	Description	Evaluation Board Part Number
SKY58504-15	Sky5® Front-End Module for 4G and 5G Applications	SKY58504-15EK1

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