

PRODUCT SUMMARY

SKY5A3300: Sky5® Front-End Module for LTE and NR

Applications

- 4G/5G automotive and telematics Network Attached Device (NAD)

Features

- UHB LPAMiF for B42, B43, B48, n77, and n78
- Fully baseband-agnostic design
- Full power average power tracking (APT) support without digital predistortion (DPD)
- n78 PC2 power support
- Integrated n77, n78 primary and MIMO RX path
- MIPI® v3.0 compliant 52 MHz RFFE bus
- High-performance APT/envelope tracking (ET) power amplifier (PA) cores
- Supports 2 x 2 UL-MIMO using two TX placements
- Supports Fast SRS Hopping timing requirements
- Integrated antenna (ANT) swap switch
- Integrated SRS_IN/OUT port supports full SRS connectivity
- Switchable LAA input
- 50 Ω I/O impedance with internal dc-blocking
- Continuous bias control via RFFE interface
- Low leakage current in power-down mode
- High-performance, integrated low noise amplifier (LNA) with MIPI® control features:
 - Up to seven gain modes
 - Independent gain and bias control
- Integrated wide bandwidth filters
- Automotive support:
 - AEC-Q104 Grade 2
 - Production Part Approval Process (PPAP)
 - IMDS material declaration
- For RoHS and other product compliance information, see the [Skyworks Certificate of Conformance](#).

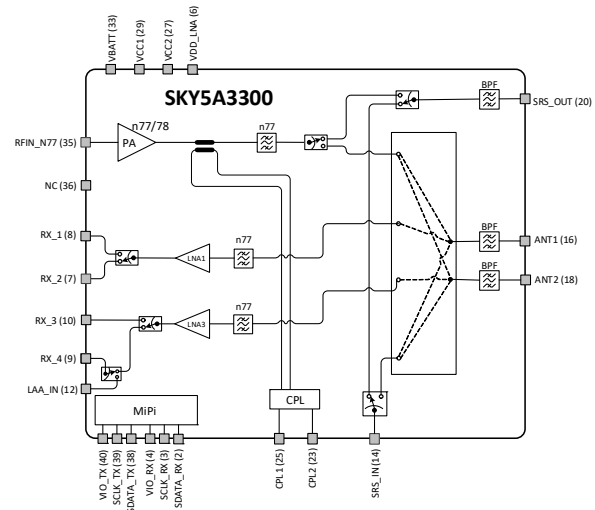


Figure 1. Functional Block Diagram

Description

The SKY5A3300 Front-End Module (FEM) for LTE and NR is a new addition to our Sky5® portfolio of 5G technology products. Key advances compared to previous generation dual-band UHB modules are integrated MIMO RX path and increased output power.

A higher Pout enables PC2 support for n78.

This versatile and fully matched FEM supports multi-band 4G/5G and LTE/NR applications.

Using an enhanced architecture, the device covers multiple bands and meets the spectral linearity and error vector magnitude (EVM) requirements of CP-OFDM and DFTS-OFDM modulations up to 256 QAM.

Output power is controlled by varying input power and adjusting VCC to maximize efficiency. Extremely low leakage current maximizes standby time. Packaged in a single 4.5 mm x 5.5 mm x 0.7 mm (max.) form factor, the 42-pad surface mount (SMT) module consists of PA blocks, input and output matching, a MIPI standard digital control block, single-ended filters, antenna- and band-select switches, and LNA.

Ordering Information

Part Number	Description	Evaluation Board Part Number
SKY5A3300	Sky5® Front-end Module for LTE and NR	SKY5A3300EK1

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