

PRODUCT SUMMARY

SKY58258-21 Sky5®: Front-End Module for LTE and NR

Applications

- Multi-band 4G/5G handsets
 - Band B42, B43, B48, n48, n77, n78 and C-band

Features

- Full Baseband-Agnostic Design
- Full Power APT support without DPD
- UHB S-PAD covering B42, B43, B48, n48, n77, n78 and C-band
- MIPI® v2.1 compliant 52 MHz RFFE bus
- High Performance ET/APT PA core
- High performance LNA cores
- Support Fast SRS Hopping timing requirements
- 50 ohm input / output impedance with internal DC-blocking
- Continuous bias control via RFFE interface
- Low Supply voltage
- Low leakage current in power-down mode
- Integrated TX-RX switch
- Integrated LNA with MIPI® control features
 - up to six gain modes
 - independent gain and bias control
- Integrated wide bandwidth filters
- Small, low profile package
 - 5.0 mm x 3.0 mm x 0.7 mm (Max)
 - 30-pad configuration (includes 16-pad ground array)

Description

The SKY58258-21 Front-End Module (FEM) for LTE and NR is a recent addition to the Skyworks Sky5® portfolio of 5G Technology products. Packaged in a single 5.0 mm x 3.0 mm x 0.7 mm (Max) form factor, this versatile and fully matched FEM supports ultra-high band 4G/5G and LTE/NR applications.

The 30-pad surface mount (SMT) module consists of PA blocks, input and output ports matched to 50 ohms, a MIPI standard digital control block, single-ended filter, antenna and Tx-Rx switches and low noise amplifier (LNA).

Utilizing an enhanced architecture, the SKY58258-21 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 maximizes efficiency. Extremely low leakage current maximizes handset stand-by time.

A functional block diagram is shown in Figure 1.



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.

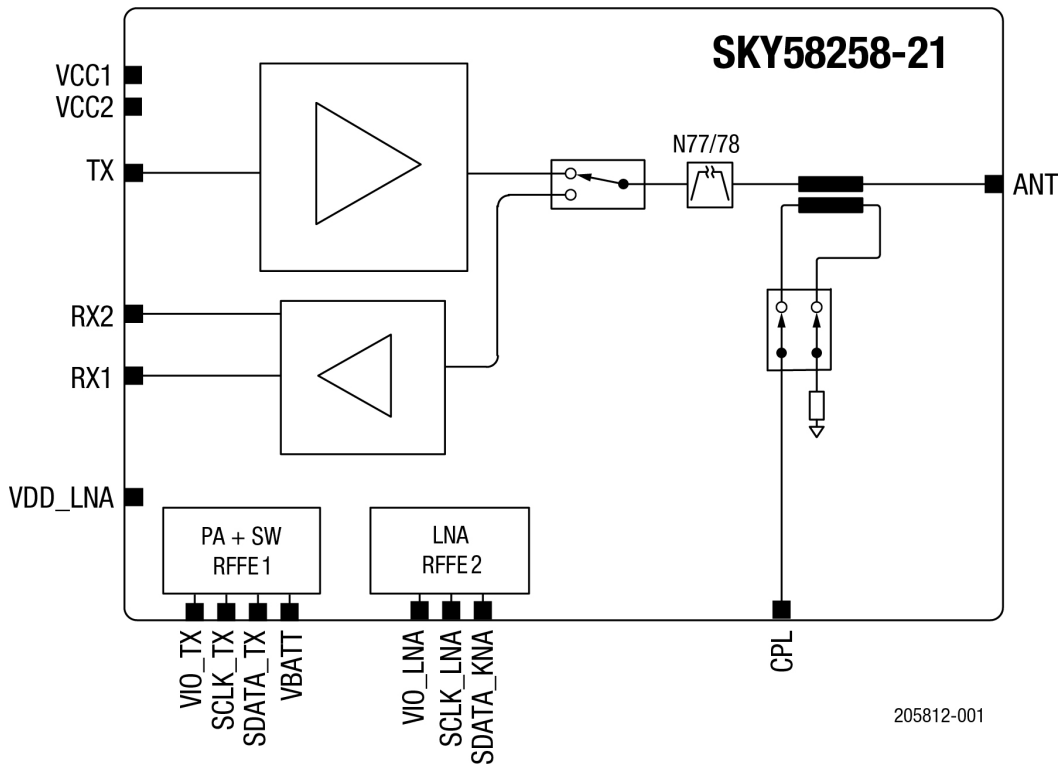


Figure 1. SKY58258-11 Functional Block Diagram

Ordering Information

Part Number	Product Description	Evaluation Board Part Number
SKY58258-21	Front-End Module	SKY58258-21

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