

**PRODUCT SUMMARY**

# SKY85707-21: 5 GHz, 802.11n/ac Front-End Module

**Applications**

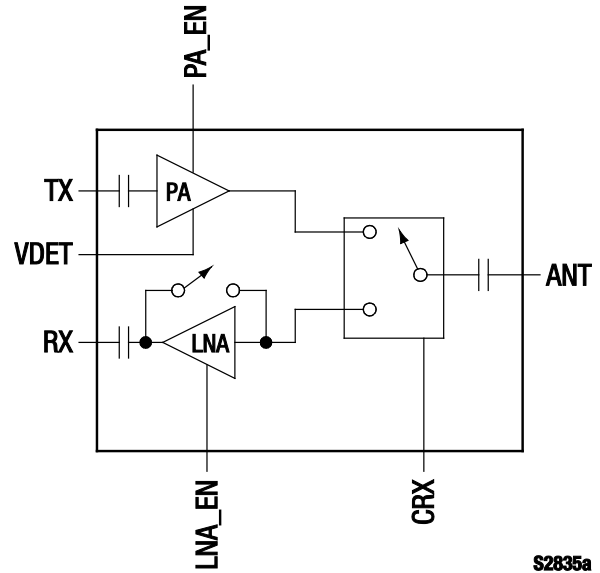
- WiFi-enabled handsets, tablets, and mobile/portable systems
- System-in-Package (SIP) modules for embedded systems
- 802.11n/ac smartphones and tablets

**Features**

- Integrated high performance 5 GHz PA with harmonic filter, LNA with bypass, and SPDT
- Fully-matched input and output
- Integrated, positive slope power detector
- Transmit loopback mode
- Transmit gain: 28 dB
- Receive gain: 12 dB
- Output power: +17 dBm, MCS7, HT40
- Output power: +15 dBm @ 1.8% EVM, MCS9, HT80
- Direct connection to battery with 3.6 V nominal supply voltage
- Small, QFN (16-pin, 2.5 x 2.5 x 0.4 mm) package (MSL1, 260 °C per JEDEC J-STD-020)



Skyworks Pb-free products are compliant with all applicable legislation. For additional information, refer to *Skyworks Definition of Lead (Pb)-Free*, document number SQ04-0073.



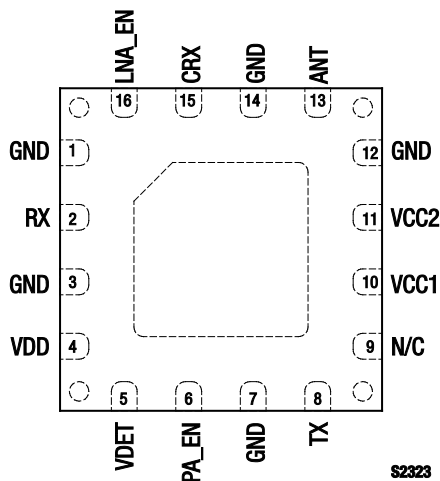
**Figure 1. SKY85707-21 Block Diagram**

**Description**

The SKY85707-21 is a highly-integrated, 5 GHz Front-End Module (FEM) incorporating a 5 GHz Single-Pole, Double-Throw (SPDT) transmit/receive (T/R) switch, a 5 GHz Low-Noise Amplifier (LNA) with bypass, and a 5 GHz Power Amplifier (PA) intended for mobile/portable 802.11n/ac applications and systems.

An enable/disable function is included that allows power savings during off mode. An integrated power detector with 20 dB of dynamic range is included to provide closed-loop power control within the system.

The device is provided in a compact, 16-pin 2.5 x 2.5 x 0.4 mm Quad Flat No-Lead (QFN) package. A functional block diagram is shown in Figure 1. The pin configuration and package are shown in Figure 2.



**Figure 2. SKY85707-21 Pinout – 16-Pin QFN (Top View)**

## Ordering Information

Model Name	Manufacturing Part Number	Evaluation Board Part Number
SKY85707-21 5 GHz, 802.11n/ac Front-End Module	SKY85707-21	SKY85707-21-EVB

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