

PRODUCT SUMMARY

SKY65601-477LF: 1.575 GHz GPS/GNSS/BDS Low-Noise Amplifier

Applications

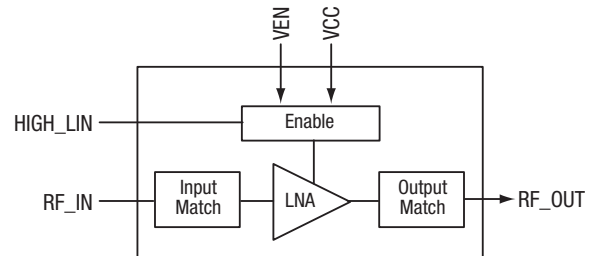
- GPS/GNSS/BDS radio receivers
- Global Navigation Satellite Systems (GLONASS)
- Smart phones
- Tablet/laptop PCs
- Personal navigation devices

Features

- All matching components integrated (no inductors required)
- Small signal gain: 16.8 dB typical
- IIP3: +4 dBm
- Low Noise Figure: 0.8 dB typical
- IP1dB: up to -4.8 dBm
- Low current consumption
- Input/output impedance internally matched to 50 Ω
- Single DC supply: 1.8 to 3.6 V
- Minimal number of external components required
- Small, DFN (6-pin, 2.0 x 1.3 mm) package (MSL1, 260 °C per JEDEC J-STD-020)



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.



S2412a

Figure 1. SKY65601-477LF Block Diagram

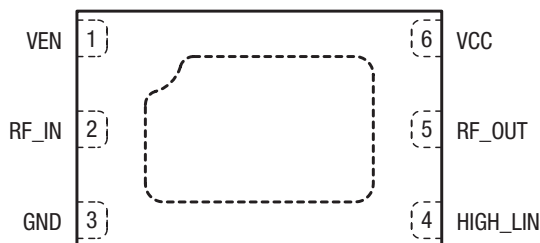
Description

The SKY65601-477LF is a Microwave Monolithic Integrated Circuit (MMIC) front-end Low Noise Amplifier (LNA) designed for Global Positioning System/Global Navigation Satellite System/Beidou Navigation Satellite System (GPS/GNSS/BDS) receiver applications. The device provides high linearity, excellent gain, a high 1 dB Input Compression Point (IP1dB), and a superior Noise Figure (NF). All critical matching components are embedded inside the device. No external matching components are required.

The SKY65601-477LF is optimized to operate at 1.559 and 1.610 GHz, which makes it ideal for GPS/GNSS/BDS radio receiver applications.

The SKY65601-477LF is fabricated using advanced SiGe BiCMOS technology. The LNA uses Surface Mount Technology (SMT) in the form of a 2.0 x 1.3 mm Dual Flat No-Lead (DFN) package, which allows for a highly manufacturable and low-cost solution.

A functional block diagram is shown in Figure 1. The pin configuration and package are shown in Figure 2.



S2651

Figure 2. SKY65601-477LF Pinout – 6-Pin DFN (Top View)

Ordering Information

Model Name	Manufacturing Part Number	Evaluation Board Part Number
SKY65601-477LF GPS/GNSS/BDS Low-Noise Amplifier	SKY65601-477LF	TW18-D820-V2

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