

**PRODUCT SUMMARY**

# SKY65709-81: Low-Noise Amplifier Front-End Module with BDS/GPS/GNSS Pre-Filter

**Applications**

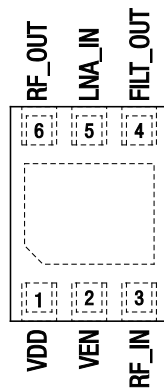
- BDS/GPS/GNSS radio receivers
- Global Navigation Satellite Systems (GLONASS)

**Features**

- Small signal gain: 14.5 dB typical
- Low Noise Figure: 1.9 dB typical
- 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, MCM (6-pin, 1.7 x 2.3 mm) package (MSL3, 260 °C per JEDEC J-STD-020)

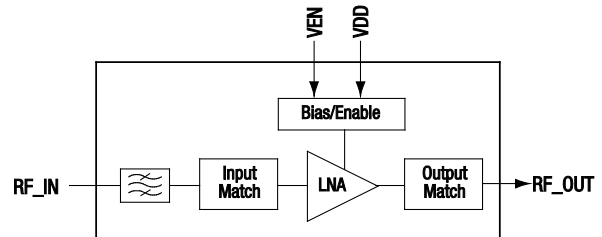


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S2551

**Figure 2. SKY65709-81 Pinout – 6-Pin MCM (Top View)**



S3078

**Figure 1. SKY65709-81 Block Diagram**

**Description**

The SKY65709-81 is a Front-End Module (FEM) with an integrated Low Noise Amplifier (LNA) and pre-filter designed for the BeiDou Satellite Navigation System/Global Positioning System/Global Navigation Satellite System (BDS/GPS/GNSS) receiver applications. The device provides high linearity, excellent gain, a high 1 dB Input Compression Point (IP1dB), and a superior Noise Figure (NF).

The LNA is fabricated using advanced silicon technology. The pre-filter provides the low in-band insertion loss and excellent rejection of the cellular, PCS, and WLAN frequency bands. The SKY65709-81 uses Surface Mount Technology (SMT) in the form of a 1.7 x 2.3 mm Multi-Chip Module (MCM) 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.

## Ordering Information

Model Name	Manufacturing Part Number	Evaluation Board Part Number
SKY65709-81 Low-Noise Amplifier FEM with GPS/GNSS Filter	SKY65709-81	TW21-630

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