

**PRODUCT SUMMARY**

# SKY65704-22: Low-Noise Amplifier Front-End Module with GPS/GNSS Pre-Filter

**Applications**

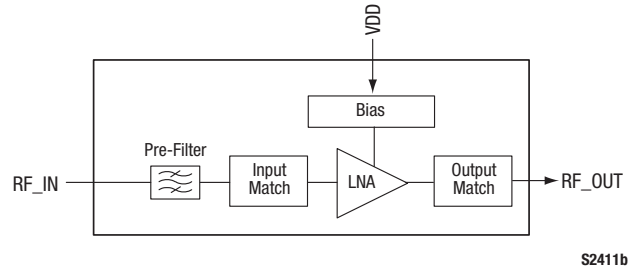
- GPS/GNSS radio receivers
- Smartphones
- Laptop PCs and tablets

**Features**

- Small signal gain: 14.5 dB typical
- IIP3: +6 dBm
- Low noise figure: 2.5 dB typical
- Low current consumption
- Input/output impedance internally matched to 50 Ω
- Single DC supply: 1.8 V
- No external components required
- Small MCM (10-pin, 2.8 x 2.5 mm) package (MSL3, 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.



**Figure 1. SKY65704-22 Block Diagram**

**Description**

The SKY65704-22 is an integrated, front-end module (FEM) with an integrated low-noise amplifier (LNA) and pre-filter designed for Global Positioning System/Global Navigation Satellite System (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 GaAs pHEMT technology. The GPS pre-filter provides the low in-band insertion loss and integrated notch filtering for excellent rejections of the cellular, PCS, and WLAN frequency bands. The SKY65704-22 uses surface-mount technology (SMT) in the form of a 2.8 x 2.5 mm Multi-Chip Module (MCM) package, which allows for a highly manufacturable and low-cost solution.

An integrated low-band notch filter is incorporated in the SKY65704-22 to improve second order intermodulation (IMD2) performance.

A functional block diagram is shown in Figure 1.

## Ordering Information

Product Description	Product Part Number	Evaluation Board Part Number
SKY65704-22: Low-Noise Amplifier FEM with GPS/GNSS Filter	SKY65704-22	SKY65704-22-EVB

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