

**PRODUCT SUMMARY**

# SKY65713-11: Low-Noise Amplifier Front-End Module with BDS/GPS/GNSS Pre-Filter

**Applications**

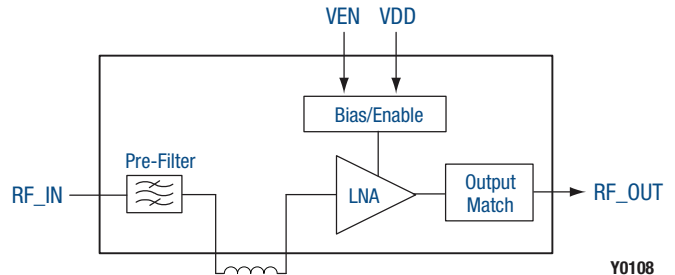
- BDS/GPS/GNSS radio receivers
- Global Navigation Satellite Systems (GLONASS)
- Smartphones
- Laptop PCs and tablets

**Features**

- Small signal gain: 16.5 dB typical
- Low noise figure: 1.6 dB typical
- Excellent out-of-band rejection
- Low current consumption
- Input/output impedance internally matched to 50 Ω
- Single DC supply: 1.62 to 3 V
- Minimal number of external components required
- Small, MCM (8-pin, 1.1 x 1.5 mm) package (MSL3, 260 °C per JEDEC J-STD-020)



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**Figure 1. SKY65713-11 Block Diagram**

**Description**

The SKY65713-11 is a front-end module (FEM) with an integrated low-noise amplifier (LNA) and pre-filter designed for Beidou 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 GPS pre-filter provides the low in-band insertion loss for excellent rejections of the cellular and WLAN frequency bands. The SKY65713-11 uses surface-mount technology (SMT) in the form of a 1.1 x 1.5 mm Multi-Chip Module (MCM) package, which allows for a highly manufacturable and low-cost solution.

The LNA matching inductor is placed outside the module to enable performance optimization. A functional block diagram is shown in Figure 1.

## Ordering Information

Model Name	Manufacturing Part Number	Evaluation Board Part Number
SKY65713-11: Low-Noise Amplifier FEM with BDS/GPS/GNSS Filter	SKY65713-11	TW21-D770-001

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