



THE DATASHEET OF SKY5A1007



PRODUCT SUMMARY

SKY5®-A1007: 0.4 to 5.9 GHz DPDT Low Insertion Loss / High-Isolation Switch

Applications

- Automotive 4G LTE/5G/CV2X/11p telematics systems
- Main/Diversity antenna swapping

Features

- Support for automotive PPAP
- Support for IMDS material declaration
- Independent BOM management to minimize PCN risk
- Extended operating temperature: -40 to 105 °C
- Broadband frequency range: 0.4 to 5.9 GHz
- Low insertion loss: 0.7 dB (typical) @ CV2X/11p frequency (5.75 to 5.925 GHz)
- High isolation: 30 dB @ 3.8 GHz
- GSM power handling
- Small QFN (12-pin, 1.83 × 1.83 × 0.5 mm) package (MSL1, 260 °C per JEDEC J-STD-020)



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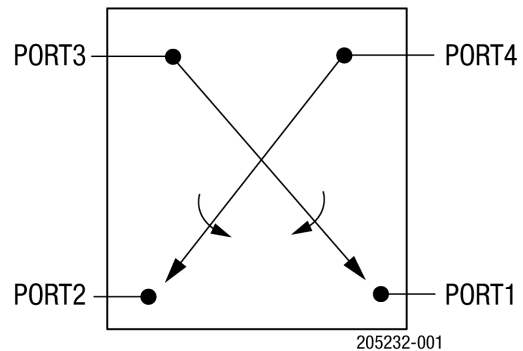


Figure 1. SKY5A1007 Block Diagram

Description

The SKY5A1007 is a state-of-the-art CMOS, silicon-on-insulator (SOI) double-pole, double-throw (DPDT) switch. The switch provides high-linearity performance, low insertion loss, and high isolation.

Switching is controlled by one voltage input, CTRL1. Depending on the logic voltage level applied to this pin, the PORT1 and PORT2 pins connect to one of the two other RF port pins (PORT3 or PORT4) through a low insertion loss path, while maintaining a high-isolation path to the alternate port. No external DC blocking capacitors are required on the RF path as long as no DC voltage is applied externally.

The SKY5A1007 DPDT switch is provided in a compact Quad Flat No-Lead (QFN) 1.83 × 1.83 × 0.5 mm package. A functional block diagram is shown in Figure 1.

Ordering Information

Part Number	Product Description	Evaluation Board Part Number
SKY5A1007	0.4 to 5.9 GHz DPDT Low Insertion Loss / High Isolation Switch	SKY5A1007EK1

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