

PRODUCT SUMMARY

SKY13699-21: 0.4 to 6.0 GHz DPDT Low Insertion Loss/High-Isolation Switch

Applications

- 5G NR and LTE systems
- Main/Diversity antenna swapping

Features

- Very low insertion loss: 0.3 dB @ 1 GHz, 1 dB @ 5.9 GHz
- High isolation: 32 dB @ 3.8 GHz
- Single-control voltage input
- Broadband frequency range: 0.4 to 6.0 GHz
- No DC blocking capacitors required
- Positive-control voltage range: 1.35 to 2.8 V
- GSM power handling
- Small MCM (10-pin, 1.55 × 1.15 × 0.59 mm [typical]) 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.

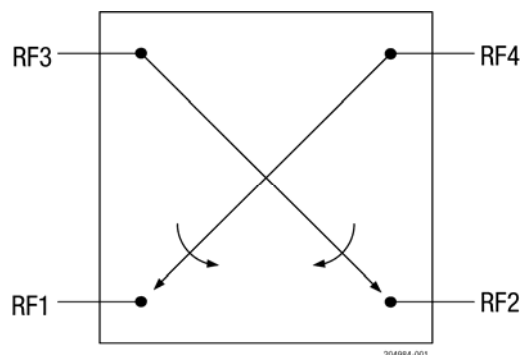


Figure 1. SKY13699-21 Block Diagram

Description

The SKY13699-21 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 SKY13699-21 DPDT switch is provided in a compact 10-pin, 1.55 × 1.15 × 0.59 mm (typical) MCM package that meets requirements for board-level assembly.

A functional block diagram is shown in Figure 1.

Ordering Information

Part Number	Product Description	Evaluation Board Part Number
SKY13699-21	0.4 to 6.0 GHz DPDT Low Insertion Loss/High-Isolation Switch	SKY13699-21EK1