

**PRODUCT SUMMARY**

# SKY13642-485LF: 5 MHz to 1.5 GHz Ultra-High-Linearity SP6T 75 Ω Switch

**Applications**

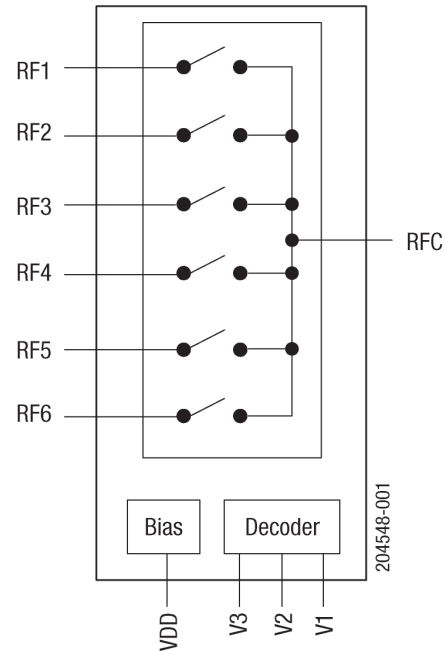
- Cable modems
- Set-top boxes
- Filter band switching
- Relay/replacement to switch between DOCSIS 3.0 and DOCSIS 3.1 configurations

**Features**

- Ultra-high-linearity performance:
  - CTB <-100 dBc
  - CSO <-100 dBc
- Low insertion loss: 0.45 dB typical @ 1.5 GHz
- High isolation: >28 dB @ 1.5 GHz
- No external DC blocking capacitors required
- DC supply voltage: 2.5 V to 4.8 V
- Integrated logic
- Small QFN (14-pin, 2.0 x 2.0 mm) package (MSL1, 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. SKY13642-485LF Block Diagram**

**Description**

The SKY13642-485LF is a single pole, six-throw (SP6T) 75 Ω switch. The high-linearity performance and low insertion loss of the SKY13642-485LF meet the most stringent requirements of DOCSIS 3.1 applications.

The SKY13642-485LF is a "reflective short" on the isolated port. Switching is controlled by three CMOS/TTL-compatible control voltage inputs (V1, V2, and V3). Depending on the logic voltage level applied to the control pins, the RFC pin is connected to one of six switched RF outputs (RF1 to RF6) using a low insertion loss path, while the paths between the RFC pin and the other RF pins are in a high-isolation state. No external blocking capacitors are required on the RF paths unless VDC is externally applied.

The SKY13642-485LF is manufactured in a compact, 14-pin 2.0 x 2.0 mm, Quad Flat No-Lead (QFN) package.

A functional block diagram is shown in Figure 1.

## Ordering Information

Part Number	Product Description	Evaluation Board Part Number
SKY13642-485LF	5 MHz to 1.5 GHz Ultra-High-Linearity SP6T 75 Ω Switch	SKY13642-485LF-EVB

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