

## RF Switch SP6T 100MHz to 6GHz 22dB 14-Pin QFN EP T/R

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|----------------------|--|
| <b>Manufacturer:</b> | <a href="#">Skyworks Solutions, Inc</a>  |
| <b>Package/Case:</b> | QFN  |
| <b>Product Type:</b> | Switches   |
| <b>RoHS:</b>         | RoHS Compliant/Lead free  |
| <b>Lifecycle:</b>    | Active   |

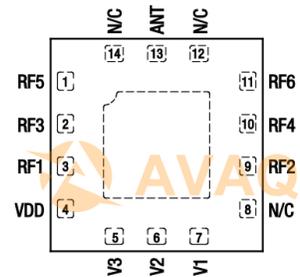


Figure 2. SKY13416-485LF Pinout – 14-Pin QFN (Top View)

Images are for reference only

[Inquiry](#)

### General Description

The SKY13416-485LF is a Single Pole, Six-Throw (SP6T) antenna switch. The high linearity performance and low insertion loss achieved by the SKY13416-485LF make it an ideal choice for main/diversity switching commonly used in LTE-based handsets, data cards, and tablets that use antenna diversity solutions.

The SKY13416-485LF is part of a scalable family of products that covers SP4T through SP8T switches that allow up to eight bands of WCDMA/LTE. The symmetric port designs provide flexibility in signal routing for both receive diversity and higher power TD-SCDMA/TDD-LTE, WCDMA/FDD, and LTE transmit/receive applications.

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 ANT pin is connected to one of six switched RF outputs (RF1 to RF6) using a low insertion loss path, while the paths between the ANT pin and the other RF pins are in a high isolation state.

The SKY13416-485LF is manufactured in a compact, 14-pin 2.0 x 2.0 mm, Quad Flat No-Lead (QFN) package.

**Description**

Tablets

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4G LTE

The SKY13416-485LF is part of a scalable family of products that covers SP4T through SP8T switches that allow up to eight bands of WCDMA/LTE:

- SKY13414-485LF SP4T Antenna Switch (Data Sheet #201689) · SKY13415-485LF SP5T Antenna Switch (Data Sheet #201704)
- SKY13416-485LF SP6T Antenna Switch (this Data Sheet)
- SKY13417-485LF SP7T Antenna Switch (Data Sheet #201661) · SKY13418-485LF SP8T Antenna Switch (Data Sheet #201712)

The symmetric port designs provide flexibility in signal routing for both receive diversity and higher power TD-SCDMA/TDD-LTE, WCDMA/FDD, and LTE transmit/receive applications.

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 ANT pin is connected to one of six switched RF outputs (RF1 to RF6) using a low insertion loss path, while the paths between the ANT 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.

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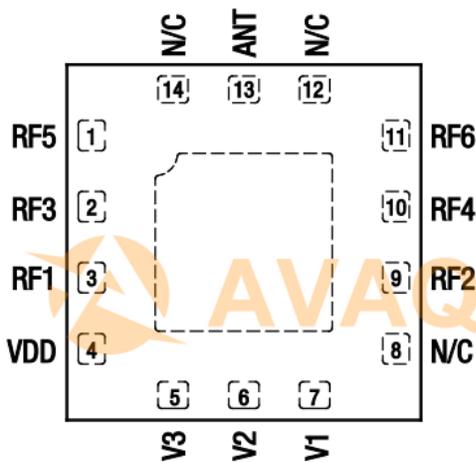
A functional block diagram is shown in Figure 1. The pin configuration and package are shown in Figure 2. Signal pin assignments and functional pin descriptions are provided in Table 1.

**Features**

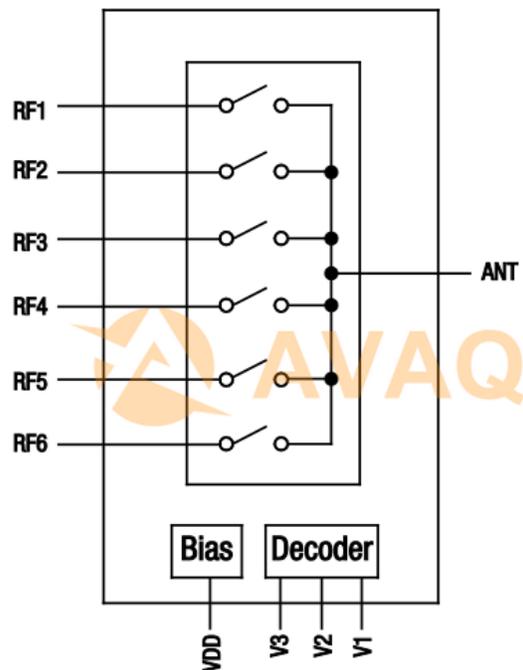
- Broadband frequency range: 0.1 to 3.0 GHz
- Low insertion loss: 0.5 dB typical @ 2.7 GHz
- High isolation: >26 dB @ 2.7 GHz
- Integrated logic
- Small QFN (14-pin, 2.0 x 2.0 mm) package (MSL1, 260 °C per JEDEC J-STD-020)

**Applications**

- Any 2G/3G/4G antenna diversity or LTE (TDD/FDD) transmit/receive system for which GSM transmit is not required



**Figure 2. SKY13416-485LF Pinout – 14-Pin QFN (Top View)**



**Figure 1. SKY13416-485LF Block Diagram**

## Recommended For You

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### **SKY85712-21**

Skyworks Solutions, Inc  
QFN

### **SKY13373-460LF**

Skyworks Solutions, Inc  
QFN

### **SKY65404-31**

Skyworks Solutions, Inc  
QFN

### **SKY67151-396LF**

Skyworks Solutions, Inc  
QFN

### **SKY65723-81**

Skyworks Solutions, Inc  
DFN-6

### **SKY13320-374LF**

Skyworks Solutions, Inc  
QFN

### **SKY13415-485LF**

Skyworks Solutions, Inc  
QFN14

### **SKY13585-679LF**

Skyworks Solutions, Inc  
QFN

### **SKY85712-11**

Skyworks Solutions, Inc  
QFN

### **SKY13431-374LF**

Skyworks Solutions, Inc  
DFN6

### **SKY13372-467LF**

Skyworks Solutions, Inc  
QFN

### **SKY67150-396LF**

Skyworks Solutions, Inc  
DFN6

### **SKY13414-485LF**

Skyworks Solutions, Inc  
QFN

### **SKY65405-21**

Skyworks Solutions, Inc  
QFN

### **SKY13446-374LF**

Skyworks Solutions, Inc  
DFN