

**PRODUCT SUMMARY**

# SKY13552-669LF: 0.4 to 3.8 GHz DP12T (SP6T/SP6T) Main/Receive Diversity Switch with MIPI RFFE Interface for Carrier Aggregation

**Applications**

- 3G/4G multimode cellular handsets (UMTS and CDMA2000)
- Carrier aggregation diversity

**Features**

- Broadband frequency range: 0.4 to 3.8 GHz
- Single, positive DC power supply (2.5 to 4.8 V)
- Integrated, programmable MIPI interface using separate registers for ANT\_A and ANT\_B bands
- Dual antenna ports can be connected externally to a diplexer
- Small QFN (18-pin, 2.0 x 2.4 x 0.55 mm) package (MSL1, 260 °C per JEDEC J-STD-020)

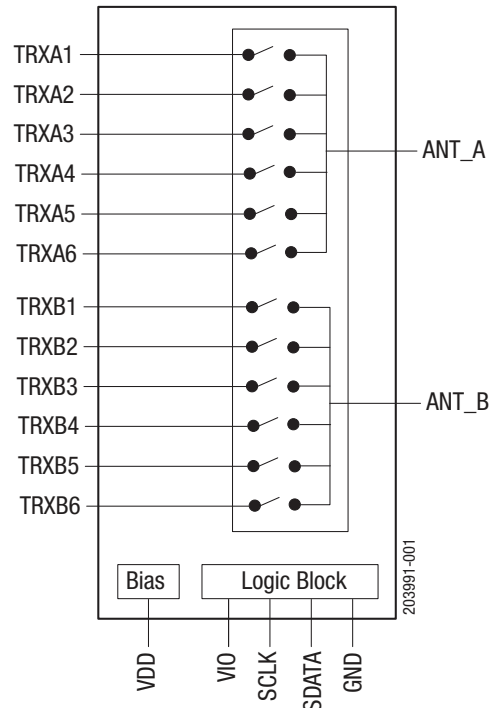


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**Description**

The SKY13552-669LF is a dual single-pole, six-throw (2xSP6T) Mobile Industry Processor Interface (MIPI) controlled antenna switch designed specifically for receive diversity in carrier aggregation applications.

The 2xSP6T switch is optimized for broadband performance. Using advanced switching technologies, the SKY13552-669LF maintains low insertion loss and high isolation for all switching paths. The high linearity performance and low insertion loss achieved by the SKY13552-669LF makes it an ideal choice for carrier aggregation applications in both main and diversity antenna switching. The switch also exhibits excellent second/third order intermodulation distortion (IMD2/IMD3) performance.



**Figure 1. SKY13552-669LF Block Diagram**

Switching is controlled by an integrated MIPI decoder. The two switches can be configured independently. There are separate registers for each SP6T. No external DC blocking capacitors are required on the RF paths as long as no DC voltage is applied to those paths.

The SKY13552-669LF is manufactured in a compact, 2.0 x 2.4 x 0.55 mm, 18-pin surface-mount Quad Flat No-Lead (QFN) package.

A functional block diagram is shown in Figure 1.

## Ordering Information

| Model Name                                  | Manufacturing Part Number | Evaluation Board Part Number |
|---|---------------------------|------------------------------|
| SKY13552-669LF: 0.4 to 3.8 GHz DP12T Switch | SKY13552-669LF            | SKY13552-669LF-EVB           |

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