

**PRODUCT SUMMARY**

# SKY96001-11 Antenna Switch Front-End Module with Integrated Duplexers (FEMiD) for Bands 1, 2, 3, 8, 12, 20, 26, 34/39

**Applications**

- 2G/3G/4G multimode cellular handsets
  - LTE, UMTS, CDMA2000, EDGE, GSM
- Carrier aggregation LB/MB, LB/HB and B1/B3
- Embedded data card

**Features**

- Dual antenna ports can be connected externally to an LB / HB Diplexer
- Dual antenna configuration with integrated high directivity coupler on Ant ports, B34/39 and GSM low pass filters on TX ports
- Excellent low band 2<sup>nd</sup> and 3<sup>rd</sup> harmonic performance
- Integrated MIPI interface
- Small low profile package
  - 6.9 mm x 4.1 mm x 0.75 mm
  - 50-pad configuration
- Lead (Pb)-free and RoHS-compliant MSL3 at 260 °C per JEDEC J-STD-020

**Description**

The SKY96001-11 Antenna Switch Front-End Module with Integrated Duplexers (FEMiD) is optimized for Carrier Aggregation (CA) and global frequency Bands 1, 2, 3, 5, 8, 12, 20, 26 including Low Pass Filters for 2G and China region frequency bands 34/39.

Module integration includes LB and MB RF Couplers, an SP10T and SP8T with MIPI v. 2.0 Controller Antenna Switch and Duplexers into a small, low profile package.

The SKY96001-11 features advanced switching and Tc-SAW filter technology. This ensures low insertion loss and high isolation in non-CA mode for Bands 1, 2, 3 mid-Band paths relative to using expensive, high loss quadplexers. In CA mode, Tc-SAW filter technology ensures low insertion loss for these bands. Low insertion loss and high linearity performance makes the SKY96001-11 the ideal choice for Carrier Aggregation applications.

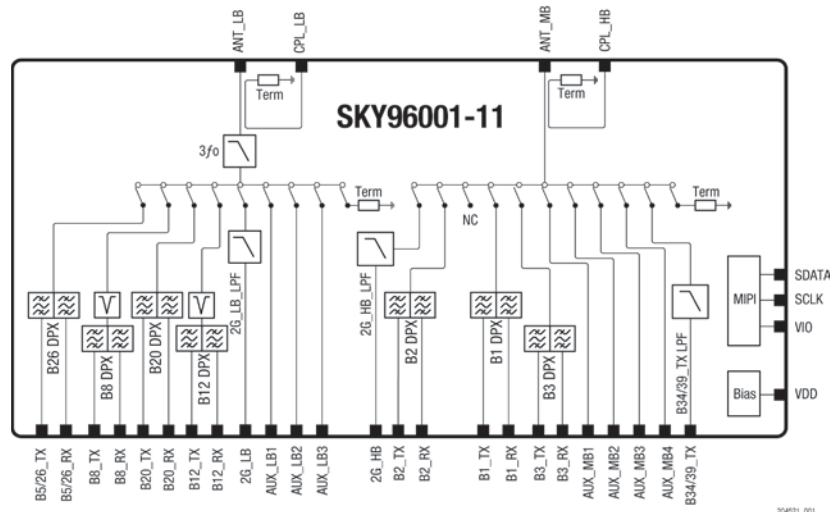
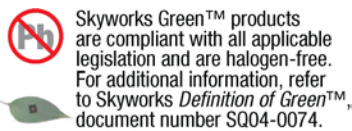
The FEMiD accommodates UMTS / CDMA2K / EDGE / GSM / LTE applications as well as inter- and intra-band Carrier Aggregation.

High attenuation harmonic filtering on the LB path enables all low band paths, including the AUX ports, to be used for Carrier Aggregation.

The switch exhibits excellent 2<sup>nd</sup>/3<sup>rd</sup> order intermodulation distortion performance.

High-directivity couplers integrated on the LB and HB antenna ports provide excellent power detection accuracy over mismatch condition.

Figure 1 is a functional block diagram of the SKY96001-11.



**Figure 1. SKY96001-11 Block Diagram**

## Ordering Information

Product Name	Order Number	Evaluation Board Part Number
SKY96001-11 Antenna Switch Front-End Module Integrated Duplexer	SKY96001-11	EN21-D925-001

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