

# BGSA147ML10

## Ultra Low Resistance Antenna Tuning SP4T

### Features

- Designed for high-linearity antenna tuning switching and RF tuning applications
- Ultra low  $R_{ON}$  resistance of  $0.8 \Omega$  at each RF port in ON state
- Individually controlled reflective open or short to ground OFF ports to eliminate unwanted antenna resonances
- Low  $C_{OFF}$  capacitance of 155 fF at each port in OFF state
- High RF operating voltage handling above 45 V in OFF state
- MIPI RFFE 2.1 compliant control interface
- External USID\_sel pin enabling 3 default USID addresses
- No RF parameter change within supply voltage range
- No blocking capacitors required if no DC applied on the RF lines
- No power supply decoupling required
- Small form factor 1.1 mm x 1.5 mm x 0.39 mm (MSL1, 260° C per JEDEC J-STD-020)
- RoHS and WEEE compliant package



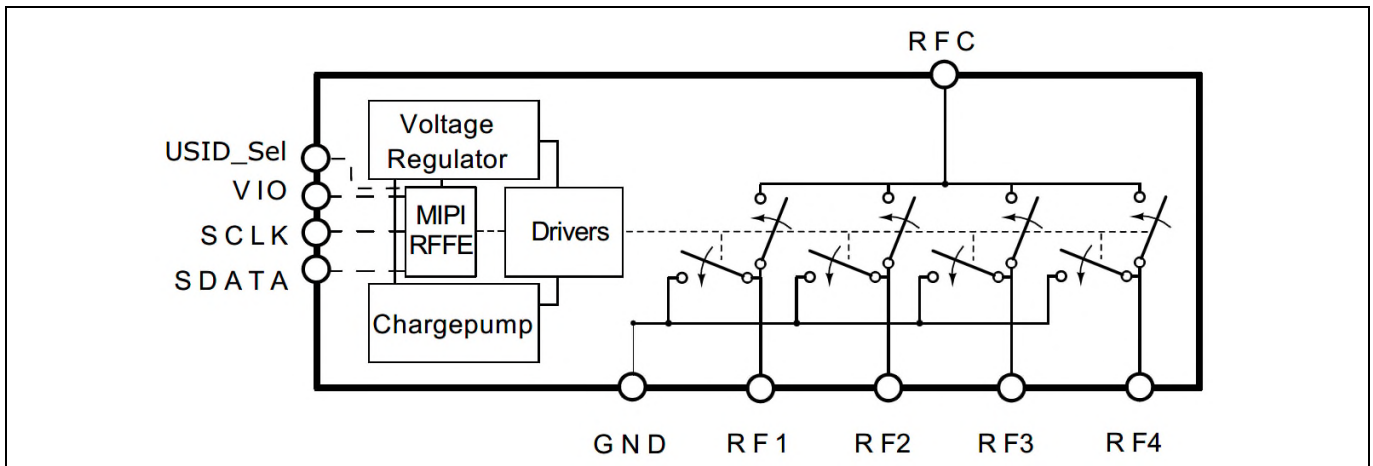
### Description

BGSA147ML10 is a Single-Pole Four Throws (SP4T) Antenna Tuning switch optimized for RF applications up to 7.125 GHz. Its MIPI RFFE digital control interface allows easy implementation and best flexibility when operated in cellular mobile RF Front-End designs.

BGSA147ML10 is made of 4 ultra-low ON resistance / low OFF capacitance series switches and 4 shunt to ground switches enabling on-demand open-reflective or short-reflective OFF ports behaviour. This last feature is of great value to reduce antenna engineer development time in case of unwanted antenna resonance or to improve antenna efficiency with less component tuning effort.

Unlike GaAs RF switches, highly linear RF performance is reached at all signal levels within the operating conditions. High RF voltage ruggedness and individually programmable shunt to ground switches on each RF throw make BGSA147ML10 particularly efficient for switching inductors and capacitors in RF matching and Antenna Tuning circuits.

## Block diagram and ordering information



**Figure 1 BGSA147ML10 Block diagram**

**Table 1 Ordering Information**

Type	Package	Marking
BGSA147ML10	TSLP-10-3	A7



WEEE Compliant Package



Halogen-Free  
PB Free



RoHS

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