BGSA406MN10

Ultra high RF voltage antenna tuning switch

Features

- Low R_{ON} resistance of 2.0 Ω at each port in ON state
- Low C_{OFF} capacitance of 110 fF at each port in OFF state
- High RF operating peak voltage handling of typical 80 V in OFF state
- MIPI RFFE 2.1 control interface
- Extremely fast switching time of typical 1.2 µs
- Single V_{IO} supply supporting both 1.2 V and 1.8 V
- 4 default USID addresses via external USID_SEL pin
- Extremely low current consumption of 20 µA in ACTIVE mode
- Small form factor 0.95 mm x 1.3 mm (MSL1, 260 °C per JEDEC J-STD-020)

Potential applications

- Impedance, antenna and inductance tuning
- Tunable filters

RoHS
Halogen-Free
Lead-Free
Green

Potential applications

- Qualified for industrial applications according to the relevant tests of JEDEC47/20/22.

Description

The BGSA406MN10 is a versatile shunt to ground 4xsingle-pole single-throw (4xSPST) RF antenna tuning switch. It is optimized for low C_{OFF} as well as low R_{ON} enabling applications up to 7.125 GHz. The BGSA406MN10 is ideal for antenna tuning application. This chip integrates on-chip CMOS logic and power supply regulation. Its digital control interface is compliant with MIPI2.1 RFFE specification and each switch throw can be programmed individually or all together in the same RFFE command frame. Up to 4 instantiations of the same device can be controlled using the same RFFE bus thanks to its 4 states USID_SEL pin unique feature

Block diagram and ordering information

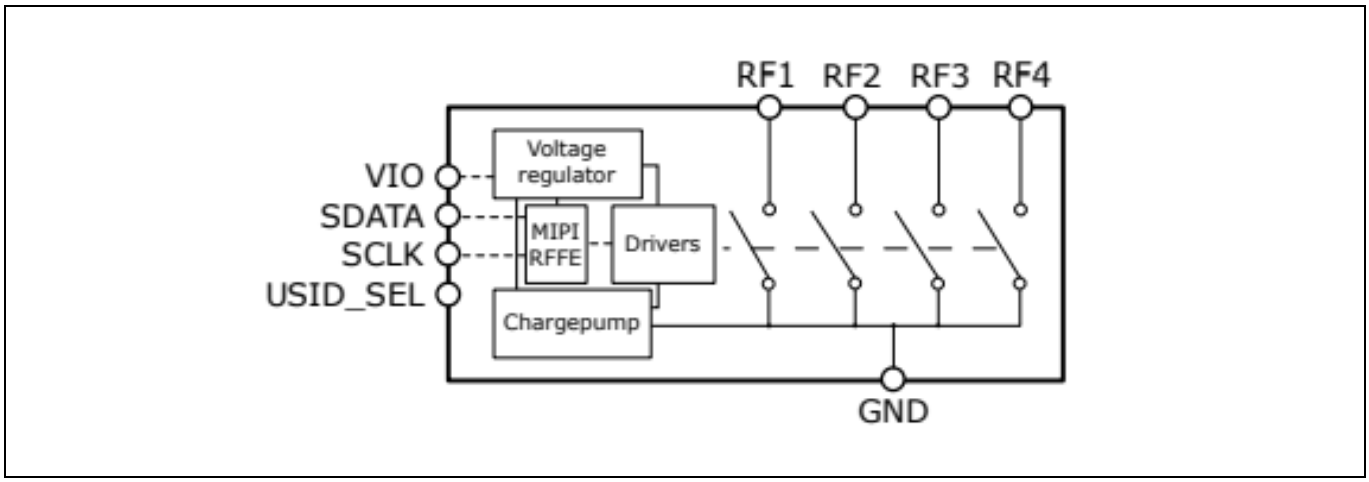

Figure 1 BGSC4331MN10 Block diagram

Table 1 Ordering Information

Type	Marking	Package	Product name
BGSC406MN10	A6	TSNP-10-9	BGSA 406MN10 E6327

For more technical information, please contact our Technical Assistance Center or your local Infineon representative.

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