



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of "Quality Parts,Customers Priority,Honest Operation,and Considerate Service",our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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## BGS12A

Tiny, but ESD-robust SPDT switch with no external components required



THE BGS12A is Infineon's first product in its new Radio Frequency (RF) switch family. The BGS12A is a general purpose Single-Pole, Double-Throw (SPDT) RF switch, designed for power levels of up to 20dBm, with a P-1dB above 30dBm.

### Product features

Manufactured using a unique RF-CMOS technology, this switch does not require external DC-blocking capacitors and the control logic is fully integrated. All interfaces are protected against Electrostatic Discharge (ESD) of at least 1.5kV HBM (Human Body Model). The BGS12A comes in a fine-pitch Wafer-Level Package (WLP), offering smallest size and height. It is ideal for use in low and medium-power applications up to 3GHz.

### Customer Values

- Cost and space saving by reduced BOM
- Improved yield due to less ESD failures during production
- 60% less PCB/LTCC space compared with smallest packaged product on the market
- Reduced filter effort due to low harmonic level

### Features

- Fine-pitch WLP with smallest dimensions at 0.79 x 0.54mm<sup>2</sup>
- ESD of at least 1.5kV HBM at all ports
- No external blocking capacitor required
- On-chip control logic
- Single control line
- Low harmonic distortion

### Applications

- RF modules
- Mobile phones
- Game consoles
- Data cards
- Tuners
- Remote Keyless Entry (RKE) systems

### Electrical key parameter of BGS12A

Frequency [GHz]	Insertion loss [dB]	Isolation [dB]	P-1dB [dBm]	2nd/3rd harmonic [dBc]
1.0	0.3	34	>30	-90
2.0	0.6	27	>30	-90

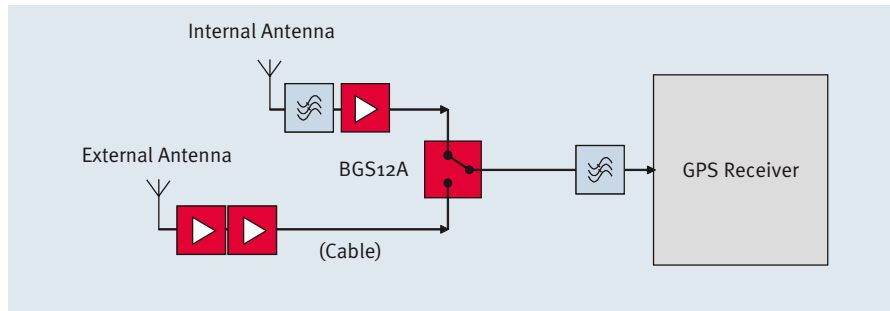
[www.infineon.com/RFswitches](http://www.infineon.com/RFswitches)

## Small Signal Discretes

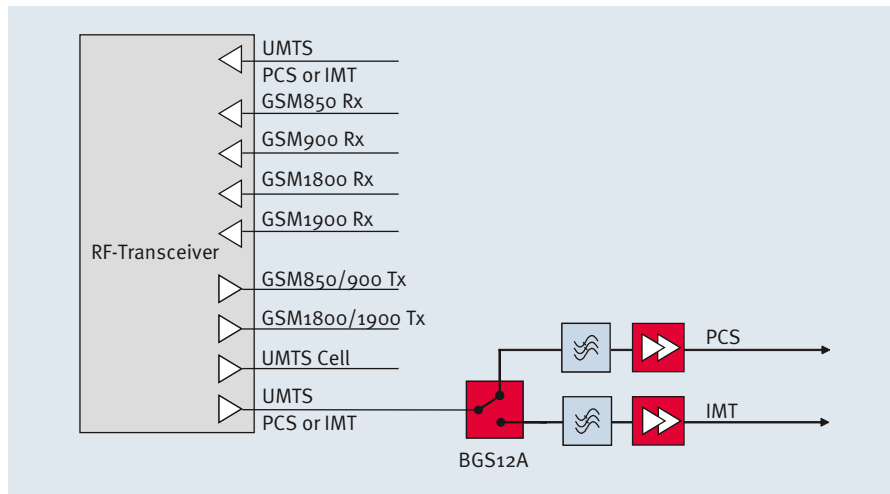


Never stop thinking

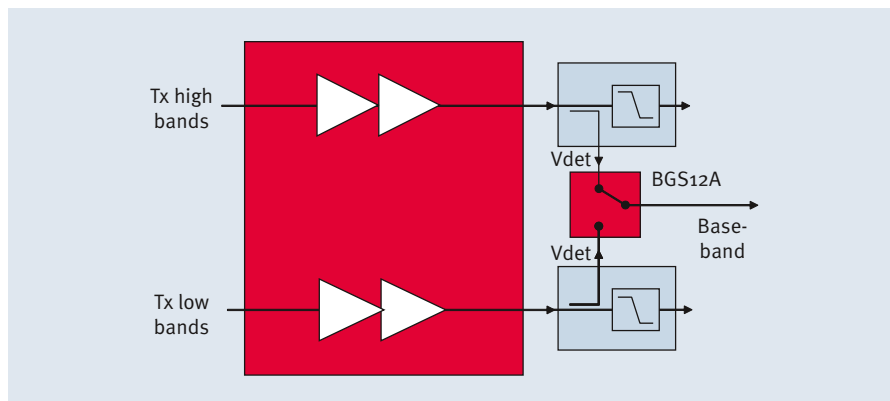
## Application Examples



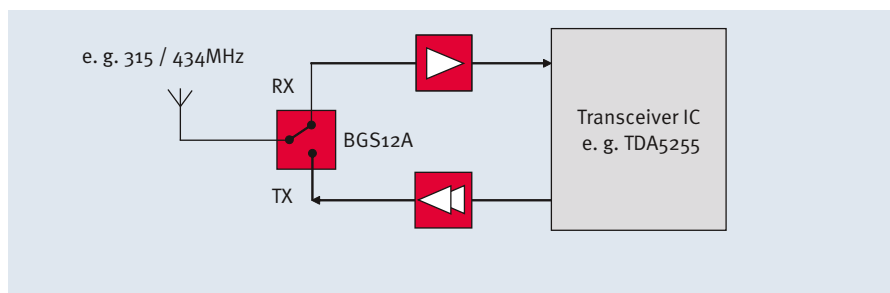
GPS receiver with 2nd external antenna



UMTS-multiband application with interstage switch



Power detection switch used in Dual Band Power Amplifier



RKE / Car Alarm Transceiver Solution (KeyFob and Car Unit)

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