



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!



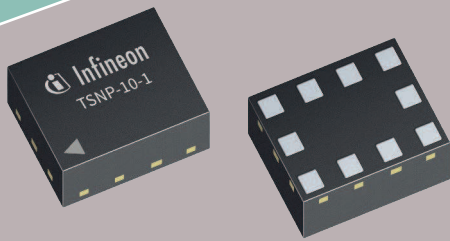
Contact us

Tel: +86-755-8981 8866 Fax: +86-755-8427 6832

Email & Skype: info@chipsmall.com Web: www.chipsmall.com

Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China





Product Brief

Antenna aperture tuning solutions

Maximizing battery life and data rate for 3G/4G mobile devices

In a decade the mobile phones went from simple handheld telephone to supercomputing feature-full smartphone devices. This transformed the way we access and exchange information in a ubiquitous way. But all the new features, radios and huge processing power require always more space and more antennas on a small board. While antenna size shrunk, larger bandwidth of operation has been requested (LTE, WiFi, etc.) ultimately resulting in poor antenna performance. Antenna aperture tuning solutions are the necessary toolbox for smartphone vendors to make small but efficient antennas.

Infineon antenna tuning solutions value

The antenna tuning devices based on Infineon's RF CMOS switch technology are designed for ultra-small size, high ruggedness in mismatch conditions, low parasitic and best linearity. Improved antenna efficiency directly translates into better signal quality, fastest data transmission and longer battery life. All devices offer generic GPIO interfaces for smooth antenna control and system integration.

Applications

- > Smartphones, tablets and other mobile devices
- > Smart metering

Key Benefits

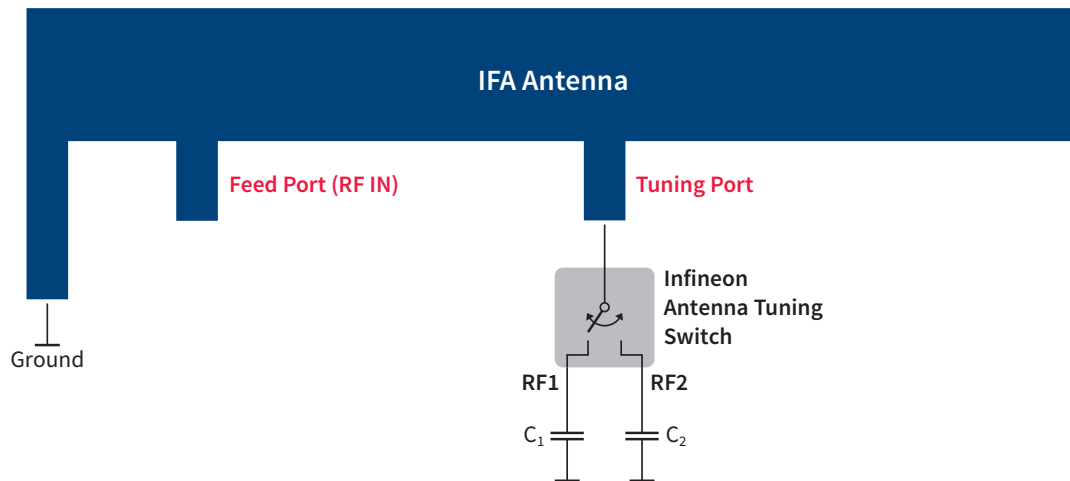
- > Ultra small 1.5 x 1.1 mm TSNP-10-1 plastic package
- > Highest quality level
- > Improves TIS (Rx insensitivity to VSWR)
- > Improves TRP (Tx insensitivity to VSWR)
- > Higher flexibility in antenna form
- > Less system current consumption (PA) through optimized matching

Product	Product status	Switch type	Control interface	Frequency range [GHz]	ON state resistance (R_{ON}) [Ω]	OFF state capacitance (C_{OFF}) [fF]	Max operating voltage (V_{PK}) [V]
BGSA12GN10	Production	SPDT	GPIO	0.1 ... 5.0	1.6	120	36
BGSA13GN10	Production	SP3T	GPIO	0.1 ... 5.0	0.8 ¹⁾	120	36
BGSA14GN10	Production	SP4T	GPIO	0.1 ... 5.0	1.6	120	36

1) 1 port optimized for ultra-low 0.8 Ω R_{ON}

Antenna aperture tuning solutions

Maximizing battery life and data rate for 3G/4G mobile devices



Infineon's antenna tuning devices with optimized form factor and design

The BGSAxxGN10 ICs are provided in the smallest packages available on the market, which is critical for space limited applications with multiple LTE bands in the latest generation of smartphones and other portable devices. All products are shipped in a RoHS compliant plastic package with dimensions of only 1.5 mm x 1.1 mm which is 60 percent smaller in size compared to state-of-the-art CSP type devices on the market.

Orderable part No.

- > BGSA12GN10E6327XTSA1
- > BGSA13GN10E6327XTSA1
- > BGSA14GN10E6327XTSA1

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