

BGA700L16

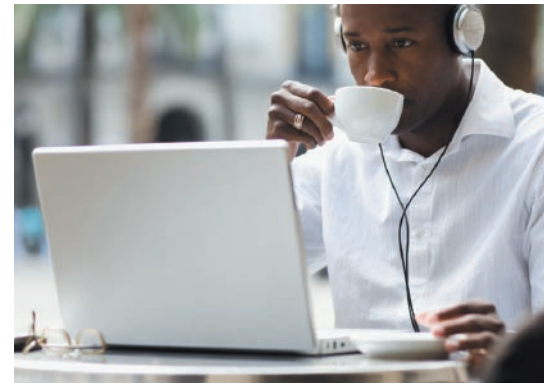
Low Noise Amplifier for IEEE 802.11a/b/g/n

THE BGA700L16 is a Wireless LAN dual band Low Noise Amplifier. The amplifier comprises a single stage amplifier for the 2.45 GHz band and a two-stage amplifier to meet the requirements of the 4.9 to 5.95 GHz band. The complete circuitry, including a temperature stabilization block, fits on one die and needs no external matching elements.

One of the challenges of Wireless LAN application designers is to maximize network coverage and data throughput. The receiver system noise figure determines sensitivity, network coverage and data throughput.

The BGA700L16 uses a combination of Silicon Germanium Carbon epitaxy proprietary process and a low ohmic on chip ground contact from Infineon Technologies to deliver the world best-in class noise figure for wireless LAN systems.

The BGA700L16 ships as bare die or in a low profile Tiny Small Leadless Package code-named TSLP-16. The package dimensions are $2.3 \times 2.3 \times 0.39 \text{ mm}^3$.



Applications

- 802.11a/b/g/n

Features

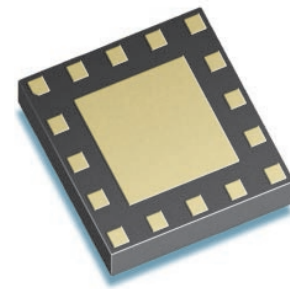
- Input/output 50Ω matched internally
- SiGe:C process
- Shut down mode
- Temperature stabilization

Benefits

- Extended coverage
- Ultra-low noise figure
- Small form factor
- High level of integration
- Low cost

TSLP-16 Package

$2.3 \times 2.3 \times 0.39 \text{ mm}^3$



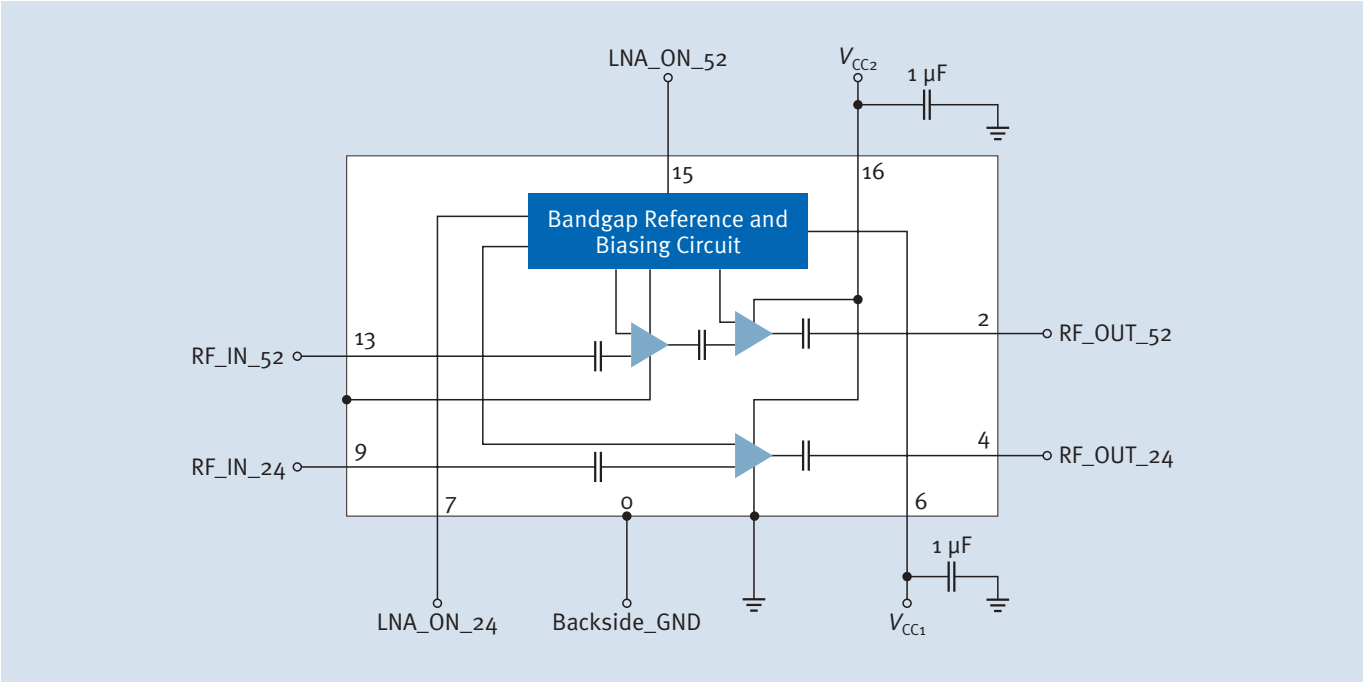
www.infineon.com/smallsignalsdiscretes

Small Signal Discretes



Never stop thinking

Application Circuit



Performance

Band [GHz]	Supply Voltage [V]	Supply Current [mA]	Gain [dB]	Noise Figure [dB]	Input P1dB [dB]
2.4	2.4 – 3.3	11	15	0.9	-10
5.6	2.4 – 3.3	17	21	1.3	-10



How to reach us:
<http://www.infineon.com>

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