

Description

The F0111 is a dual-path 2500MHz to 2700MHz High Gain / Ultra-Low Noise Amplifier (LNA) that is used in receiver applications.

The F0111 LNA is operated as a *balanced amplifier* where the inputs and outputs are combined via external 90° couplers and provides 18dB of gain with 0.7dB noise figure and 38dBm OIP3 performance. The device uses a single 5V supply and 120mA typical of total I_{CC} .

The F0111 is packaged in a 4 × 4 mm, 16-VFQFPN with 50Ω single-ended RF input and output impedances for ease of integration into the signal path.

Competitive Advantage

- Ultra-low noise performance of 0.7dB over wide bandwidths improves receiver sensitivity
- High gain and linearity

Typical Applications

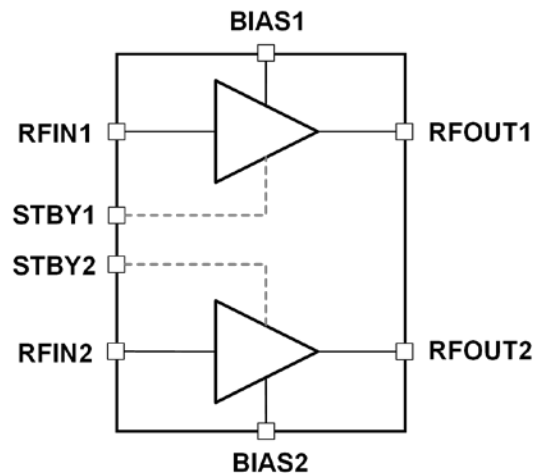
- 3G, 4G, 5G wireless infrastructure
- Public safety infrastructure
- General-purpose RF

Features

- 2500MHz to 2700MHz operating range
- 18dB typical gain at 2600MHz
- 0.65dB typical NF at 2600MHz
- +38dBm typical OIP3 at 2600MHz
- 50Ω Single-ended Input/Output Impedances
- +5V power supply
- I_{CC} = 60mA per Channel
- Independent Channel Standby Modes for power savings
- 1.8V logic standby control
- Operating temperature (T_{EP}) range: -40°C to +105°C
- 4 × 4 mm, 16-VFQFPN package

Block Diagram

Figure 1. Block Diagram



Ordering Information

Orderable Part Number	Package	MSL Rating	Shipping Packaging	Temperature
F0111NBTI	4 × 4 × 0.75 mm 16-VFQFPN	1	Tray	-40° to +105°C
F0111NBTI8	4 × 4 × 0.75 mm 16- VFQFPN	1	Tape and Reel	-40° to +105°C
F0111EVB	Evaluation Board			

Revision History

Revision Date	Description of Change
April 28, 2020	Initial release.

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Corporate Headquarters

TOYOSU FORESIA, 3-2-24 Toyosu,
Koto-ku, Tokyo 135-0061, Japan
www.renesas.com

Contact Information

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