

Typical Applications

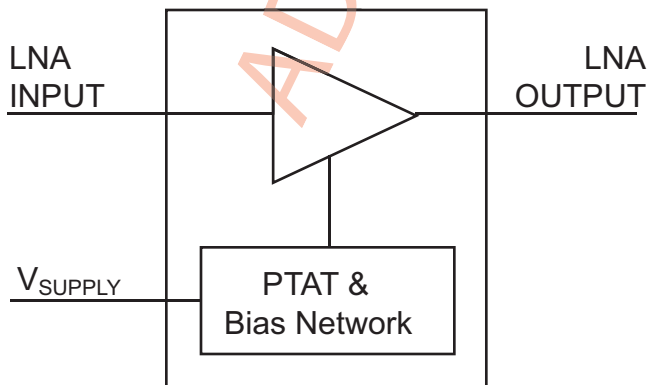
The TRFS-051 is a LNA (low-noise amplifier) core circuit for use in such applications as:

- WCDMA systems
- UMTS systems

Product Overview

The TRFS-051 is a low-noise amplifier with high IIP3 for WCDMA receiver applications. It is designed in a common-emitter configuration with inductor degeneration to improve linearity. The design requires an off-chip precision resistor to set the bias, and has 50Ω input and output impedances with a load inductor as the only required off-chip component. This core circuitry can be easily integrated with other circuits as well as packaged individually in a leadless chip carrier.

Block Diagram



Key Features

- Compatible with WCDMA standard
- Low noise figure of 1.3dB
- High IIP3 of +7.5dBm
- 50Ω input and output match

Performance Summary

Item	Unit	Min	Typical	Max
Operating Frequency	MHz	2060	2110-2170	2220
Supply Voltage	V	2.7	2.85	3.3
Supply Current	mA		10	
Gain	dB		13	
NF	dB		1.27	
IIP3	dB		7.5	
Input Return Loss	dB		17	
Output Return Loss	dB		11	
Reverse Isolation	dB		21	

ADVANCE INFORMATION

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