

Typical Applications

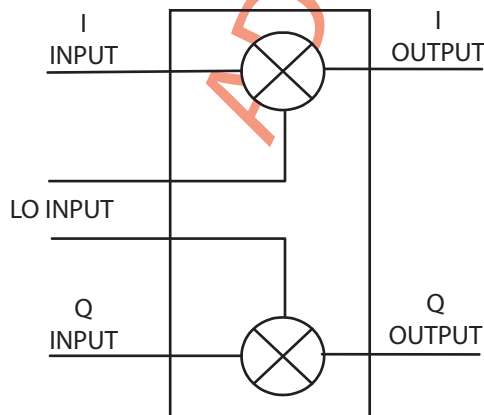
The TRFS-102 is a dual mixer core circuit, designed for use in such applications as:

- WCDMA systems
- UMTS systems

Product Overview

The TRFS-102 dual mixer contains two identical I/Q direct down-conversion mixers for WCDMA applications. The double balanced Gilbert cell mixers, with balanced output, provide high LO-RF isolation, good linearity, low noise, and low DC offset. 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
- Direct down conversion DC-50MHz
- High IIP2 of +50dBV
- Good LO-RF isolation of -50dB

Performance Summary

Item	Unit	Min	Typical	Max	Notes
Input RF Frequency	MHz	500		2500	
LO Input Frequency	MHz	500		2500	
Supply Voltage	V	2.7	2.85	3.3	
Conversion Gain	dB	2	3	4	@100kHz
IIP3	dBV	-6	-5		
IIP2	dBV	40	50		
Input Referred Noise	nV/ $\sqrt{\text{Hz}}$		8	10	
Input 1-dB Compression	mVp-p (diff)	680			
Output DC Offset	mV			<5	
Supply Current	mA		4	4.5	
LO-RF Isolation	dB	-50			

ADVANCE INFORMATION

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