

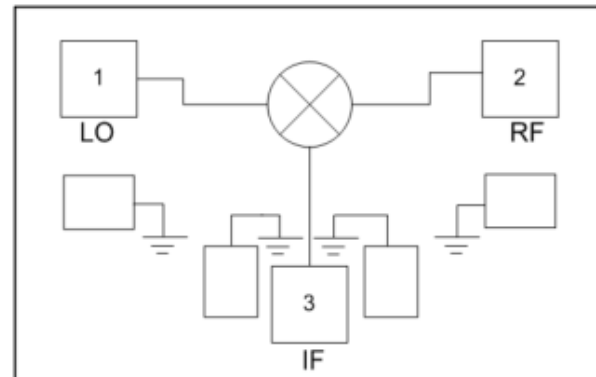
Features

- RF/LO Frequency: 6-14 GHz
- IF Bandwidth: DC-5 GHz
- Conversion Loss: 7.5 dB
- LO-RF Isolation: 37 dB
- LO-IF Isolation: 28 dB
- RF-IF Isolation: 21 dB
- Local Oscillator Frequency: +13dBm~+15dBm
- Die Size: 1.4 x 0.80 x 0.1 mm

Typical Applications

- Test Instrumentation
- Microwave Radio & VSAT
- Military & Space
- Telecom Infrastructure
- Fiber Optics

Functional Block Diagram

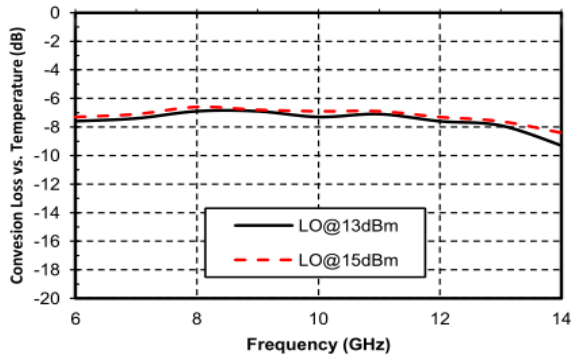


Electrical Specifications

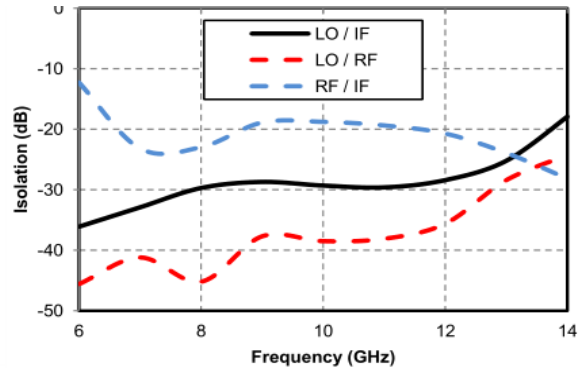
TA = +25°C, IF = 100MHz, LO = +13dBm

Parameters	Min.	Typ.	Max.	Units
RF Frequency		6-14		GHz
Local Oscillator Frequency		6-14		GHz
IF Frequency		DC-5		GHz
Conversion Loss	7	7.5	9	dB
Isolation "LO to RF"	-	37	-	dB
Isolation "LO to IF"	-	28	-	dB
Isolation "RF to IF"	-	21	-	dB
RF Input P1dB		9		dBm
Parameters above are intended for down-conversion test. IF is 0.1GHz; LO power +13dBm.				

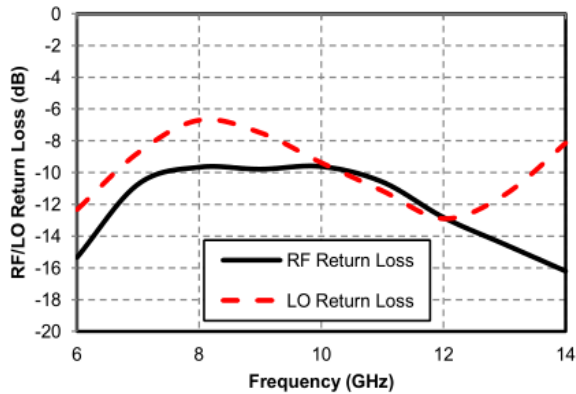
Conversion Loss vs. Frequency @ LO=+13dBm/+15dBm



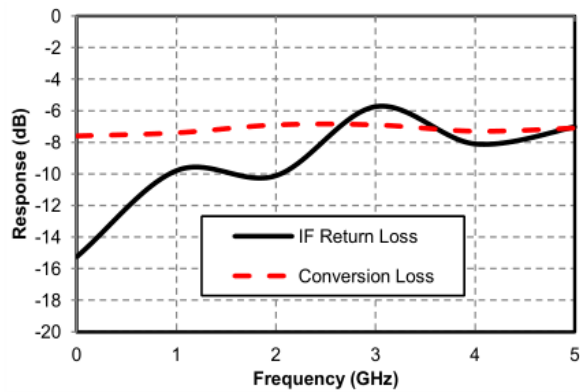
Isolation @ LO=+13dBm



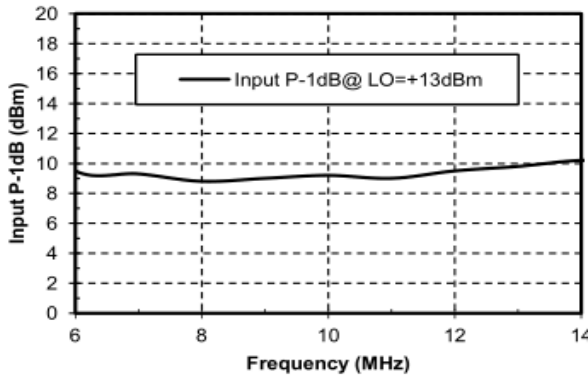
RF/Local Oscillator Return Loss vs. Frequency



IF Bandwidth @ LO=10G/+13dBm

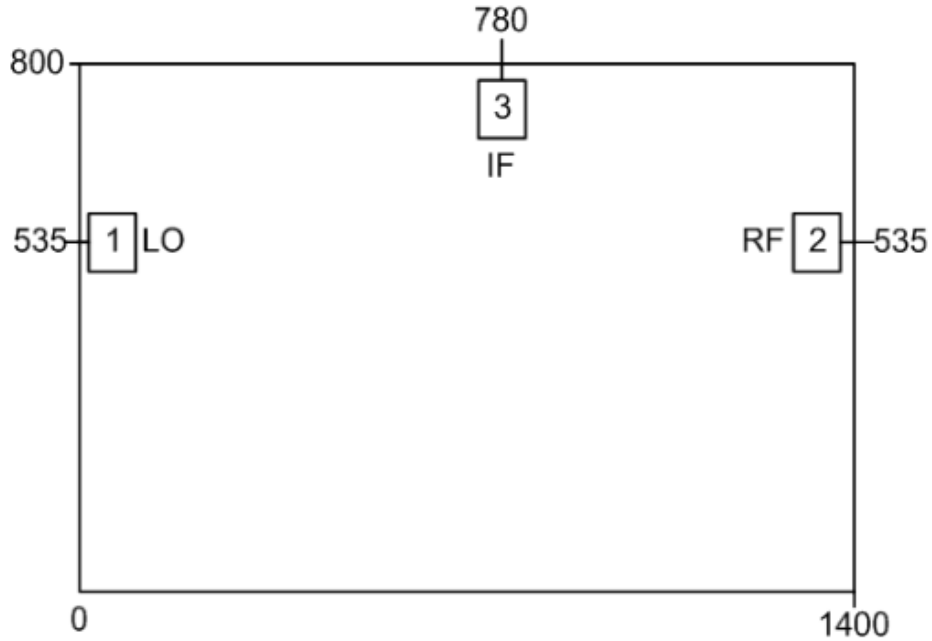


Input P1dB vs. Frequency

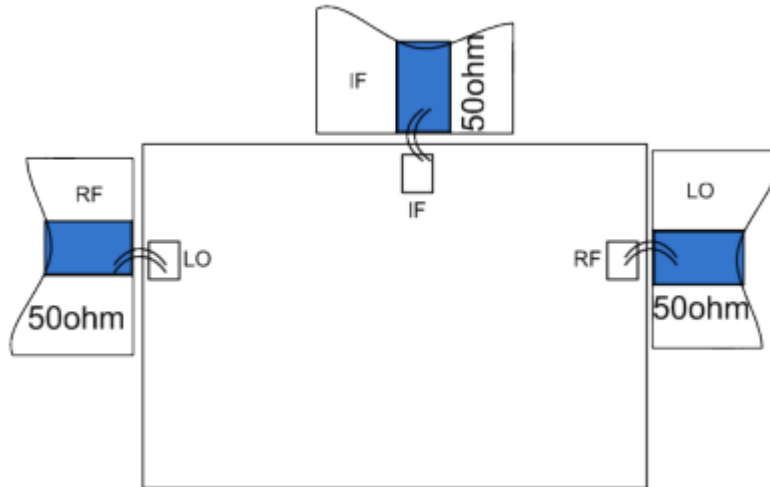




Outline Drawing: All Dimensions in μm



Recommended Assembly Drawing:



Notes:

1. Die thickness: 100 μm
2. Typical bond pad is 100*100 μm^2
3. Bond pad metalization: Gold
4. Backside metalization: Gold
5. Backside of the die is grounded
6. No connection required for unlabeled bond pads

Maximum Ratings:

1. Max RF input power: +24dBm
2. Max local oscillator input power: +24dBm
3. Operating temperature: -55 $^{\circ}\text{C}$ to +85 $^{\circ}\text{C}$
4. Storage temperature: -65 $^{\circ}\text{C}$ to +150 $^{\circ}\text{C}$