

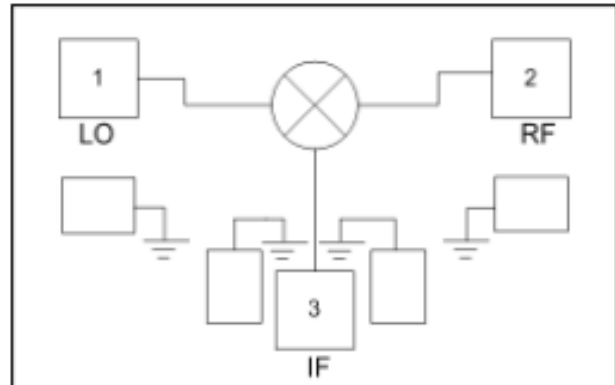
Features

- RF/LO Frequency: 18-32 GHz
- IF Bandwidth: DC-10 GHz
- Conversion Loss: 8 dB
- LO-RF Isolation: 33 dB
- LO-IF Isolation: 30 dB
- RF-IF Isolation: 28 dB
- Local Oscillator Power: +13dBm~+15dBm
- Die Size: 1.05 x 0.70 x 0.1 mm

Typical Applications

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

Functional Block Diagram

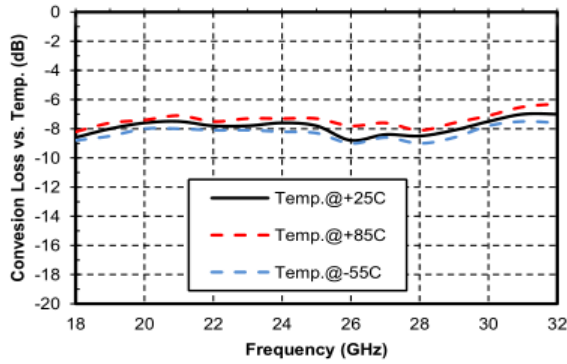


Electrical Specifications

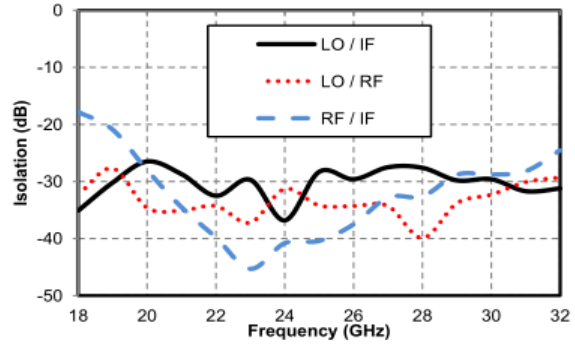
TA = +25°C

Parameters	Min.	Typ.	Max.	Units
RF Frequency		18-32		GHz
Local Oscillator Frequency		18-32		GHz
IF Frequency		DC-10		GHz
Conversion Loss	7	8	9	dB
Isolation "LO to RF"	23	33	40	dB
Isolation "LO to IF"	23	30	37	dB
Isolation "RF to IF"	14	28	45	dB
RF Input P1dB		12		dBm
Parameters above are intended for down-conversion test. IF frequency is 1GHz; LO power +13dBm~+15dBm.				

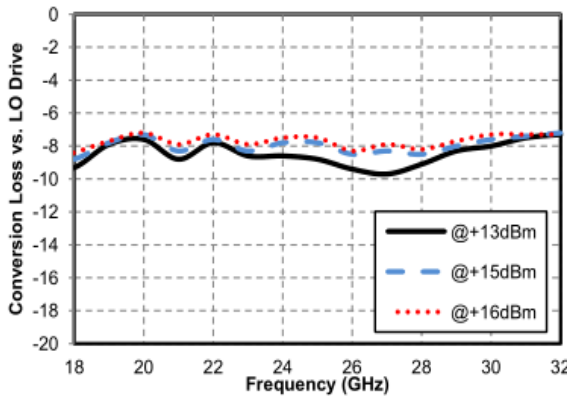
Conversion Loss vs. Temperature @ LO=+15dBm



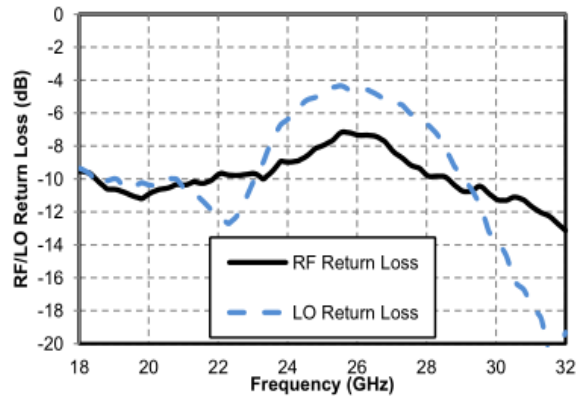
Isolation @ LO=+15dBm



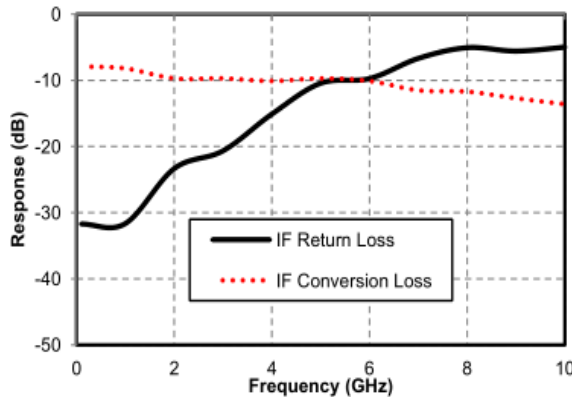
Conversion Loss vs. Local Oscillator Drive



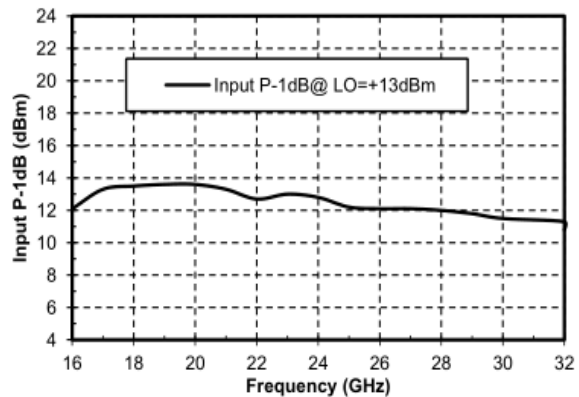
RF/Local Oscillator Return Loss vs. Frequency



IF Bandwidth @ LO=+13dBm



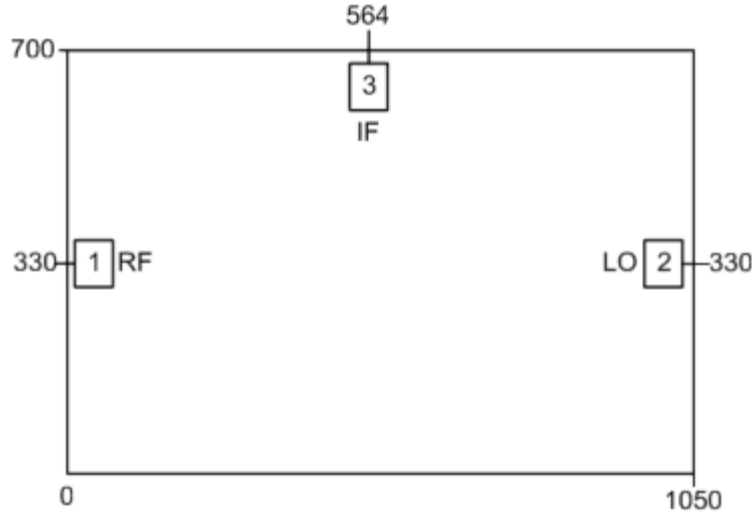
Input P1dB vs. Frequency



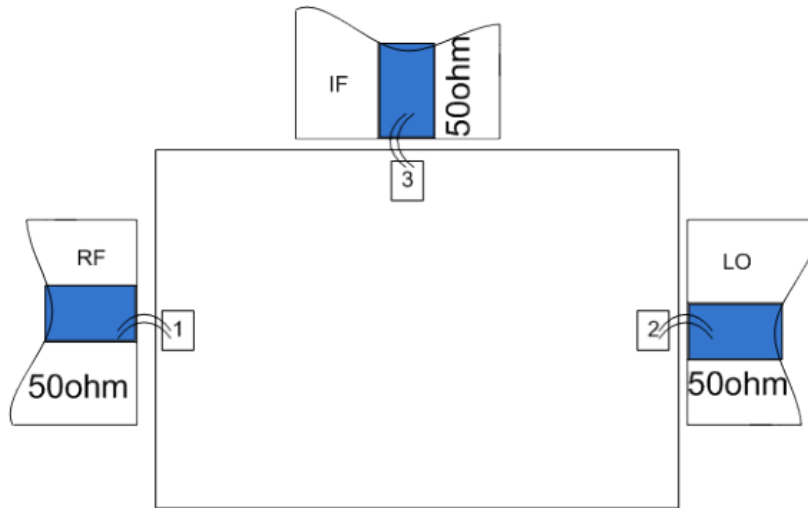


Outline Drawing:

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: +20dBm
2. Max local oscillator input power: +20dBm
3. Operating temperature: -55 $^{\circ}\text{C}$ to +85 $^{\circ}\text{C}$
4. Storage temperature: -65 $^{\circ}\text{C}$ to +150 $^{\circ}\text{C}$