

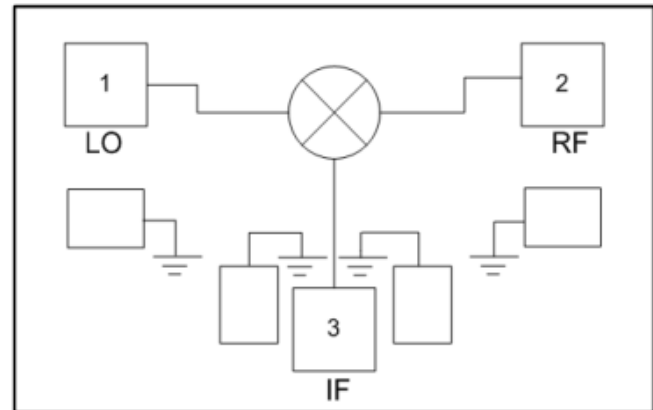
Features

- RF/LO Frequency: 24-40 GHz
- IF Bandwidth: DC-10 GHz
- Conversion Loss: 8 dB
- LO-RF Isolation: 30 dB
- LO-IF Isolation: 25 dB
- RF-IF Isolation: 28 dB
- Local Oscillator Frequency: +15 dBm
- Die Size: 1.05 x 0.7 x 0.1 mm

Typical Applications

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

Functional Block Diagram



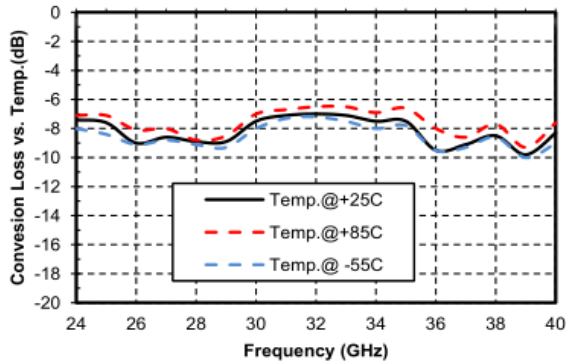
Electrical Specifications TA = +25°C

Parameters	Min.	Typ.	Max.	Units
RF Frequency		24-40		GHz
Local Oscillator Frequency		24-40		GHz
IF Frequency		DC-10		GHz
Conversion Loss	7	8	10	dB
Isolation "LO to RF"	27	30	35	dBm
Isolation "LO to IF"	20	25	32	dBm
Isolation "RF to IF"	20	28	31	dB
RF Input P1dB Compression		12		dB

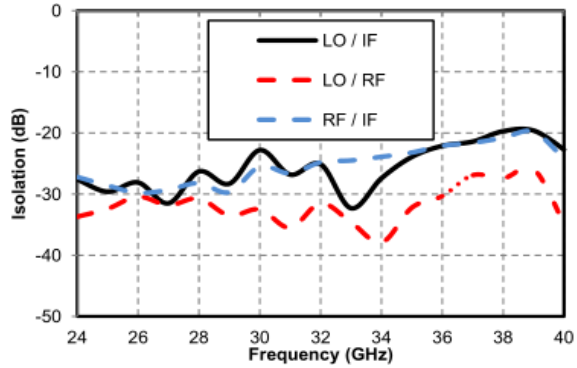
Parameters above are intended for down-conversion test. IF frequency is 1GHz; local oscillator power +13dBm~+15dBm.



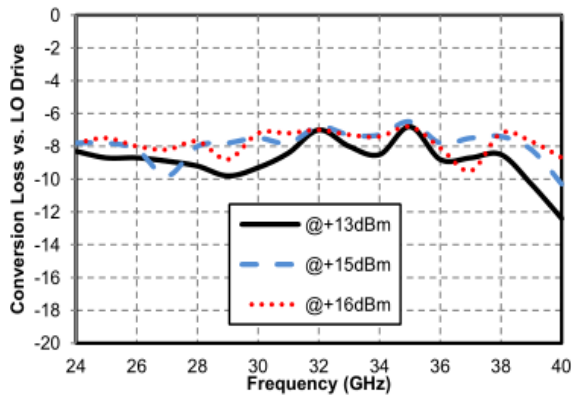
Conversion Loss vs. Temperature @ LO=+15dBm



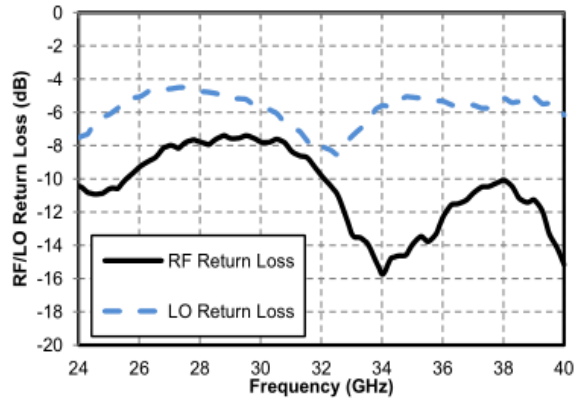
Isolation @ LO=+15dBm



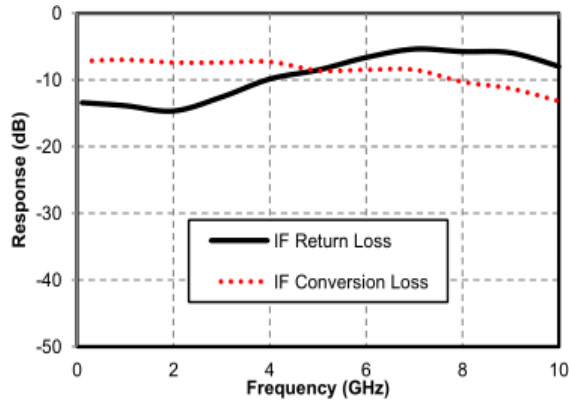
Conversion Loss vs. Local Oscillator Drive



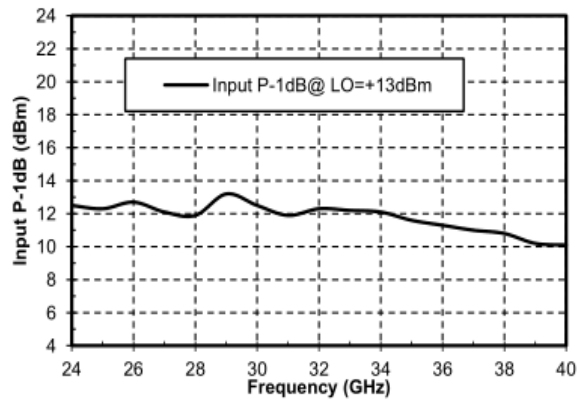
RF/Local Oscillator Return Loss vs. Frequency



IF Bandwidth @ LO=+13dBm



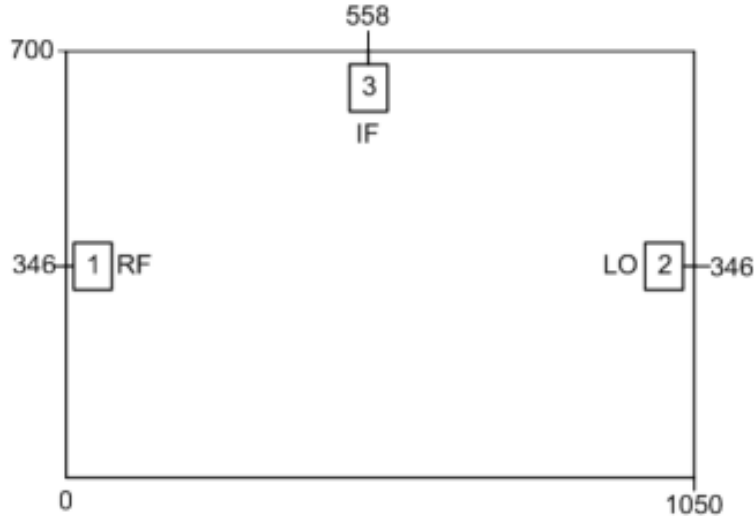
Input P1dB vs. Frequency



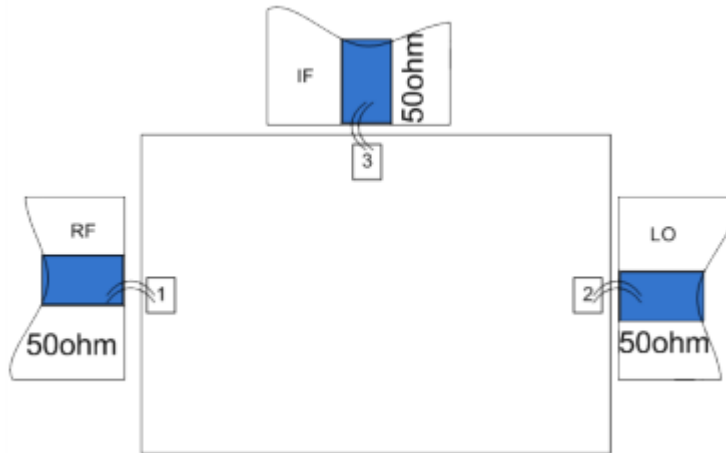


Outline Drawing:

All Dimensions in um



Recommended Assembly Drawing:



Notes:

1. Die thickness: 100um
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°C to +85°C
4. Storage temperature: -65°C to +150°C