



Single Ended Double Balanced Mixer 1.7 to 2.5 GHz

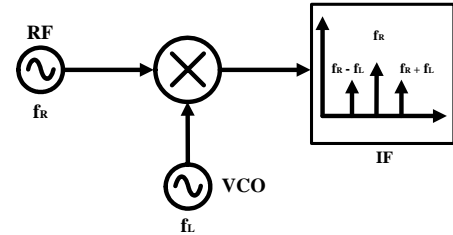
RM12

Description

The **RM12** is 1.7 to 2.5 GHz; Low noise double balanced diode mixer for down conversion. Designed using 0.5 um GaAs Enhancement mode pseudomorphic high electron mobility transistor (pHEMT).

The Noise Figure SSB @ 2.5 GHz is 4 and it has on chip phase splitter.

Functional Diagram



Applications

- IEEE 802.11 b/g WLAN
- Cellular System
- WiFi Systems
- ISM Band Systems
- Wireless Infrastructure
- Image Reject Mixer

Key Features

- Low Conversion Loss
- Noise figure 4 dB at 2.5 GHz
- Small Size, Low Cost

Electrical Specification

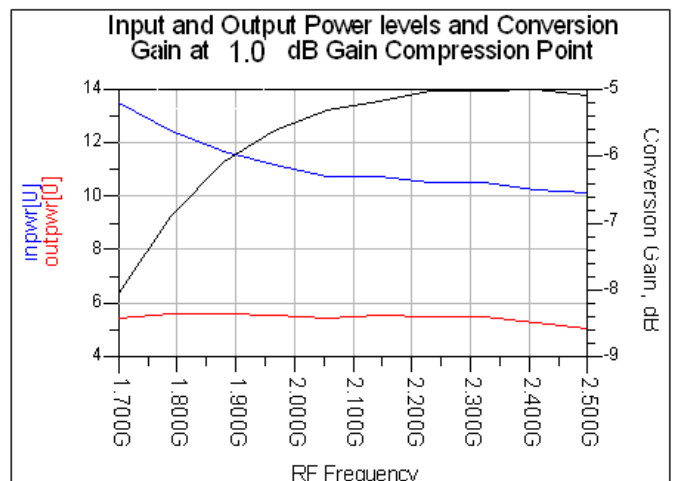
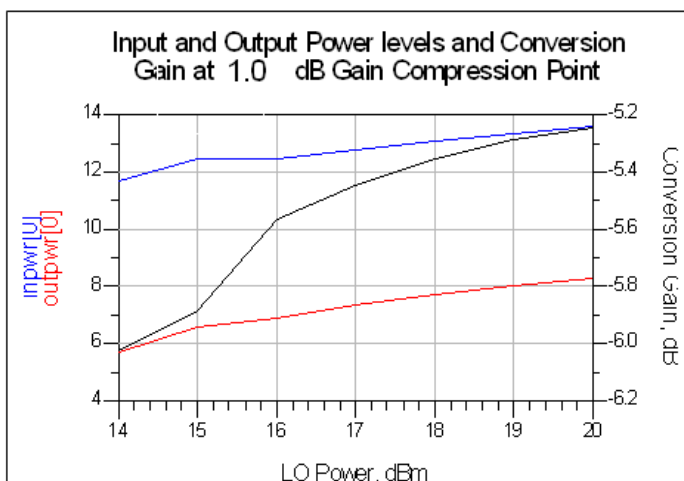
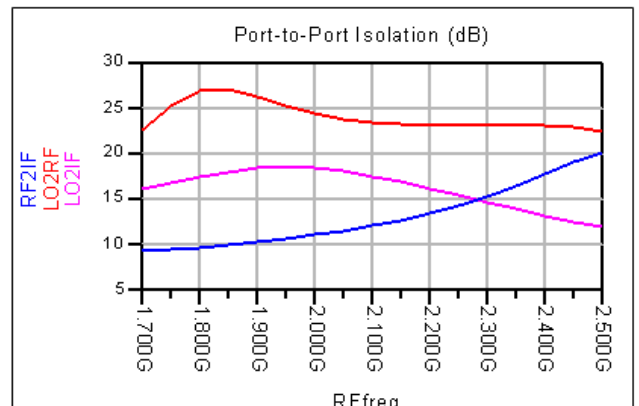
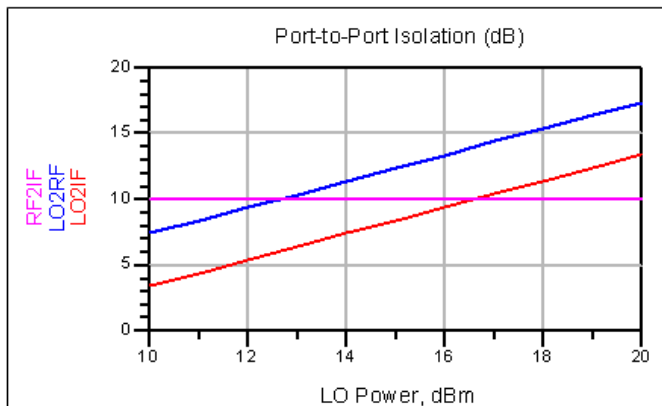
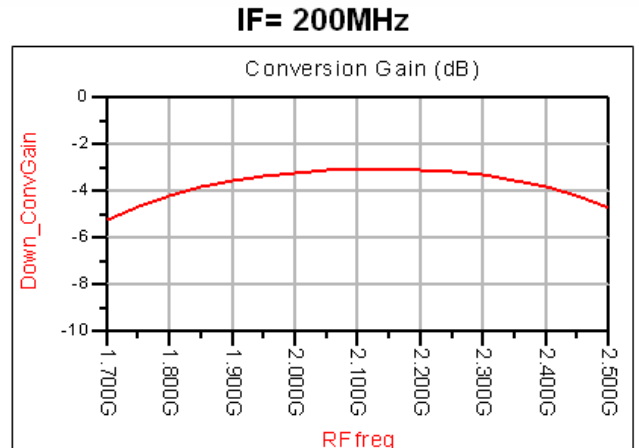
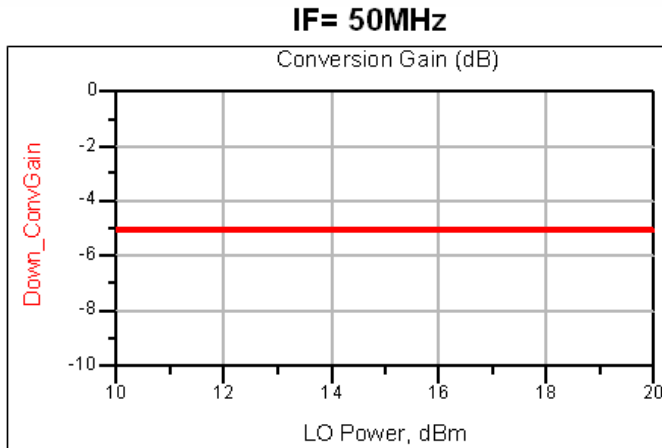
Parameter	Min	Typical	Max	Units
RF Frequency Range	1.7		2.5	GHz
IF Frequency Range	20		300	MHz
Conversion Loss		5		dB
IIP3	10		25	dBm
Noise Figure SSB @ 2.5 GHz		4		dB
Source impedance		50		Ohms



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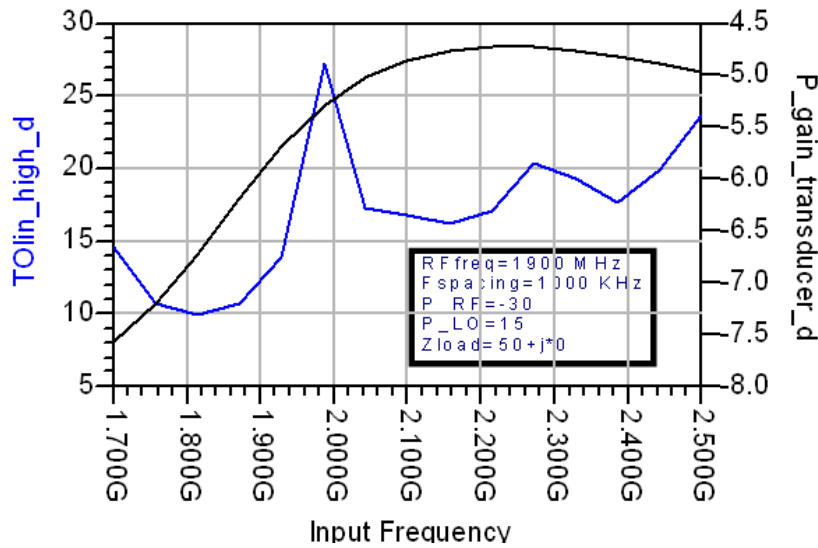
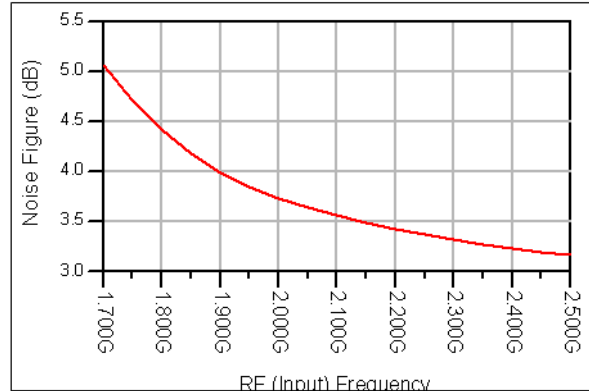
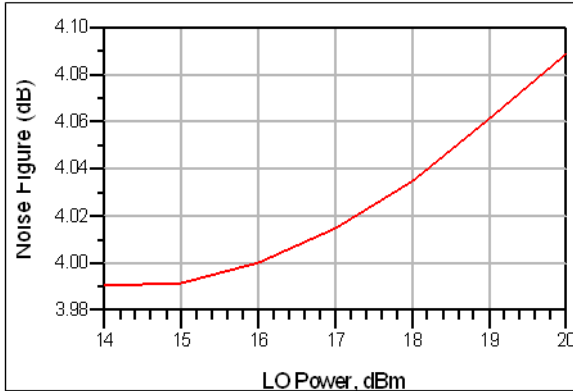
Simulated Results





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Layout

