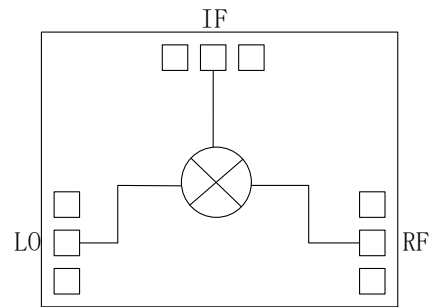


Features

RF-LO Isolation: 42dB
 Conversion Loss: -10dB
 IF Bandwidth: DC-3GHz
 Chip Size: 1490×1450μm

Functional Diagram



General Description

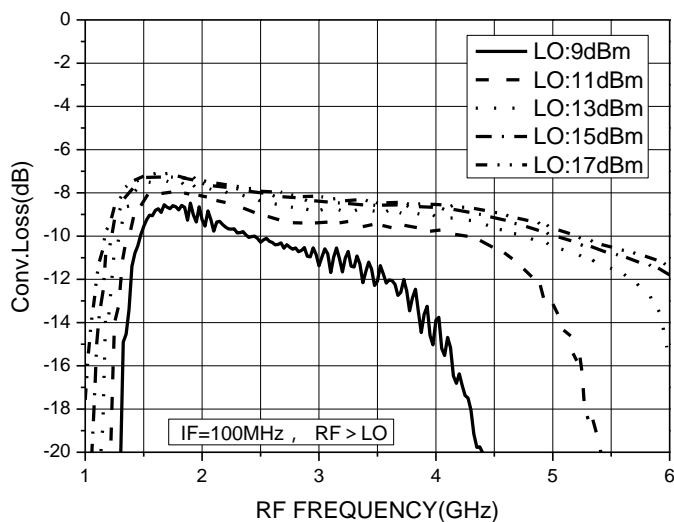
MWM009 is a passive dual balanced mixer designed and manufactured by GaAs pHEMT process. This product can realize up-conversion or down-conversion in 1-6 GHz band. The intermediate frequency covers DC-3GHz. The typical in-band conversion loss is -10dB.

Electrical Specifications, TA = +25°C (LO = +15dBm)

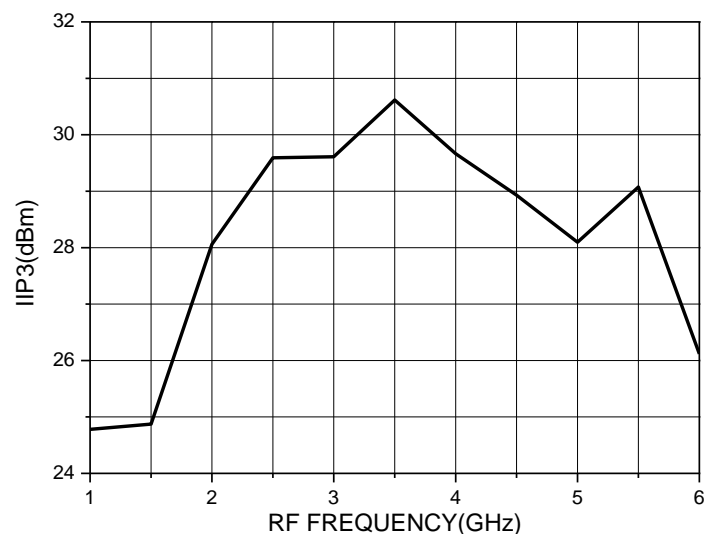
Parameter	Min	Typ	Max	Units
RF Bandwidth	1		6	GHz
LO Bandwidth	1		6	GHz
IF Bandwidth	DC		3	GHz
Frequency Conversion Loss	-14	-10		dB
LO-RF Isolation		42		dB
LO-IF Isolation		32		dB
RF-IF Isolation		15		dB

Test Results

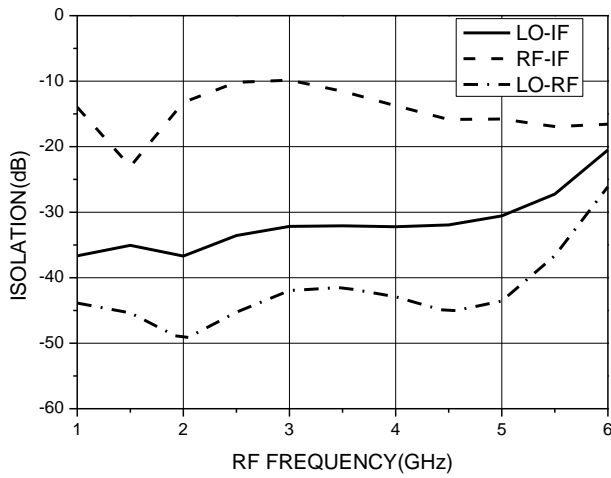
Conversion Loss



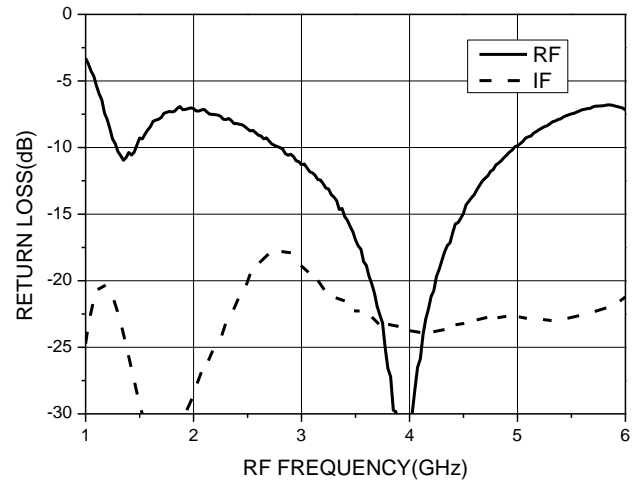
IIP3



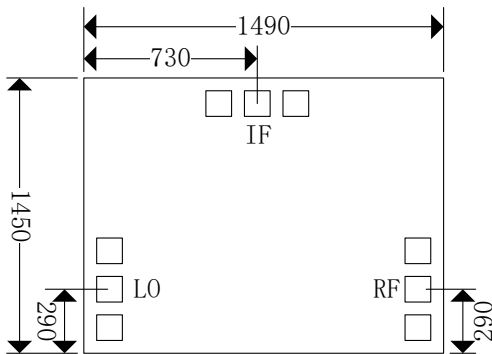
Isolation (LO/IF, RF/IF, LO/RF)



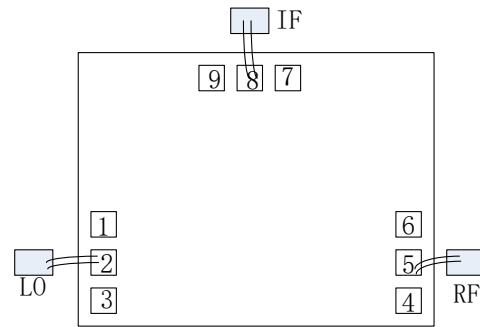
Return Loss



Chip Size (unit: μm)



Assembly Diagram



Pin Description

Pin NO.	Function	Description
1、3、4、6、7、9	GND	Connect to RF/DC Ground
5	RF	The pad is DC coupled and matched to 50Ohm.
2	LO	The pad is DC coupled and matched to 50Ohm.
8	IF	The pad is DC coupled and matched to 50Ohm.

Absolute Maximum Ratings

LO Power	+ 27dBm
Storage Temperature	-65 – 150°C
Operating Temperature	-55 – 85°C