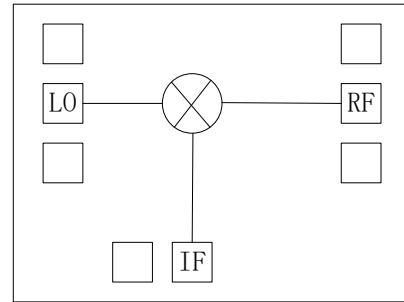


Features

RF-LO Isolation: 35dB
 Conversion Loss: -11dB
 IF Bandwidth: DC – 10 GHz
 Chip Size: 980×760mm

Functional Diagram



General Description

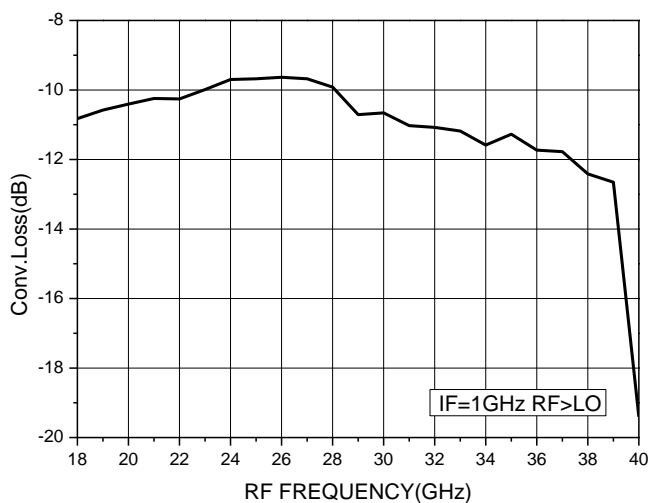
MWM010 is a passive dual balanced mixer designed and manufactured by GaAs pHEMT process. This product can realize up-conversion or down-conversion in 19-39 GHz band. The intermediate frequency covers DC-10 GHz. The typical in-band conversion loss is - 11 dB.

Electrical Specification, TA = +25°C (LO = +13dBm)

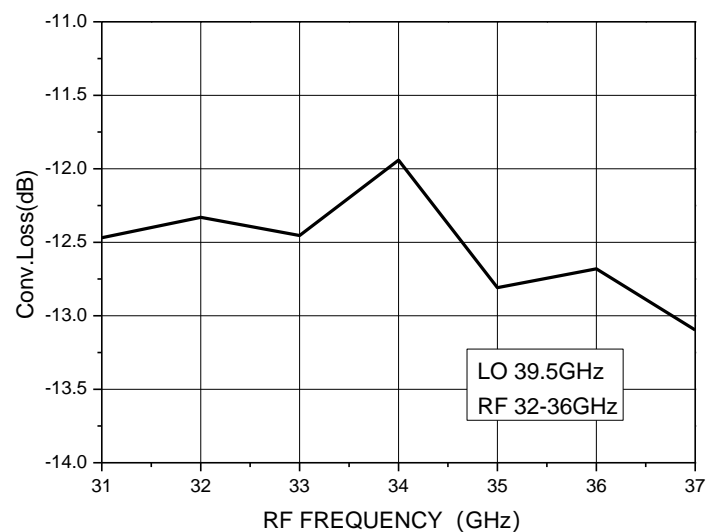
Parameter	Min	Typ	Max	Units
RF Bandwidth	19		39	GHz
LO Bandwidth	19		39	GHz
IF Bandwidth	DC		10	GHz
Frequency Conversion Loss	- 12.5	- 11		dB
LO-RF Isolation		35		dB
LO-IF Isolation		37		dB
RF-IF Isolation		17		dB

Test Results

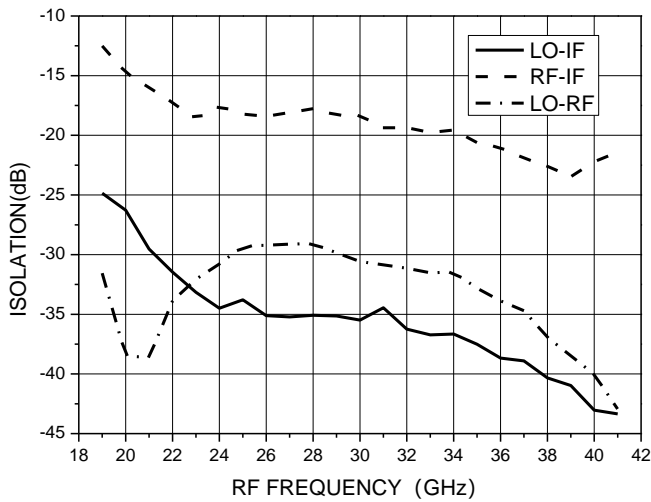
Down Conversion Loss



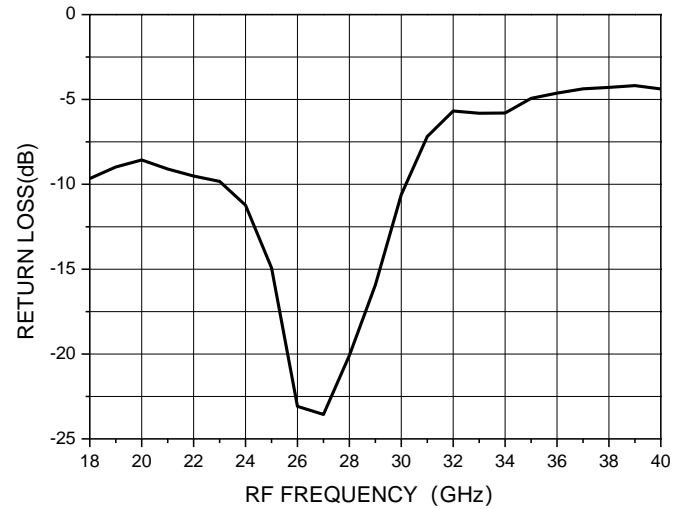
Conversion Loss



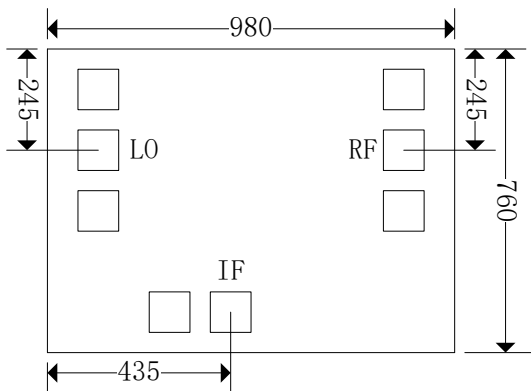
Isolation (LO/IF、RF/IF、LO/RF)



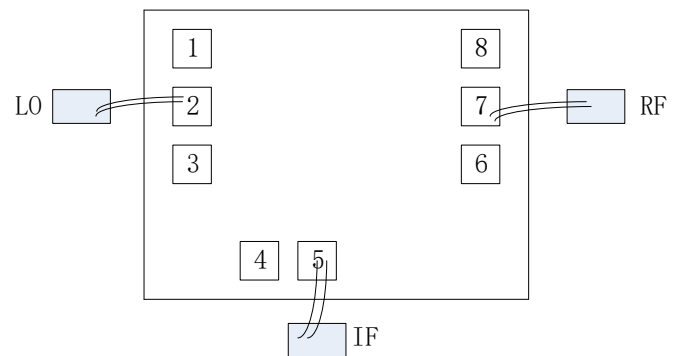
Return Loss (RF)



Chip Size (unit: μm)



Assembly Diagram



Pin Description

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

Absolute Maximum Ratings

LO Power	+ 23dBm
Storage Temperature	-65 – 150°C
Operating Temperature	-55 – 85°C