

General Description

MWM002 is a I/Q mixer designed and manufactured by GaAs pHEMT process. This product can realize the function of up conversion or down conversion in the RF 40-50GHz band. Excellent isolation performance is achieved by on-chip Barron without additional off-chip components and power supply modules. It can be widely used in point-to-point communication systems, electronic countermeasures and other fields.

Features

RF-LO Isolation: > 25dB

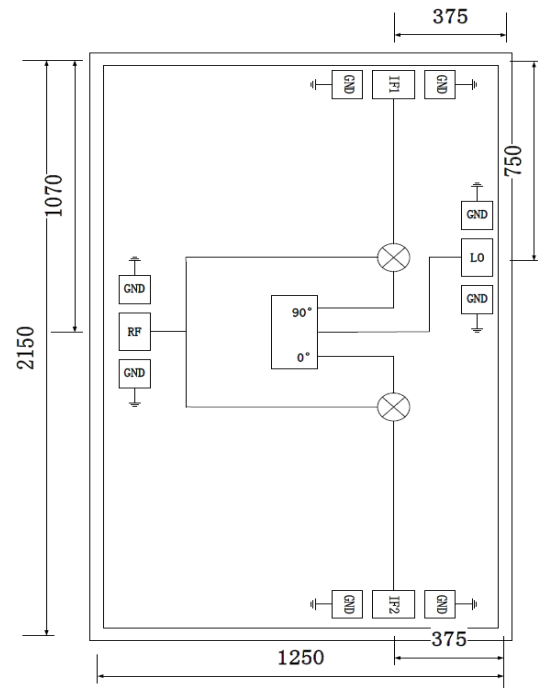
Conversion Loss: 11dB

Image Rejection: > 25 dB

IF Bandwidth: DC-10GHz

Chip Size: 1.25 x 2.15 x 0.10 mm

Functional Diagram(unit: um)



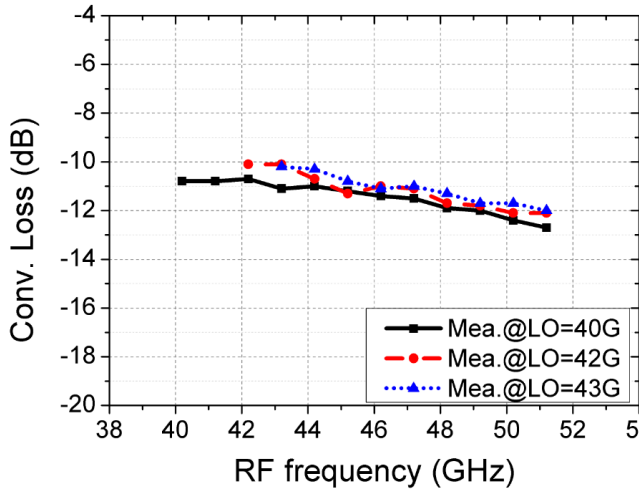
(Die Thickness: 100 um)

Electrical Specifications, $T_A = +25^\circ\text{C}$, (LO = +15dBm)

Parameter	Min	Typ	Max	Units
RF Bandwidth		40 – 50		GHz
LO Bandwidth		40 – 50		GHz
IF Bandwidth		DC – 10		GHz
Conversion Loss		11	12	dB
LO-RF Isolation		25		dB
Input Return Loss		15		dB
IIP3		+20		dBm

Test Results

Conversion Loss



RF-LO Isolation

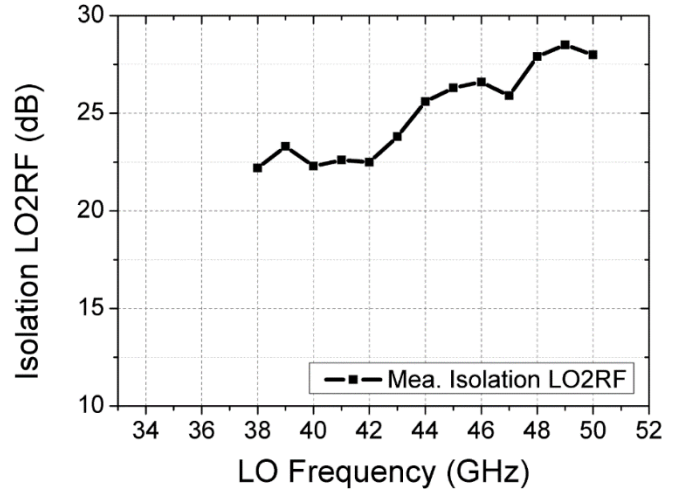
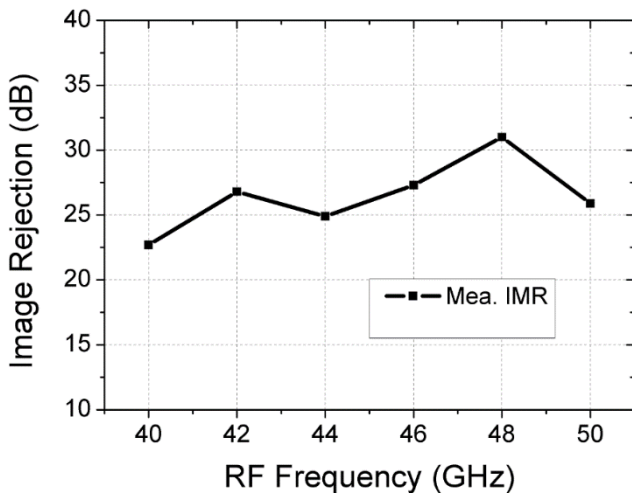


Image Rejection



Input Return Loss

