

## General Description

MWM001 is a dual balanced passive mixer designed and manufactured by GaAs pHEMT technology. This product can realize the function of up conversion or down conversion in the RF 38-54GHz 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

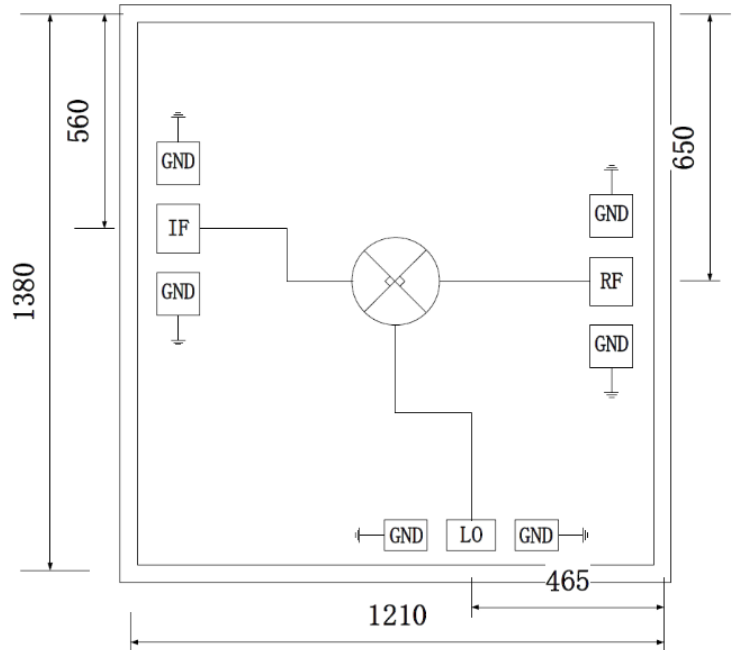
RF-LO Isolation: > 25dB

Conversion Loss: 8dB

IF Bandwidth: DC-15GHz

Chip Size: 1.21 x 1.38 x 0.10 mm

## Functional Diagram(unit: um)

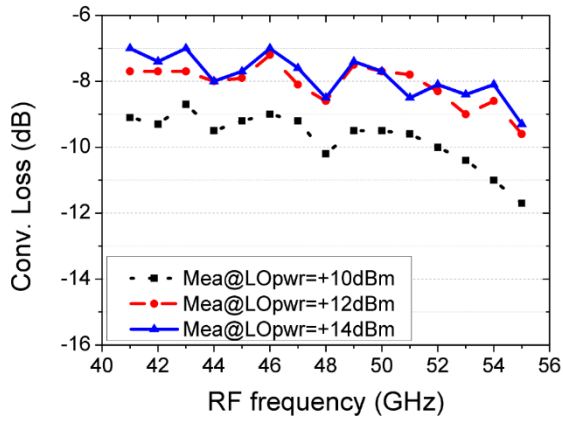


## Electrical Specifications, $T_A = +25^\circ\text{C}$ , (LO = +12dBm)

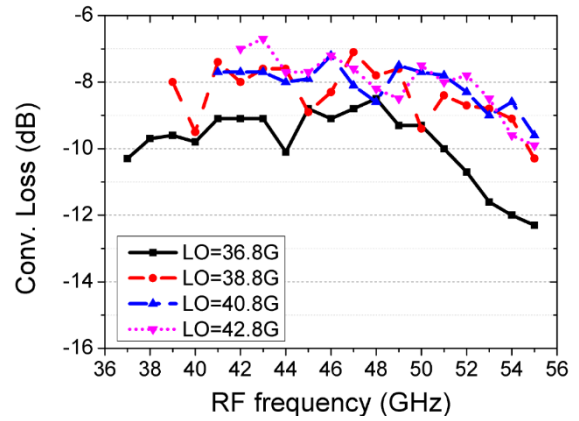
Parameter	Min	Typ	Max	Units
RF Bandwidth	38 – 54			GHz
LO Bandwidth	38 – 54			GHz
IF Bandwidth	DC – 15			GHz
Conversion Loss		8	10	dB
LO-RF Isolation		25		dB
Input Return Loss		15		dB
IIP3		+17		dBm

## Test Results

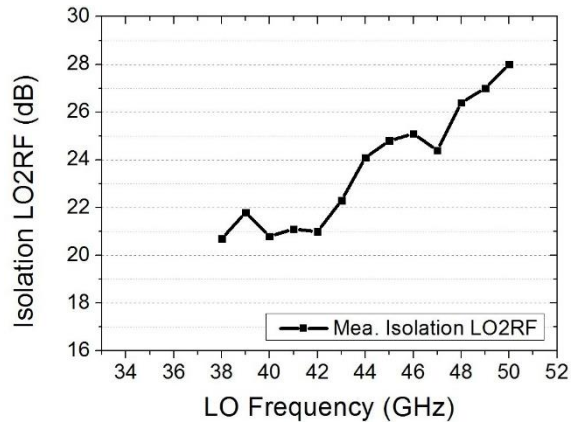
Conversion Loss



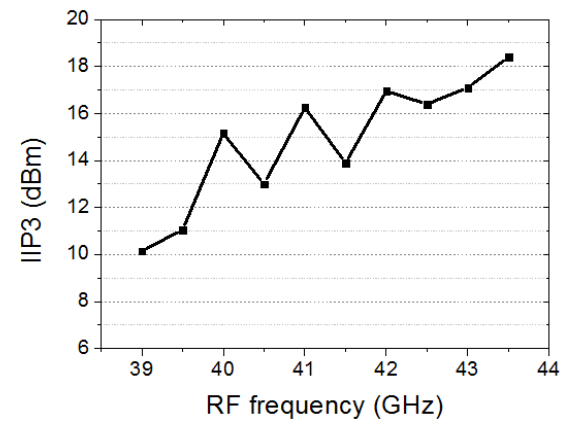
Conversion Loss



RF-LO Isolation



IIP3



Input Return Loss

