

General Description

MWX005 is an active broadband multiplier designed and manufactured by GaAs pHEMT technology. Driven by an input signal of +0dBm, this multiplier can realize the output signal of +18dBm power in the operating frequency band of 30-42GHz. At 36GHz, the fundamental isolation can reach over 80 dBc. The excellent performance of this frequency multiplier makes it widely used in point-to-point communications, VSAT radio communications and test instruments and other applications.

Features

Pout: +18 dBm

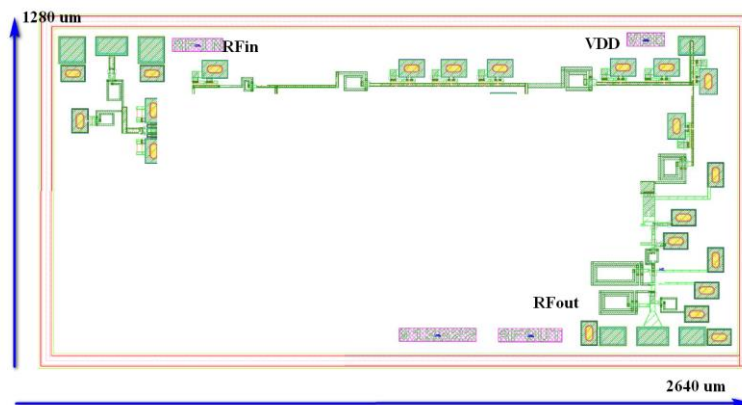
Input Power: 0 to + 3 dBm

Fundamental Isolation: > 80 dBc @ 36 GHz

Supply Current: +5 V @ 110 mA

Chip Size: 2.64 x 1.28 x 0.1 mm

Functional Diagram(Typical bond: 70x120, unit: um)



(Die Thickness: 100 um)

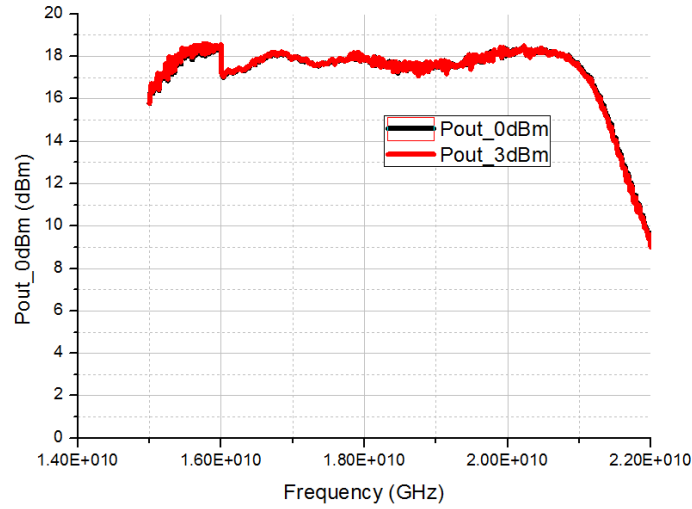
Electrical Specification, $T_A = +25^\circ\text{C}$, Vdd = +5V, Pin = +0dBm

Parameter	Min	Typ	Max	Units
Input Bandwidth	15		21	GHz
Output Bandwidth	30		42	
Pout	16	18		dBm
Fundamental Wave Suppression	60	80		dBc
3 rd Subharmonic Suppression	30	60		dBc
Supply Current (@Vdd= + 5V)		110		mA

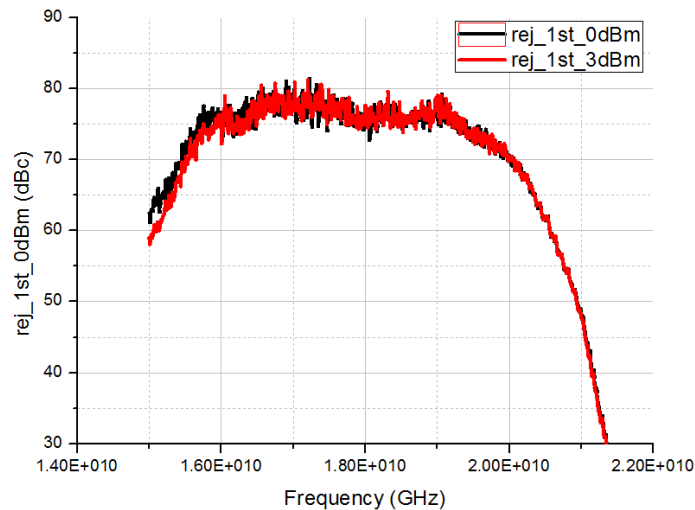


Test Results

Output Power



Fundamental Wave Suppression



3rd Subharmonic Suppression

