Features

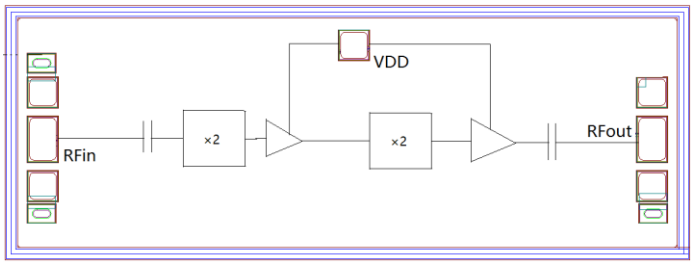
Pout：+10dBm

Pin：+ 10 dBm

Supply Current：+3.3V@33 mA

Chip Size：2150×775μm

Functional Diagram:



General Description

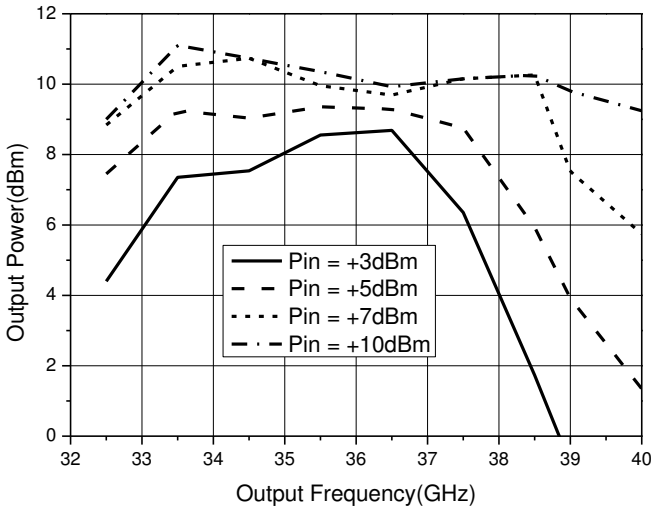
MWX010 is an active Quadrupler designed by GaAs pHEMT process. Driven by +10dBm input signal, this multiplier can realize +10dBm output signal in the operating frequency band of 32-38GHz. The excellent performance of this frequency multiplier makes it widely used in point-to-point communications, VSAT radio communications and test instruments and other applications.

Electrical Specifications， TA = +25℃， Vdd = +3.3V，Pin = +10dBm

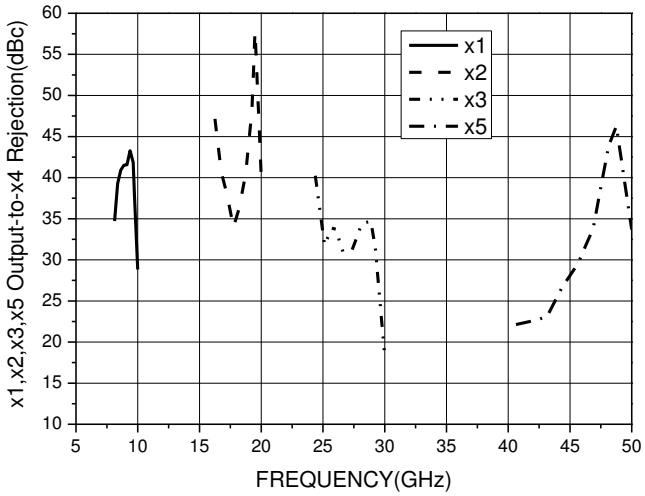
Parameter	Min	Typ	Max	Units
Input Bandwidth	8		9.5	GHz
Output Bandwidth	32		38	GHz
Input Power		10		dBm
Output Power		10		dBm
Input Return Loss		12		dB
Output Return Loss		14		dB
3rd subharmonic suppression		31		dBc
Supply Current（@Vdd= + 3.3V）		33		mA

Test Results

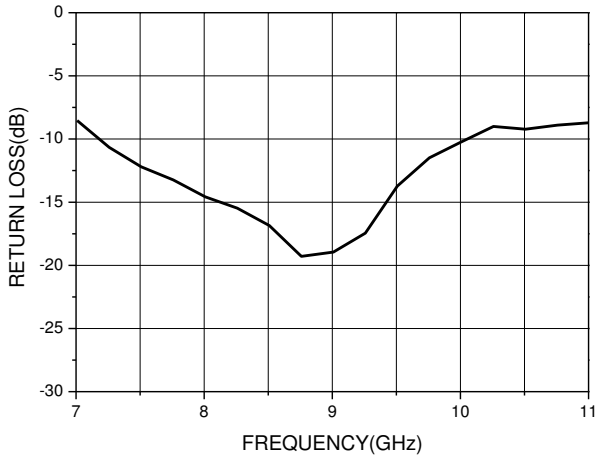
Output Power



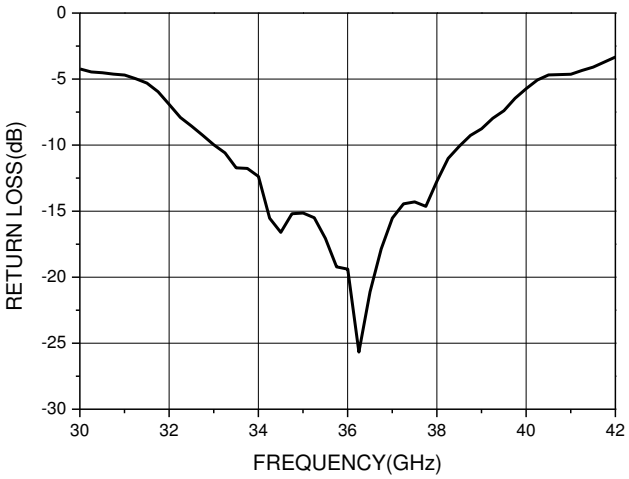
Harmonic Suppression



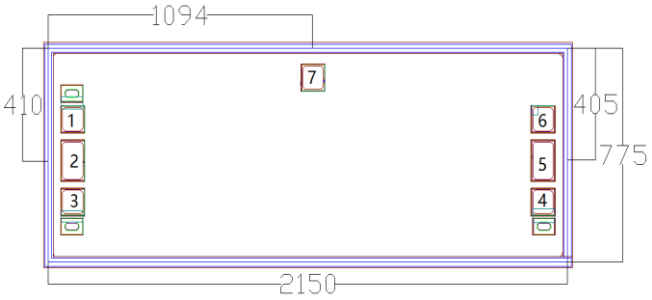
Input Return Loss



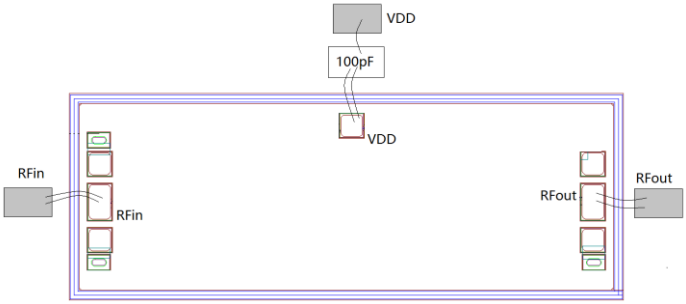
Output Return Loss



Chip Size（Unit：mm）



Assembly Diagram:



Pin Description

Pin Number	Features	Description
1、3、4、6	GND	Connect to RF/DC ground
2	RF/IN	RF input, external 50Ohm system
5	RF/OUT	RF output, external 50Ohm system
7	Vdd	Power supply of Amplifier, external 100pF capacitor

Absolute Maximum Ratings

Collector Bias Voltage	+ 5.5V
RF Input Power	+ 15dBm
Storage Temperature	-65 - +150℃
Operating Temperature	-55 - +85℃