

## General Description

MWG202 is a power amplifier designed and manufactured by GaAs pHEMT process with output power of 1Watt. The power amplifier covers a frequency band of 41-42 GHz, powered by +6V voltage Vdd and operates at 1600mA with a small signal gain of 15 dB. The output power reaches 1 Watt.

## Features

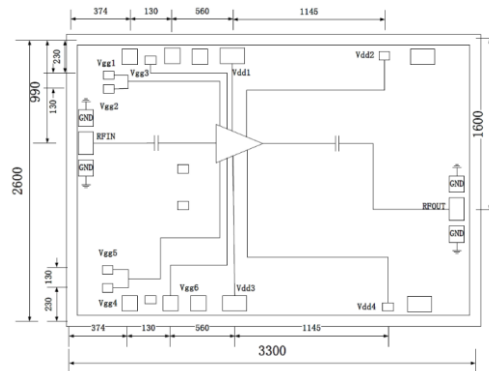
Gain: 15 dB

Output P1dB: +30dBm

Supply Current: +6.0V@1600mA

VSWR < 1.3

## Functional Diagram(Typical bond: 80x135, unit: um)



(Die Thickness: 100 um)

## Electrical Specifications, $T_A = +25^\circ\text{C}$ , $V_{dd} = +6\text{V}$ , $V_{gg} = -0.7\text{V}$

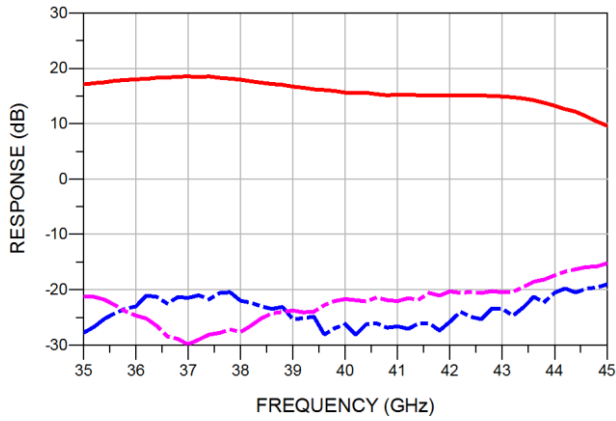
Parameter	Min	Typ	Max	Units
Bandwidth	41		42	GHz
Gain		15		dB
Input Return Loss		25		dB
Output Return Loss		22		dB
Output Power for 1dB Compression		+30		dBm
Supply Current (@Vdd=+6.0V)		1600		mA

## Output P1dB vs. Frequency

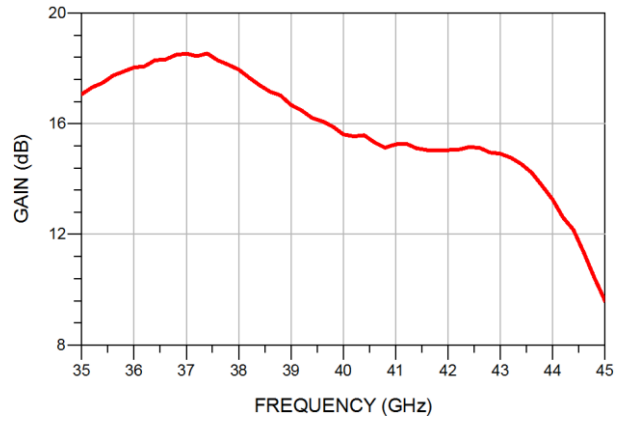
Frequency (GHz)	38		39	40	41	42	43
Output P1dB (dBm)	27.5		28.5	25	29.4	30.2	28.8

## Test Results

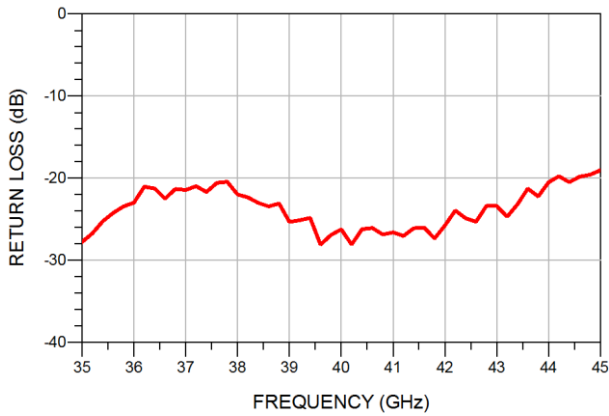
**S\_Parameter**



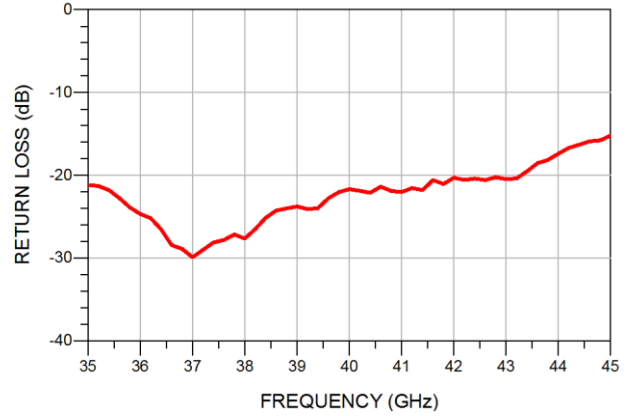
**Gain**



**Input Return Loss**



**Output Return Loss**



## Assembly Diagram

