

General Description

MWG305 is a power amplifier product designed and manufactured by GaAs pHEMT process. This power amplifier can cover 55-66 GHz operating frequency band, using +4V voltage Vd power supply, normal operating current 366 mA, providing 21 dB small signal gain, output power up to 24 dBm.

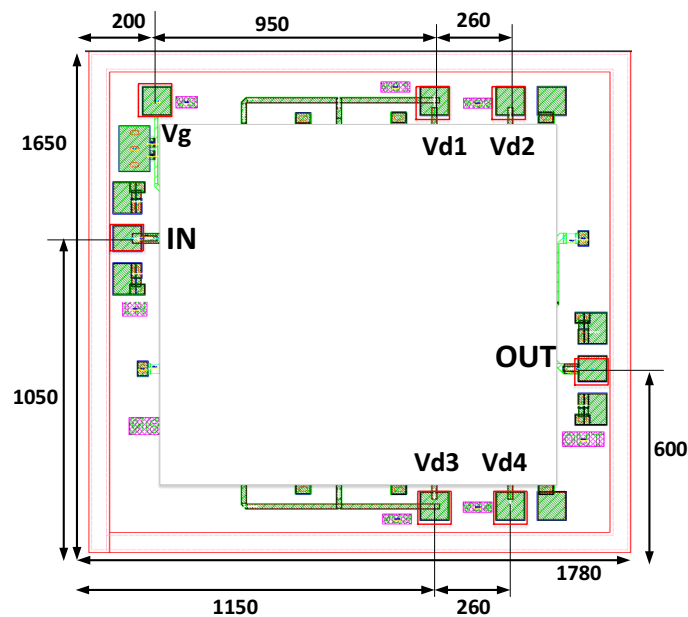
Features

Gain: 21 dB;

Psat: +24dBm

Supply Current: +4V@366 mA

Functional Diagram(Typical bond, 100x100, unit, um)



(Die Thickness: 50 um)

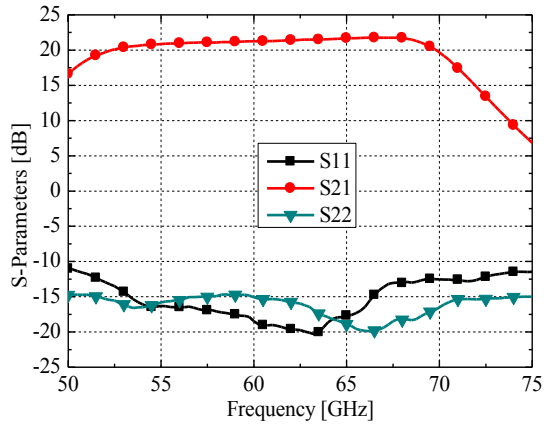
Electrical Specifications, $T_A = +25^\circ\text{C}$, $V_{d1} = V_{d2} = V_{d3} = V_{d4} = +4\text{V}$, $V_g = -0.4\text{V}$

Parameter	Min	Typ	Max	Units
Bandwidth	55		66	GHz
Gain	20.9	21	21.8	dB
Input Return Loss		16		dB
Output Return Loss		15		dB
Psat	23	24		dBm
Supply Current (@Vd=4V)		366		mA

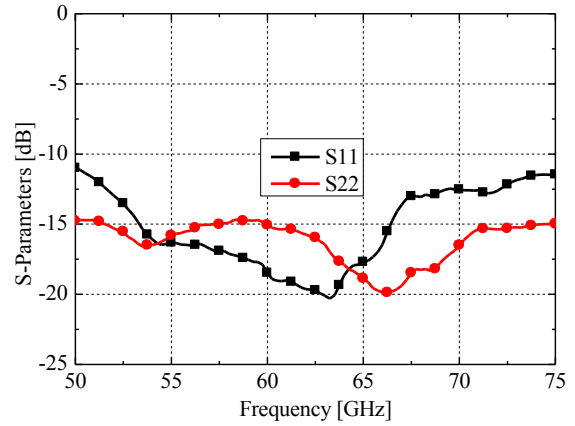


Test Results

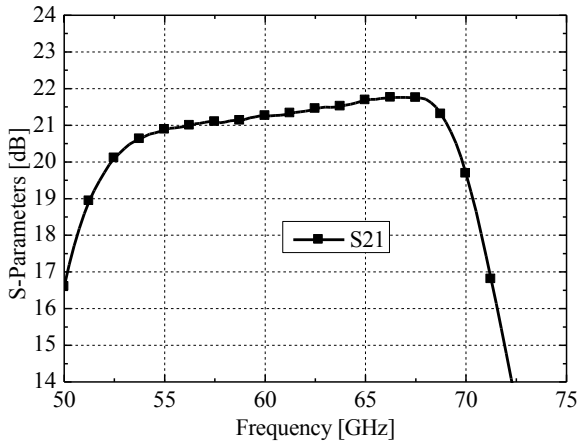
S_Parameter



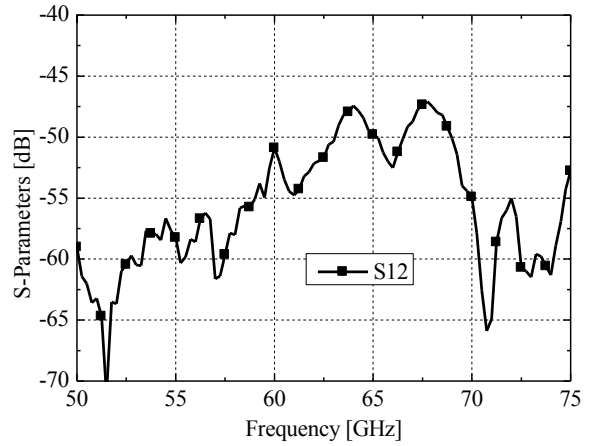
Input/Output Return Loss



Gain



Isolation(S12)



Psat

