

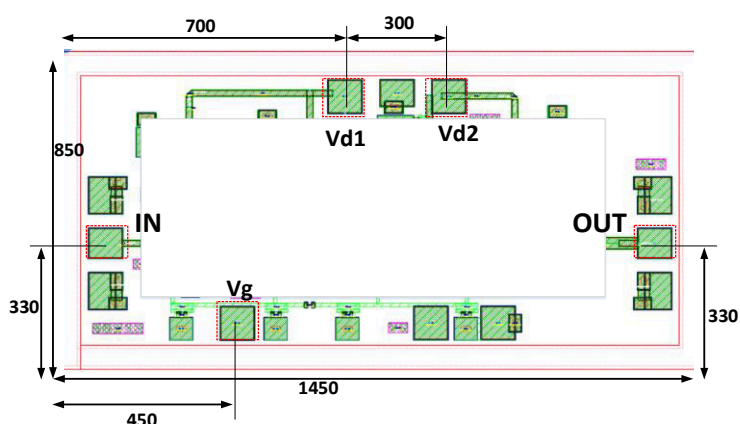
General Description

MWL202 is a low-noise amplifier designed and manufactured by GaAs pHEMT process. This low noise amplifier can cover 50-75 GHz operating frequency band, using +2V voltage power supply, normal operating current is 73 mA, providing 18 dB small signal gain, output power up to 10 dBm, noise figure is 3.5 dB.

Features

Noise Figure: 3.5 dB
 Gain: 18 dB;
 Output P1dB: +10dBm
 Supply Current: +2V@73 mA

Functional Diagram(Typicalbond: 100x100, unit: um)



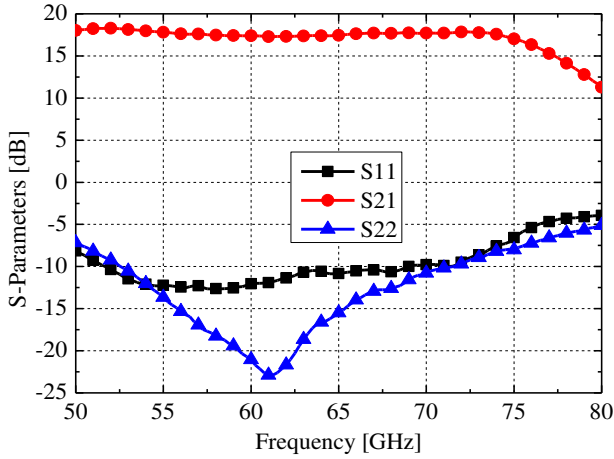
(Die Thickness: 50 um)

Electrical Specifications, $T_A = +25^\circ\text{C}$, $V_{d1} = V_{d2} = +2\text{V}$, $V_g = -0.5\text{V}$

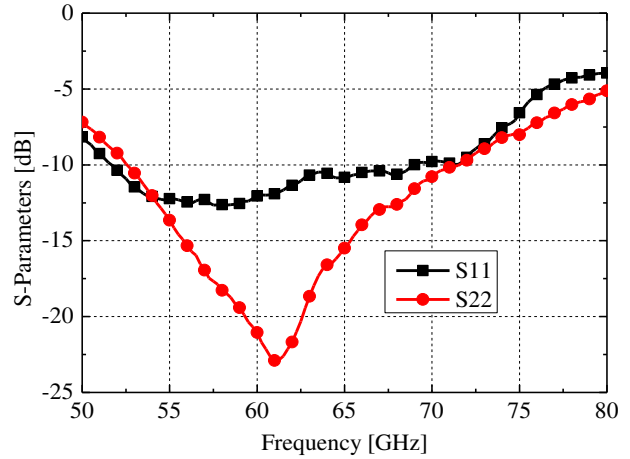
Parameter	Min	Typ	Max	Units
Bandwidth	50		75	GHz
Gain	17	18		dB
Noise Figure		3.5		dB
Input Return Loss	7	10		dB
Output Return Loss	8	13		dB
Output P1dB		10		dBm
Supply Current (@Vd=2V)		73		mA

Test Results

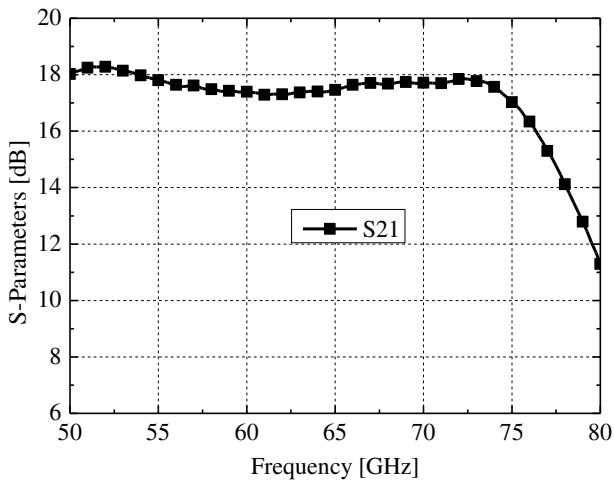
S_Parameter



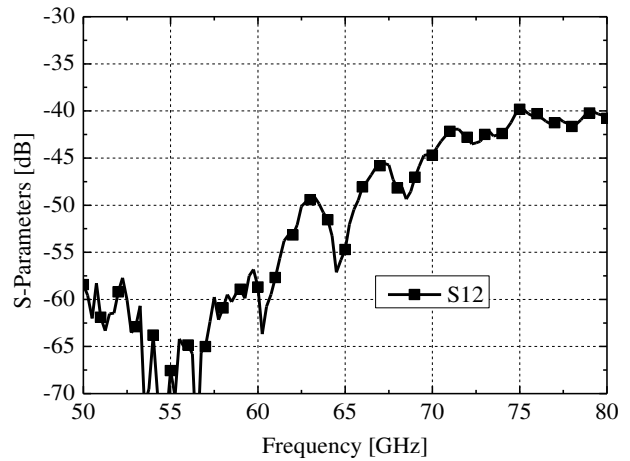
Input/Output Return Loss



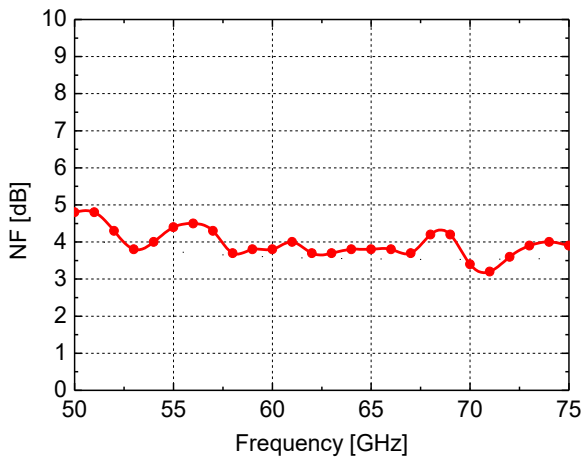
Gain



Isolation(S12)



Noise Figure



Assembly Diagram

