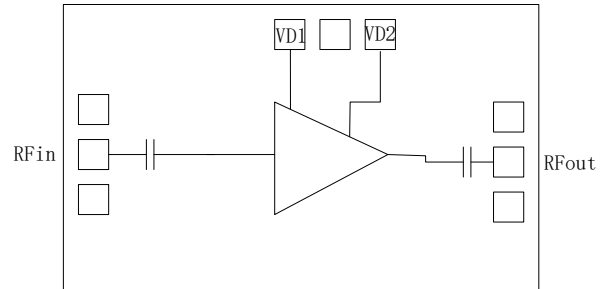


Features

Noise Figure: 0.75dB
Gain: 23dB
OIP3: 17dBm
Chip Size: 2100 μ m \times 1200 μ m

Functional Diagram



General Description

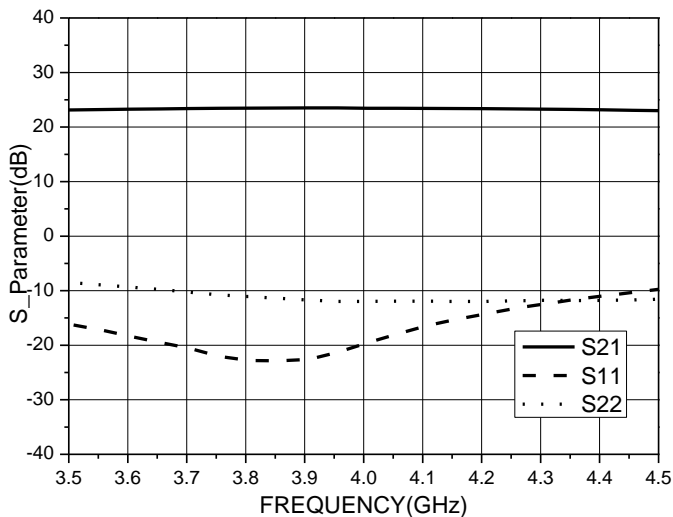
MWL022 is a low noise amplifier designed and manufactured by GaAs pHEMT process. The LNA operates at 25 mA with a frequency band of 3.5-4.5 GHz and provides a small signal gain of 23 dB. The typical noise factor is 0.75 dB.

Electrical Specifications, TA = +25°C, Vdd = +5.0V

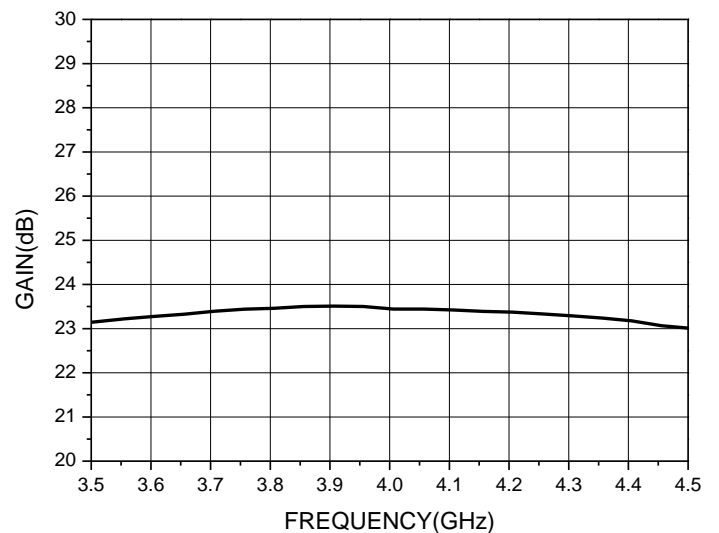
Parameter	Min	Typ	Max	Units
Bandwidth	3.5		4.5	GHz
Noise Figure		0.75	0.8	dB
Gain		23		dB
Gain Flatness		± 0.02		dB
Input Return Loss		16		dB
Output Return Loss		12		dB
Output 3 rd Intercept Point		17		dBm
Supply Current (@Vdd=5V)		25		mA

Test Results

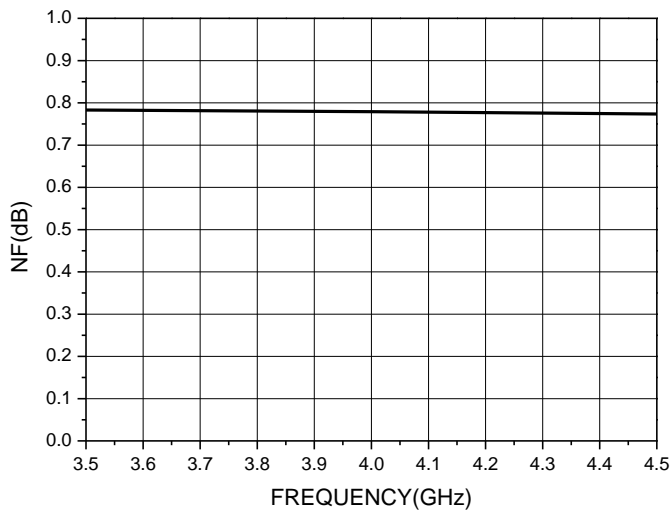
S_Parameter



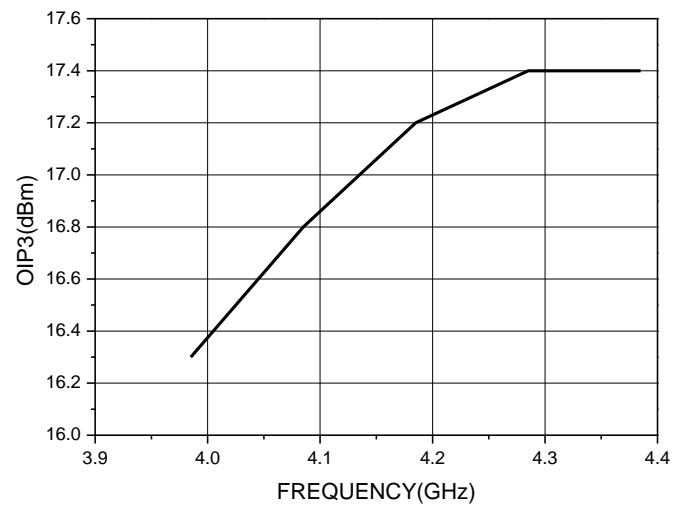
Gain



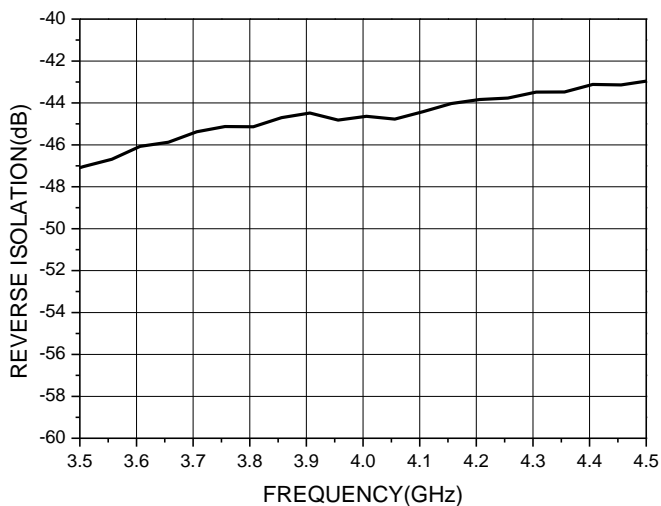
Noise Figure



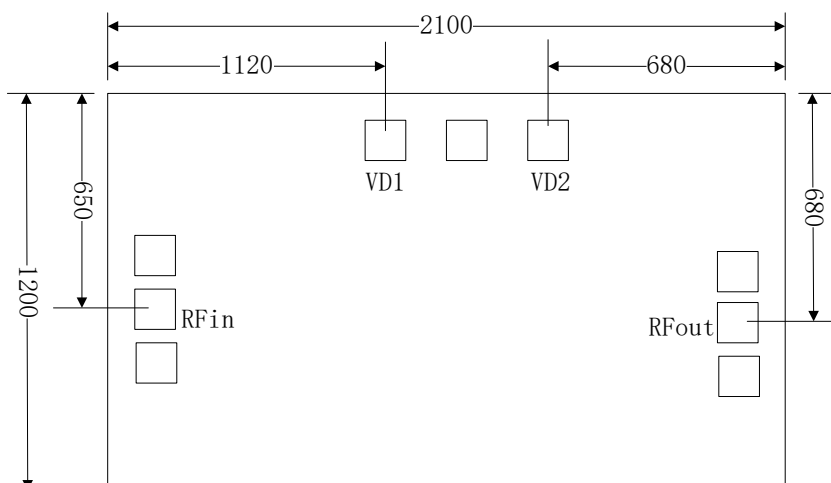
OIP3



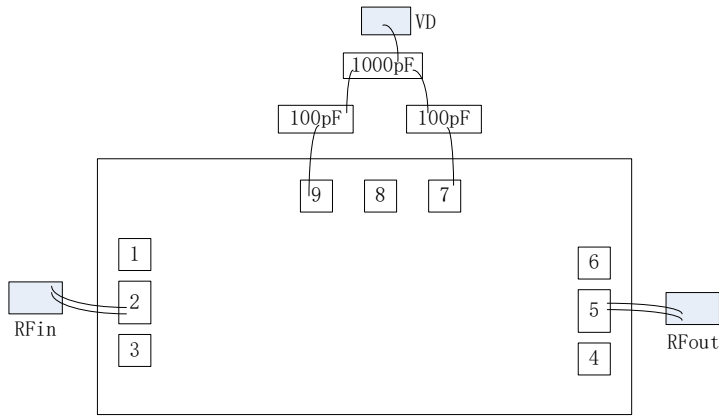
Isolation



Chip Size (unit: μm)



Assembly Diagram



Pin Description

Pin NO.	Function	Description
1、3、4、6、8	GND	Connect to RF/DC Ground
2	RF/IN	RF input, external 50Ohm system
5	RF/OUT	RF output, external 50Ohm system.
7、9	Vdd	Amplifier power supply plus 100pF capacitor

Absolute Maximum Ratings

Voltage	6V
RF Input Power	-10dBm
Storage Temperature	-65 - +150°C
Operating Temperature	-55 - +85°C