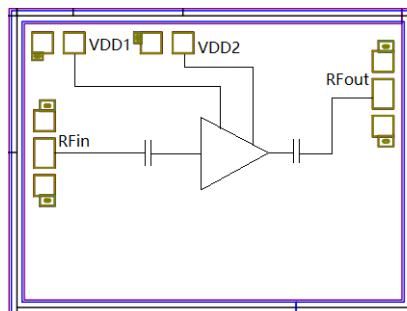


## Features

Noise Figure: 1.7dB  
Gain: 14dB  
Output P1dB: 11dBm  
Chip Size: 1820 $\mu$ m  $\times$  1350 $\mu$ m

## Functional Diagram(Typical bondpad:100\*100um)



## General Description

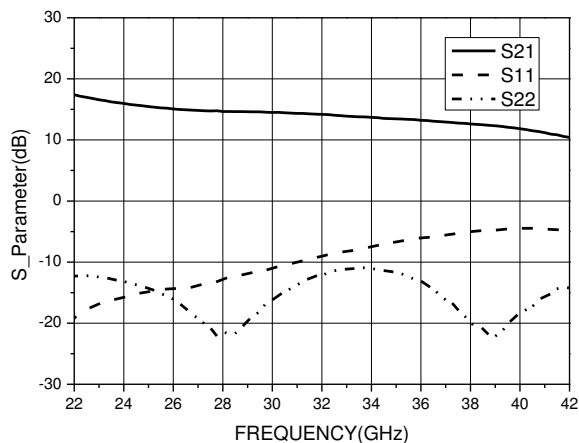
MWL024 is a low noise amplifier designed and manufactured using the GaAs pHEMT process. This amplifier operates at 3.3V with a normal operating current of 69mA, an operating frequency range of 24 – 40 GHz, and a small signal gain of 14dB with a typical noise figure of 1.7dB.

## Electrical Specifications, TA = +25°C, Vdd = +3.3V

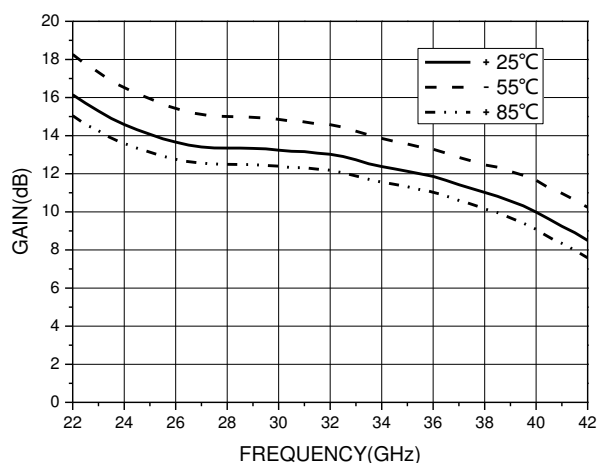
Parameter	Min	Typ	Max	Units
Bandwidth	24		40	GHz
Noise Figure		1.7		dB
Gain		14		dB
Gain Flatness		$\pm 2$		dB
Input Return Loss		9		dB
Output Return Loss		16		dB
Output Power for 1dB Compression		11		dBm
Supply Current (@Vdd=3.3V)		69		mA

## Test Results

S\_Parameter

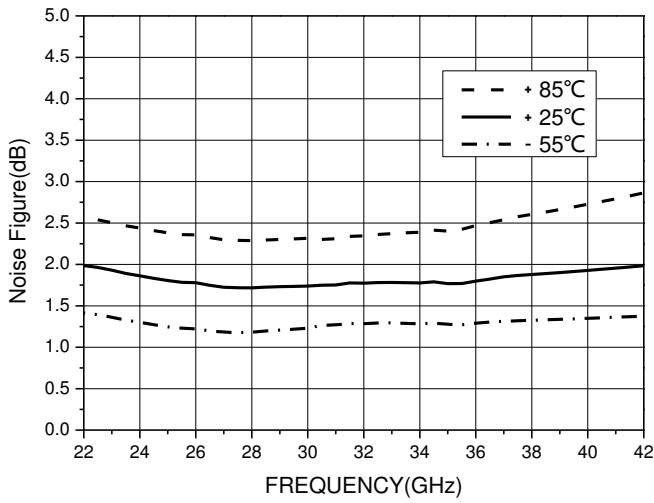


Gain

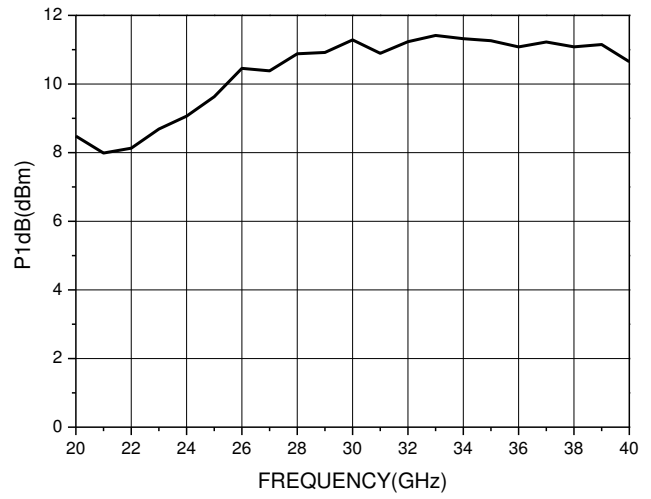




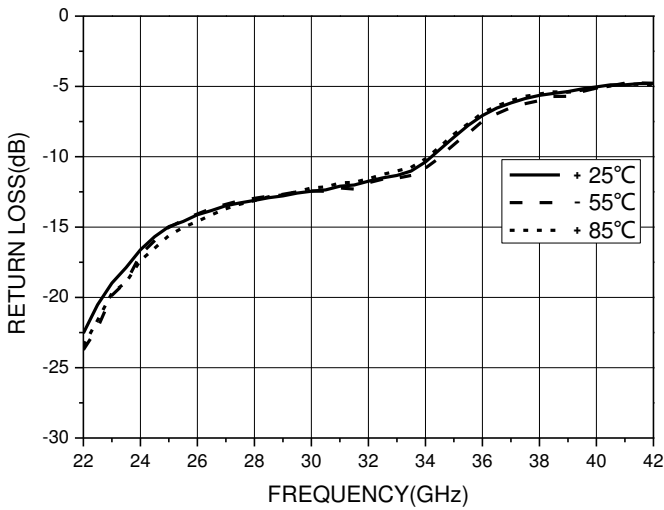
Noise Figure



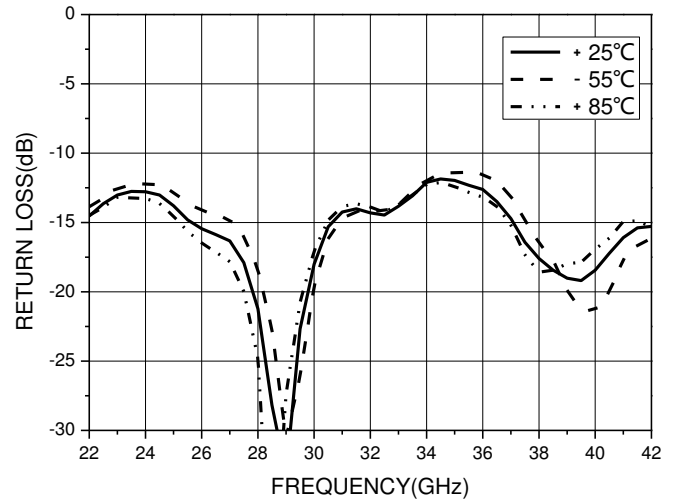
Output P1dB



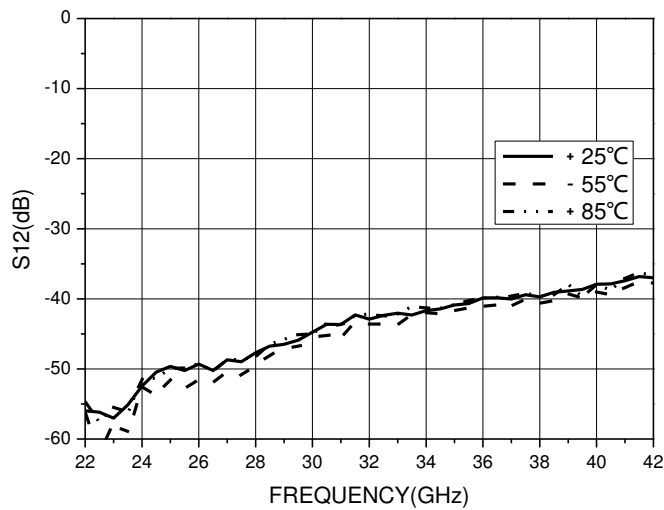
Input Return Loss



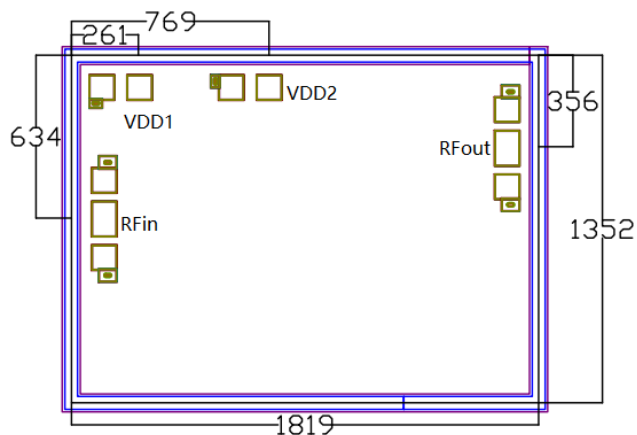
Output Return Loss



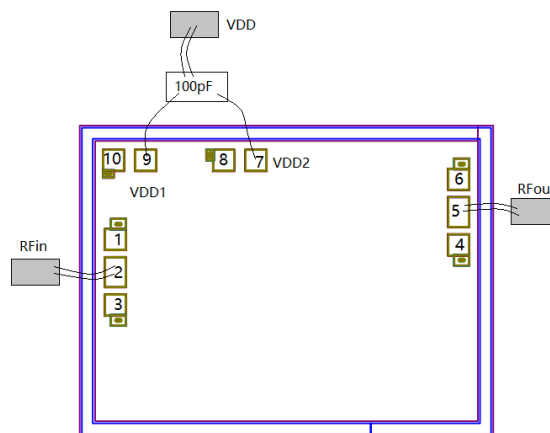
Reverse Isolation



### Chip Size (Unit: $\mu\text{m}$ )



### Assembly Diagram



### Pin Description

Pin Number	Features	Description
1、3、4、6、8、10	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	Power supply of Amplifier, external 100pF capacitor

### Absolute Maximum Ratings

Collector Bias Voltage	+ 4V
RF Input Power	+ 3dBm
Storage Temperature	-65 - +150°C
Operating Temperature	-55 - +85°C