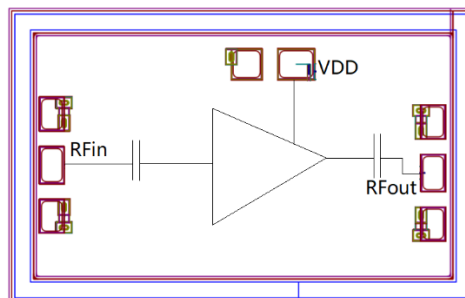


### Features

- Noise Figure: 1.9dB
- Gain: 25dB
- Output P1dB: 11dBm
- Chip Size: 1400 $\mu$ m  $\times$  850 $\mu$ m

### Functional Diagram



### General Description

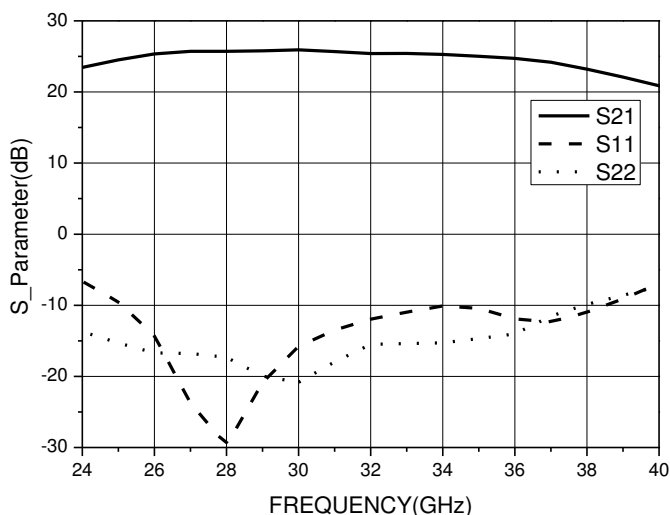
MWL025 is a low noise amplifier designed and manufactured using the GaAs pHEMT process. This amplifier operates at +5V with a normal operating current of 18mA, an operating frequency range of 33 – 37 GHz, and a small signal gain of 25dB with a typical noise figure of 1.9dB.

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

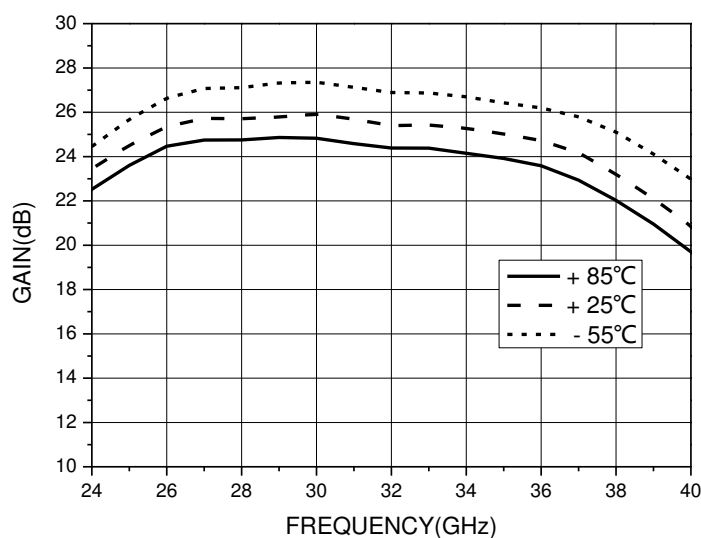
Parameter	Min	Typ	Max	Units
Bandwidth	33		37	GHz
Noise Figure		1.9		dB
Gain		25		dB
Gain Flatness		$\pm 0.6$		dB
Input Return Loss		11		dB
Output Return Loss		14		dB
Output P1dB		11		dBm
Supply Current (@Vdd=5V)		18		mA

### Test Results

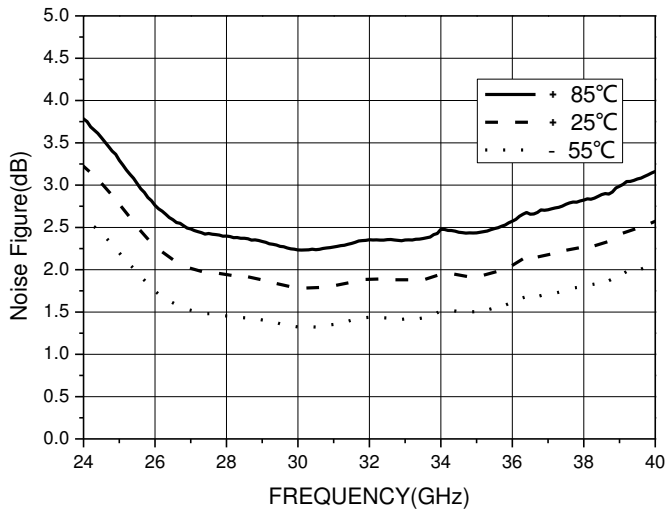
S\_Parameter



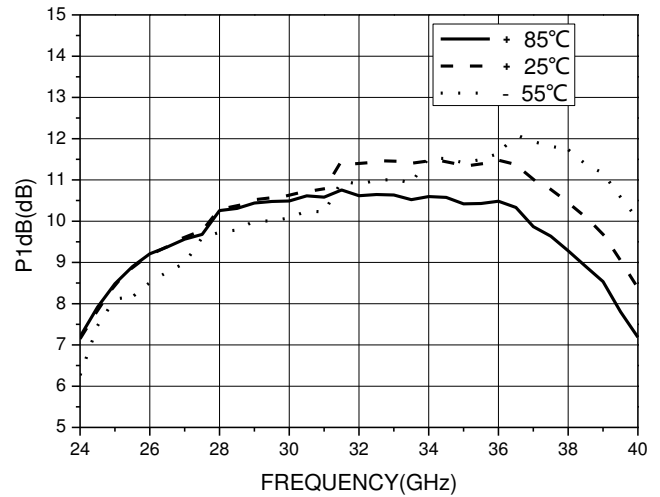
Gain



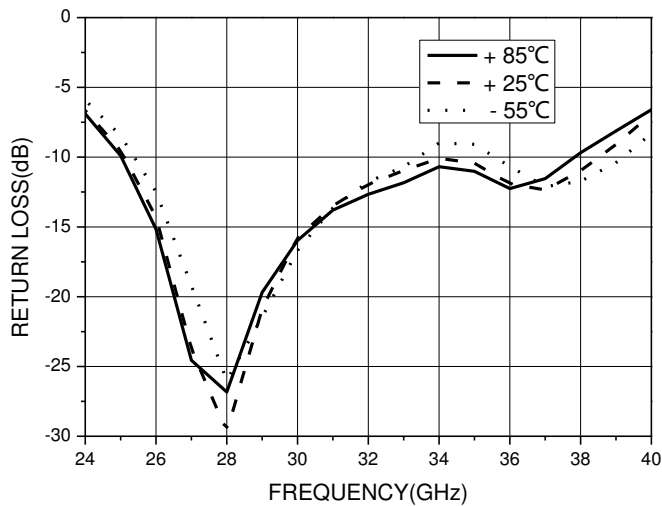
**Noise Figure**



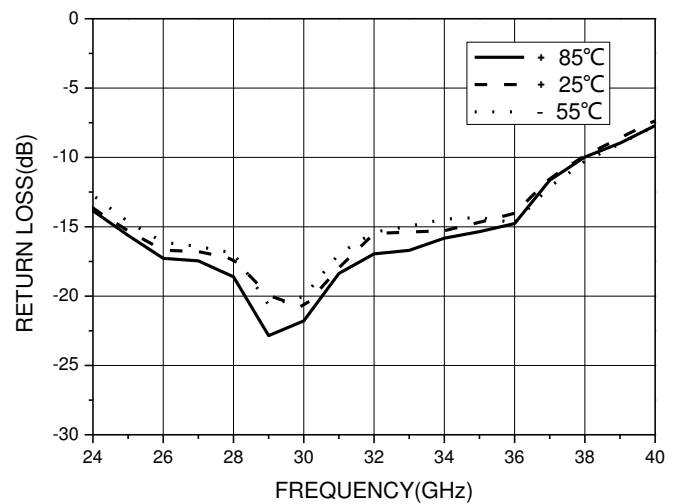
**Output P1dB**



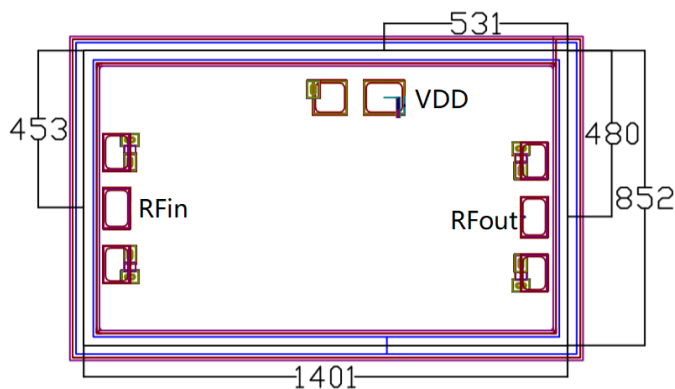
**Input Return Loss**



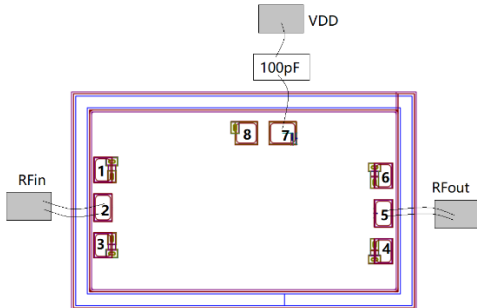
**Output Return Loss**



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



## Assembly Diagram



## Pin Description

Pin Number	Features	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	Vdd	Power supply of Amplifier, external 100pF capacitor

## Absolute Maximum Ratings

Collector Bias Voltage	+ 6V
RF Input Power	+ 3dBm
Storage Temperature	-65 - +150°C
Operating Temperature	-55 - +85°C