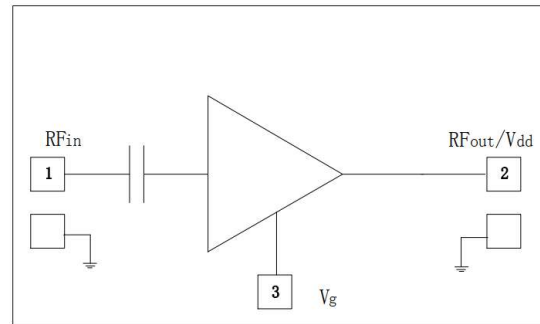


### Performance

- Frequency: 2~20GHz
- Noise Figure: 4dB
- Typical Gain: 16dB
- P-1: 24.5dBm
- Input/Output VSWR: 1.6
- Bias: +8V/290mA
- Control Voltage: Approx. 1.5V
- Technology: 0.15um PHEMT
- Size: 3.12\*1.63mm\*0.08mm

### Function Diagram

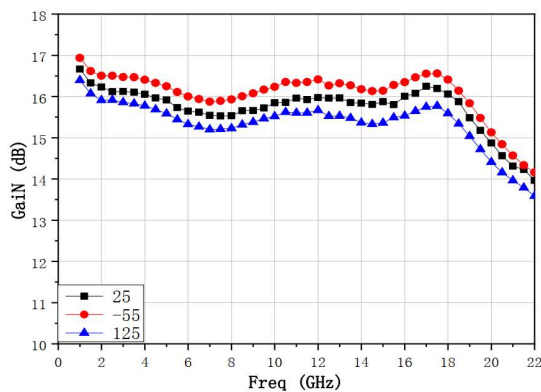


### Electrical Specifications (Vd=8V, Vg=-1.5V)

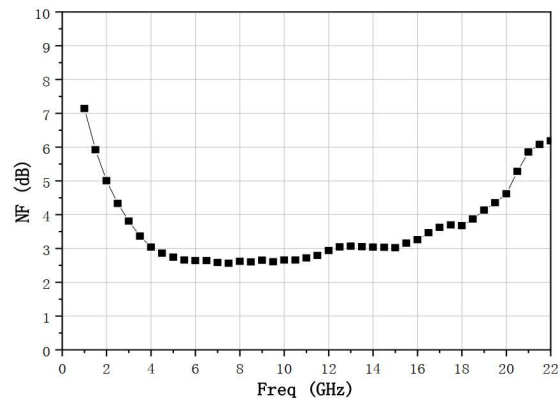
Parameter	Value									Unit
	Min	Typ	Max	Min	Typ	Max	Min	Typ	Max	
Frequency (f)	2~6			6~18			18~20			Ghz
Small Signal Gain (G)	15	16		15	16		13	14		dB
Noise Figure (NF)		5			4			4.5		dB
Input VSWR (VSWRin)		1.4			1.4			1.4		
Output VSWR (VSWRout)		1.6			1.8			1.6		
Output P-1		26.5			24.5			22		dBm
Saturated Power (Psat)		27.5			25.5			24		dBm
Operating Current (Id)		290			290			290		mA

### Test Curves

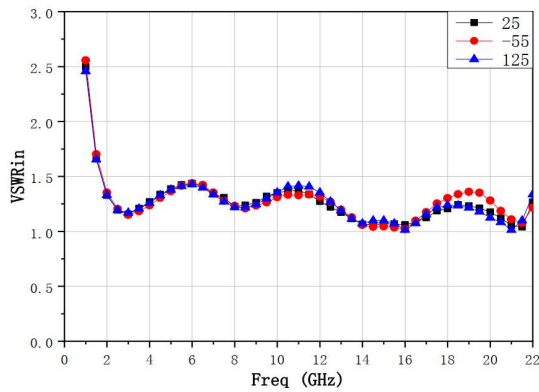
Small Signal Gain



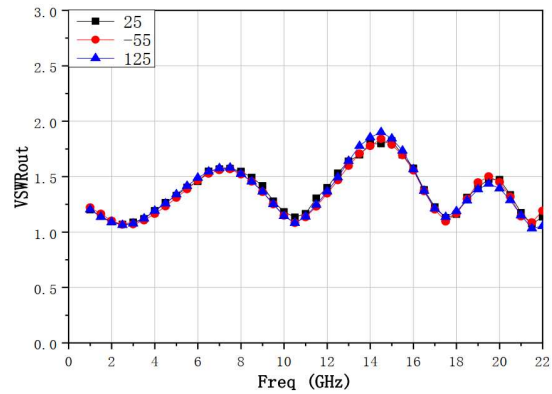
Noise Figure



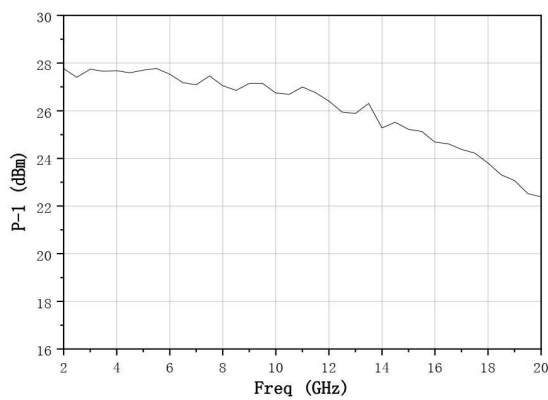
Input VSWR



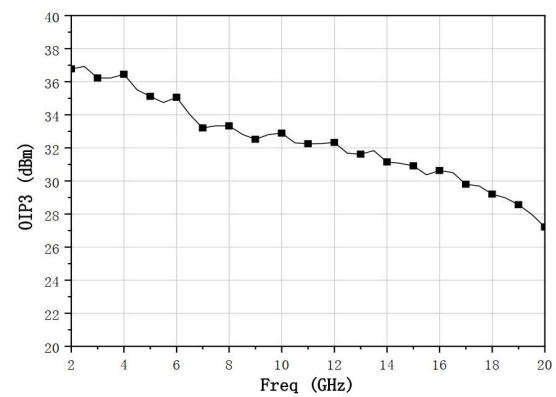
Output VSWR



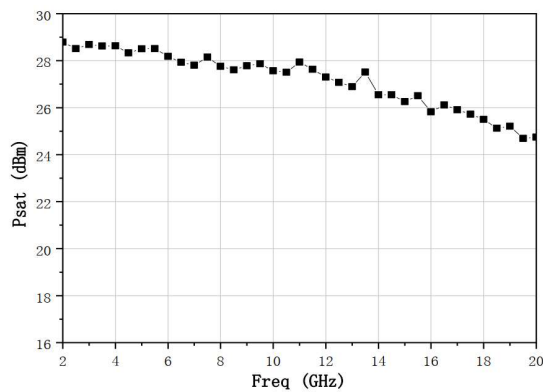
P-1 vs. Freq



Output IP3



Saturated Power

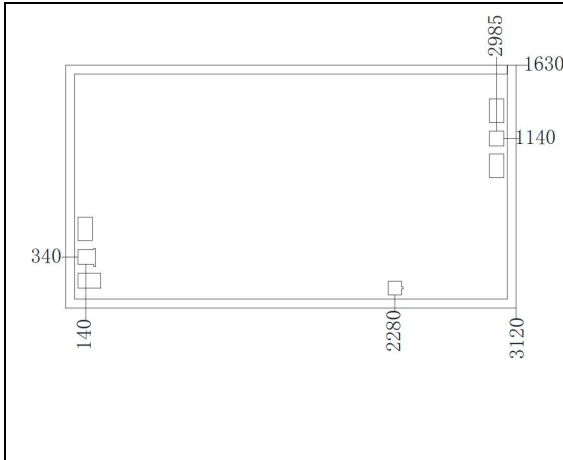


### Absolute Max Ratings (T<sub>A</sub>=25°C)

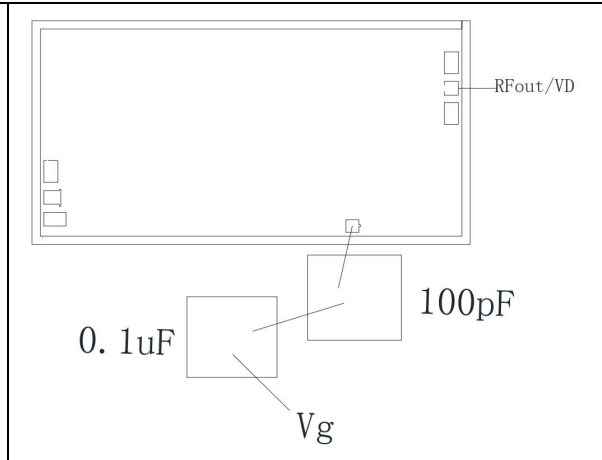
Symbol	Parameter	Value	Remark
V <sub>d</sub>	Drain Voltage	10V	
P <sub>in</sub>	Input Power	20dBm	
T <sub>ch</sub>	Channel Temperature	150°C	
T <sub>m</sub>	Mounting Temperature	290°C	30s, N <sub>2</sub> Protection
T <sub>stg</sub>	Storage Temperature	-55~150°C	

Exceeding any one or combination of these limits may cause permanent damage.

### Outline Size



### Assembly Drawing



### Pads Definition

Number	Description
RFin	RF input, connect to 50Ω system, no block capacitor needed
RFout	RF output, connect to 50Ω system, no block capacitor needed
Vdd	Amplifier drain bias, external 100pF capacitors needed
GND	Bottom must be well connected to RF and DC grounded