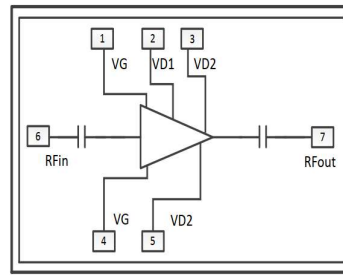


Performance

- Frequency: 2.0~4.0GHz
- Typical Signal Gain: 27dB
- Typical Pout: 46dBm
- Typical PAE: 45%
- Bias: 28V, -1.8V (Typ.)
- Technology: 0.25um HEMT
- Size: 3.5*4.6mm*0.08mm

Function Diagram

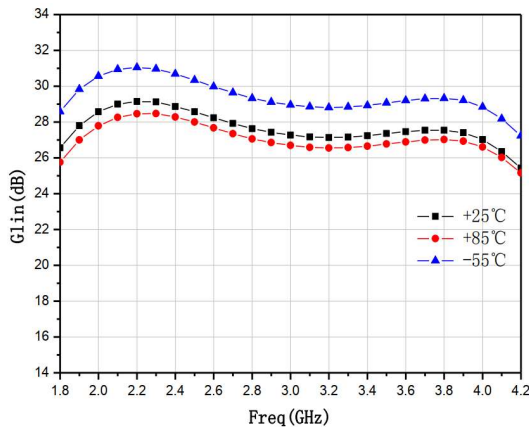


Electrical Specifications (TA=25°C, Vd=28V, Vg=-1.8V, F: 2.0~4.0GHz, CW)

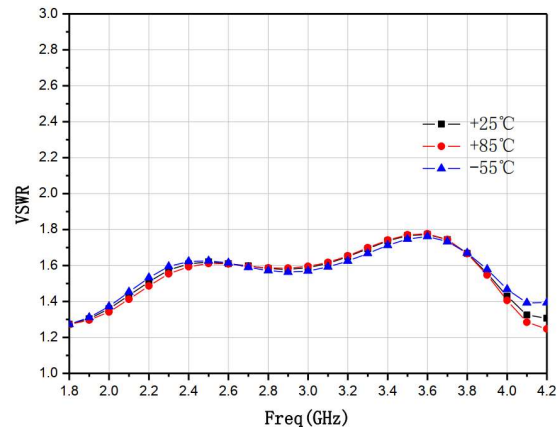
Symbol	Parameter	Min	Typical	Max	Unit
G	Small Signal Gain	-	27	-	dB
Gp	Power Gain	-	21	-	dB
Pout	Saturated Power	-	46	-	dBm
Id	Operating Current	-	3.5	-	A

Test Curves (Vg=-1.8V, Vd=28V, Pin=25dBm, CW)

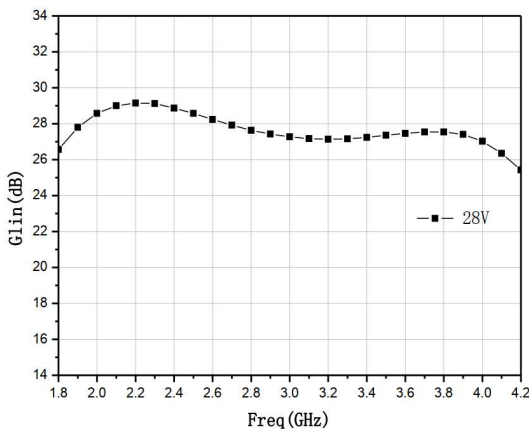
Small Signal Gain



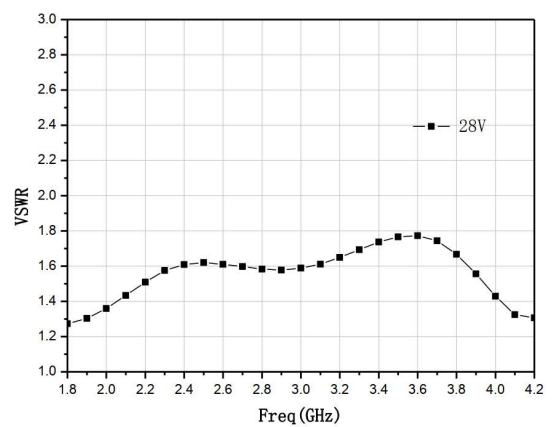
Input VSWR



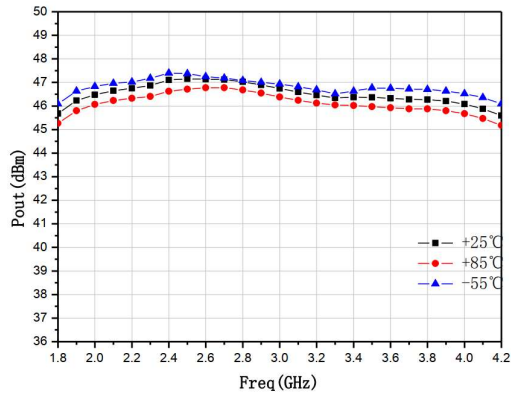
Small Signal Gain @ 28V



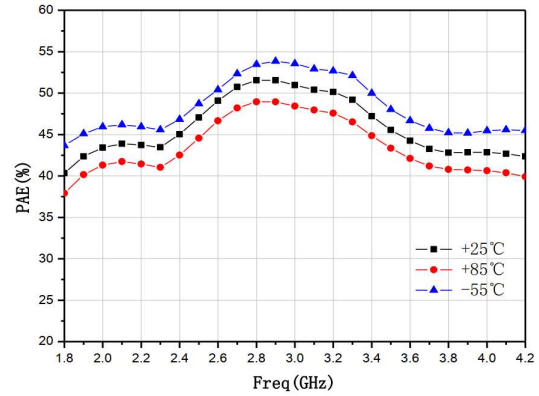
Input VSWR @ 28V



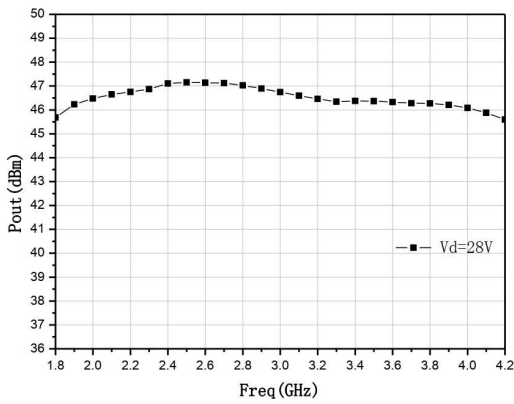
Output Power



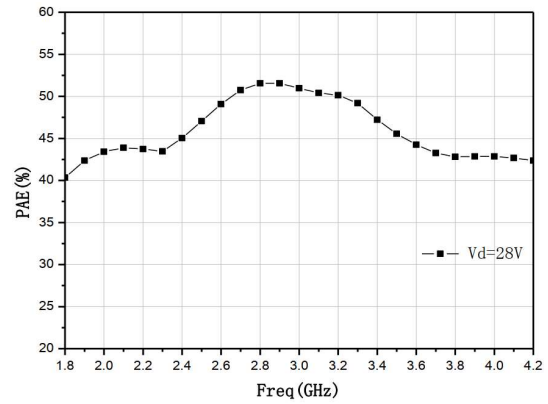
PAE



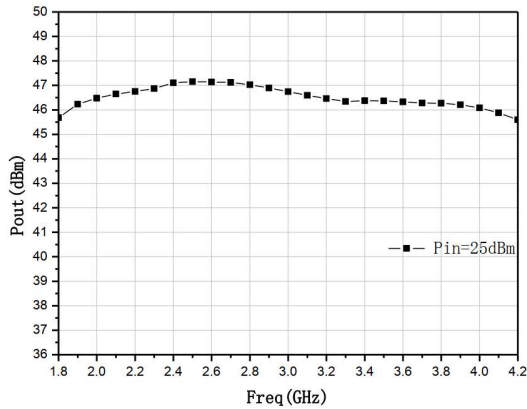
Output Power @ 28V



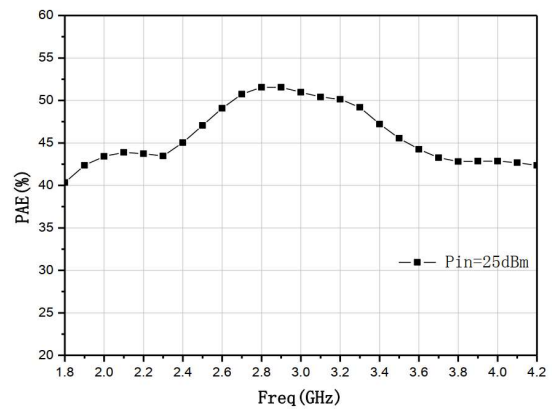
PAE @ 28V



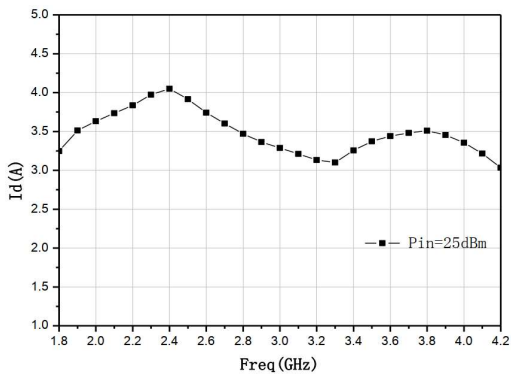
Output Power @ Pin=25dBm



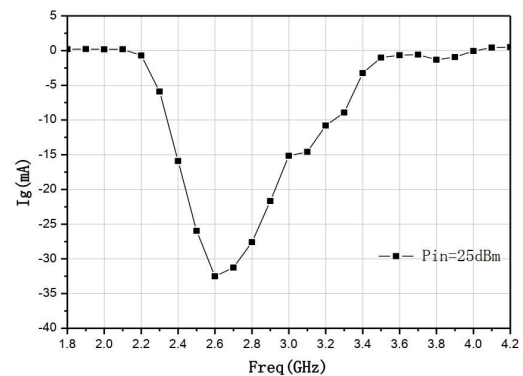
PAE @ Pin=25dBm

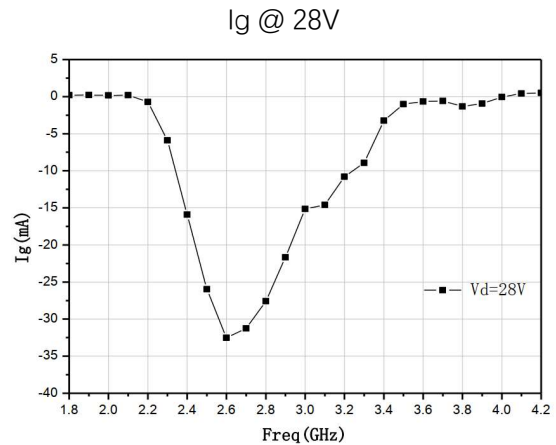
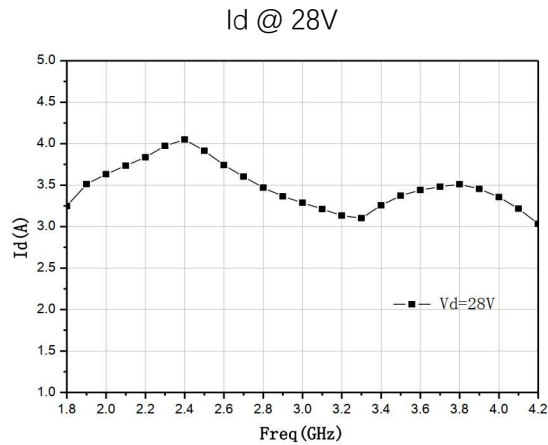


Id @ Pin=25dBm



Ig @ Pin=25dBm

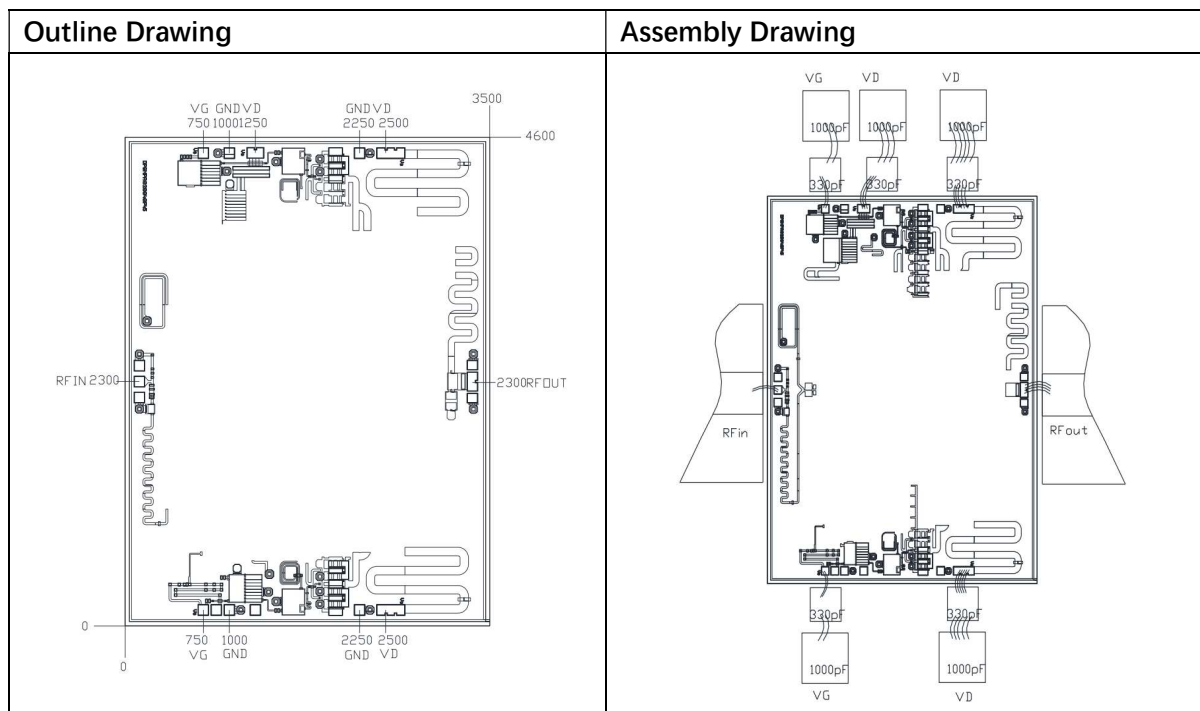




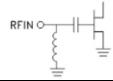

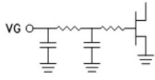

Absolute Max Ratings (TA=25°C)

Symbol	Parameter	Value	Remark
Vd	Drain Voltage	32V	
Id	Drain Current	5A	
Pd	DC Power	100W	
Pin	Input Power	30dBm	
Tch	Channel Temperature	225°C	
Tm	Mounting Temperature	310°C	1 min, N2 Protection
Tstg	Storage Temperature	-55~175°C	

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



Pads Definition

Pad	Description	Equivalent Circuit
RFin	RF Signal input, connect to 50ohm system, no need block capacitor needed.	
RFout	RF Signal output, connect to 50ohm system, no need block capacitor needed.	
VG	Amp gate bias, external 330pF, 1000pF capacitor is needed	
VD	Amp drain bias, external 330pF, 1000pF, 10uF capacitor is needed	
GND	Bottom must connect to RF and DC ground	