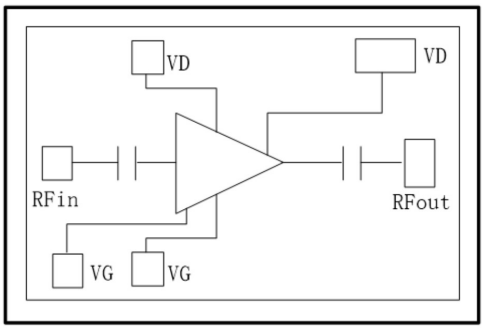
Performance

- Frequency: 2~18GHz
- Pout: 40dBm @ 28V
- PAE: 20%
- Large Signal Gain: 15dB
- Small Signal Gain: 23dB
- Bias: Vd=28V, Vg=-1.8V(Typ), Idq=1.0A (Typ)
- Size: 3.5*4.8mm*0. 08mm
- Performance under CW & PW operation

Function Diagram

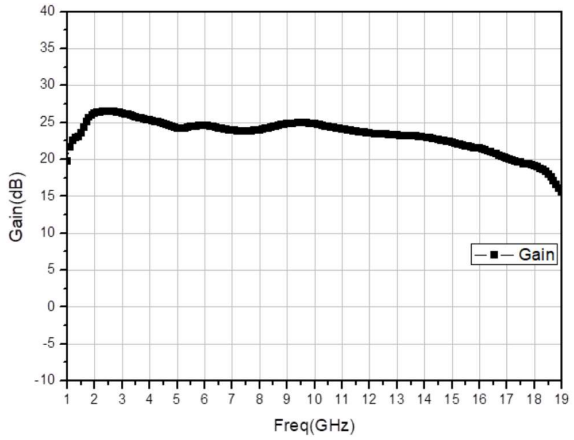


Electrical Specifications (V_d=28V, I_{dq}=1.0A, F: 2~18GHz, CW)

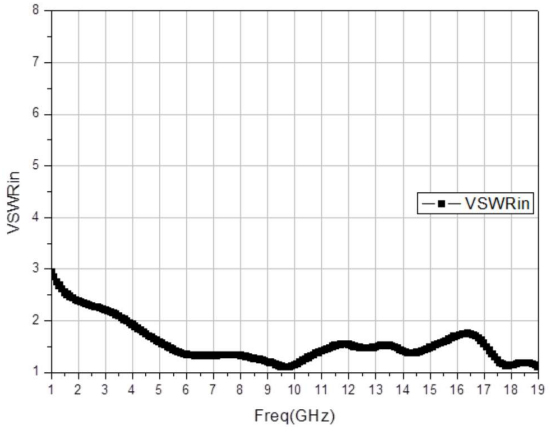
Parameter	Min	Typical	Max	Unit
Small Signal Gain	-	23	-	dB
Large Signal Gain @ Pin=25dBm	-	15	-	dB
Saturated Power @ Pin=25dBm	-	40	-	dBm
Power Added Efficiency @ Pin=25dBm	-	20	-	%

Test Curves (V_d=28V, Idq=1.0A, F: 2~18GHz, CW)

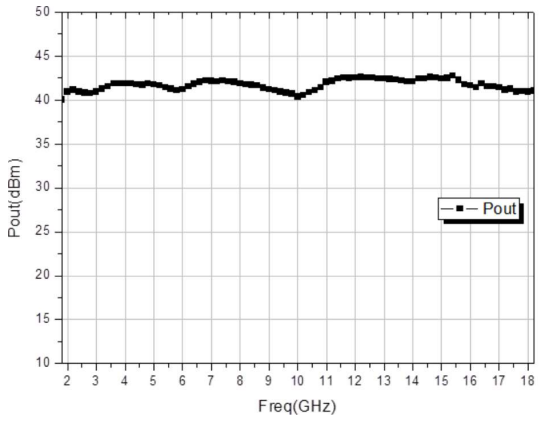
Small Signal Gain vs. Freq (Vd=28V)



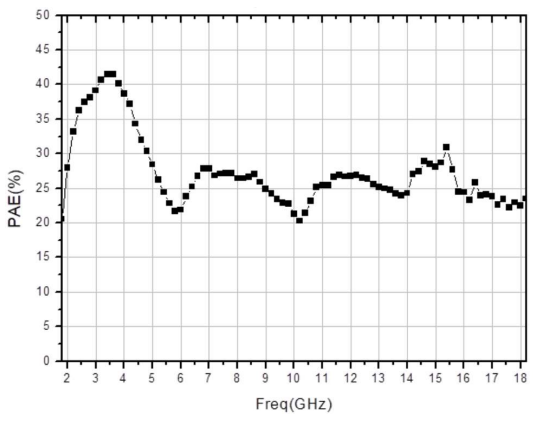
Input VSWR vs. Freq (Vd=28V)



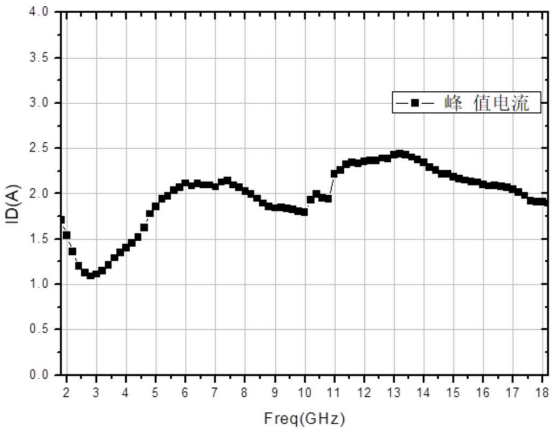
Output Power vs. Freq (Vd=28V, Pin=25dBm)



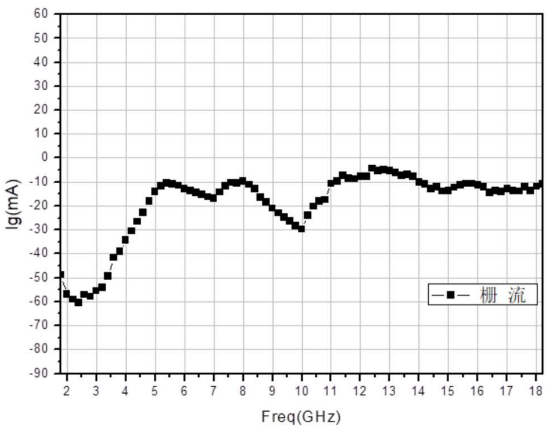
PAE vs. Freq (Vd=28V, CW, Pin=25dBm)



Drain Current vs. Freq (Vd=28V, Pin=25dBm)



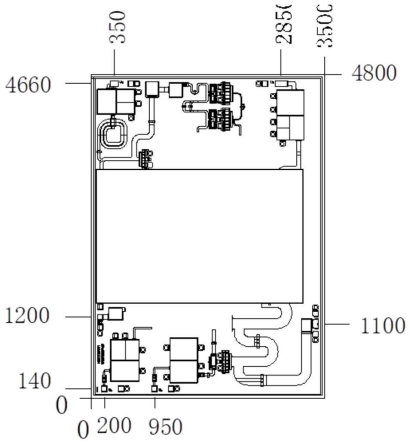
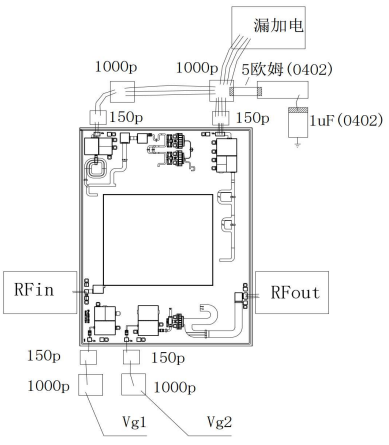
Gate Current vs. Freq (Vd=28V, Pin=25dBm)



Absolute Max Ratings (T_A=25℃)

Symbol	Parameter	Value	Remark
Vd	Drain Voltage	32 V	
Id	Drain Current	3.5A	
Pdiss	DC Power	70 W	25℃
Pin	Input Power	28dBm	
Tch	Channel Temperature	225℃	
Tstg	Storage Temperature	-55~+175℃	
Tm	Mounting Temperature	310℃	1min, N_2 Protection

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

Outline Size (um)	Assembly Application
	

Bias-up Procedure

1. Set Id limit to 3.5A, Ig limit to 50mA
2. Apply -5V to Vg
3. Apply +28V to Vd, ensure Idq is approx.. 0mA
4. Adjust Vg until Idq=1.0A (Vg≈-1.8V typ.)
5. Turn on RF supply

Bias-down Procedure

1. Turn off RF supply
2. Turn off Vd supply
3. Turn off Vg supply