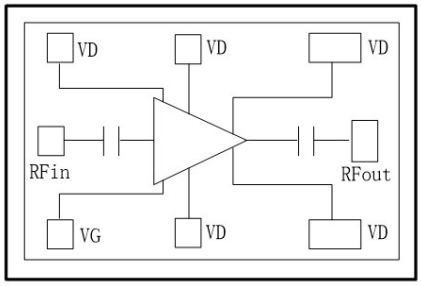
Performance

- Frequency: 8.5~10.5GHz
- Typical Signal Gain: 32dB
- Typical Pout: 44.5dBm @28V
- Typical PAE: 49%
- Bias: 28V, -2.0V (Typ.)
- Size: 2.9*2.8mm*0.08mm
- Technology: 0.25um HEMT

Function Diagram

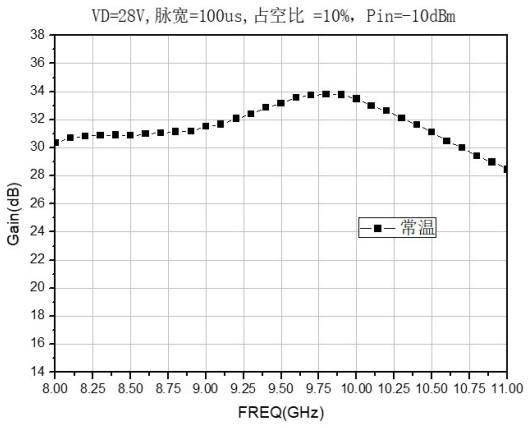


Electrical Specifications (V_d=28V, I_{dq}=1.7A, F: 8.5~10.5GHz, 1ms, 10% D.C)

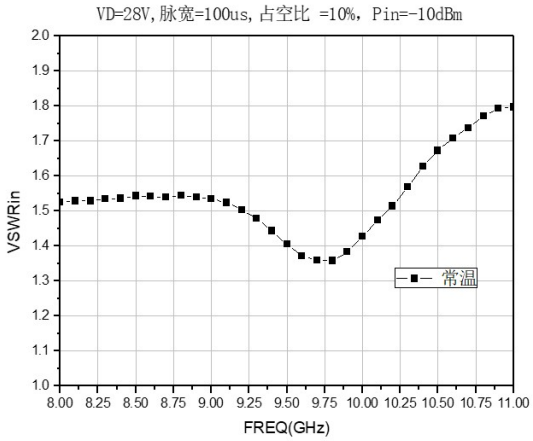
Parameter	Min	Typical	Max	Unit
Small Signal Gain	-	32	-	dB
Power Gain	-	23.5	-	dB
Saturated Power	-	44.5	-	dBm
Power Added Efficiency	-	49	-	%

Test Curves (V_d=28V, V_g=-1.8V, F: 6-18GHz, CW)

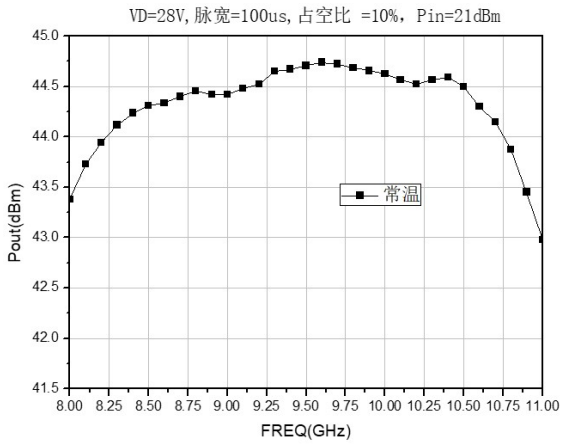
Small Signal Gain vs. Freq



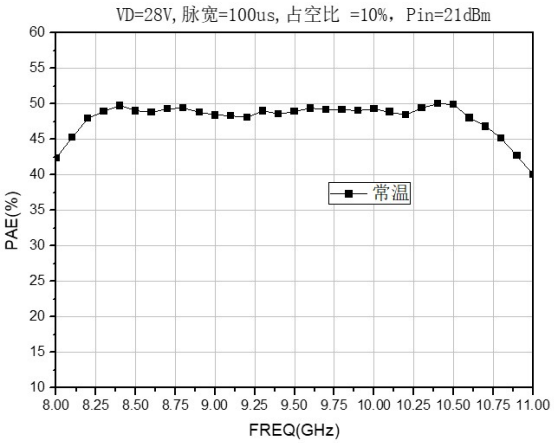
Input VSWR vs. Freq



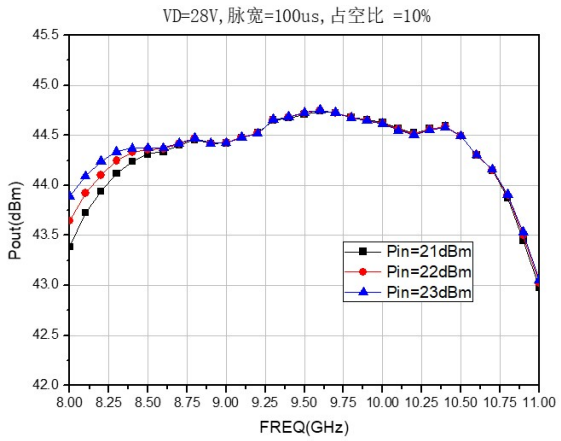
Output Power vs. Freq



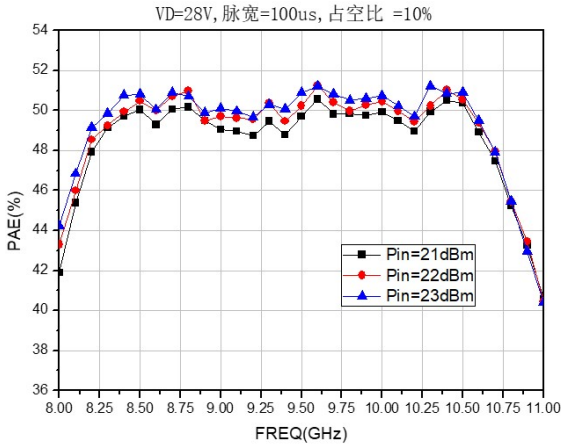
PAE vs. Freq



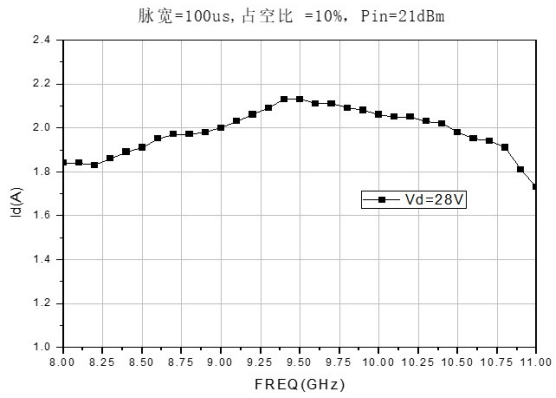
Output Power vs. Freq vs. Different Pin



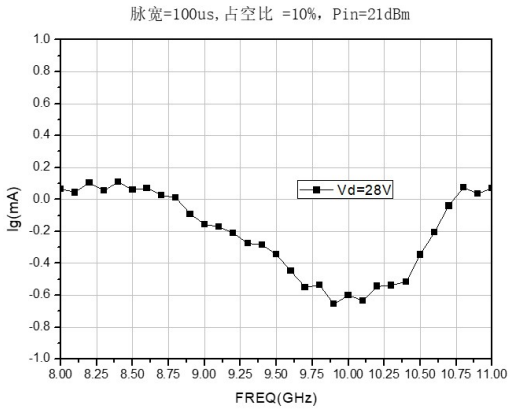
PAE vs. Freq vs. Different Pin



Id vs. Freq



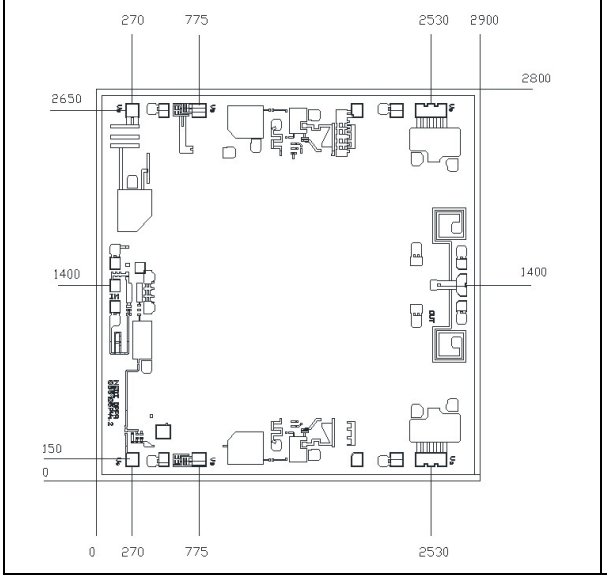
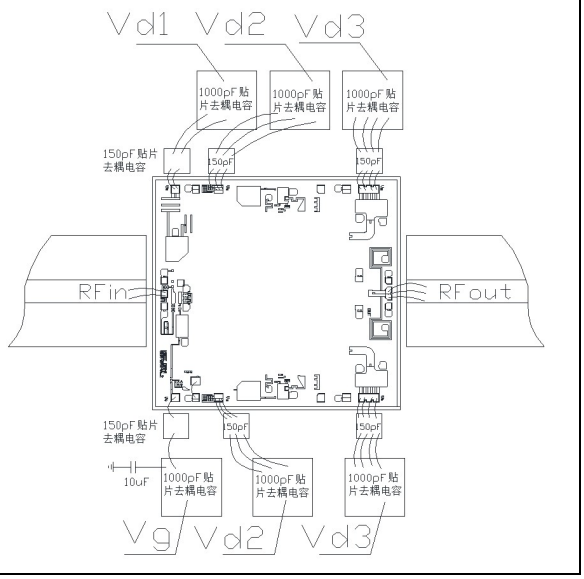
Ig vs. Freq



Absolute Max Ratings (T_A=25℃)

Symbol	Parameter	Value	Remark
Vd	Drain Voltage	32V	
Id	Drain Current	7A	
Vg	Gate Voltage	-10V	
Ig	Gate Current	10mA	
Pd	DC Power	90W	
Pin	Input Power	27dBm	
Tch	Channel Temperature	225℃	
Tm	Mounting Temperature	310℃	1min, N_2 Protection
Tstg	Storage Temperature	-55~175℃	

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

Outline Drawing	Assembly Drawing
	

Pads Definition

No	Description	Equivalent Circuits
RFin	RF signal Input port, connect to 50 ohm system, extra block capacitor is needed.	
RFout	RF signal Output port, connect to 50 ohm system, no block capacitor is needed.	
VG	Amplifier gate bias, external 150pF, 1000pF capacitor is needed.	
VD1, VD2, VD3	Amplifier drain bias, external 150pF, 1000pF capacitor is needed.	
GND	Bottom must be well grounded	