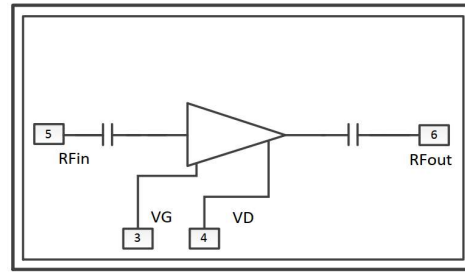


Performance

- Frequency: 8~12GHz
- Typical Signal Gain: 19dB
- Typical Pout: 26dBm@28V
- Typical Idq: 0.11A
- Bias: 28V, -2V (Typ.)
- Technology: 0.25um GaN HEMT
- Size: 1.8*1.4mm*0.08mm

Function Diagram

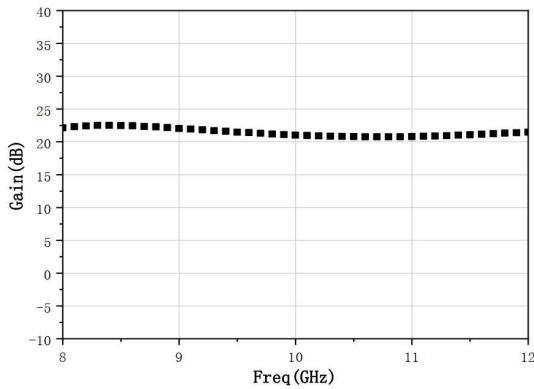


Electrical Specifications (TA=25°C, Vd=28V, Vg=-2.0V, Idq=0.12A, F: 8~12GHz, CW)

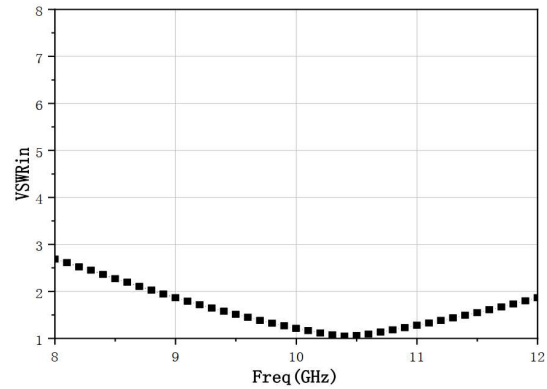
Symbol	Parameter	Min	Typical	Max	Unit
G	Small Signal Gain	-	20	-	dB
Gp	Power Gain	-	18	-	dB
Pout	Saturated Power	-	26	-	dBm
Id	Dynamic Current	-	0.12	-	A

Test Curves

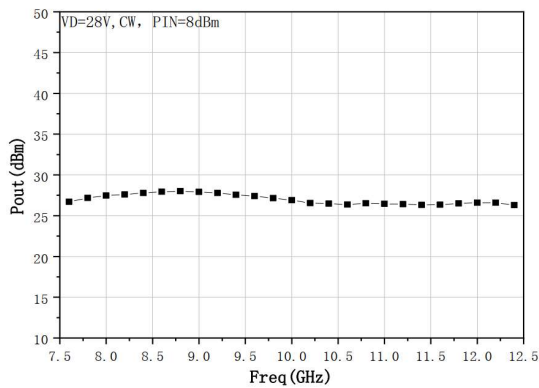
Small Signal Gain vs. Freq



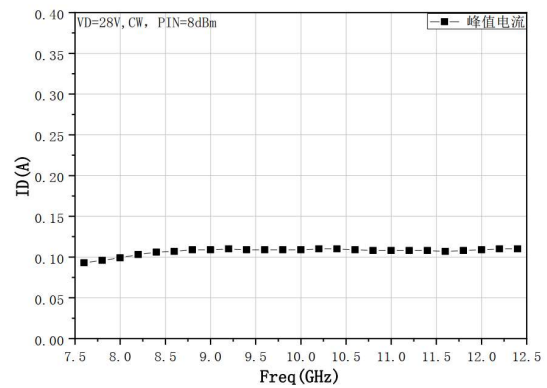
VSWRin vs. Freq.



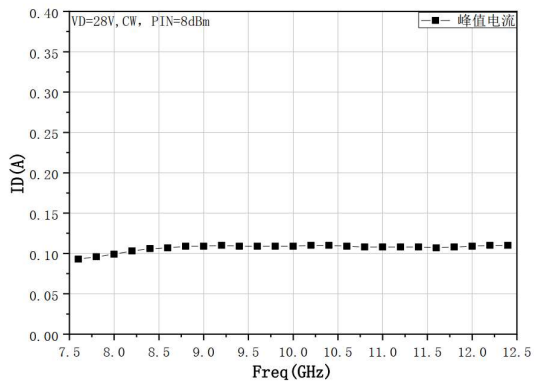
Pout vs. Fre.



Id vs. Freq.



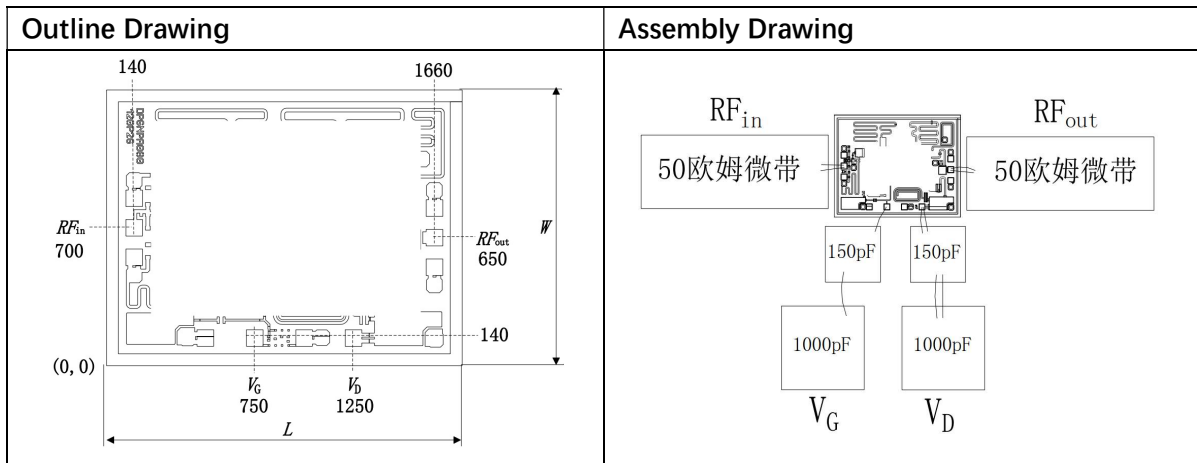
I_d vs. Freq.



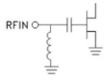

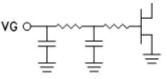

Absolute Max Ratings (T_A=25°C)

Symbol	Parameter	Value	Remark
V _d	Drain Voltage	35V	
I _d	Drain Current	0.2A	
P _d	DC Power	0.8W	
P _{in}	Input Power	15dBm	
T _{ch}	Channel Temperature	225°C	
T _m	Mounting Temperature	310°C	1 min, N ₂ Protection
T _{stg}	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, block capacitor is needed when there's external DC current applied.	
RFout	RF Signal output, connect to 50ohm system, no need block capacitor.	
VG	Amp gate bias, external 100pF, 1000pF capacitor is needed	
VD1, VD2, VD3	Amp drain bias, external 100pF, 1000pF capacitor is needed	
GND	Bottom must connect to RF and DC ground	