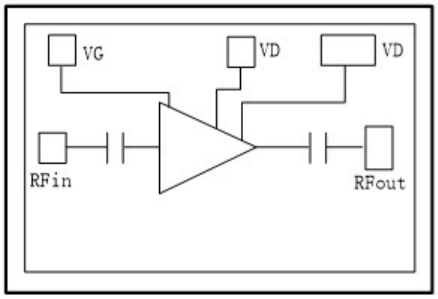
Performance

- Frequency: 6~18GHz
- Typical Signal Gain: 28dB
- Typical Pout: 38dBm @24V
- Typical PAE: 26%
- Bias: V_d=28V, I_{dq}= -1.8A (Typ.)
- Size: 3.0*1.8mm*0.08mm
- Technology: 0.20um HEMT
- Performance under CW operation

Function Diagram

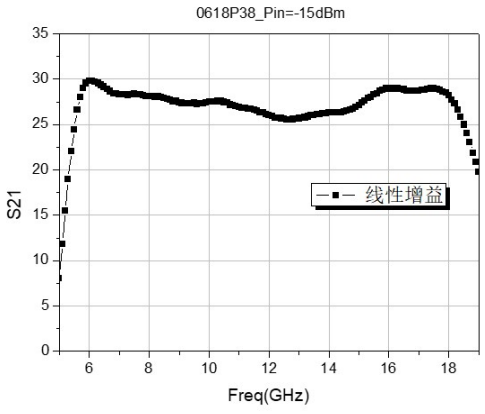


Electrical Specifications (V_d=28V, I_{dq}=0.7A, F: 6~18GHz, CW)

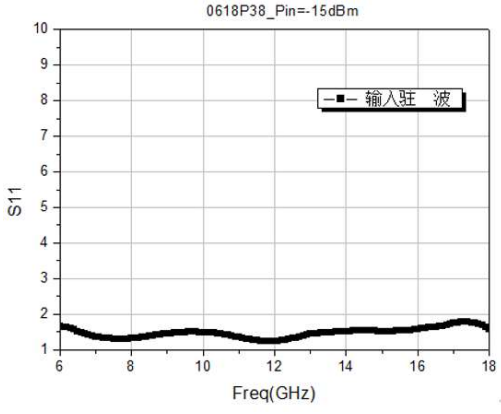
Parameter	Min	Typical	Max	Unit
Small Signal Gain	-	28	-	dB
Power Gain	-	16		dB
Saturated Power	-	38	-	dBm
Power Added Efficiency	-	26	-	%

Test Curves

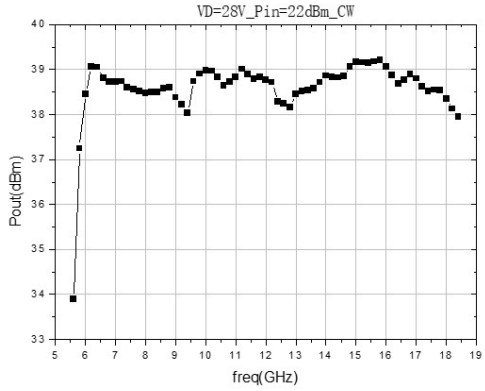
Small Signal Gain vs. Freq



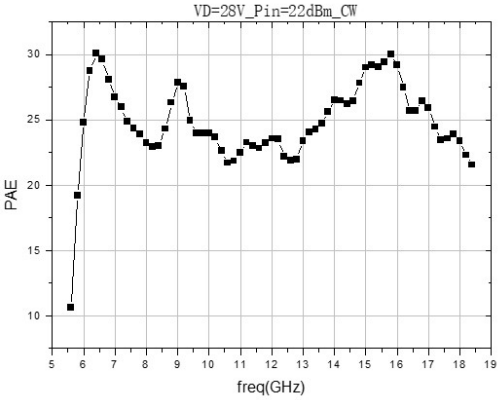
Input VSWR vs. Freq



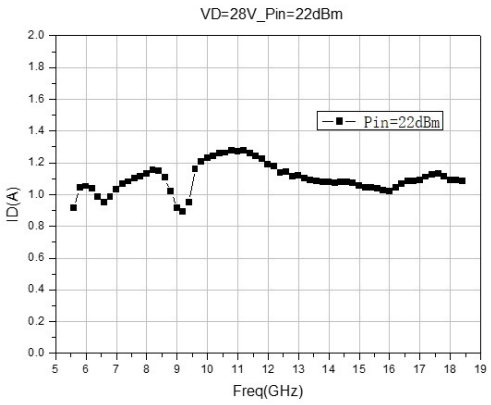
Output Power vs. Freq



PAE vs. Freq



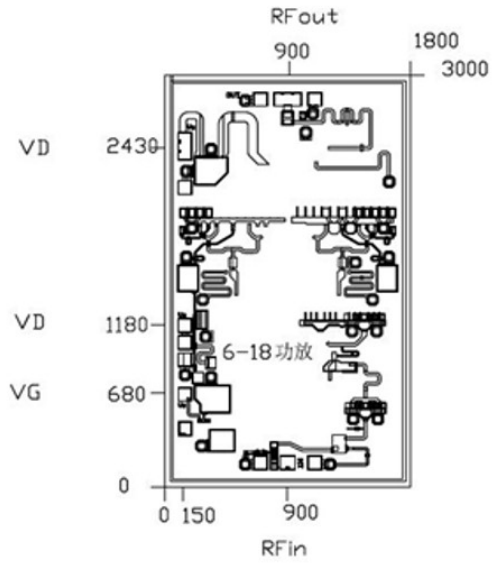
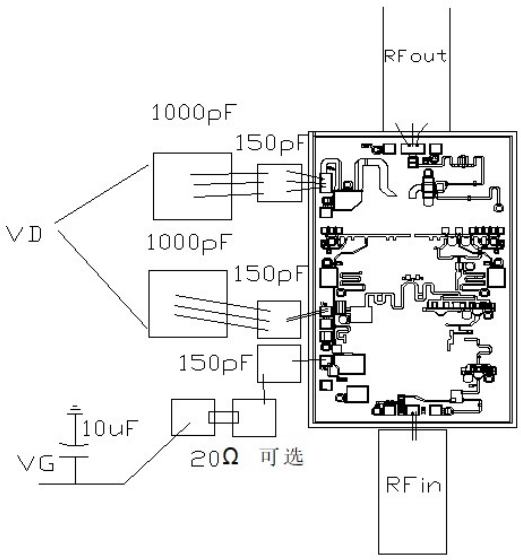
Drain Current vs. Freq



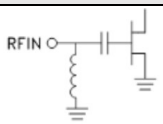
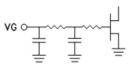
Absolute Max Ratings (T_A=25℃)

Symbol	Parameter	Value	Remark
Vd	Drain Voltage	30V	
Id	Drain Current	2A	
Vg	Gate Voltage	-10V	
Ig	Gate Current	50mA	
Pd	DC Power	45W	
Pin	Input Power	26dBm	
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

Number	Description	Equivalent Circuit
RFin	RF signal input, connect to 50 Ohm system, block capacitor will be needed if external DC applied.	
RFout	RF signal output, connect to 50 Ohm system, DC block capacitor is not needed.	
VG	Amplifier grid bias, external 150pF, 1000pF capacitor is needed.	
VD1, VD2, VD3	Amplifier drain bias, external 150pF, 1000pF capacitor is needed.	
GND	Bottom has to be well connected with RF and DC.	