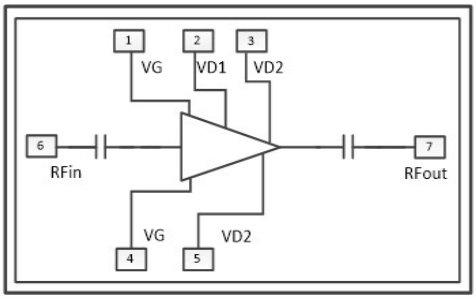
Performance

- Frequency: 2~8GHz
- Typical Small Signal Gain: 25dB
- Typical Pout: 44dBm @28V
- Typical PAE: 32%
- Bias: 28V, -1.8V (Typ.)
- Size: 3.5*4.6mm*0.08mm
- Mode: CW
- Technology: 0.25um HEMT

Function Diagram

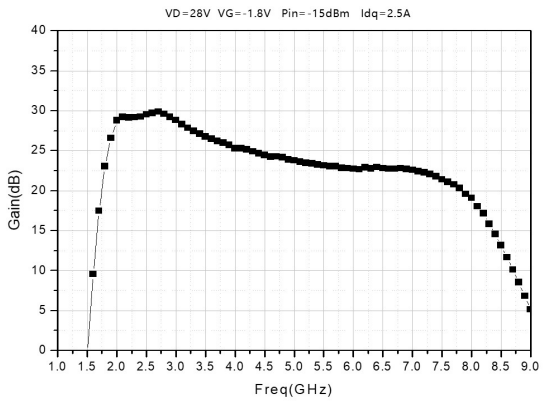


Electrical Specifications (V_d=28V, I_{dq}=2.5A, F: 2~8GHz, CW)

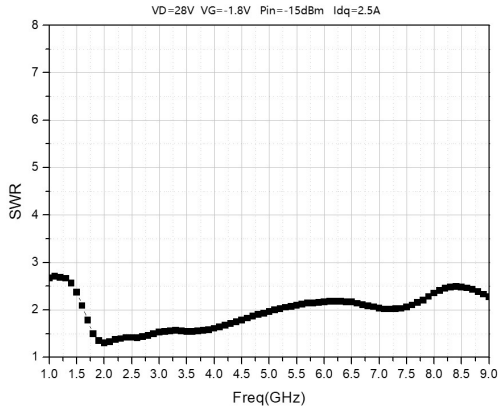
Symbol	Parameter	Min	Typical	Max	Unit
G	Small Signal Gain	-	25	-	dB
Gp	Power Gain	-	16	-	dB
Pout	Saturated Power	-	44	-	dBm
PAE	Power Added Efficiency	-	32	-	%

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

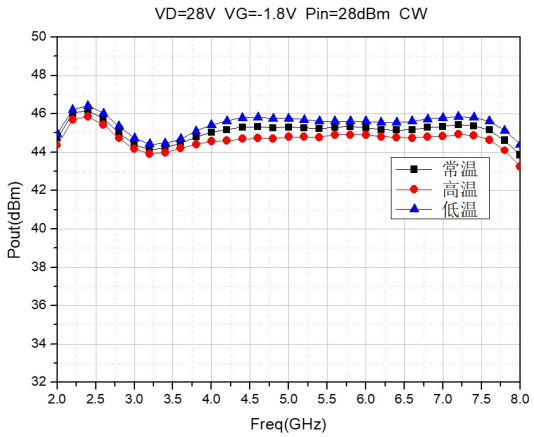
Small Signal Gain vs. Freq



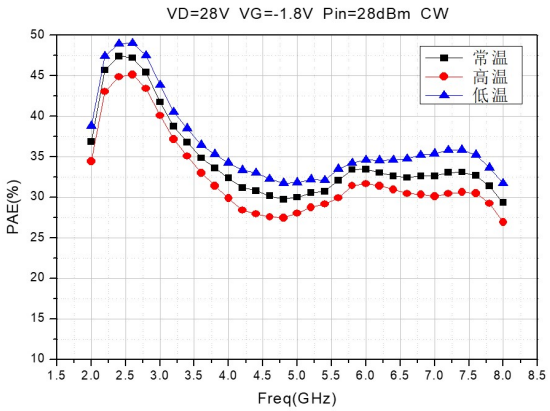
Input VSWR vs. Freq



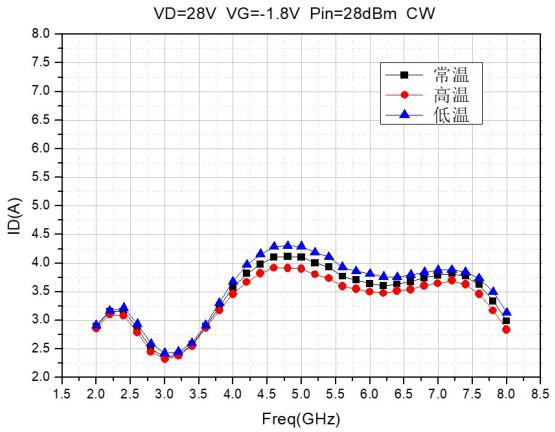
Output Power vs. Freq



PAE vs. Freq



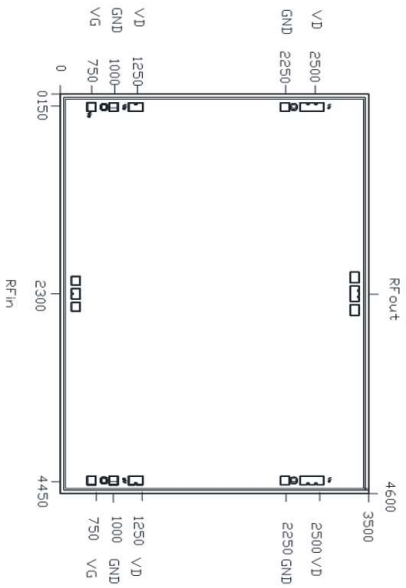
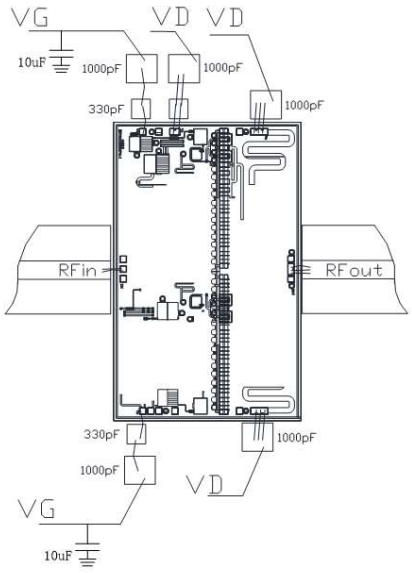
Id vs. Freq



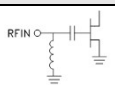
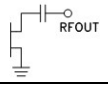
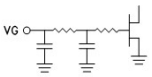
Absolute Max Ratings (T_A=25℃)

Symbol	Parameter	Value	Remark
Vd	Drain Voltage	32V	
Id	Drain Current	5.0A	
Vg	Gate Voltage	-10V	
Ig	Gate Current	50mA	
Pd	DC Power	90W	
Pin	Input Power	32dBm	
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, external block capacitor is needed.	
RFout	RF signal Output port, connect to 50 ohm system, no block capacitor is needed.	
VG	Amplifier gate bias, external 330pF, 1000pF capacitor is needed.	
VD	Amplifier drain bias, external 330pF, 1000pF capacitor is needed.	
GND	Bottom has to be well connected to RF and DC.	