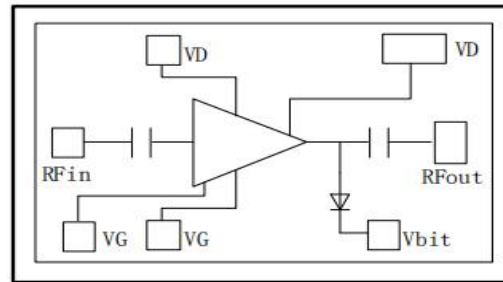


Performance

- Frequency: 5~6GHz
- Typical Signal Gain: 27dB
- Typical Pout: 41.5dBm@28V
- PAE: 55%
- Bias: 28V, -1.8V (Typ.)
- Technology: 0.25um HEMT
- Size: 2.6mm*1.6mm*0.08mm (Detector function integrated)

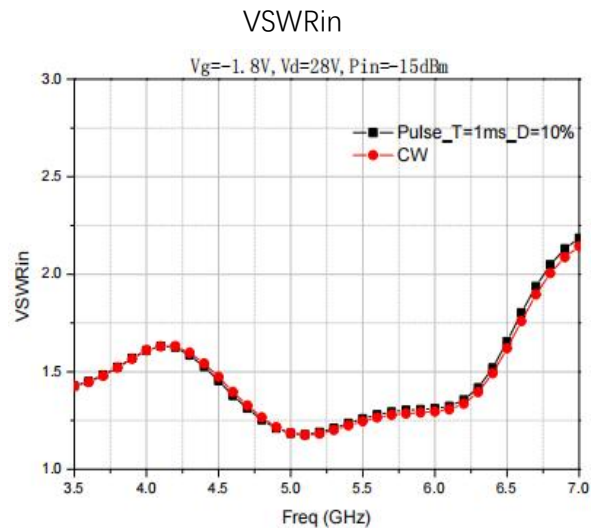
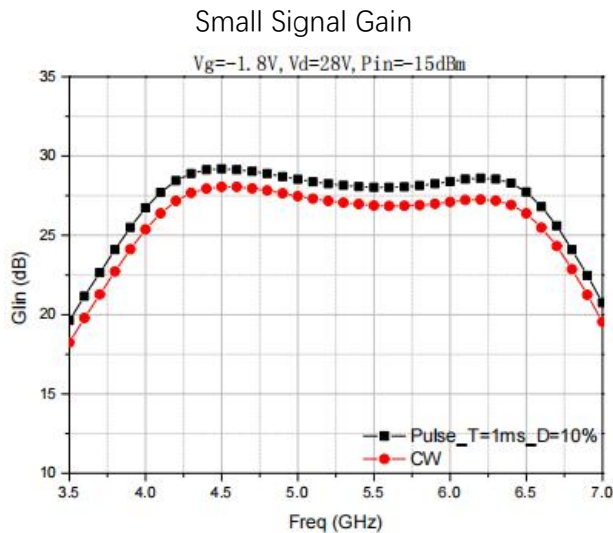
Function Diagram

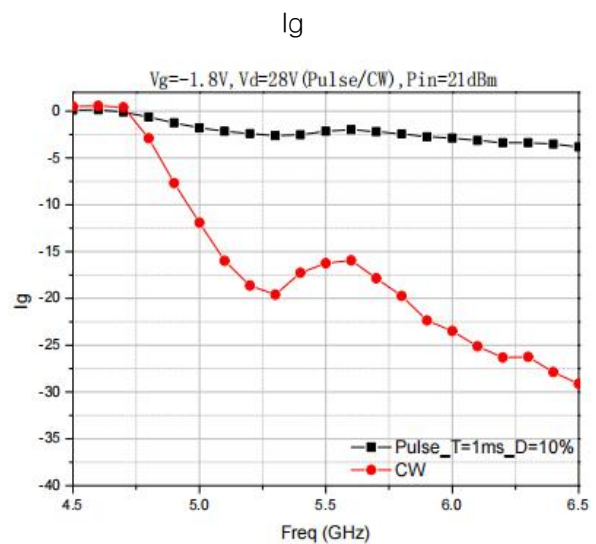
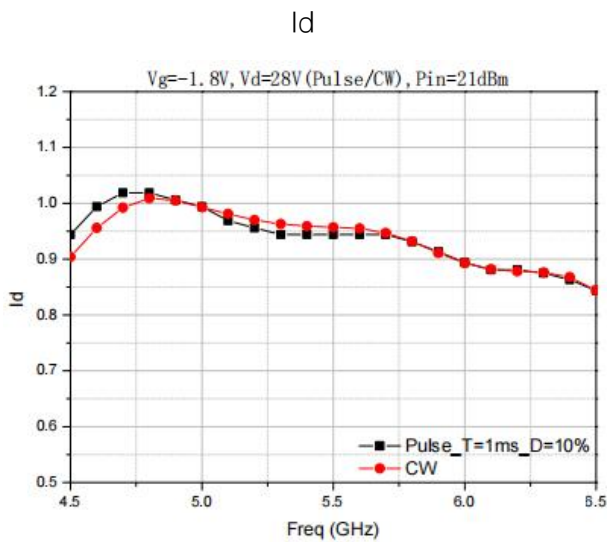
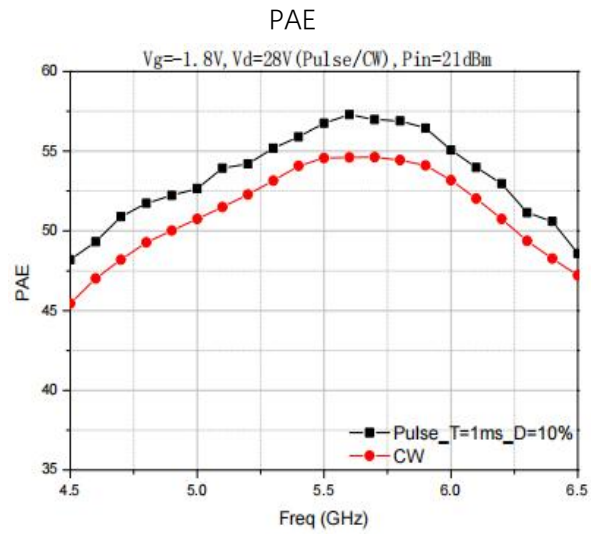
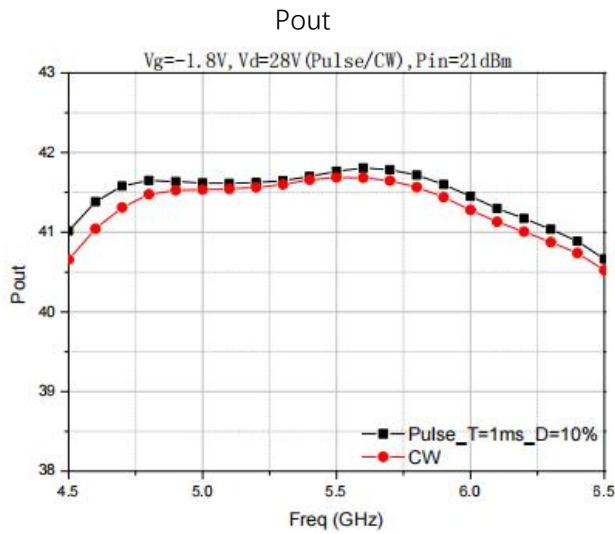


Electrical Specifications (TA=25°C, Vd=28V, Vg=-1.8V, PW:100us, D.C: 10%, F: 5~6GHz, CW)

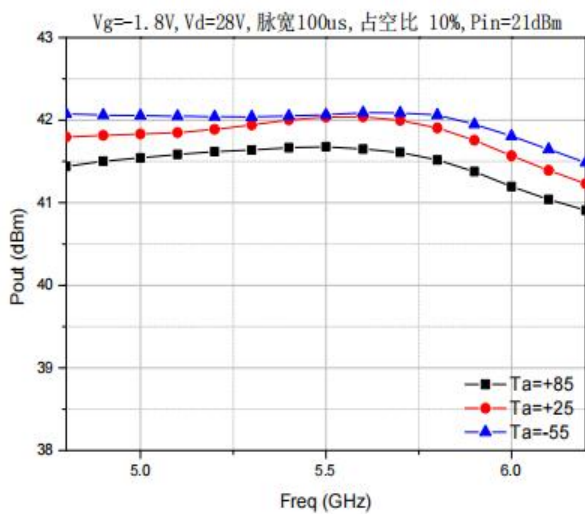
Symbol	Parameter	Min	Typical	Max	Unit
G	Small Signal Gain	-	27	-	dB
Gp	Power Gain	-	21	-	dB
Pout	Saturated Power	-	41.5	-	dBm
PAE	Power Added Efficiency	-	55	-	%
Rth	Thermal Resistance	-	4.2	-	°C/W

Test Curves

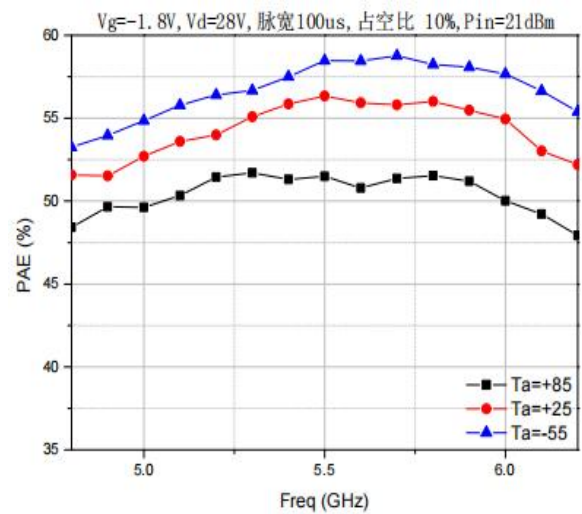




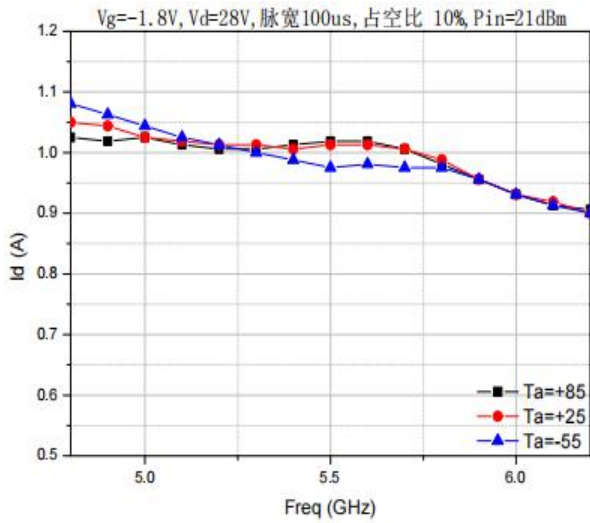
Pout@ Different Temp.



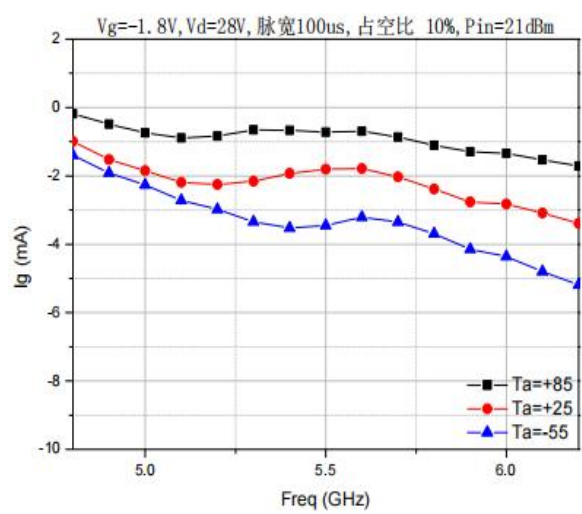
PAE@ Different Temp.



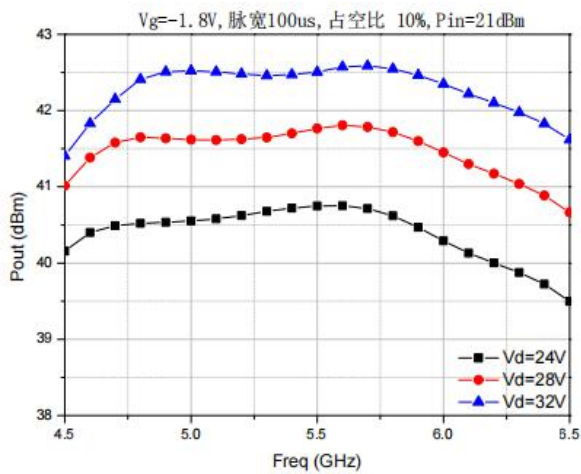
I_d @ Different Temp.



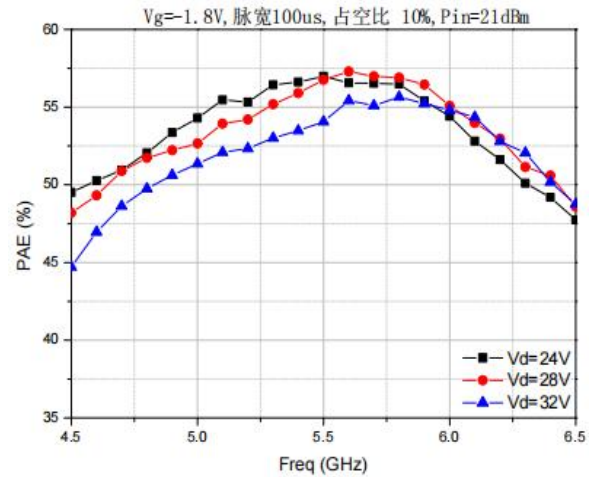
I_g @ Different Temp.



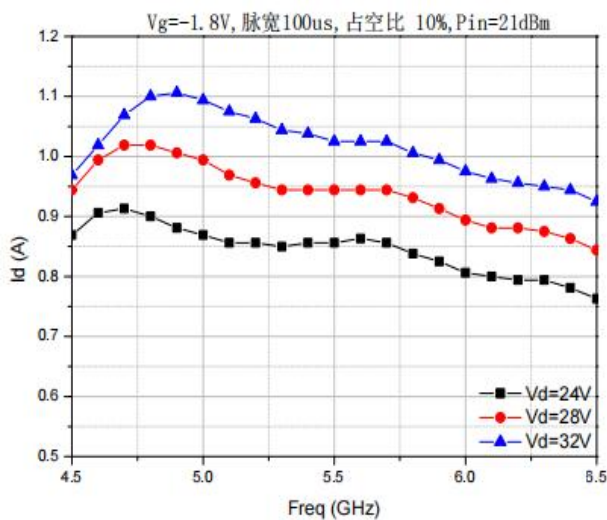
P_{out} @ Different V_d



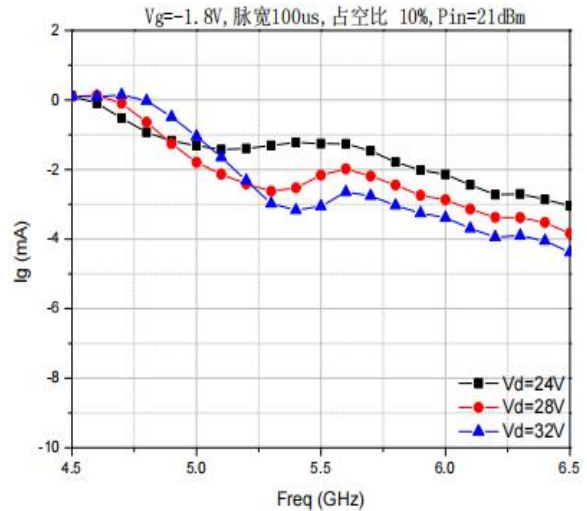
PAE@ Different V_d



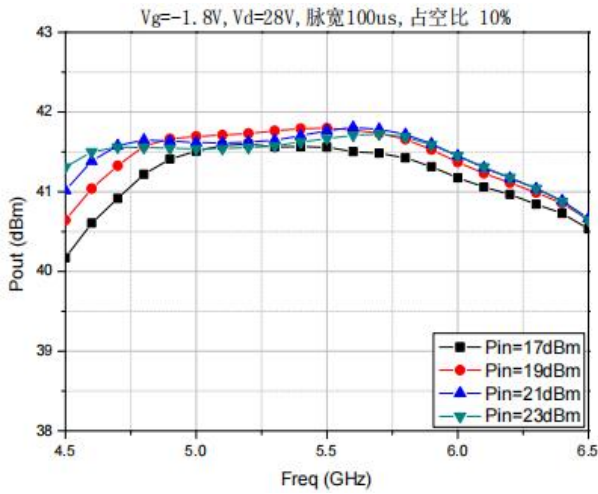
I_d @ Different V_d



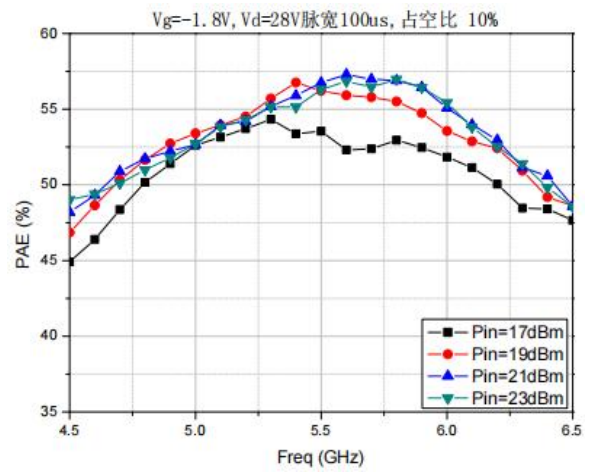
I_g @ Different V_d



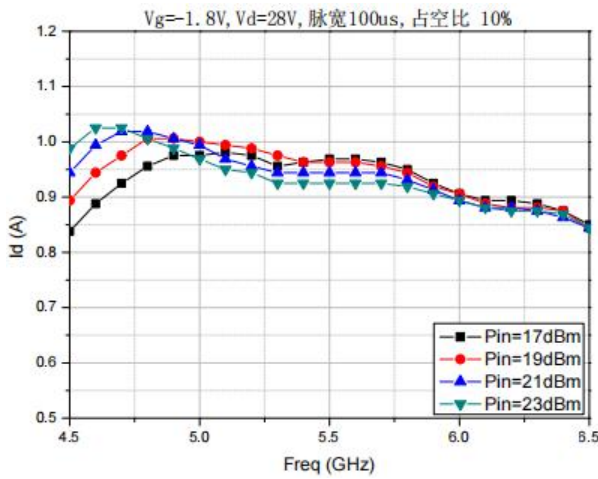
Pout@ Different Pin



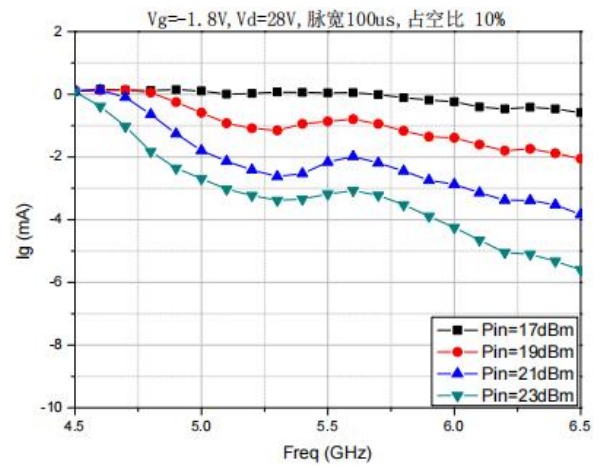
PAE@ Different Pin



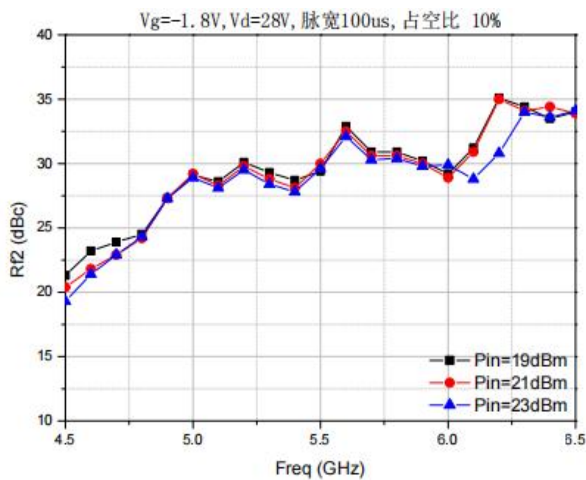
Id@ Different Pin



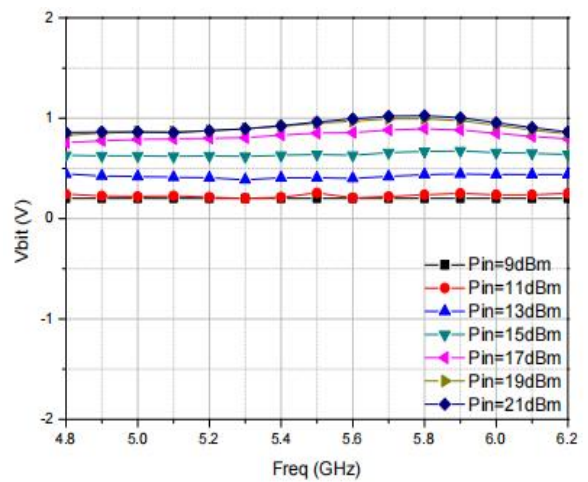
Ig@ Different Pin



Rf2@ Different Pin



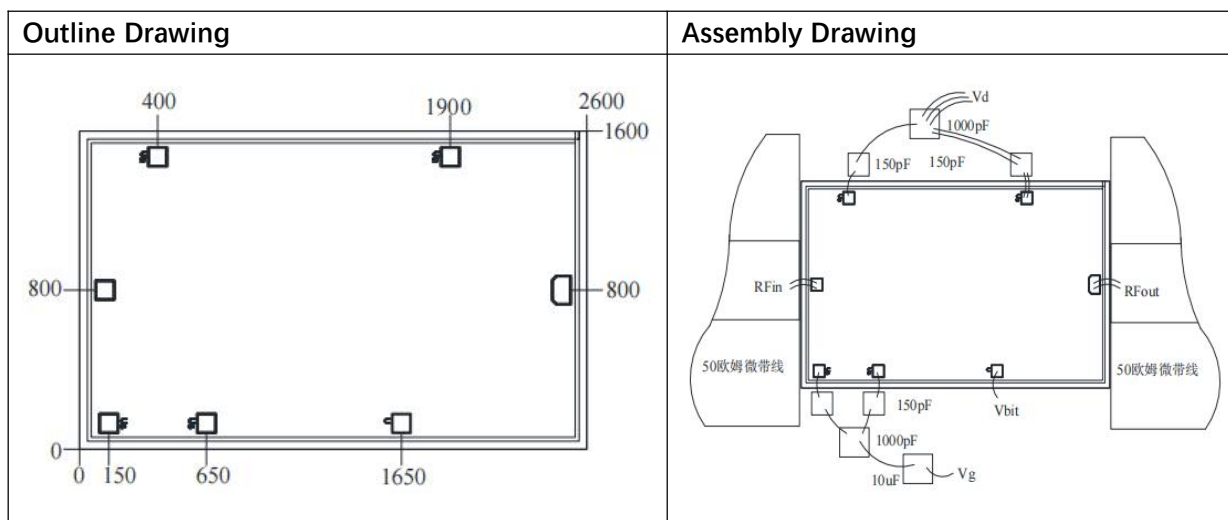
Vbit@ Different Pin



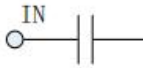
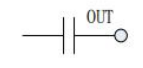
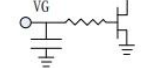
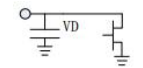
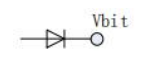
Absolute Max Ratings (TA=25°C)

Symbol	Parameter	Value	Remark
Vd	Drain Voltage	32V	
Id	Drain Current	1.5A	
Vg	Grid Voltage	-10V~-1V	
Pd	DC Power	40W	
Pin	Input Power	27dBm	
Tch	Channel Temperature	225°C	
Tm	Mounting Temperature	310°C	30 s, N2 Protection
Tstg	Storage Temperature	-65~150°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, no need block capacitor.	
RFout	RF Signal output, connect to 50ohm system, no need block capacitor.	
VG	Amp gate bias, external 1000pF capacitor is needed	
VD	Amp drain bias, external 100pF capacitor is needed	
Vbit	Amplifier detection voltage output port	
GND	Bottom must connect to RF and DC ground	