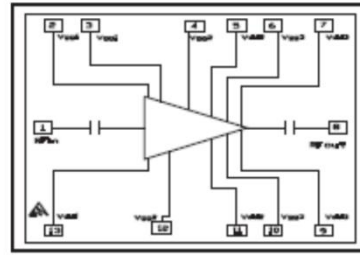


Performance

- Frequency: 25~31GHz
- Typical Signal Gain: 25dB
- Typical Pout: 38dBm@20V
- Typical PAE: 34%
- Bias: 20V, -2.3V(Typ.)
- Technology: 0.15um HEMT
- Size: 3.24*1.74mm*0.05mm

Function Diagram

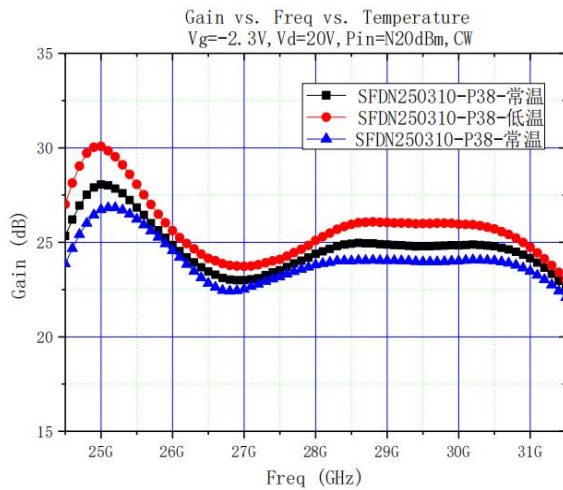


Electrical Specifications (TA=25°C,CW)

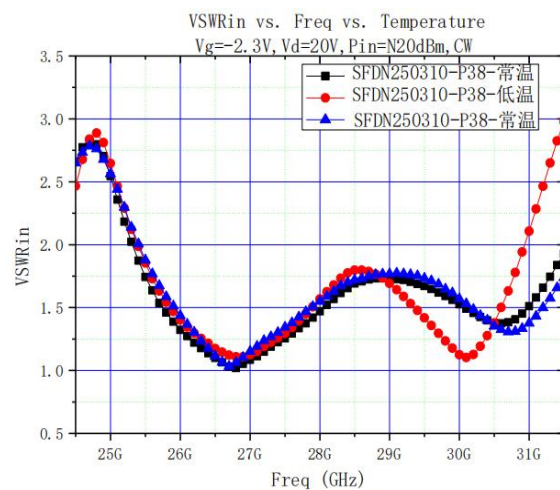
Symbol	Parameter	Min	Typical	Max	Unit
G	Small Signal Gain	-	25	-	dB
Gp	Power Gain	-	19	-	dB
Pout	Saturated Power	-	38	-	dBm
PAE	Power Added Efficiency	-	34	-	%
Rth	Thermal Resistance	-	5	-	°C/W

Test Curves

Small Signal Gain@ Different Temp

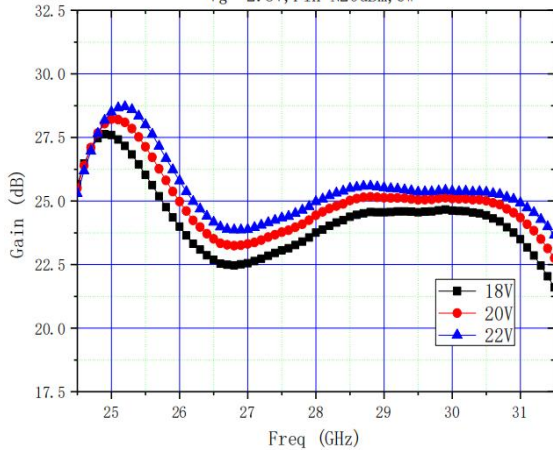


VSWRin@ Different Temp



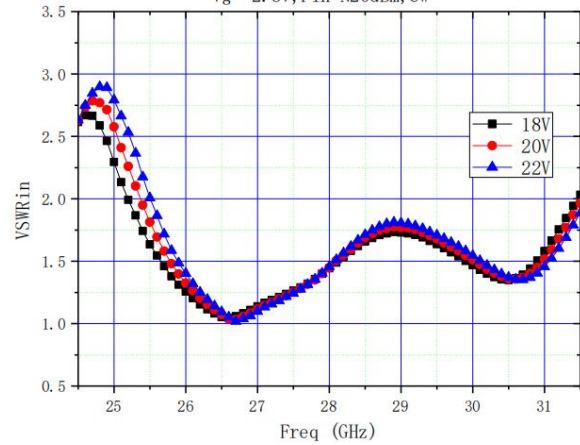
Gain@ Different Vd

Gain vs. Freq vs. Drain Voltage
Vg=-2.3V, Pin=N20dBm, CW



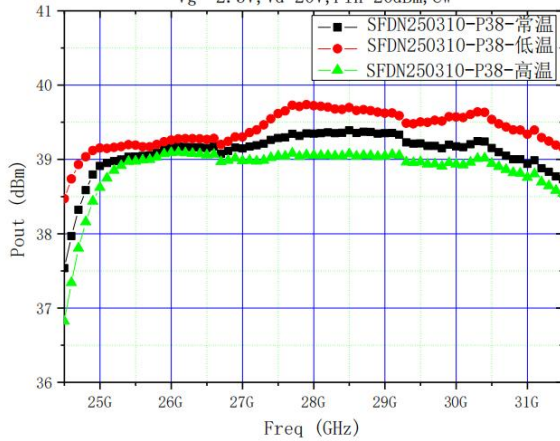
VSWRin@ Different Vd

VSWRin vs. Freq vs. Drain Voltage
Vg=-2.3V, Pin=N20dBm, CW



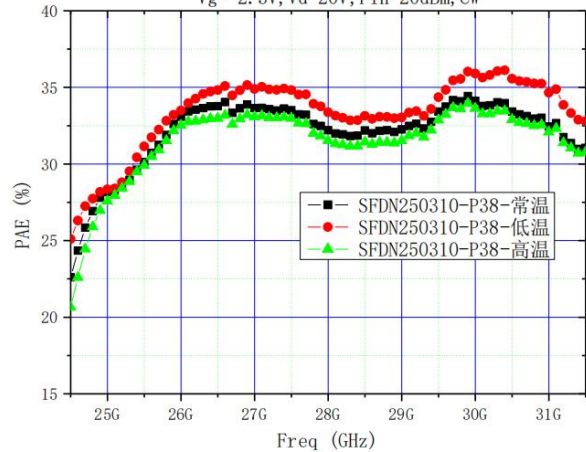
Pout@ Different Temp

Output Power vs. Freq vs. Temperature
Vg=-2.3V, Vd=20V, Pin=20dBm, CW



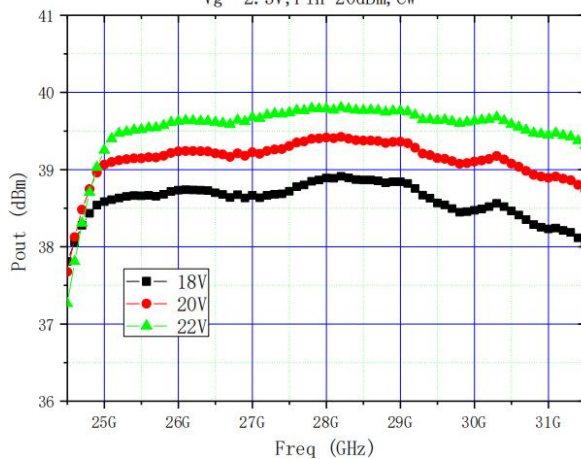
PAE@ Different Temp

PAE vs. Freq vs. Temperature
Vg=-2.3V, Vd=20V, Pin=20dBm, CW



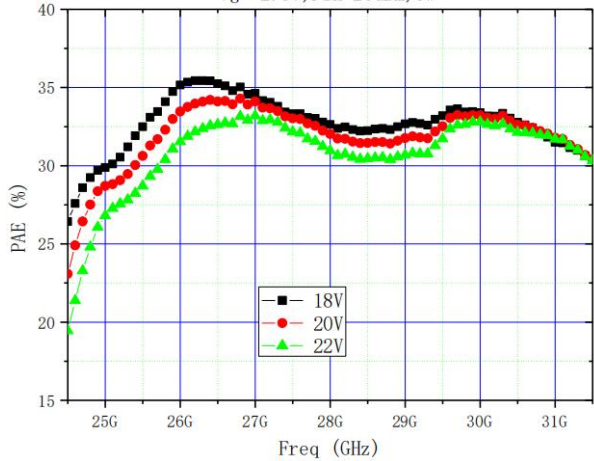
Pout@ Different Vd

Output Power vs. Freq vs. Drain Voltage
Vg=-2.3V, Pin=20dBm, CW

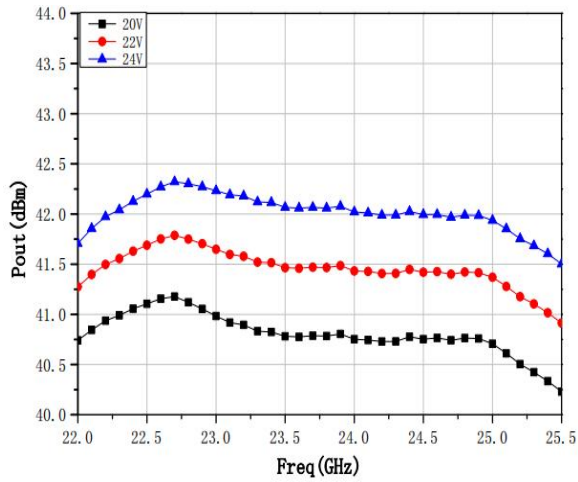


PAE@ Different Vd

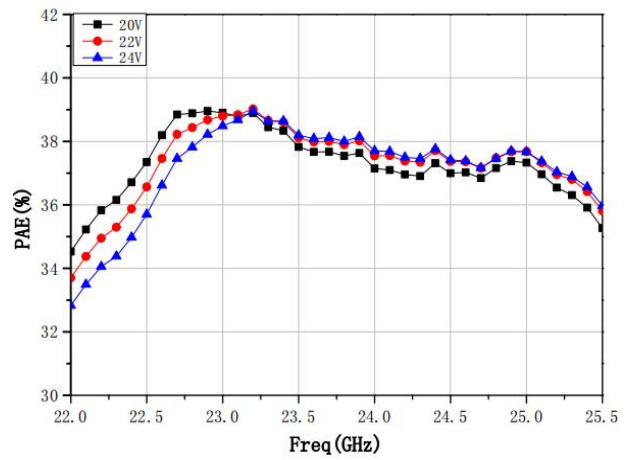
PAE vs. Freq vs. Drain Voltage
Vg=-2.3V, Pin=20dBm, CW



Pout@ Different Vd

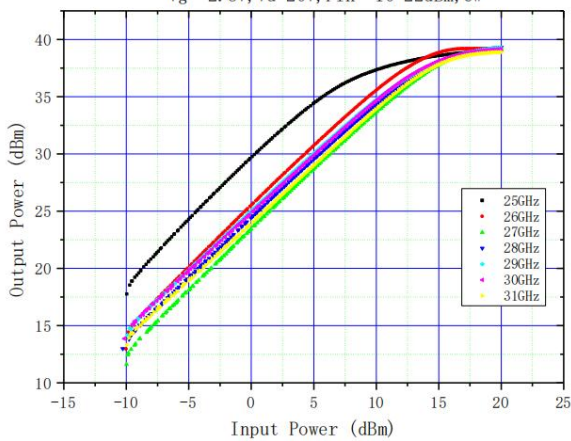


PAE@ Different Vd



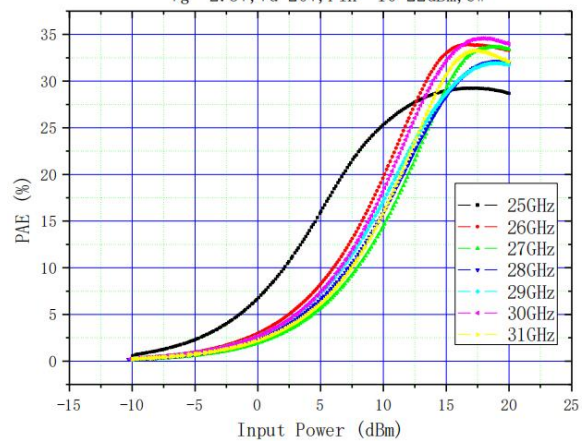
Pout@ Different Pin

Output Power vs. Input Power vs. Freq
Vg=-2.3V, Vd=20V, Pin=-10~22dBm, CW



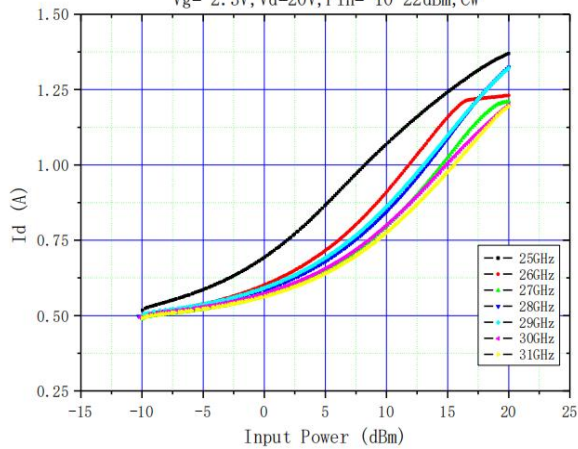
PAE@ Different Pin

PAE vs. Input Power vs. Freq
Vg=-2.3V, Vd=20V, Pin=-10~22dBm, CW



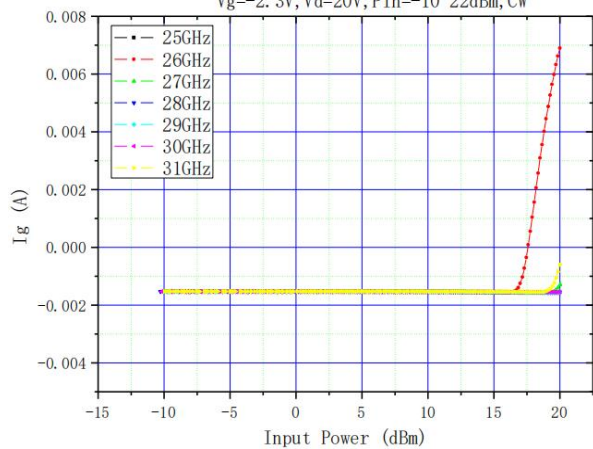
Id@ Different Pin

Drain Current vs. Input Power vs. Freq
Vg=-2.3V, Vd=20V, Pin=-10~22dBm, CW

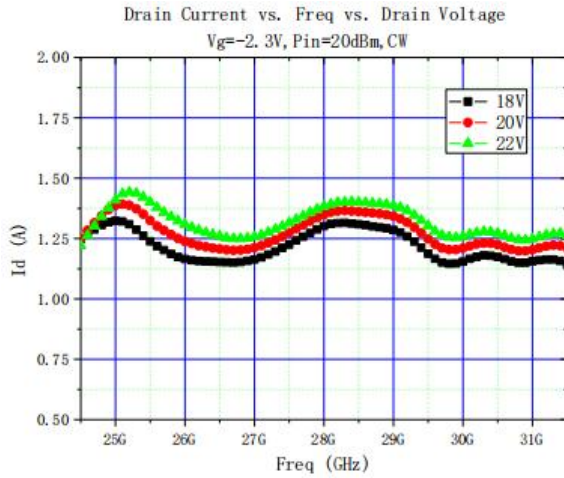


Ig@ Different Pin

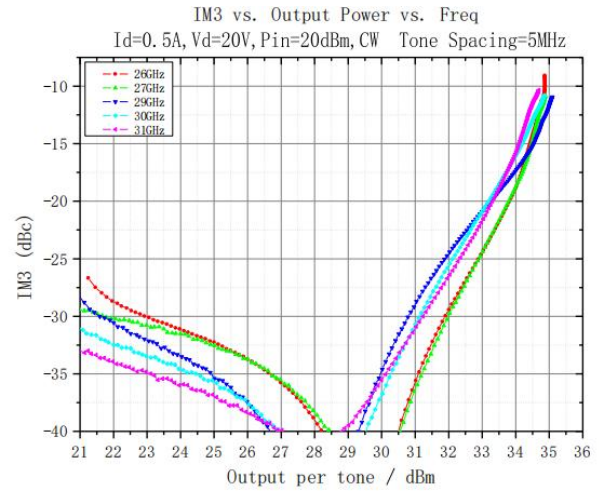
Gate Current vs. Input Power vs. Freq
Vg=-2.3V, Vd=20V, Pin=-10~22dBm, CW



Id@ Different Pin



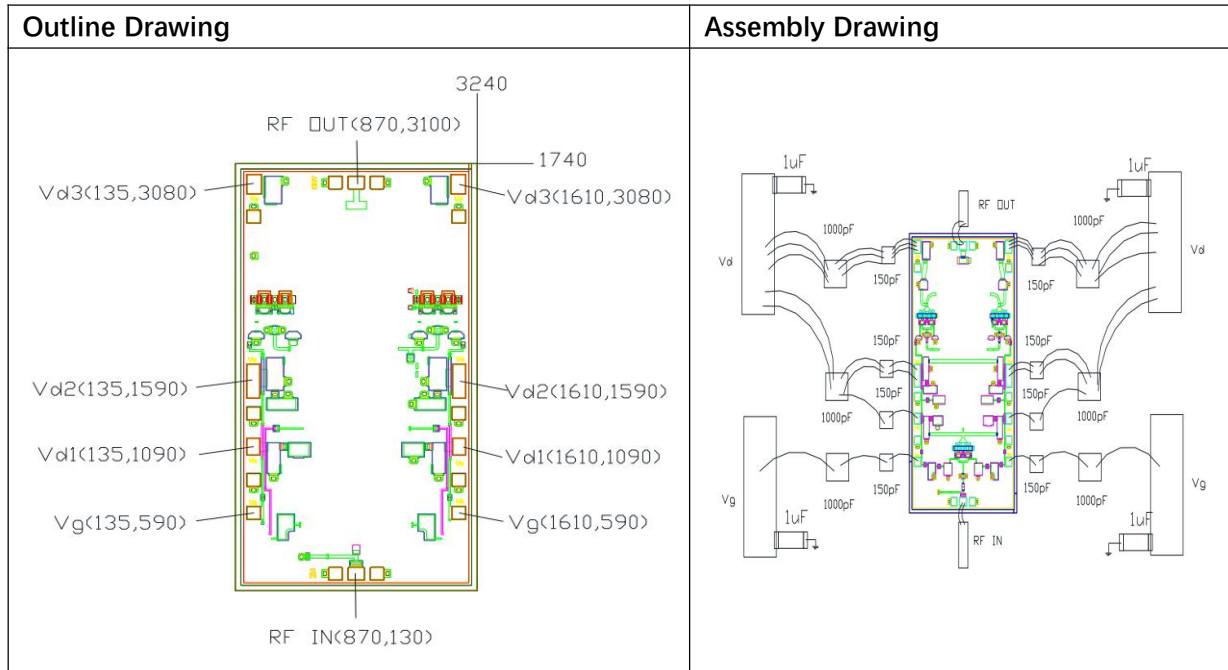
IM3 VS pout/per tone



Absolute Max Ratings (TA=25°C)

Symbol	Parameter	Value	Remark
Vd	Drain Voltage	24V	
Id	Drain Current	5.0A	
Vg	Gage Voltage	-10V	
Ig	Gate Current	10mA	
Pd	DC Power	110W	
Pin	Input Power	28dBm	
Tch	Channel Temperature	175°C	
Tm	Mounting Temperature	310°C	1 min, N2 Protection
Tstg	Storage Temperature	-55~175°C	

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



Pads Definition

Pad	Description
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、VG1	Amp gate bias, external 1000pF capacitor is needed
VD、VD1、VD2、VD3、VD4	Amp drain bias, external 150pF capacitor is needed
GND	Bottom must connect to RF and DC ground