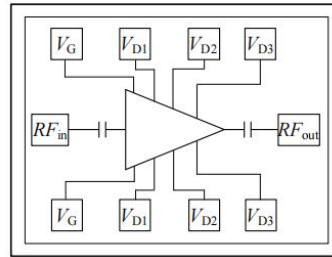


Performance

- Frequency: 21~22GHz
- Typical Signal Gain: 28dB
- Typical Pout: 42.5dBm@20V
- Typical PAE: 40%
- Bias: 20V, -2.0V
- Technology: 0.15um HEMT
- Size: 4.2*3.0mm*0.05mm

Function Diagram

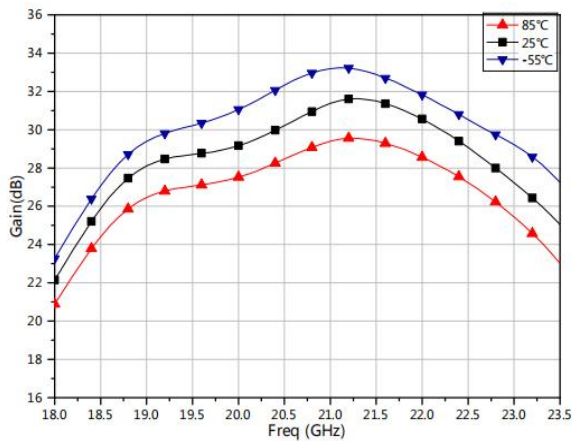


Electrical Specifications (T_A=25°C, V_d=20V, I_{dq}=0.95A, F:21~22GHz)

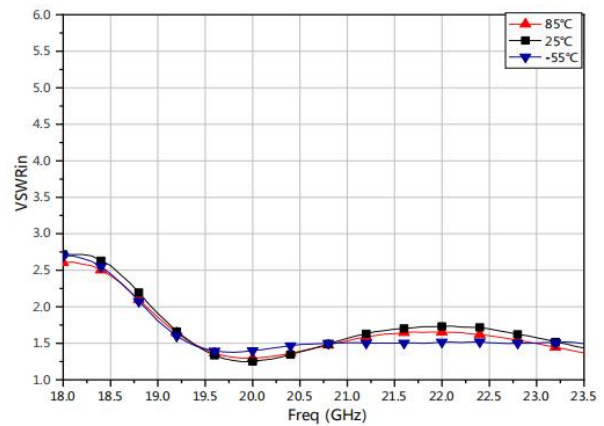
Symbol	Parameter	Min	Typical	Max	Unit
G	Small Signal Gain	-	28	-	dB
G _p	Power Gain	-	20.5	-	dB
P _{out}	Saturated Power	-	42.5	-	dBm
PAE	Power Added Efficiency	-	40	-	%
R _{th}	Thermal Resistance	-	1.9	-	°C/W

Test Curves

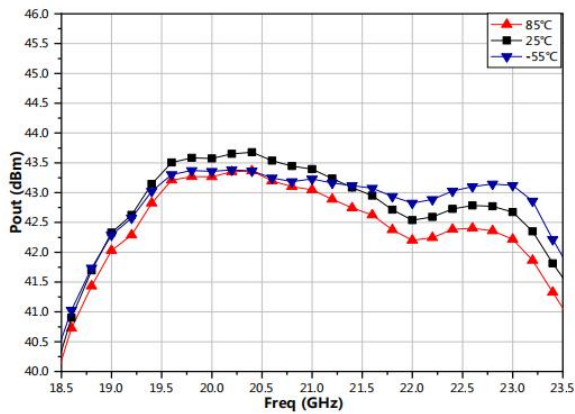
Small Signal Gain@ Different Temp



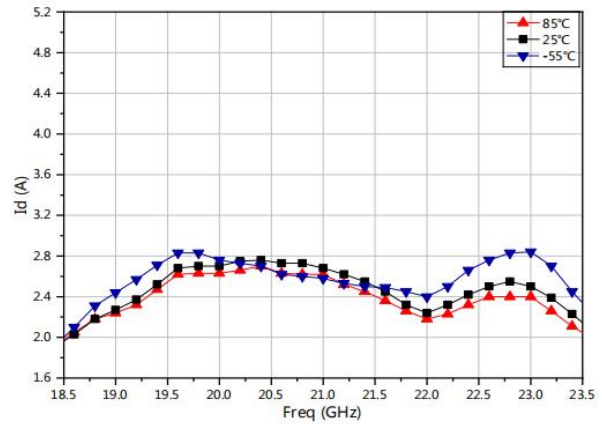
VSWR_{in}@ Different Temp



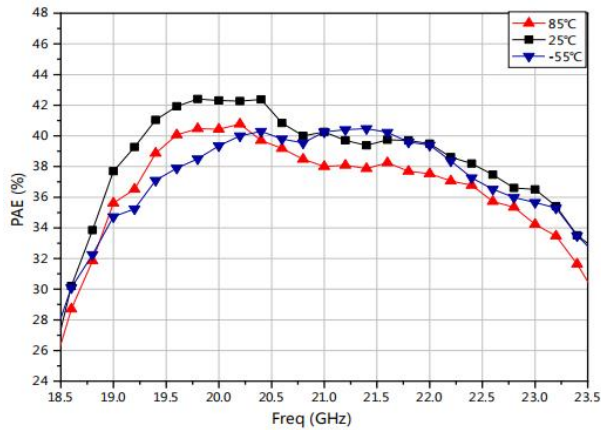
Pout@ Different Temp



Id@ Different Temp



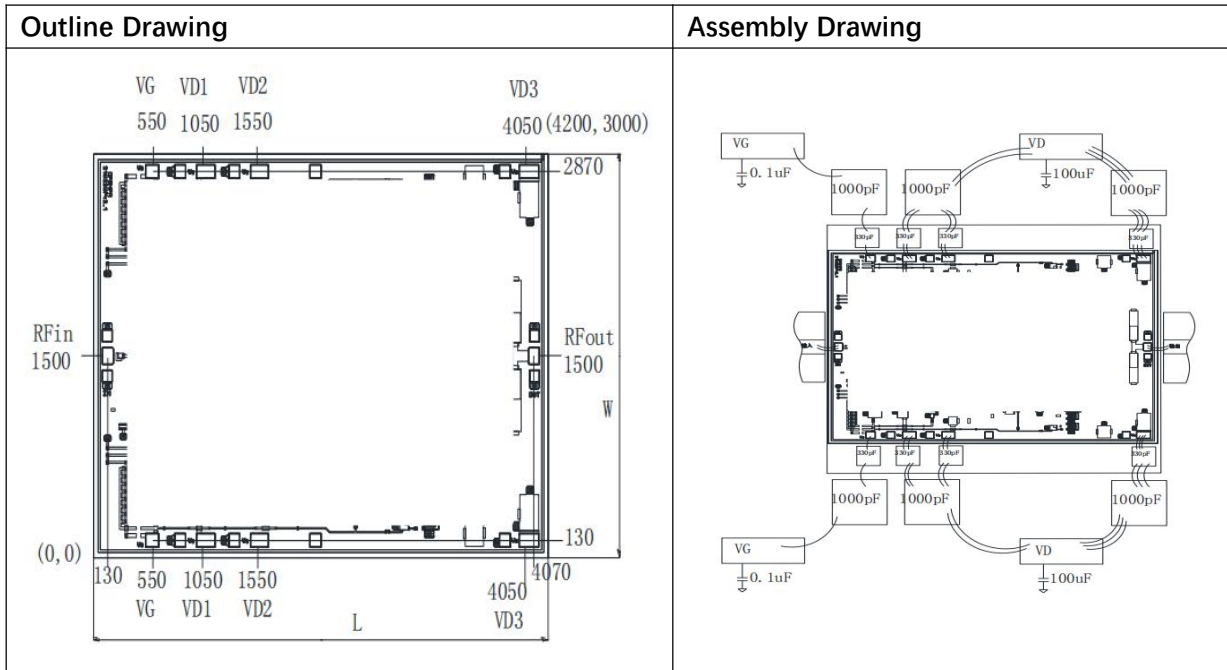
PAE@ Different Temp



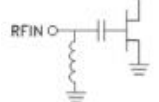

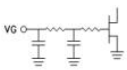

Absolute Max Ratings (TA=25°C)

Symbol	Parameter	Value	Remark
Vd	Drain Voltage	28V	
Id	Drain Current	4.0A	
Pd	DC Power	112W	
Pin	Input Power	30dBm	
Tch	Channel Temperature	175°C	
Tm	Mounting Temperature	310°C	1 min, 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	
VD1、VD2	Amp drain bias, external 1000pF capacitor is needed	
GND	Bottom must connect to RF and DC ground	