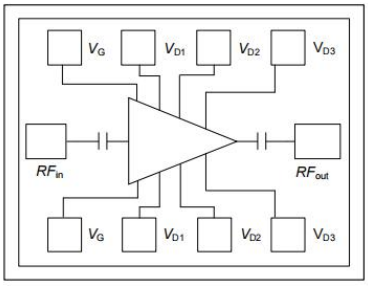
Performance

- Frequency: 32~33GHz
- Typical Signal Gain: 22dB
- Typical Pout: 28dBm@20.0V
- Typical PAE: 22%
- Bias: 20V, -1.8A(CW)
- Technology: GaN HEMT
- Size: 3.2*1.7mm*0.05mm

Function Diagram

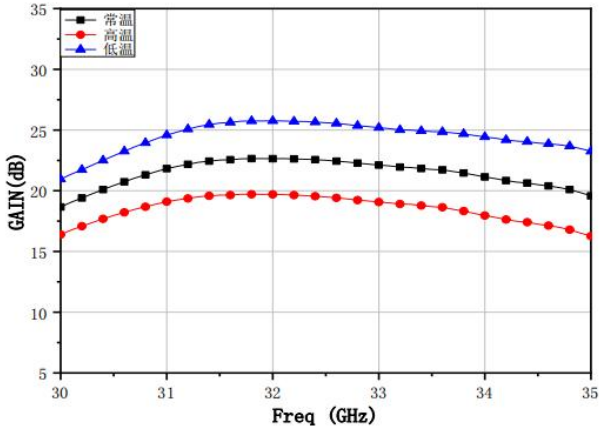


Electrical Specifications (T_A=25℃, V_d=20V, Vg=-1.8V, F:32~33GHz,Heat plate temp.=70℃)

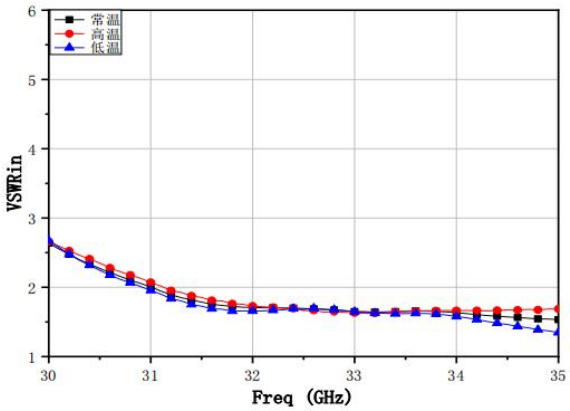
Symbol	Parameter	Min	Typical	Max	Unit
G	Small Signal Gain	-	22	-	dB
Gp	Power Gain	-	20	-	dB
Pout	Saturated Power	-	28	-	dBm
Id	Dynamic Current	-	0.14	-	A
PAE	Power Added Efficiency	-	22	-	%
Rth	Thermal Resistance	-	10.2	-	℃/W

Test Curves

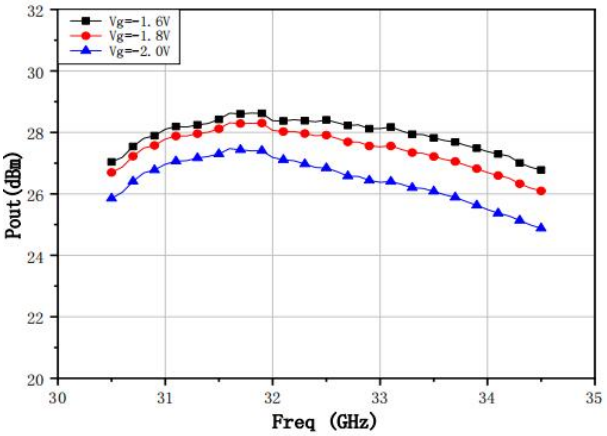
Small Signal Gain@ Different Temp.



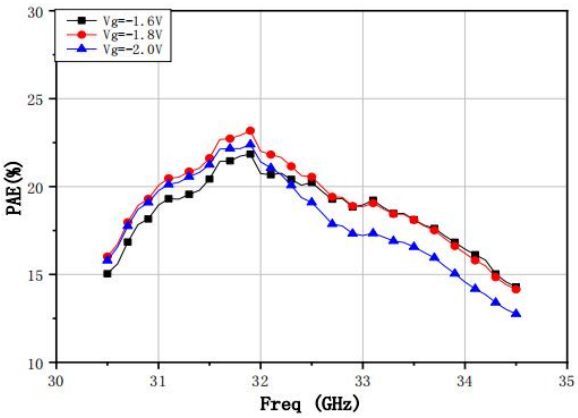
VSWRin@ Different Temp.



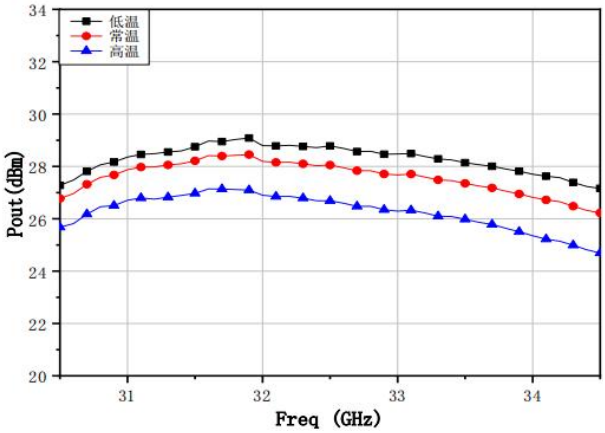
Pout@ Different Vg



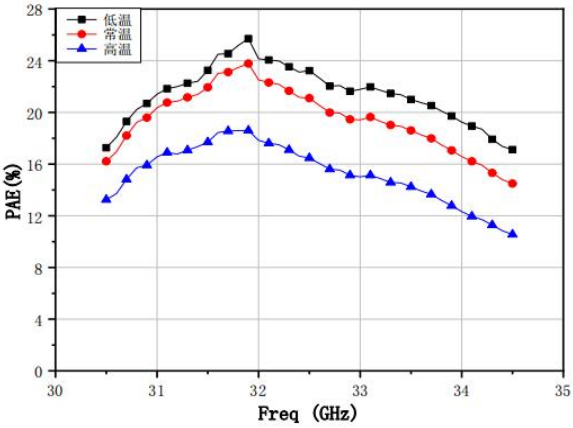
PAE@ Different Vg



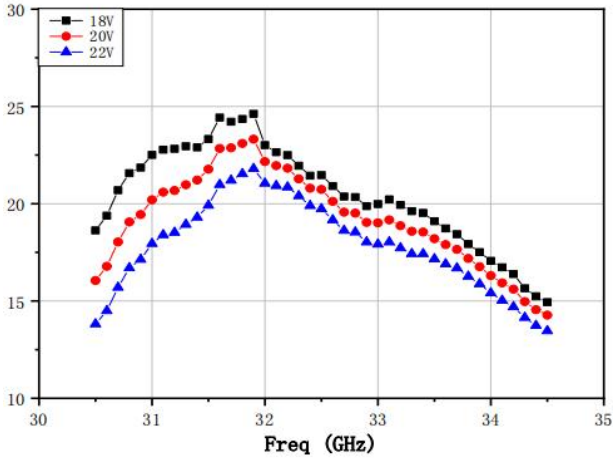
Pout@ Different Temp.



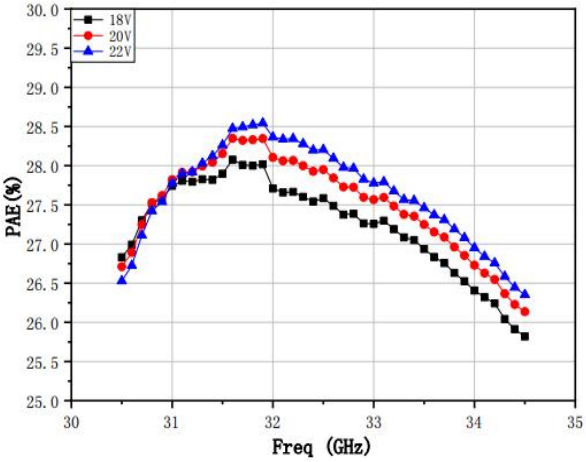
PAE@ Different Temp.



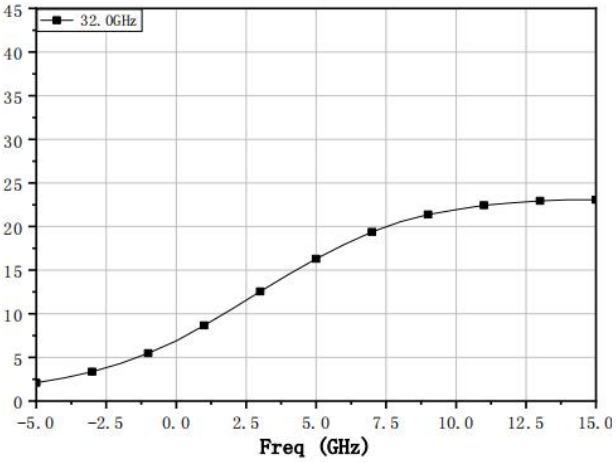
Pout@ Different Vd



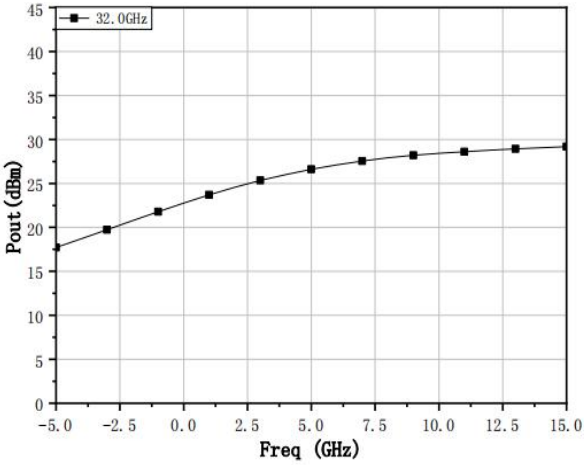
PAE@ Different Vd



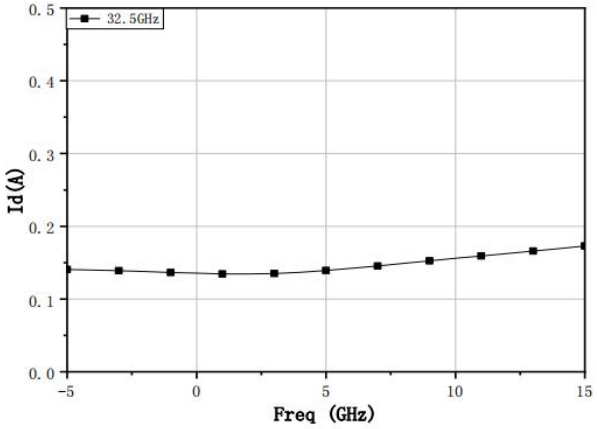
Pout@ Different Pin



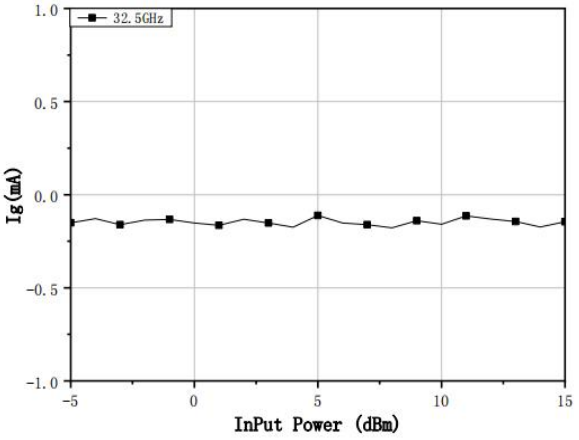
PAE@ Different Pin



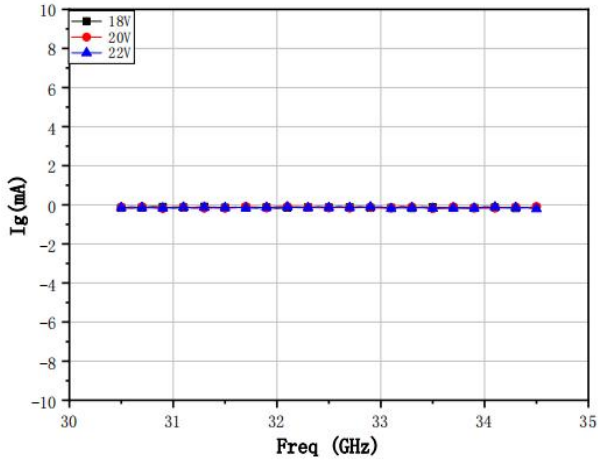
Id@ Different Pin



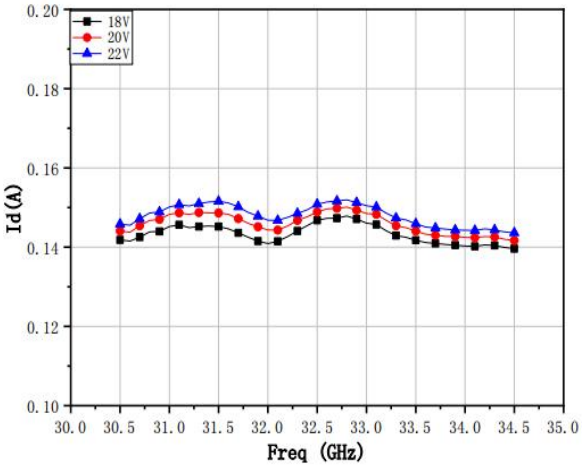
Ig@ Different Pin



Ig@ Different Vd



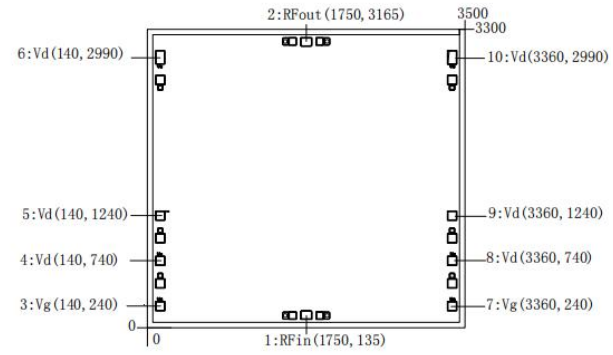
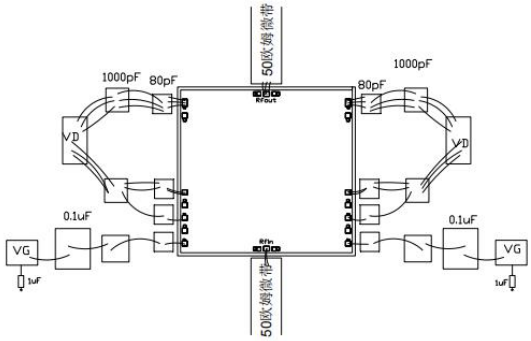
Id@ Different Vd



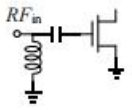
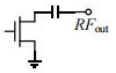
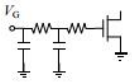
Absolute Max Ratings (T_A=25℃)

Symbol	Parameter	Value	Remark
Vd	Drain Voltage	24V	
Vg	Gage Voltage	-10V	
Pd	DC Power	6W	
Pin	Input Power	12dBm	
Tch	Channel Temperature	225℃	
Tm	Mounting Temperature	310℃	1 min, 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

Pad	Description	Equivalent Circuit
RFin	RF Signal input, connect to 50ohm system, block capacitor is needed if there's external DC applied on this pad.	
RFout	RF Signal output, connect to 50ohm system, no need block capacitor.	
VG	Amp gate bias, external 80pF, 1000pF capacitor is needed	
VD1、VD2、VD3	Amp drain bias, external 80pF, 1000pF capacitor is needed	
GND	Bottom must connect to RF and DC ground	