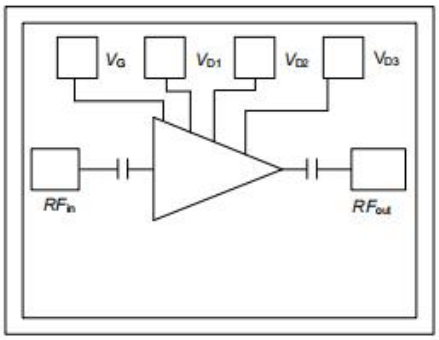
Performance

- Frequency: 32~38GHz
- Typical Signal Gain: 20dB
- Typical Pout: 32dBm
- Typical PAE: 25%
- Static Operating Current: 0.4A
- Dynamic Operating Current: 0.47A
- Bias: 20V, -1.6V
- Technology: GaN HEMT
- Size: 3.2*1.6mm*0.05mm

Function Diagram

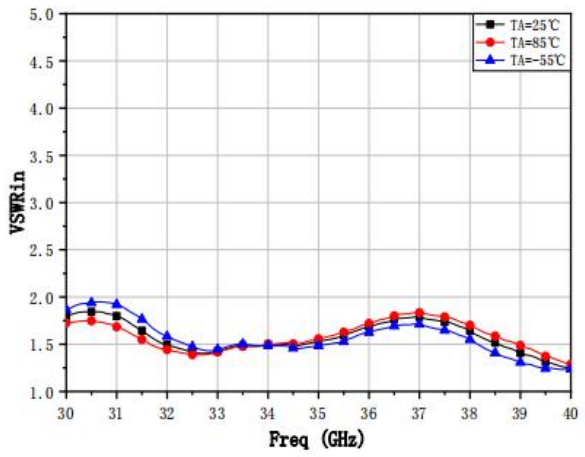


Electrical Specifications (T_A=25℃, V_d=20V, Vg=-1.6V, F:32~38GHz)

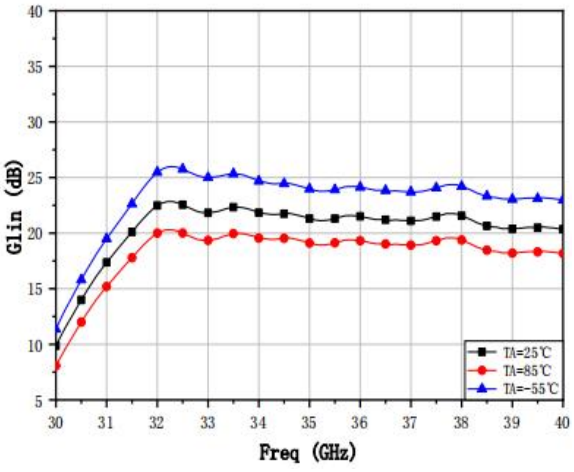
Symbol	Parameter	Min	Typical	Max	Unit
G	Small Signal Gain	-	20	-	dB
Gp	Power Gain	-	14	-	dB
Pout	Saturated Power	-	32	-	dBm
Id	Dynamic Current	-	0.47	-	A
Rth	Thermal Resistance	-	6	-	℃/W

Test Curves

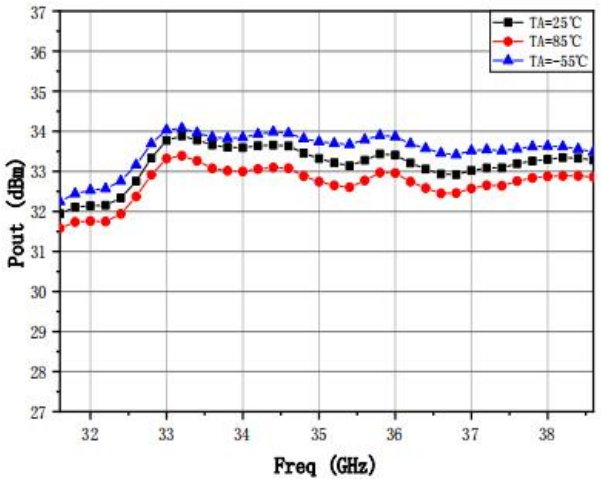
VSWRin@ Different Temp



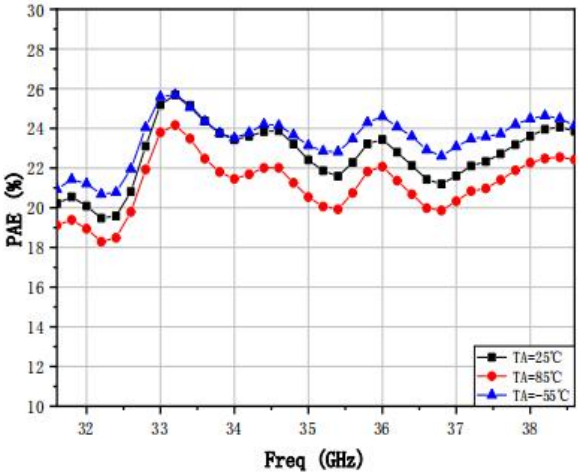
Small Signal Gain@ Different Temp



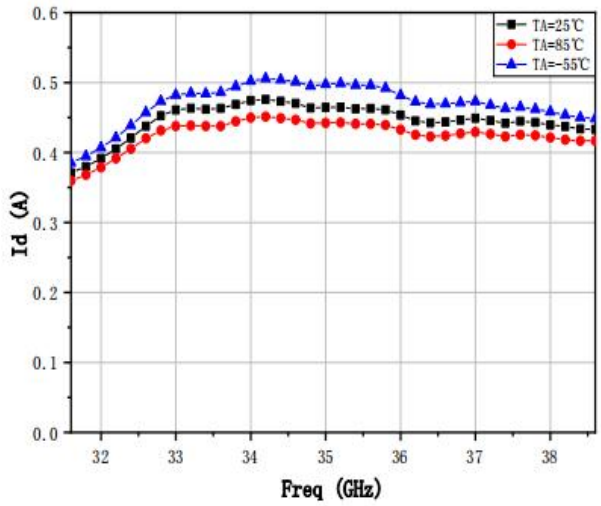
Pout@ Different Temp



PAE@ Different Temp



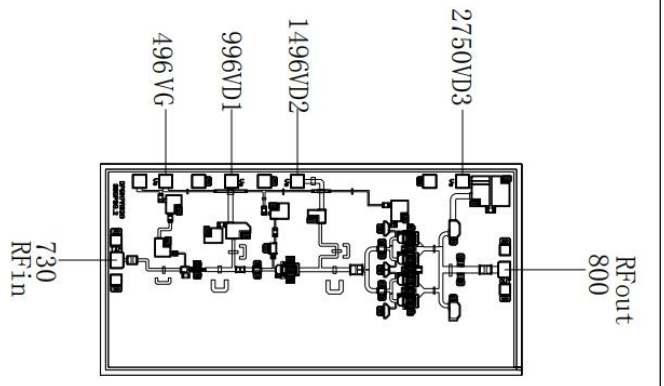
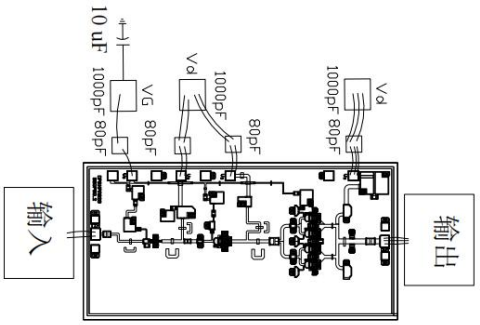
Id@ Different Temp



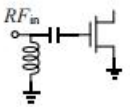
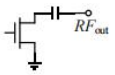
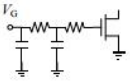
Absolute Max Ratings (T_A=25℃)

Symbol	Parameter	Value	Remark
Vd	Drain Voltage	28V	
Id	Drain Current	1A	
Vg	Gage Voltage	-10V	
Ig	Gate Current	10mA	
Pd	DC Power	20W	
Pin	Input Power	24dBm	30 s, N_2 Protection
Tch	Channel Temperature	225℃	

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 330pF, 1000pF capacitor is needed	
VD1、VD2、VD3	Amp drain bias, external 330pF, 1000pF capacitor is needed	
GND	Bottom must connect to RF and DC ground	