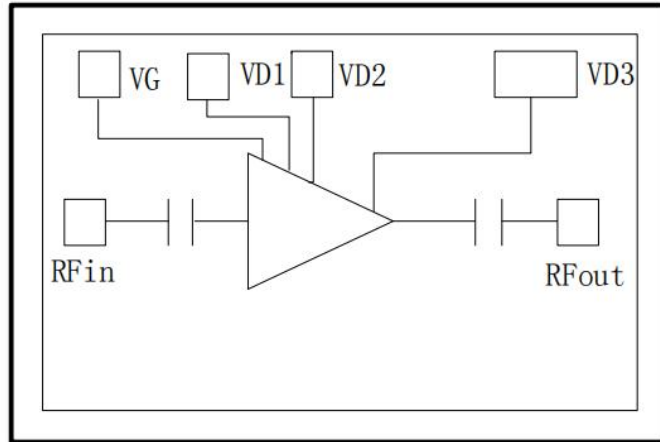


Performance

- Frequency: 80~100GHz
- Typical Signal Gain: 20dB
- Typical Pout: 24dBm@15V
- Static Current: 0.19A
- Dynamic Current: 0.24A
- VSWR: 2
- Typical PAE: 8%
- Power Gain: 13dB
- Bias: 15V, -2V(Typ.)
- Mode: CW/PL
- Size: 1.7*1.0mm*0.05mm

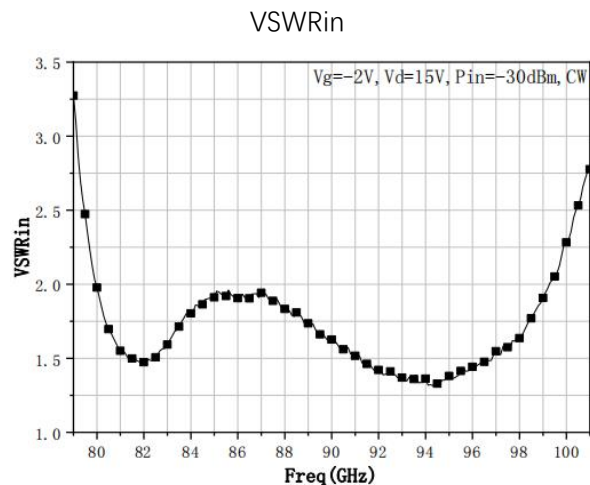
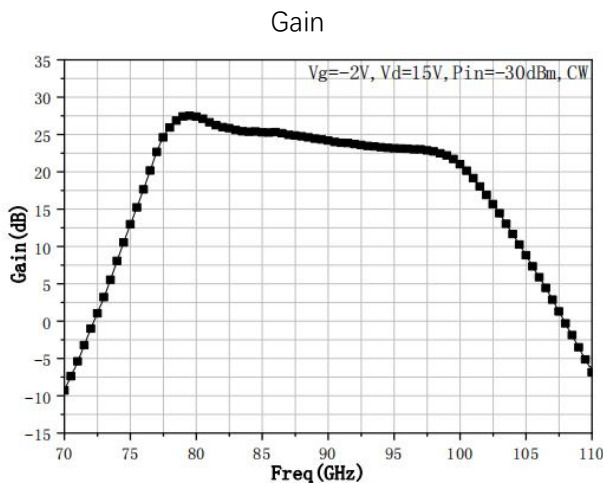
Function Diagram



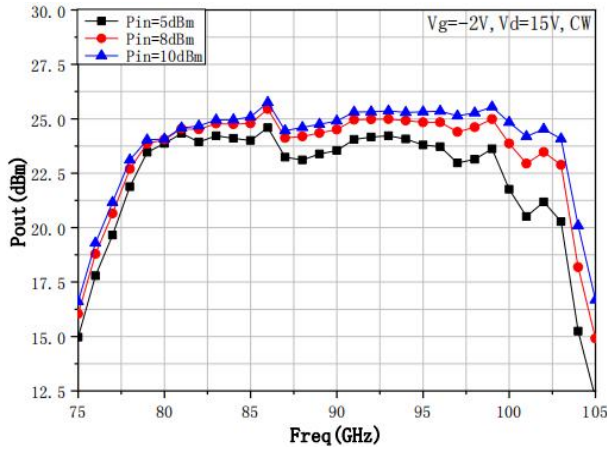
Electrical Specifications (TA=25°C, Vd=15V, Idq=0.19A, F:80~100GHz, CW)

Symbol	Parameter	Min	Typical	Max	Unit
G	Small Signal Gain	-	20	-	dB
Gp	Power Gain	-	14	-	dB
Pout	Saturated Power	-	24	-	dBm
PAE	Power Added Efficiency	-	8	-	%
Id	Dynamic Current	-	0.24	-	A

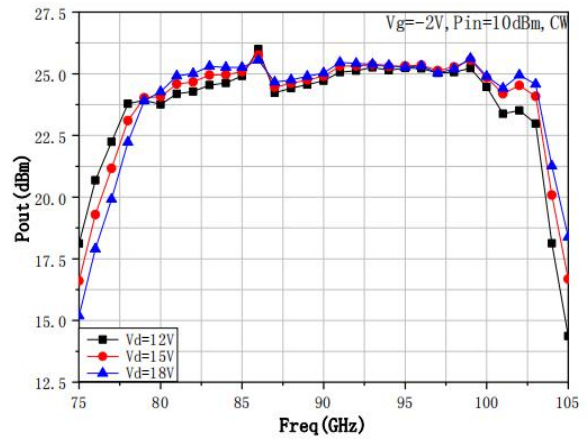
Test Curves



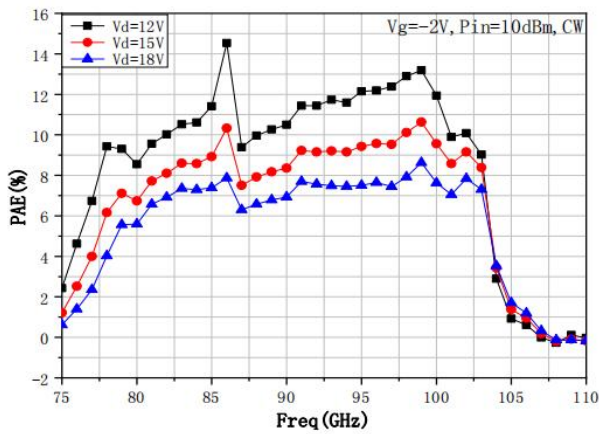
Pout@ Different Pin



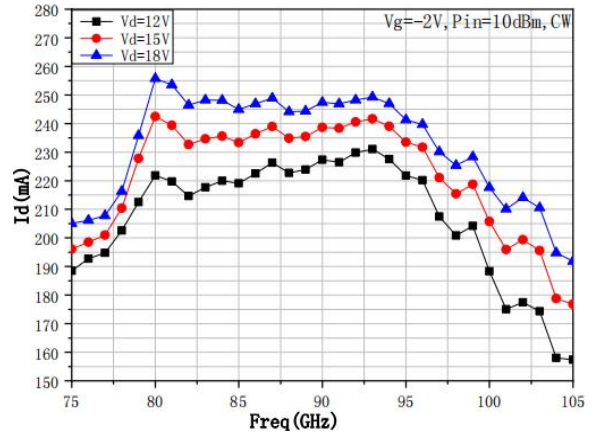
Pout@ Different Vd



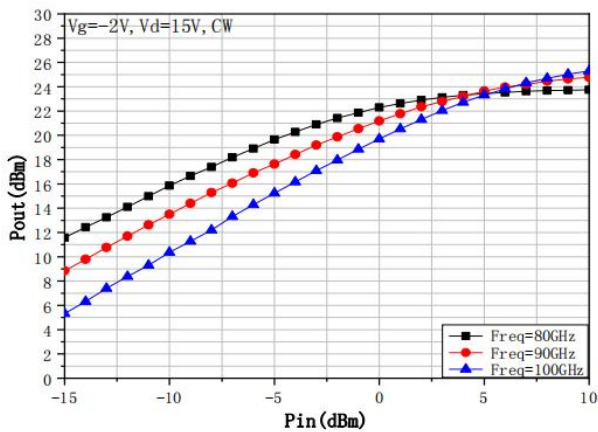
PAE@ Different Vd



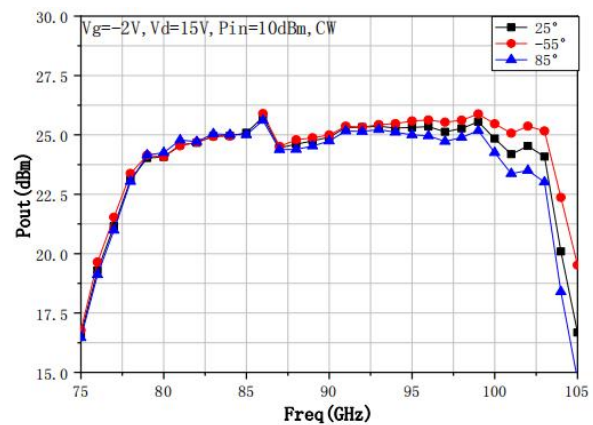
Id@ Different Vd



Pout@ Different Freq



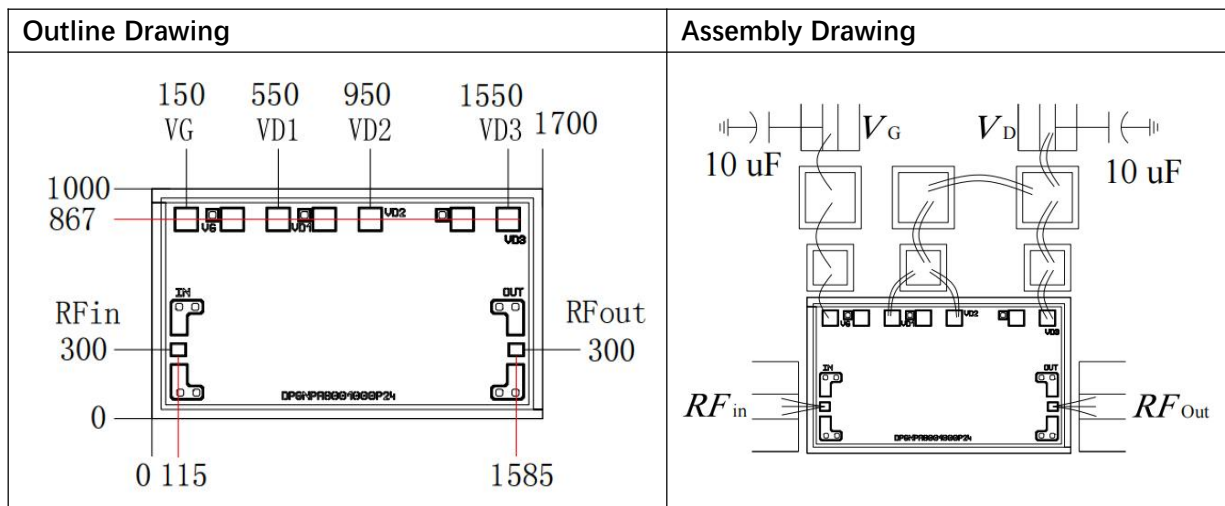
Pout@ Different Temp





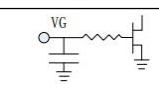
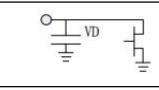
Absolute Max Ratings (TA=25°C)

Symbol	Parameter	Value	Remark
Vd	Drain Voltage	20V	
Id	Drain Current	0.32A	
Vg	Gate Voltage	-5V	
Ig	Gate Current	10mA	
Pd	DC Power	6W	
Pin	Input Power	30dBm	
Tch	Channel Temperature	200°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 100pF, 1000pF, 0.1uF, 10uF capacitor is needed	
VD1, VD2, VD3	Amp drain bias, external 100pF, 1000pF, 0.1uF, 10uF capacitor is needed	
GND	Bottom must connect to RF and DC ground	