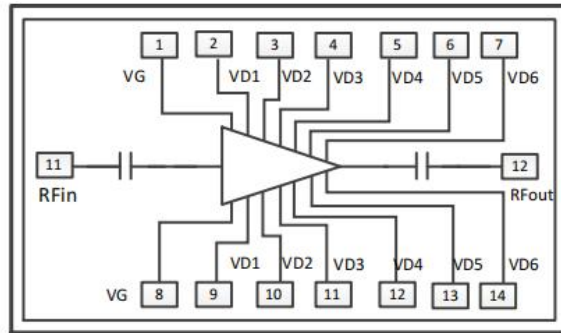


Performance

- Frequency: 80~130GHz
- Typical Signal Gain: 19dB
- Typical Pout: 22dBm@7V
- Typical Input/Output reflection: -10dB
- Typical Static Current: 0.9A
- Bias: 7V, -0.2V(Typ.)
- Technology: 0.05um GaN HEMT
- Mode: CW
- Size: 7.8*3mm*0.05mm

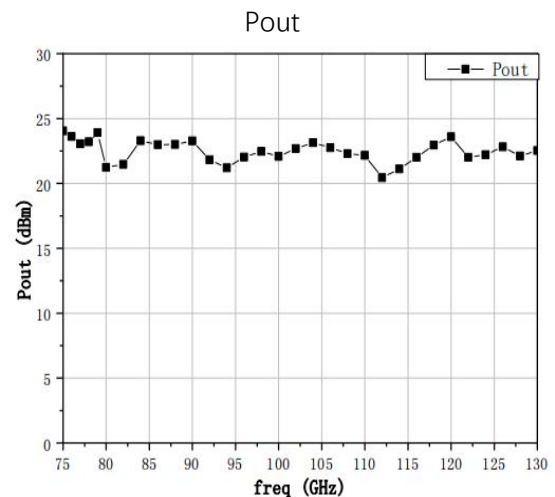
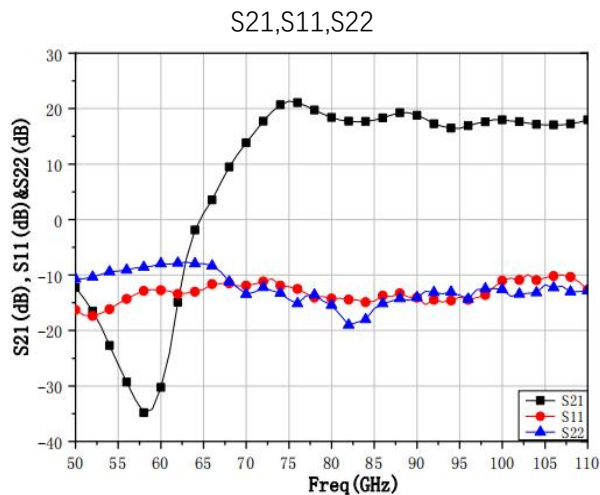
Function Diagram



Electrical Specifications (TA=25°C, Vd=7V, Idq=0.9A, F:75~130GHz, CW)

Symbol	Parameter	Min	Typical	Max	Unit
G	Small Signal Gain	-	19	-	dB
Gp	Power Gain	-	12	-	dB
Pout	Saturated Power	20	22	-	dBm
S11	Input Reflection	-10	-14	-	dB
S22	Input Reflection	-10	-14	-	dB

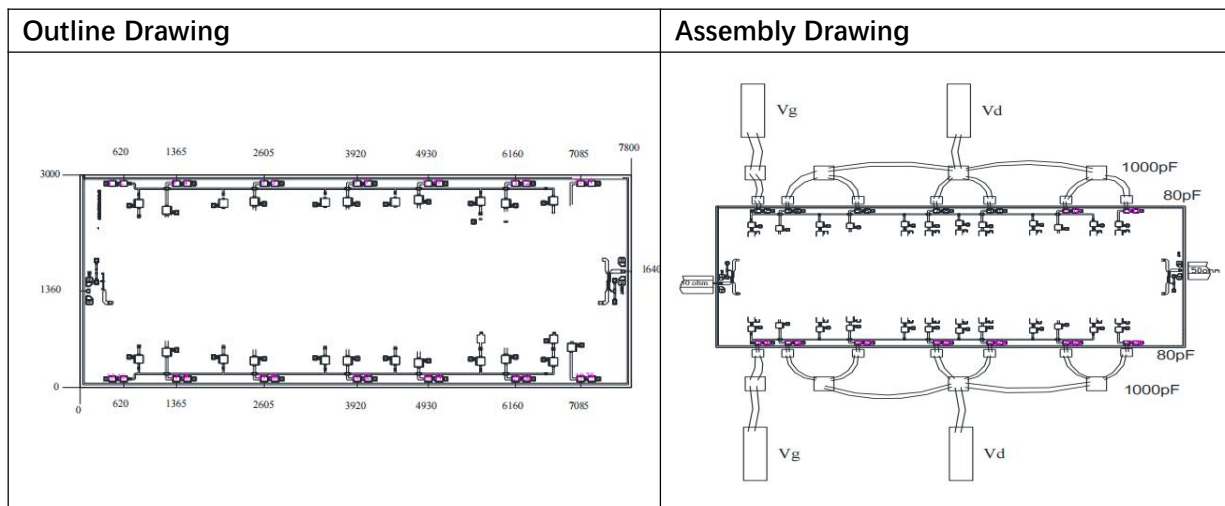
Test Curves





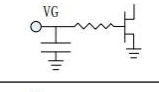
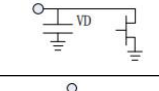
Absolute Max Ratings (TA=25°C)

Symbol	Parameter	Value	Remark
Vd	Drain Voltage	15V	
Id	Drain Current	1A	
Vg	Gate Voltage	-5V	
Ig	Gate Current	10mA	
Pd	DC Power	15W	
Pin	Input Power	18dBm	
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 80pF, 1000pF capacitor is needed	
VD	Amp drain bias, external 80pF, 1000pF capacitor is needed	
GND	Bottom must connect to RF and DC ground	