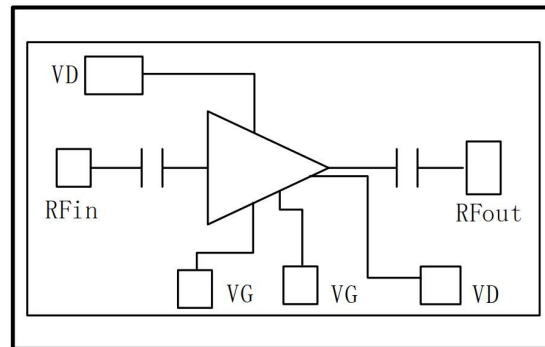


### Performance

- Frequency: 0.3~6GHz
- Typical Signal Gain: 33dB
- Typical Pout: 46dBm@48V
- Typical PAE: 25%
- Power Gain: 20dB
- VSWR: 2.0
- Idq: 1.4A
- Id: 2.5A
- Bias: 48V, -1.8V (Typ.)
- Mode: CW
- Size: 5.2\*3.8mm\*0.08mm

### Function Diagram



### Electrical Specifications (TA=25°C, Vd=48V, Vg=-1.8V, F: 0.3~6GHz, CW)

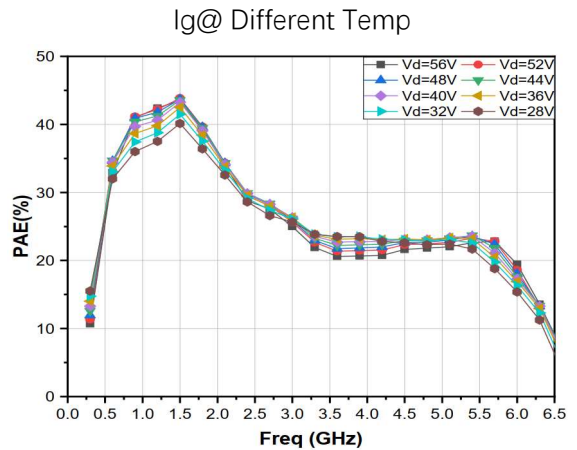
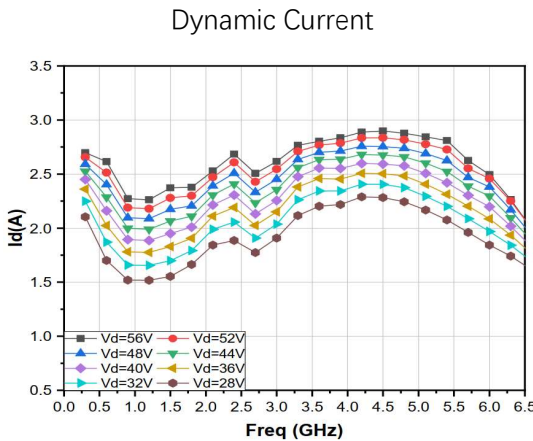
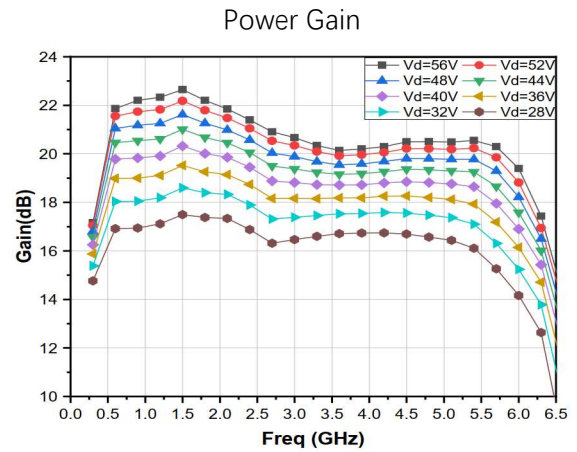
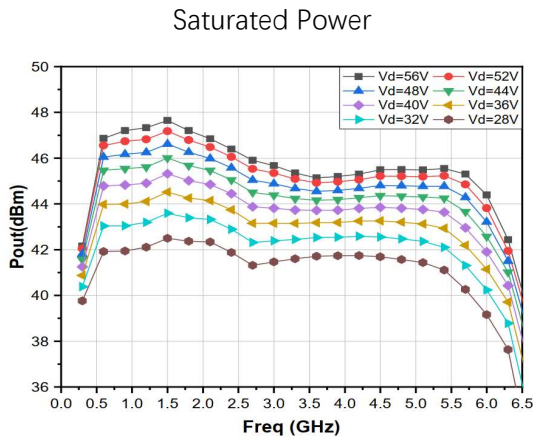
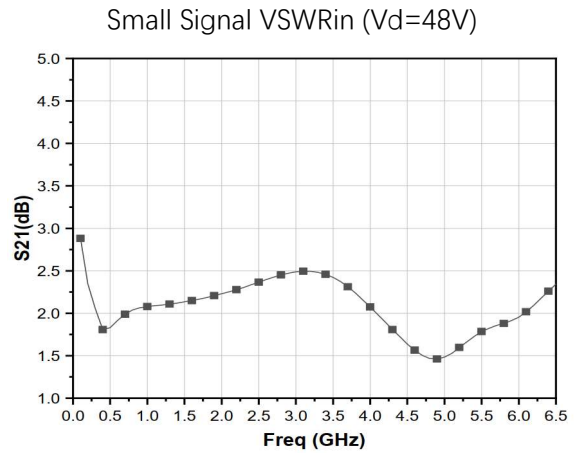
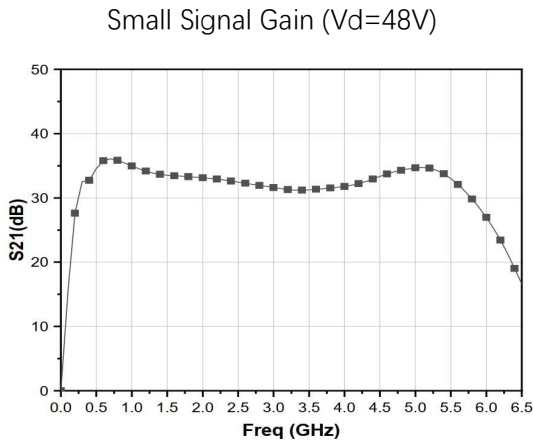
Symbol	Parameter	Min	Typical	Max	Unit
G	Small Signal Gain	27	33	36	dB
Gp	Power Gain	17	20	21.5	dB
Pout	Saturated Power	42	46	46.5	dBm
PAE	Power Added Efficiency	12	25	44	%
Id	Dynamic Current	2.1	2.5	2.8	A
VSWRin	Small Signal Input VSWR	1.5	2.0	2.5	

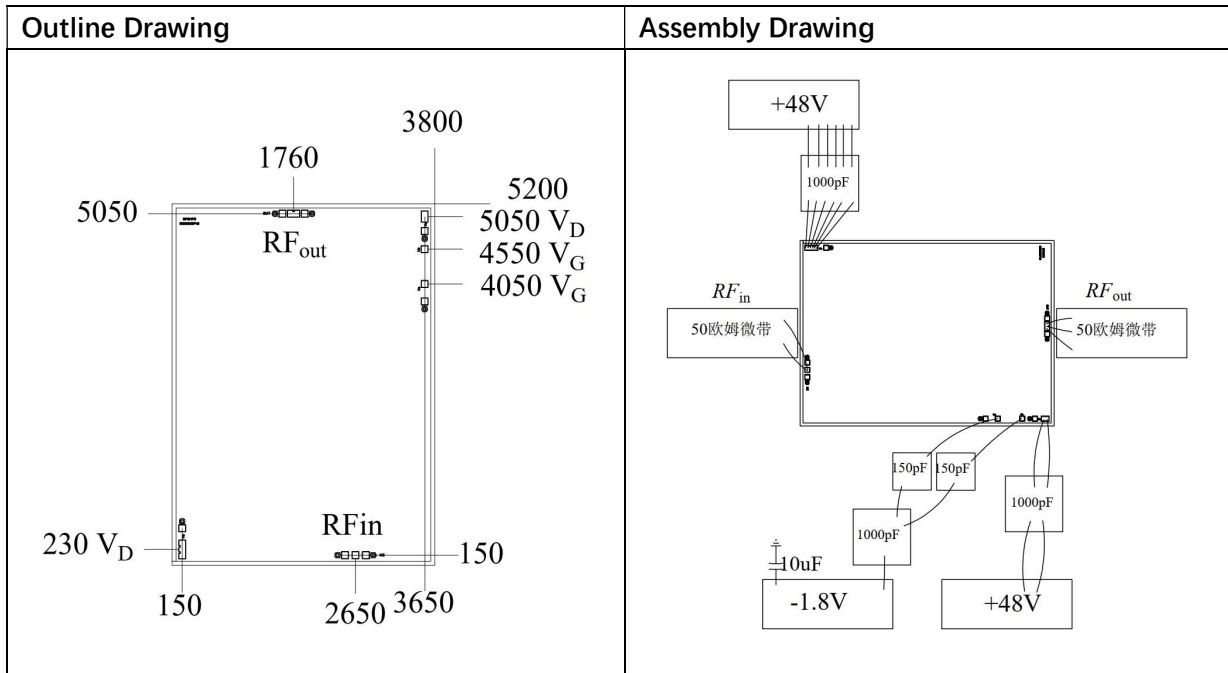
### Absolute Max Ratings (TA=25°C)

Symbol	Parameter	Value	Remark
Vd	Drain Voltage	56V	
Id	Drain Current	3A	
Vg	Gate Voltage	-10V	
Ig	Gate Current	20mA	
Pd	DC Power	170W	
Pin	Input Power	27dBm	
Tch	Channel Temperature	175°C	
Tm	Mounting Temperature	310°C	1 min, N2 Protection
Tstg	Storage Temperature	-55~175°C	

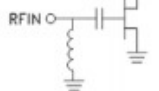

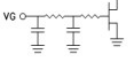

Exceeding any one or combination of these limits may cause permanent damage.

Test Curves (Vg= -1.8V, Pin=25dBm/-15dBm, CW)





### 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 150pF, 1000pF, 10uF capacitor is needed	
VD	Amp drain bias, external 1000pF high voltage capacitor is needed	
GND	Bottom must connect to RF and DC ground	