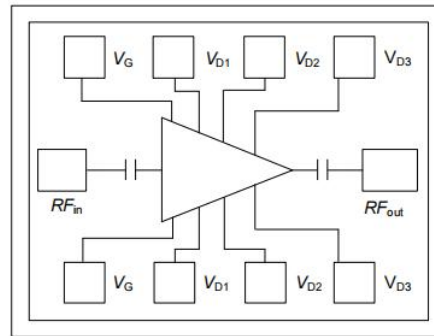


### Performance

- Frequency: 8.5~10.5GHz
- Typical Signal Gain: 33dB
- Typical Pout: 47dBm
- Typical PAE: 50%
- Static Operating Current: 3.0A
- Dynamic Operating Current: 5.0A
- Technology: GaN HEMT
- Bias: 28V, -1.8V
- Size: 3.5\*5.3mm\*0.08mm

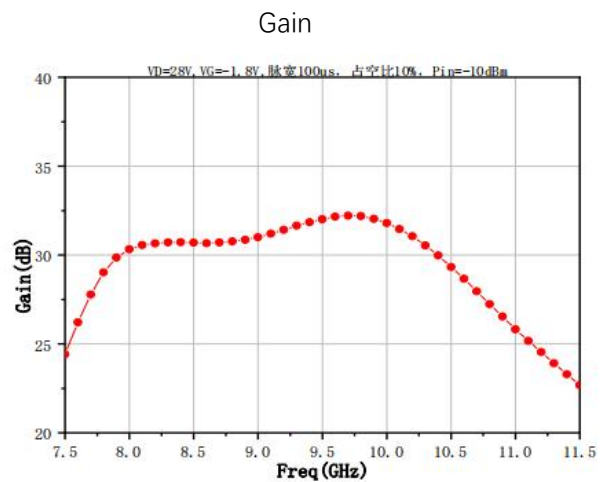
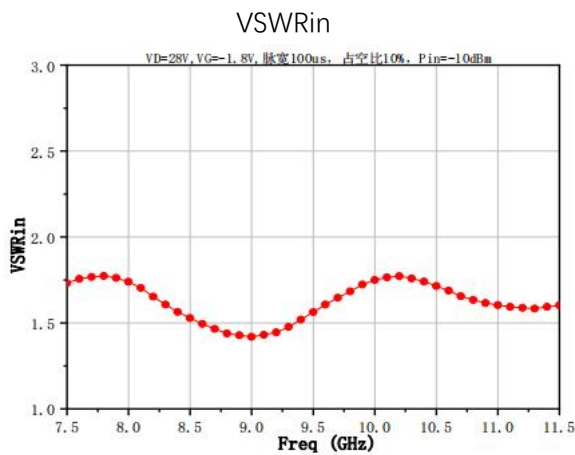
### Function Diagram

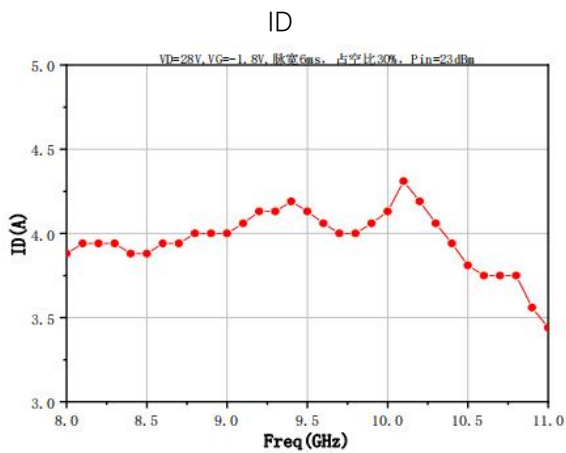
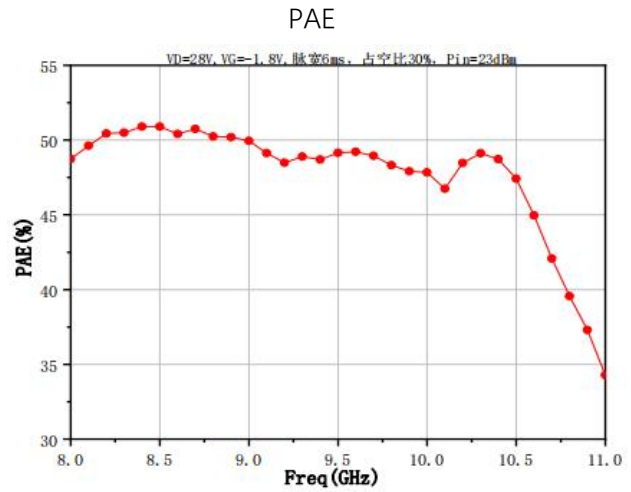
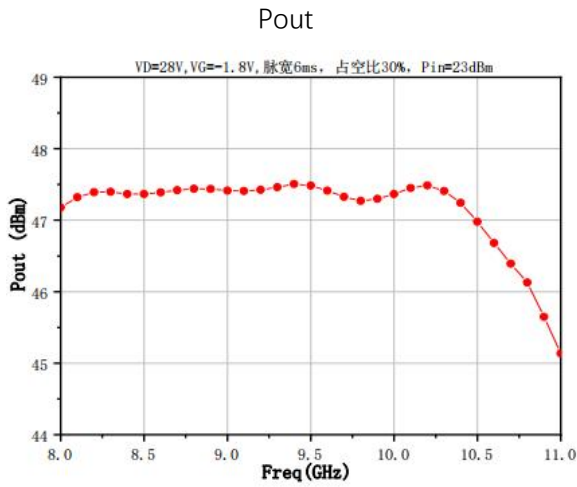


### Electrical Specifications (T<sub>A</sub>=25°C, V<sub>d</sub>=28V, V<sub>g</sub>= -1.8V, F: 8.5~10.5GHz)

Symbol	Parameter	Min	Typical	Max	Unit
G	Small Signal Gain	-	33	-	dB
G <sub>p</sub>	Power Gain	-	24	-	dB
P <sub>out</sub>	Saturated Power	-	47	-	dBm
I <sub>d</sub>	Dynamic Current	-	4.5	-	A
R <sub>th</sub>	Thermal Resistance	-	1.0	-	°C/W

### Test Curves

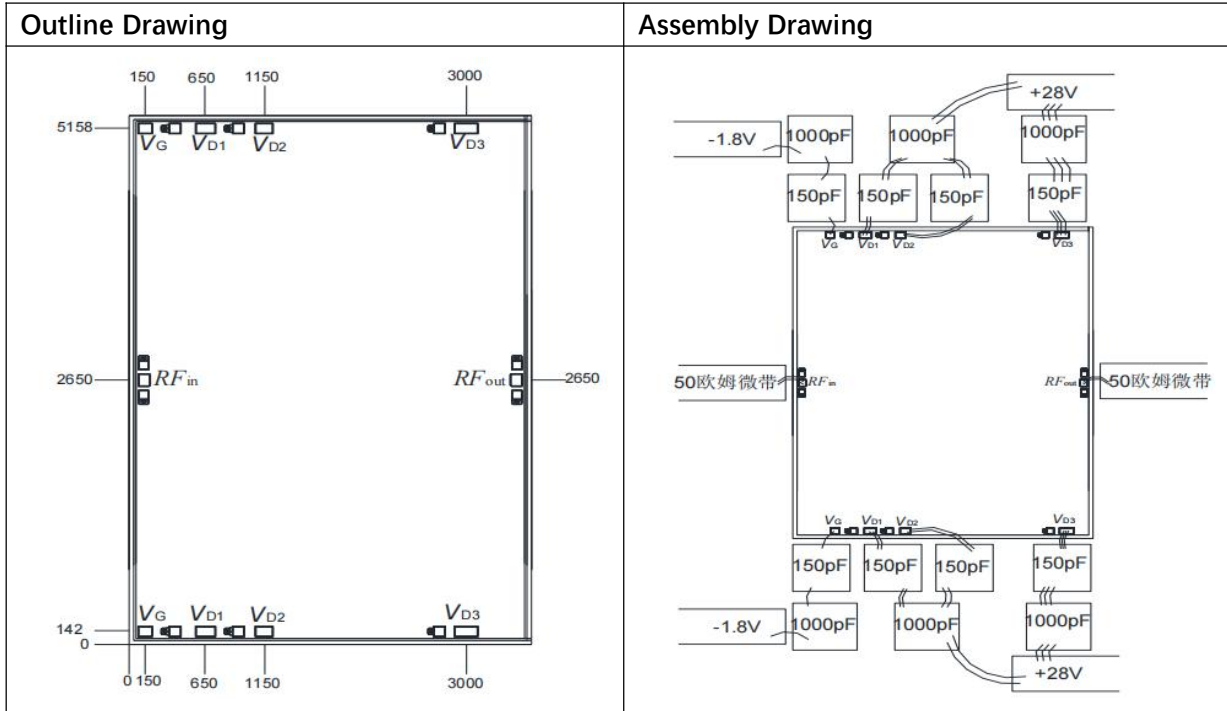




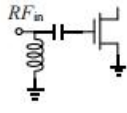
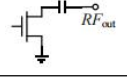
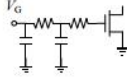

### Absolute Max Ratings (TA=25°C)

Symbol	Parameter	Value	Remark
Vd	Drain Voltage	32V	
Vg	Grid Voltage	-5V	
Pd	DC Power	130W	25°C
Pin	Input Power	30dBm	
Tch	Channel Temperature	225°C	
Tm	Mounting Temperature	310°C	30 s, 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
RF <sub>in</sub>	RF Signal input, connect to 50ohm system, block capacitor is needed if there's external DC applied on this pad.	
RF <sub>out</sub>	RF Signal output, connect to 50ohm system, no need block capacitor.	
VG	Amp gate bias, external 150pF, 1000pF capacitor is needed	
VD1、VD2、VD3	Amp drain bias, external 150pF, 1000pF capacitor is needed	
GND	Bottom must connect to RF and DC ground	