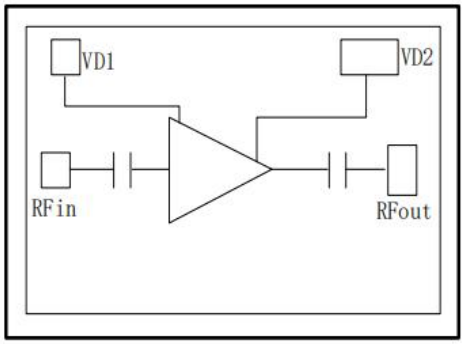
Performance

- Frequency: 16~18GHz
- Typical Signal Gain: 19dB
- Typical Pout: 28dBm@28V
- Typical PAE: 47%
- Typical Static Current: 0.12A
- Bias: 28V,Self Bias
- Bias: CW
- Technology: 0.20um HEMT
- Size: 2.18*1.5mm*0.08mm

Function Diagram

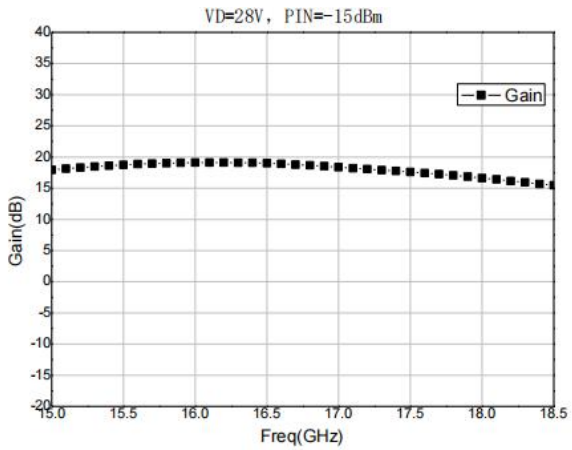


Electrical Specifications (T_A=25℃, V_d=28V, Idq=0.12A, F:10~18GHz,CW)

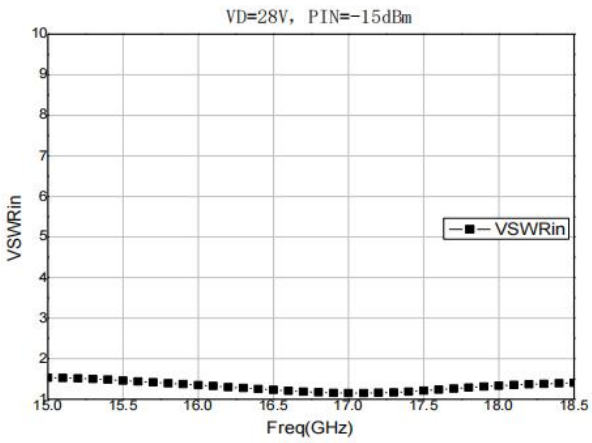
Symbol	Parameter	Min	Typical	Max	Unit
G	Small Signal Gain	-	19	-	dB
Gp	Power Gain	-	16	-	dB
Pout	Saturated Power	-	28	-	dBm

Test Curves

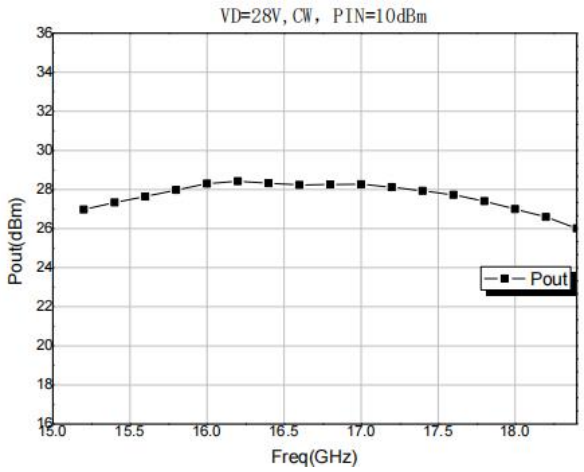
Small Signal Gain



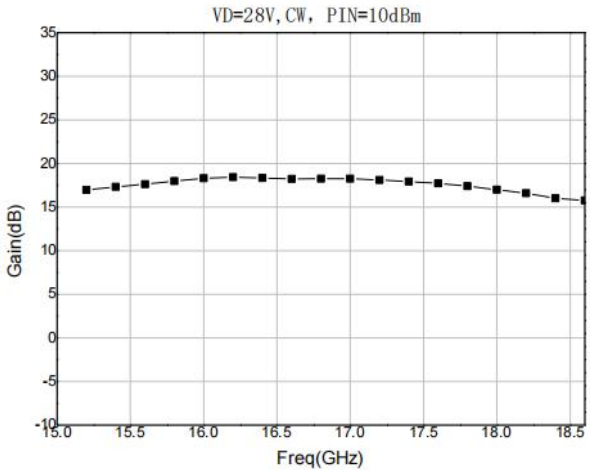
VSWRin



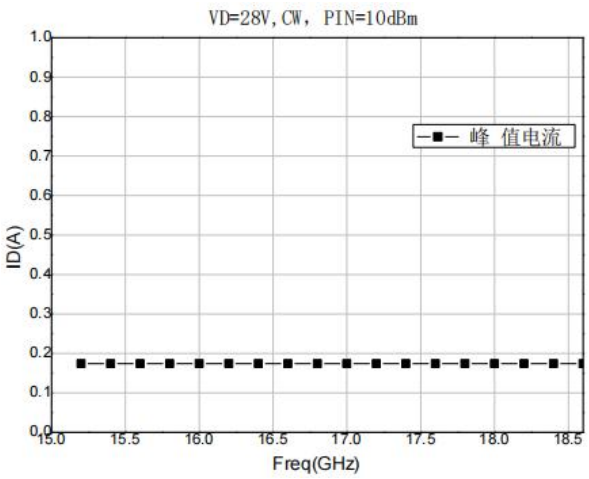
Pout



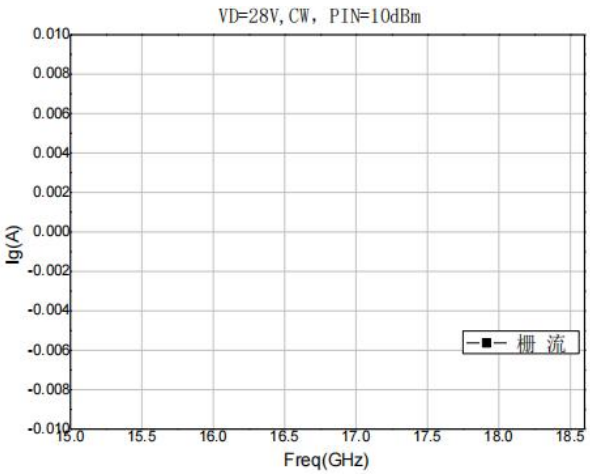
Gain



ID



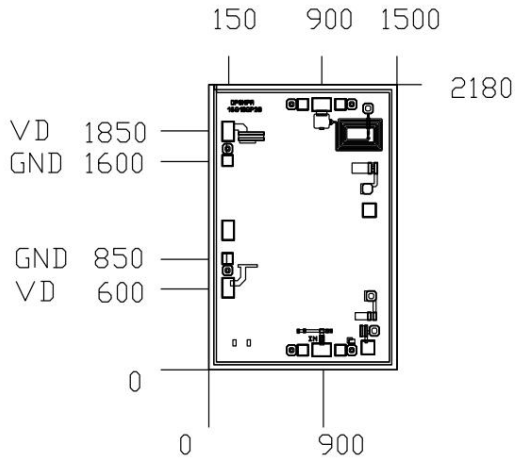
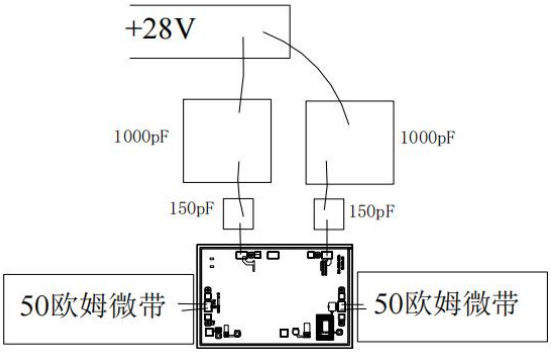
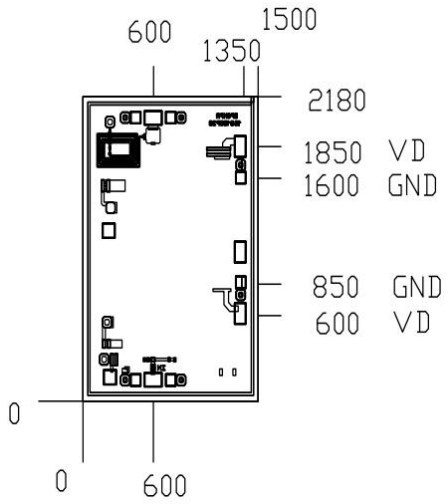
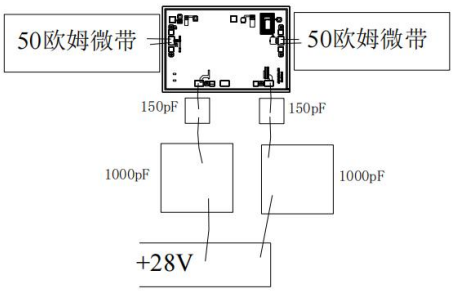
Ig



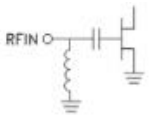
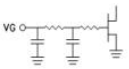
Absolute Max Ratings (T_A=25℃)

Symbol	Parameter	Value	Remark
Vd	Drain Voltage	32V	
Id	Drain Current	0.4A	
Pd	DC Power	12W	
Pin	Input Power	16dBm	
Tch	Channel Temperature	225℃	
Tm	Mounting Temperature	310℃	1 min, N_2 Protection
Tstg	Storage Temperature	-55~175℃	

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

Outline Drawing	Assembly Drawing
	
SFDN160180-P28	SFDN160180-P28
	
SFDN160180-P28M	SFDN160180-P28M

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 150pF, 1000pFcapacitor is needed	
VD	Amp drain bias, external 150pF, 1000pF capacitor is needed	
GND	Bottom must connect to RF and DC ground	