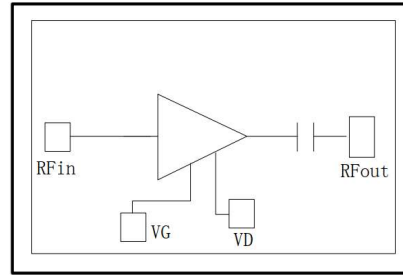


Performance

- Frequency: 0.3~2GHz
- Typical Signal Gain: 35dB
- Typical Pout: 43dBm
- Typical PAE: 45%
- Bias: 48V, -1.8V (Typ.)
- Technology: 0.25um HEMT
- Size: 3.3*2.2mm*0.08mm

Function Diagram

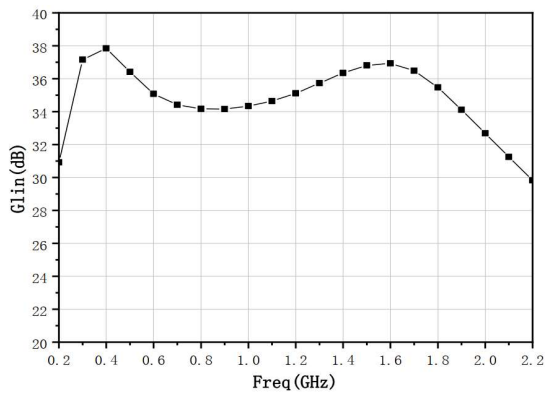


Electrical Specifications (TA=25°C, Vd=48V, Vg=-1.8V, F: 0.3~2GHz, CW)

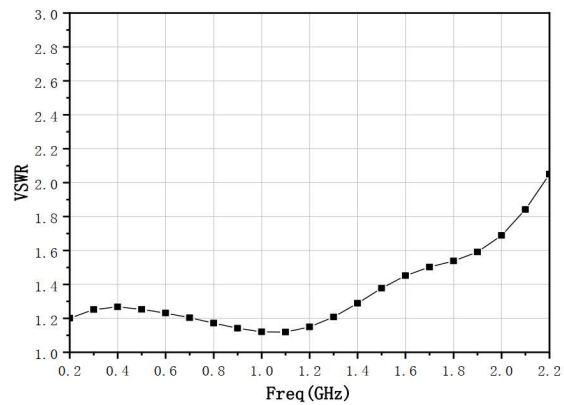
Symbol	Parameter	Min	Typical	Max	Unit
G	Small Signal Gain	-	35	-	dB
Gp	Power Gain	-	27	-	dB
Pout	Saturated Power	-	43	-	dBm
Id	Dynamic Current	-	1.2	-	A

Test Curves

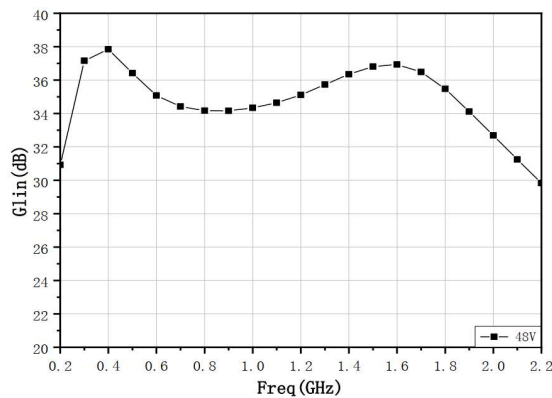
Small Signal Gain vs. Freq



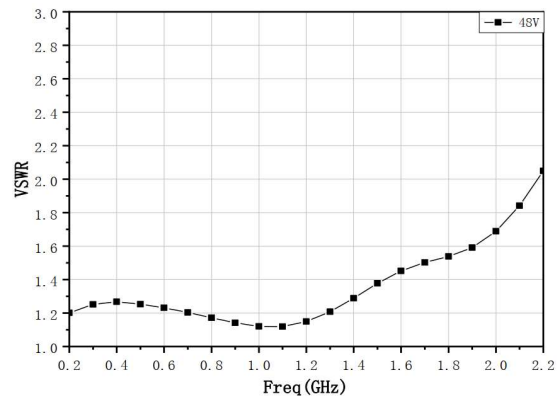
Input VSWR vs. Freq



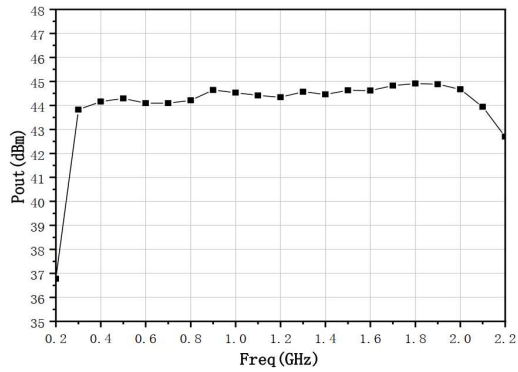
Small Signal Gain @48V



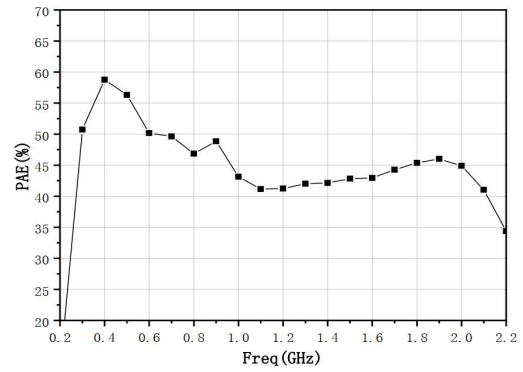
VSWRin @ 48V



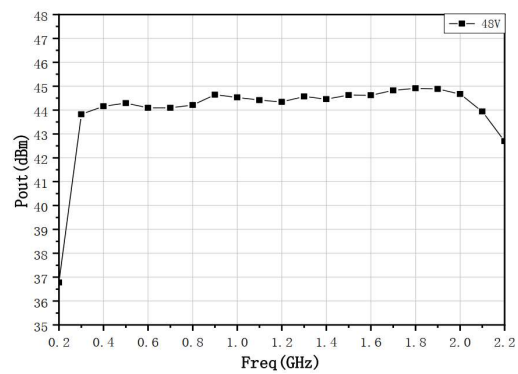
Output Power vs. Frequency



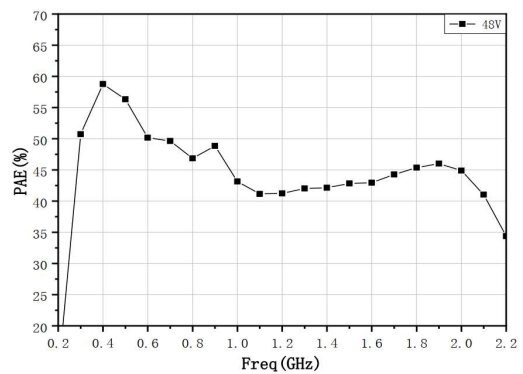
PAE vs. Frequency



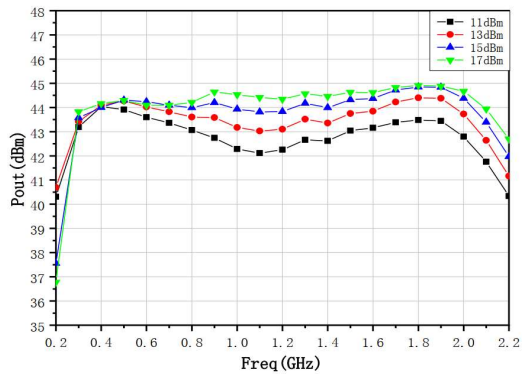
Output Power @ 48V



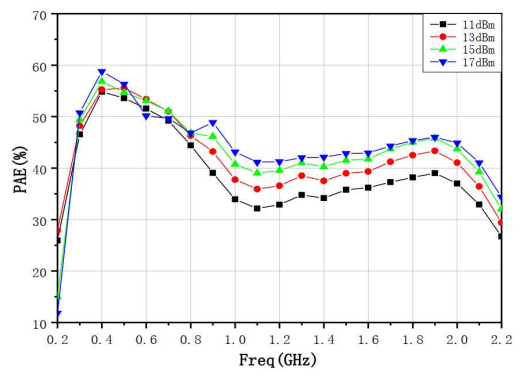
PAE @ 48V



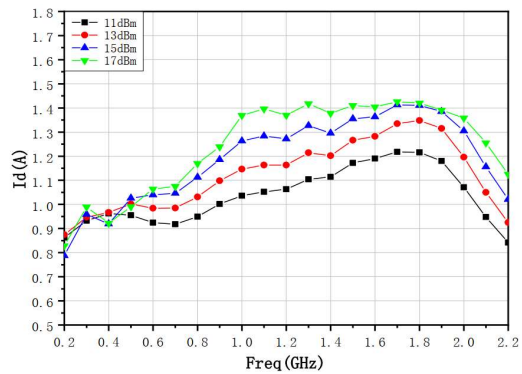
Output Power vs. Different Pin



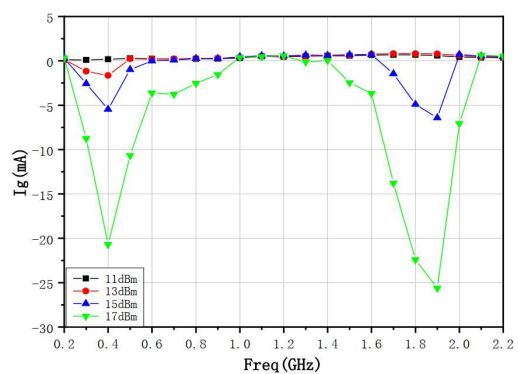
PAE vs. Different Pin



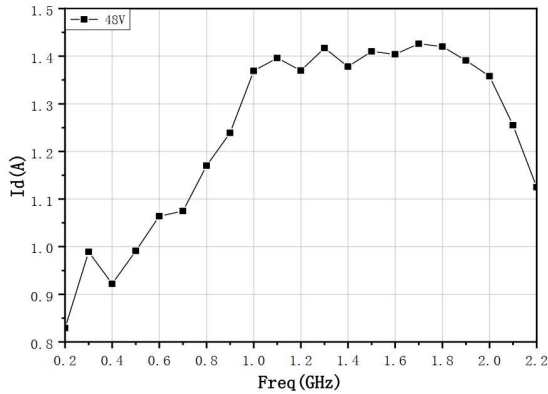
Drain Current vs. Different Pin



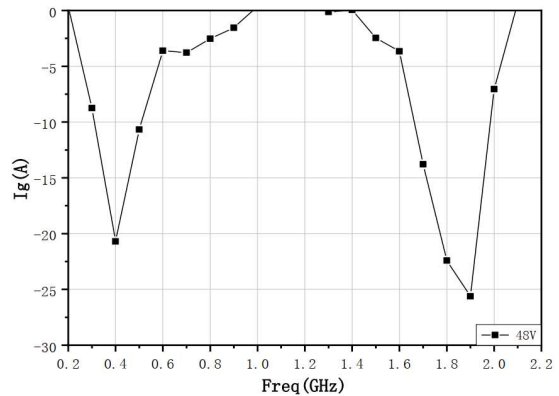
Gate Current vs. Different Pin



Drain Current @ 48V



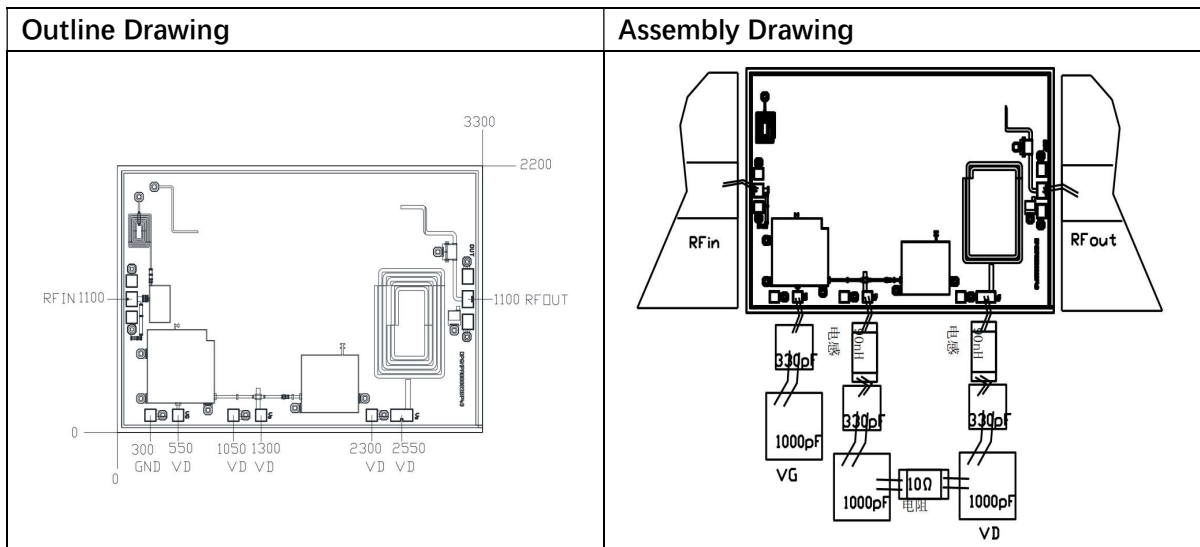
Gate Current @ 48V



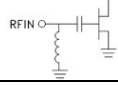

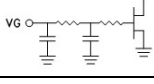

Absolute Max Ratings (TA=25°C)

Symbol	Parameter	Value	Remark
Vd	Drain Voltage	52V	
Id	Drain Current	2A	
Pd	DC Power	100W	
Pin	Input Power	25dBm	
Tch	Channel Temperature	225°C	
Tm	Mounting Temperature	310°C	1min, N2 Protection
Tstg	Storage Temperature	-55~175°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, block capacitor is needed when 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 330pF, 1000pF capacitor is needed	
VD	Amp drain bias, external 330pF, 1000pF capacitor is needed	
GND	Bottom must connect to RF and DC ground	