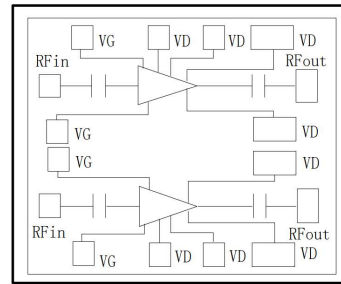


### Performance

- Frequency: 6~18GHz
- Typical Small Signal Gain: 23dB
- Single channel Typical Pout: > 34.5dBm@8V
- Typical PAE: 26%
- Bias Voltage: 8V, -0.8V
- Technical Type: 0.25um GaAs PHEMT
- Size: 4.3mm\*5.7mm\*0.1mm (Dual channels)

### Function Schematic

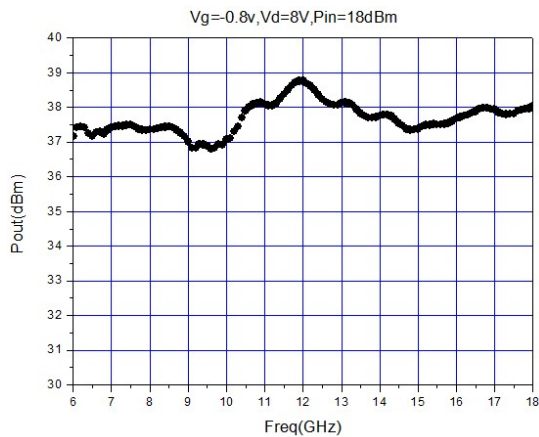


### Electrical Specifications (Vd=8V, Vg=-0.8V, Freq=6~18GHz)

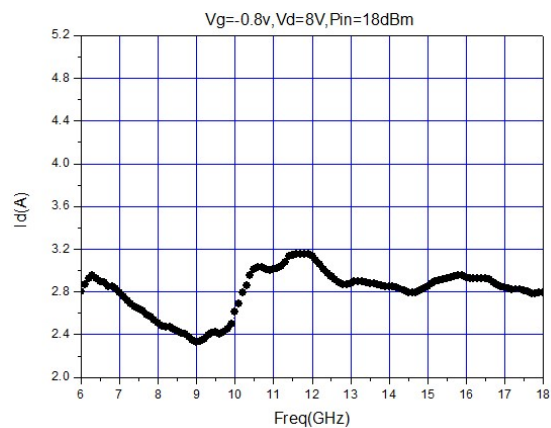
Symbol	Parameter	Min	Typical	Max	Unit
G	Small Signal Gain	20	24	-	dB
Gp	Power Gain	19	20	-	dB
Pout	Saturated Power	36.5	37	-	dBm
PAE	Power Added Efficiency	22.5	27	-	%

### Test Curves

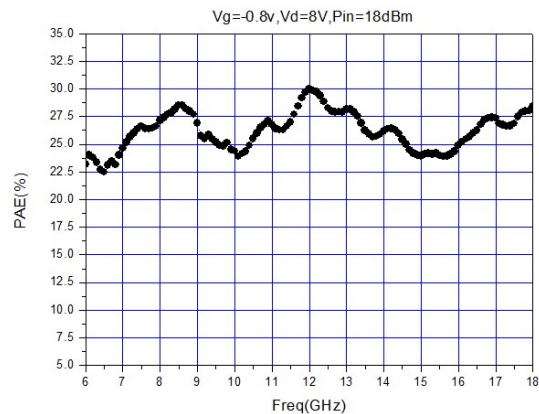
Dual channels Pout vs. Freq (Lange combine)



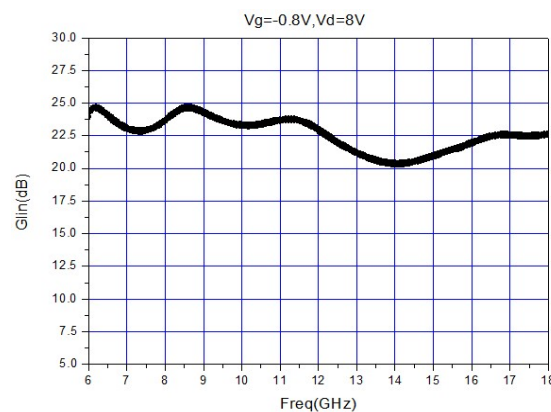
Dual channels Id vs. Freq (Lange combine)



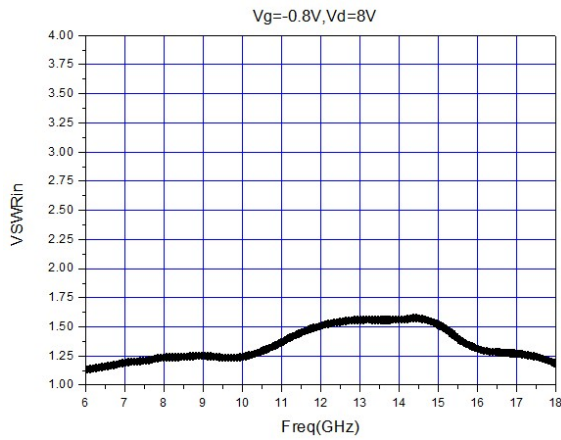
Dual channels PAE vs. Freq (Lange combine)



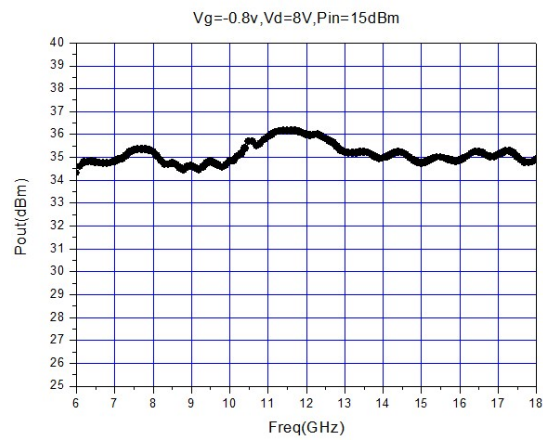
Small Signal Gain vs. Freq



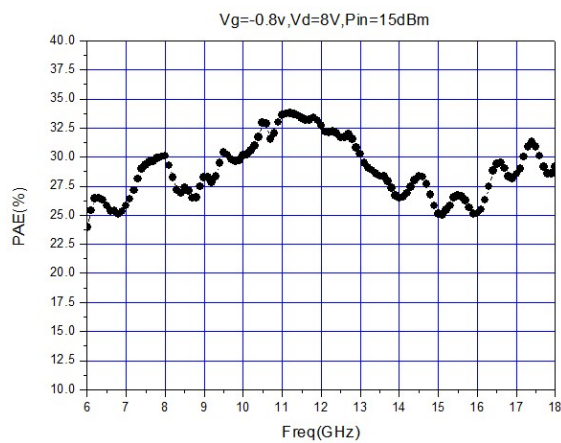
Small Signal Input VSWR vs. Freq



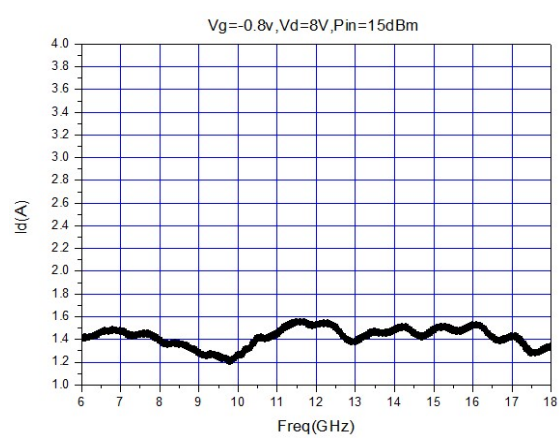
Single channel Pout vs. Freq



Single Channel PAE vs. Freq



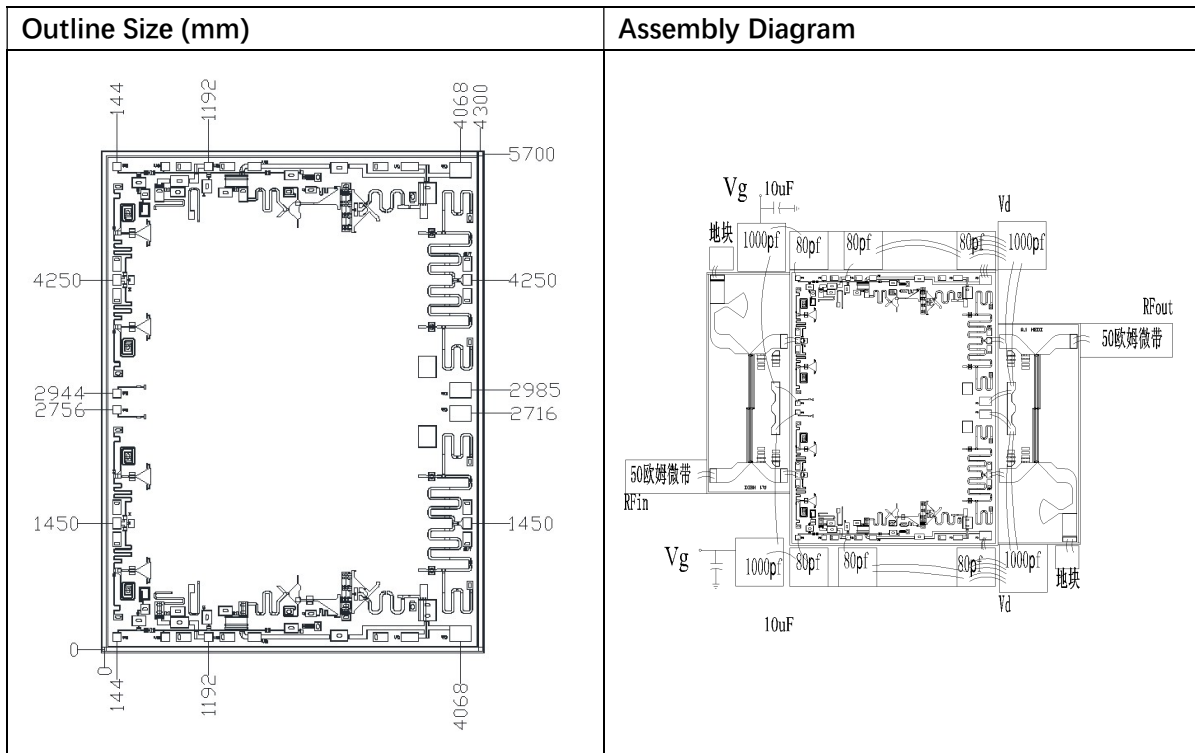
Single Channel Id vs. Freq




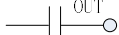
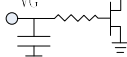
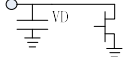
**Absolute Max Ratings (TA=25°C)**

Symbol	Parameter	Value	Remark
Vd	Drain Voltage	10V	
Id	Drain Current	2.5A	
Vg	Gate Voltage	-2V	
Ig	Gate Current	100mA	
Pd	DC Power Consumption	20W	
Pin	Input Power	22dBm	
Tch	Channel Temperature	175°C	
Tm	Mounting Temperature	310°C	30s, N2 Protection
Tstg	Storage Temperature	-65~150°C	

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



### Pads Definition

Number	Description	Equivalent Circuits
IN	RF input, connect to 50Ω system, no block capacitor needed	
OUT	RF output, connect to 50Ω system, no block capacitor needed	
VG	Amplifier grid bias, external 100pF, 1000pF capacitors needed	
VD	Amplifier drain bias, external 100pF, 1000pF capacitors needed	
GND	Bottom must be well connected with RF and DC ground	