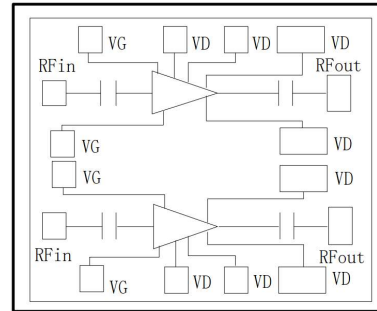


Performance

- Frequency: 6~18GHz
- Typical Small Signal Gain: 24dB
- Single channel Output Power: > 35dBm
- Dual Channels combined Output Power: > 37.8dBm
- Typical PAE: 30%
- Bias Voltage: 8V, -0.8V
- Technology: 0.25um pHEMT
- Size: 4.3mm*5.7mm*0.1mm (Dual channels)

Function Schematic

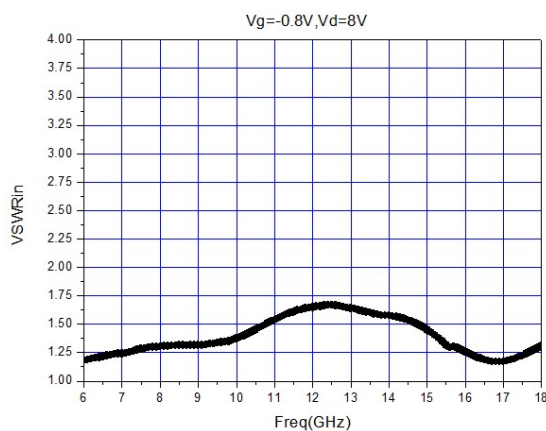


Electrical Specifications (Vd=8V, Vg=-0.8V, Freq=6~18GHz)

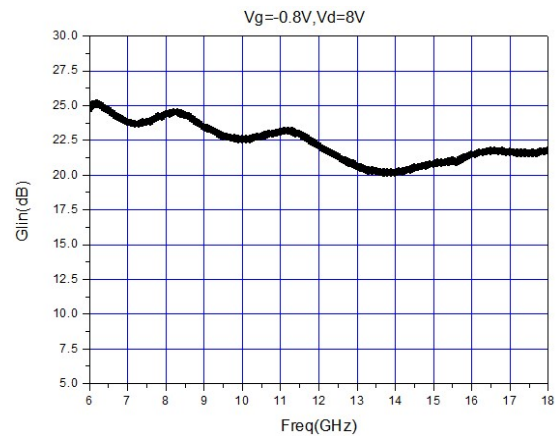
Symbol	Parameter	Min	Typical	Max	Unit
G	Small Signal Gain	21	24	-	dB
Gp	Power Gain	20	21	-	dB
Pout	Saturated Power	37.8	38	-	dBm
PAE	Power Added Efficiency	23	27	-	%

Test Curves

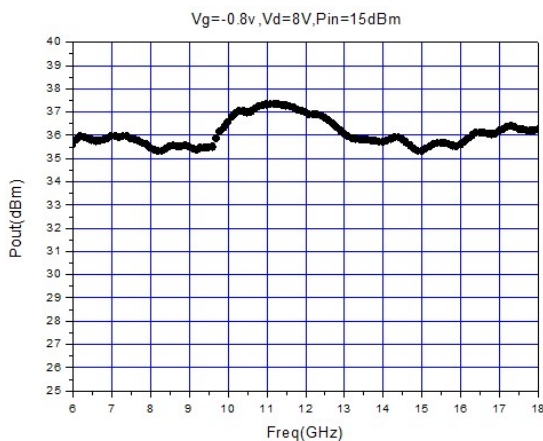
Dual channels VSWRin vs. Freq



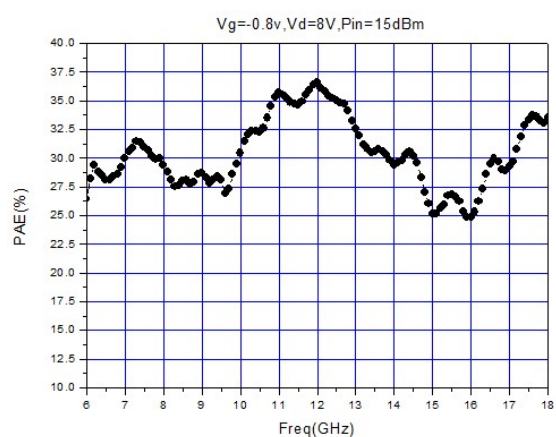
Dual channels Gain vs. Freq (Lange combine)



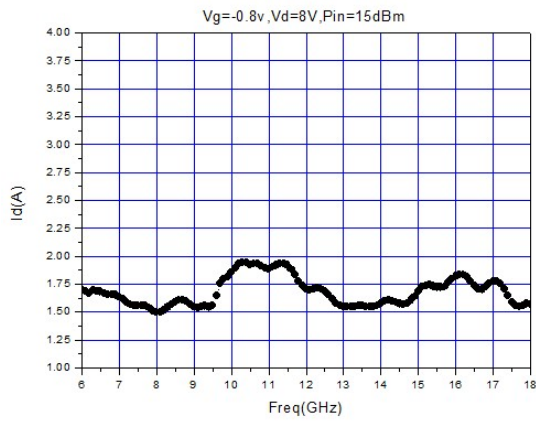
Single channel output power vs. Freq



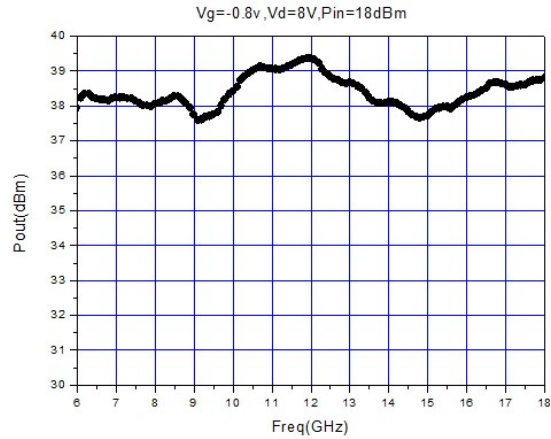
Single channel PAE vs. Freq



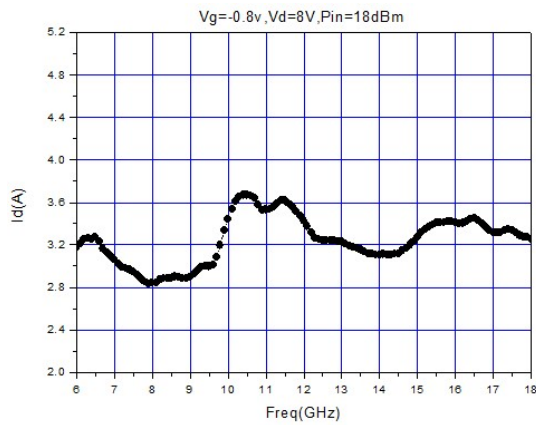
Single channel Id vs. Freq



Dual channels Pout vs. Freq (Lange combine)



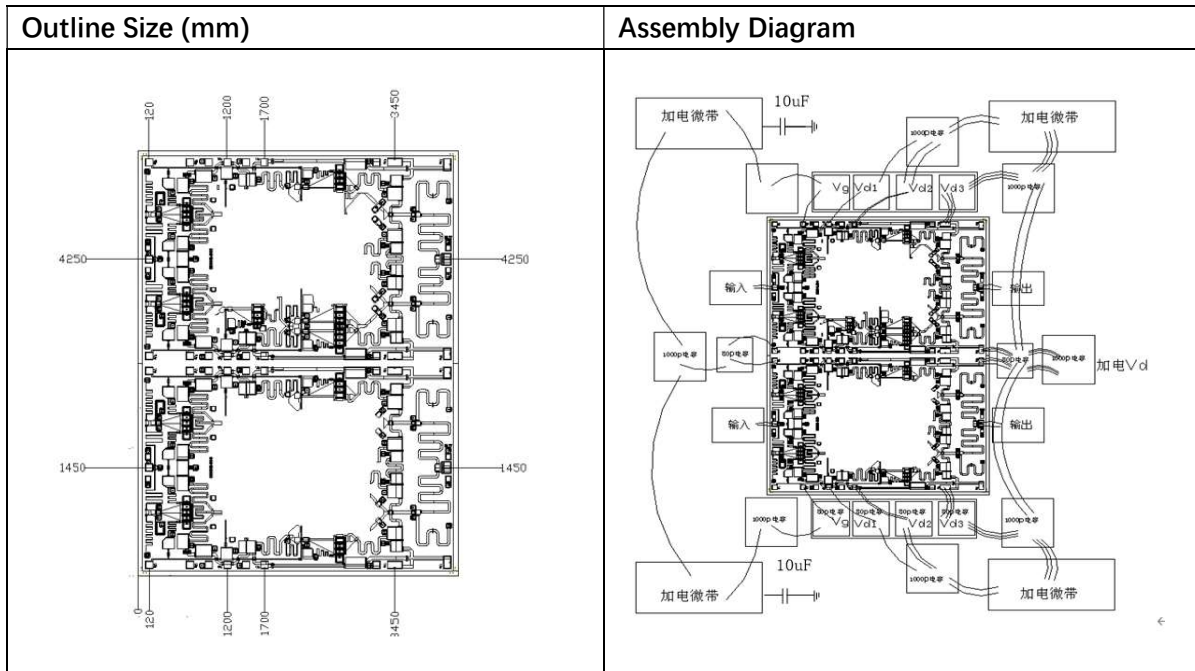
Dual channels Id vs. Freq (Lange combine)




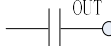
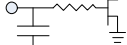
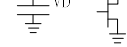
Absolute Max Ratings (TA=25°C)

Symbol	Parameter	Value	Remark
Vd	Drain Voltage	10V	
Id	Drain Current	2.5A	
Vg	Gate Voltage	-0.4V	
Ig	Gate Current	100mA	
Pd	DC Power Consumption	16W	
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 grounded	