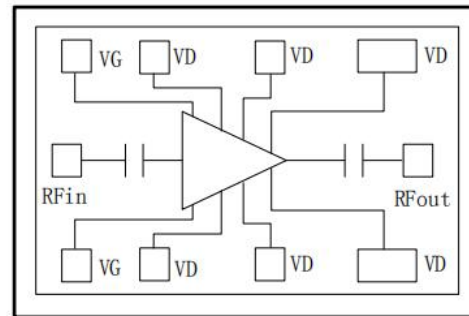


Performance

- Frequency: 81~86GHz
- Typical Signal Gain: 18dB
- Typical Pout: 34dBm@15V
- Typical PAE: 19%
- Bias: 15V
- Mode: CW
- Technology: 0.1um GaN HEMT
- Size: 4.0*2.4mm*0.05mm

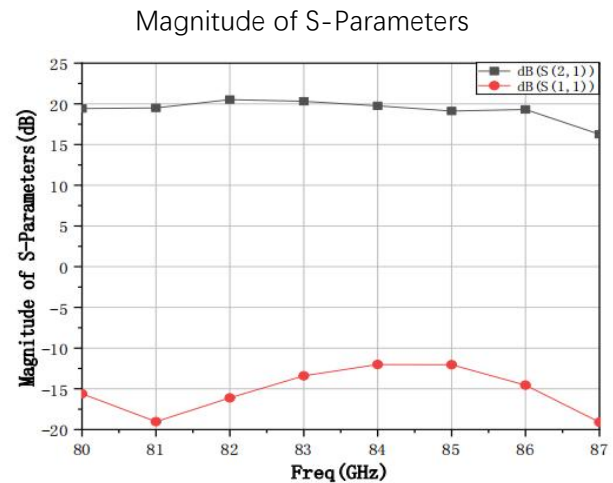
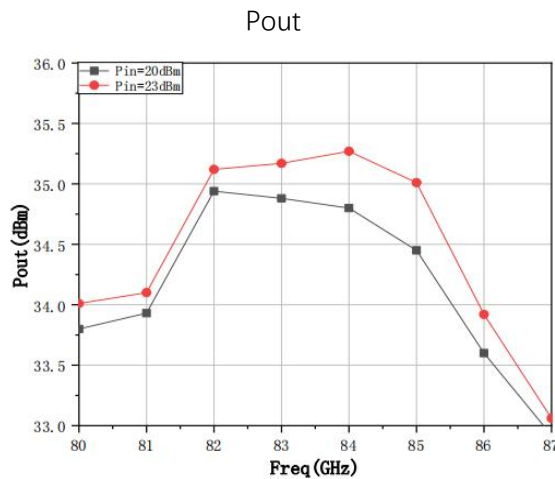
Function Diagram

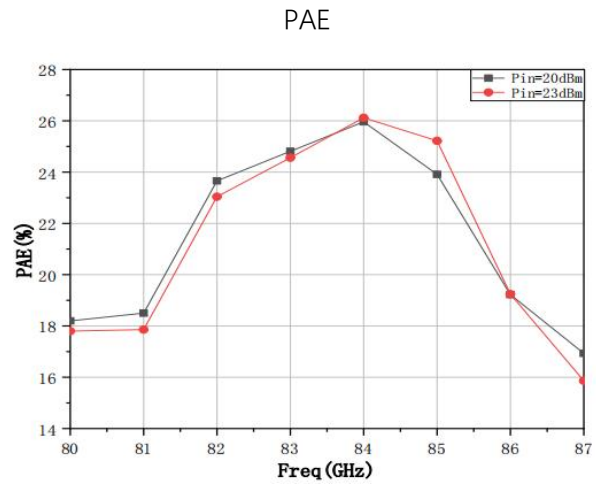
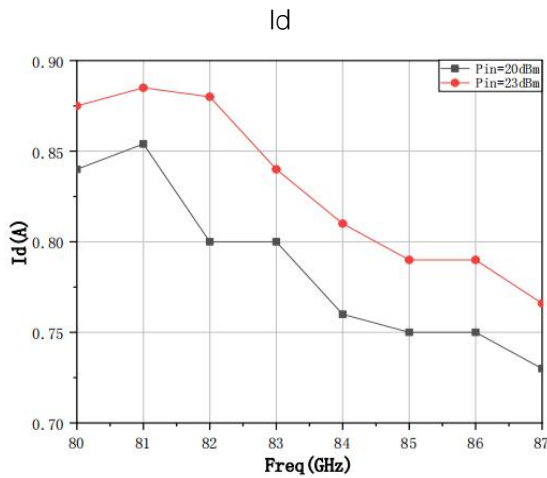


Electrical Specifications (TA=25°C, Vd=15V, Idq=600mA, F:81~86GHz, CW)

Symbol	Parameter	Min	Typical	Max	Unit
G	Small Signal Gain	-	18	-	dB
Gp	Power Gain	-	13	-	dB
Pout	Saturated Power	-	34	-	dBm
PAE	Power Added Efficiency	-	19	-	%

Test Curves

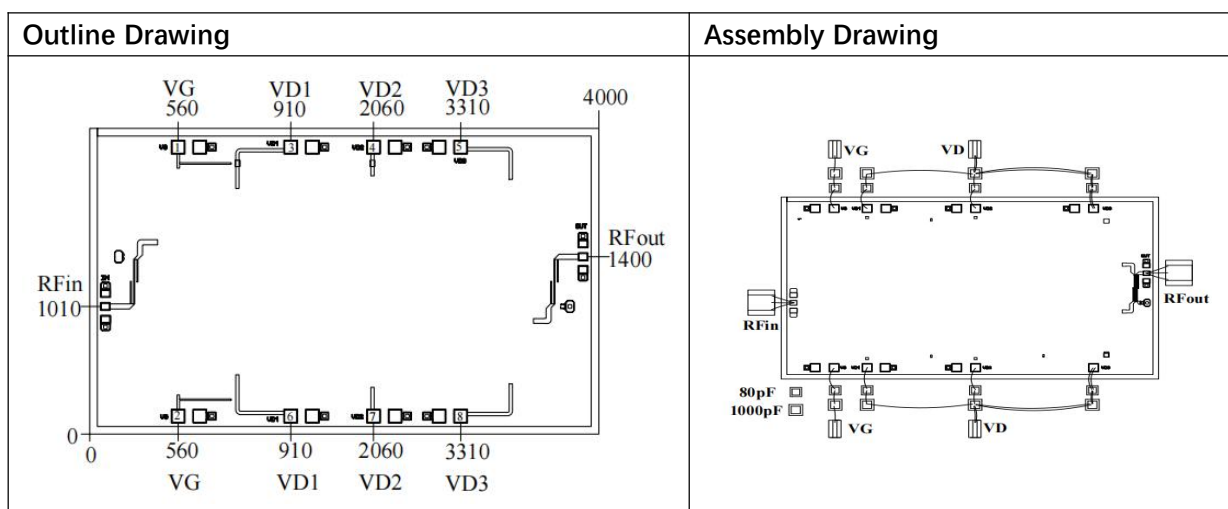




Absolute Max Ratings (TA=25°C)

Symbol	Parameter	Value	Remark
Vd	Drain Voltage	20V	
Id	Drain Current	1A	
Vg	Gage Voltage	-0.2~-4V	
Pd	DC Power	20W	
Pin	Input Power	30dBm	
Tch	Channel Temperature	170°C	
Tm	Mounting Temperature	300°C	
Tstg	Storage Temperature	-55~150°C	

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



Pads Definition

Pad	Description
RFin	RF Signal input, connect to 50ohm system, no need block capacitor.
RFout	RF Signal output, connect to 50ohm system, no need block capacitor.
VG	Amp gate bias, external 80pF, 1000pF capacitor is needed
VD	Amp drain bias, external 80pF, 1000pF capacitor is needed
GND	Bottom must connect to RF and DC ground