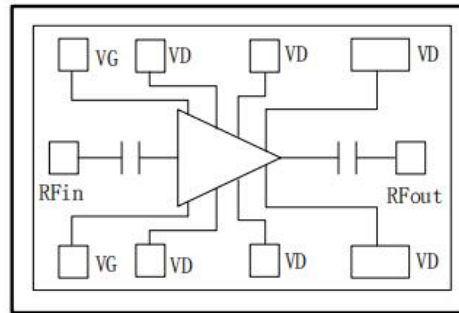


Performance

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

Function Diagram

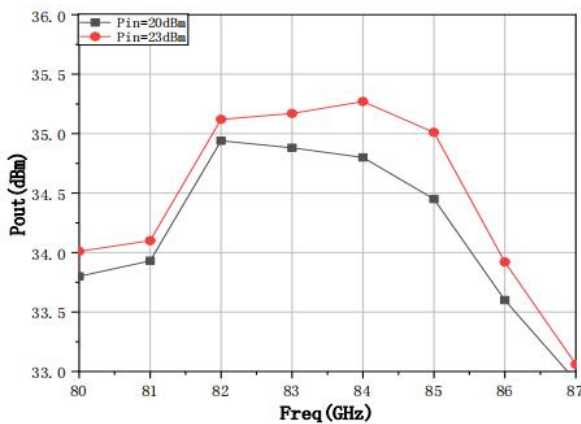


Electrical Specifications (TA=25°C, Vd=15V, Idq=600mA, F=81-86GHz, CW)

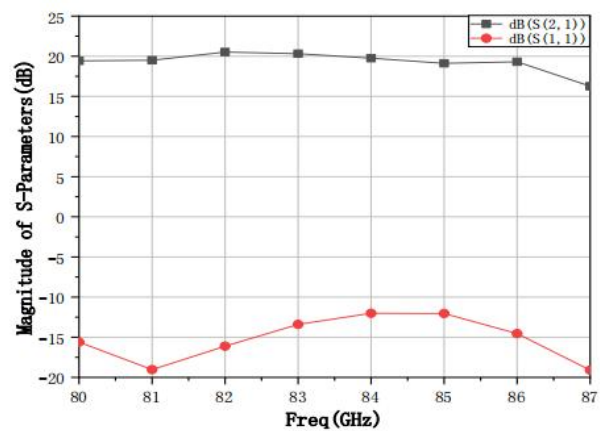
Symbol	Parameter	Min	Typical	Max	Unit
G	Small Signal Gain	-	18	-	dB
Gp	Power Gain	-	13	-	dB
Pout	Saturated Power	-	34	-	dBm
PAE	Power Added Efficiency	-	19	-	%

Test Curves

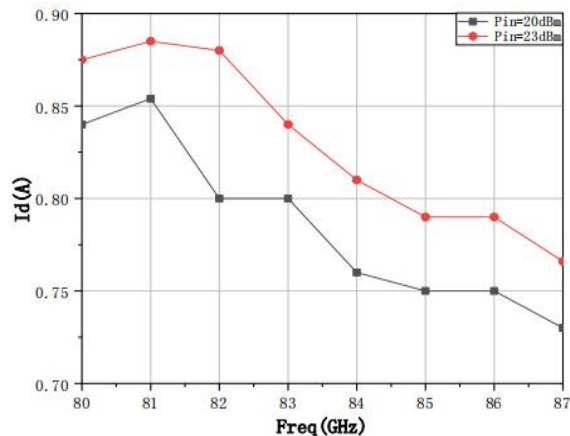
Pout@ Different Pin



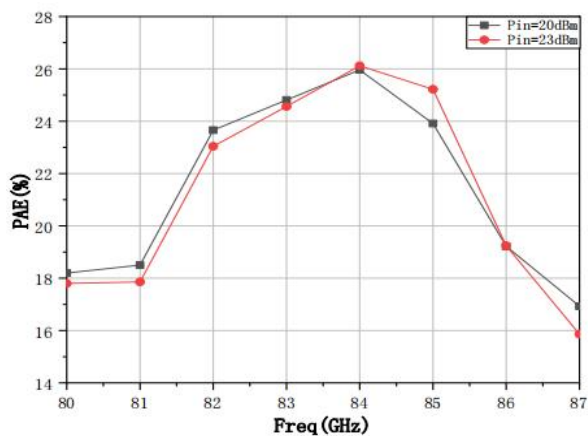
Magnitude of S-Parameters



Id@ Different Pin



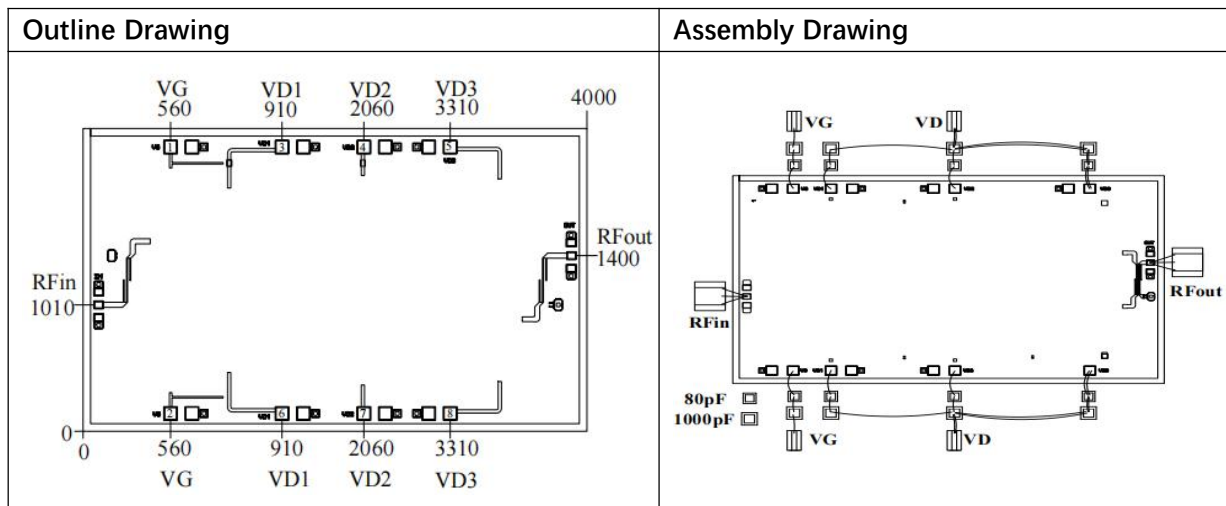
PAE@ Different Pin



Absolute Max Ratings (TA=25°C)

Symbol	Parameter	Value	Remark
Vd	Drain Voltage	24V	
Id	Drain Current	1.5A	
Pd	DC Power	30W	
Pin	Input Power	32dBm	
Tch	Channel Temperature	200°C	
Tm	Mounting Temperature	310°C	30 s, N2 Protection
Tstg	Storage Temperature	-65~150°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