

Performance

- Frequency: 8.5~9.6GHz
- Typical Output Power: 53dBm
- Typical Power Gain: 8dB
- PAE: 37%
- Bias: 21V/-2.4V@6.5A
- Technology: 0.35um GaN HEMT
- Size: 24.0*17.4*4.4mm

Function Diagram

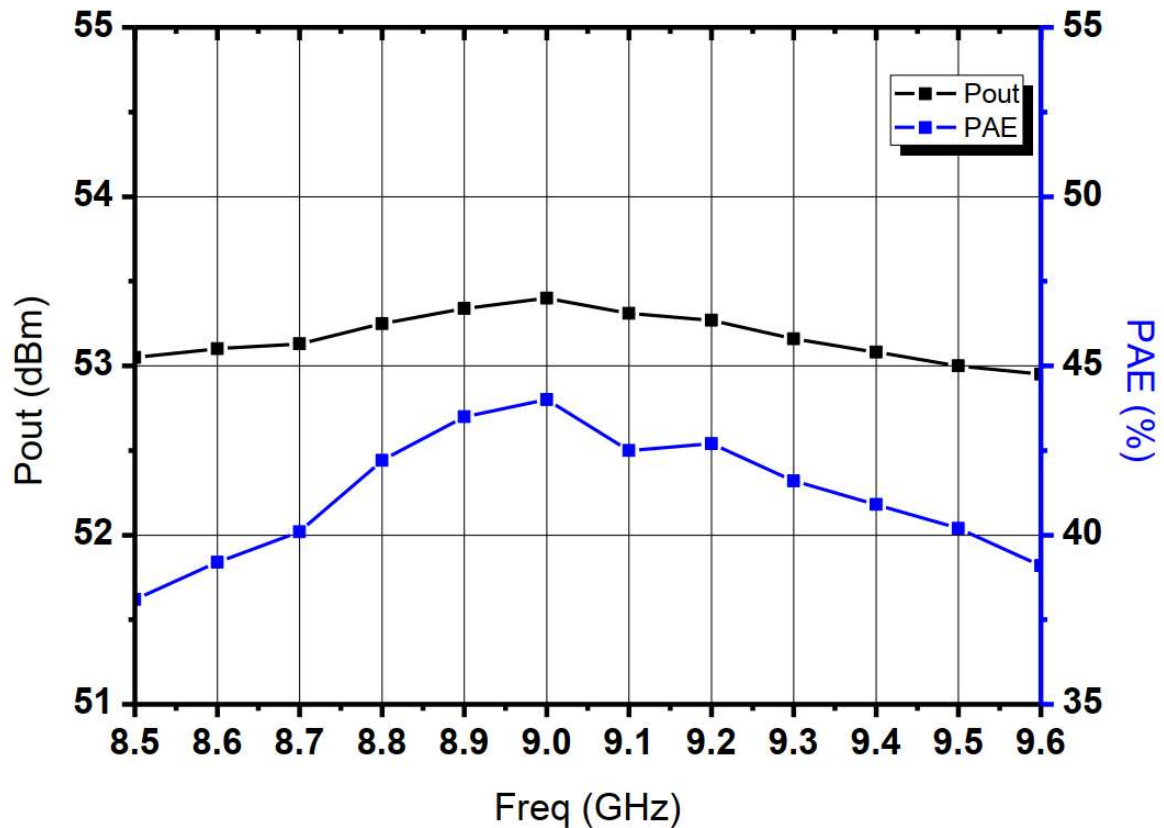


Electrical Specifications (Vd=32V, Vg=-2.4V, Id=6.5A, Freq=8.5~9.6GHz)

Symbol	Parameter	Min	Typical	Max	Unit
P _{out}	Output Power		53	-	dBm
G _p	Power Gain	-	8	-	dB
η _{add}	Power Added Efficiency	-	40	-	%
ΔG _p	Gain Flatness	-0.8	-	+0.8	dB

Test Curves (Ta=+25°C)

Output Power and PAE

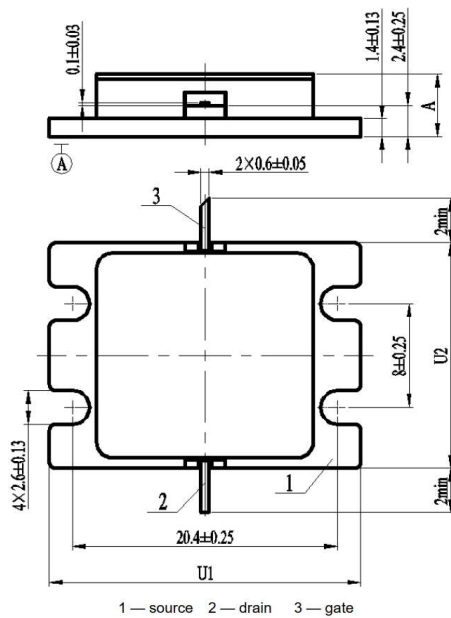


Absolute Max Ratings (T_A=25°C)

Symbol	Parameter	Value	Remark
V _{ds}	Drain Bias Voltage	80V	
V _{gs}	Gate Bias Voltage	-5V	
P _d	DC Power Consumption	400W	25°C
T _{ch}	Channel Temperature	200°C	
T _m	Sintering Temperature	300°C	1min, N ₂ protection
T _{stg}	Storage Temperature	-55~175°C	

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

Outline Size

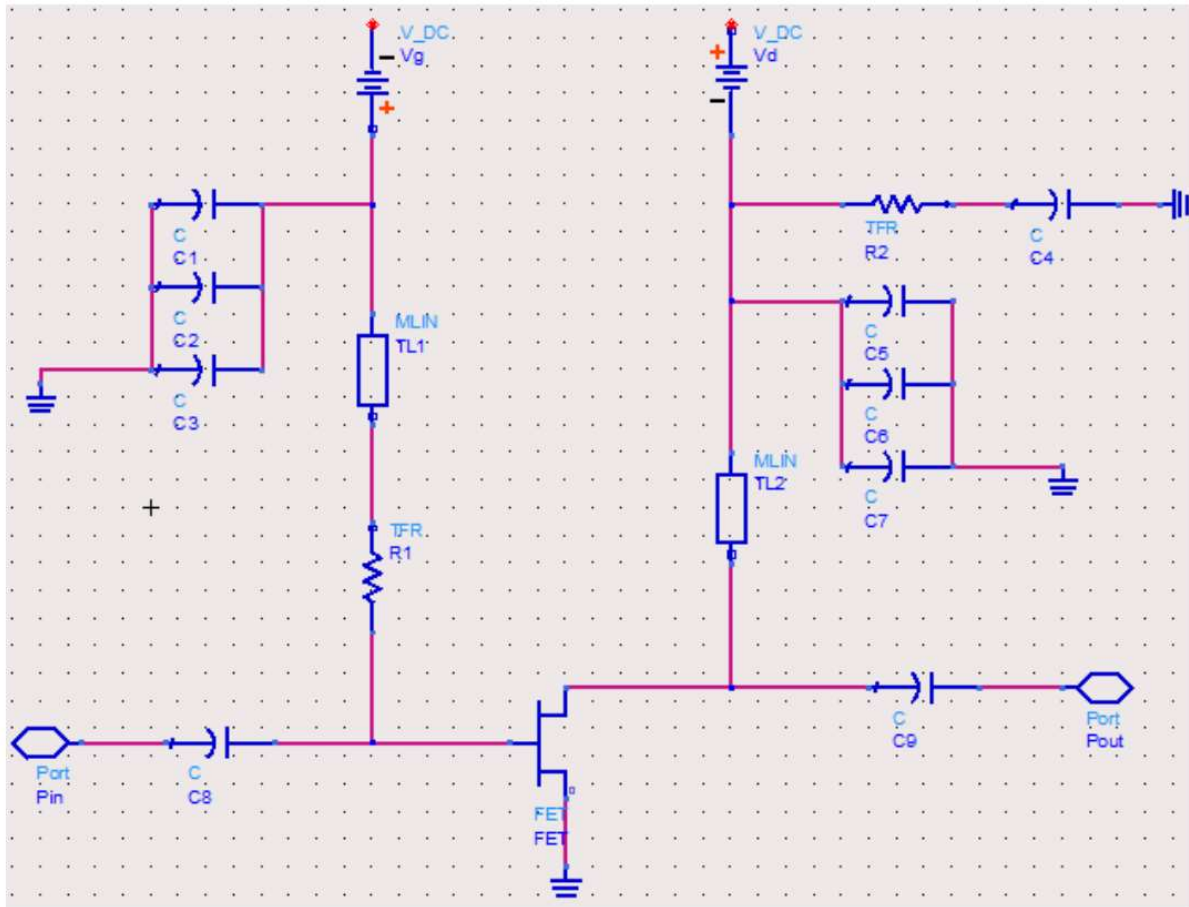


Symbol	Value (mm)		
	Min		Max
U1	23.80	-	24.20
U2	17.20	-	17.60
A	-	-	5.20

Pin Description

Pin	Description
1	Source
2	Drain Voltage
3	Gate Voltage

Application Circuit



Item	Symbol	Value	Unit
Filter capacitor	C1, C2, C4, C5, C6	1000	pF
Filter capacitor	C3, C7	100	pF
Blocking capacitor	C8, C9	20	pF
Stable resistance	R1	15	Ω
Resistance	R2	50	Ω
Microstrip line	TL1, TL2	$\lambda/4$ (λ =wavelength)	

Note:

1. NDNM01151 is an inter-matched transistor, the input and output impedance is 50ohm.
2. Bias up procedure: ①Vg, ②Vd; Bias down procedure: ①Vd, ②Vg