

Performance

- Technology: 0.35um Power GaN HEMT
- Frequency: 2.494~2.496GHz
- Typical Pout : 46dBm(CW)
- Typical Gain: 11.5dB
- Typical PAE: 55%
- Bias: 28V/-4~-2V
- Package: Metal Ceramic

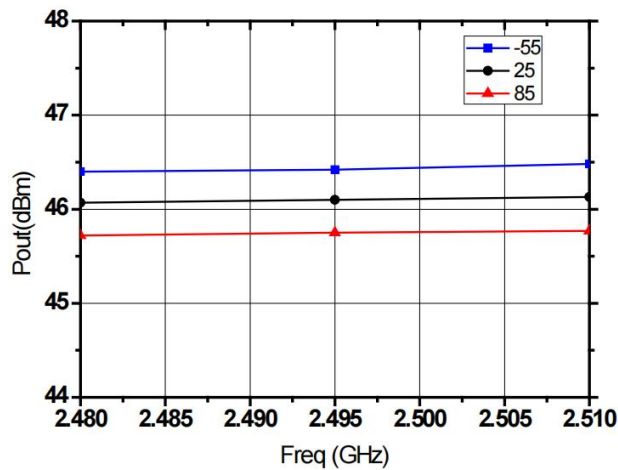


Electrical Specifications ($T_A=25^{\circ}\text{C}$, $V_d=28\text{V}$, $I_d\approx 2.4\text{A}$, $P_{in}=34.5\text{dBm}$, CW, F: 2.494~2.496GHz)

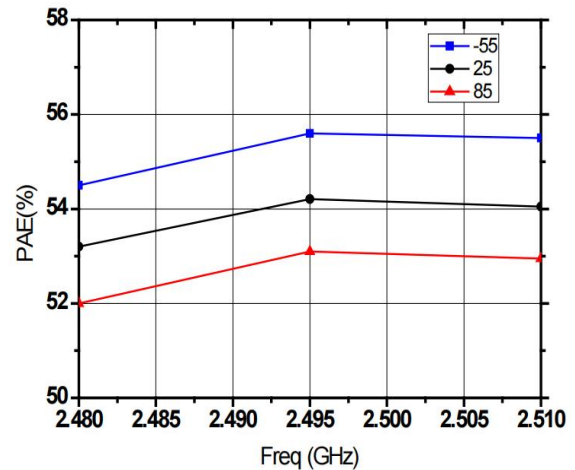
Symbol	Parameter	Min	Typical	Max	Unit
Pout	Output Power	-	46	-	dBm
Gp	Power Gain	-	11.5	-	dB
η_{add}	Power Added Efficiency	-	53	-	%
Rth	Thermal Resistance	-	-	3	$^{\circ}\text{C}/\text{W}$

Test Curves

Pout&Freq. @ Different Temp.



PAE&Freq. @ Different Temp.



Absolute Max Ratings (T_A=25°C)

Symbol	Parameter	Value	Remark
V _d	Drain Voltage	40V	
V _g	Grid Voltage	-5V	
P _d	DC Dissipation	100W	25°C
T _{ch}	Channel Temperature	200°C	【1】
T _m	Mounting Temperature	300°C	1 min, N ₂ Protection
T _{stg}	Storage Temperature	-55~150°C	

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

Outline Drawing

The drawing consists of two views: a top view (plan) and a side view (elevation).

Top View (Plan): Shows a central square die with a rounded corner of radius R . The die is mounted on a substrate. Dimensions include:

- G : Total width of the device.
- C : Thickness of the top layer.
- F : Thickness of the bottom layer.
- A : Thickness of the top layer on the right side.
- Q : Width of the top layer on the right side.
- $2\Phi P$: Diameter of the circular pad on the right side.
- bx : Width of the central die.
- by : Width of the central die.
- q : Width of the central die.
- $U1$: Total width of the device.
- $U2$: Width of the central die.
- L : Width of the central die.

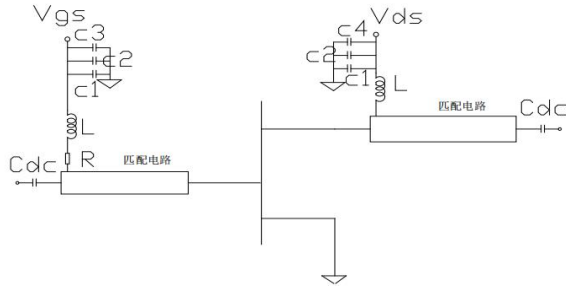
Side View (Elevation): Shows the profile of the device. Dimensions include:

- $4-R$: Radius of the top corner.
- $2\Phi P$: Diameter of the circular pad on the right side.
- bx : Width of the central die.
- by : Width of the central die.
- q : Width of the central die.
- $U1$: Total width of the device.
- $U2$: Width of the central die.
- L : Width of the central die.

Dimension Symbol

Symbol	Value (unit: mm)	
	Min.	Max.
A	—	5.50
bx	4.87	5.13
by	4.87	5.13
C	0.05	0.15
F	1.44	1.60
G	10.03	10.29
L	2.00	—
ΦP	3.17	3.43
Q	2.85	3.35
q	16.38	16.64
R	1.39	1.65
U1	22.73	22.99
U2	9.65	9.91

Application Circuit



Symbol	Value	Symbol	Value
C1	18pF	Cdc	27pF
C2	1000pF	R	20 Ω
C3	10uF	L	
C4	100uF		

Note:

- (1) Connect the circuit according to the diagram, pay attention to anti-static, and ensure good grounding and heat dissipation when using power devices;
- (2) In order to ensure the good performance of the power module, the capacity value of power filter and energy storage capacitor shall be reasonably selected according to the modulation mode during pulse operation.