

Performance

- Technology: 0.5um Power GaN HEMT
- Frequency: 2.2~2.5GHz
- Typical Pout : 59dBm
- Typical Gain: 12dB
- Typical PAE: 60%
- Bias: 48V/-3V
- Package: Metal Ceramic

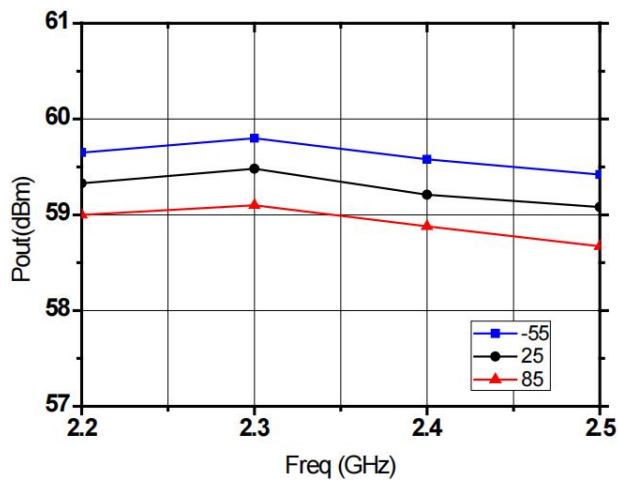


Electrical Specifications (TA=25°C, Vd=48V, PL=10us, D.C=2%, Vg= -3V, F: 2.2-2.5GHz)

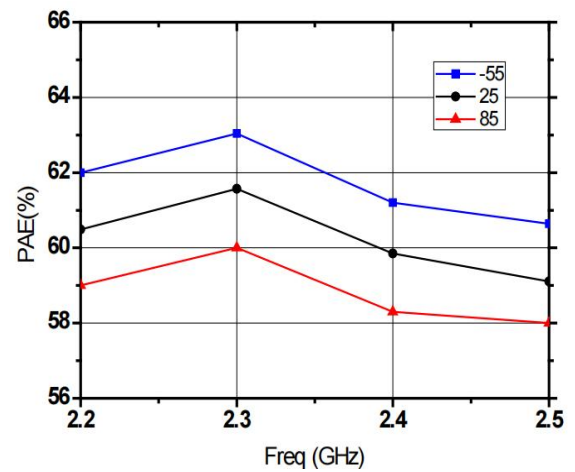
Symbol	Parameter	Min	Typical	Max	Unit
Pout	Output Power	-	59	-	dBm
Gp	Power Gain	-	12	-	dB
η_{add}	Power Added Efficiency	-	60	-	%
Rth	Thermal Resistance	-	-	0.15	°C/W

Test Curves

Pout&Freq. @ Different Temp.



PAE&Freq. @ Different Temp.



Absolute Max Ratings (TA=25°C)

Symbol	Parameter	Value	Remark
Vd	Drain Voltage	60V	
Vg	Grid Voltage	-5V	
Tch	Channel Temperature	225°C	【1】
Tm	Mounting Temperature	300°C	1 min, N2 Protection
Tstg	Storage Temperature	-55~175°C	
Tc	Operating Temperature	-55~85°C	

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

Outline Drawing	Dimension Symbol																			
The drawing includes three views of a GaN Transistor package: Top View: A square package with a central square pad labeled "PIN" and a bottom square pad labeled "PWR". The overall width is $U1$ and height is $U2$. Dimensions include 16.4_{max} for the top pad, 1.4 ± 0.13 for the top pad width, 2.4 ± 0.15 for the top pad thickness, 0.6 ± 0.1 for the top pad height, $4 \times (C2.0)$ for the top pad pattern, 2.6 ± 0.13 for the top pad width, 8 ± 0.2 for the top pad height, 2.4 ± 0.1 for the bottom pad width, 20.4 ± 0.2 for the bottom pad width, and 2.4 ± 0.1 for the bottom pad height. Side View: Shows the package profile with a total height of A. Bottom View: Shows the package profile with a total width of $U1$ and a total height of $U2$.	<table><tr><th rowspan="2">Symbol</th><th colspan="3">Value (unit: mm)</th></tr><tr><th>Min.</th><th>Typ.</th><th>Max.</th></tr><tr><td>U1</td><td>23.70</td><td>24.00</td><td>24.30</td></tr><tr><td>U2</td><td>17.20</td><td>17.40</td><td>17.60</td></tr><tr><td>A</td><td>-</td><td>4.50</td><td>6.00</td></tr></table>	Symbol	Value (unit: mm)			Min.	Typ.	Max.	U1	23.70	24.00	24.30	U2	17.20	17.40	17.60	A	-	4.50	6.00
Symbol	Value (unit: mm)																			
	Min.	Typ.	Max.																	
U1	23.70	24.00	24.30																	
U2	17.20	17.40	17.60																	
A	-	4.50	6.00																	

Application Circuit

	<table> <tr> <th>Capacitance</th><th>Value</th></tr> <tr> <td>C1、C2</td><td>20pF</td></tr> <tr> <td>C3、C6</td><td>100pF</td></tr> <tr> <td>C4、C7</td><td>1000pF</td></tr> <tr> <td>C5、C8</td><td>>10uF (Electrolytic capacitor or tantalum capacitor)</td></tr> </table>	Capacitance	Value	C1、C2	20pF	C3、C6	100pF	C4、C7	1000pF	C5、C8	>10uF (Electrolytic capacitor or tantalum capacitor)
Capacitance	Value										
C1、C2	20pF										
C3、C6	100pF										
C4、C7	1000pF										
C5、C8	>10uF (Electrolytic capacitor or tantalum capacitor)										

Note:

- (1) This product is an internal matching tube, with input and output impedance values of 50 ohms;
- (2) The power-on sequence shall be in strict accordance with the sequence of applying negative power first and then positive power. When power-off, the leakage voltage shall be reduced first and then the grid voltage shall be reduced;
- (3) This product is a high-power device. Pay attention to heat dissipation during use. The higher the shell temperature is, the shorter the service life is. The service temperature should not be higher than 80 °C;
- (4) This product is an electrostatic sensitive device. It needs to pay attention to electrostatic protection during storage and use, and it needs to be grounded well during use.