

Performance

- Technology: 0.25um Power GaN HEMT
- Frequency: 4.2~4.5GHz
- Typical Pout : 51dBm
- Typical Gain: 11dB
- Typical PAE: 55%
- Bias: 28V/@7.8A
- Package: Metal Ceramic

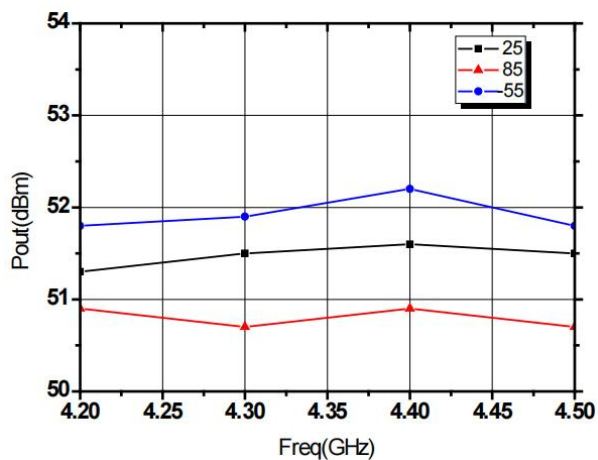


Electrical Specifications (TA=25°C, Vd=28V, Vg= -3~-2V, PL=100us, D.C=10%, F: 4.2~4.5GHz)

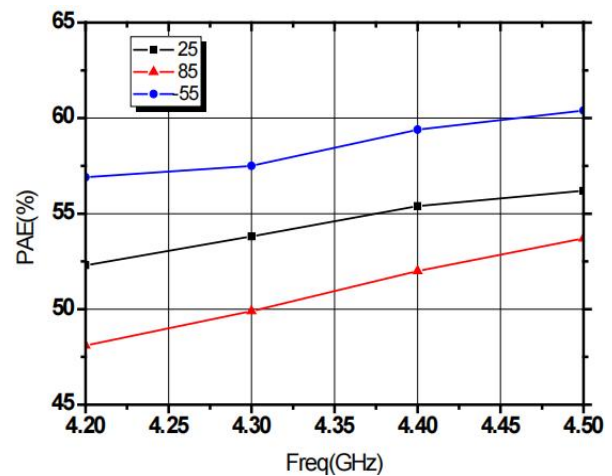
Symbol	Parameter	Min	Typical	Max	Unit
Pout	Output Power	51	51.5	-	dBm
Gp	Power Gain	11	11.5	-	dB
η_{add}	Power Added Efficiency	52	55	-	%
ΔGp	Gain Flatness	-0.5	-	+0.5	dB

Test Curves

Pout&Freq. @ Different Temp.



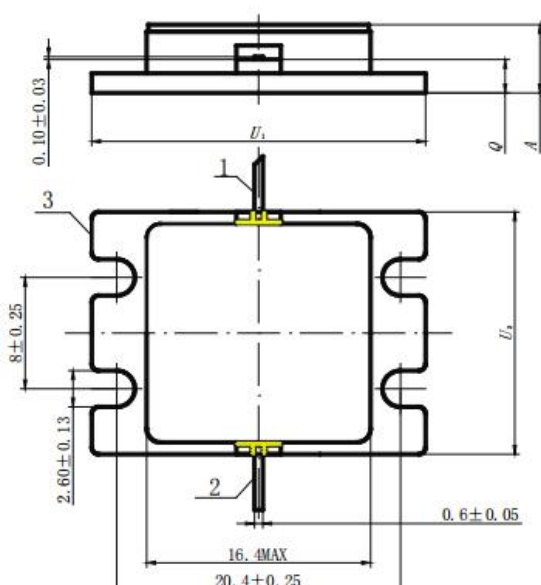
PAE&Freq. @ Different Temp.

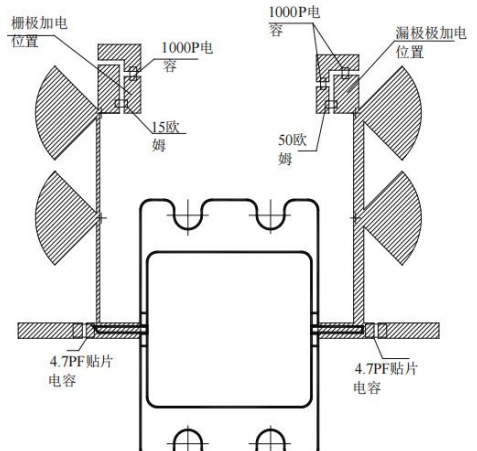


Absolute Max Ratings (TA=25°C)

Symbol	Parameter	Value	Remark
Vd	Drain Voltage	36V	
Vg	Grid Voltage	-5V	
Pd	DC Dissipation	220W	Peak Value
Tch	Channel Temperature	225°C	【1】
Tm	Mounting Temperature	300°C	1 min, N2 Protection
Tstg	Storage Temperature	-55~175°C	

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

Outline Drawing	Dimension Symbols																							
 The drawing shows a top view and a side view of the transistor. The top view is a square package with a central square area. Dimensions include: overall width 20.4 ± 0.25 mm, overall height 16.4 MAX mm, central square width 16.4 MAX mm, and a small central feature width of 0.6 ± 0.05 mm. The side view shows a height of 0.10 ± 0.03 mm for the top layer and 0.60 ± 0.13 mm for the main body. Other dimensions include 8 ± 0.25 mm, 2.60 ± 0.13 mm, and 0.10 ± 0.03 mm.	<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>23.75</td><td>24.00</td><td>24.25</td></tr><tr><td>U2</td><td>17.10</td><td>17.40</td><td>17.70</td></tr><tr><td>A</td><td>-</td><td>4.70</td><td>5.50</td></tr><tr><td>Q</td><td>2.10</td><td>2.40</td><td>2.70</td></tr></table>	Symbol	Value (unit: mm)			Min.	Typ.	Max.	U1	23.75	24.00	24.25	U2	17.10	17.40	17.70	A	-	4.70	5.50	Q	2.10	2.40	2.70
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Application Circuit	
 The diagram shows the transistor in a circuit. The gate is connected to a 15 ohm resistor and a 1000P capacitor. The drain is connected to a 50 ohm resistor and a 1000P capacitor. The source is connected to a 4.7PF capacitor. The diagram also shows the physical layout of the components on the package.	

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.