

Performance

- Technology: 0.5um Power GaN HEMT
- Frequency: 0.22~0.28GHz
- Typical Pout: 56dBm
- Typical Gain: 17dB
- Typical PAE: 75%
- Bias: 50V/-2.8V
- Package: Metal Ceramic

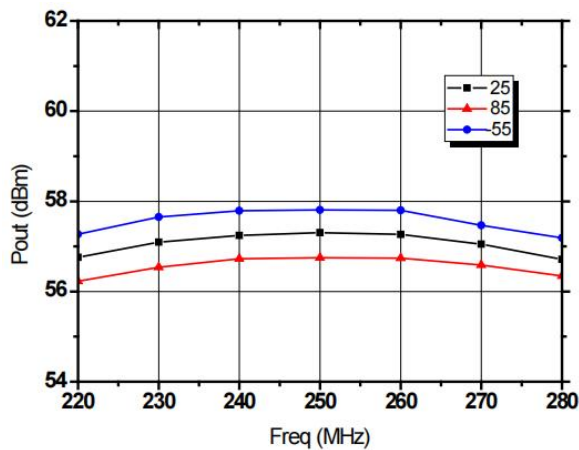


Electrical Specifications ($T_A=25^{\circ}\text{C}$, $V_d=50\text{V}$ (PL=300us, D.C=15%), $V_g=-2.8\text{V}$, $I_d \approx 1.8\text{A}$,
F: 0.22~0.28GHz)

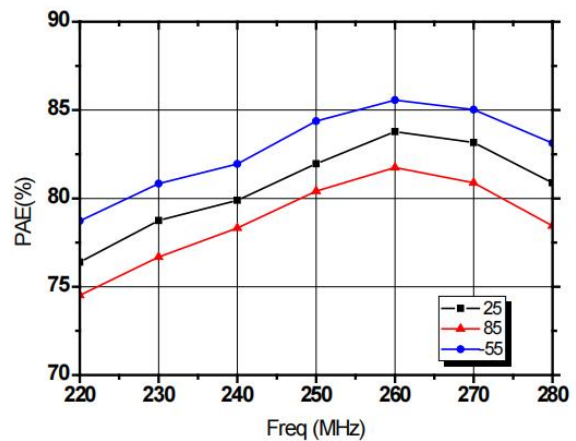
Symbol	Parameter	Min	Typical	Max	Unit
Pout	Output Power	-	56	-	dBm
Gp	Power Gain	-	17	-	dB
η_{add}	Power Added Efficiency	-	75	-	%
ΔGp	Gain Flatness	-0.6	-	+0.6	dB

Test Curves

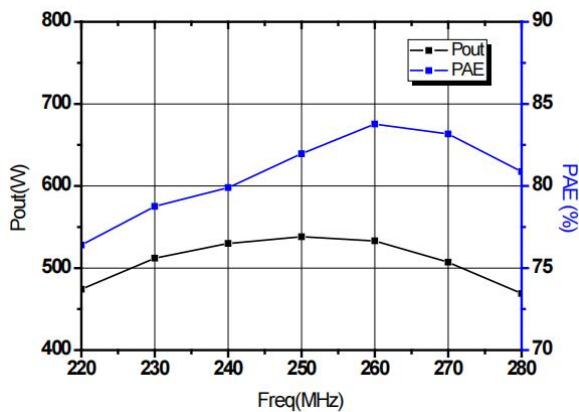
Pout&Freq. @ Different Temp.



PAE&Freq. @ Different Temp.



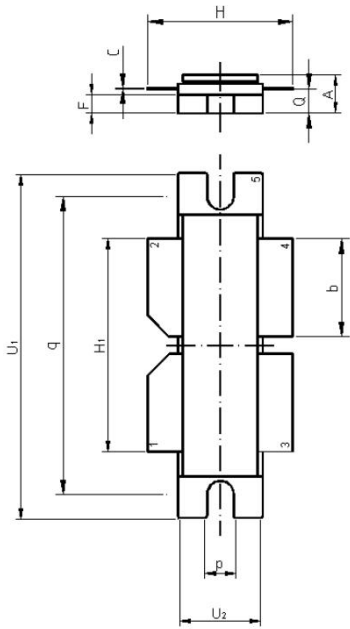
Pout, PAE&Freq.



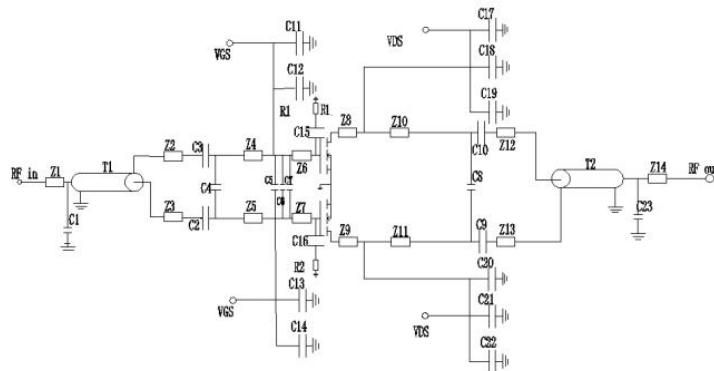
Absolute Max Ratings (T_A=25°C)

Symbol	Parameter	Value	Remark
V _d	Drain Voltage	60V	
V _g	Grid Voltage	-5V	
T _{ch}	Channel Temperature	225°C	【1】
T _m	Mounting Temperature	300°C	1 min, N ₂ Protection
T _{stg}	Storage Temperature	-55~150°C	
T _c	Operating Temperature	-55~85°C	

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

Outline Drawing	Dimension symbols																																						
	<table><tr><th rowspan="2">Symbol</th><th colspan="2">Value (unit: mm)</th></tr><tr><th>Min.</th><th>Max.</th></tr><tr><td>A</td><td>3.4</td><td>5.0</td></tr><tr><td>b</td><td>8.27</td><td>8.53</td></tr><tr><td>C</td><td>0.10</td><td>0.15</td></tr><tr><td>F</td><td>1.57</td><td>2.47</td></tr><tr><td>H</td><td>15.6</td><td>16.29</td></tr><tr><td>H1</td><td>18.57</td><td>18.83</td></tr><tr><td>P</td><td>3.13</td><td>3.39</td></tr><tr><td>Q</td><td>2.08</td><td>3.02</td></tr><tr><td>q</td><td>27.81</td><td>28.07</td></tr><tr><td>U1</td><td>33.91</td><td>34.17</td></tr><tr><td>U2</td><td>10.03</td><td>10.29</td></tr></table>	Symbol	Value (unit: mm)		Min.	Max.	A	3.4	5.0	b	8.27	8.53	C	0.10	0.15	F	1.57	2.47	H	15.6	16.29	H1	18.57	18.83	P	3.13	3.39	Q	2.08	3.02	q	27.81	28.07	U1	33.91	34.17	U2	10.03	10.29
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Application Circuit



No	Symbol	Item	Value
1	T1	25Q coax cable	90mm
2	T2	25Q coax cable	140mm
3	C1	ATC capacitor	6.2pF/100A
4	C2、C3、C9、C10、 C17 、C20	ATC capacitor	1000pF/100B
5	C4、C6	ATC capacitor	10pF/100A
6	C5、C7	ATC capacitor	24pF/100A
7	C8、C23	ATC capacitor	4.3pF/100B
8	C11、C13 、C15、C16	ATC capacitor	1000pF/100A
9	C12 、C14	ATC capacitor	100pF/100A
10	C18 、C21	ATC capacitor	100pF/100B
11	C19 、C22	ATC capacitor	10000pF/100B
12	R1、R2	ATC capacitor	12Q/1206
13	Z1	Microstrip	4mm×2mm
14	Z2, Z3	Microstrip	3mm×2.5mm
15	Z4, Z5	Microstrip	15.8mm×2.5mm
16	Z6, Z7	Microstrip	6mm×14. 1mm
17	Z8, Z9	Microstrip	10mm×13mm
18	Z10, Z11	Microstrip	10.7mm×4.8mm
19	Z12, Z13	Microstrip	4.8mm×4.8mm
20	Z14	Microstrip	10mm×2mm

Note:

- (1) This product is a pre-matched tube, and the input and output impedance values are 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.