

Performance

- Technology: 0.25um Power GaN HEMT
- Frequency: 0.8~2.0GHz
- Typical Pout : 47dBm(CW)
- Typical Gain: 10dB
- Typical PAE: 50%
- Bias: 28V/-2.8V@0.9A
- Package: Metal Ceramic

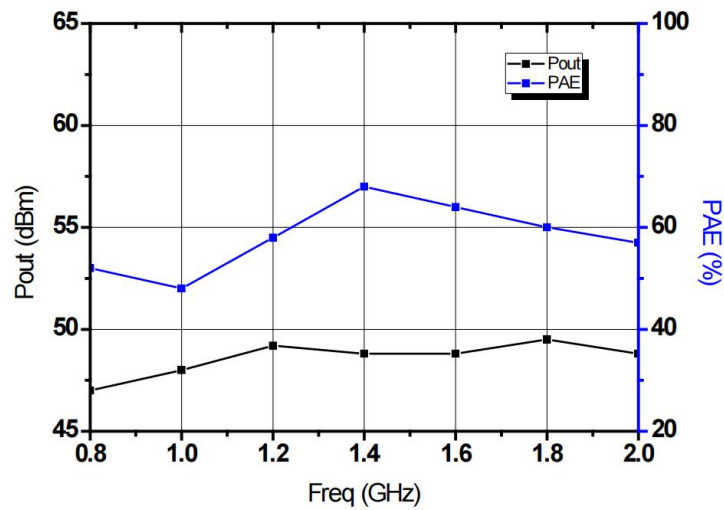


Electrical Specifications (TA=25°C,Vd=28V,Vg=-2.8V,F: 0.8~2.0GHz,CW,Id≈2.5A)

Symbol	Parameter	Min	Typical	Max	Unit
Pout	Output Power	-	47	-	dBm
Gp	Power Gain	-	10	-	dB
η_{add}	Power Added Efficiency	-	50	-	%
ΔGp	Gain Flatness	-0.7	-	+0.7	dB

Test Curves

Pout、PAE&Freq.



Absolute Max Ratings (TA=25°C)

Symbol	Parameter	Value	Remark
Vd	Drain Voltage	36V	
Vg	Grid Voltage	-2.8V	
Pd	DC Dissipation	25W	25°C
Tch	Channel Temperature	175°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	Pad Definition												
The drawing includes a side view at the top showing a base layer with a thickness of 4.4 ± 0.25 and a top layer with a thickness of 2.4 ± 0.15. The top view below shows a central square pad with a side length of 8.2. This central pad is surrounded by a larger square frame with a side length of 17.4 ± 0.15. The entire structure is mounted on a 24×24 pad with a tolerance of ± 0.20. There are six pins: pins 1, 2, and 3 are on the top edge; pins 4, 5, and 6 are on the bottom edge. The distance between the centers of the top pins is 8.2. The distance between the centers of the bottom pins is 20.4. The distance from the left edge of the central pad to the center of pin 4 is $4 \times 2.6 \pm 0.13$. The distance from the right edge of the central pad to the center of pin 6 is 8.	<table><tr><th>No</th><th>Function</th><th>No</th><th>Function</th></tr><tr><td>1、3</td><td>Vg</td><td>4、6</td><td>Vd</td></tr><tr><td>2</td><td>RFin</td><td>5</td><td>RFout</td></tr></table>	No	Function	No	Function	1、3	Vg	4、6	Vd	2	RFin	5	RFout
No	Function	No	Function										
1、3	Vg	4、6	Vd										
2	RFin	5	RFout										

Application Circuit

Symbol	Value
C1	100pF
C2	1000pF
C3	47uF
C4	100pF
C5	1000pF
C6	10uF
C7	20pF
C8	20pF

Note:

- (1) The typical packaging form is C164-2 shell package;
- (2) Connect the circuit according to the diagram, pay attention to anti-static, and ensure good grounding and heat dissipation when using power devices;
- (3) In order to ensure the good performance of the power module, the power filter and energy storage capacitor should be reasonably selected according to the modulation mode during pulse operation.

Capacitance;

- (4) Power module power-on sequence: VGS, VDS;
- (5) Power module power-off sequence: VDS, VGS.