

Performance

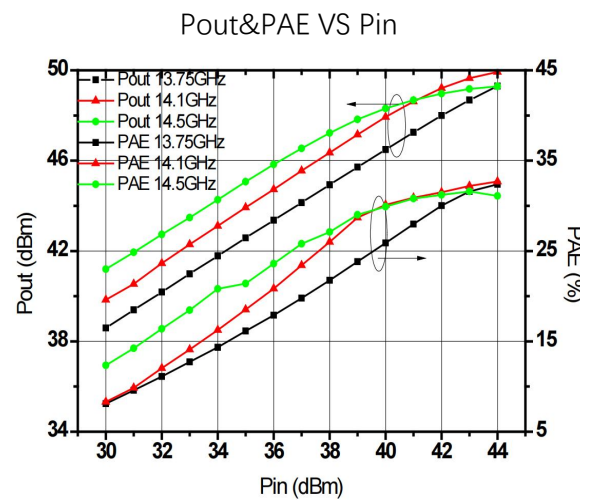
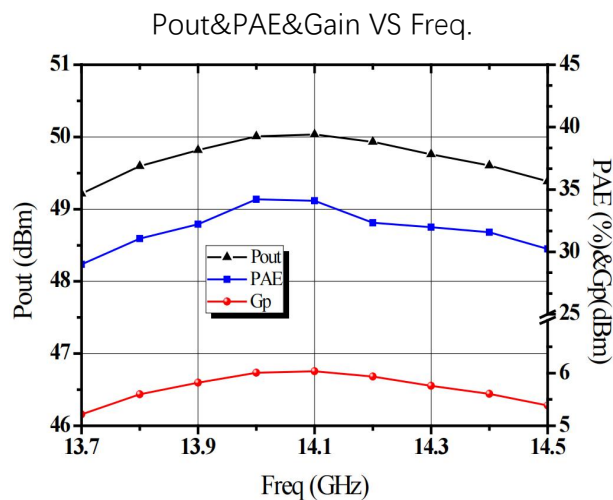
- Technology: 0.25um Power HEMT
- Frequency: 13.75~14.5GHz
- Typical Pout : 49.5dBm(CW)
- Typical Gain: 5.5dB
- Typical PAE: 30%
- Bias: 24V/-3.0V@2A
- Package: Metal Ceramic



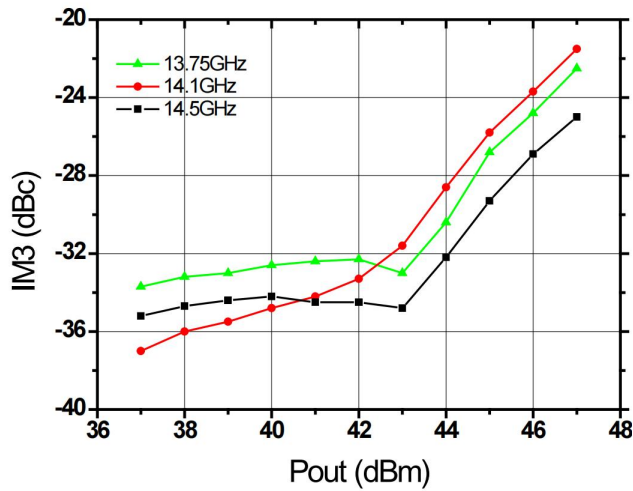
Electrical Specifications (TA=25°C,Vd=24V,Vg= -2V,Id≈3A,F: 13.75~14.5GHz,Pin=41dBm)

Symbol	Parameter	Min	Typical	Max	Unit
Pout	Output Power	-	49.5	-	dBm
Gp	Power Gain	-	5.5	-	dB
η_{add}	Power Added Efficiency	-	30	-	%
ΔGp	Gain Flatness	-0.6	-	+0.6	dB
Rth	Thermal Resistance	-	0.8	1.0	°C/W
IM3	Intermodulation				
	F:13.75GHz,14.1GHz,14.5GHz, $\Delta f=10\text{MHz}$,Two-tone test, single-tone output power fallback 6dB				
			-30	-28	dBc

Test Curves



IM3 VS Pout



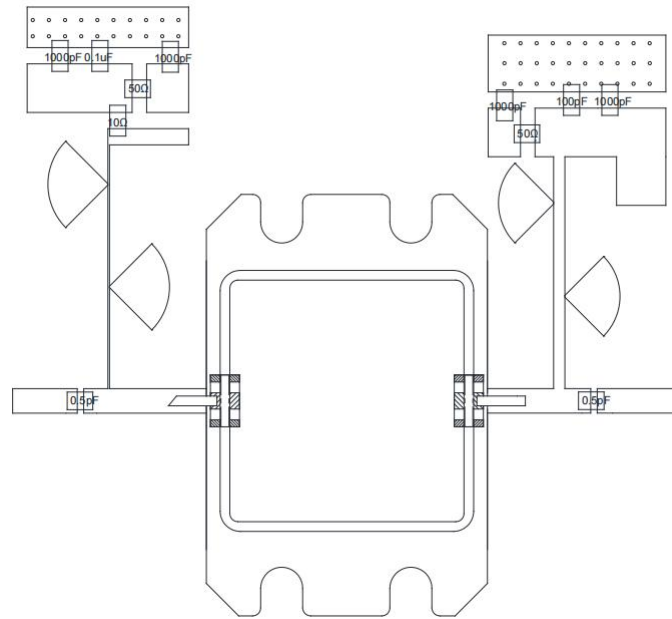
Absolute Max Ratings (TA=25°C)

Symbol	Parameter	Value	Remark
Vd	Drain Voltage	32V	
Vg	Grid Voltage	-5V	
Pd	DC Dissipation	200W	25°C
Tch	Channel Temperature	250°C	【1】
Tm	Mounting Temperature	300°C	1 min, N2 Protection
Tstg	Storage Temperature	-65~175°C	

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

Outline Drawing	Dimension Symbol																							
The drawing shows a top view and a side view of a GaN Transistor. The top view is a square with rounded corners, with dimensions A (width) and B (height). The side view shows the thickness of the device, with dimensions C (height of the base) and D (height of the package). The drawing also shows the location of the Pin and Pout pads, with dimensions 0.6, 8 ± 0.2, 20.4 ± 0.2, and 2.6.	<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>A</td><td>23.7</td><td>24.0</td><td>24.3</td></tr><tr><td>B</td><td>17.3</td><td>17.4</td><td>17.5</td></tr><tr><td>C</td><td>2.4</td><td>2.5</td><td>2.6</td></tr><tr><td>D</td><td>4.1</td><td>4.4</td><td>4.7</td></tr></table>	Symbol	Value (unit: mm)			Min.	Typ.	Max.	A	23.7	24.0	24.3	B	17.3	17.4	17.5	C	2.4	2.5	2.6	D	4.1	4.4	4.7
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Application Circuit



Note:

- (1) This product is an internal matching tube, and the input and output impedance values are both 50 ohms;
- (2) Please strictly follow the order of adding negative electricity first and then positive electricity in the power-on sequence. When de-energizing, first reduce the drain voltage and then reduce the gate voltage;
- (3) This product is a high-power device, and attention should be paid to heat dissipation during use. The higher the shell temperature, the shorter the service life;
- (4) This product is an electrostatic sensitive device. It is necessary to pay attention to electrostatic protection during storage and use, and it needs to be well grounded when using it.