

Performance

- Technology: 0.5um Power GaN HEMT
- Frequency: 1.8~2.1GHz
- Typical Pout : 59dBm
- Typical Gain: 12dB
- Typical PAE: 60%
- Bias: 48V/-3V
- Package: Metal Ceramic

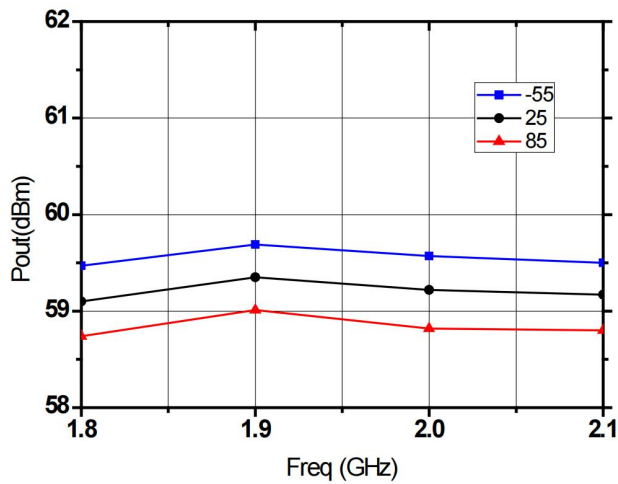


Electrical Specifications ($T_A=25^{\circ}\text{C}$, $V_d=48\text{V}$, $PL=10\mu\text{s}$, $D.C=2\%$, $V_g=-3\text{V}$, $F: 1.8-2.1\text{GHz}$)

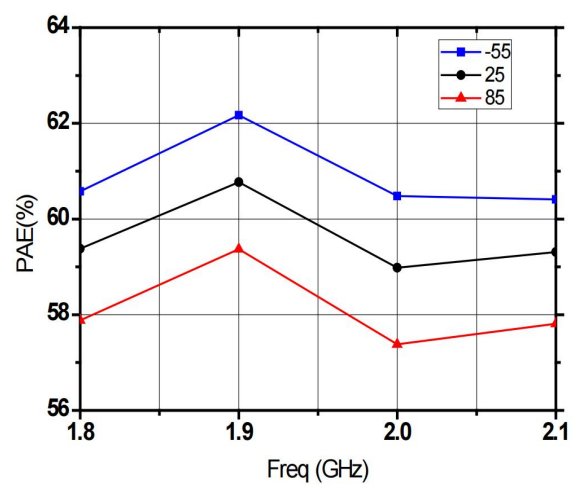
Symbol	Parameter	Min	Typical	Max	Unit
Pout	Output Power	-	59	-	dBm
Gp	Power Gain	-	12	-	dB
η_{add}	Power Added Efficiency	-	60	-	%
Rth	Thermal Resistance	-	-	0.15	$^{\circ}\text{C/W}$

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 the GaN Transistor: Top View: Shows a square package with dimensions: 16.4max (width), 1.4±0.13 (height), 2.4±0.15 (height), 0.6±0.1 (height), 4×C2.0 (corner radius), 2.6±0.13 (height), 8±0.2 (height), 2.4±0.1 (height), 20.4±0.2 (width), U1 (width), and U2 (height). Side View: Shows the profile of the package with dimensions: 1.4±0.13 (height), 2.4±0.15 (height), and A (height). Front View: Shows the package with dimensions: 1, 2, and 3.	<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
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Application Circuit											
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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.