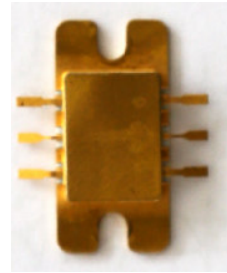


2-8 GHz GaN Power Amplifier Module

► Features

- Technical Type: 0.25um GaN HEMT
- Frequency: 2~8GHz
- Typical Small Signal Gain: 25dB
- Typical Output Power: 43.5dBm@V_d=28V
- Typical PAE: 30%
- Bias Voltage: 28V, -1.8V(Typical)
- Hermetic Metal Ceramic Package



► General Description

2~8GHz high performance power amplifier MMIC, it uses 0.25um GaN HEMT Technology. The MMIC is grounded by the metal of the back side through via hole on the chip. All chips are 100% tested. It uses dural power supply, the drain voltage V_d is 28V, it can provide 44dBm output power at 2~8GHz. This MMIC is ideal for TR module and wireless communication.

► Absolute Maximum Ratings¹

Symbol	Parameter	Value	Remark
V _{ds}	Drain Voltage	32V	
T _{ch}	Channel Temperature	225°C	°C
T _{stg}	Storage Temperature	-55~125°C	°C
T _c	Operating Temperature	220°C	°C
ESD	ESD Sensitivity	Class A	

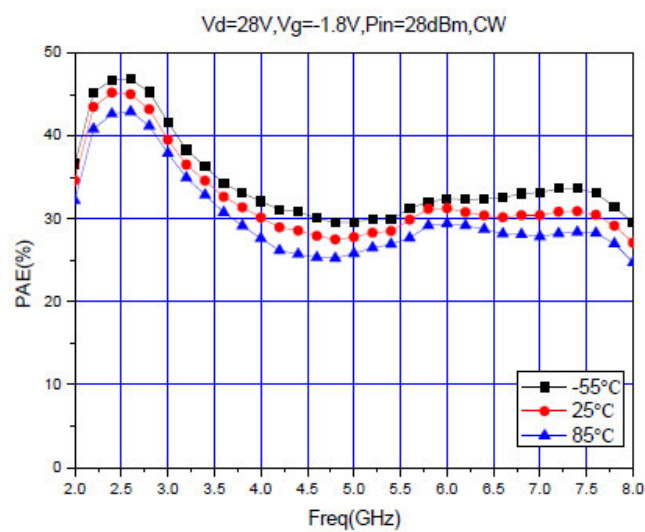
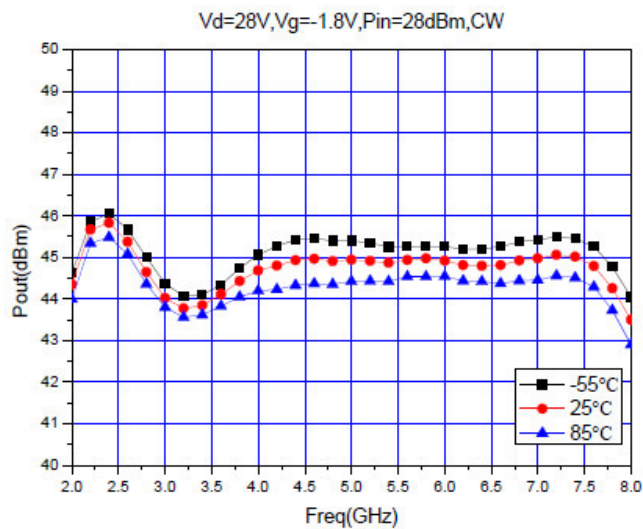
1. Exceeding any one or combination of these limits may cause permanent damage

2-8 GHz GaN Power Amplifier Module

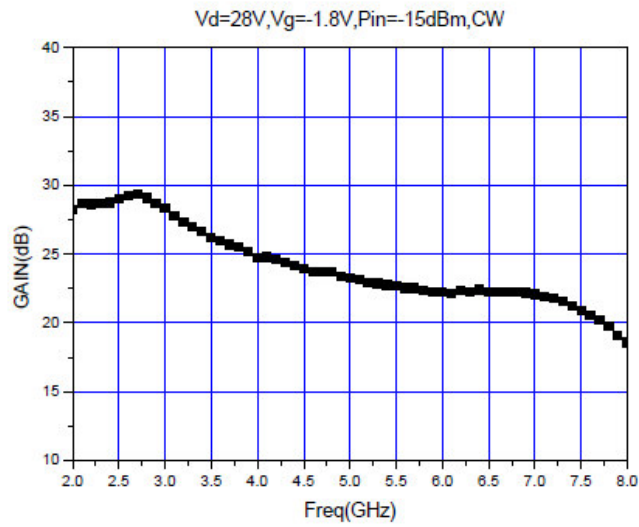
► *Electrical Characteristics*($T_a=25\text{ }^\circ\text{C}$)

Symbol	Parameter	Test Condition	Value			Unit
			Min.	Typ.	Max.	
G	Small Signal Gain	Vd: 28V, Vg=-1.8V Freq: 2~8GHz Idq = 2.5A Pin = 28dBm	-	25	-	dB
G_p	Power Gain		-	16	-	dB
P_{sat}	Saturated Power		-	43.5	-	dBm
PAE	Power Added Efficiency		-	30	-	%

► *Typical Performance*

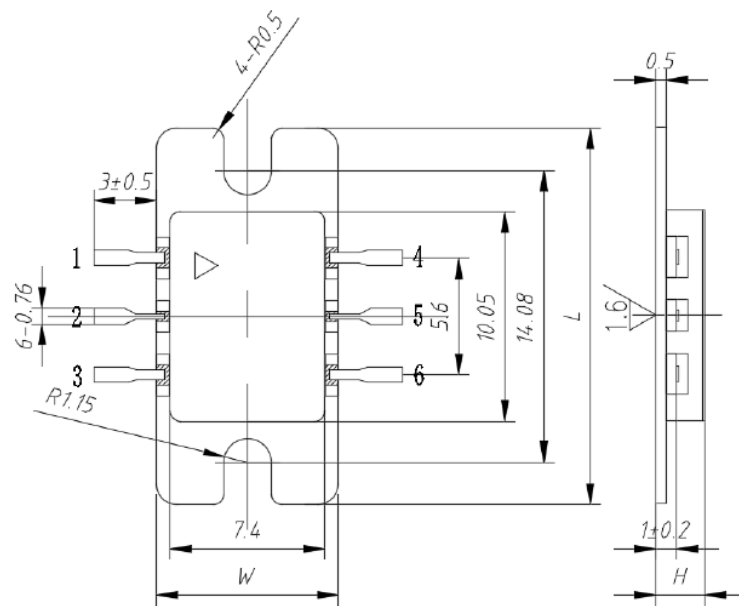


2-8 GHz GaN Power Amplifier Module



► Outline Drawing (mm)

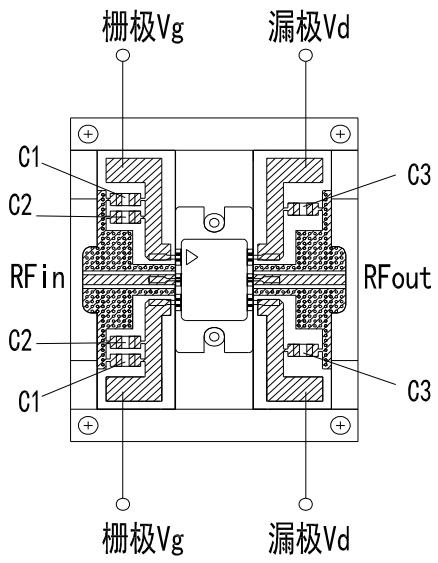
Symbol	Value (Unit:mm)		
	Min	Typical	Max
H	2.16	2.34	2.52
L	17.83	18.03	18.23
W	8.50	8.70	8.90



No.	PIN Definition	No.	PIN Definition
1	V _G	4	V _D
2	RF _{in}	5	RF _{out}
3	V _G	6	V _D

2-8 GHz GaN Power Amplifier Module

► *Recommend Outline Circuit*



<i>Symbol</i>	<i>Definition</i>
<i>C1</i>	<i>10uF</i>
<i>C2</i>	<i>1uF</i>
<i>C3</i>	<i>1000pF</i>