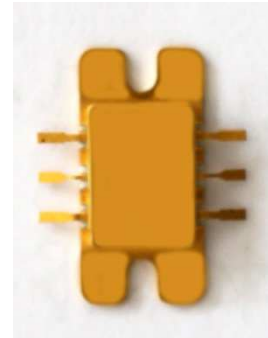


# NDNM02009

## 8-12GHz GaN power amplifier module

### ► Features

- Frequency range:8-12GHz
- Saturated Output Power: 44dBm
- Saturated Power Gain: 21dB
- PAE: 35 %
- Bias Voltage: 28 V/-2.5 V
- Dimensions:18.03 mm×8.7 mm×2.5 mm



### ► General Description

The NDNM02009 is a broadband high power amplifier module designed using GaN PHEMT process. This amplifier provides 21dB of gain and 44dBm of saturated power by 28V drain supply. The NDNC02009 is an ideal chip for T/R Module, wireless communication and so on.

### ► Absolute Maximum Ratings

Symbol	Parameter	Value	Notes
Vd	Drain Bias Voltage	32V	
Id	Drain Bias Current	3A	
Vg	Gate Bias Voltage	-5V	
Ig	Gate Bias Current	50mA	
Pd	DC Power	100W	25°C
Pin	Input Power	25dBm	
Tch	Channel Temperature	175°C	[1]
Tm	Mounting Temperature	300°C	1min, N <sub>2</sub> protection
Tstg	Storage Temperature	-55~175°C	

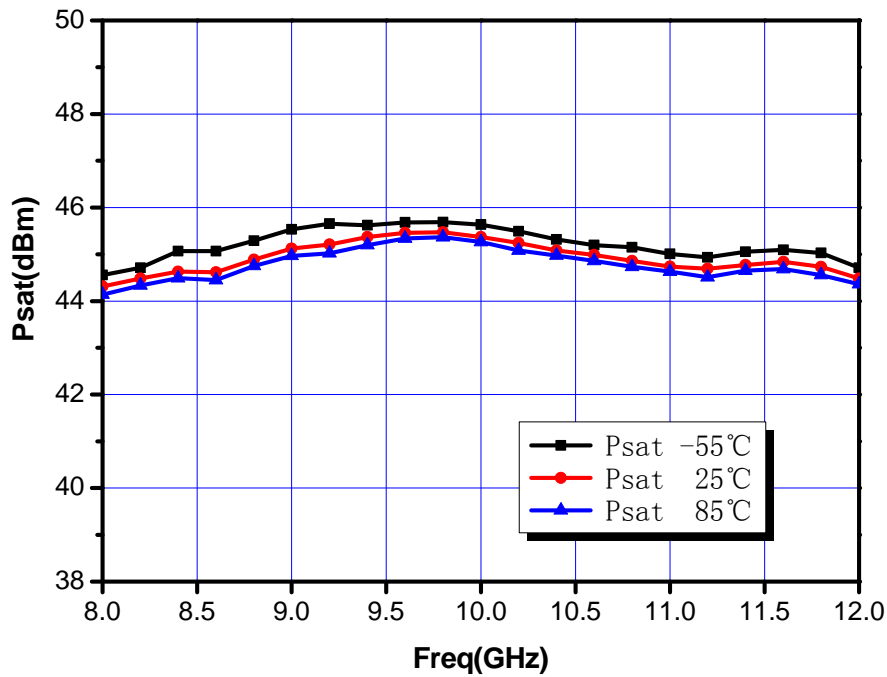
Any of the stresses above the listed ratings may cause permanent damage.

► **Specifications** ( $T_A=25^\circ\text{C}$ )

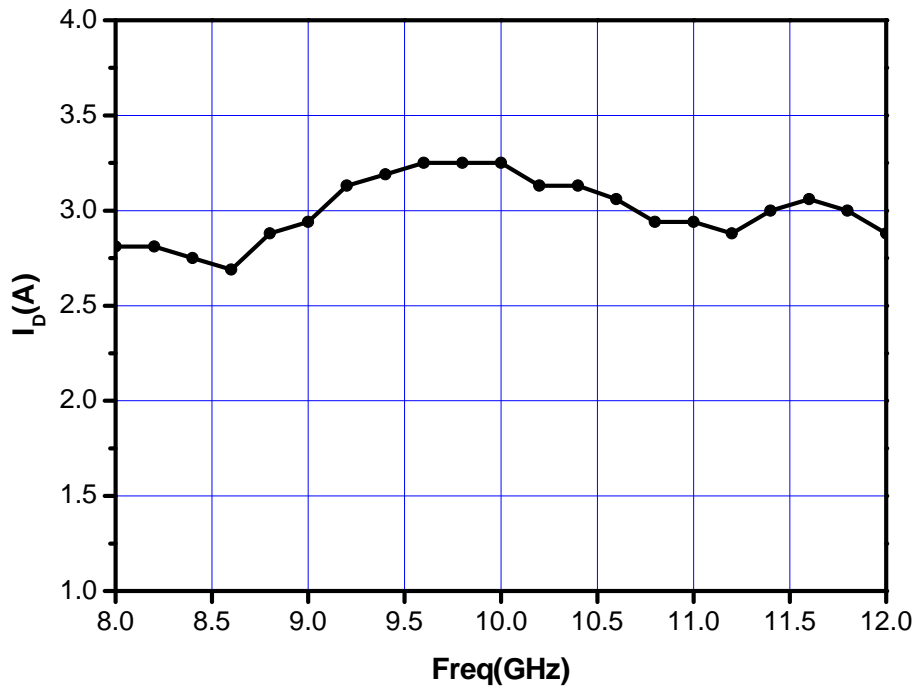
Symbol	Parameter	Conditions	Value			Units
			Min	Typical	Max	
Pout	Saturated Power	Vd=28V, Vg=-2.5V, Freq: 8-12GHz Pin=23dBm		44		dBm
Gp	Power Gain			21		dB
$\eta_{add}$	PAE			35		%

► **Performance vs. Temperature**

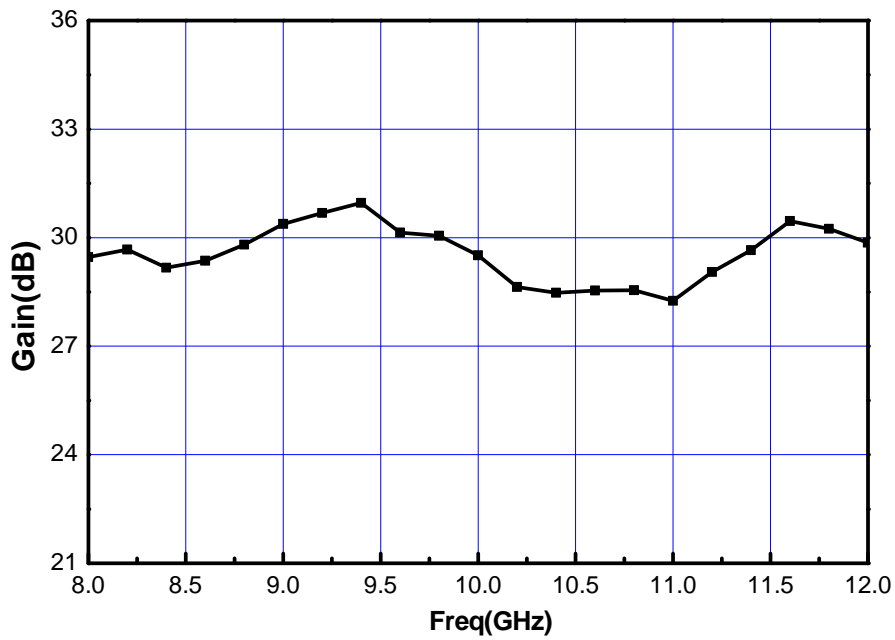
**Saturated Output Power**



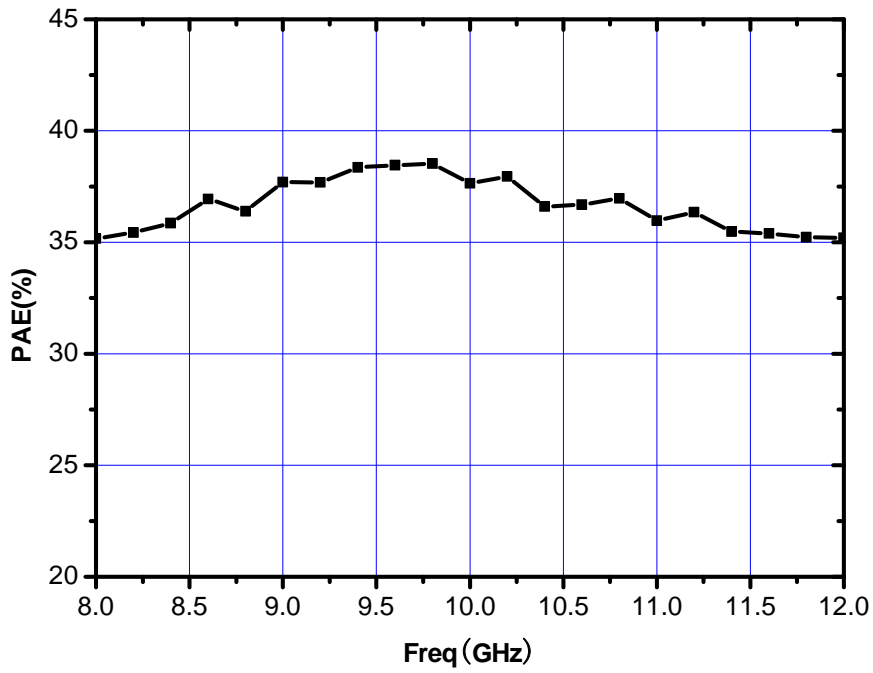
Drain Current



Linear Gain



Power Added Efficiency



► Outline Drawing (Units: um)

