

NDNM02001

0.8-2GHz GaN Power Amplifier Module

► Features

- Frequency range: 0.8-2 GHz
- Output power: 40dBm
- Power Gain: 26dB
- Power added efficiency:35%
- VSWRin: 2
- Bias: 28V/-2.3V
- Package: metal-ceramic
- Dimensions: 21mm×13mm×5.5mm

► General Description

The NDNM02001 is a high gain amplifier module designed using 0.25um GaN HEMT process. The amplifier module operates from 0.8 to 2GHz and typically provides 26dB of gain, 40dBm of saturated power and 35% of PAE by drain source voltage of 28V and gate source voltage of -2.3V. The NDNM02001 is ideally suited for many applications including communication systems, RADARs and electronic warfare.

► Absolute Maximum Ratings

Symbol	Parameter	Value	Notes
Vds	Drain source Voltage	+32V	
Vgs	gate source Voltage	-5V	
Tch	Channel Temperature	225 °C	
Pd	DC power	40W	
Pin	input power	18dBm	
Tm	Mounting Temperature	300 °C	1min, N ₂ Protecting
Tstg	Storage Temperature	-55~85 °C	

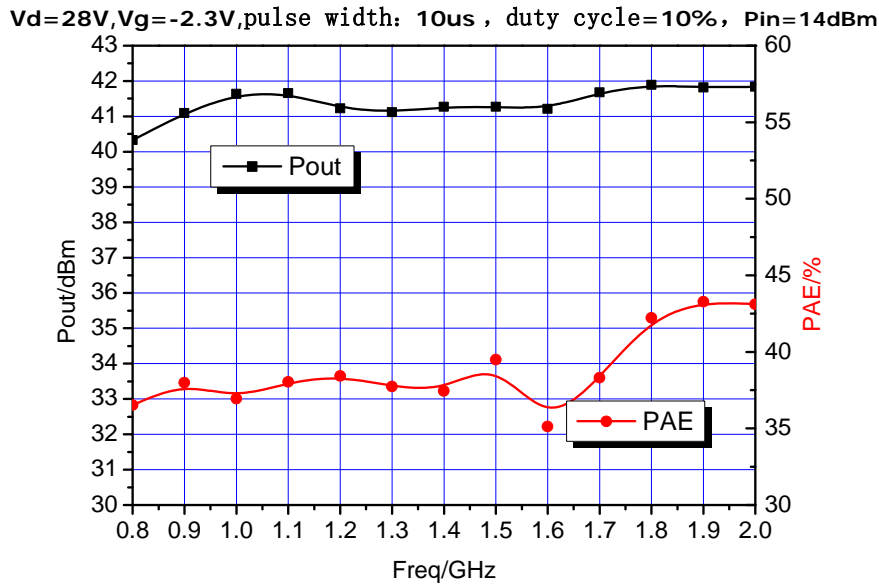
Any of the stresses above the listed ratings may cause permanent damage.

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

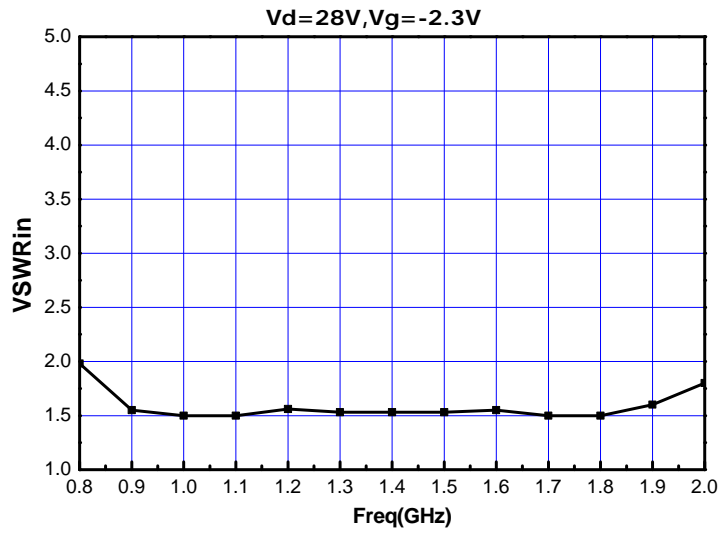
Symbol	Parameter	Conditions	Value			Units
			Min	Typical	Max	
Pout	Saturated Power	F=0.8-2GHz		40		dBm
Gp	Power Gain	Vd=28V, (pulse width: 300us , duty cycle=30%) Vg=-2.3V,		26		dB
η_{add}	PAE	Pin=14dBm		35		%

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

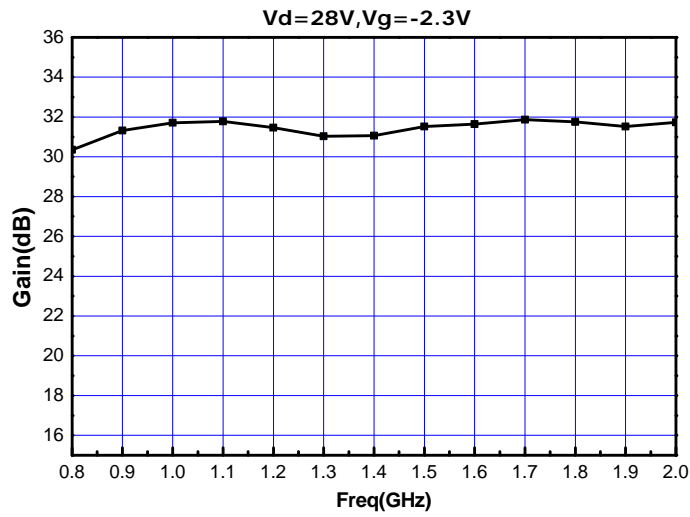
Saturated Output Power and PAE



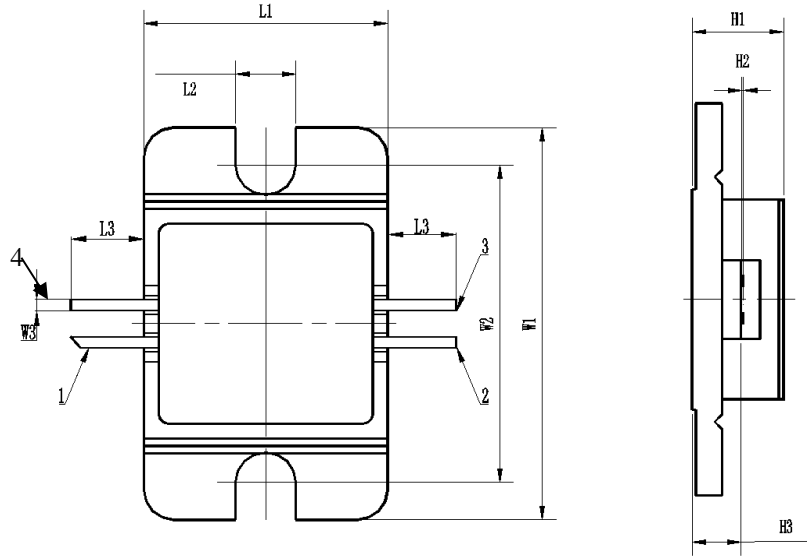
VSWR



Linear Gain



► Outline Drawing (Units: mm)



1—RF input 2—RF output 3— Drain power supply 4- gate power supply

Symbol	Value	
	Min	Max
L1	13.0	13.2
L2	3.2	3.4
L3	2.0	-
W1	21.0	21.3
W2	17.0	17.3
W3	0.6	0.8
H1	4.6	5.5
H2	0.10	0.13
H3	2.6	2.9