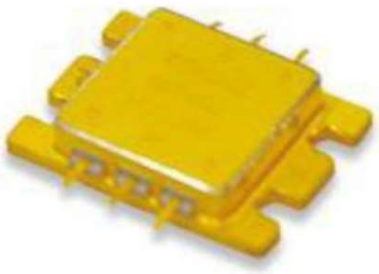
Performance

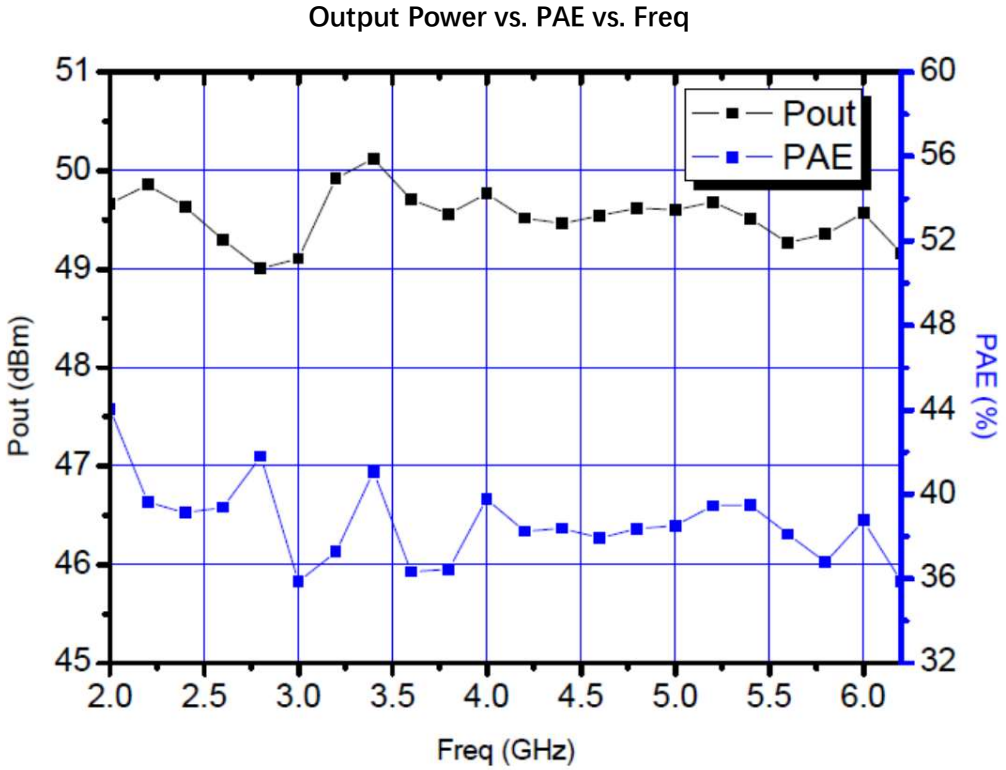
- Process: 0.25um GaN HEMT Technology
  Frequency: 2~6.2GHz
- Typical Power Gain: 8dB
- Typical Output Power: 49dBm (CW)
- Typical PAE: 38%
- Bias Voltage: 28V/-2.0V
- Package: Metal Ceramic Package



Electrical Specifications (Ta=+25℃, 50Ω system)

Symbol	Parameter	Test Condition	Min	Typical	Max	Unit
Pout	Output Power	Vd=28V, Vg=-2.0V Freq: 2~6.2GHz Pin=41dB	49	-	-	dBm
Gp	Power Gain		-	8	-	dB
PAE	Power Added Efficiency		-	38	-	%
△Gp	Gain Flatness		-1.2	-	+1.2	dB

Test Curves (Ta=+25℃)

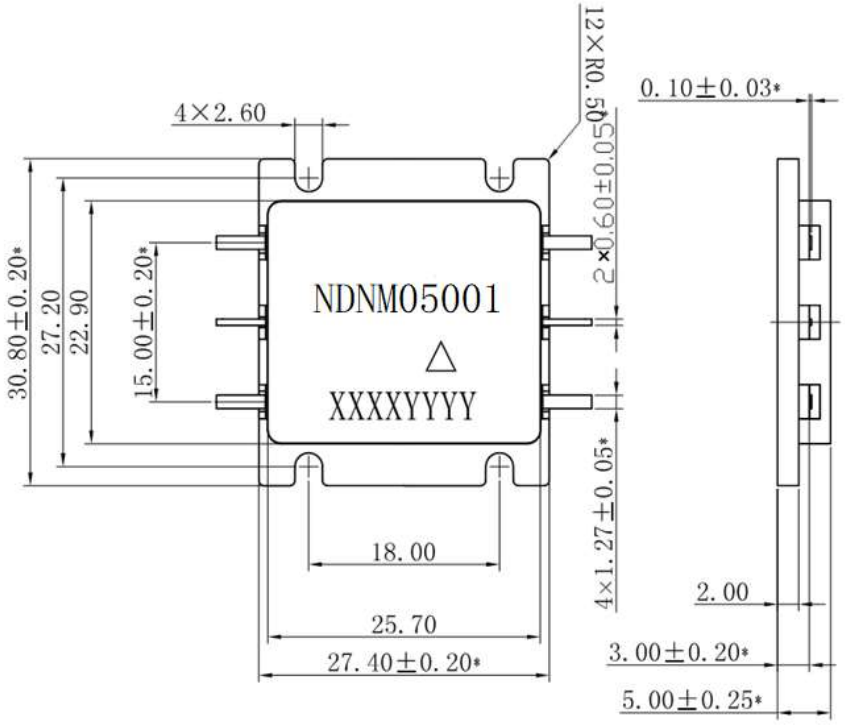


Absolute Max Ratings (T_A=25℃)

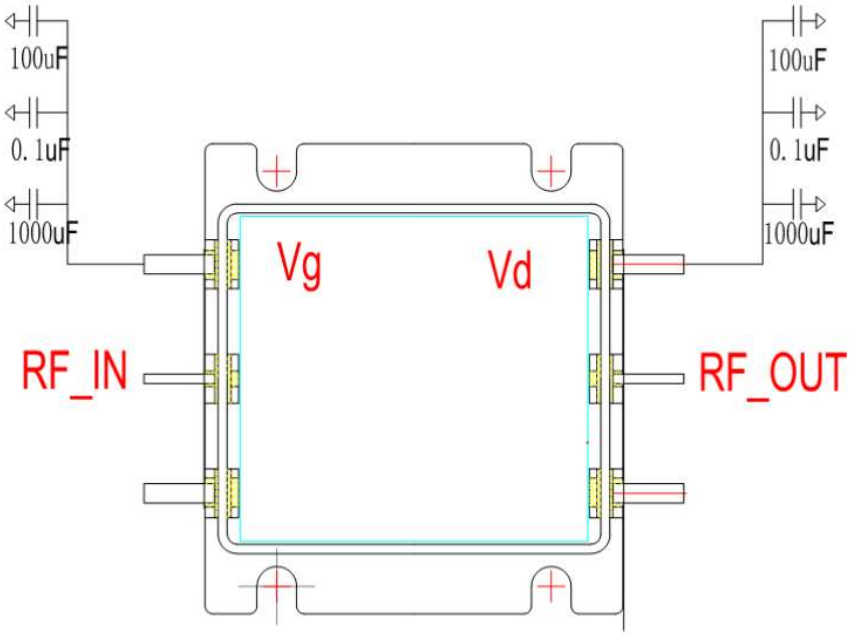
Symbol	Parameter	Value	Remark
Vds	Drain Bias Voltage	40V	
Vgs	Gate Bias Voltage	-5V	
Pd	DC Power Consumption	250W	25℃
Tch	Channel Temperature	225℃	
Tm	Mounting Temperature	300℃	1min, N_2 protection
Tstg	Storage Temperature	-55~175℃	

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

Outline Drawing



Application Circuits



Bill of Material

Item	Symbol	Value	Unit
Filter capacitor	C1, C2, C4, C5, C6	1000	pF
Filter capacitor	C3, C7	100	pF
Blocking capacitor	C8, C9	20	pF
Stable resistance	R1	15	Ω
Resistance	R2	50	Ω
Micro-strip line	TL1, TL2	λ/4 (λ=wavelength)	-

Note:

1. NDNM05001 is an inter-matched transistor, the input and output impedance is 50 ohm.
2. Bias up procedure: ①Vg, ②Vd
3. Bias down procedure: ①Vd, ②Vg
4. NDNM05001 is a high power Transistor, please make sure good radiation during operation.
5. ESD-Sensitive Device
6. Input VSWR is very high, it is recommended to use a isolator at input port.