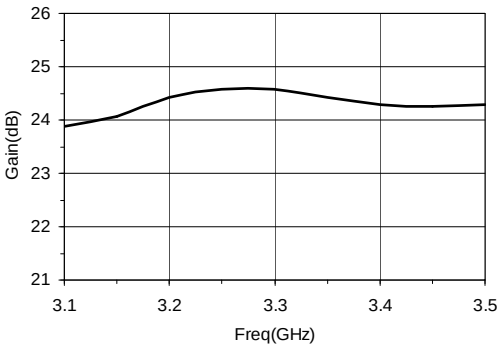
NC11624C-3135P64
GaN MMIC Power Amplifier, 3.1GHz-3.5GHz

Features

- Frequency：3.1GHz～3.5GHz
- Power Gain：24dB
- Psat：48dBm
- P.A.E.：45%
- +28V@2.1A (quiescent peak current)
- Chip Size：3.95mm×4.59mm×0.1mm

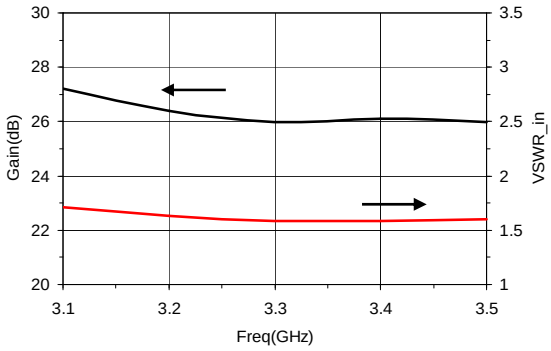
Power Gain VS Frequency



Electrical Specification (TA=+25℃, Vg=-2.2V, Vd=+28V)

Parameter	Min.	Typ.	Max.	Unit
Frequency		3.1～3.5		GHz
Psat		48		dBm
Power Gain		24		dB
Gain Flatness			±0.3	dB
P.A.E.		45		%
VSWRin			2.8	-
Operating Current			5.5	A

Linear Gain/VSWRin vs. Frequency



Note：1）All chips have been on-chip 100% DC and RF tested.

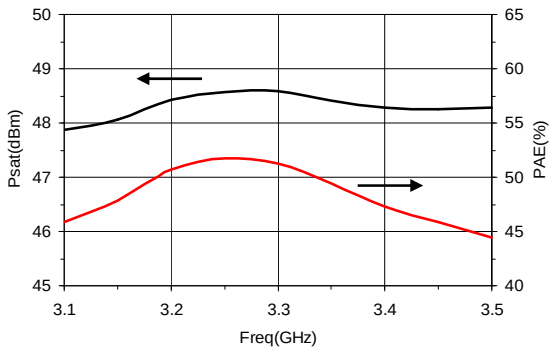
2) Test Condition：Vd=+28V（1ms，30% duty cycle）；Vg=-2.2V，P_{in}=24dBm

Limited Rating Values

Vds	+32V
Vgs	-5V
Input CW Power	+25dBm
Channel Temperature	+175℃
Storage Temperature	-65℃～+150℃

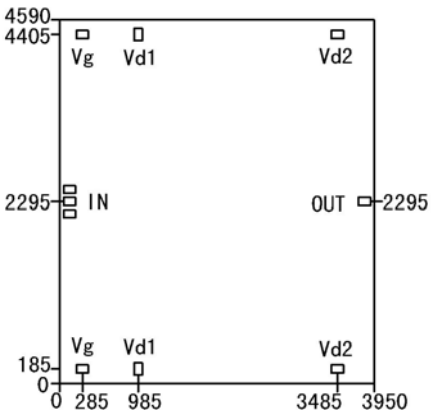
Typical Testing Curves

Output Psat/Efficiency VS Frequency



Dimensions and Outline

NC11624C-3135P64 outline



Note：The unit is um .

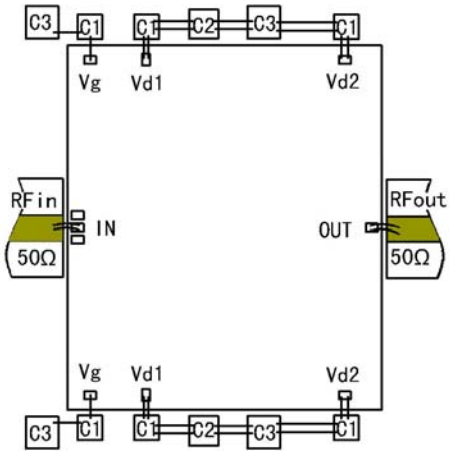
Dimension of input/output pad：150×100μm^2,

Dimension of bias pad Vg：150×100μm^2,

Dimension of bias pad Vd1：100×150μm^2,

Dimension of bias pad Vd1：150×100μm^2.

Assembly Diagram



Note：External capacitor C1=100pF, C2=1000pF，
C3=10000pF.

Attention

1） Bonding with 80/20 Au/Sn. The temperature should be lower than 300℃ and the time should be less than 30 seconds.
2） Gold wires (diameter: 25μm～30μm) are suggested to be used. The temperature of bonding platform should not exceed 250℃
3） Blocking capacitors in Input/Output are already integrated.
4） Antistatic protection should be taken.