NC11610-206P20
GaN MMIC MMIC Power Amplifier, 2GHz-6GHz

Features：

- Frequency：2GHz～6GHz
- Power Gain：25dB
- Psat：43dBm
- P.A.E.：30%
- +24V@2.2A(Quiescent)
- Chip size：3.86mm×5.16mm×0.1mm

Electrical Specification (TA=+25℃, Vg=-2.2V, Vd=+24V)

Parameter	Min.	Typ.	Max.	Unit
Frequency		2.0-6.0		GHz
Psat		43.5		dBm
Power Gain		25		dB
Gain Flatness			±0.75	dB
P.A.E.		30		%
VSWRin			2.8	-
Operating Current			4	A

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

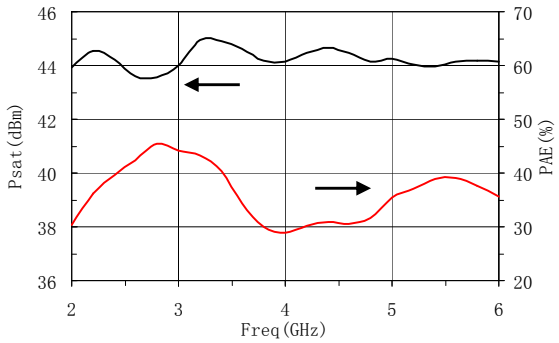
2) Test condition：Vd=+24V；Vg=-2.2V，pulse width 100μs, duty cycle 10%，P_{in}=18dBm

Limited Rating Values

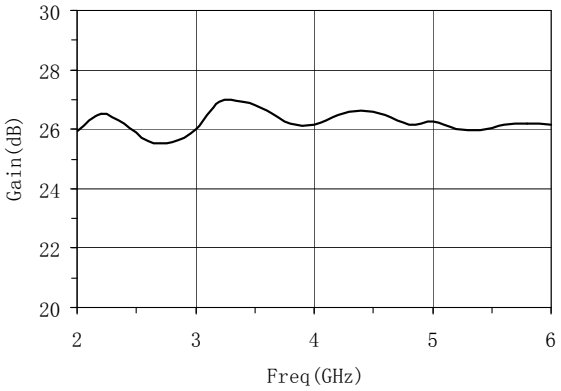
Vds	+32V
Vgs	－5V
Input CW Power	+25dBm
Channel Temperature	+175℃
Storage Temperature	－65℃～+150℃

Typical Testing Curves

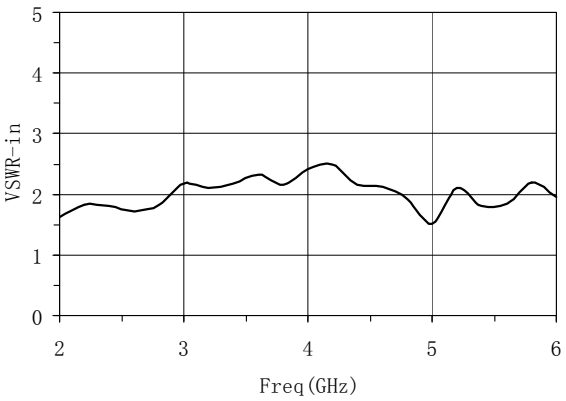
Output Psat/Efficiency VS Frequency



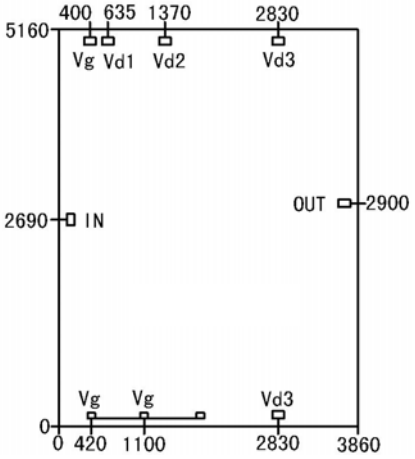
Power Gain VS Frequency



Input Voltage VSWR Ratio vs. Frequency



Dimensions and Outline



Note：All units in um；

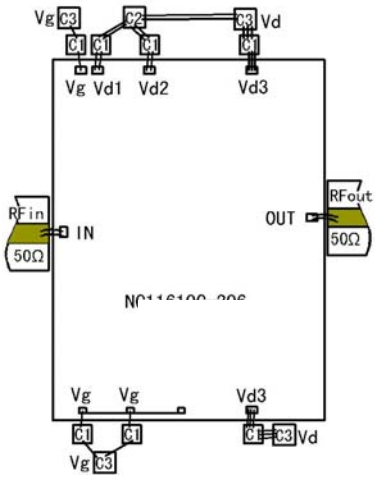
Dimension of Input Pad is 100×150μm².

Dimension of Output Pad is 150×100μm².

Dimension of Vd Pad is 150×100μm² .

Dimension of Vg Pad is 100×80μm² .

Assembly Diagram



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

Attention

1） Blocking capacitors in Input/Output are already integrated.
2） Bonding with Au:Sn=80%:20%. The temperature should be lower than 300℃ and the time should be less than 30 seconds.
3） Gold wires of 25μm～30μm diameter should be used. Temperature of the bottom of bonding platform should be lower than 250℃.
4） Antistatic protection should be taken.