METDA Semiconductor

NC11611C-102P20
GaN MMIC Power Amplifier, 0.9GHz-2.0GHz

Features

- Frequency：0.9GHz～2.0GHz
- Power Gain：25dB
- Psat：43dBm
- P.A.E：30%
- +26V@2.0A(quiescent state)
- Dimension：3.14mm×5.14mm×0.10mm

Electrical Specification (TA=+25℃, Vg=-1.5V, Vd=+26V)

Parameter	Min.	Typ.	Max	Unit
Frequency		0.9-2.0		GHz
Psat		43.0		dBm
Power Gain		25		dB
Gain Flatness			±0.5	dB
P.A.E		33		%
VSWRin			2.0	-
Operating Current		2.8		A

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

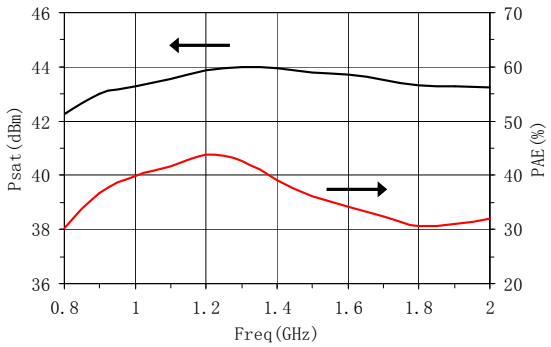
2)Test Condition：Vd=+26V；Vg=-1.5V，pulse width 100μs, duty cycle 10%，P_{in}=18dBm

Limited Rating Value

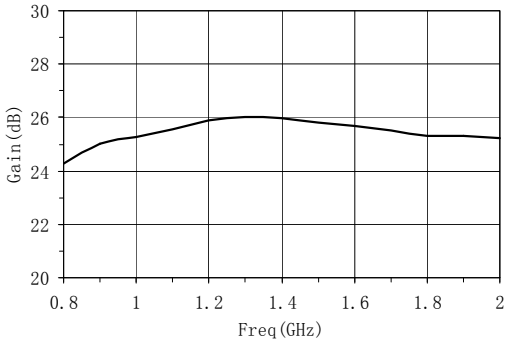
VDS	+32V
VGS	－5V
Max Input CW Power	+25dBm
Channel Temperature	+175℃
Storage Temperature	－65℃～+150℃

Typical Testing Curves

Psat/Efficiency vs. Frequency

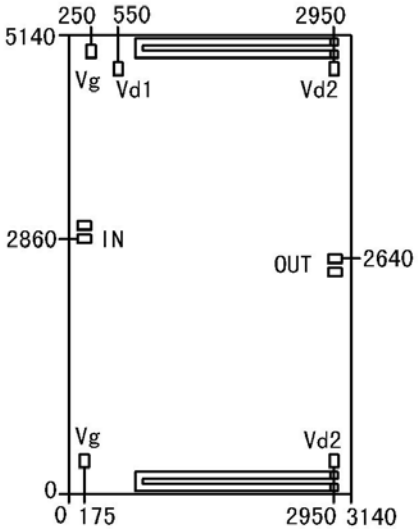


Power Gain vs. Frequency



Dimension and Outline

NC11611C-102P20 outlines



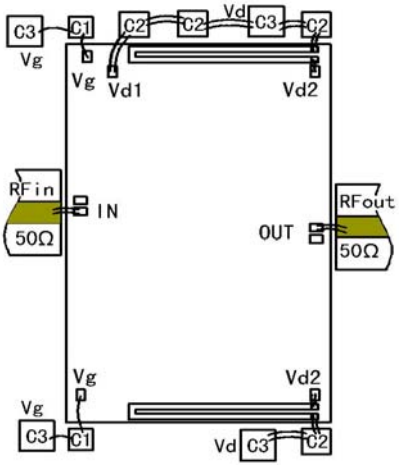
Note：The unit is μm.

Dimension of Input/Output pad: 150×100μm².

Pad dimension of Vg: 100×150μm².

Vd pad dimension: 100×150μm².

Assembly Diagram



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

Attention

1. Gold bonding wires of 25-30μm diameter are suggested to be used. The bonding platform temperature shall not exceed 250℃.
2. Blocking capacitors in Input/Output are already integrated.
3. Bonding with 80/20 Au/Sn. Temperature should be lower than 300℃ and time should be less than 30 seconds.