METDA Semiconductor

NC11617C-3337P6

GaN MMIC Power Amplifier，33GHz-37GHz

Features

- Frequency：33GHz～37GHz
- Power Gain：15dB
- Psat：38dBm
- P.A.E：18%
- +22V @ 1.5A（Quiescent）
- Dimension：3.65mm×2.55mm×0.10mm

Electrical Specification

（TA=+25℃, Vd=+22V，Vg=-1.8V）

Parameter	Min	Typ.	Max.	Unit
Frequency		33-37		GHz
Psat		38		dBm
Power Gain		15		dB
P.A.E		18		%
Dynamic Operating Current		1.5		A

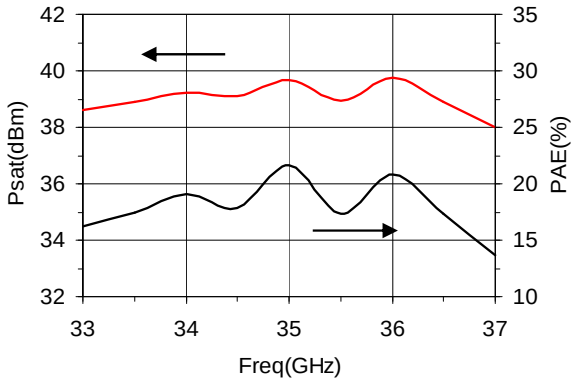
Note：1) All chips have been 100% DC tested.
2) Test Condition：Vd=+22V，Vg=-1.8V，P_{in}=24dBm，pulse width 100μs，duty cycle 2%.

Limited Rating Values

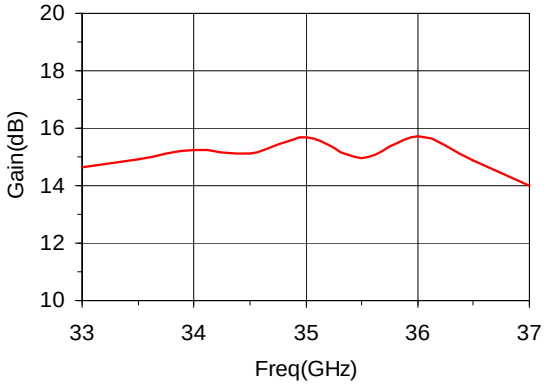
Vds	+24V
Vgs	-6V
Input CW Power	+30dBm
Channel Temperature	+175℃
Storage Temperature	-65℃～+150℃

Typical Testing Curves

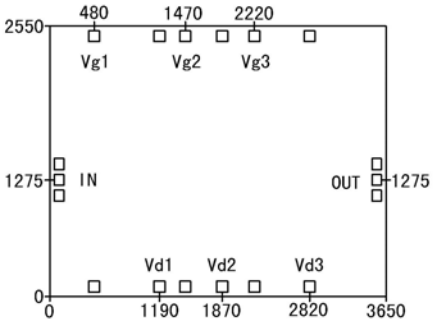
Psat/Efficiency vs. Frequency



Power Gain vs. Efficiency

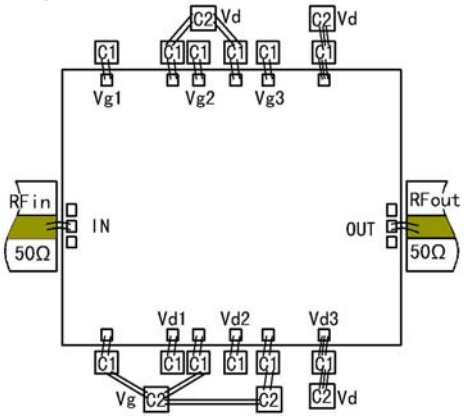


Dimension and Outline



Note：The unit is μm.
Dimension of input and output pad: 100×120μm².
Dimension of bias pad 120×120μm²

Assembly Diagram



Note：External capacitor C1:100pF，C2:1000pF

Attention

1) Two bonding wires are needed for input and output(diameter 25μm). Bonding wires shall not be longer than 500μm.

2)Bonding with 80/20 Au/Sn. Temperature should be lower than 300℃ and time should be less than 30 seconds.

3)Blocking capacitors in Input/Output are already integrated.