

Features

- Frequency: 14.5GHz~16.5GHz
- Power Gain: 17dB
- Psat: 45dBm
- P.A.E.: 25%
- +28V @ 2.5A (Quiescent)
- Chip Size: 3.7mm×3.5mm×0.1mm

Electrical Specification (TA=+25°C, Vd=+28V, Vg=-2.8V)

Parameter	Min.	Typ.	Max.	Unit
Frequency	14.5-16.5			GHz
Power Gain	20	21		dB
Psat	45	45.2		dBm
P.A.E.	35	38		%
VSWRin		2.0	2.5	-
Dynamic Operating Current	3.5			A

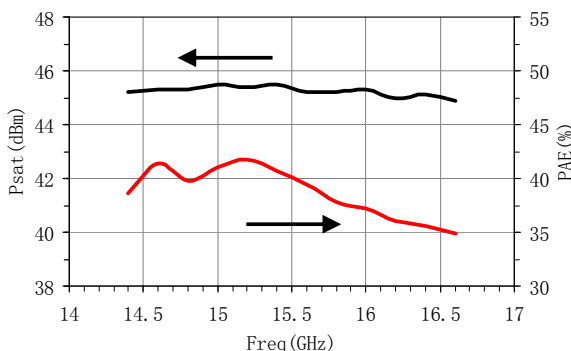
Note: 1) All chips have been on-chip 100% DC tested.
 2) Test Condition: Vd=+28V, Vg=-2.8V, pulse width 100µs, duty cycle 10%, P_{in}=24dBm.

Limited Rating Values

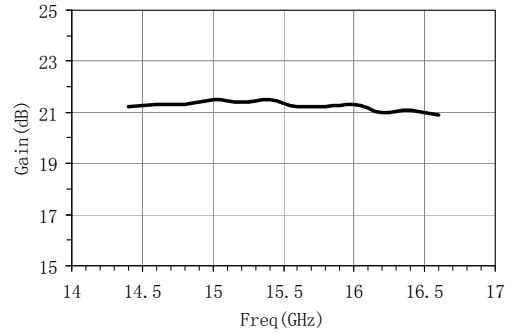
Max. Input Vd	+32V
Max. Input Power	+30dBm
Storage Temperature	-65°C ~ +150°C
Operating Temperature	-55°C ~ +85°C

Typical Testing Curves

Output Psat/Efficiency VS Frequency

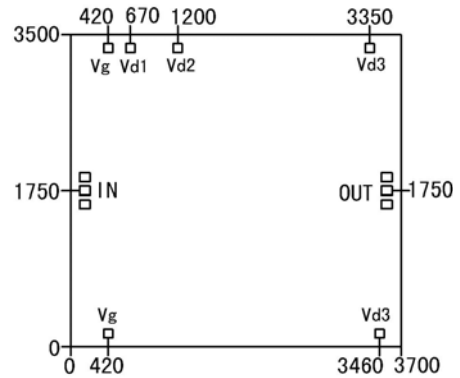


Power Gain VS Frequency



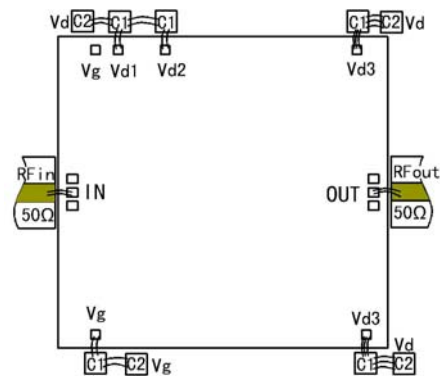
Dimensions and Outline

NC11608C-1416P30 outline



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

Assembly Diagram



Note: External capacitor c=100pF, c2=0.01µF. A 0.01µF capacitor should be added to the gate bias. Gold bonding wire diameter: 25µm.

Attention

- 1) 2 bonding wires should be used for input/output. The length of the wires should be shorter than 350µm.
- 2) Bonding with 80/20 Au/Sn. The temperature should be lower than 300°C and the time should be less than 30 seconds.
- 3) Blocking capacitors in Input/Output are already integrated.
- 4) Antistatic protection should be taken.