★1.Product Features

- Operating frequency: 2.5 GHz ~ 4 GHz
- Small signal gain: 29.8 dB @ 3.7 GHz
- Saturated output power: 41.9 dBm @ 3.7 GHz
- Power added efficiency: 50.4% @ 3.7 GHz
- VDD supply 28 V, quiescent current 130 mA

★2.Recommended Operating Conditions

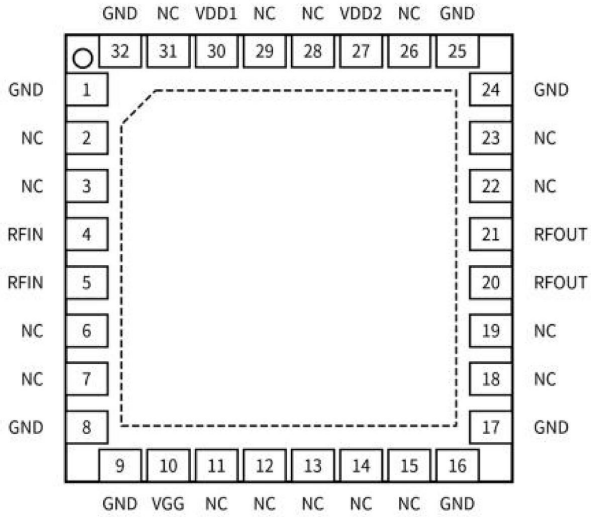
Parameter	Value
Drain voltage	+28 V (Typ)
Quiescent drain current	130 mA (Typ)
Gate voltage	-2.81 V (Typ)
Storage temperature	-65 ℃ ~ +150 ℃
Operating temperature	-55 ℃ ~ +85 ℃

★3.RF Characteristics

Parameter	Typical value									Unit
Operating frequency	2.5	2.7	2.9	3.1	3.3	3.5	3.7	3.9	4	GHz
Small signal gain	25.8	26.2	26.1	26.3	27.2	28.8	29.8	28.5	26.9	dB
Small signal input return loss	-14.5	-14.9	-16.9	-17.7	-14.9	-12.0	-13.0	-16.1	-13.4	dB
Small signal output return loss	-7.2	-9.0	-10.7	-11.3	-10.5	-8.9	-8.2	-10.4	-12.1	dB
Saturated output power	42.0	41.7	41.4	41.3	42.0	42.1	41.9	41.2	41.2	dBm
PAE at Psat	52.9	52.5	49.6	47.5	48.4	49.8	50.4	53.4	53.7	%

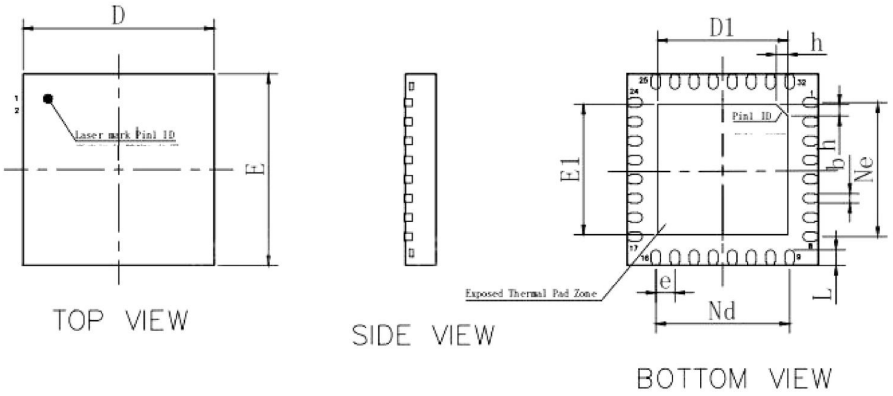
Email: ttf@ttfelectronic.com
Address: Building 16, Area C, Entrepreneurship and R&D Park, Xi'an High-tech Industrial Development Zone, China
Website:ttfelectronic.com

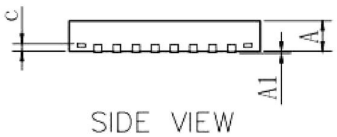
★4.Pin Function Description



Pin No.	Pin name	Description
10	VGG	Gate bias supply of both stages.
4, 5	RFIN	RF input; internally matched to 50 Ω.
21, 20	RFOUT	RF output; internally matched to 50 Ω.
30	VDD1	Drain supply of the first stage.
27	VDD2	Drain supply of the second stage.
1, 8, 9, 16, 17, 24, 25, 32	GND	Ground.
Other	NC	Internally not connected. During test these ports shall be connected to external RF or DC ground for RF isolation and good heat dissipation.

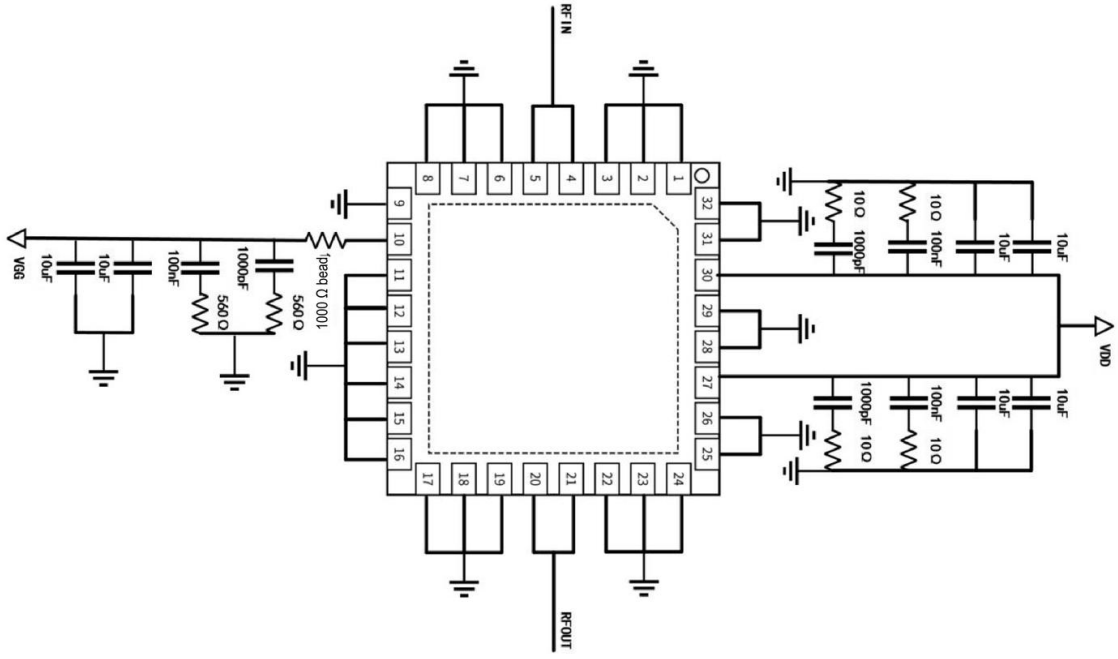
★5.Outline Dimensions





Symbol	Min.	Nom.	Max.
A	0.75	0.80	0.85
A1	0.01	0.02	0.05
b	0.20	0.25	0.30
c		0.270REF	
D	4.90	5.00	5.10
D1	3.35	3.40	3.45
e		0.50BSC	
Ne		3.50BSC	
Nd		3.50BSC	
E	4.90	5.00	5.10
E1	3.35	3.40	3.45
L	0.35	0.40	0.45
h	0.25	0.30	0.35

★6.Typical Application Circuit



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★7.Installation Instructions

1. To ensure good heat dissipation and grounding, it is recommended to solder the bottom of the device to the external heat sink.
2. If the bottom cannot be soldered, the device shall be fastened with screws and anti-loosening measures shall be taken. Indium foil shall be placed under the device to ensure good grounding and heat dissipation.
3. The slot design of the PCB and of the metal structure shall be reasonable to ensure that the device leads are 0.1 mm higher than the PCB surface.
4. The device shall be mounted in the center of the slot, and the distance between its input/output facets and the edge of the PCB slot shall be controlled within 0.1~0.15 mm.



This product is an electrostatic-sensitive device;
Appropriate ESD preventive measures should be taken to avoid degradation in performance or loss of functionality.