泰莱微波
Talent Microwave

Suzhou Talent Microwave,Inc
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Power Amplifier

5.1-5.9GHz/50dB Gain/50dBm Psat

Model: TLPA5.1G5.9G-50-50

TLPA5.1G5.9G-50-50 is a power amplifier with a minimum small signal gain of 50 dB and a minimum Psat of 50 dBm across the frequency range of 5.1 to 5.9GHz. The DC power requirement for the amplifier is +28VDC/12 A. The input and output port configuration offers coax adapter structure with SMA female.

Features:

- Frequency range: 5.1-5.9GHz
- Gain: 50dB Min
- Output Power Psat: 50dBm Min
- Good Power and Gain Flatness
- 50 Ohm Matched Input / Output

Applications:

- Cellular
- PCN
- GSM
- ISM
- Lab Test

电气特性 Electrical Characteristics:

参数 Parameter	Min	Typ	Max	单位 Units
频率范围 Frequency range		5.1-5.9		GHz
小信号增益 Small Signal Gain	50	53		dB
增益平坦度 Gain Flatness		±1	±2	dB
线性输出功率 Output P1dB	46	47		dBm
饱和输出功率 Output Psat	50	50.5		dBm
输入驻波 Input VSWR		1.5	2.0	:1
直流电压 DC Voltage	26	28	30	V DC
静态电流 Static Current		2		A
饱和电流 Saturation Current		12	13	A
阻抗 Impedance		50		Ohms

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机械特性 Mechanical Specifications:

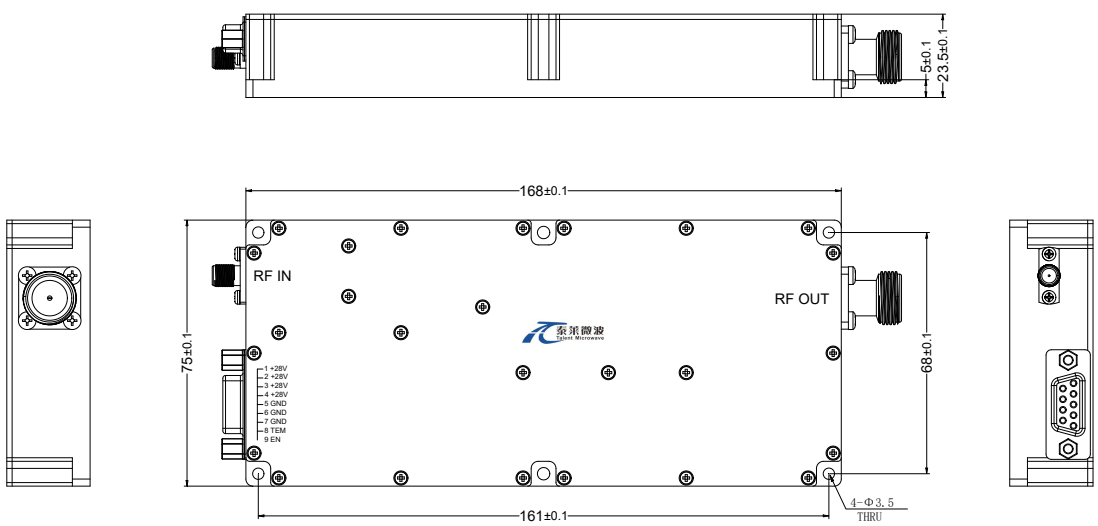
参数 Parameter	指标 Value	单位 Units
输入/输出接口 Input /Output Connector	SMA Female/N Female	
直流偏置 DC Bias	D-SUB-9	
尺寸 Size	168*75*23.5	mm
重量 Weight	500	g

绝对最大值 Absolute Maximum Ratings:

参数 Parameter	指标 Value
供电偏置电压 Supply Bias Voltage	+30 V
输入功率 RF Input Power	5dBm
ESD灵敏度 ESD sensitivity (HBm)	Class 0, passed 150V

外形图 Outline Drawing:

Unit:mm



OBSERVE PRECAUTIONS
ELECTROSTATIC SENSITIVE
DEVICES

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外形图 Outline Drawing:

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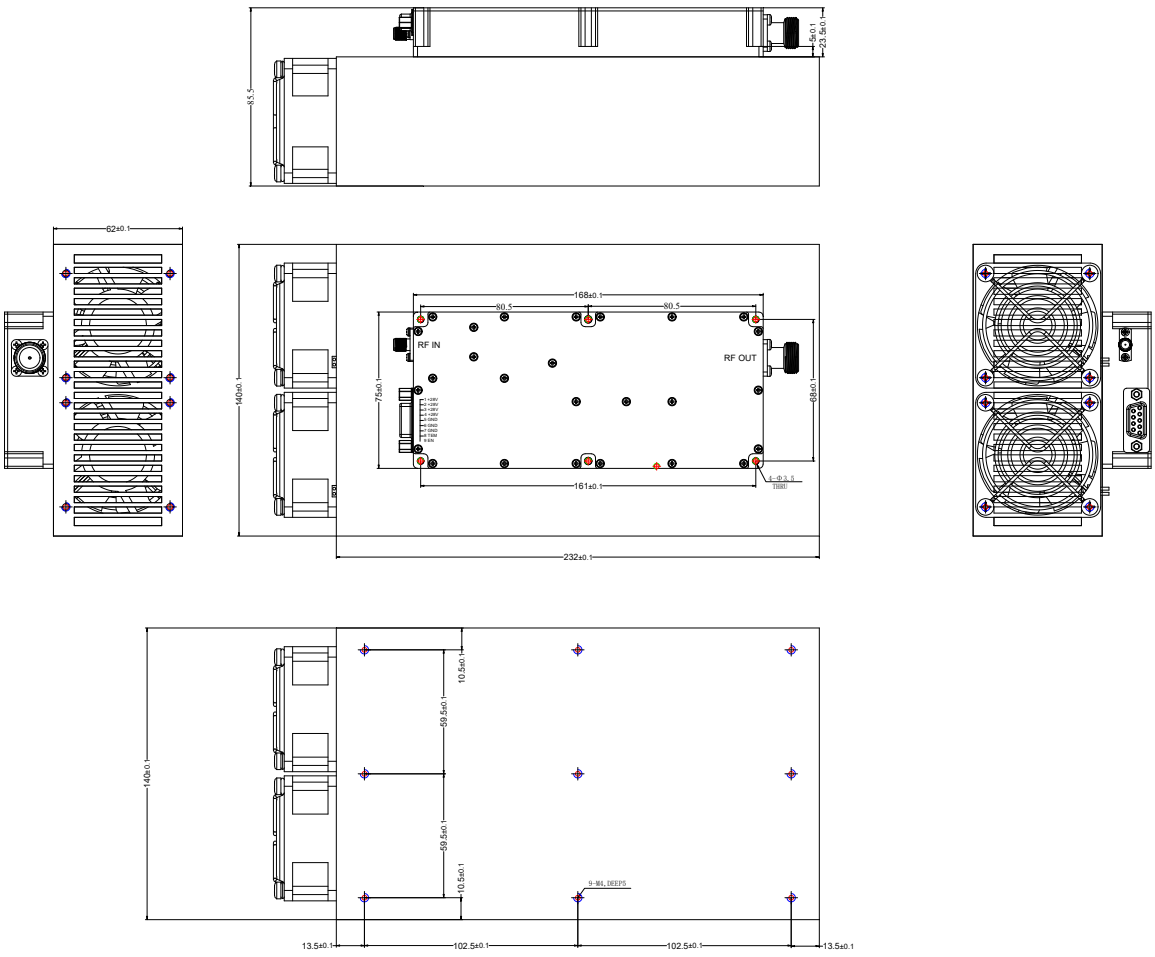

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直流供电接口 DC Supply Connector（DSUB-9 Female):

引脚 Pin	名称 Name	功能 Function
1	Vcc	Power supply positive,+26.0-30.0VDC
2	Vcc	Power supply positive,+26.0-30.0VDC
3	Vcc	Power supply positive,+26.0-30.0VDC
4	Vcc	Power supply positive,+26.0-30.0VDC
5	GND	Ground
6	GND	Ground
7	GND	Ground
8	Over TEM	When the temperature of the case exceeds 85 ℃, the power amplifier will turn off and this pin will be pulled high. If the temperature of case drops to 70 ℃, the power amplifier will return to normal operation, and this pin will be pulled low.
9	EN	Amplifier Enable: TTL High (5V) (Internally Pulled-High) Amplifier Disable: Short to ground

温度环境 Environmental Conditions:

参数 Parameter	Min	Typ	Max	单位 Units
操作温度 Operating Temperature*	-20		+50	℃
存储温度 Non-operating Temperature*	-30		+60	℃
相对湿度 Relative humidity		95		%
海拔 Altitude	10,000			feet
震动 Shock / Vibration(MIL-STD-810F)	25g rms (15 degree 2KHz) endurance, 1 hour per axis			
冲击 Shock(non operating)	20G for 11msc half sin wave,3 axis both directions			

*Note: For a wider temperature range, please consult the manufacturer.

订货信息 Ordering Information:

标准型号 Base Number	描述 Desciption	版本号 Revision
TLPA5.1G5.9G-50-50	Power amplifier 5.1-5.9GHz, Gain:50dB,Psat:50dBm,+28V DC,Without Heatsink	Rev.2.0
TLPA5.1G5.9G-50-50-HS	Power amplifier 5.1-5.9GHz, Gain:50dB,Psat:50dBm,+28V DC,With Heatsink	Rev.2.0