泰莱微波
Talent Microwave

Suzhou Talent Microwave,Inc
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Power Amplifier

0.7-6GHz/48dB Gain/48dBm Psat

Model: TLPA0.7G6G-48-48

TLPA0.7G6G-48-48 is a power amplifier with a minimum small signal gain of 48 dB and a minimum Psat of 48 dBm across the frequency range of 0.7 to 6 GHz. The DC power requirement for the amplifier is +28 VDC/12A. The input ports configuration offers coax adapter structure with SMA female and output ports configuration offers coax adapter structure with N female.

Features:

- Frequency range: 0.7-6GHz
- Gain: 48dB Min
- Output Power Psat: 48dBm 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	0.7		6	GHz
增益 Gain	48	50		dB
增益平坦度 Gain Flatness		±3	±4	dB
线性输出功率 Output P1dB	45	45.5		dBm
饱和输出功率 Output Psat	48	48.5		dBm
杂散 Spurious@Pout=48dBm			-60	dBc
谐波 Harmonic@Pout=48dBm		-15	-10	dBc
输入驻波 Input VSWR		1.5	2	:1
直流电压 DC Voltage	26	28	30	V DC
静态电流 Static Current		1		A
饱和电流 Saturation Current		12	3	A
阻抗 Impedance		50		Ohms

*Performance may degrade below 300 MHz. Please refer to below typical test plots

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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	
直流供电接口 DC Power Supply Connector	D-SUB15 Pin	
尺寸 Size	212*160*27(Without heatsink)	mm
重量 Weight	1.2	Kg

绝对最大值 Absolute Maximum Ratings:

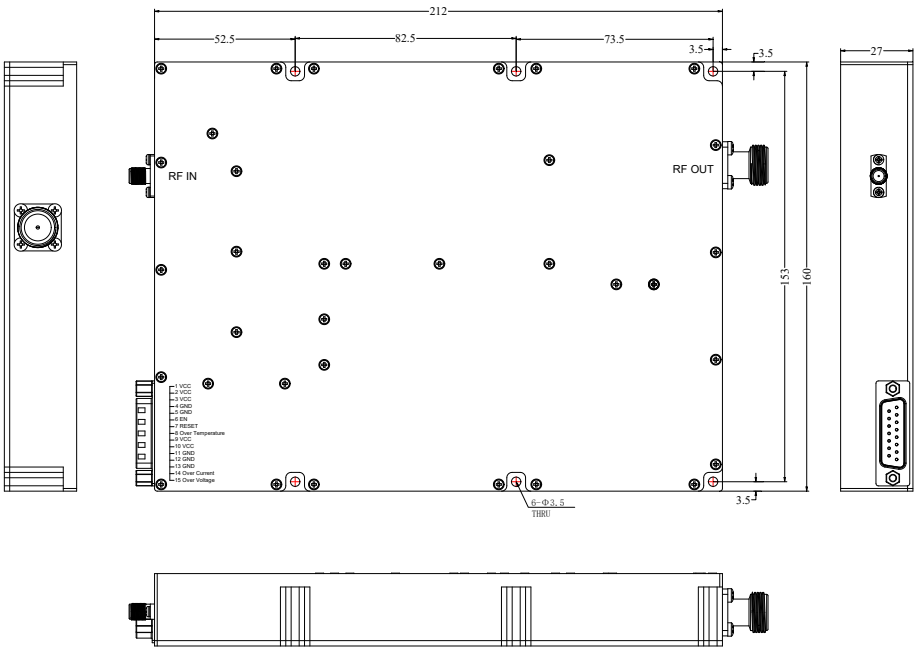
参数 Parameter	指标 Value
供电偏置电压 Supply Bias Voltage	+30 V
输入功率 RF Input Power	+5 dBm
ESD灵敏度 ESD sensitivity (HBm)	Class 0, passed 150V



Simple 220V System
Available SAC option

外形图 Outline Drawing:

Unit:mm; Tolerance:±0.1mm



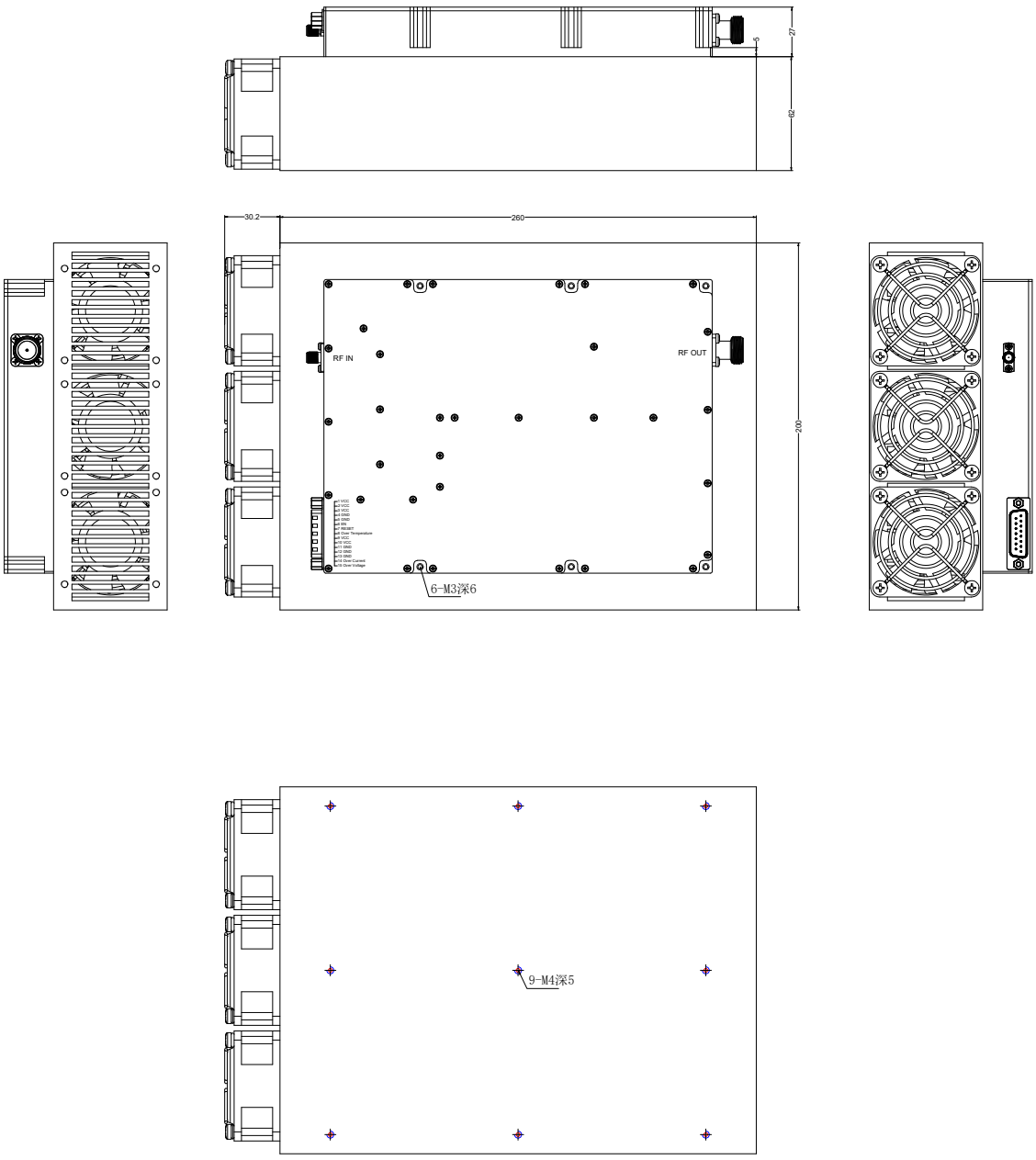
***Heat Sink Required During Operation

ESD Protection: Strictly adhere to ESD precautions to prevent electrostatic damage.

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外形图 Outline Drawing:

Unit:mm; Tolerance:±0.1mm



风扇供电 Fan power supply	
Red line	Power supply positive,+24.0-28.0VDC DC current: 0.4A
Black line	Ground

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直流供电接口 DC Supply Connector(DSUB-15 Female):

引脚 Pin	名称 Name	功能 Function
1~3	VCC	电源正极,+26.0-30.0VDC
4	GND	地
5	GND	地
6	EN	放大器使能：TTL高(5V)(内拉高) 放大器禁用：接地
7	复位	当逻辑为低电平时复位PA，并在释放后恢复(内部上拉)
8	过温	当外壳温度超过75℃时，功率放大器关闭，此引脚拉高。如果机箱温度降至70℃，功率放大器将恢复正常工作，此引脚将拉低。
9	VCC	电源正极,+26.0-30.0VDC
10	VCC	电源正极,+26.0-30.0VDC
11~13	GND	地
14	过流	电流报错: (TTL高电平=故障, TTL低电平=正常)
15	过压	电压报错: (TTL高电平=故障, TTL低电平=正常)

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 Description	版本号 Revision
TLPA0.7G6G-48-48	Power amplifier 0.7-6GHz, Gain:48dB,Psat:48dBm,+28V DC,Without Heatsink	Rev.1.0
TLPA0.7G6G-48-48-HS	Power amplifier 0.7-6GHz, Gain:48dB,Psat:48dBm,+28V DC,With Heatsink	Rev.1.0