

Power Amplifier

0.4-2.5GHz/50dB Gain/50dBm Psat

Model: TLPA0.4G2.5G-50-50

TLPA0.4G2.5G-50-50 is a power amplifier with a minimum gain of 50 dB and a nominal Psat of 50 dBm across the frequency range of 0.4 to 2.5 GHz. The DC power requirement for the amplifier is +28 VDC/12 A. The input and output port configuration offers coax adapter structure with SMA female.

Features:

- Frequency range: 0.4-2.5GHz
- Gain: 50dB Min
- Output Power Psat: 50dBm Typ
- 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	0.4		2.5	GHz
增益 Gain	50	52		dB
增益平坦度 Gain Flatness		±1.8	±2.5	dB
饱和输出功率 Output Psat		100		W
噪声系数 Noise Figure			10	dB
杂散 Spurious			-60	dBc
谐波 Harmonics@Pout=100W		-20		dBc
输入驻波 Input VSWR		1.5	2.0	:1
直流电压 DC Voltage	+26	+28	+30	V DC
直流电流 DC Supply Current		12	15	A
阻抗 Impedance		50		Ohms

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/SMA Female	
直流供电接口 DC Power Supply Connector	D-SUB 9-Pin, Male	
尺寸 Size	208.3*91.4*26.9	mm
重量 Weight	1000	g

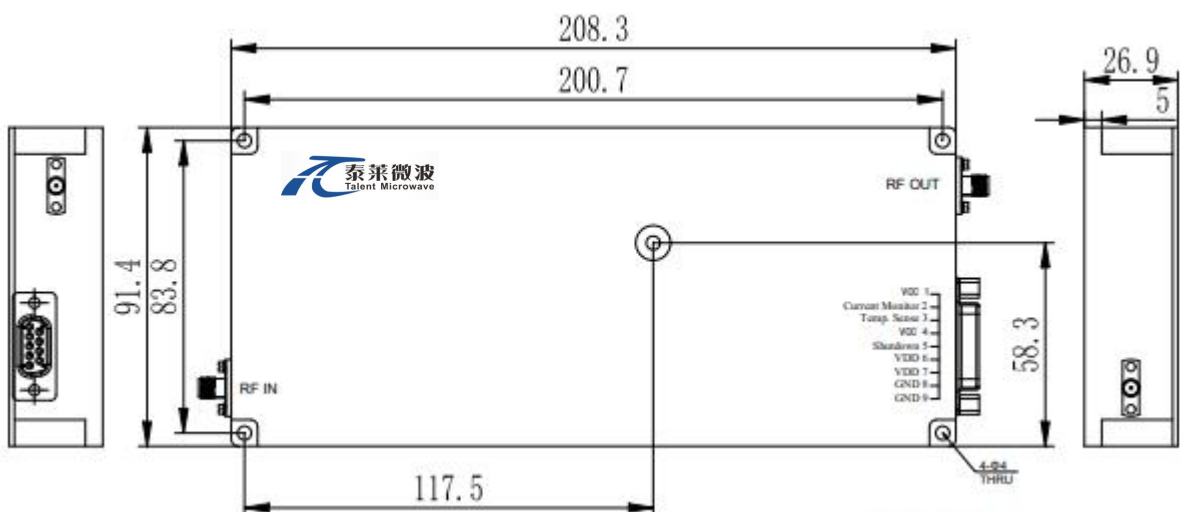
绝对最大值 Absolute Maximum Ratings:

参数 Parameter	指标 Value
供电偏置电压 Supply Bias Voltage	+30 V
输入功率 RF Input Power	+10 dBm
ESD灵敏度 ESD sensitivity (HBm)	Class 0, passed 150V



外形图 Outline Drawing:

Unit:mm



*****Heat Sink Required During Operation**



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

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

引脚 Pin	名称 Name	功能 Function
1	+28V	Power supply positive,+26.0-30.0VDC
2	NC	Not connected
3	NC	Not connected
4	GND	Power supply negative
5	EN	Amplifier Enable: The amplifier is turned on at high level (or floating) and off when shorted to ground.
6	+28V	Power supply positive,+26.0-30.0VDC
7	+28V	Power supply positive,+26.0-30.0VDC
8	GND	Power supply negative
9	GND	Power supply negative

温度环境 Environmental Conditions:

参数 Parameter	Min	Typ	Max	单位 Units
操作温度 Operating Temperature*	-20		+50	°C
存储温度 Non-operating Temperature*	-30		+60	°C
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
TLPA0.4G2.5G-50-50	Power amplifier 0.4-2.5GHz, Gain:50dB,Psat:50dBm,+28V DC,Without Heatsink	Rev.1.1
TLPA0.4G2.5G-50-50-HS	Power amplifier 0.4-2.5GHz, Gain:50dB,Psat:50dBm,+28V DC,With Heatsink	Rev.1.1