

Power Amplifier

0.5-3GHz/50dB Gain/50dBm Psat

Model: TLPA0.5G3G-50-50

TLPA0.5G3G-50-50 is a power amplifier with a minimum gain of 50 dB and a nominal Psat of 50dBm across the frequency range of 0.5 to 3GHz. The DC power requirement for the amplifier is +32 VDC/10A. The input and output port configuration offers coax adapter structure with SMA female.

Features:

- Frequency range: 0.5-3GHz
- Gain: 50dB Min
- Output Power Psat: 50dBm Typ
- Protection: Over TEM protection
- 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	0.5		3	GHz
增益 Gain	50			dB
增益平坦度 Gain flatness			3±1	dB
输入功率 Input Power			3±1	dBm
饱和输出功率 Output Psat*		100±1		W
杂散 Spurious			-65	dBc
谐波 Harmonics@Pout=100W			-10	dBc
输入驻波 Input VSWR			2	:1
直流电压 DC Voltage		32		V DC
直流电流 DC Supply Current		10	13.5	A
阻抗 Impedance		50		Ohms

Note: The output power is more than 93W at 3GHz.

机械特性 Mechanical Specifications:

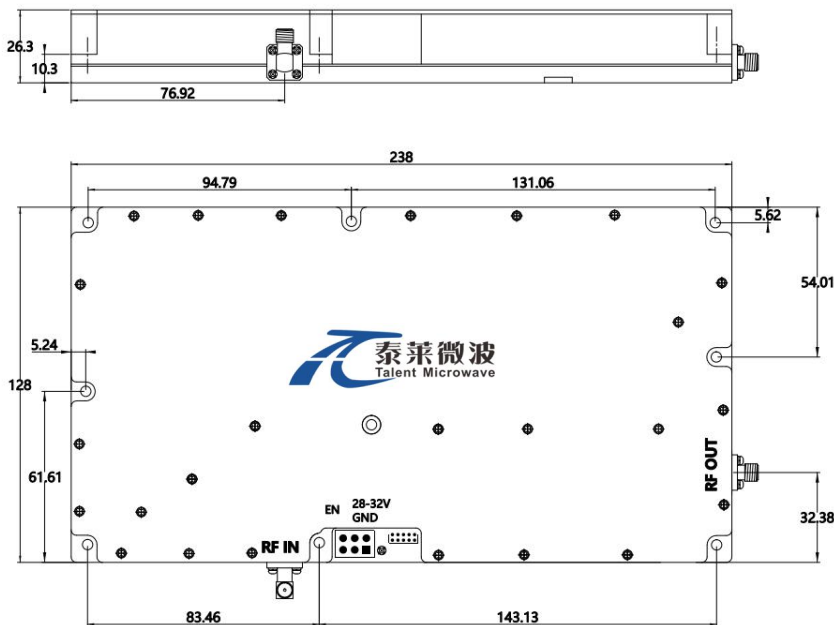
参数 Parameter	指标 Value	单位 Units
输入/输出接口 Input /Output Connector	SMA Female/SMA Female	
直流供电接口 DC Supply Connector	5569-4.2mm 2*3 Female	
功放PTT开关端口 Power amplifier PTT switch port	The power amplifier is set to be off by default, while +3.3 to +5V is enabled.	
尺寸 Size	238*128*25.3	mm
重量 Weight	≤2	Kg

绝对最大值 Absolute Maximum Ratings:

参数 Parameter	指标 Value
供电偏置电压 Supply Bias Voltage	+33 V
输入功率 RF Input Power	+6 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.

主要功能 Key Features:

参数 Parameter	特点 Advantages
内置保护功能 Protection functions	Over TEM: $\geq +80^{\circ}\text{C}$ shutdown

温度环境 Environmental Conditions:

参数 Parameter	Min	Typ	Max	单位 Units
操作温度 Operating Temperature*	-20		+50	$^{\circ}\text{C}$
存储温度 Non-operating Temperature*	-30		+60	$^{\circ}\text{C}$
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
TLPA0.5G3G-50-50	Power amplifier 0.5-3GHz, Gain:50dB,Psat:50dBm,+32V DC,Without Heatsink	Rev.1.1
TLPA0.5G3G-50-50-HS	Power amplifier 0.5-3GHz, Gain:50dB,Psat:50dBm,+32V DC,With Heatsink	Rev.1.1