

Power Amplifier

0.5-2GHz/53dB Gain/53dBm Psat

Model: TLPA0.5G2G-53-53

TLPA0.5G2G-53-53 is a power amplifier with a minimum gain of 53 dB and a minimum Psat of 53 dBm across the frequency range of 0.5 to 2 GHz. The DC power requirement for the amplifier is +28 VDC/22A. 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: 0.5-2GHz
- Gain: 53dB Min
- Output Power Psat: 53dBm 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	0.5		2	GHz
增益 Gain	53	55		dB
增益平坦度 Gain Flatness		±2	±3	dB
线性输出功率 Output P1dB	49	50		dBm
饱和输出功率 Output Psat	53	53.5		dBm
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		5		A
饱和电流 Saturation current		22	25	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/N Female	
直流供电接口 DC Power Supply Connector	D-SUB-15Pin	
尺寸 Size	260*160*24	mm
重量 Weight	1000	g

绝对最大值 Absolute Maximum Ratings:

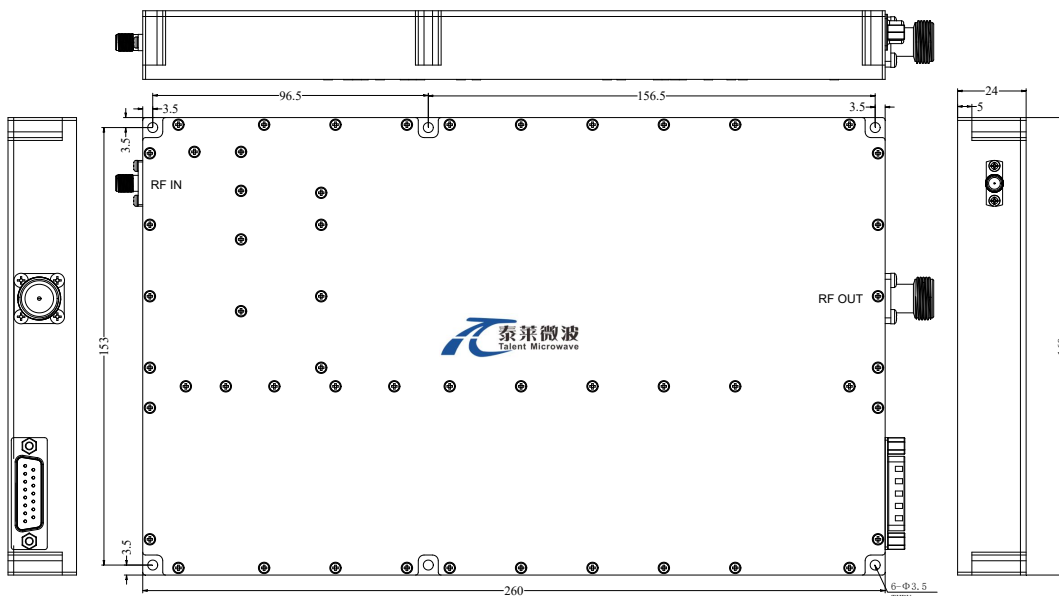
参数 Parameter	指标 Value
供电偏置电压 Supply Bias Voltage	+30 V
输入功率 RF Input Power	+5 dBm
ESD灵敏度 ESD sensitivity (HBm)	Class 0, passed 150V



Simple 220V System
Available SAC option

外形图 Outline Drawing:

Unit:mm; Tolerance:±0.1mm



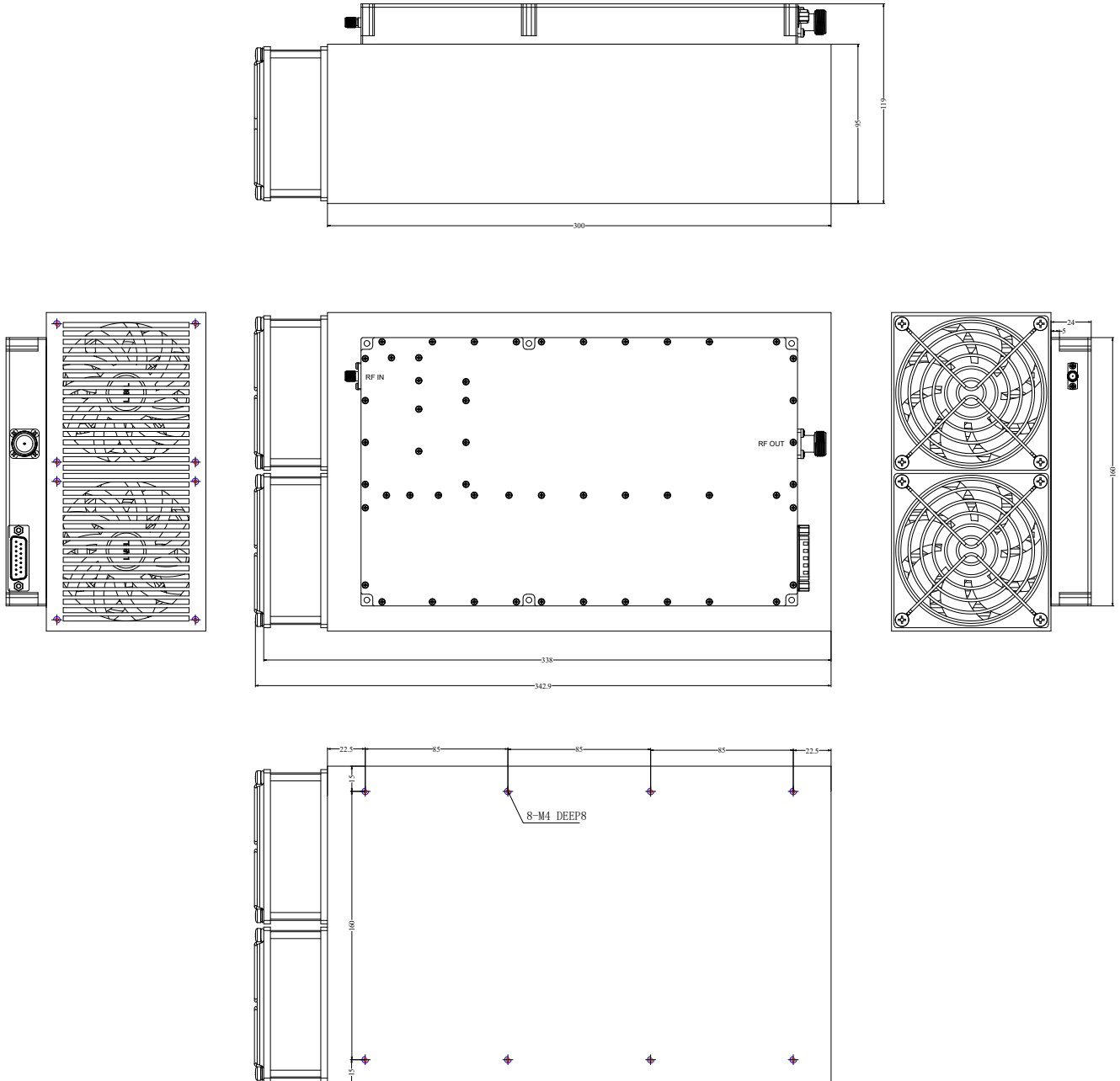
*****Heat Sink Required During Operation**



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

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: 0.6A
Black line	Ground

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)
7	NC	未连接
8	Over TEM	当外壳温度超过70℃时, 功率放大器关闭, 此引脚拉高。如果机箱温度降至60℃, 功率放大器将恢复正常工作, 此引脚将拉低。
9~10	VCC	电源正极,+26.0-30.0VDC.
11~13	GND	地
14~15	NC	未连接

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
TLPA0.5G2G-53-53	Power amplifier 0.5-2GHz, Gain:53dB,Psat:53dBm,+28V DC,Without Heatsink	Rev.1.0
TLPA0.5G2G-53-53-HS	Power amplifier 0.5-2GHz, Gain:53dB,Psat:53dBm,+28V DC,With Heatsink	Rev.1.0