

Power Amplifier

1-2GHz/54dB Gain/54dBm Psat

Model: TLPA1G2G-54-54

TLPA1G2G-54-54 is a power amplifier with a typical small signal gain of 54 dB and a minimum Psat of 54 dBm across the frequency range of 1 to 2 GHz. The DC power requirement for the amplifier is +36 VDC/30A. 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: 1-2GHz
- Gain: 54dB Typ
- Output Power Psat: 54dBm 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	1		2	GHz
小信号增益 Small Signal Gain	53	54		dB
增益平坦度 Gain Flatness		±2	±3	dB
线性输出功率 Output P1dB	52	53		dBm
饱和输出功率 Output Psat	53	54		dBm
输入驻波 Input VSWR		1.5	2	:1
直流电压 DC Voltage	34	36	38	V DC
静态电流 Static Current		3		A
饱和电流 Saturation current		30	35	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 Interface	Hybrid,D-Sub,7W2, Male	
尺寸 Size	270*160*27(Without heatsink)	mm
重量 Weight	2	Kg

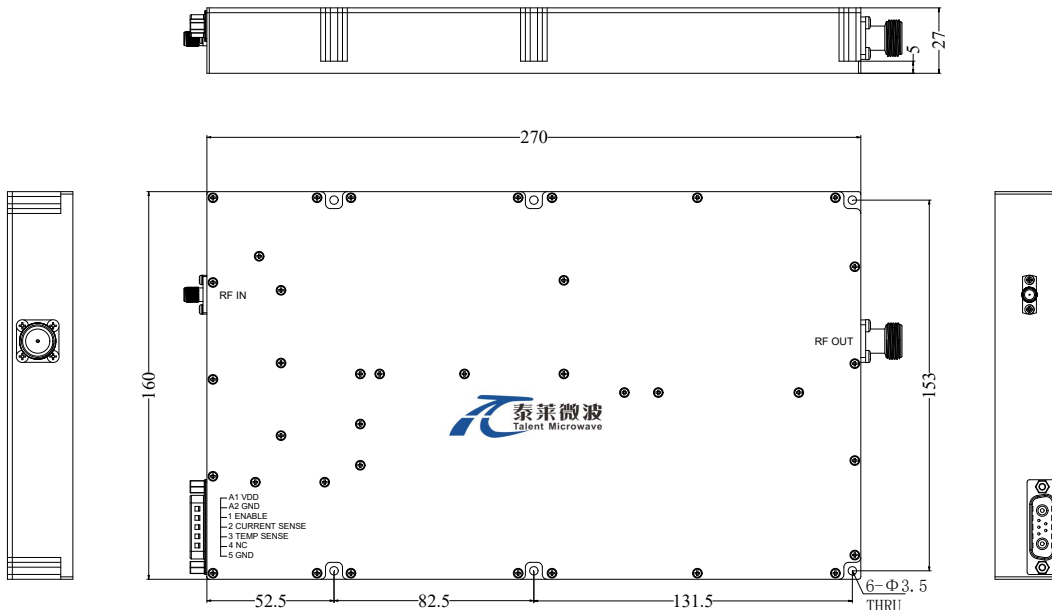
绝对最大值 Absolute Maximum Ratings:

参数 Parameter	指标 Value
供电偏置电压 Supply Bias Voltage	+38 V
输入功率 RF Input Power	+5 dBm
ESD灵敏度 ESD sensitivity (HBm)	Class 0, passed 150V



外形图 Outline Drawing:

Unit:mm; Tolerance:±0.1mm



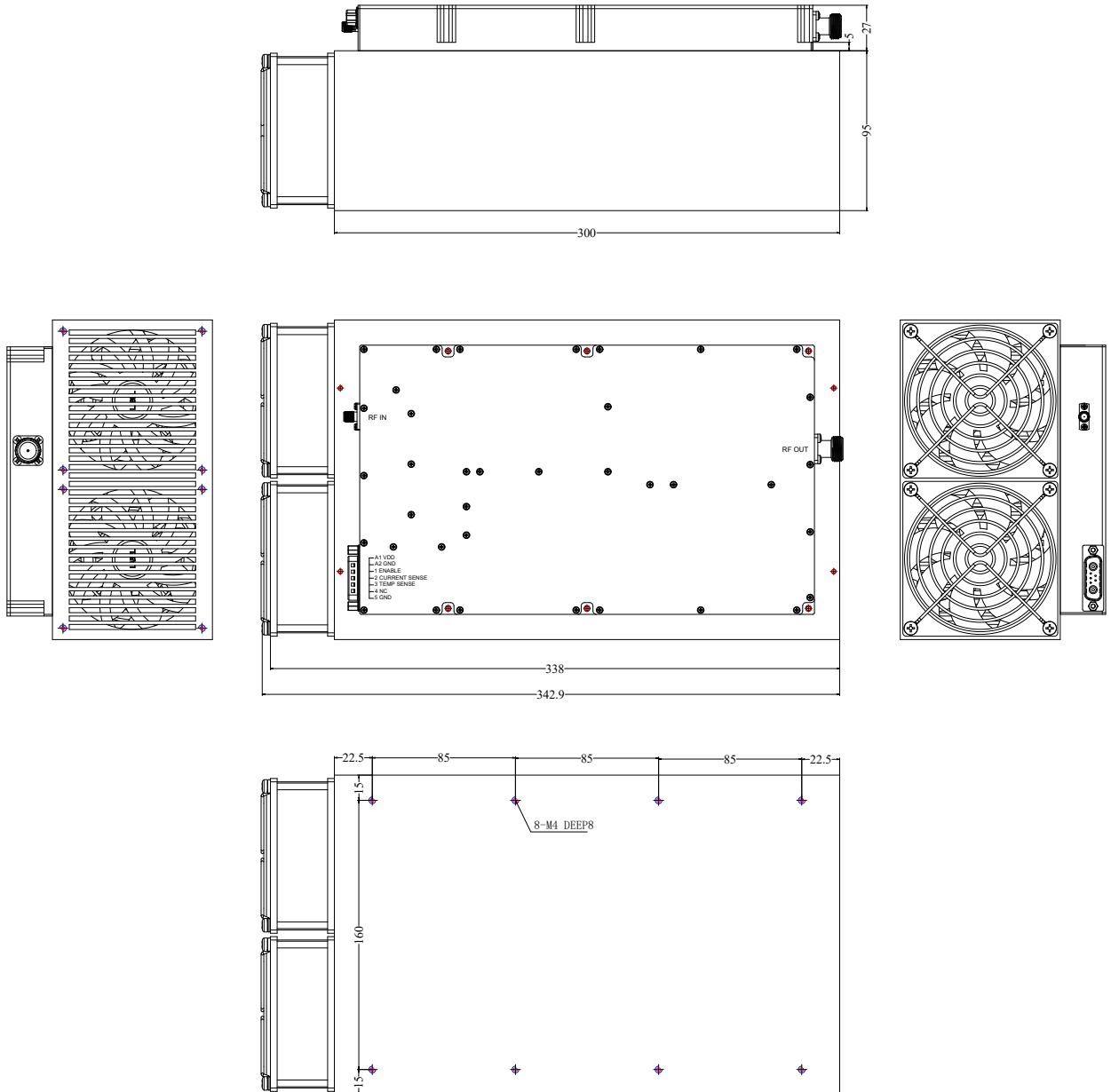
*****Heat Sink Required During Operation**



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

外形图 Outline Drawing:

Unit:mm



直流供电接口 DC Supply Connector(DSUB-7W2 Male):

引脚 Pin	名称 Name	功能 Function
A1	VDD	Power supply positive,+34.0-38.0VDC
A2	GND	Ground
1	EN	Amplifier Enable: TTL Logic High (3.3V-5V) (Internally Pulled-Low)
2	Current sense	Analog voltage relative to IDD @ 100mV per Ampere
3	TEM sense	Analog voltage relative to Module's Temperature @ 0.5V+10 mV/°C
4	NC	Not connected
5	GND	Ground

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
TLPA1G2G-54-54	Power amplifier 1-2GHz, Gain:54dB,Psat:54dBm,+36V DC,Without Heatsink	Rev.1.0
TLPA1G2G-54-54-HS	Power amplifier 1-2GHz, Gain:54dB,Psat:54dBm,+36V DC,With Heatsink	Rev.1.0