

## Power Amplifier

4-8GHz/52dB Gain/52dBm Psat

Model: TLPA4G8G-52-52

TLPA4G8G-52-52 is a power amplifier with a typical small signal gain of 52 dB and a normal Psat of 52 dBm across the frequency range of 4 to 8 GHz. The DC power requirement for the amplifier is +28 VDC/20 A. The input port configuration offers coax adapter structure with SMA female and output port configuration offers coax adapter structure with N female.

### Features:

- Frequency range: 4-8GHz
- Gain: 52dB Typ
- Output Power Psat: 52dBm 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	4		8	GHz
小信号增益 Small Signal Gain	50	52		dB
增益平坦度 Gain Flatness		±2	±3	dB
线性输出功率 Output P1dB	50	50.5		dBm
饱和输出功率 Output Psat	51	52		dBm
输入驻波 Input VSWR		1.5	2.0	:1
直流电压 DC Voltage		+28	+30	V DC
静态电流 Static Current		3		A
饱和电流 Saturation current		20	22	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 Supply Connector	D-SUB-15Pin	
尺寸 Size	270*160*40	mm
重量 Weight	1500	g

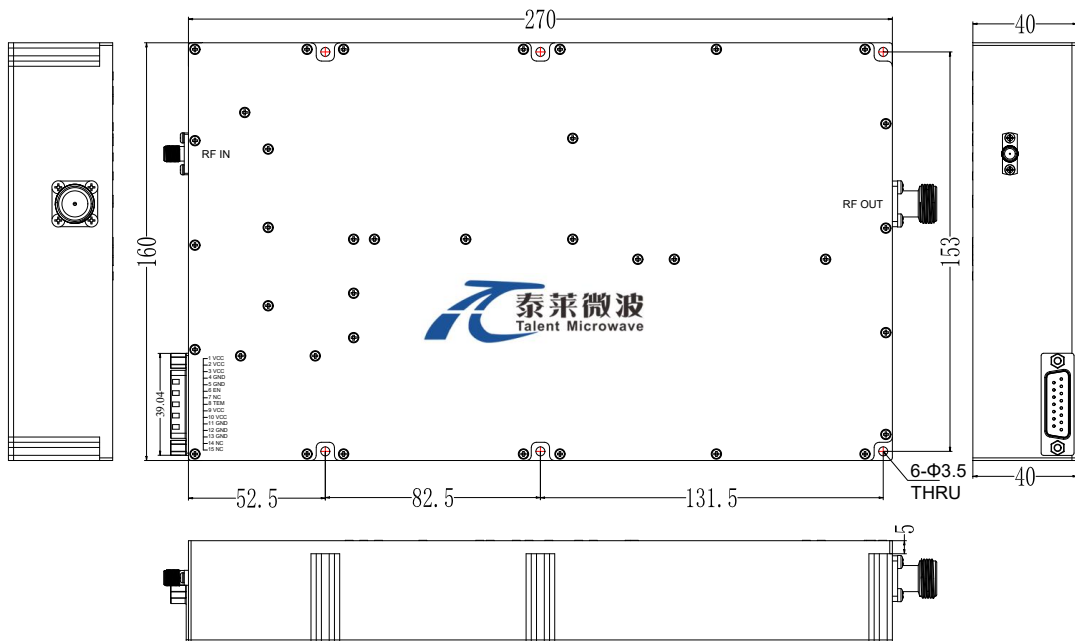
## 绝对最大值 Absolute Maximum Ratings:

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



## 外形图 Outline Drawing:

Unit:mm



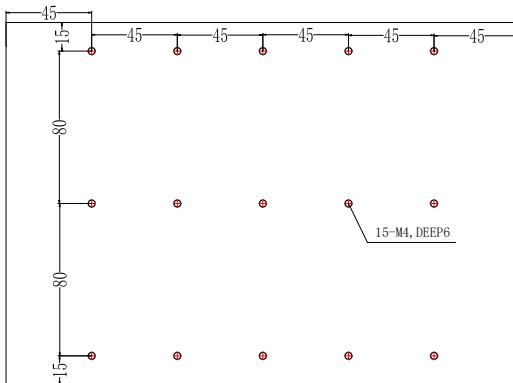
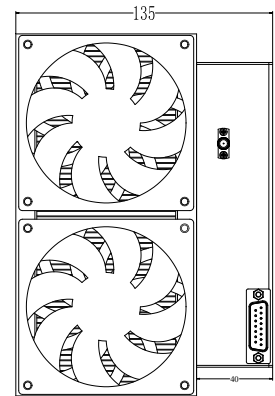
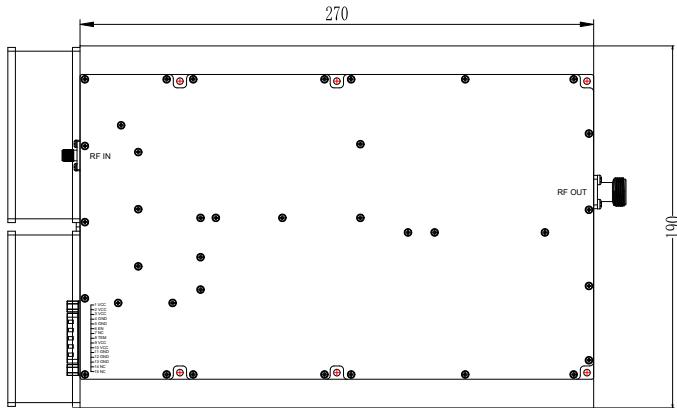
**\*\*\*Heat Sink Required During Operation**



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-15 Female):**

引脚 Pin	名称 Name	功能 Function
1~3、9、10	VCC	Power supply positive,+26.0-30.0VDC
4~5、11~13	GND	Ground
6	EN	Amplifier Enable: TTL High (5V) (Internally Pulled-High) Amplifier Disable: Short to ground
7、14、15	NC	Not Connected
8	TEM	When the temperature of the case exceeds 75 °C, the power amplifier will turn off and this pin will be pulled high. If the temperature of case drops to 70 °C, the power amplifier will return to normal operation, and this pin will be pulled low.

## 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
TLPA4G8G-52-52	Power amplifier 4-8GHz, Gain:52dB,Psat:52dBm,+28V DC,Without Heatsink	Rev.1.0
TLPA4G8G-52-52-HS	Power amplifier 4-8GHz, Gain:52dB,Psat:52dBm,+28V DC,With Heatsink	Rev.1.0