

## Power Amplifier

### 4-8GHz/53dB Gain/53dBm Psat

Model: TLPA4G8G-53-53

TLPA4G8G-53-53 is a power amplifier with a minimum power gain of 53 dB and a minimum Psat of 53 dBm across the frequency range of 4 to 8 GHz. The DC power requirement for the amplifier is +28 VDC/1250 W. 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: 53dB Min
- Output Power Psat: 53dBm Min
- Protection: Over TEM, over current, over voltage, over VSWR 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	4-8			GHz
功率增益 Power Gain@Pout=53dBm	53			dB
饱和输出功率 Output Psat	53			dBm
增益调节范围 Gain adjust Range		31.5		dB
增益调节步进 Gain adjust Step		0.5		dB
小信号增益平坦度 Small Signal Gain flatness		±3.5		dB
二次谐波 2nd Harmonics		-15		dBc
输入驻波 Input VSWR			2	:1
直流电压 DC Voltage		28	29	V DC
功耗 Power Consumption			1250	W
阻抗 Impedance	50			Ohms

### 机械特性 Mechanical Specifications:

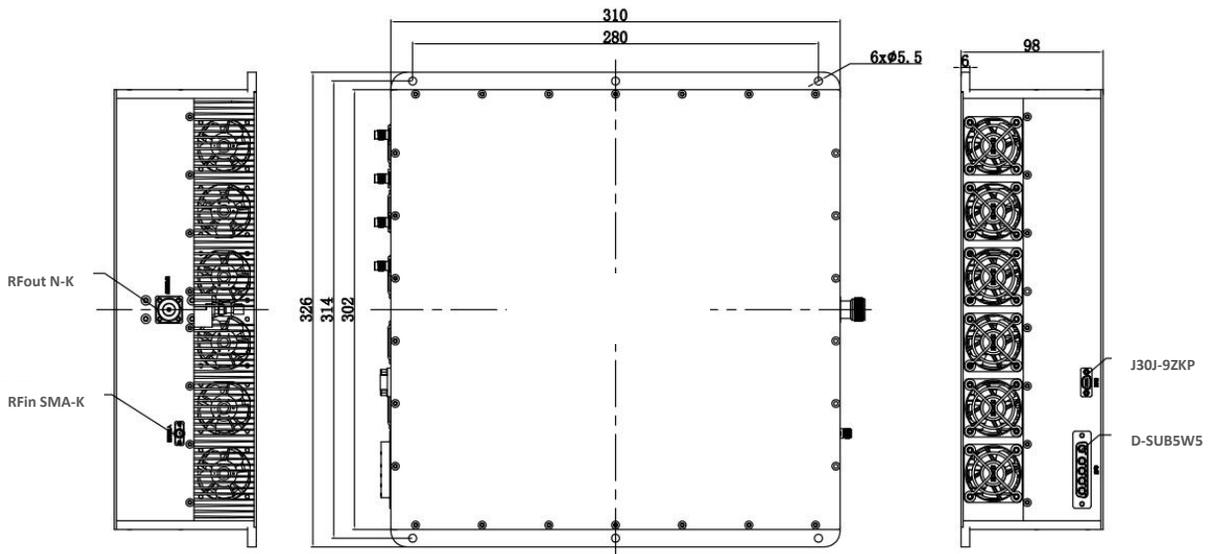
参数 Parameter	指标 Value	单位 Units
输入/输出接口 Input /Output Connector	SMA Female/N Female	
供电接口 DC Supply Connector	DSUB-5W5	
控制接口 Control Connector	J30J-9ZKP	
通信接口 Communication Connector	RS422	
尺寸 Size	310*326*98	mm
重量 Weight	≤15	Kg

### 绝对最大值 Absolute Maximum Ratings:

参数 Parameter	指标 Value
供电偏置电压 Supply Bias Voltage	+29 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**

## 主要功能 Key Features:

参数 Parameter	特点 Advantages
控制功能 Control functions	1, Power setting on/off 2, RF setting on/off 3, ALC automatic level control
监测功能 Monitoring functions	1, TEM 2, Operating voltage 3, Operating current 4, Output/reflected power
内置保护功能 Protection functions	1, Over TEM 2, Over voltage 3, Over current 4, Over VSWR: the safe level of 3:1
监控和控制 Remote control	RS422
冷却系统 Cooling system	Built in Cooling system, forced air cooling

## 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-53-53	Power amplifier 4-8GHz, Gain:53dB, Psat:53dBm, +28V DC, Without Heatsink	Rev.1.1