

## Power Amplifier

4-6GHz/53dB Gain/47dBm Psat

Model: TLPA4G6G-53-47

TLPA4G6G-53-47 is a power amplifier with a typical gain of 53 dB and a nominal Psat of 47 dBm across the frequency range of 4 to 6 GHz. The DC power requirement for the amplifier is +28 VDC/1 A. The input and output port configuration offers coax adapter structure with SMA female.

### Features:

- Frequency range: 4-6GHz
- Gain: 53dB Typ
- Output Power Psat: 47dBm 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		6	GHz
增益 Gain	50	53		dB
增益平坦度 Gain Flatness		±2	±3	dB
饱和输出功率 Output Psat	46	47		dBm
谐波抑制 Harmonics@Pout=47dBm		-15		dBc
输入驻波 Input VSWR		1.5	2.0	:1
直流电压 DC Voltage		+28		V DC
直流电流 DC Supply Current		1	10	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/SMA Female	
直流供电接口 DC Supply Connector	D-Sub-9Pin	
尺寸 Size	200*120*20	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	+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



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



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

## 直流供电接口 DC Supply Connector(DSUB-9 Female):

引脚 Pin	名称 Name	功能 Function
1	VDD	+26.0-30.0VDC
2	VDD	+26.0-30.0VDC
3	VDD	+26.0-30.0VDC
4	GND	Ground
5	GND	Ground
6	GND	Ground
7	Current Sensor	Analog voltage relative to ID @ 25mV /100mA
8	Temp. Sensor	Analog voltage relative to Module's Temperature @ 10 mV/°C
9	EN	Amplifier Enable: TTL "Low" (Logic 0) or Open Amplifier Disable: TTL "High" (Logic 1)

## 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
TLPA4G6G-53-47	Power amplifier 4-6GHz Gain:53dB,Psat:47dBm,+28V DC,Without Heatsink	Rev.1.1
TLPA4G6G-53-47-HS	Power amplifier 4-6GHz Gain:53dB,Psat:47dBm,+28V DC,With Heatsink	Rev.1.1