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Power Amplifier

2-6GHz/53dB Gain/53dBm Psat

Model: TLPA2G6G-53-53

TLPA2G6G-53-53 is a power amplifier with a typical small signal gain of 53 dB and a nominal Psat of 53 dBm across the frequency range of 2 to 6 GHz. The DC power requirement for the amplifier is +28 VDC/3 A. The input and output port configuration offers coax adapter structure with SMA female and N female .

Features:

- Wide Band: 2-6GHz
- Gain: 53dB Typ
- Output Power : 53dBm 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		2-6		GHz
小信号增益 Small Signal Gain	50	53		dB
增益平坦度 Gain Flatness		±3	±4	dB
线性输出功率 Output P1dB	48	49		dBm
饱和输出功率 Output Psat	52	53		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

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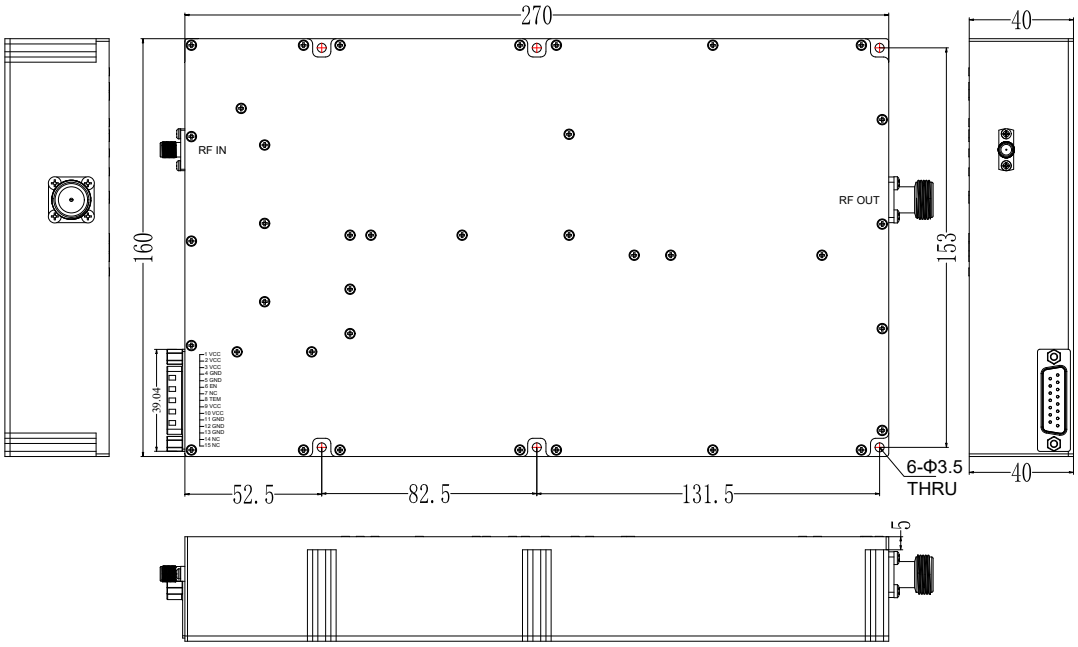
机械特性 Mechanical Specifications:

参数 Parameter	指标 Value	单位 Units
输入/输出接口 Input /Output Connector	SMA Female/N Female	
直流偏置 DC Bias	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	5dBm
ESD灵敏度 ESD sensitivity (HBm)	Class 0, passed 150V

外形图 Outline Drawing: Unit:mm



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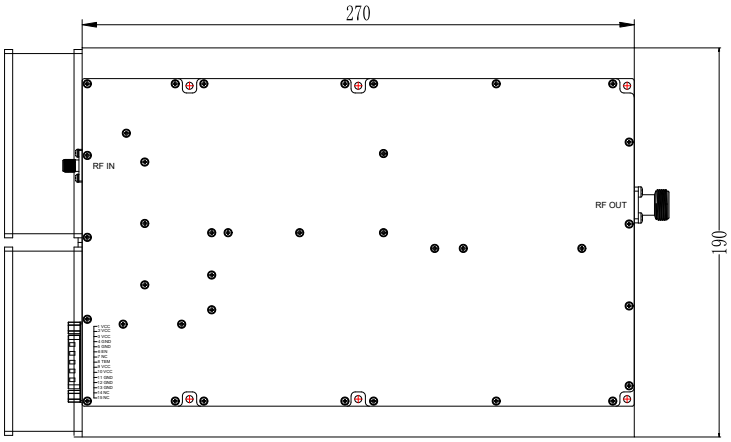

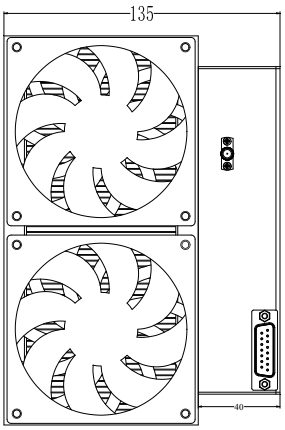

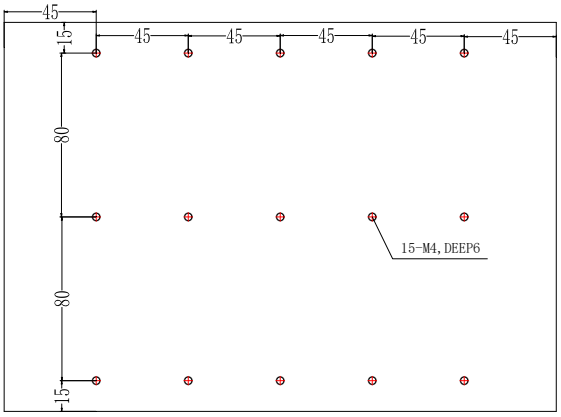

直流供电接口 DC Supply Connector（D-SUB15 Female):

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
8	TEM	When the temperature of the case exceeds 75 ℃, the power amplifier will turn off and this pin will be pulled high. If the temperature of case drops to 70 ℃, the power amplifier will return to normal operation, and this pin will be pulled low.

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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 Desciption	版本号 Revision
TLPA2G6G-53-53	Power amplifier 2-6GHz, Gain:53dB,Psat:53dBm,+28V DC,Without Heatsink	Rev.1.0
TLPA2G6G-53-53-HS	Power amplifier 2-6GHz, Gain:53dB,Psat:53dBm,+28V DC,With Heatsink	Rev.1.0

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