

Power Amplifier

1-6GHz /53dB Gain/53 dBm Psat

Model: TLPA1G6G-53-53-HS

TLPA1G6G-53-53-HS is a power amplifier with a power gain of 53 dB and a nominal Psat of 53 dBm across the frequency range of 1 to 6 GHz. The DC power requirement for the amplifier is +36 VDC/1900 W. The input port configuration offers coax adapter structure with SMA female and output port configuration offers coax adapter structure with N female.

Features:

- Ultra Wide Band: 1-6GHz
- Gain: 53dB Min
- Output Power Psat: 53 dBm Min
- Good Power and Gain Flatness
- 50 Ohm Matched Input / Output
- Over voltage protection.

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		1-6		GHz
功率增益 Power Gain@Pout=53dBm	53			dB
增益平坦度 Gain Flatness		±3		dB
增益调节范围 Gain adjust Range		31.5		dB
增益调节步进 Gain adjust Step		0.5		dB
饱和输出功率 Output Psat	53			dBm
杂散 Spurious@Pout=53dBm			-60	dBc
二次谐波 2nd Harmonics@Pout=53dBm			-10	dBc
输入驻波 Input VSWR			2	:1
耐受负载驻波 Tolerate load VSWR			3	:1
直流电压 DC Voltage		36		V DC

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	
控制接口 Control Interface*	J30J-9ZKP	Pin1-6:0.5/1/2/4/8/16 Attenuation control bit Pin7~9:GND
直流偏置 DC Bias	D-SUB5W5	Pin1-2: +36V Pin3-5: GND
尺寸 Size	364*330*97.5	mm
重量 Weight	/	g

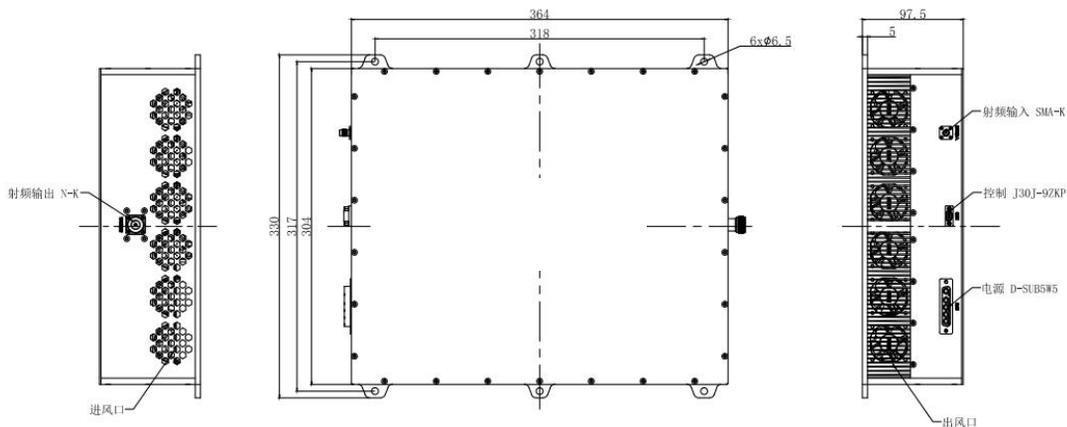
*Active high, inactive at low level or floating state.

绝对最大值 Absolute Maximum Ratings:

参数 Parameter	指标 Value
供电偏置电压 Supply Bias Voltage	+37 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



温度环境 Environmental Conditions:

参数 Parameter	Min	Typ	Max	单位 Units
操作温度 Operating Temperature*	-20		+40	°C
存储温度 Non-operating Temperature*	-30		+50	°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
TLPA1G6G-53-53-HS	Power amplifier 1-6GHz, Gain:53dB, Psat:53dBm, +36V DC, With Heatsink	Rev.1.1