

## Power Amplifier

6-18GHz/60dB Gain/53dBm Psat

Model: TLPA6G18G-60-53

TLPA6G18G-60-53 is a power amplifier with a minimum power gain of 60 dB and a minimum Psat of 53 dBm across the frequency range of 6 to 18 GHz. The DC power requirement for the amplifier is +28 VDC/3500 W. The input port configuration offers coax adapter structure with SMA female and output port is WRD500.

### Features:

- Frequency range: 6-18GHz
- Gain: 60dB Min
- Output Power Psat: 53dBm Min
- 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	6		18	GHz
功率增益 Power Gain	60			dB
增益平坦度 Gain Flatness		±4.5	±5	dB
饱和输出功率 Output Psat	53			dBm
杂散 Spurious@Pout=50dBm			-55	dBc
二次谐波 2nd Harmonic@Pout=50dBm		-20	-15	dBc
直流电压 DC Voltage		+28		V DC
功耗 Power Consumption			3500	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/WRD500	
直流供电接口 DC Supply Connector	D-SUB-8W8	
尺寸 Size	305*310*200	mm
重量 Weight	25	Kg

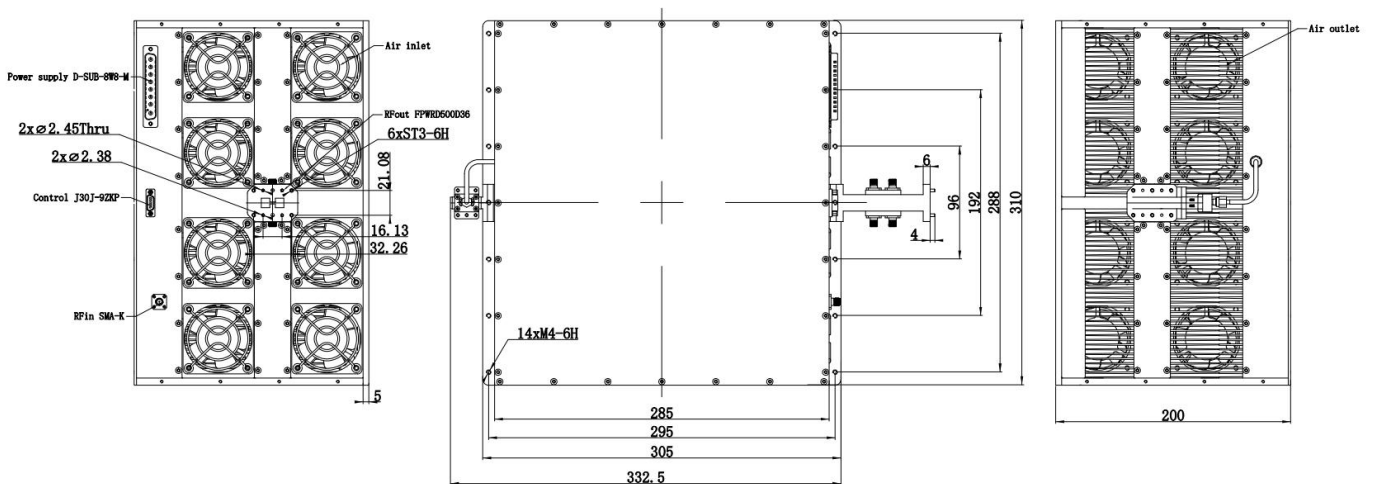
## 绝对最大值 Absolute Maximum Ratings:

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



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

## 直流供电接口 DC Supply Connector(DSUB-8W8):

引脚 Pin	功能 Function
Pin1-4	+28V
Pin5-8	GND

## 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*	-45		+65	°C
相对湿度 Relative humidity		95		%
海拔 Altitude	50,000			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			

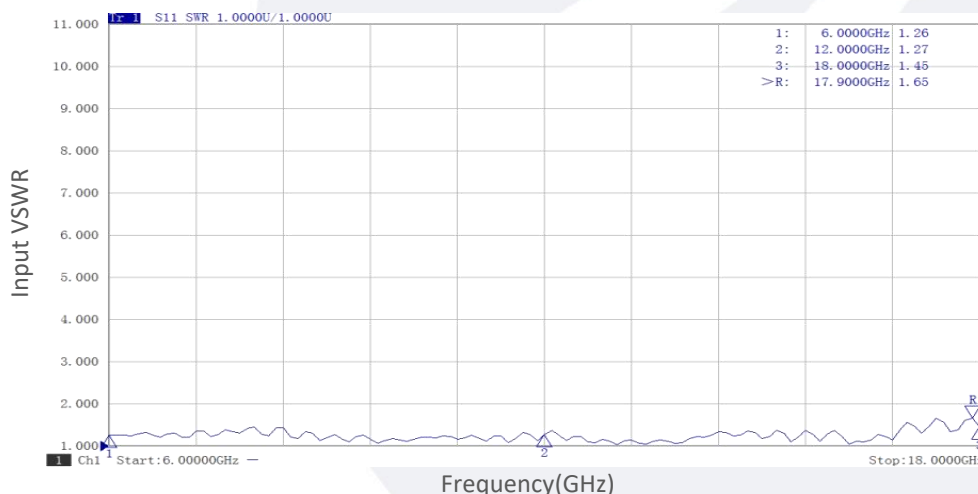
\*Note: For a wider temperature range, please consult the manufacturer.

## 订货信息 Ordering Information:

标准型号 Base Number	描述 Description	版本号 Revision
TLPA6G18G-60-53	Power amplifier 6-18GHz, Gain:60dB,Psat:53dBm,+28V DC,Built in Fan Cooling.	Rev.1.2

## 典型曲线 Typical Performance Data:

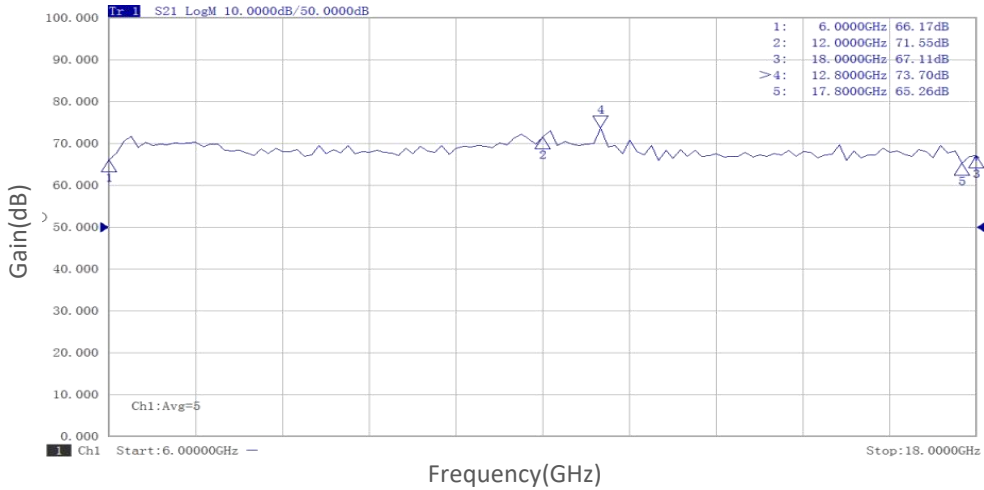
### Input VSWR vs Frequency



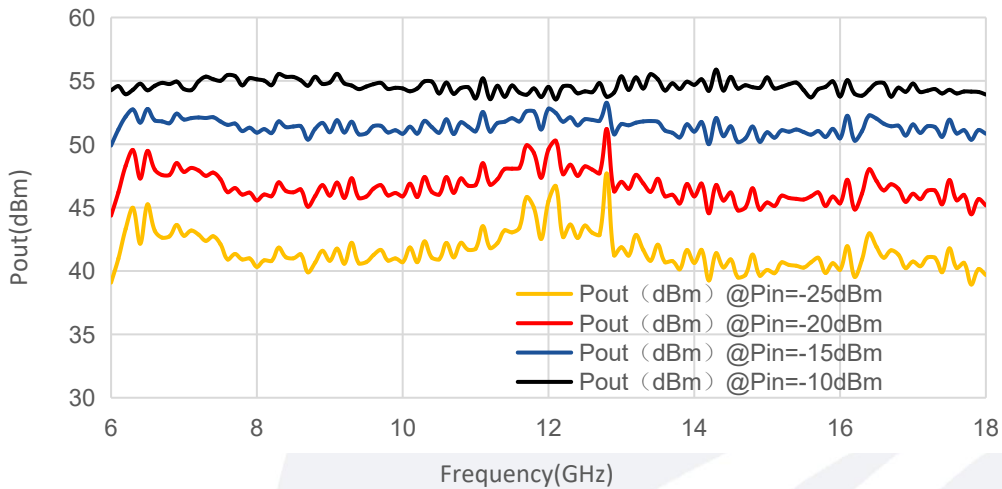
Note: Above data is for ref only, actual data may vary from unit to unit depending on operating environment and other factors like material lots etc.

## 典型曲线 Typical Performance Data:

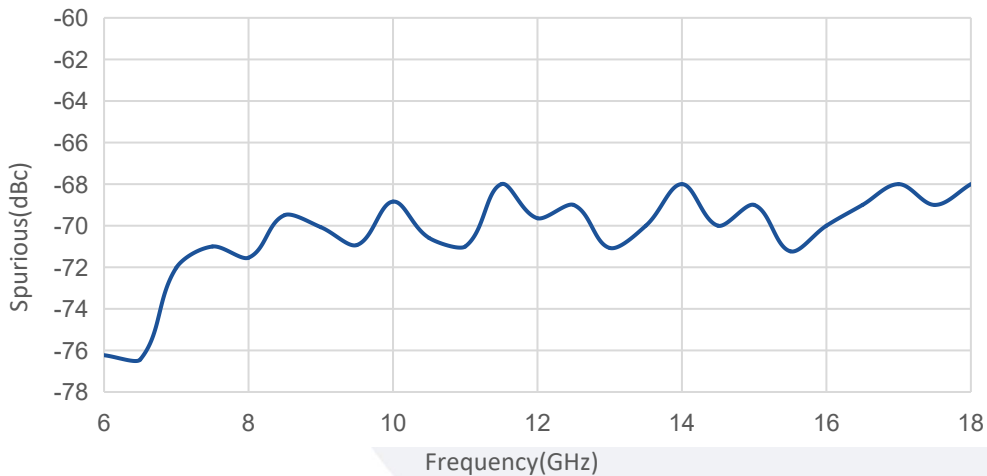
### Power Gain vs Frequency



### Pout vs Frequency



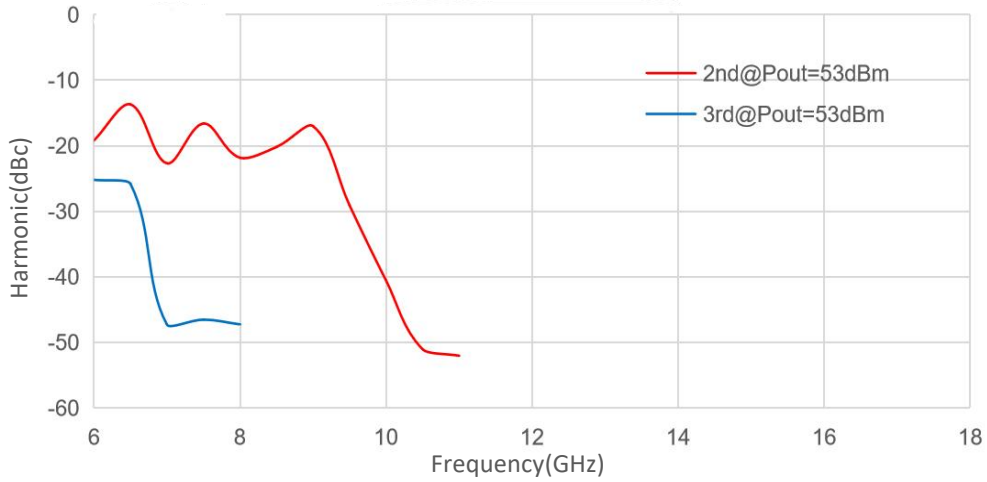
### Spurious vs Frequency



Note: Above data is for ref only, actual data may vary from unit to unit depending on operating environment and other factors like material lots etc.

## 典型曲线 Typical Performance Data:

### Harmonic vs Frequency



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