

Power Amplifier

6-18GHz /50dB Gain/43 dBm Psat

Model: TLPA6G18G-43-43-HS-T

TLPA6G18G-43-43-HS-T is a power amplifier with a minimum small signal gain of 50 dB and a minimum Psat of 43 dBm across the frequency range of 6 to 18 GHz. The DC power requirement for the amplifier is +28 VDC/350 W. The input and output port configuration offers coax adapter structure with SMA female.

Features:

- Frequency range: 6-18GHz
- Gain: 50dB Min
- Output Power Psat: 43dBm 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
小信号增益 Small Signal Gain	50			dB
增益平坦度 Gain Flatness@Full band		±4		dB
饱和输出功率 Output Psat	43			dBm
杂散 Spurious@Pout=43dBm			-60	dBc
谐波 Harmonics@Pout=43dBm			-10	dBc
输入驻波 Input VSWR			2.0	:1
直流电压 DC Voltage		+28		V DC
功耗 Power Consumption			350	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/SMA Female	
直流偏置 DC Bias	D-SUB7W2	A1+28V;A2: GND Pin1:TTL;Pin 2~5:NC
尺寸 Size	200*100*69.5	mm
重量 Weight	≤3.5	Kg

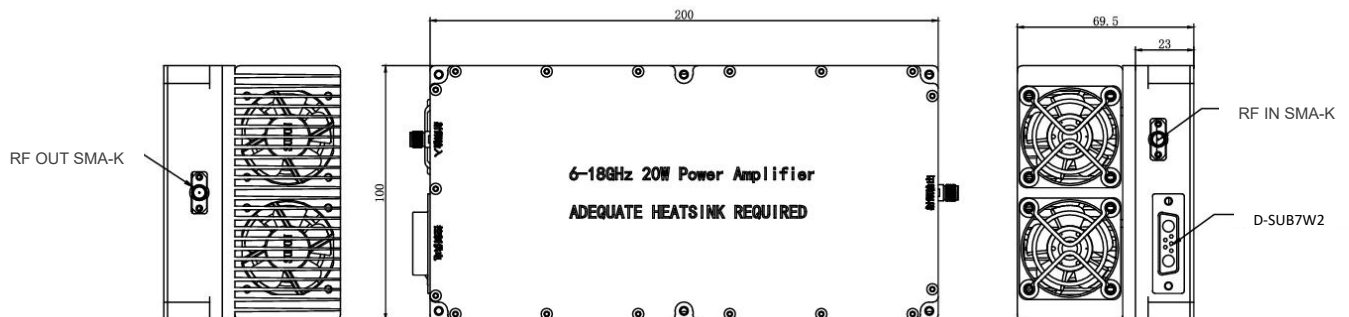
绝对最大值 Absolute Maximum Ratings:

参数 Parameter	指标 Value
供电偏置电压 Supply Bias Voltage	+30 V
输入功率 RF Input Power	+10 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.

温度环境 Environmental Conditions:

参数 Parameter	Min	Typ	Max	单位 Units
操作温度 Operating Temperature*	-40		+70	°C
存储温度 Non-operating Temperature*	-50		+80	°C
相对湿度 Relative humidity		95		%
海拔 Altitude	10,000			feet
震动 Shock / Vibration(MIL-STD-810F)	20g,11ms,saw-tooth			
冲击 Shock(non operating)	20G for 11msc half sin wave,3 axis both directions			

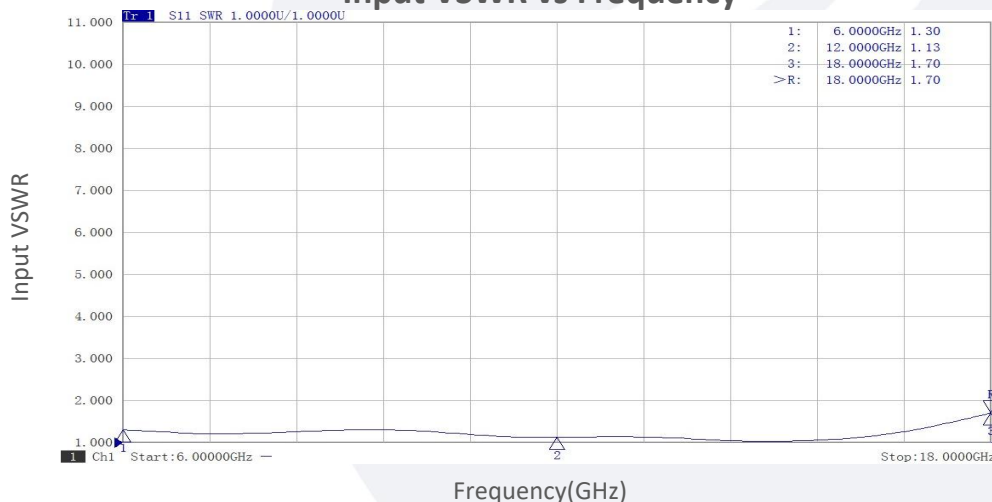
*Note: For a wider temperature range, please consult the manufacturer.

订货信息 Ordering Information:

标准型号 Base Number	描述 Description	版本号 Revision
TLPA6G18G-43-43-HS-T	Power amplifier 6-18GHz,Gain:50dB,Psat:43dBm,+28V DC,With Heatsink, Operating Temperature -40~+70°C	Rev.1.1

典型曲线 Typical Performance Data:

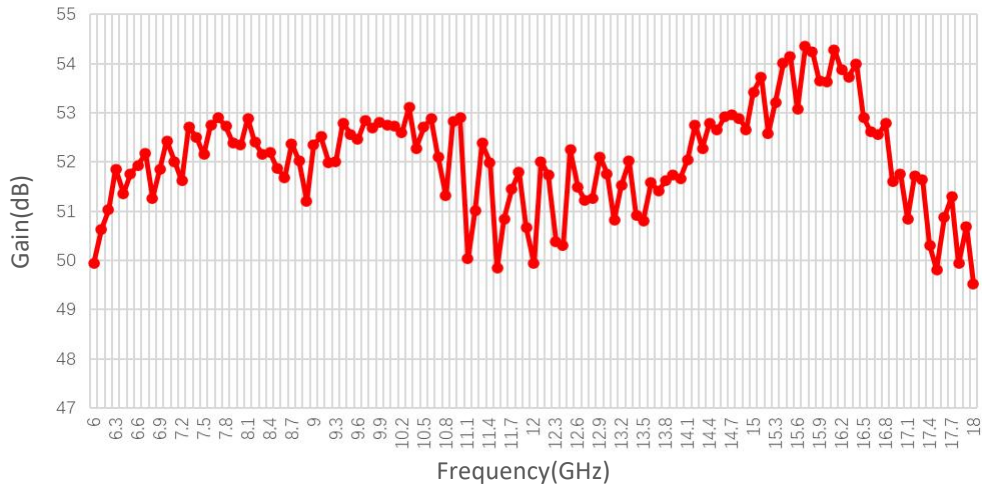
Input VSWR vs Frequency



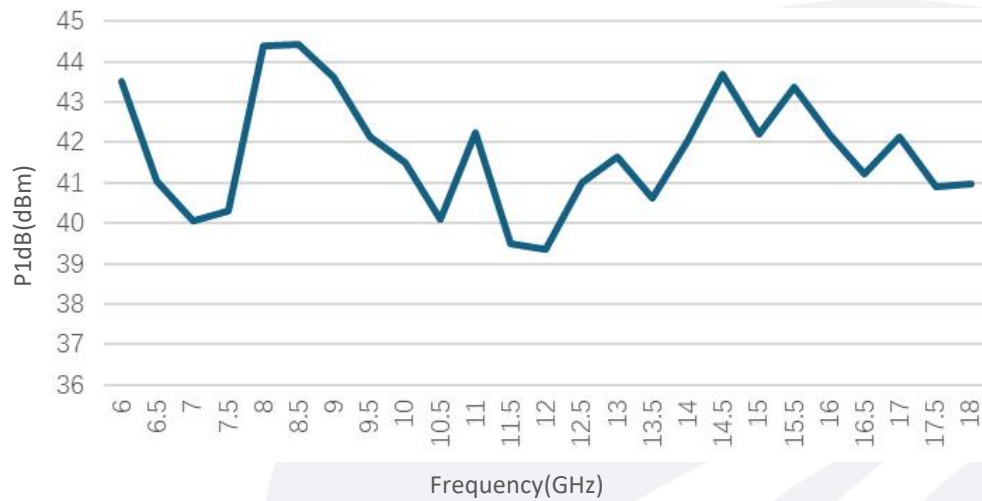
Note: Above data is for ref only, actual data may vary from unit to unit depending on operating environment and other factors like material lots etc.

典型曲线 Typical Performance Data:

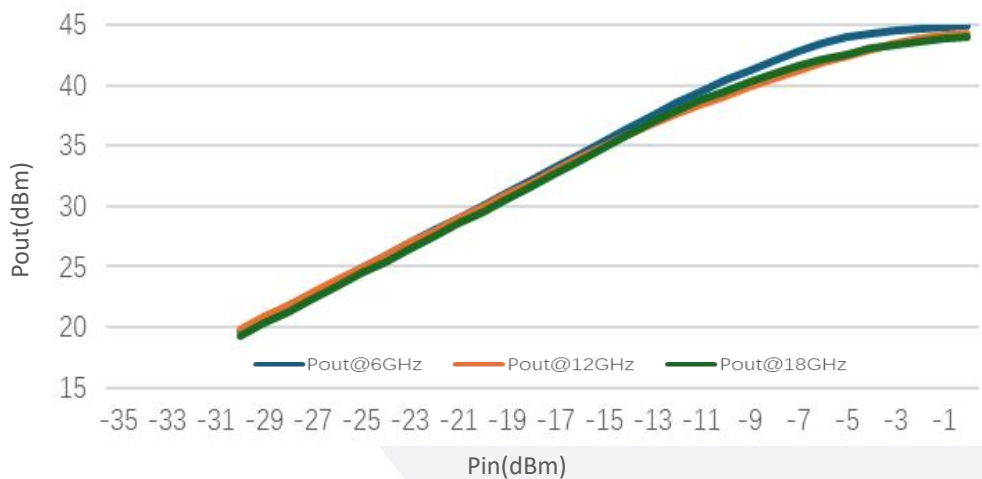
Small Signal Gain vs Frequency



P1dB vs Frequency

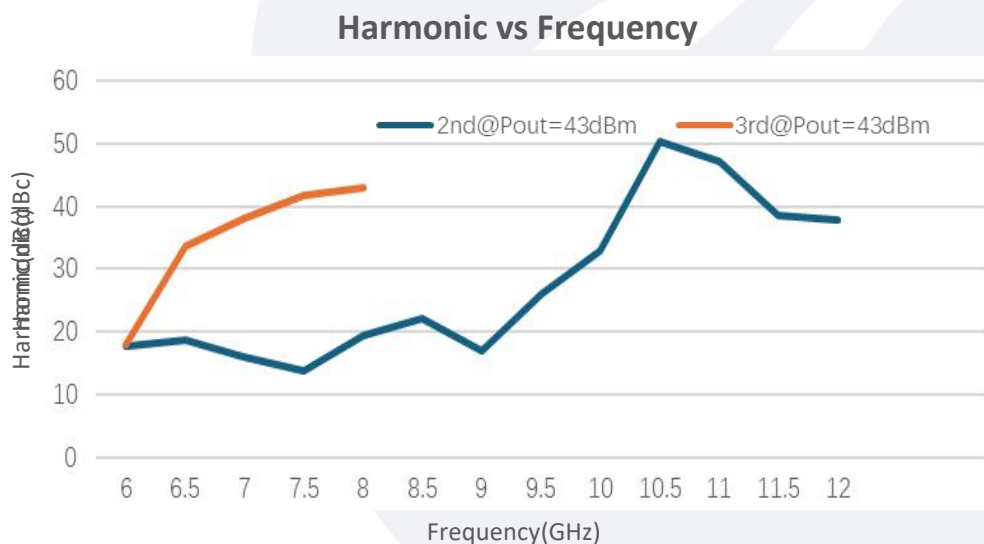
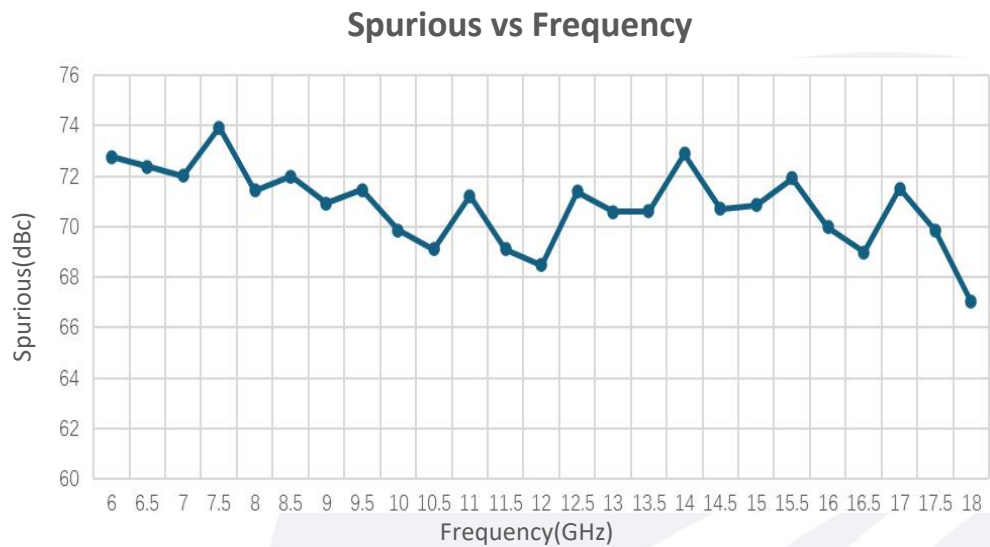
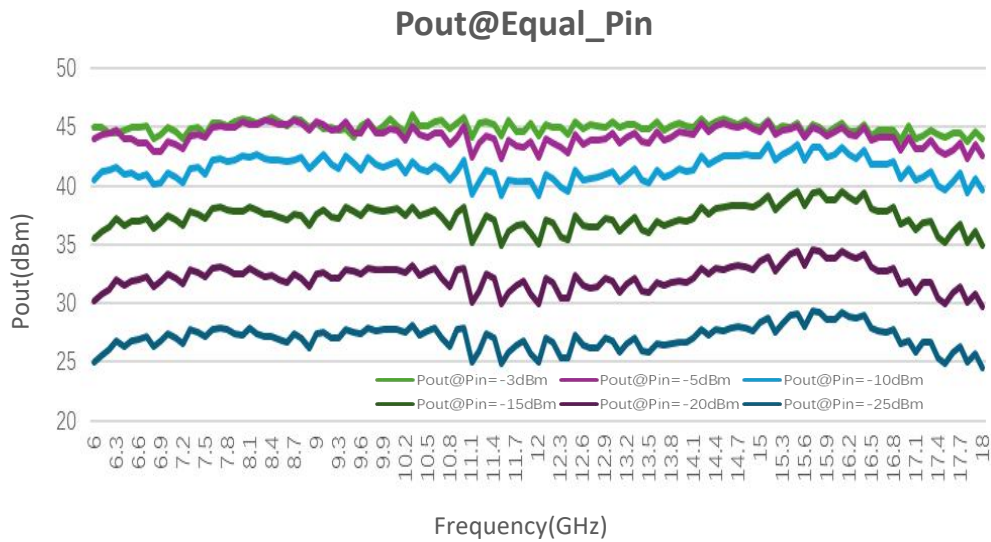


Pout@Pin



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