

Power Amplifier

2-22GHz/43dB Gain/43dBm Psat

Model: TLPA2G22G-43-43

TLPA2G22G-43-43 is a power amplifier with a minimum power gain of 43 dB and a minimum Psat of 43 dBm across the frequency range of 2 to 22 GHz. The DC power requirement for the amplifier is +18VDC/14A. The input and output port configuration offers coax adapter structure with 2.92mm female.

Features:

- Frequency range: 2-22GHz
- Gain: 43dB Min
- Output Power Psat: 43dBm Min
- Protection: Over voltage protection
- 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		22	GHz
功率增益 Power Gain	43			dB
增益平坦度 Gain Flatness		±4		dB
线性输出功率 Output P1dB	35			dBm
饱和输出功率 Output Psat	43			dBm
杂散 Spurious@Pout=43dBm			-50	dBc
谐波抑制 Harmonic@Pout=43dBm			-10	dBc
输入驻波 Input VSWR			2	:1
直流电压 DC Voltage		18	19	V DC
直流电流 DC Supply Current		14	15	A
阻抗 Impedance		50		Ohms

机械特性 Mechanical Specifications:

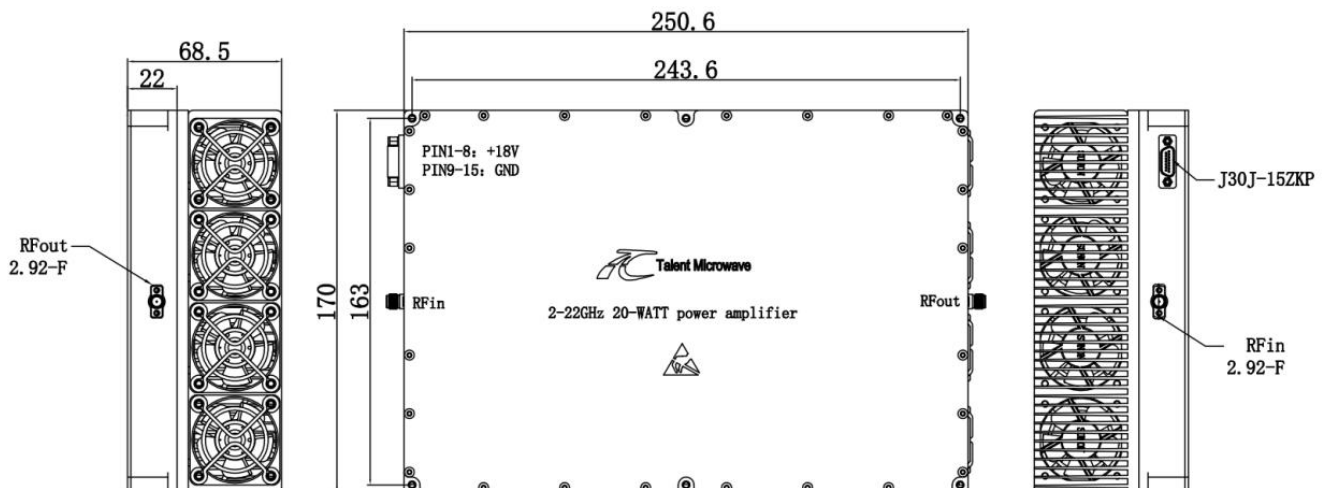
参数 Parameter	指标 Value	单位 Units
输入/输出接口 Input /Output Connector	2.92mm Female/2.92mm Female	
供电接口 DC Supply Connector	J30J-15ZKP	Pin1~8:+18V Pin9~15:GND
尺寸 Size	250.6*170*22(Without heatsink) 250.6*170*68.5(With heatsink)	mm
重量 Weight	≤3.5	Kg

绝对最大值 Absolute Maximum Ratings:

参数 Parameter	指标 Value
供电偏置电压 Supply Bias Voltage	+19 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.

温度环境 Environmental Conditions:

参数 Parameter	Min	Typ	Max	单位 Units
操作温度 Operating Temperature*	-40		+50	°C
存储温度 Non-operating Temperature*	-50		+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			

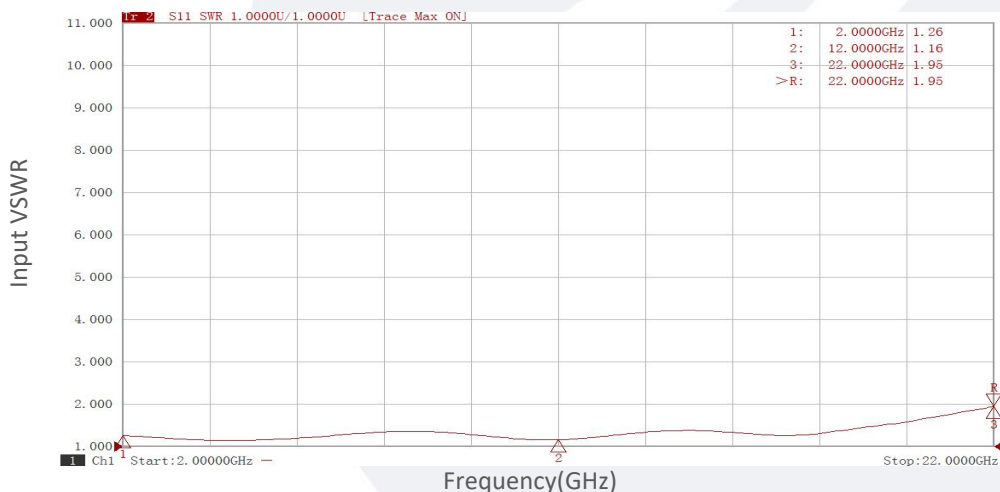
*Note: For a wider temperature range, please consult the manufacturer.

订货信息 Ordering Information:

标准型号 Base Number	描述 Description	版本号 Revision
TLPA2G22G-43-43	Power amplifier 2-22GHz, Gain:43dB,Psat:43dBm,+18V DC,With Heatsink	Rev.1.1

典型曲线 Typical Performance Data:

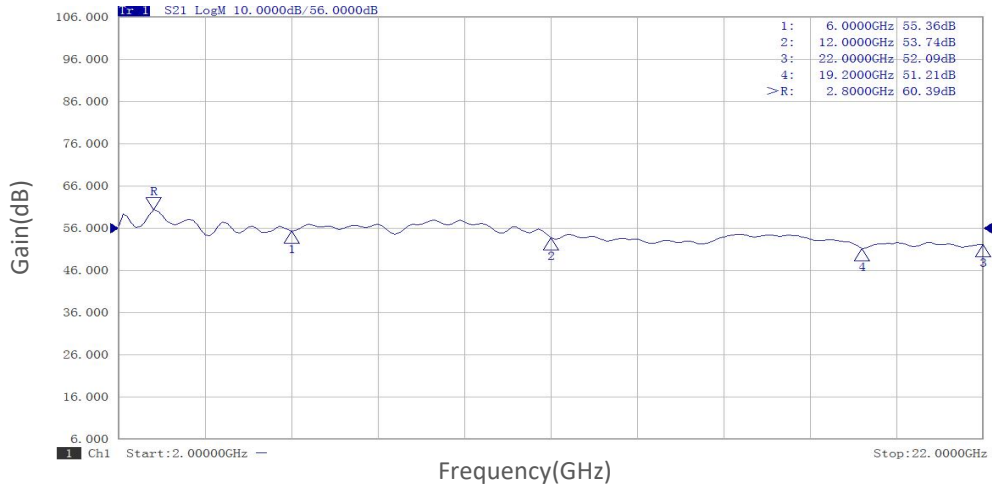
Input VSWR vs Frequency



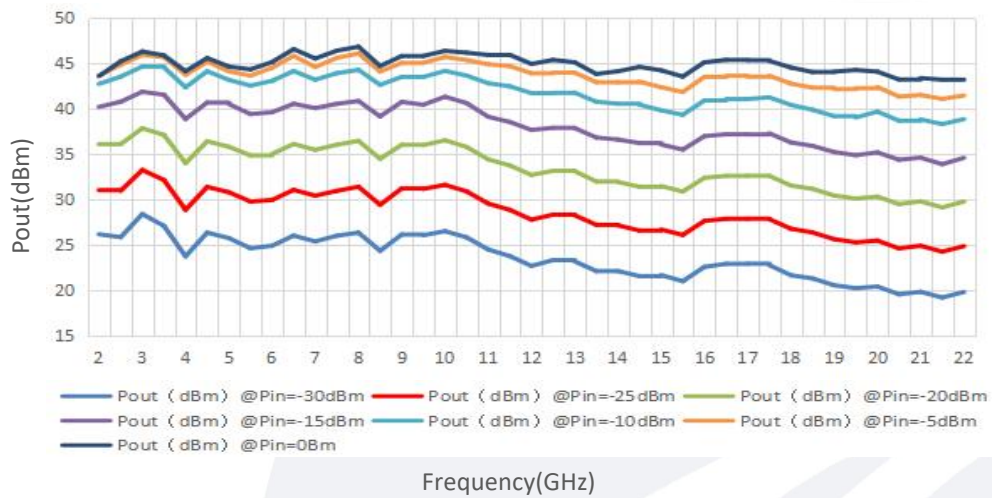
Note: Above data is for ref only, actual data may vary from unit to unit depending on operating environment and other factors like material lots etc.

典型曲线 Typical Performance Data:

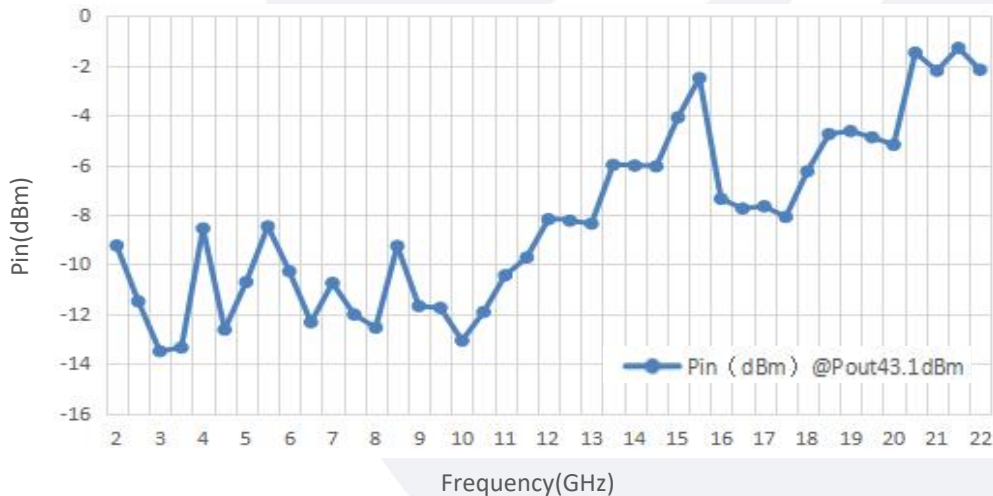
Small Signal Gain vs Frequency



Pout@Equal-Pin



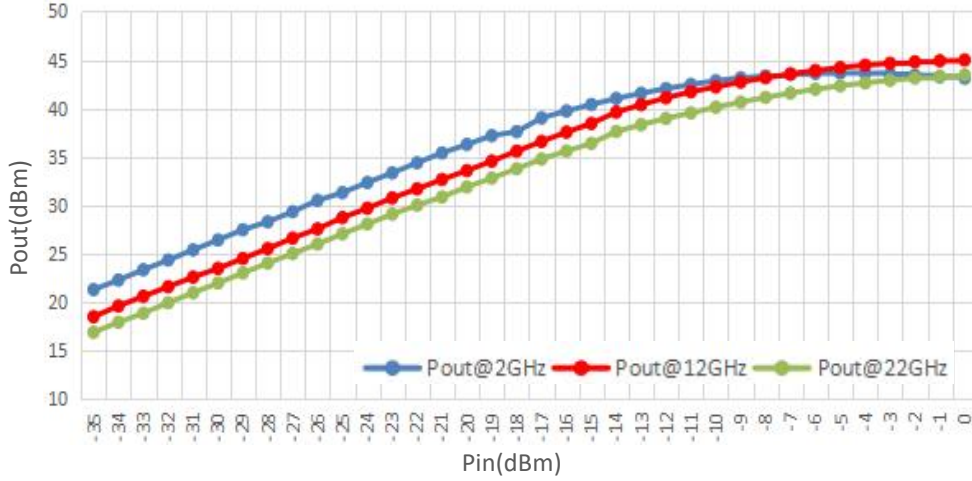
Pin@Equal-Pout



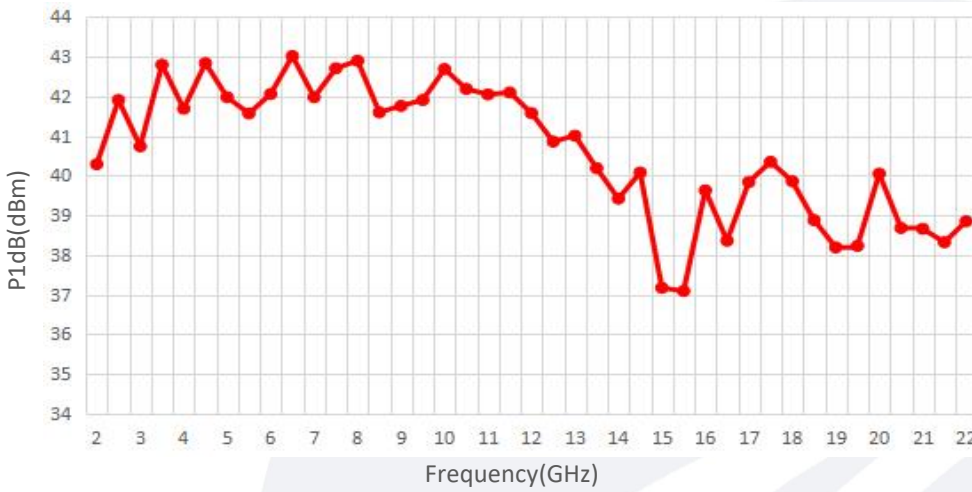
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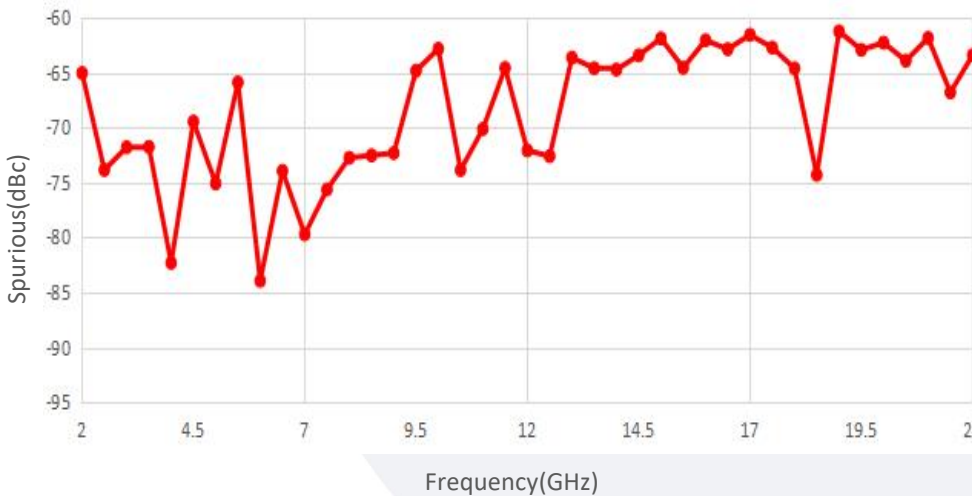
Pout@Pin



P1dB VS Frequency



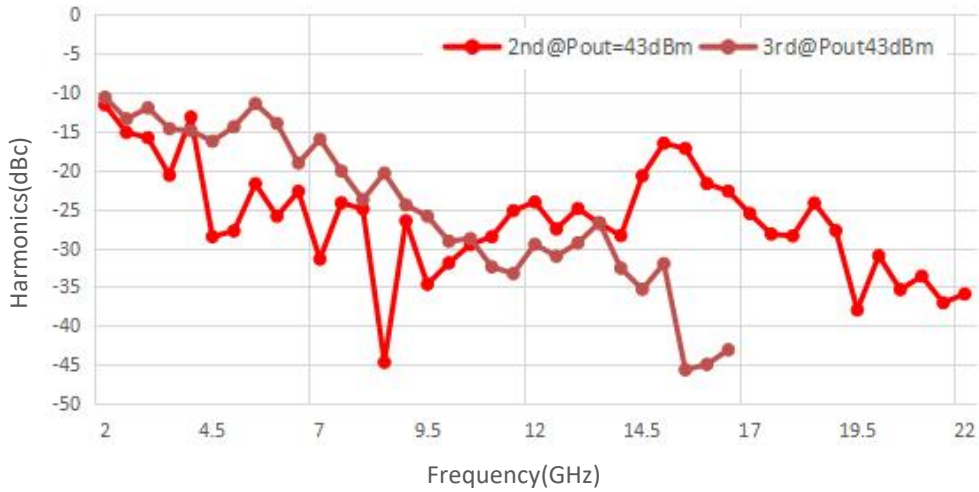
Spurious vs Frequency



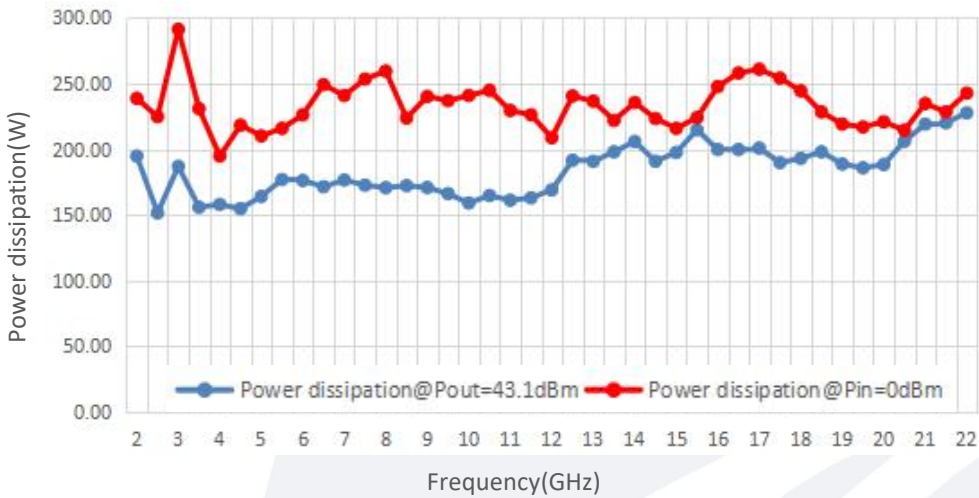
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典型曲线 Typical Performance Data:

Harmonic vs Frequency



Power dissipation



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