Suzhou Talent Microwave,Inc
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Power Amplifier

0.5-6GHz/50dB Gain/50dBm Psat

Model: TLPA0.5G6G-50-50-WATERPROOF

TLPA0.5G6G-50-50-WATERPROOF is a power amplifier with a minimum power gain of 50 dB and a minimum Psat of 50 dBm across the frequency range of 0.5 to 6 GHz. The DC power requirement for the amplifier is +36 VDC/800 W.The input and output port configuration offers coax adapter structure with N Female.

Features:

- Frequency range: 0.5-6GHz
- Gain: 50dB Min
- Output Power Psat: 50dBm Min
- Protection:Over TEM,over voltage, over current ,over VSWR 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	0.5		6	GHz
工作模式 Operating Mode	CW/PULSE compatible			
功率增益 Power Gain	50			dB
增益平坦度 Gain flatness		±3.5		dB
饱和输出功率 Output Psat	50			dBm
杂散 Spurious@Pout=50dBm			-60	dBc
二次谐波 2rd Harmonics@Pout=50dBm		-10		dBc
输入驻波 Input VSWR			2	:1
直流电压 DC Voltage		36	38.5	V DC
功耗 Power Consumption			800	W
防护等级 Ingress Protection Grade	IP-65			
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	N Female/N Female	
尺寸 Size	300*209*108	mm
重量 Weight	≤7.5	Kg

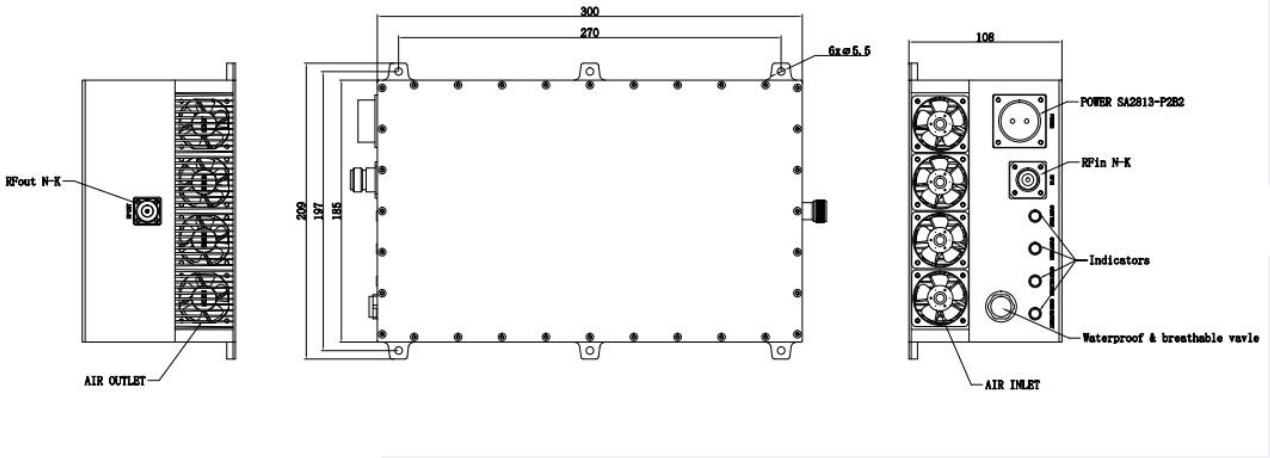
绝对最大值 Absolute Maximum Ratings:

参数 Parameter	指标 Value
输入功率 RF Input Power	+10 dBm
ESD灵敏度 ESD sensitivity (HBm)	Class 0, passed 150V

Simple 220V System
Available SAC option

外形图 Outline Drawing:

Unit:mm



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

DC加电接口 DC Interface Connector(SA2813-P2B2):

Pin #	Description	Specification
1	VCC	+36 V DC
2	GND	Ground

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实物图 Physical picture:

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温度环境 Environmental Conditions:

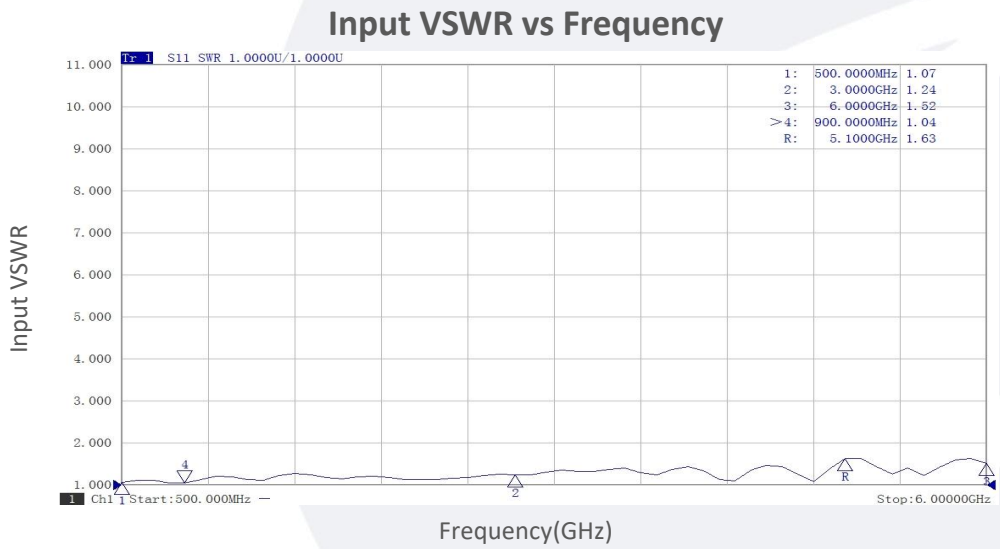
参数 Parameter	Min	Typ	Max	单位 Units
操作温度 Operating Temperature*	-20		+50	℃
存储温度 Non-operating Temperature*	-30		+60	℃
相对湿度 Relative humidity		95		%
海拔 Altitude	10,000			feet
震动 Shock / Vibration(MIL-STD-810F)	25g rms (15 degree 2KHz) endurance, 1 hour per axis			
冲击 Shock(non operating)	20G for 11msc half 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 Description	版本号 Revision
TLPA0.5G6G-50-50-WATERPROOF	Power amplifier 0.5-6GHz, Gain:50dB,Psat:50dBm,+36V DC,With Heatsink	Rev.2.1

典型曲线 Typical Performance Data:



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.

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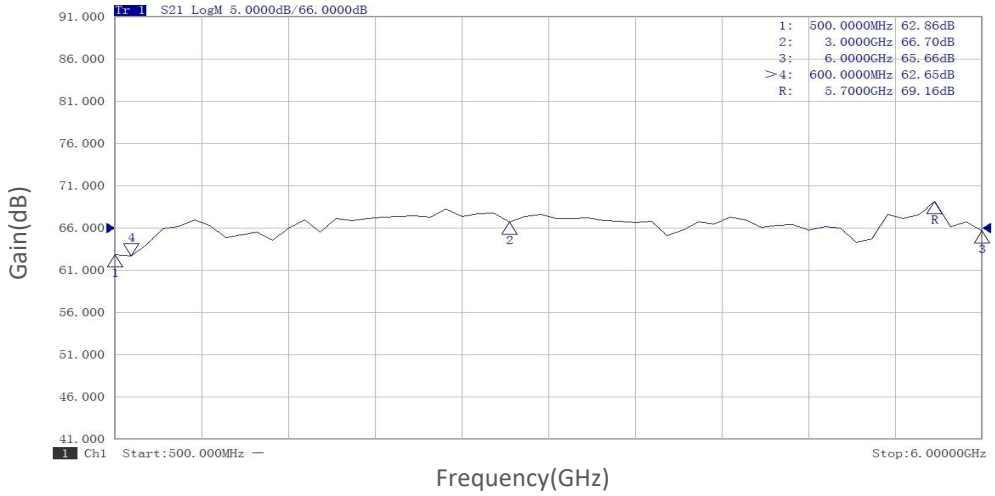
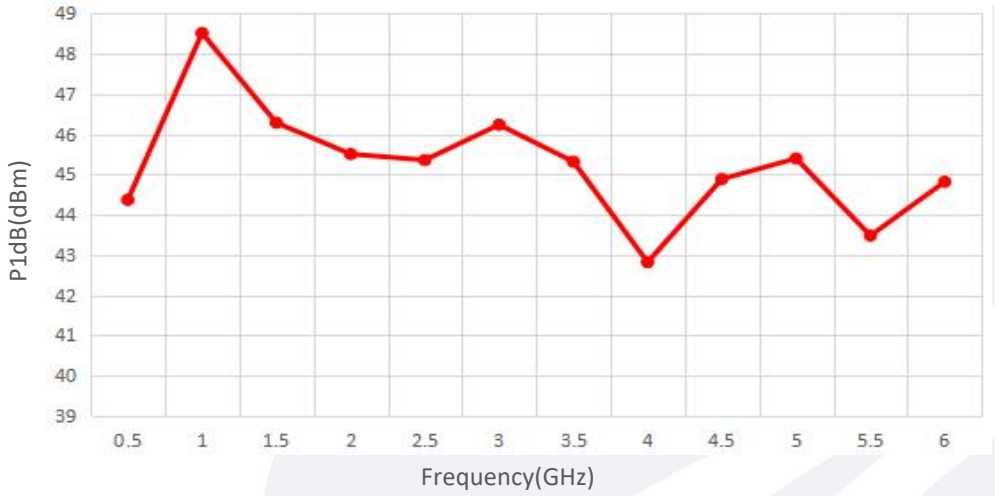
典型曲线 Typical Performance Data:

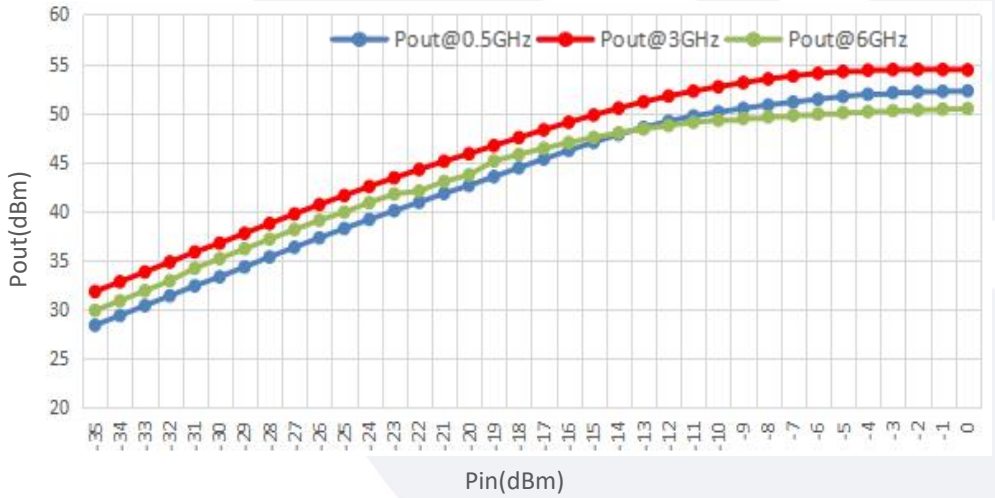
Small Signal Gain vs Frequency



P1dB vs Frequency



Pout@Pin



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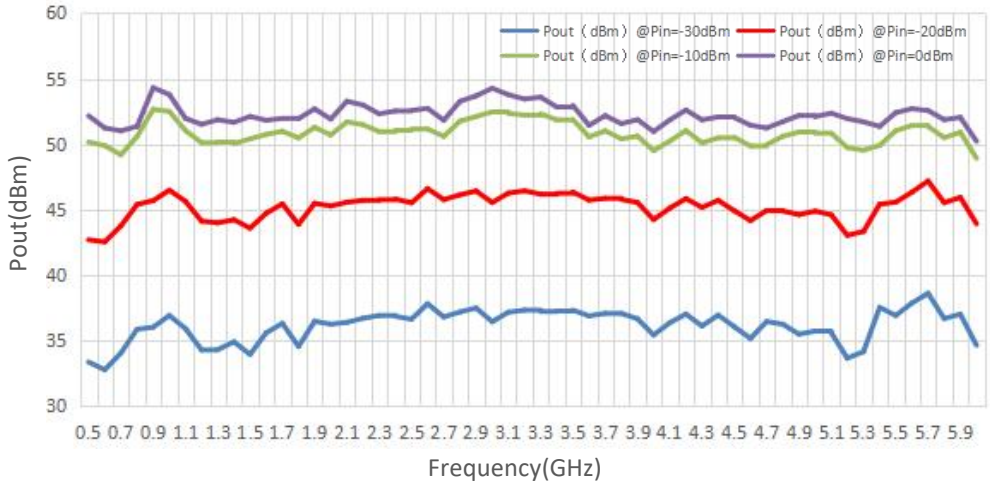
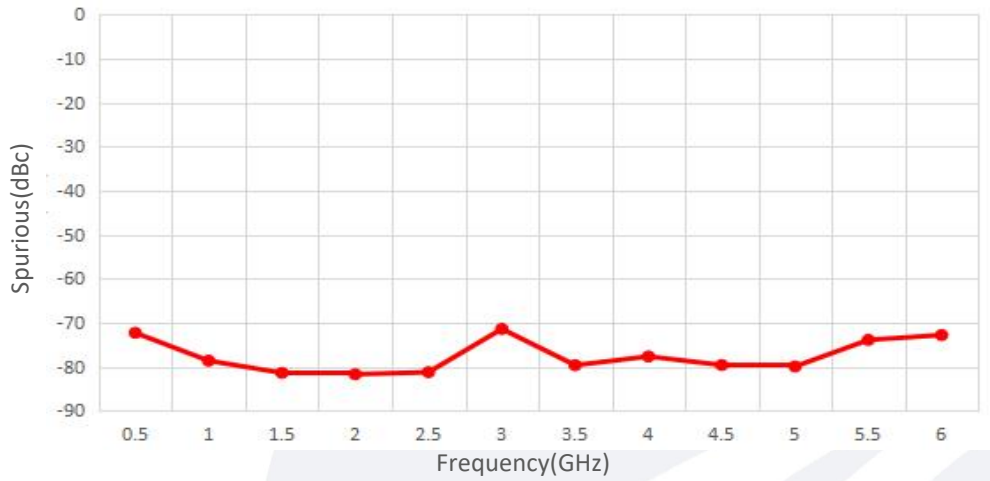
典型曲线 Typical Performance Data:

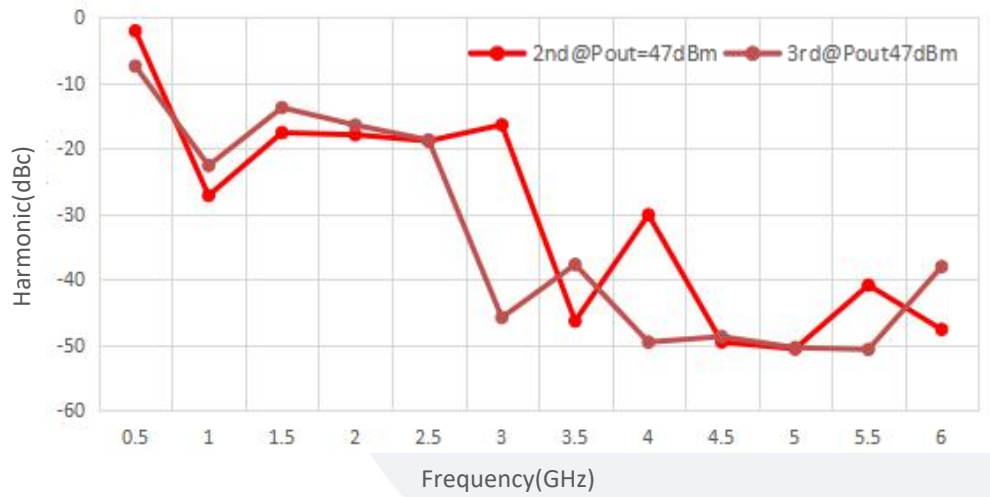
Pout@Equal_Pin



Spurious vs Frequency



Harmonic vs Frequency



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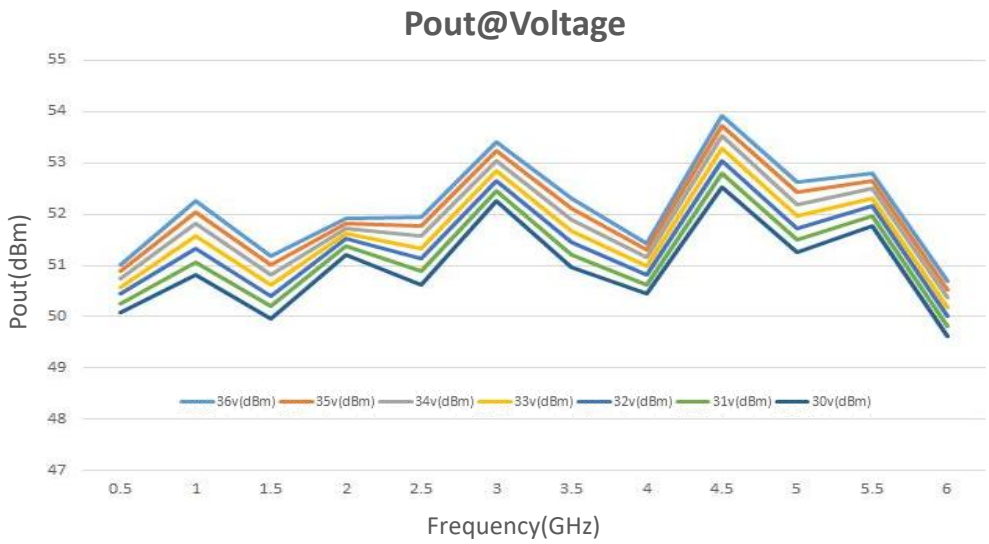

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