Suzhou Talent Microwave,Inc
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Power Amplifier

0.1-26GHz/15dB Gain/23dBm P1dB

Model: TLPA0.1G26G-15-23

TLPA0.1G26G-15-23 is a power amplifier with a typical small signal gain of 15 dB and a nominal P1dB of 23 dBm across the frequency range of 0.1 to 26 GHz. The DC power requirement for the amplifier is +12 VDC/200 mA. The input and output port configuration offers coax adapter structure with SMA female.

Features:

- Frequency range: 0.1-26GHz
- Gain: 15dB Typ
- Output Power P1dB: 23dBm Typ
- 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	0.1		26	GHz
小信号增益 Small Signal Gain		15		dB
增益平坦度 Gain Flatness		±1.5		dB
线性输出功率 Output P1dB		23		dBm
噪声系数 Noise Figure		5		dB
输入驻波 Input VSWR		2		:1
输出驻波 Output VSWR		2		:1
直流电压 DC Voltage	+10	+12	+15	V DC
直流电流 DC Supply Current		200		mA
阻抗 Impedance		50		Ohms

*Performance may degrade below 300 MHz. Please refer to below typical test plots

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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	SMA Female/SMA Female	
直流偏置 DC Bias	Solder Pin	
尺寸 Size	44*36*12	mm

绝对最大值 Absolute Maximum Ratings:

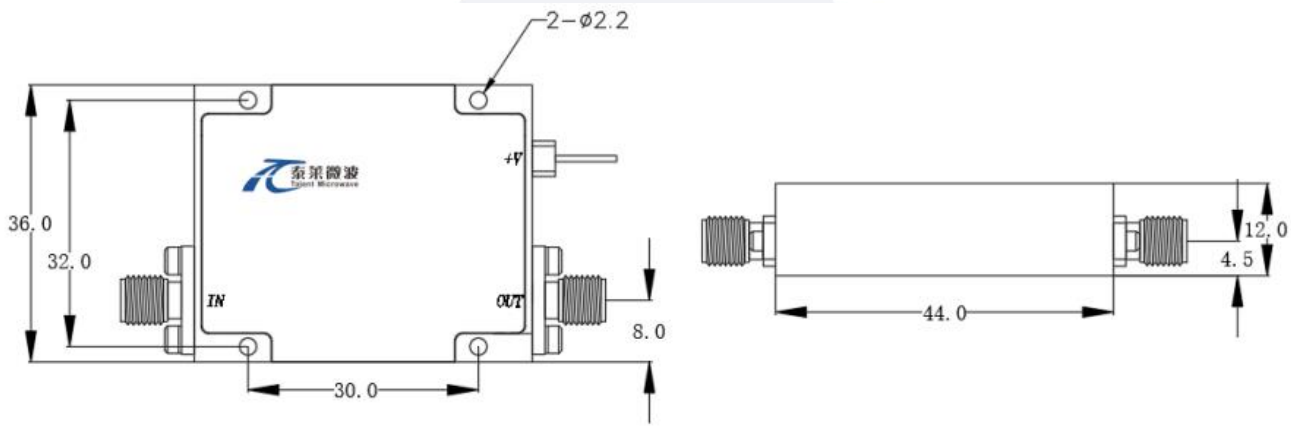
参数 Parameter	指标 Value
供电偏置电压 Supply Bias Voltage	+15 V
输入功率 RF Input Power	+15 dBm
ESD灵敏度 ESD sensitivity (HBm)	Class 0, passed 150V



Simple 220V System
Available SAC option

外形图 Outline Drawing:

Unit:mm; Tolerance:±0.1mm



***Heat Sink Required During Operation

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

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温度环境 Environmental Conditions:

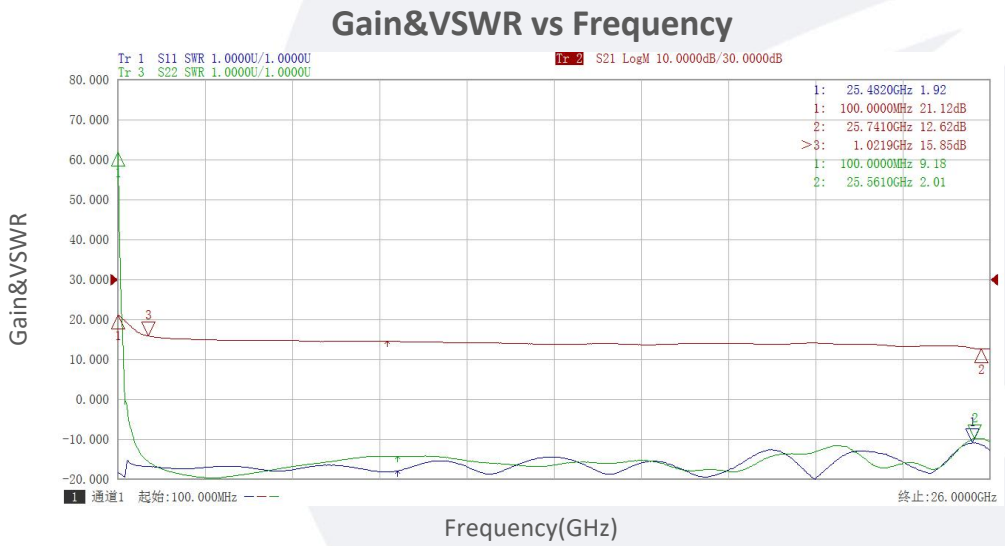
参数 Parameter	Min	Typ	Max	单位 Units
操作温度 Operating Temperature*	-40		+60	℃
存储温度 Non-operating Temperature*	-50		+70	℃
相对湿度 Relative humidity		95		%
海拔 Altitude	10,000			feet
震动 Shock / Vibration(MIL-STD-810F)	25g rms (15 degree 2KHz) endurance, 1 hour per axis			
冲击 Shock(non operating)	20G for 11msc half 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
TLPA0.1G26G-15-23	Power amplifier 0.1-26GHz, Gain:15dB,P1dB:23dBm,+12V DC,Without Heatsink	Rev.1.1
TLPA0.1G26G-15-23-HS	Power amplifier 0.1-26GHz, Gain:15dB,P1dB:23dBm,+12V DC,With Heatsink	Rev.1.1

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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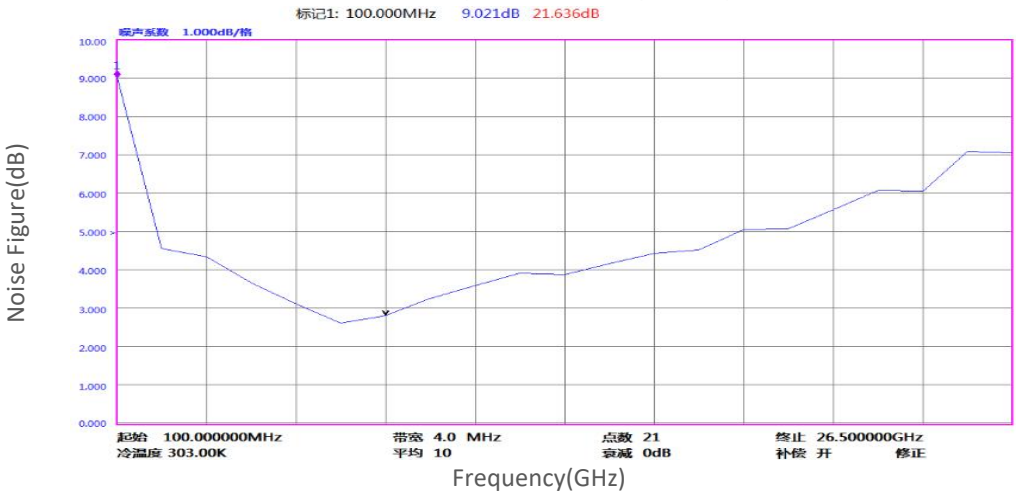
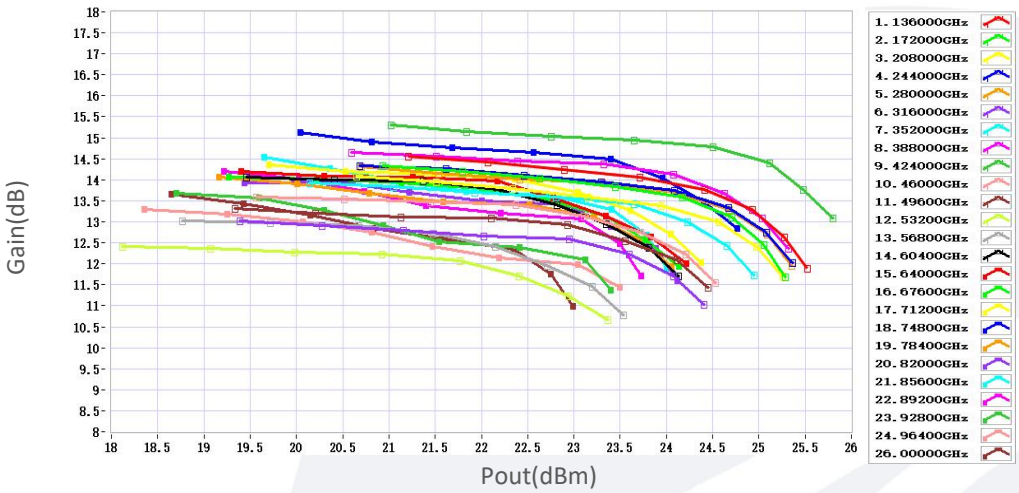
典型曲线 Typical Performance Data:

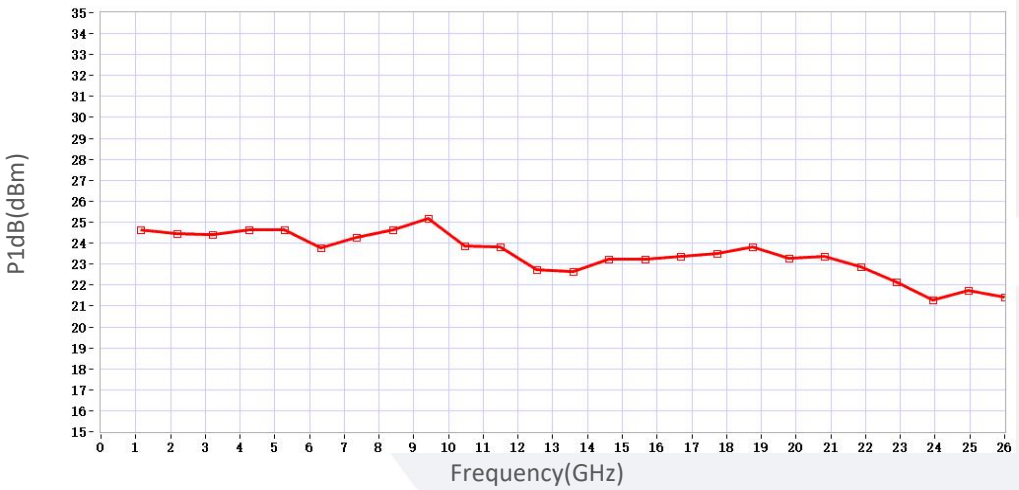
Noise Figure vs Frequency



Gain vs Output Power



P1dB vs Frequency



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