泰莱微波
Talent Microwave

Suzhou Talent Microwave,Inc
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sales@talentmw.com
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Model:TLLA50K53G-12-50

Low noise amplifier
50K-53GHz, NF:5.0dB, Gain:12dB

Feature:

- Ultra Wide Band:50K-53GHz
- Gain: 12dB Typ
- Noise Figure: 5.0dB Typ
- Unconditional stability
- 50 Ohm Matched Input / Output

电气特性 Electrical:

参数Parameter	Min.	Typ.	Max.	单位Units
频率范围 Frequency range		50K-53GHz		GHz
增益 Gain		12		dB
增益平坦度 Gain Flatness		±2		dB
*噪声系数 Noise Figure		5.0		dB
输出功率1dB压缩点 Output P1dB		15		dBm
输出三阶交调 Output IP3		20		dBm
输入驻波 Input VSWR		2.0		： 1
*输出驻波 Output VSWR		2.0		： 1
直流电压 DC Voltage	+5	+8		V DC
直流供电 DC power supply		160		mA
阻抗 Impedance		50		Ohms

机械特性 Mechanical :

参数Parameter	指标 Value
输入/输出接口 Input/Output Connector	2.4mm-Female/2.4mm-Female
供电引脚 Power Supply Pin	Solder Pin
尺寸 Size	44.8*29.2*11 mm
重量 Weight	/

Available 220V System Benchtop Amplifier

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	10 dBm
ESD灵敏度 ESD sensitivity (HBm)	Class 0, passed 150V

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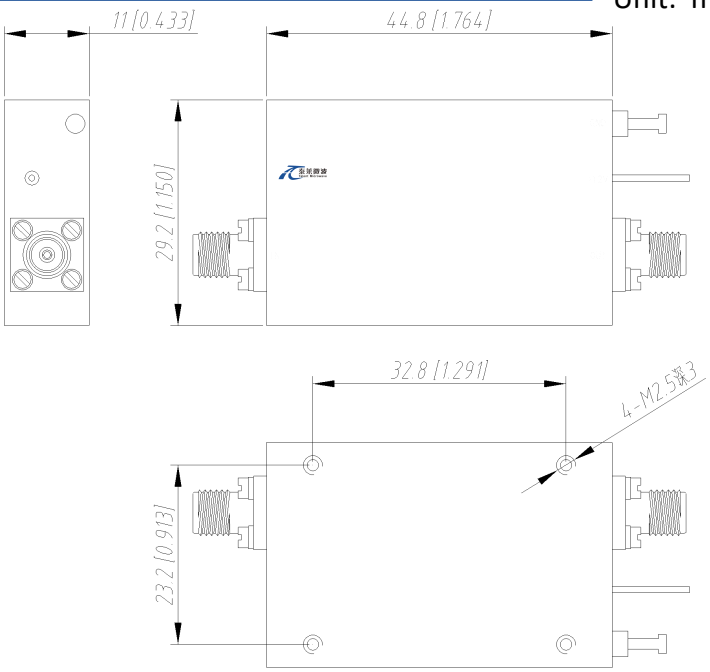
外形尺寸Outline Drawing:

Unit: mm(Inches)



OBSERVE PRECAUTIONS
ELECTROSTATIC SENSITIVE
DEVICES

***Heat Sink Required During Operation

温度环境 Environmental Conditions:

参数Parameter	Min.	Typ.	Max.	单位Units
操作温度 Operating Temperature	-40		+85	℃
存储温度 Non-operating Temperature	-55		+125	℃
相对湿度 Relative humidity		95		%
海拔 Altitude	10000		30000	feet
震动 Shock / Vibration(MIL-STD-810F)		Airborne		
冲击 Shock(non operating)	20G for 11msc half sin wave,3 axis both directions			

订货信息 Ordering Information:

标准型号 Part Number	描述 Description	版本号Revision
TLLA50K53G-12-50	Low Noise Amplifier, 50KHz-53 GHz, Noise Figure:5.0 dB, Gain:12 dB,P1dB:15dBm,8V DC,Without Heatsink	
TLLA50K53G-12-50-HS	Low Noise Amplifier, 50KHz-53 GHz, Noise Figure:5.0 dB, Gain:12 dB,P1dB:15dBm,8V DC With Heatsink	Rev.1.1

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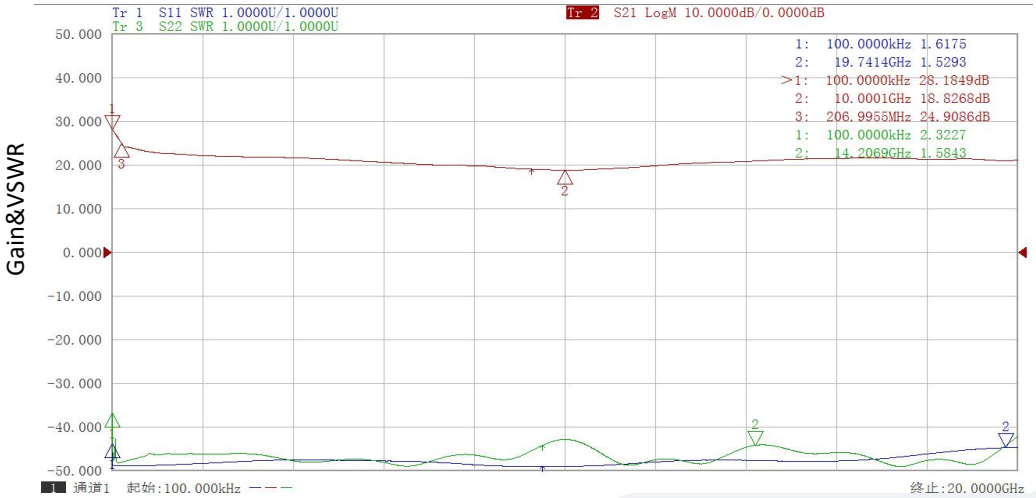
典型曲线 Typical Performance Data:

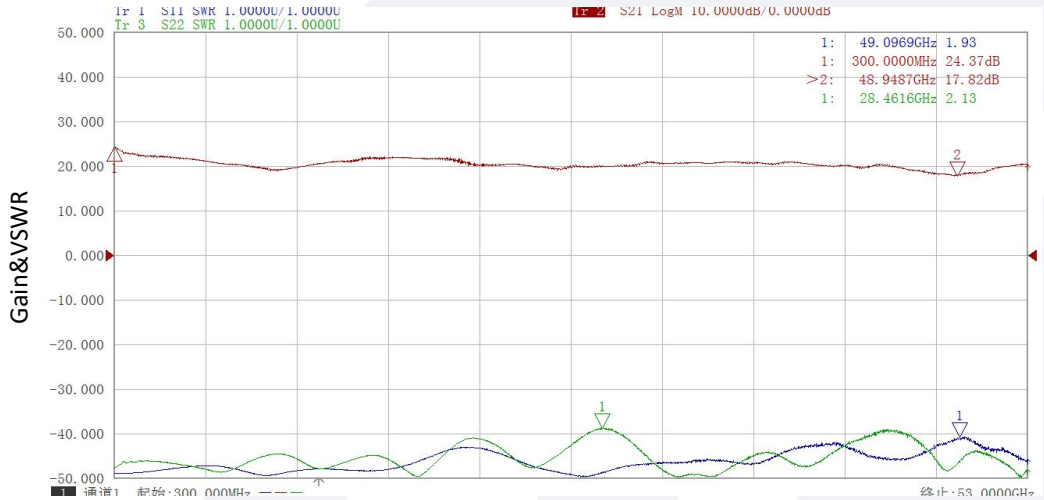
*Performance may degrade below 300 MHz.
Please refer to below typical test plots

Gain&VSWR vs Frequency



Frequency(100K-20G)

Gain&VSWR vs Frequency



Frequency(300M-53G)

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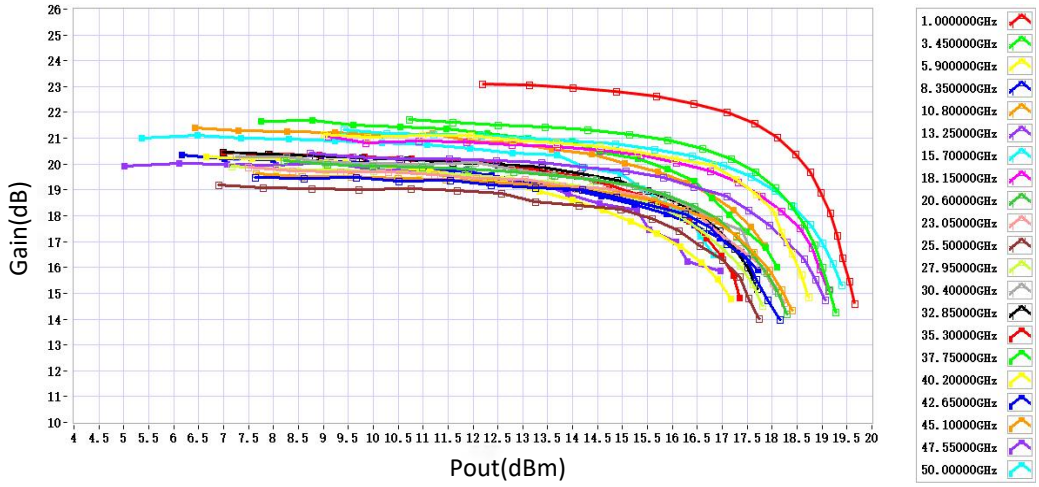
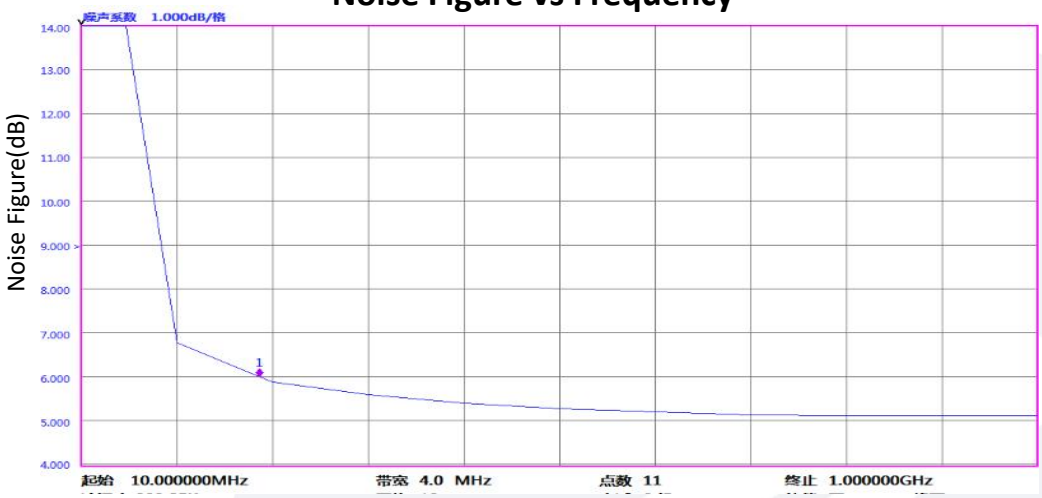
典型曲线 Typical Performance Data:

Gain vs Output Power

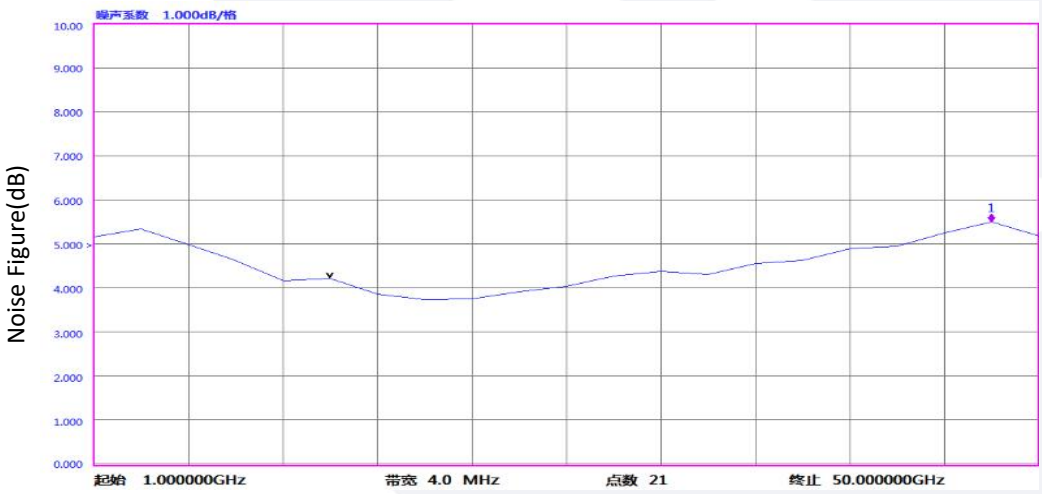


Noise Figure vs Frequency



Frequency(10M-1G)

Noise Figure vs Frequency



Frequency(1G-50G)

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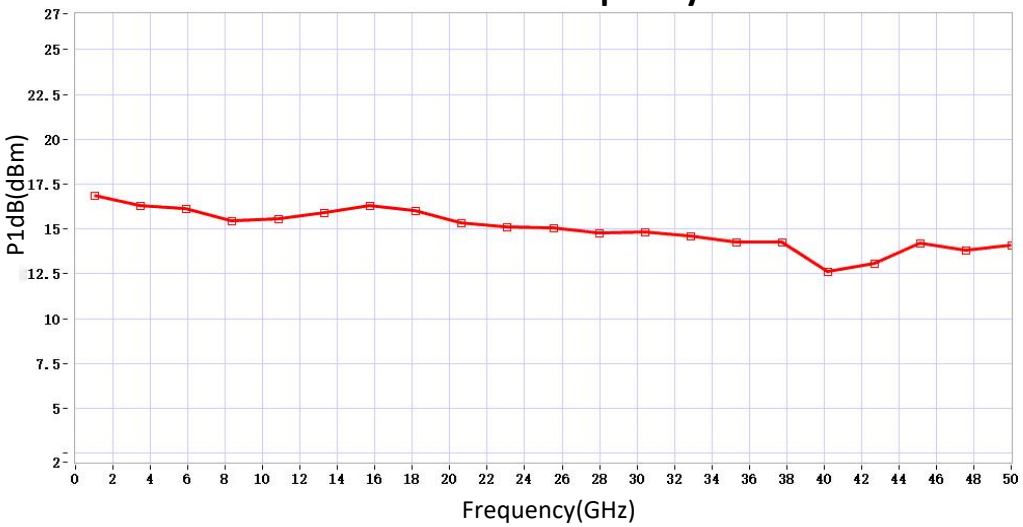
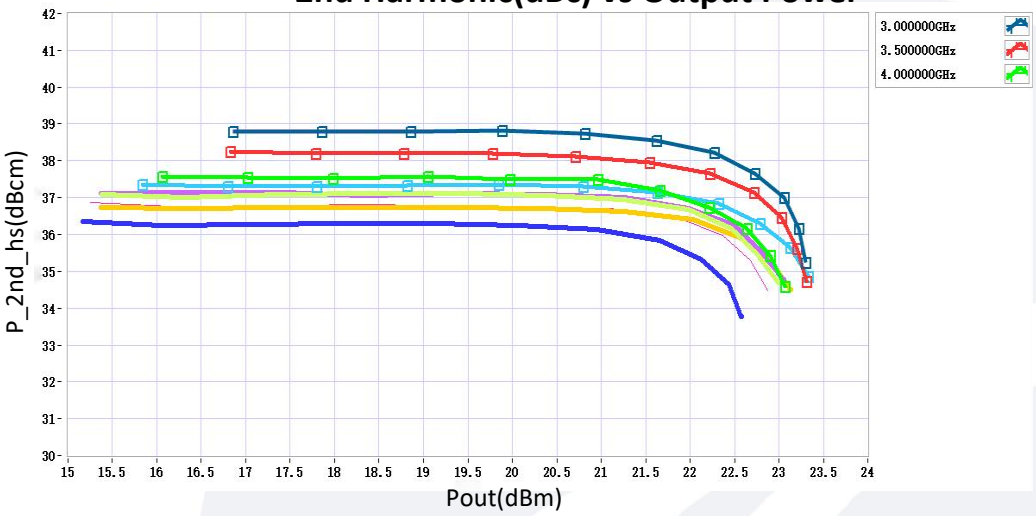
典型曲线 Typical Performance Data:

P1dB vs Frequency



2nd Harmonic(dBc) vs Output Power



3rd Harmonic(dBc) vs Output Power