

Low Noise Amplifier

0.9-2.5GHz/1.5dB NF/15dB Gain/15dBm P1dB

Model: TLLA0.9G2.5G-15-15

TLLA0.9G2.5G-15-15 is a low noise amplifier with a typical small signal gain of 15 dB and a maximum noise figure of 1.5 dB across the frequency range of 0.9 to 2.5 GHz. The DC power requirement for the amplifier is +12 V DC/60 mA. The input and output port configuration offers coax adapter structure with SMA female.

Features:

- Frequency range: 0.9-2.5GHz
- Gain: 15dB Typ
- Noise Figure: 1.5dB Max
- Good Power and Gain Flatness
- 50 Ohm Matched Input / Output

Applications:

- Communication systems

电气特性 Electrical Characteristics:

参数 Parameter	Min	Typ	Max	单位 Units
频率范围 Frequency range	0.9		2.5	GHz
小信号增益 Small Signal Gain		15		dB
增益平坦度 Gain Flatness		±0.75		dB
噪声系数 Noise Figure		1.3	1.5	dB
线性输出功率 Output P1dB	15	17		dBm
输入驻波 Input VSWR		1.4	1.6	:1
输出驻波 Output VSWR		1.4	1.6	:1
直流电压 DC Voltage		+12		V DC
直流电流 DC Supply Current		60		mA
阻抗 Impedance		50		Ohms

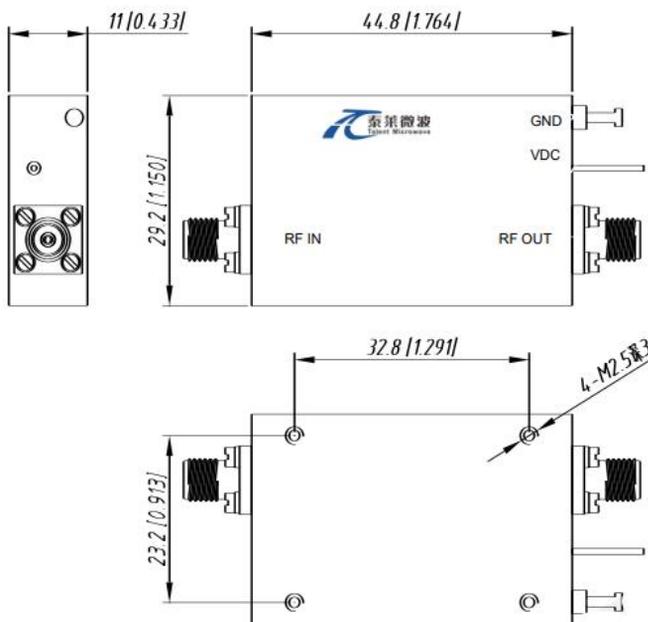
机械特性 Mechanical Specifications:

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	Solder Pin	
尺寸 Size	44.8*29.2*11	mm
重量 Weight	55	g

绝对最大值 Absolute Maximum Ratings:

参数 Parameter	指标 Value
供电偏置电压 Supply Bias Voltage	+15V
输入功率 RF Input Power	+12dBm
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.

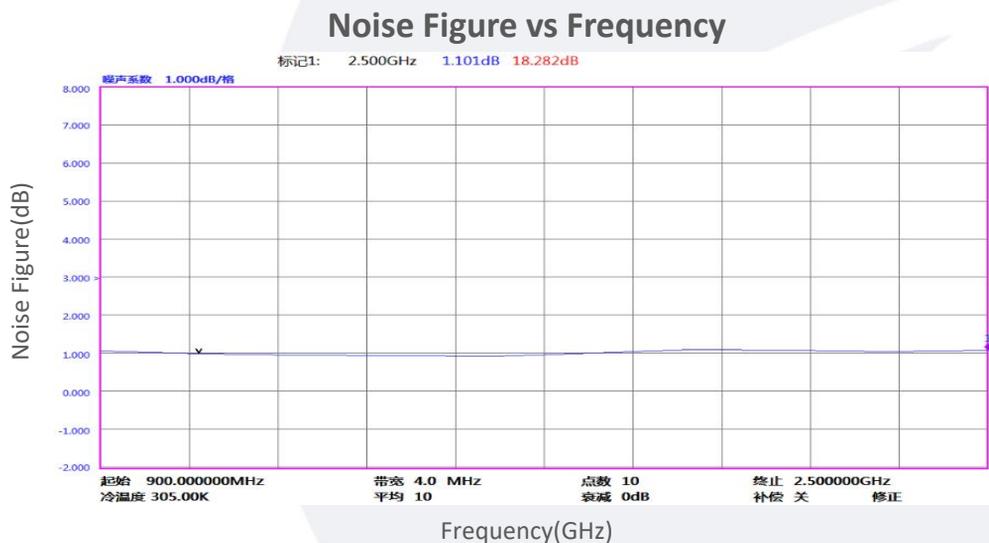
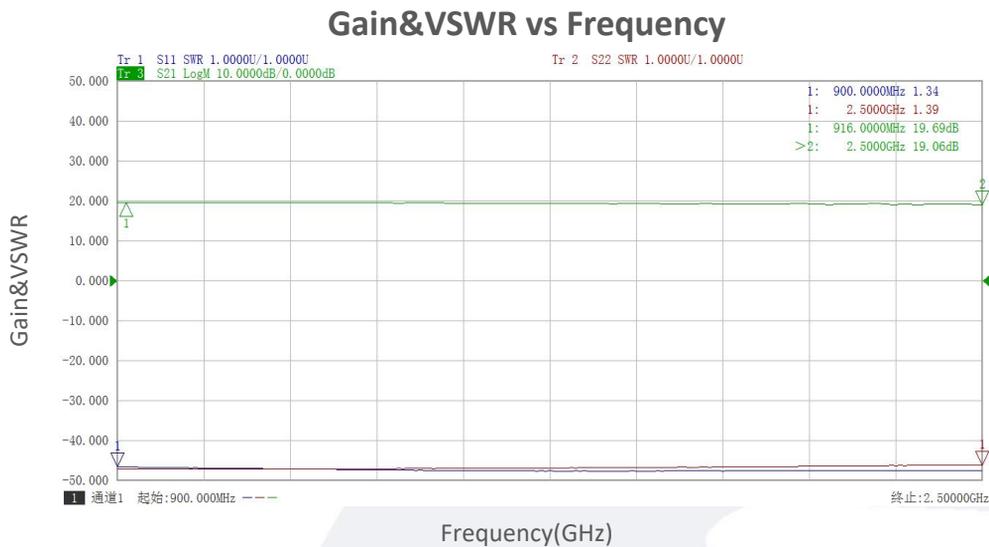
温度环境 Environmental Conditions:

参数 Parameter	Min	Typ	Max	单位 Units
操作温度 Operating Temperature	-45		+85	°C
存储温度 Non-operating Temperature	-55		+125	°C
相对湿度 Relative humidity		95		%
海拔 Altitude	50,000			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			

订货信息 Ordering Information:

标准型号 Base Number	描述 Description	版本号 Revision
TLLA0.9G2.5G-15-15	Low Noise Amplifier, 0.9-2.5GHz, Noise Figure:1.5dB, Gain: 15dB,P1dB:15dBm,+12V DC,Without Heatsink	Rev.1.1
TLLA0.9G2.5G-15-15-HS	Low Noise Amplifier, 0.9-2.5GHz, Noise Figure:1.5dB, Gain: 15dB,P1dB:15dBm,+12V DC,With Heatsink	Rev.1.1

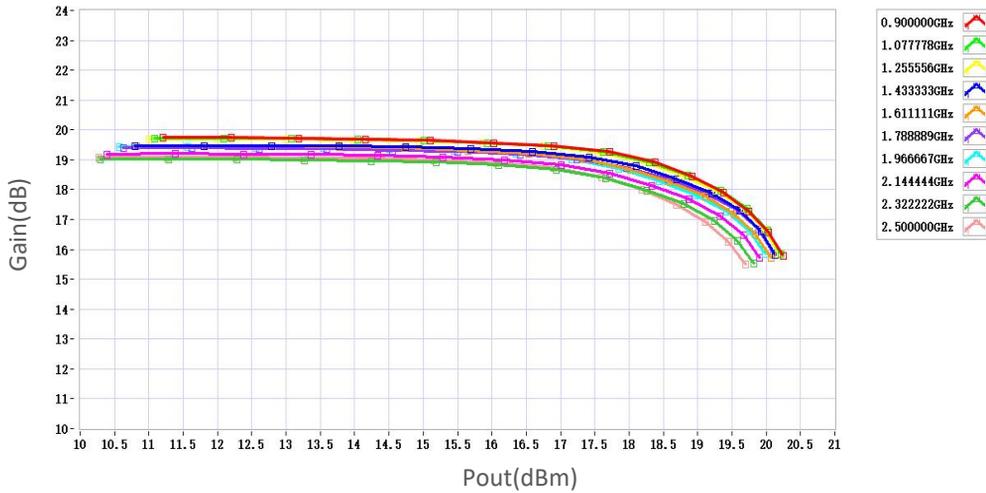
典型曲线 Typical Performance Data:



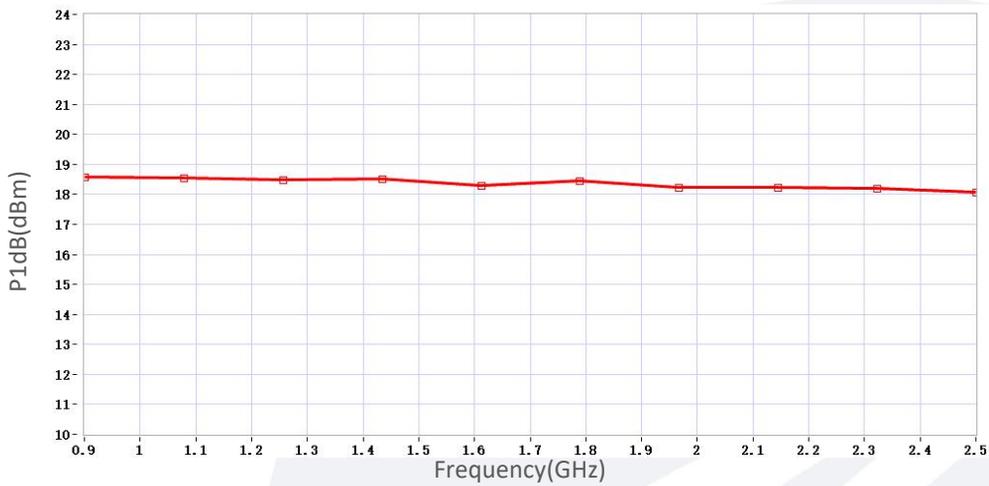
Note: Above data is for ref only, actual data may vary from unit to unit depending on operating environment and other factors like material lots etc.

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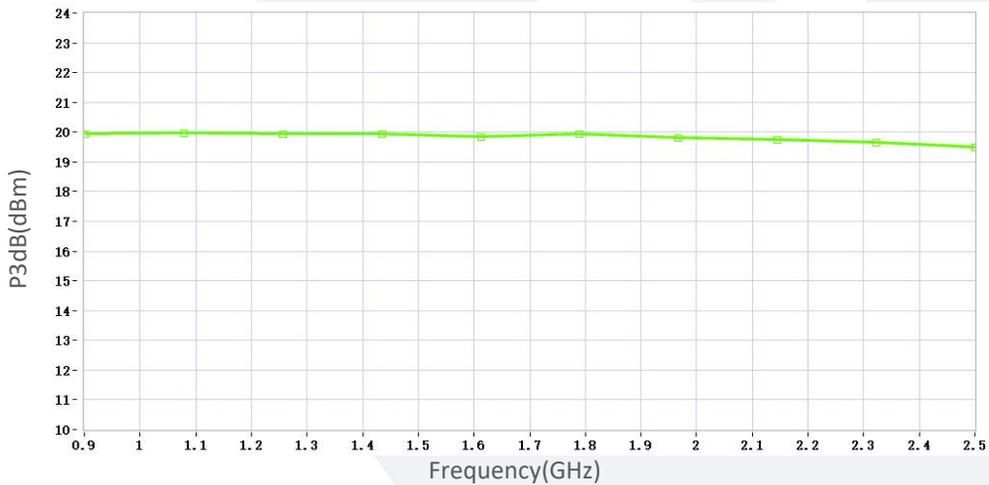
Gain vs Output Power



P1dB vs Frequency



P3dB vs Frequency



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