

Low Noise Amplifier

0.01-0.1GHz/1.5dB NF/32dB Gain/20dBm P1dB

TLLA0.01G0.1G-32-15

TURLA0.01G0.1G-3215 is a low noise amplifier with a typical small signal gain of 32 dB and a nominal noise figure of 1.5dB across the frequency range of 0.01 to 0.1 GHz. The DC power requirement for the amplifier is +6V DC/162 mA. The input and output port configuration offers coax adapter structure with SMA female.

- Features:**
- Frequency range: 0.01-0.1GHz
 - Gain: 32dB Typ
 - Noise Figure: 1.5dB Typ
 - 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	0.01		0.1	GHz
小信号增益 Small Signal Gain	30	32		dB
增益平坦度 Gain Flatness		±1		dB
噪声系数 Noise Figure		1.5		dB
线性输出功率 Output P1dB		20		dBm
输入驻波 Input VSWR		1.8		:1
输出驻波 Output VSWR		1.8		:1
直流电压 DC Voltage	+5	+6	+8	V DC
直流电流 DC Supply Current		162		mA
阻抗 Impedance		50		Ohms

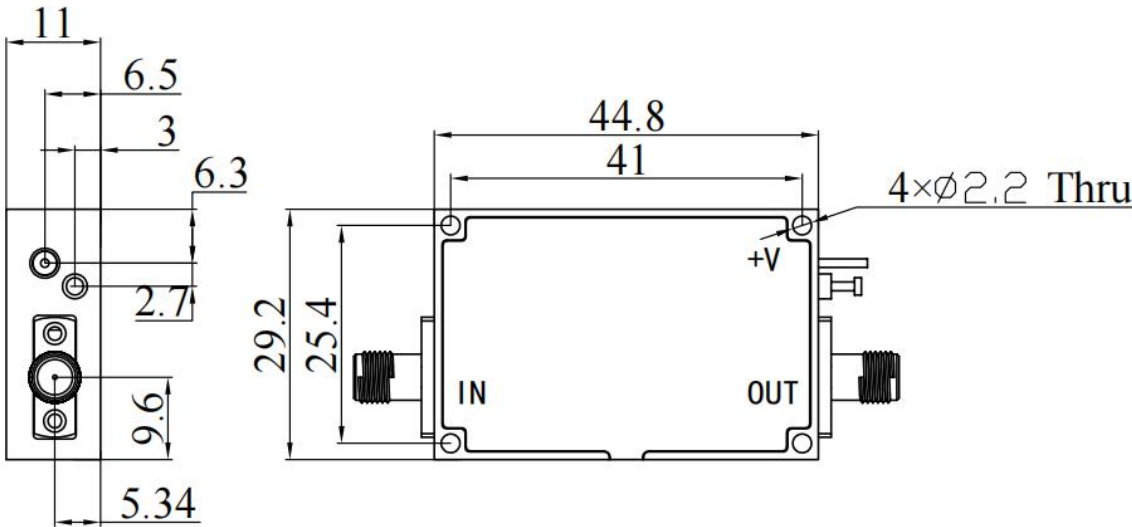
机械特性 Mechanical Specifications:

参数 Parameter	指标 Value	单位 Units
输入/输出接口 Input /Output Connector	SMA Female/SMA Female	

绝对最大值 Absolute Maximum Ratings:

参数 Parameter	指标 Value
供电偏置电压 Supply Bias Voltage	+8 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:

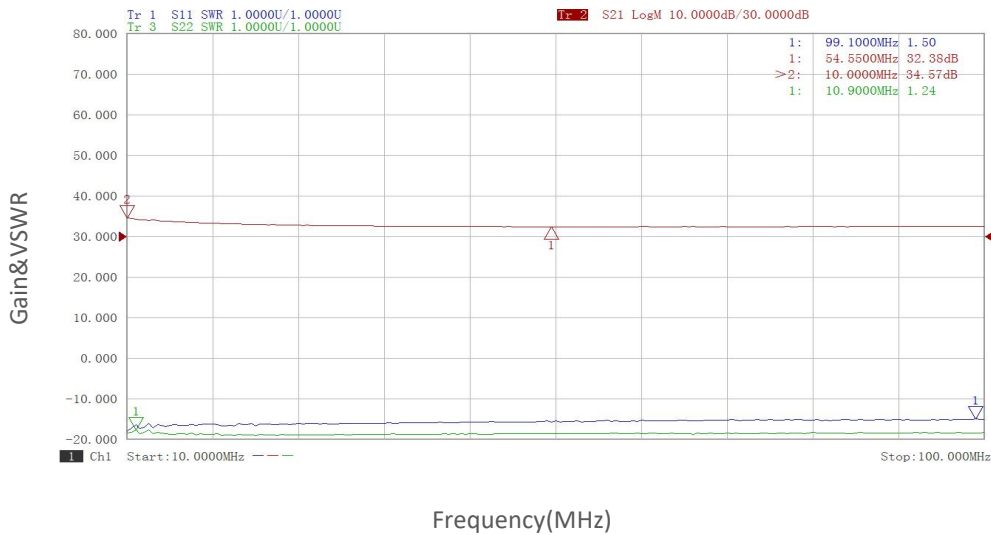
参数 Parameter	Min	Typ	Max	单位 Units
操作温度 Operating Temperature	-45		+85	℃
存储温度 Non-operating Temperature	-55		+125	℃
相对湿度 Relative humidity		95		%
海拔 Altitude		10,000		feet
震动 Shock / Vibration(MIL-STD-810F)	25g rms (15 degree 2KHz) endurance, 1 hour per axis			

订货信息 Ordering Information:

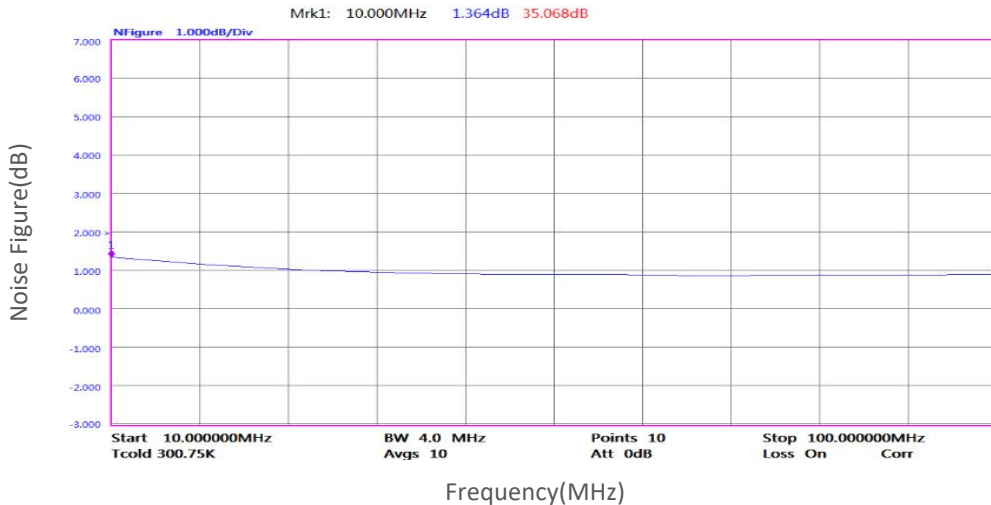
标准型号 Base Number	描述 Description	版本号 Revision
TURLA0.01G0.1G-3215	Low Noise Amplifier,0.01-0.1GHz, Noise Figure:1.5dB, Gain:32dB,P1dB:20dBm,+6V DC,Without Heatsink	Rev.1.1
TURLA0.01G0.1G-3215 HS	Low Noise Amplifier, 0.01-0.1GHz, Noise Figure:1.5dB, Gain:32 dB,P1dB:20dBm,+6V DC,With Heatsink	Rev.1.1

典型曲线 Typical Performance Data:

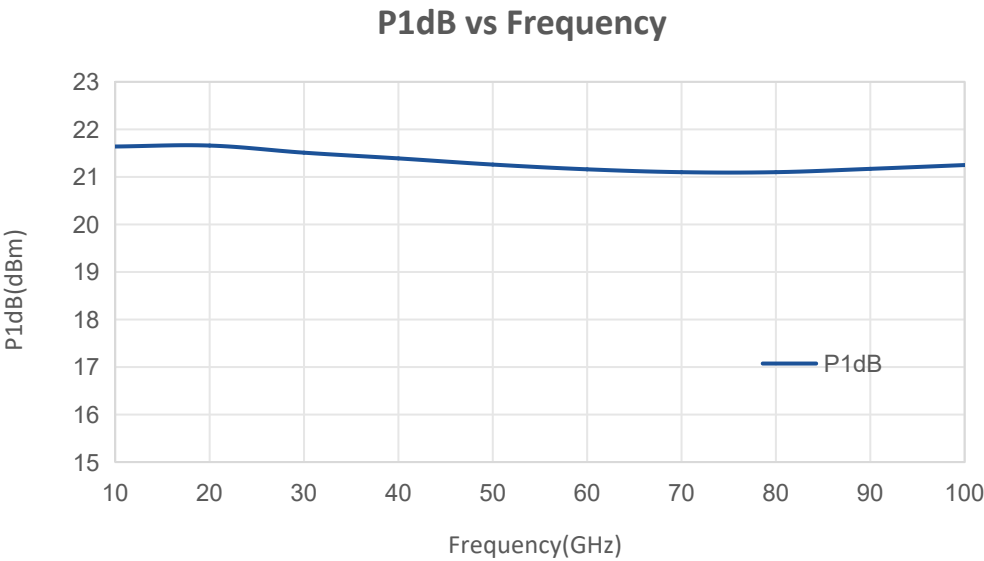
Gain&VSWR vs Frequency



Noise Figure vs Frequency



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.