

Low Noise Amplifier

33-67GHz/5.0dB NF/47dB Gain/20dBm P1dB

Model: TLLA33G67G-47-50

TLLA33G67G-47-50 is a low noise amplifier with a typical small signal gain of 47 dB and a nominal noise figure of 5.0dB@33-50GHz across the frequency range of 33 to 67 GHz. The DC power requirement for the amplifier is +5 V DC/750 mA. The input and output port configuration offers coax adapter structure with 1.85mm female.

Features:

- Frequency range: 33-67GHz
- Gain: 47dB Typ
- Noise Figure: 5.0dB Typ@33-50GHz
- 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	33		67	GHz
小信号增益 Small Signal Gain	45	47		dB
噪声系数 Noise Figure	@33-50GHz	5		dB
	@50-67GHz	7		dB
线性输出功率 Output P1dB	@33-50GHz	20		dBm
	@50-67GHz	18		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	+8	V DC
直流电流 DC Supply Current		750		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	1.85mm Female/1.85mm Female	
直流偏置 DC Bias	Solder Pin	
尺寸 Size	50*60*12	mm

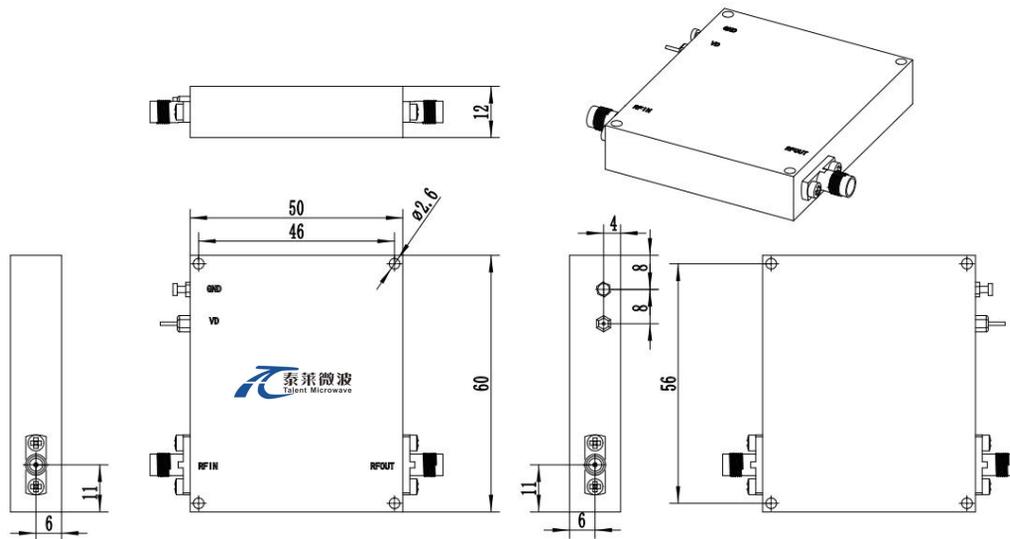
绝对最大值 Absolute Maximum Ratings:

参数 Parameter	指标 Value
供电偏置电压 Supply Bias Voltage	+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	°C
存储温度 Non-operating Temperature	-55		+125	°C
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			

订货信息 Ordering Information:

标准型号 Base Number	描述 Description	版本号 Revision
TLLA33G67G-47-50	Low Noise Amplifier, 33-67GHz, Noise Figure:5.0dB@33-50GHz, Gain:47 dB,P1dB:20dBm@33-50GHz,+5V DC,Without Heatsink	Rev.1.1
TLLA33G67G-47-50-HS	Low Noise Amplifier, 33-67GHz, Noise Figure:5.0dB@33-50GHz, Gain:47 dB,P1dB:20dBm@33-50GHz,+5V DC,With Heatsink	Rev.1.1