

Low Noise Amplifier

1-1.6GHz/0.5dB NF/32dB Gain/13dBm P1dB

Model: TLLA1G1.6G-32-13

TLLA1G1.6G-32-13 is a low noise amplifier with a typical small signal gain of 32 dB and a maximum noise figure of 0.5 dB across the frequency range of 1 to 1.6 GHz. The DC power requirement for the amplifier is +5 V DC/50 mA. The input and output port configuration offers coax adapter structure with SMA female.

Features:

- Frequency range: 1-1.6GHz
- Gain: 32dB Typ
- Noise Figure: 0.5dB Max
- Good Power and Gain Flatness
- 50 Ohm Matched Input / Output

Applications:

- Communication systems

Electrical Characteristics:

Parameter	Min	Typ	Max	Units
Frequency range	1		1.6	GHz
Small Signal Gain	27	32		dB
Gain Flatness		±1.0	±1.75	dB
Noise Figure			0.5	dB
Output P1dB	12	13		dBm
Input VSWR		1.4	1.8	:1
Output VSWR		1.4	1.8	:1
DC Voltage	+4.85	+5	+6	V DC
DC Supply Current		50	60	mA
Impedance		50		Ohms

Mechanical Specifications:

Parameter	Value	Units
Input /Output Connector	SMA Female/SMA Female	
DC Bias	Solder Pin	
Size	17.8*20*8.35	mm
Weight	11	g

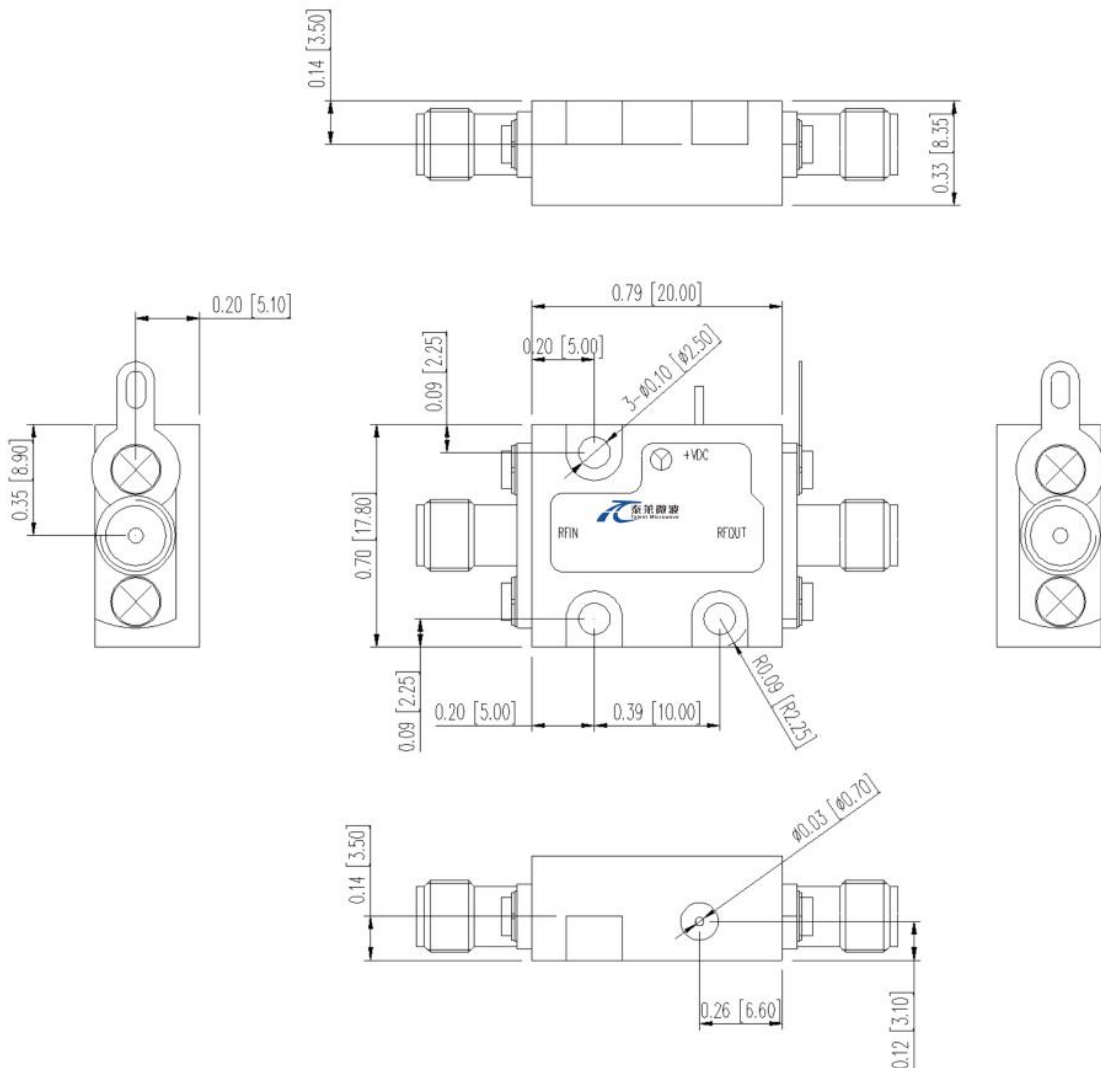
Absolute Maximum Ratings:

Parameter	Value
Supply Bias Voltage	TBD
RF Input Power	+15dBm
ESD sensitivity (HBm)	Class 0, passed 150V



Outline Drawing:

Unit:mm



*****Heat Sink Required During Operation**



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

Environmental Conditions:

Parameter	Min	Typ	Max	Units
Operating Temperature	-45		+85	°C
Non-operating Temperature	-55		+125	°C
Relative humidity		95		%
Altitude	50,000			feet
Shock / Vibration(MIL-STD-810F)	25g rms (15 degree 2KHz) endurance, 1 hour per axis			
Shock(non operating)	20G for 11msc half sin wave,3 axis both directions			

Ordering Information:

Base Number	Description	Revision
TLLA1G1.6G-32-13	Low Noise Amplifier, 1-1.6GHz, Noise Figure:0.5dB, Gain:32 dB,P1dB:13dBm,5V DC,Without Heatsink	Rev.1.1
TLLA1G1.6G-32-13-HS	Low Noise Amplifier, 1-1.6GHz, Noise Figure:0.5dB, Gain:32 dB,P1dB:13dBm,5V DC,With Heatsink	Rev.1.1