

Low Noise Amplifier

4.9-5.1GHz/0.6dB NF/35dB Gain/12dBm P1dB

Model: TLLA4.9G5.1G-36-6

TLLA4.9G5.1G-36-6 is a low noise amplifier with a minimum small signal gain of 35 dB and a nominal noise figure of 0.6 dB across the frequency range of 4.9 to 5.1 GHz. The DC power requirement for the amplifier is +15 V DC/100 mA. The input and output port configuration offers coax adapter structure with SMA female.

Features:

- Frequency range: 4.9-5.1GHz
- Gain: 35dB Min
- Noise Figure: 0.6dB Typ
- Good Power and Gain Flatness
- 50 Ohm Matched Input / Output

Applications:

- Communication systems

Electrical Characteristics:

Parameter	Min	Typ	Max	Units
Frequency range	4.9		5.1	GHz
Small Signal Gain	35	36		dB
Gain Flatness		±1.0		dB
Noise Figure		0.6	0.9	dB
Output P1dB	10	12		dBm
Output Psat		14		dBm
Input VSWR		1.5		:1
Output VSWR		1.5		:1
DC Voltage		+15	+24	V DC
DC Supply Current		100		mA
Impedance	50			Ohms

Mechanical Specifications:

Parameter	Value	Units
Input /Output Connector	SMA Female/SMA Female	
DC Bias	Solder Pin	
Size	44*36*12	mm

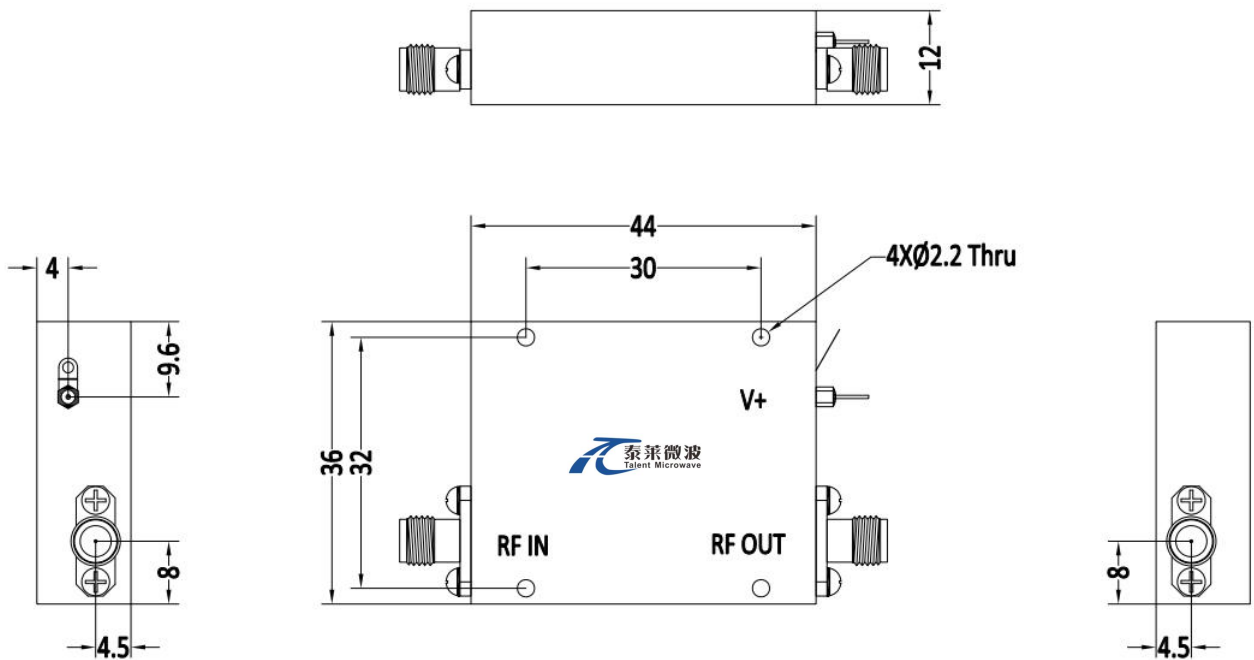
Absolute Maximum Ratings:

Parameter	Value
Supply Bias Voltage	+24 V
RF Input Power	+5 dBm
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	10,000			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
TLLA4.9G5.1G-36-6	Low Noise Amplifier, 4.9-5.1GHz, Noise Figure:0.6dB, Gain:35dB,P1dB:12dBm,+15V DC,Without Heatsink	Rev.1.1
TLLA4.9G5.1G-36-6-HS	Low Noise Amplifier, 4.9-5.1GHz, Noise Figure:0.6dB, Gain:35dB,P1dB:12dBm,+15V DC,With Heatsink	Rev.1.1