

Low Noise Amplifier

1-4GHz/0.9dB NF/25dB Gain/15dBm P1dB

Model: TLLA1G4G-25-09

TLLA1G4G-25-09 is a low noise amplifier with a minimum small signal gain of 25 dB and a maximum noise figure of 0.9 dB across the frequency range of 1 to 4 GHz. The DC power requirement for the amplifier is +12 V DC/200 mA. The input and output port configuration offers coax adapter structure with SMA female.

Features:

- Frequency range: 1-4GHz
- Gain: 25dB Min
- Noise Figure: 0.9dB Max
- Good Power and Gain Flatness
- 50 Ohm Matched Input / Output

Applications:

- Communication systems

Electrical Characteristics:

Parameter	Min	Typ	Max	Units
Frequency range	1		4	GHz
Small Signal Gain	25			dB
Gain Flatness		±1.5		dB
Noise Figure			0.9	dB
Output P1dB	15			dBm
Output IP3		25		dBm
Input VSWR		2.0		:1
Output VSWR		2.0		:1
DC Voltage		+12		V DC
DC Supply Current		200		mA
Impedance	50			Ohms

Mechanical Specifications:

Parameter	Value	Units
Input /Output Connector	SMA Female/SMA Female	
DC Bias	Solder Pin	
Size	32.1*29.2*11	mm

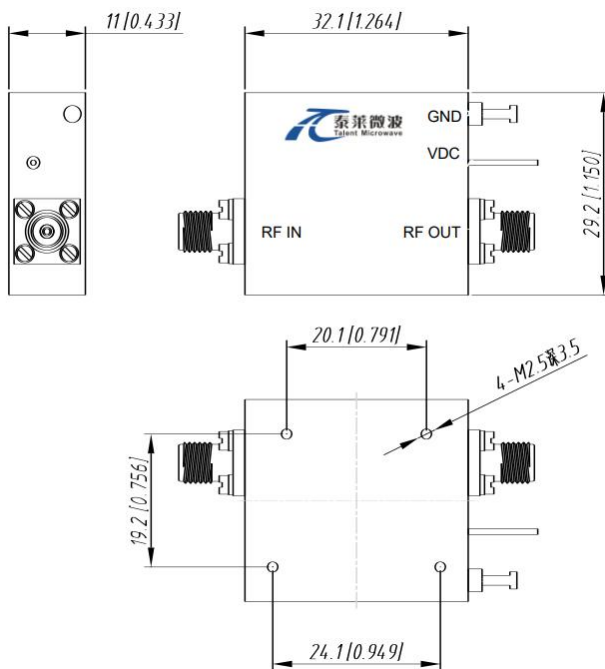
Absolute Maximum Ratings:

Parameter	Value
Supply Bias Voltage	TBD
RF Input Power	10 dBm
ESD sensitivity (HBM)	Class 0, passed 150V

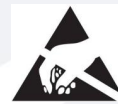


Outline Drawing:

Unit:mm; Tolerance:±0.1mm



*****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
TLLA1G4G-25-09	Low Noise Amplifier, 1-4GHz, Noise Figure:0.9dB, Gain:25 dB,P1dB:15dBm,+12V DC,Without Heatsink	Rev.1.1
TLLA1G4G-25-09-HS	Low Noise Amplifier, 1-4GHz, Noise Figure:0.9dB, Gain:25 dB,P1dB:5dBm,+12V DC,With Heatsink	Rev.1.1