

Low Noise Amplifier

2.2-2.4GHz/1.0dB NF/36dB Gain/17dBm P1dB

Model: TLLA2.2G2.4G-35-10

TLLA2.2G2.4G-35-10 is a low noise amplifier with a typical small signal gain of 36 dB and a nominal noise figure of 1.0 dB across the frequency range of 2.2 to 2.4 GHz. The DC power requirement for the amplifier is +5.5 V DC/60 mA. The input and output port configuration offers coax adapter structure with SMA female.

Features:

- Frequency range: 2.2-2.4GHz
- Gain: 36dB Typ
- Noise Figure: 1.0dB Max
- Good Power and Gain Flatness
- 50 Ohm Matched Input / Output

Applications:

- Communication systems

Electrical Characteristics:

Parameter	Min	Typ	Max	Units
Frequency range	2.2		2.4	GHz
Small Signal Gain		36		dB
Gain Flatness			±0.5	dB
Noise Figure		0.7	1	dB
Output P1dB	16	17		dBm
Output Psat		18		dBm
Input VSWR		1.5		:1
Output VSWR		1.5		:1
DC Voltage		+5.5	+13	V DC
DC Supply Current		60		mA
Impedance		50		Ohms

Mechanical Specifications:

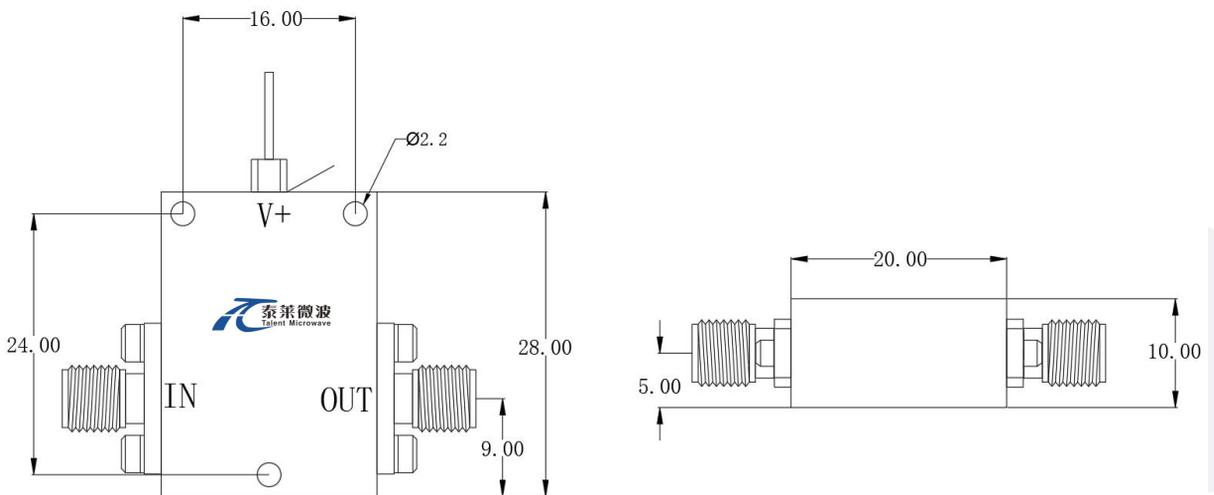
Parameter	Value	Units
Input /Output Connector	SMA Female/SMA Female	
DC Bias	Solder Pin	
Size	28*20*10	mm
Weight	20	g

Absolute Maximum Ratings:

Parameter	Value
Supply Bias Voltage	+13 V
RF Input Power	+20 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	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
TLLA2.2G2.4G-35-10	Low Noise Amplifier, 2.2-2.4GHz, Noise Figure:1.0dB, Gain:36dB,P1dB:17dBm,+5.5V DC,Without Heatsink	Rev.1.1
TLLA2.2G2.4G-35-10-HS	Low Noise Amplifier, 2.2-2.4GHz, Noise Figure:1.0dB, Gain:36dB,P1dB:17dBm,+5.5V DC,With Heatsink	Rev.1.1