

## Low Noise Amplifier

0.1-4GHz/2.0dB NF/36dB Gain/10dBm P1dB

Model: TLLA0.1G4G-36-20

TLLA0.1G4G-36-20 is a low noise amplifier with a minimum small signal gain of 36 dB and a maximum noise figure of 2.0 dB across the frequency range of 0.1 to 4 GHz. The DC power requirement for the amplifier is +12 V DC/150 mA. The input and output port configuration offers coax adapter structure with SMA female.

### Features:

- Frequency range: 0.1-4 GHz
- Gain: 36dB Min
- Noise Figure: 2.0dB Max
- Good Power and Gain Flatness
- 50 Ohm Matched Input / Output

### Applications:

- Communication systems

### Electrical Characteristics:

Parameter	Min	Typ	Max	Units
Frequency range	0.1		4	GHz
Small Signal Gain	36			dB
Gain Flatness		±2.5		dB
Noise Figure			2.0	dB
Output P1dB	10			dBm
Input VSWR			2.0	:1
Output VSWR			2.0	:1
DC Voltage		+12		V DC
DC Supply Current		150		mA
Impedance	50			Ohms

### Mechanical Specifications:

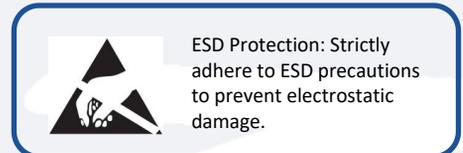
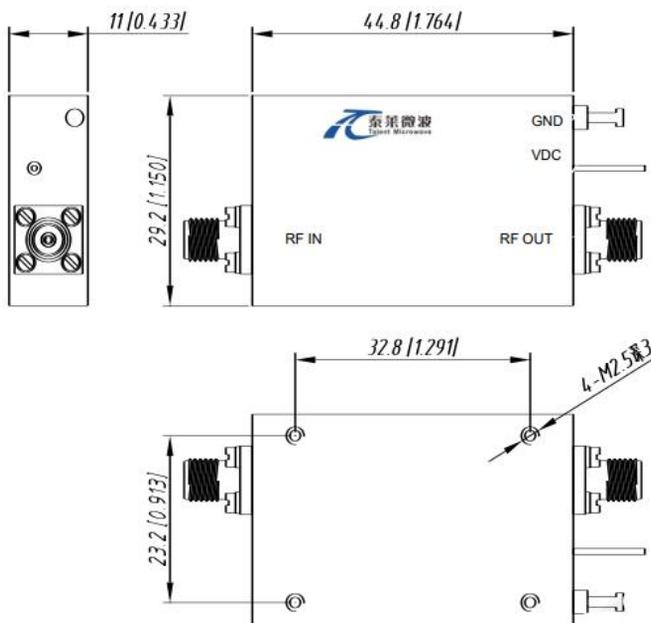
Parameter	Value	Units
Input /Output Connector	SMA Female/SMA Female	
DC Bias	Solder Pin	
Size	44.8*29.2*11	mm
Weight	50	g

### Absolute Maximum Ratings:

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

### Outline Drawing:

Unit:mm



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

### Environmental Conditions:

Parameter	Min	Typ	Max	Units
Operating Temperature	-55		+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
TLLA0.1G4G-36-20	Low Noise Amplifier,0.1-4GHz, Noise Figure:2.0dB, Gain:36 dB,P1dB:10dBm,+12V DC,Without Heatsink	Rev.1.1
TLLA0.1G4G-36-20-HS	Low Noise Amplifier, 0.1-4GHz, Noise Figure:2.0dB, Gain:36 dB,P1dB:10dBm,+12V DC,With Heatsink	Rev.1.1