

## Low Noise Amplifier

0.01-50GHz/6.0dB NF/32dB Gain/19dBm P1dB

Model: TLLA0.01G50G-33-60

TLLA0.01G50G-33-60 is a low noise amplifier with a typical small signal gain of 32 dB and a nominal noise figure of 6.0 dB across the frequency range of 0.01 to 50 GHz. The DC power requirement for the amplifier is +12 V DC/400 mA. The input and output port configuration offers coax adapter structure with 2.4mm female.

### Features:

- Frequency range: 0.01-50GHz
- Gain: 32dB Typ
- Noise Figure: 6.0dB Typ
- Good Power and Gain Flatness
- 50 Ohm Matched Input / Output

### Applications:

- Communication systems

### Electrical Characteristics:

Parameter	Min	Typ	Max	Units
Frequency range	0.01		50	GHz
Small Signal Gain		32		dB
Gain Flatness		±3.5		dB
Noise Figure		6.0		dB
Output P1dB		19		dBm
Output IP3		30		dBm
Input VSWR		1.9		:1
Output VSWR		1.9		:1
DC Voltage		+12		V DC
DC Supply Current		400		mA
Impedance		50		Ohms

### Mechanical Specifications:

Parameter	Value	Units
Input /Output Connector	2.4mm Female/2.4mm Female	
DC Bias	Solder Pin	
Size	35.3*40.3*12	mm
Weight	55	g

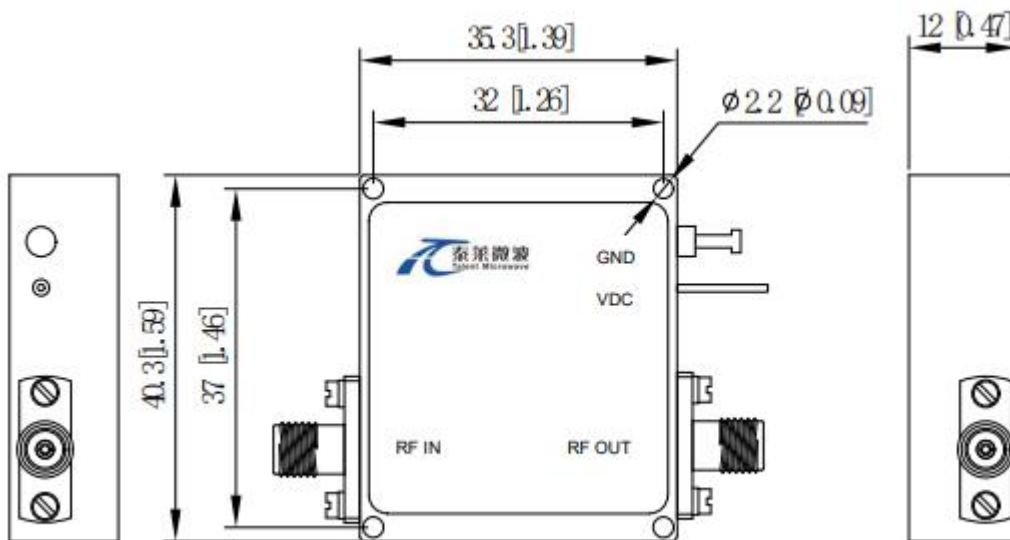
### Absolute Maximum Ratings:

Parameter	Value
Supply Bias Voltage	TBD
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		+75	°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
TLLA0.01G50G-33-60	Low Noise Amplifier, 0.01-50GHz, Noise Figure:6.0dB, Gain:32 dB,P1dB: 19dBm,+12V DC,Without Heatsink	Rev.1.1
TLLA0.01G50G-33-60-HS	Low Noise Amplifier, 0.01-50GHz, Noise Figure:6.0dB, Gain:32 dB,P1dB: 19dBm,+12V DC,With Heatsink	Rev.1.1