

Low Noise Amplifier

0.01-67GHz/5.0dB NF/25dB Gain/15dBm P1dB

Model: TLLA0.01G67G-25-50

TLLA0.01G67G-25-50 is a low noise amplifier with a typical small signal gain of 25 dB and a nominal noise figure of 5.0 dB across the frequency range of 0.01 to 67 GHz. The DC power requirement for the amplifier is +12 V DC/300 mA. The input and output port configuration offers coax adapter structure with 1.85mm female.

Features:

- Frequency range: 0.01-67GHz
- Gain: 25dB Typ
- Noise Figure: 5.0dB 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 | | 67 | GHz |
| Small Signal Gain | | 25 | | dB |
| Gain Flatness | | ±3 | | dB |
| Noise Figure | | 5.0 | | dB |
| Output P1dB | | 15 | | dBm |
| Output IP3 | | 25 | | dBm |
| Input VSWR | | 1.8 | 2.5 | :1 |
| Output VSWR | | 1.8 | 2.5 | :1 |
| DC Voltage | | +12 | | V DC |
| DC Supply Current | | 300 | | mA |
| Impedance | | 50 | | Ohms |

Mechanical Specifications:

| Parameter | Value | Units |
|-------------------------|-----------------------------|-------|
| Input /Output Connector | 1.85mm Female/1.85mm Female | |
| DC Bias | Solder Pin | |
| Size | 30*30*8 | mm |
| Weight | 50 | g |

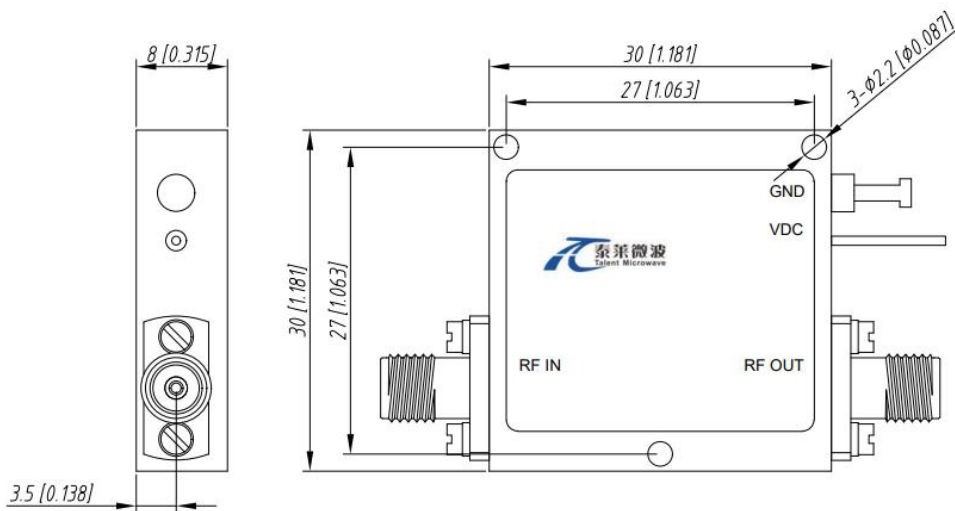
Absolute Maximum Ratings:

| Parameter | Value |
|-----------------------|----------------------|
| Supply Bias Voltage | TBD |
| RF Input Power | 0 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 |
|-----------------------|--|----------|
| TLLA0.01G67G-25-50 | Low Noise Amplifier, 0.01-67GHz, Noise Figure:5.0dB, Gain:25dB,P1dB:15dBm,+12V DC,Without Heatsink | Rev.1.1 |
| TLLA0.01G67G-25-50-HS | Low Noise Amplifier, 0.01-67GHz, Noise Figure:5.0dB, Gain:25dB,P1dB:15dBm,+12V DC,With Heatsink | Rev.1.1 |