

## Low Noise Amplifier

26.5-40GHz/2.5dB NF/30dB Gain/0dBm P1dB

Model: TLLA26.5G40G-30-30

TLLA26.5G40G-30-30 is a low noise amplifier with a minimum small signal gain of 30 dB and a nominal noise figure of 2.5 dB across the frequency range of 26.5 to 40 GHz. The DC power requirement for the amplifier is +12 V DC/60 mA. The input and output port configuration offers coax adapter structure with 2.92mm female.

### Features:

- Frequency range: 26.5-40GHz
- Gain: 30dB Min
- Noise Figure: 2.5dB Typ
- Good Power and Gain Flatness
- 50 Ohm Matched Input / Output

### Applications:

- Communication systems

### Electrical Characteristics:

| Parameter         | Min  | Typ  | Max | Units |
|-------------------|------|------|-----|-------|
| Frequency range   | 26.5 |      | 40  | GHz   |
| Small Signal Gain | 30   |      |     | dB    |
| Gain Flatness     |      | ±1.5 | ±2  | dB    |
| Noise Figure      |      | 2.5  | 3   | dB    |
| Output P1dB       | 0    |      |     | dBm   |
| Output IP3        |      | 10   |     | dBm   |
| Input VSWR        |      | 2    |     | :1    |
| Output VSWR       |      | 2    |     | :1    |
| DC Voltage        |      | +12  |     | V DC  |
| DC Supply Current |      | 60   |     | mA    |
| Impedance         |      | 50   |     | Ohms  |

### Mechanical Specifications:

| Parameter               | Value                       | Units |
|-------------------------|-----------------------------|-------|
| Input /Output Connector | 2.92mm Female/2.92mm Female |       |
| DC Bias                 | Solder Pin                  |       |
| Size                    | 20*30*8                     | mm    |
| Weight                  | 50                          | g     |

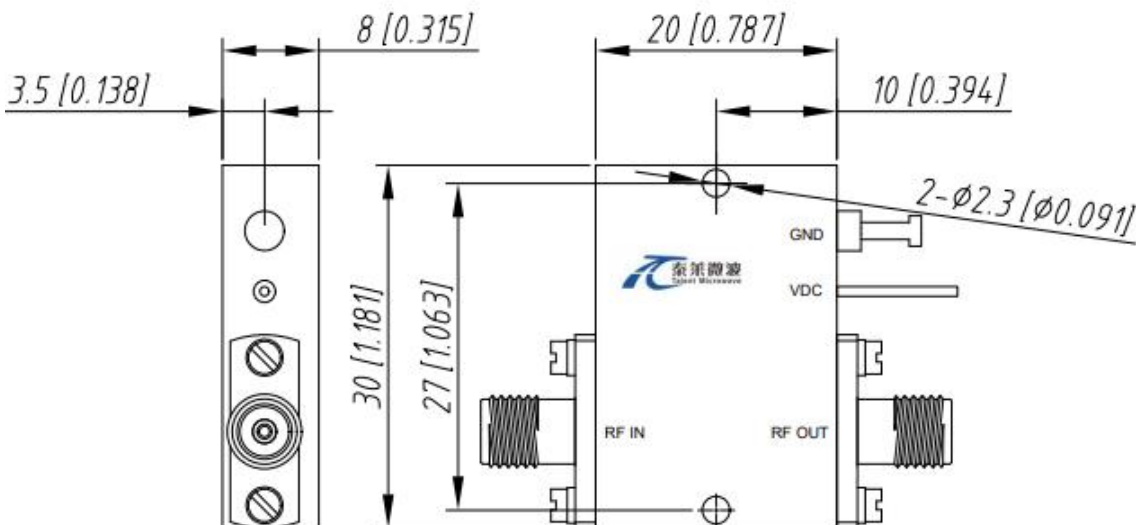
### Absolute Maximum Ratings:

| Parameter             | Value                |
|-----------------------|----------------------|
| Supply Bias Voltage   | +15 V                |
| RF Input Power        | -25 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 |
|-----------------------|--|----------|
| TLLA26.5G40G-30-30    | Low Noise Amplifier, 26.5-40GHz, Noise Figure:2.5dB, Gain:30 dB,P1dB:0dBm,+12V DC,Without Heatsink | Rev.1.1  |
| TLLA26.5G40G-30-30-HS | Low Noise Amplifier, 26.5-40GHz, Noise Figure:2.5dB, Gain:30 dB,P1dB:0dBm,+12V DC,With Heatsink    | Rev.1.1  |