Suzhou Talent Microwave,Inc
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# Low Noise Amplifier

## 0.1-18GHz/2.8dB NF/12dB Gain/12dBm P1dB  Model: TLLA0.1G18G-12-28

TLLA0.1G18G-12-28 is a low noise amplifier with a minimum small signal gain of 12 dB and a maximum noise figure of 2.8 dB across the frequency range of 0.1 to 18 GHz. The DC power requirement for the amplifier is +12 V DC/70 mA. The input and output port configuration offers coax adapter structure with SMA female.

### Features:

- Frequency range: 0.1-18GHz
- Gain: 12dB Min
- Noise Figure: 2.8dB 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 | | 18 | GHz |
| Small Signal Gain | 12 | | | dB |
| Gain Flatness | | ±2.0 | | dB |
| Noise Figure | | 2.5 | 2.8 | dB |
| Output P1dB | 12 | 13 | | dBm |
| Input VSWR | | 2.0 | | :1 |
| Output VSWR | | 2.0 | | :1 |
| DC Voltage | +8 | +12 | +15 | V DC |
| DC Supply Current | | 70 | | 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 |

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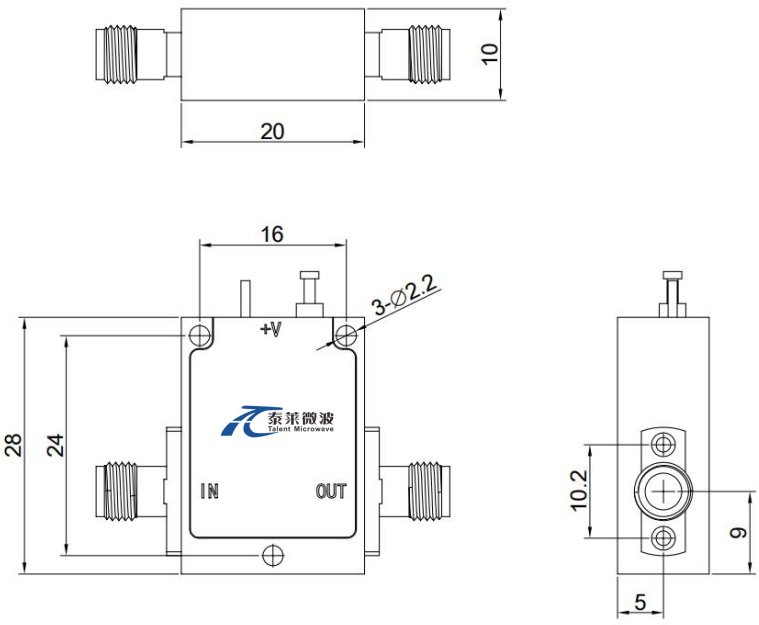
## Absolute Maximum Ratings:

| Parameter | Value |
|---|---|
| Supply Bias Voltage | +15 V |
| RF Input Power | +10 dBm |
| ESD sensitivity (HBm) | Class 0, passed 150V |

Simple 220V System
Available SAC option

## Outline Drawing:

Unit:mm




ESD Protection: Strictly adhere to ESD precautions to prevent electrostatic damage.

***Heat Sink Required During Operation

## Environmental Conditions:

| Parameter | Min | Typ | Max | Units |
|---|---|---|---|---|
| Operating Temperature | -45 | | +85 | ℃ |
| Non-operating Temperature | -55 | | +125 | ℃ |
| Relative humidity | | 95 | | % |
| Altitude | 10,000 | | | 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 | | | |

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## Ordering Information:

| Base Number | Description | Revision |
|---|---|---|
| TLLA0.1G18G-12-28 | Low Noise Amplifier, 0.1-18GHz, Noise Figure:2.8dB, Gain:12 dB,P1dB:12dBm,+12V DC,Without Heatsink | Rev.1.0 |
| TLLA0.1G18G-12-28-HS | Low Noise Amplifier, 0.1-18GHz, Noise Figure:2.8dB, Gain:12 dB,P1dB:12dBm,+12V DC,With Heatsink | Rev.1.0 |