

## Model:TLLA0.9G2.5G-15-15

## Low Noise Amplifier

0.9-2.5GHz, NF:1.5dB, Gain:15dB,P1dB:15dBm

### Feature:

- Ultra Wide Band: 0.9-2.5GHz
- Gain: 15dB Typ
- Noise Figure: 1.5dB Max
- Good Power and Gain Flatness
- 50 Ohm Matched Input / Output

### Electrical Specifications:

| Parameter         | Min     | Typ   | Max | Units |
|-------------------|---------|-------|-----|-------|
| Frequency range   | 0.9-2.5 |       |     | GHz   |
| Gain              |         | 15    |     | dB    |
| Gain Flatness     |         | ±0.75 |     | dB    |
| Noise Figure      |         | 1.3   | 1.5 | dB    |
| Output P1dB       | 15      | 17    |     | dBm   |
| Input VSWR        |         | 1.4   | 1.6 | :1    |
| Output VSWR       |         | 1.4   | 1.6 | :1    |
| DC Voltage        |         | +12   |     | V DC  |
| DC Supply Current |         | 60    |     | mA    |
| Impedance         | 50      |       |     | Ohms  |

### Mechanical Specifications:

| Parameter               | Value        | Units |
|-------------------------|--------------|-------|
| Input /Output Connector | SMA Female   |       |
| DC Bias                 | Solder Pin   |       |
| Size                    | 44.8*29.2*11 | mm    |
| Weight                  | 55           | g     |



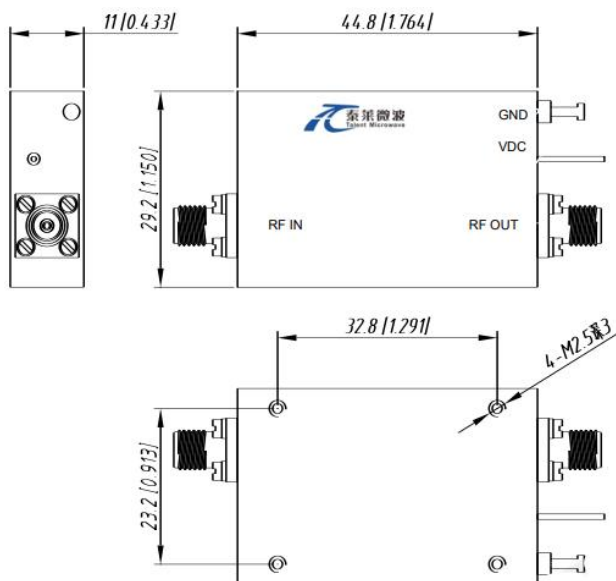
Available 220V System  
Benchtop Amplifier

### Absolute Maximum Ratings:

| Parameter             | Value                |
|-----------------------|----------------------|
| Supply Bias Voltage   | +15V                 |
| RF Input Power        | 12 dBm               |
| ESD sensitivity (HBm) | Class 0, passed 150V |

## Outline Drawing:

Unit: mm(inches)



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



OBSERVE PRECAUTIONS  
ELECTROSTATIC SENSITIVE  
DEVICES

## Environmental Conditions:

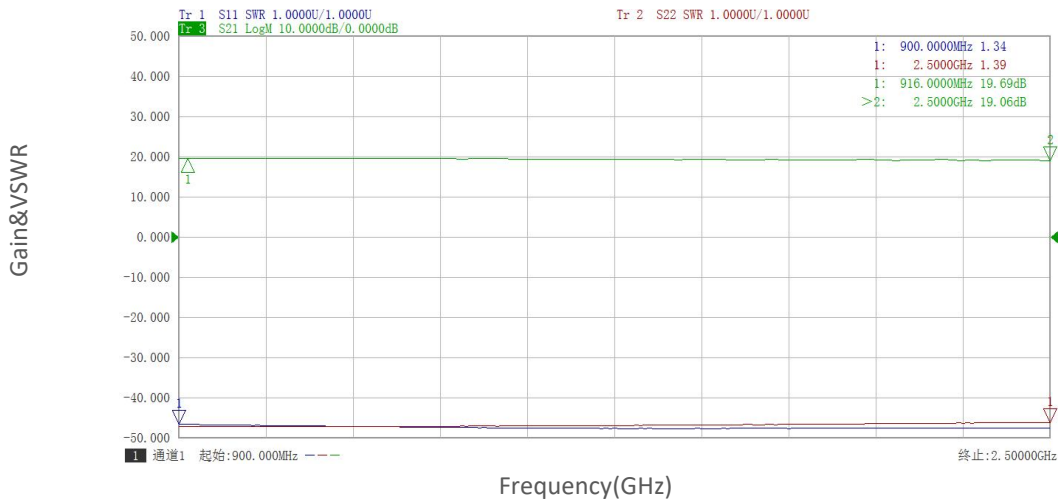
| Parameter                       | Min                                                 | Typ | Max  | Units |
|---------------------------------|-----------------------------------------------------|-----|------|-------|
| Operating Temperature           | -40                                                 |     | +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:

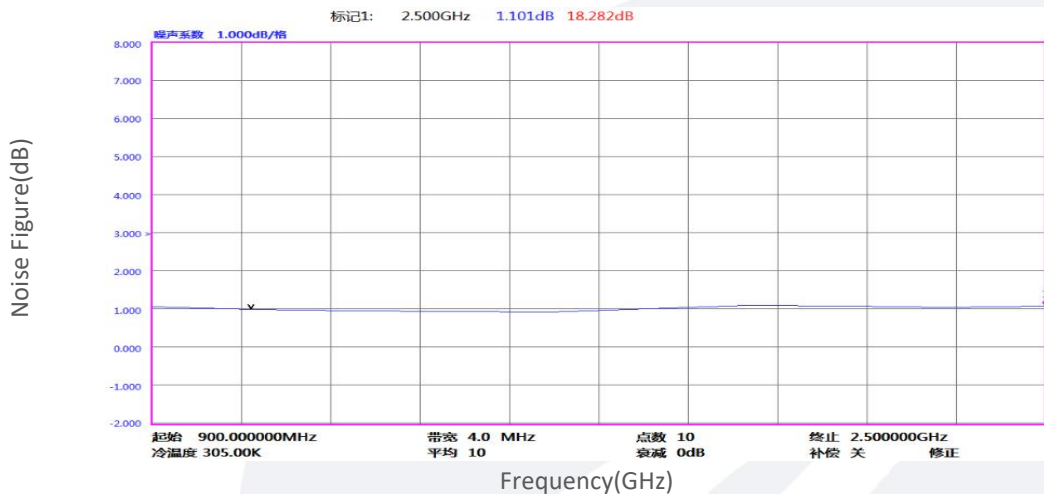
| Part Number           | Description                                                                                         | Revision |
|-----------------------|-----------------------------------------------------------------------------------------------------|----------|
| TLLA0.9G2.5G-15-15    | Low Noise Amplifier, 0.9-2.5GHz, Noise Figure:1.5dB, Gain:15 dB,P1dB:15dBm,+12V DC,Without Heatsink | Rev.1.1  |
| TLLA0.9G2.5G-15-15-HS | Low Noise Amplifier, 0.9-2.5GHz, Noise Figure:1.5dB, Gain:15 dB,P1dB:15dBm,+12V DC,With Heatsink    | Rev.1.1  |

## Typical Performance Data:

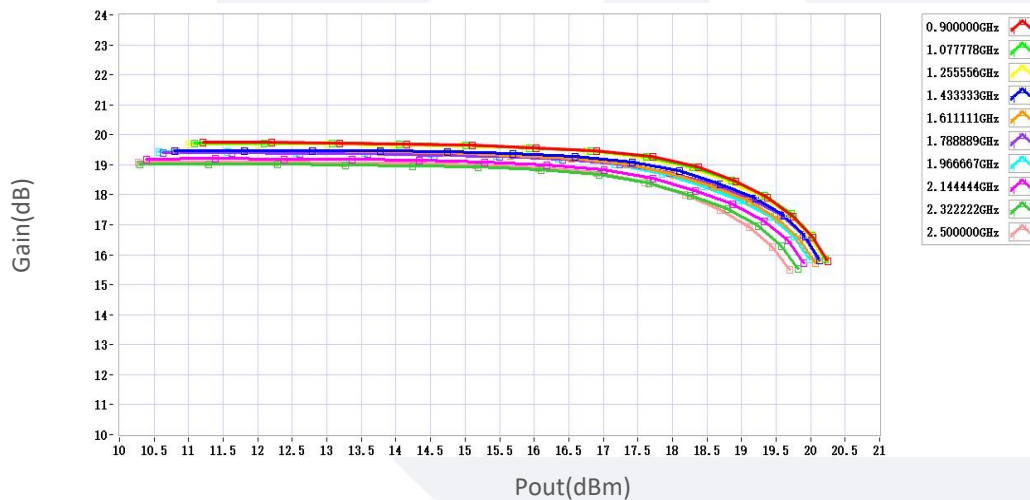
### Gain&VSWR vs Frequency



### Noise Figure vs Frequency

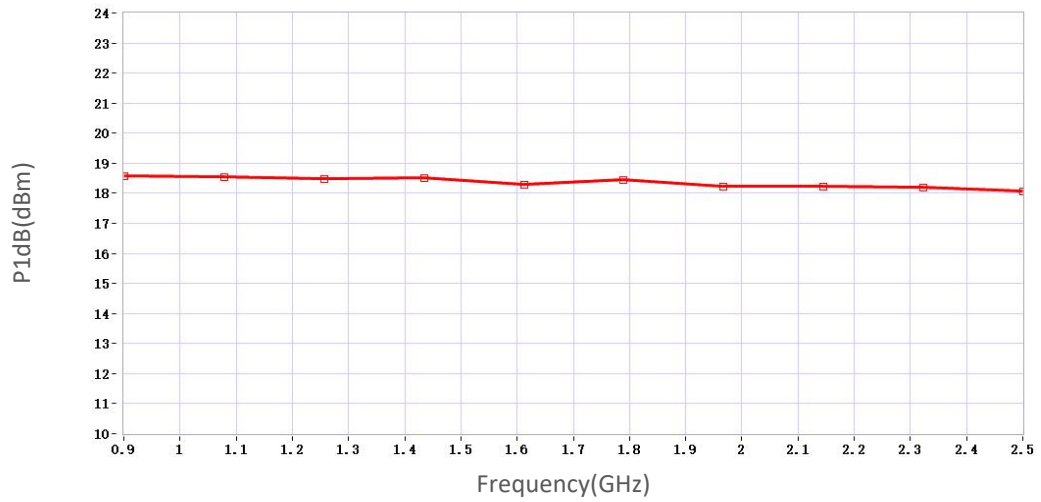


### Gain vs Output Power



Typical Performance Data:

P1dB vs Frequency



P3dB vs Frequency

