泰莱微波
Talent Microwave

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# Low Noise Amplifier

## 6-26.5GHz/2dB NF/18dB Gain/13dBm P1dB  Model: TLLA6G26.5G-18-20

TLLA6G26.5G-18-20 is a low noise amplifier with a typical small signal gain of 18dB and a nominal noise figure of 2dB across the frequency range of 6 to 26.5GHz. The DC power requirement for the amplifier is +8 V DC/64 mA. The input and output port configuration offers coax adapter structure with 2.92mm female.

## Features:

- Frequency range: 6-26.5GHz
- Gain: 18dB Typ
- Noise Figure: 2dB Typ
- Good Power and Gain Flatness
- 50 Ohm Matched Input / Output

## Applications:

- Communication systems

## Electrical Characteristics:

| Parameter | Min | Typ | Max | Units |
|---|---|---|---|---|
| Frequency range | 6 | | 26.5 | GHz |
| Small Signal Gain | | 18 | | dB |
| Gain Flatness | | ±2.0 | | dB |
| Noise Figure | | 2 | 3 | dB |
| Output P1dB | | 13 | | dBm |
| Output Psat | | 15 | | dBm |
| Input VSWR | | 2.2 | | :1 |
| Output VSWR | | 2.2 | | :1 |
| DC Voltage | +6 | +8 | +14 | V DC |
| DC Supply Current | | 64 | | mA |
| Impedance | | 50 | | Ohms |

## Mechanical Specifications:

| Parameter | Value | Units |
|---|---|---|
| Input /Output Connector | 2.92mm Female/2.92mm Female | |
| DC Bias | Solder Pin | |
| Size | 44.8*29.2*11 | mm |
| Weight | 50 | g |

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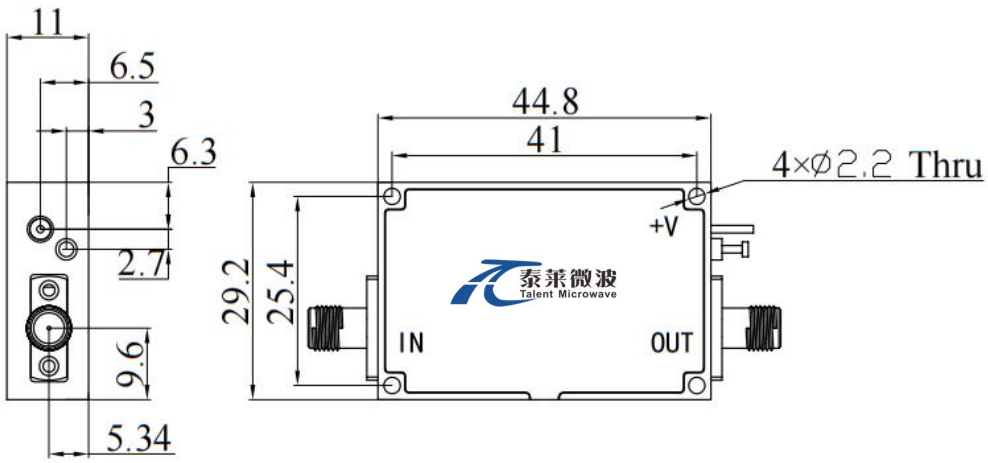
## Absolute Maximum Ratings:

| Parameter | Value |
|---|---|
| Supply Bias Voltage | +14 V |
| RF Input Power | +15 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 | ℃ |
| 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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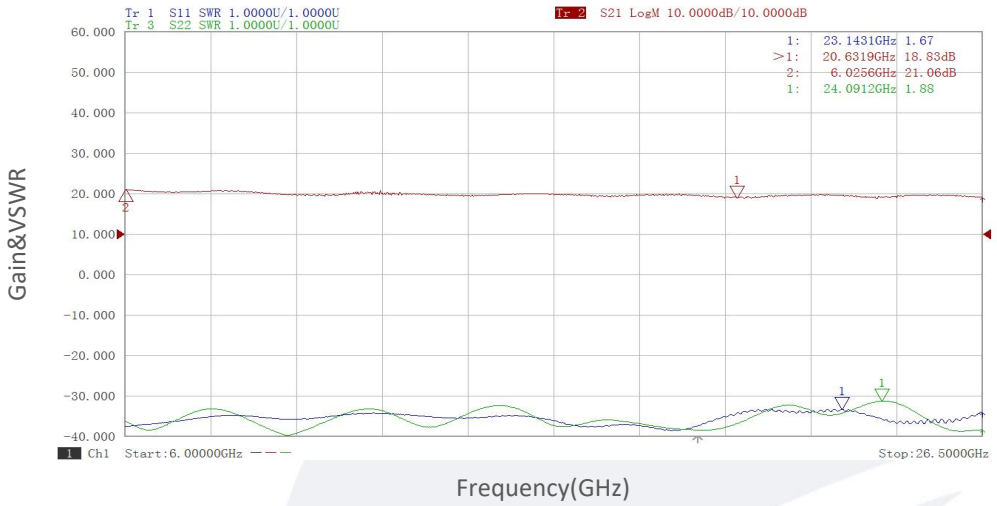
## Ordering Information:

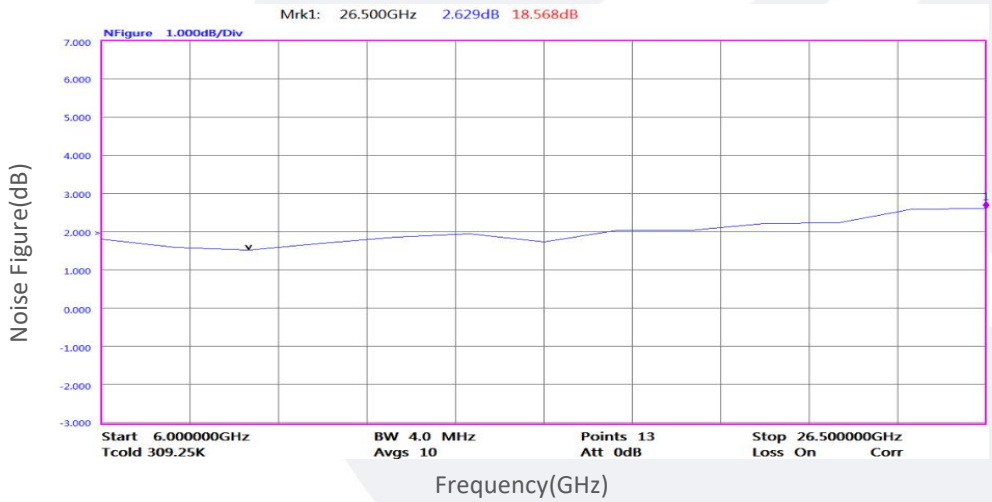
| Base Number | Description | Revision |
|---|---|---|
| TLLA6G26.5G-18-20 | Low Noise Amplifier, 6-26.5GHz, Noise Figure:2.0dB, Gain:18 dB,P1dB:13dBm,+8V DC,Without Heatsink | Rev.1.1 |
| TLLA6G26.5G-18-20-HS | Low Noise Amplifier, 6-26.5GHz, Noise Figure:2.0dB, Gain:18 dB,P1dB:13dBm,+8V DC,With Heatsink | Rev.1.1 |

## Typical Performance Data:

### Gain&VSWR vs Frequency




### Noise Figure vs Frequency




Note: Above data is for ref only, actual data may vary from unit to unit depending on operating environment and other factors like material lots etc.

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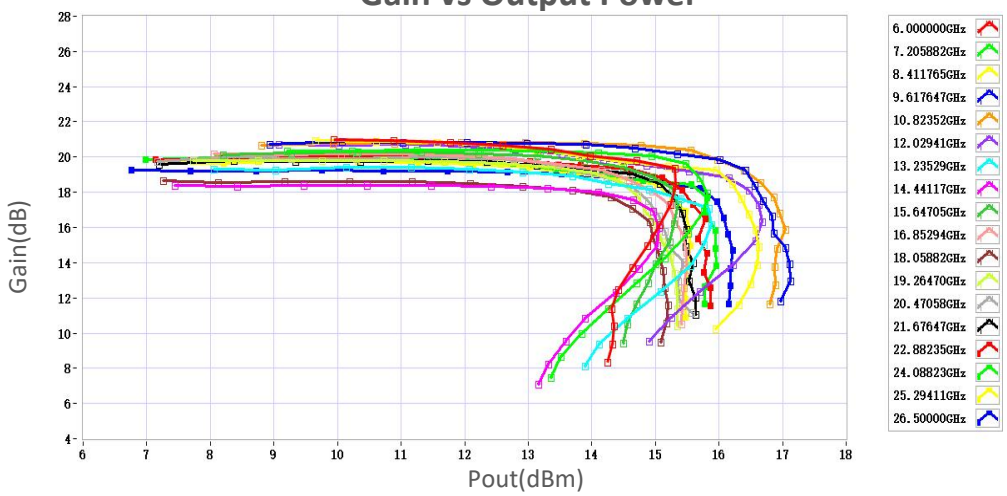
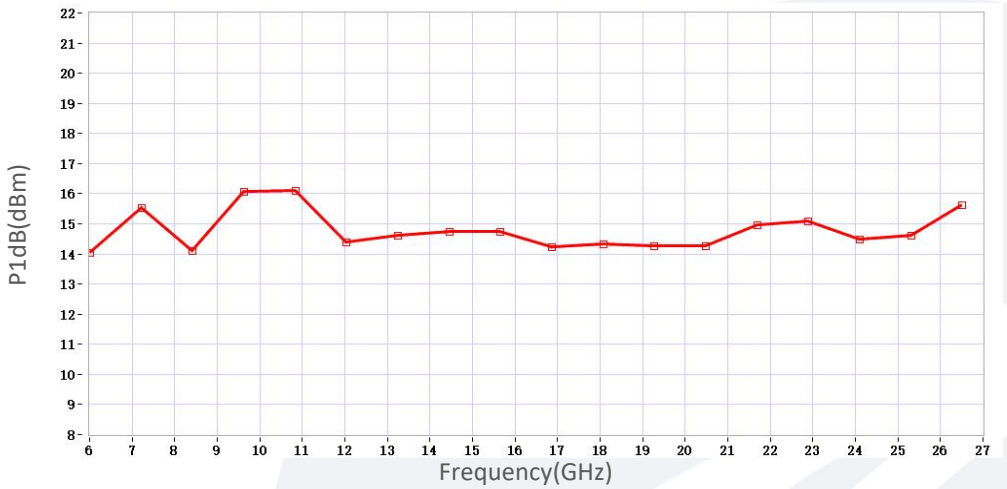
## Typical Performance Data:

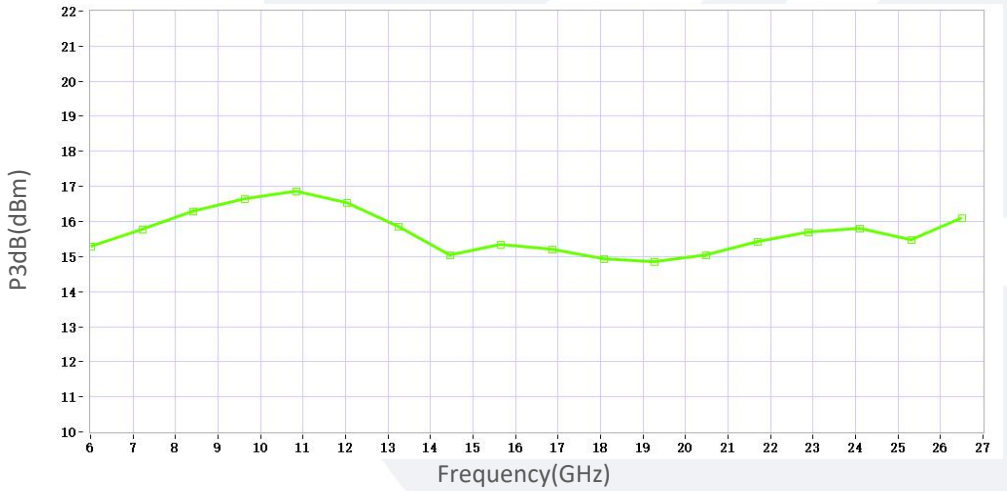
### Gain vs Output Power




### P1dB vs Frequency




### P3dB vs Frequency

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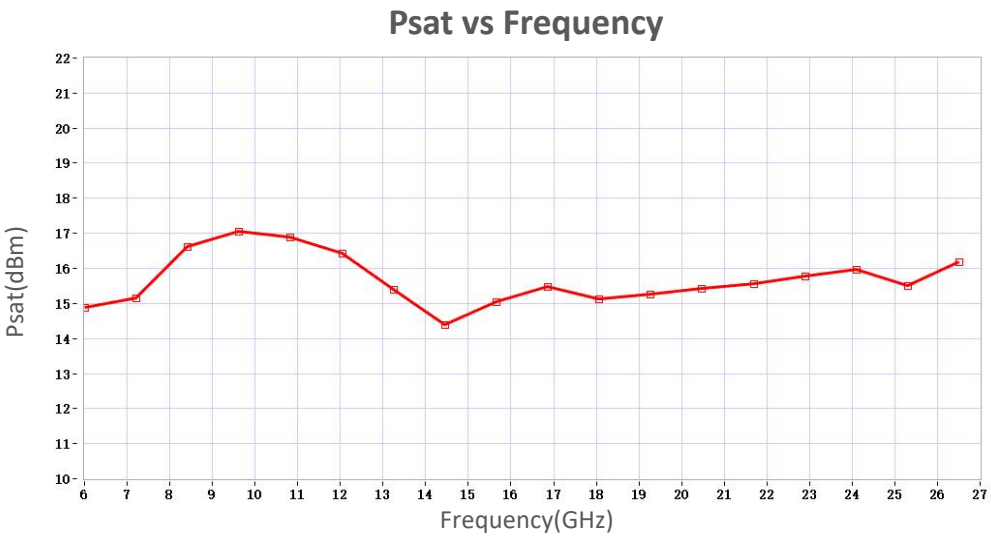


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