

## Power Amplifier

**18-26.5GHz/35dB Gain/41 dBm Psat**

**Model: TLPA18G26.5G-35-35**

TLPA18G26.5G-35-35 is a power amplifier with a minimum power gain of 35 dB and a nominal Psat of 41 dBm across the frequency range of 18 to 26.5 GHz. The DC power requirement for the amplifier is +20VDC. The input and output port configuration offers coax adapter structure with 2.92mm female.

### Features:

- Frequency range: 18-26.5GHz
- Gain: 35dB Min
- Output Power Psat: 41dBm Typ
- Good Power and Gain Flatness
- 50 Ohm Matched Input / Output

### Applications:

- Cellular
- PCN
- GSM
- ISM
- Lab Test

### Electrical Characteristics:

| Parameter         | Min     | Typ | Max | Units |
|-------------------|---------|-----|-----|-------|
| Frequency range   | 18-26.5 |     |     | GHz   |
| Power Gain        | 35      |     |     | dB    |
| Gain Flatness     |         | ±2  |     | dB    |
| Output P1dB       | 35      |     |     | dBm   |
| Output Psat       | 40      | 41  |     | dBm   |
| Spurious          |         |     | -50 | dBc   |
| Harmonic          |         |     | -20 | dBc   |
| Input VSWR        |         |     | 2   | :1    |
| DC Voltage        | 18      | 20  | 22  | V DC  |
| Power consumption |         |     | 70  | W     |
| Impedance         | 50      |     |     | Ohms  |

## Mechanical Specifications:

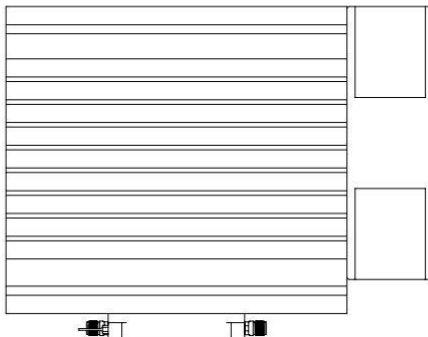
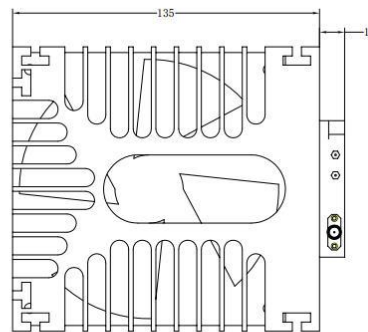
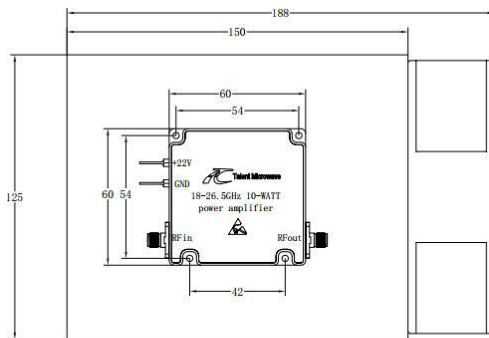
| Parameter               | Value                                                    | Units |
|-------------------------|----------------------------------------------------------|-------|
| Input /Output Connector | 2.92mm Female/2.92mm Female                              |       |
| DC Bias                 | Solder Pin                                               |       |
| Size                    | 60*60*11(Without Heatsink)<br>188*125*135(With Heatsink) | mm    |
| Weight                  | 200                                                      | g     |

## Absolute Maximum Ratings:

| Parameter             | Value                |
|-----------------------|----------------------|
| Supply Bias Voltage   | +22 V                |
| RF Input Power        | +5 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*          | -40                                                 |     | +60 | °C    |
| Non-operating Temperature*      | -50                                                 |     | +70 | °C    |
| 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  |     |     |       |

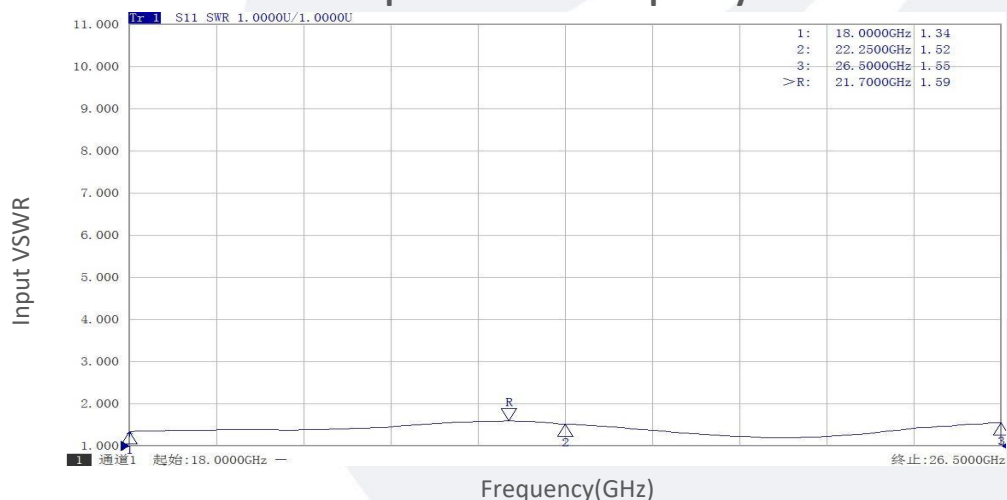
\*Note: For a wider temperature range, please consult the manufacturer.

## Ordering Information:

| Base Number           | Description                                                                  | Revision |
|-----------------------|------------------------------------------------------------------------------|----------|
| TLPA18G26.5G-35-35    | Power amplifier 18-26.5GHz,Gain:35dB,Psat:41dBm,<br>+20V DC,Without Heatsink | Rev.1.1  |
| TLPA18G26.5G-35-35-HS | Power amplifier 18-26.5GHz,Gain:35dB,Psat:41dBm,<br>+20V DC,With Heatsink    | Rev.1.1  |

## Typical Performance Data:

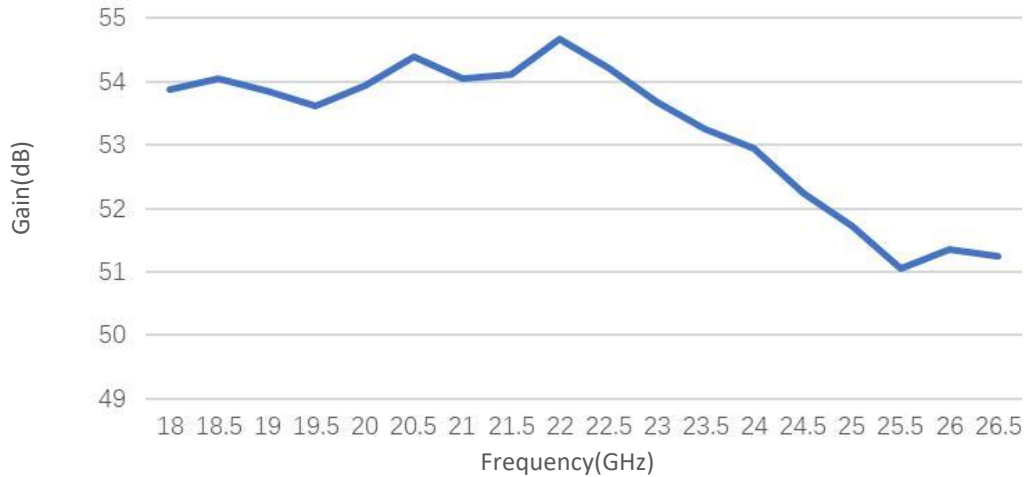
### Input VSWR vs Frequency



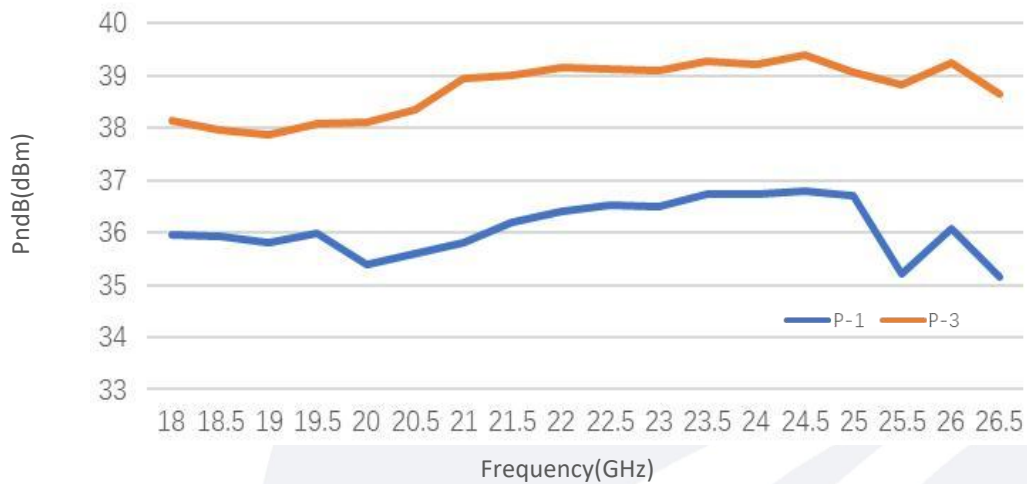
Note: Above data is for ref only, actual data may vary from unit to unit depending on operating environment and other factors like material lots etc.

## Typical Performance Data:

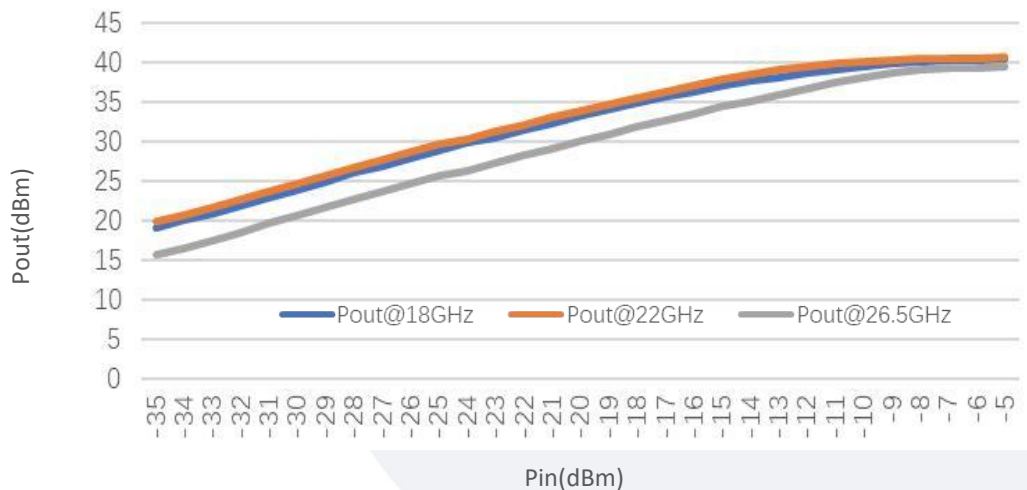
### Small Signal Gain vs Frequency



### PndB vs Frequency

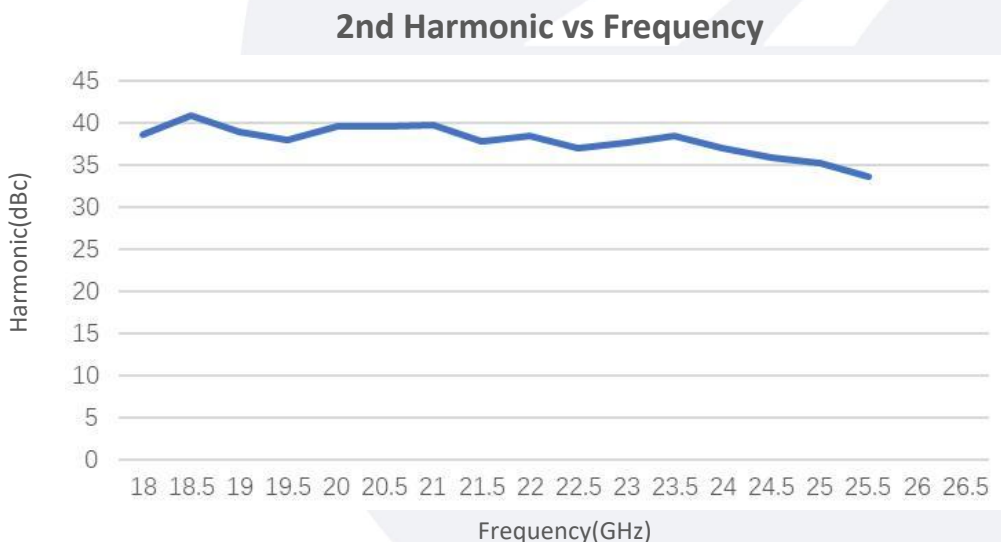
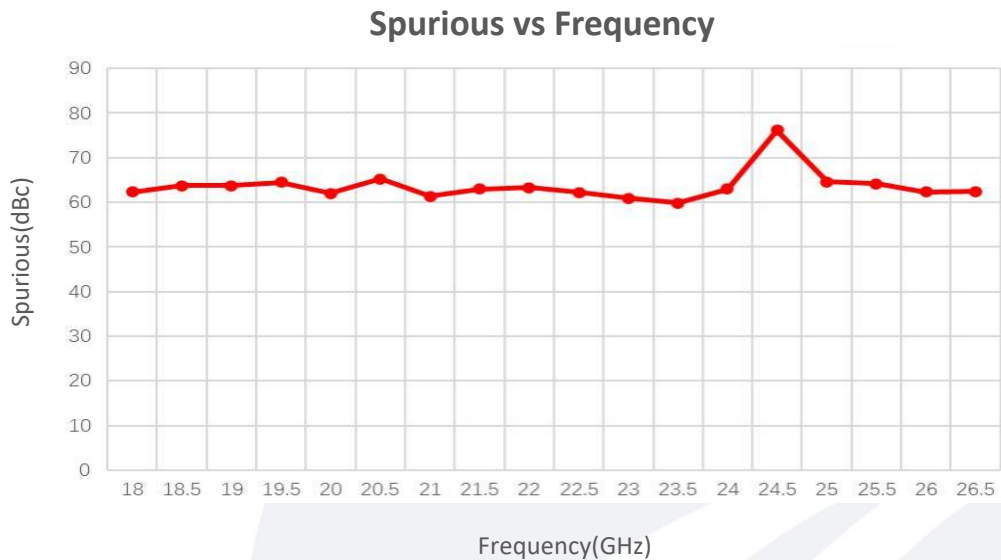
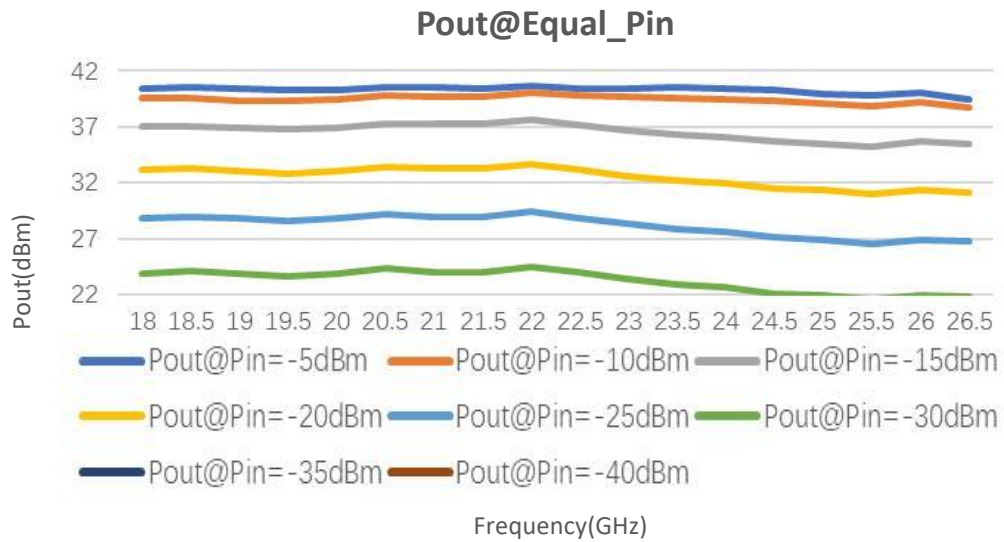


### Pout@Pin



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