

## Power Amplifier

26.5-40GHz/40dB Gain/40dBm Psat

Model: TLPA26.5G40G-37-37

TLPA26.5G40G-37-37 is a power amplifier with a minimum small signal gain of 40 dB and a typical Psat of 40 dBm across the frequency range of 26.5 to 40 GHz. The DC power requirement for the amplifier is +22 VDC/90W. The input and output port configuration offers coax adapter structure with 2.92mm female.

### Features:

- Frequency range: 26.5-40GHz
- Gain: 40dB Min
- Output Power Psat: 40dBm 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   | 26.5 |      | 40  | GHz   |
| Small Signal Gain | 40   |      |     | dB    |
| Psat Flatness     |      | ±1.5 |     | dB    |
| Output P1dB       |      | 35   |     | dB    |
| Output Psat       |      | 40   |     | dBm   |
| Spurious          |      |      | -50 | dBc   |
| Harmonic          |      |      | -25 | dBc   |
| Input VSWR        |      |      | 2   | :1    |
| DC Voltage        |      | 22   |     | V DC  |
| Power Consumption |      |      | 90  | W     |
| Impedance         |      | 50   |     | Ohms  |

### Mechanical Specifications:

| Parameter               | Value  | Units |
|-------------------------|--|-------|
| Input /Output Connector | 2.92mm Female/2.92mm Female                              |       |
| DC Supply Connector     | Feedthru capacitors                                      |       |
| Size                    | 60*60*11(Without heatsink)<br>188*125*146(With heatsink) | mm    |
| Weight                  | ≤200   | g     |

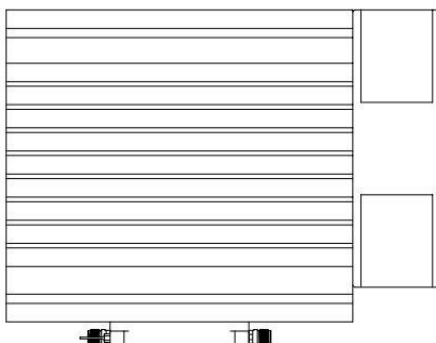
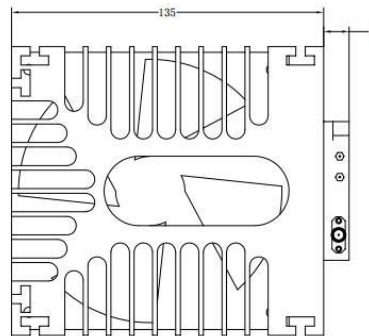
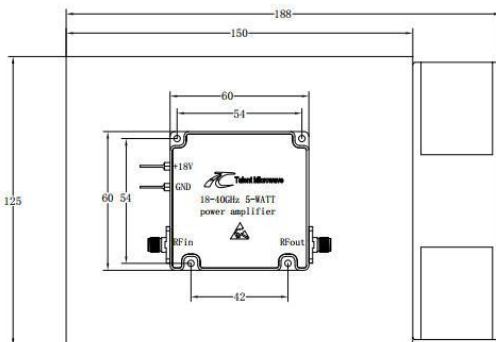
### Absolute Maximum Ratings:

| Parameter             | Value                |
|-----------------------|----------------------|
| Supply Bias Voltage   | +24 V                |
| RF Input Power        | +5 dBm               |
| ESD sensitivity (HBm) | Class 0, passed 150V |



### Outline Drawing:

Unit:mm



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

### Environmental Conditions:

| Parameter                       | Min   | Typ | Max | Units |
|---------------------------------|---|-----|-----|-------|
| Operating Temperature*          | -40   |     | +50 | °C    |
| Non-operating Temperature*      | -50   |     | +60 | °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  |     |     |       |

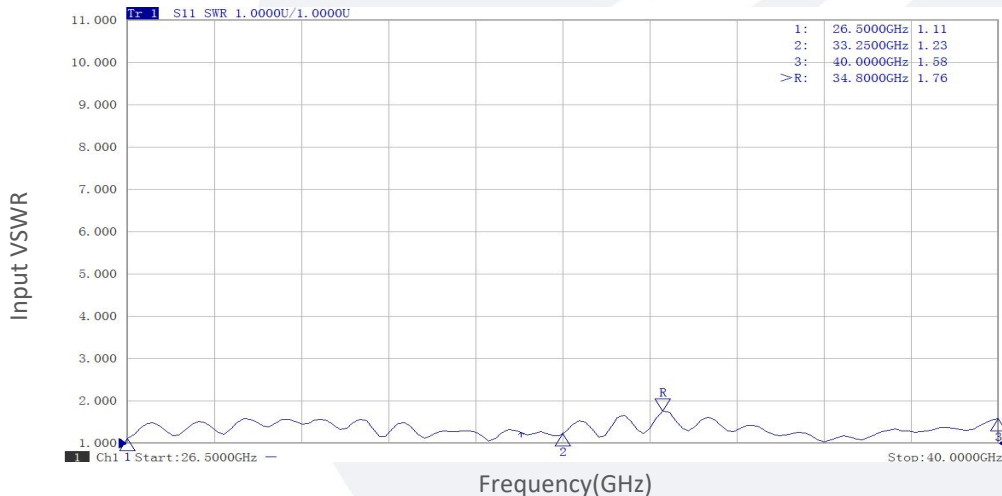
\*Note: For a wider temperature range, please consult the manufacturer.

### Ordering Information:

| Base Number        | Description   | Revision |
|--------------------|---|----------|
| TLPA26.5G40G-37-37 | Power amplifier 26.5-40GHz,<br>Gain:40dB,Psat:40dBm,+22V DC,With Heatsink | Rev.1.1  |

### Typical Performance Data:

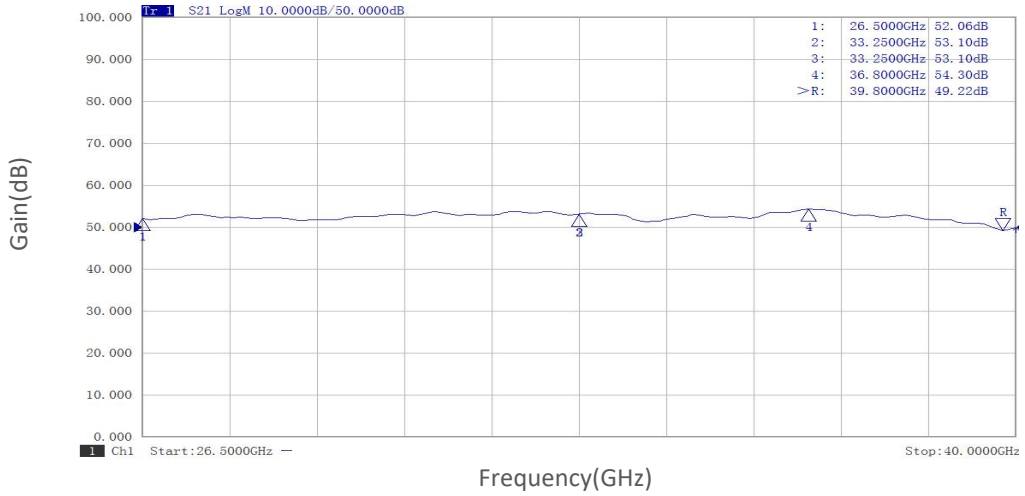
#### Input VSWR vs Frequency



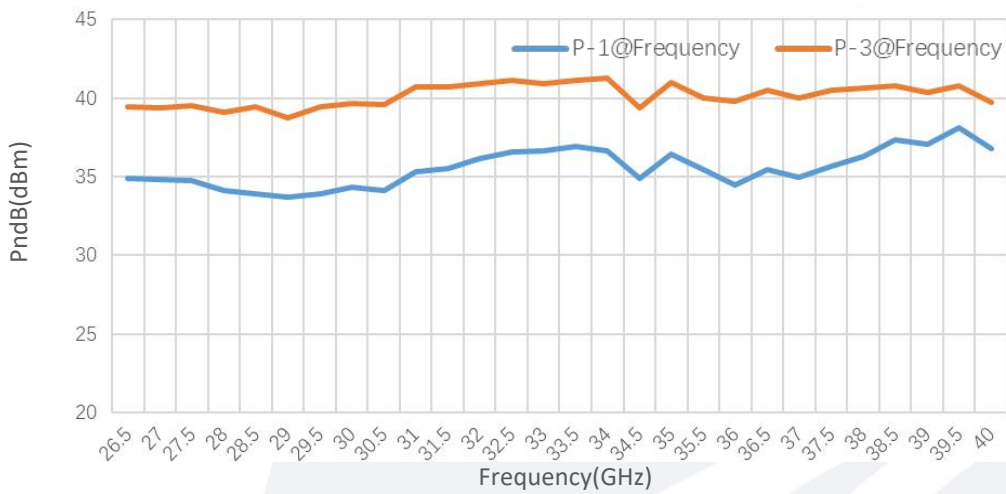
Note: Above data is for ref only, actual data may vary from unit to unit depending on operating environment and other factors like material lots etc.

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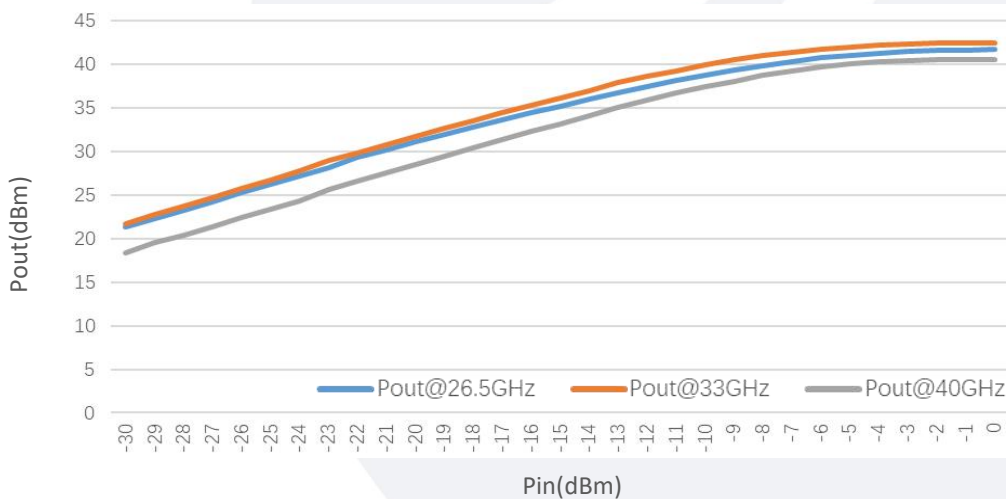
### Small Signal Gain vs Frequency



### PndB vs Frequency



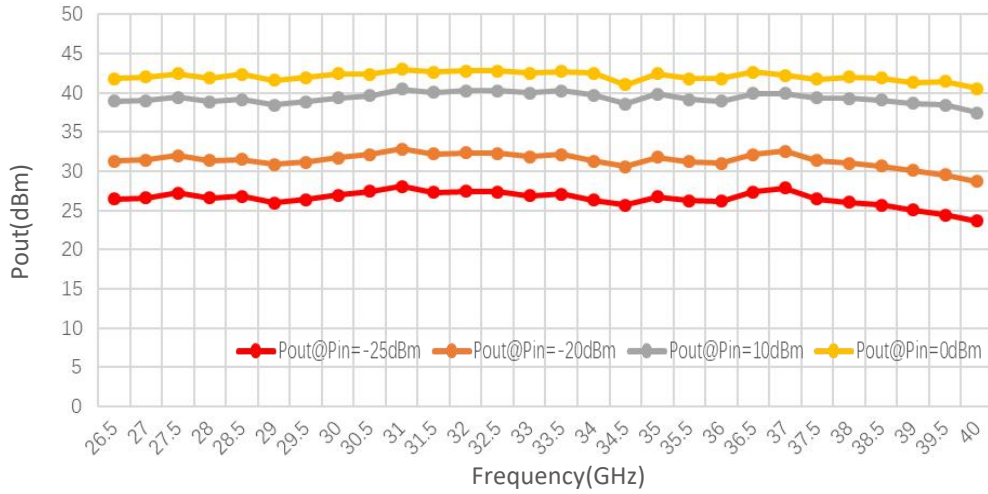
### Pout@Pin



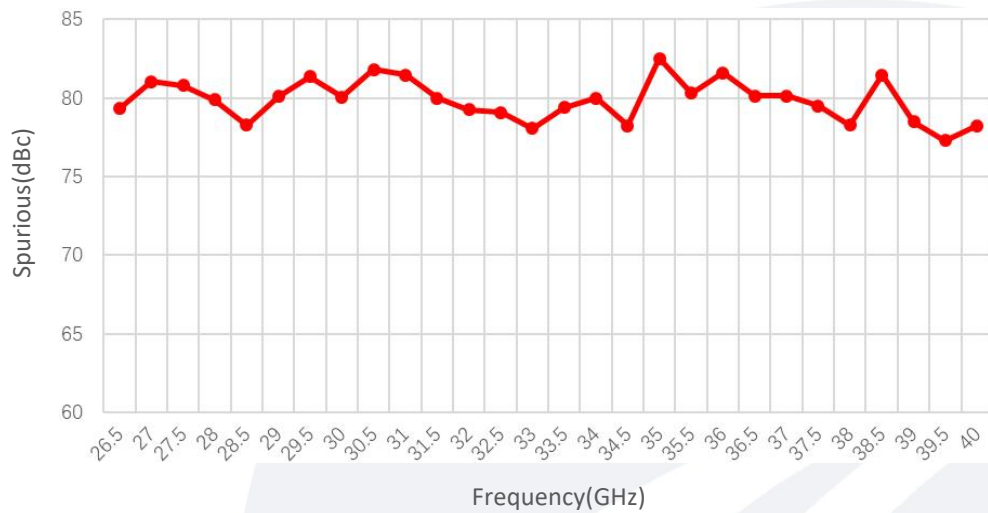
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## Typical Performance Data:

### Pout@Equal\_Pin



### Spurious vs Frequency



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