

## Power Amplifier

2-6GHz /42dB Gain/28 dBm Psat

Model: TLPA2G6G-42-28-LC

TLPA2G6G-42-28-LC is a power amplifier with a typical small signal gain of 42 dB and Psat of 28 dBm across the frequency range of 2 to 6 GHz. The DC power requirement for the amplifier is +5 VDC/400mA. The input and output port configuration offers coax adapter structure with SMA female.

### Features:

- Frequency range: 2-6GHz
- Small Signal Gain:42 dB Typ
- Output Power Psat: 28 dBm 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   |     | 2-6  |     | GHz   |
| Small Signal Gain |     | 42   |     | dB    |
| Gain Flatness     |     | ±1.5 |     | dB    |
| Output Psat       |     | 28   |     | dBm   |
| Input VSWR        |     | 2    |     | :1    |
| Output VSWR       |     | 2    |     | :1    |
| DC Voltage        |     | +5   |     | V DC  |
| DC Supply Current |     | 400  |     | mA    |
| Impedance         |     | 50   |     | Ohms  |

## Mechanical Specifications:

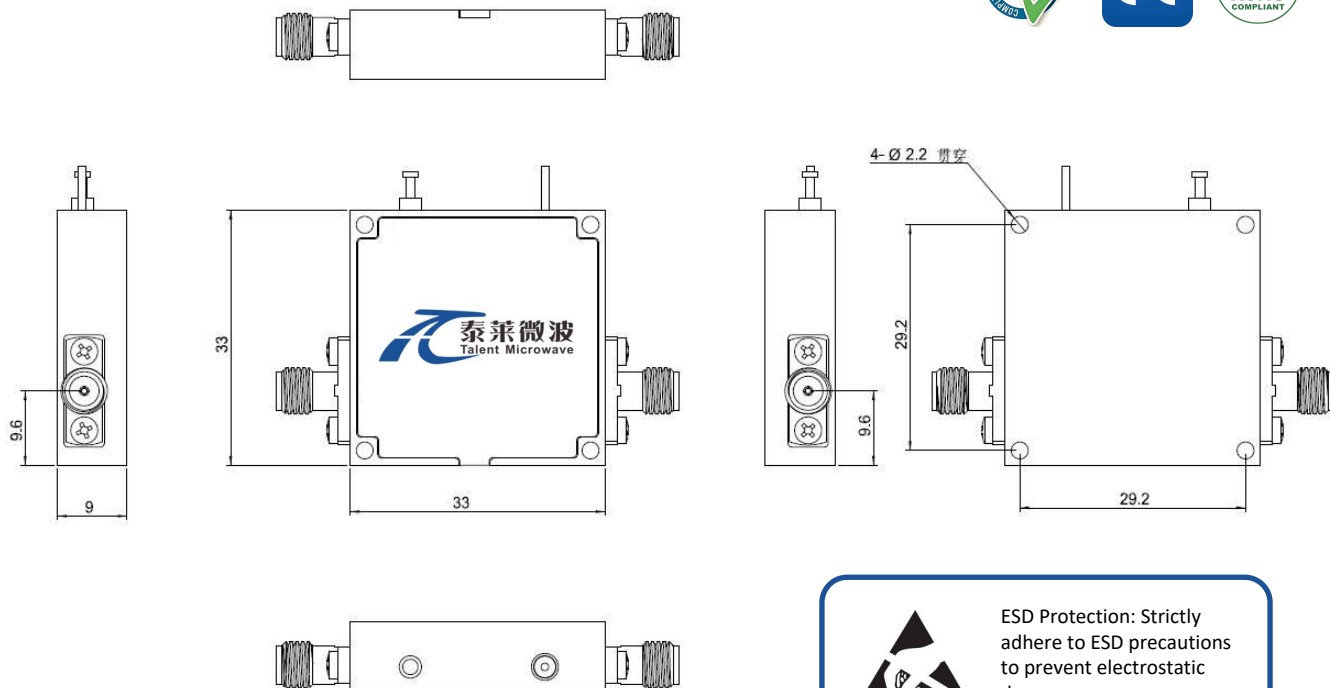
| Parameter               | Value                 | Units |
|-------------------------|-----------------------|-------|
| Input /Output Connector | SMA Female/SMA Female |       |
| DC Bias                 | Solder Pin            |       |
| Size                    | 33*33*9               | mm    |

## Absolute Maximum Ratings:

| Parameter             | Value                |
|-----------------------|----------------------|
| Supply Bias Voltage   | +5.5 V               |
| RF Input Power        | +15 dBm              |
| ESD sensitivity (HBm) | Class 0, passed 150V |

## Outline Drawing:

Unit:mm



## Regulatory Compliance:



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*          | -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       | 描述 Description                                                             | Revision |
|-------------------|----------------------------------------------------------------------------|----------|
| TLPA2G6G-42-28-LC | Power amplifier 2-6GHz,<br>Power Gain:42dB,Psat:28dBm,+5V DC,With Heatsink | Rev.1.1  |

## Typical Performance Data:

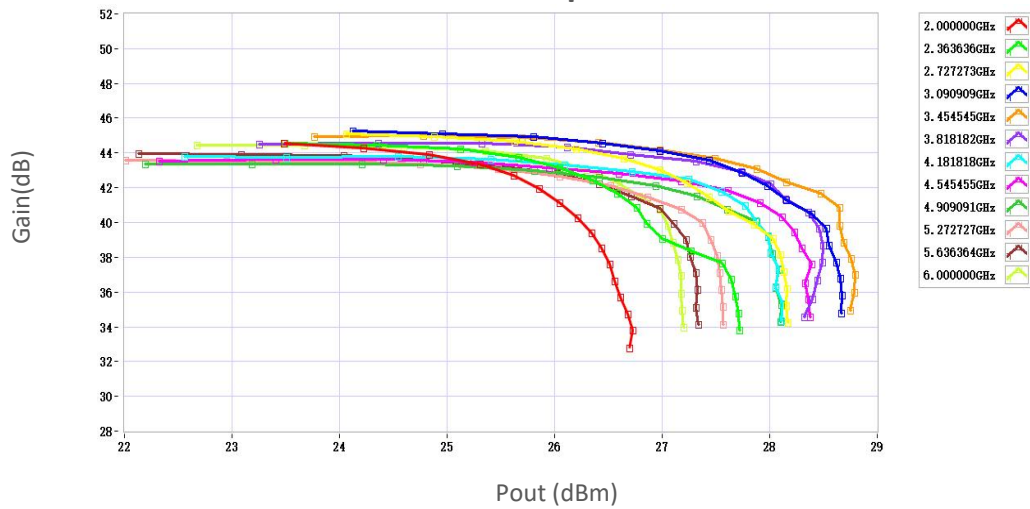
### VSWR&Gain vs Frequency



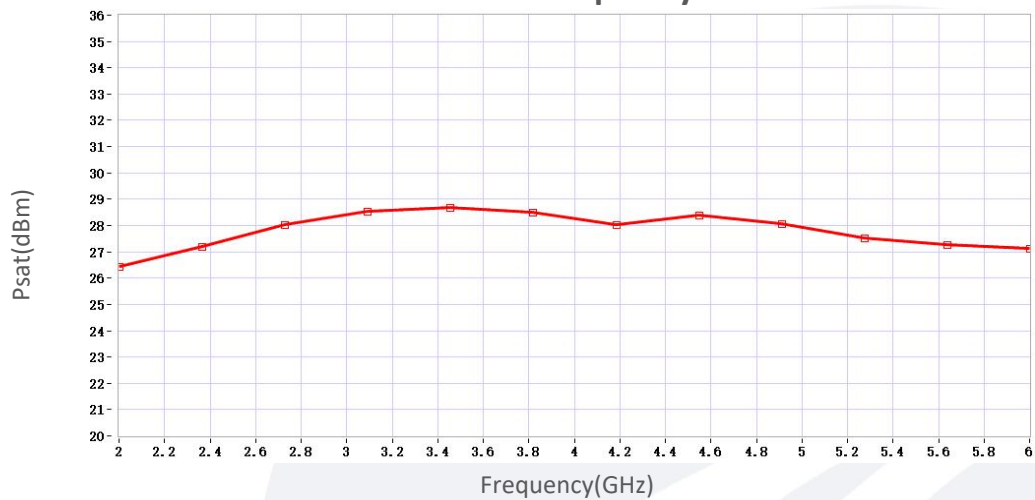
Note: Above data is for ref only, actual data may vary from unit to unit depending on operating environment and other factors like material lots etc.

## Typical Performance Data:

### Gain vs Output Power



### Psat vs Frequency



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