

## Model:TLPA6G18G-30-34

## Power Amplifier 6-18GHz,Gain:30dB,Psat:34dBm

### Feature:

- Ultra Wide Band:6-18GHz
- Gain:30dB Min
- Psat Output Power:34dBm Min
- Good Power and Gain Flatness
- 50 Ohm Matched Input / Output

### Electrical Specifications:

| Parameter         | Min  | Typ       | Max       | Units |
|-------------------|------|-----------|-----------|-------|
| Frequency range   | 6-18 |           |           | GHz   |
| Gain              | 30   |           |           | dB    |
| Gain Flatness     |      | $\pm 1.5$ | $\pm 2.5$ | dB    |
| Output P1dB       | 33   |           |           | dBm   |
| Output Psat       | 34   |           |           | dBm   |
| Noise Figure      |      |           | 7.5       | dB    |
| Input VSWR        |      |           | 2.2       | :1    |
| Output VSWR       |      |           | 2.2       | :1    |
| DC Voltage        |      | +12       |           | V DC  |
| DC Supply Current |      | 2.4       |           | A     |
| Impedance         | 50   |           |           | Ohms  |

### Mechanical Specifications:

| Parameter               | Value                 | Units |
|-------------------------|-----------------------|-------|
| Input /Output Connector | SMA Female/SMA Female |       |
| DC Bias                 | Solder Pin            |       |
| Size                    | 35*40*12              | mm    |
| Weight                  | 50                    | g     |

### Absolute Maximum Ratings:

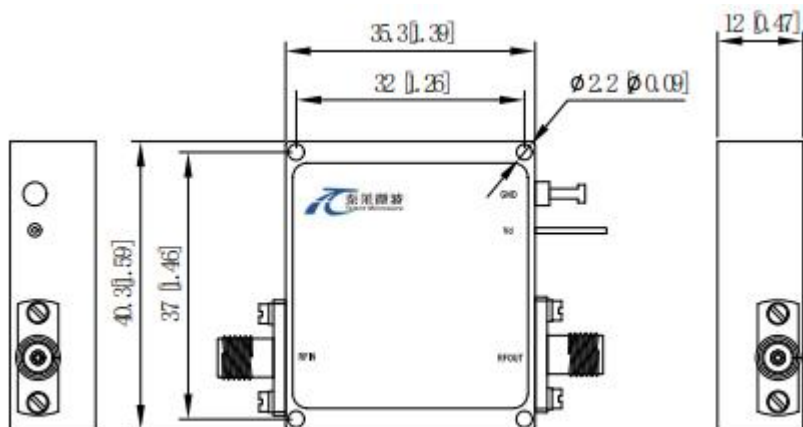
| Parameter             | Value                |
|-----------------------|----------------------|
| Supply Bias Voltage   | +15V                 |
| RF Input Power        | /                    |
| ESD sensitivity (HBm) | Class 0, passed 150V |



Available 220V System  
Benchtop Amplifier

## Outline Drawing:

Unit: mm



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



OBSERVE PRECAUTIONS  
ELECTROSTATIC SENSITIVE  
DEVICES

## Environmental Conditions:

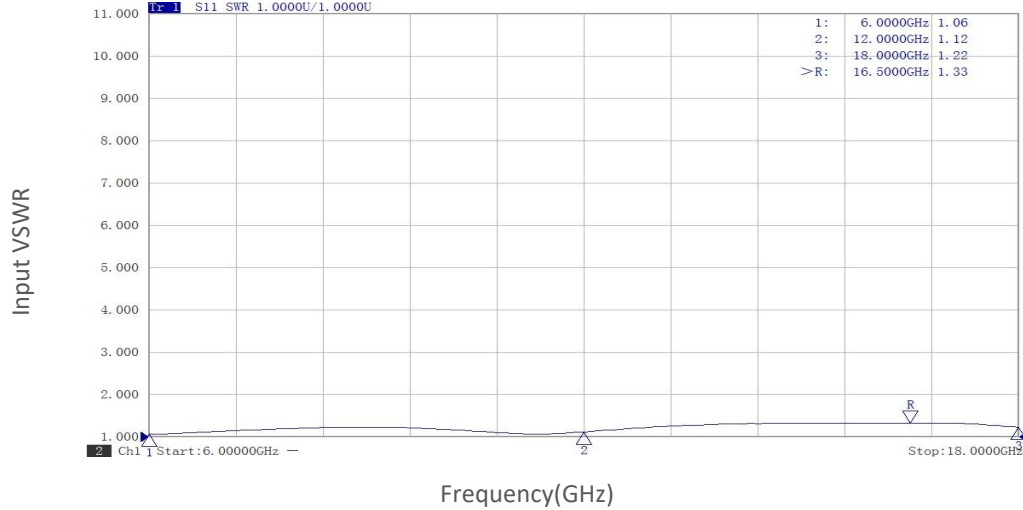
| Parameter                       | Min                                                 | Typ | Max  | Units |
|---------------------------------|-----------------------------------------------------|-----|------|-------|
| Operating Temperature           | -45                                                 |     | +85  | °C    |
| Non-operating Temperature       | -55                                                 |     | +125 | °C    |
| Relative humidity               |                                                     | 95  |      | %     |
| Altitude                        | 50000                                               |     |      | 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:

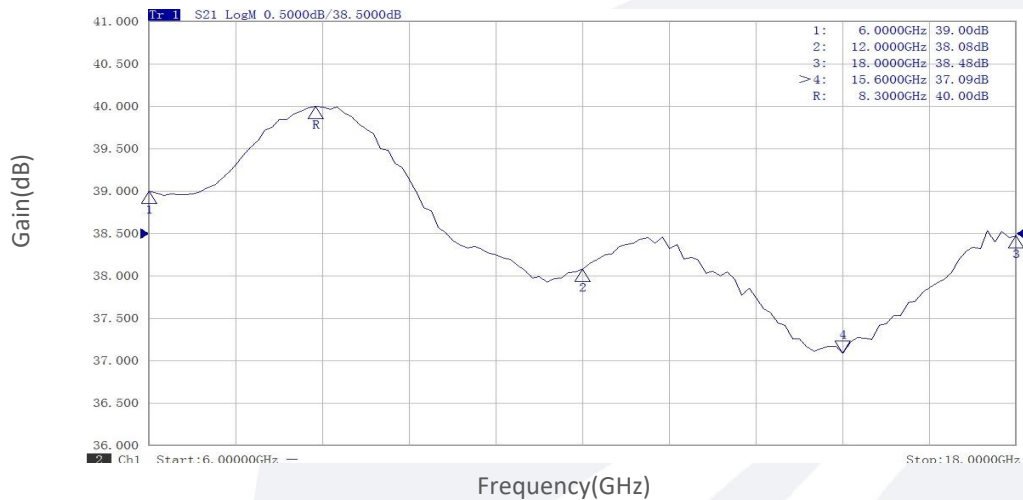
| Part Number        | Description                                                           | Revision |
|--------------------|-----------------------------------------------------------------------|----------|
| TLPA6G18G-30-34    | Power amplifier 6-18GHz,Gain30dB,Psat:34dBm,+12V DC,Without Heatsink. | Rev.1.1  |
| TLPA6G18G-30-34-HS | Power amplifier 6-18GHz,Gain30dB,Psat:34dBm,+12V DC,With Heatsink.    | Rev.1.1  |

## Typical Performance Data:

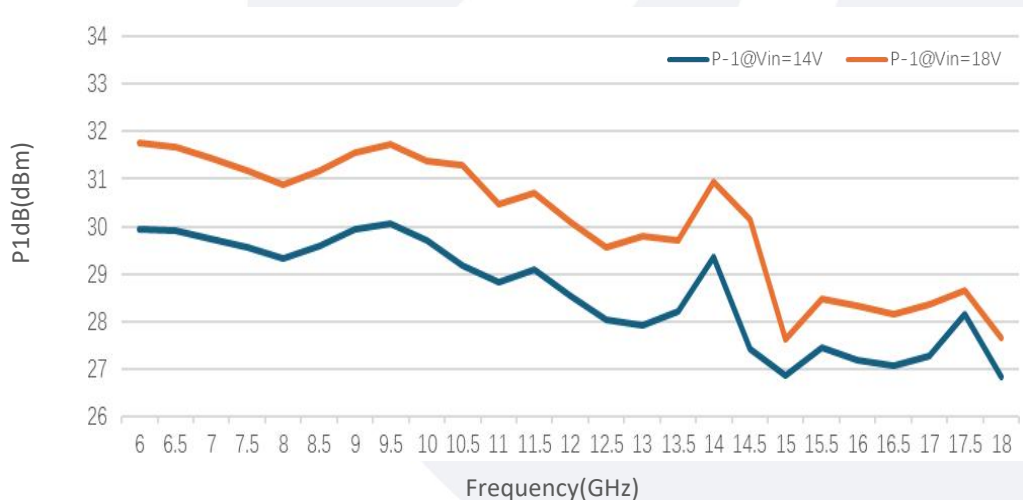
### Input VSWR vs Frequency



### Gain vs Frequency

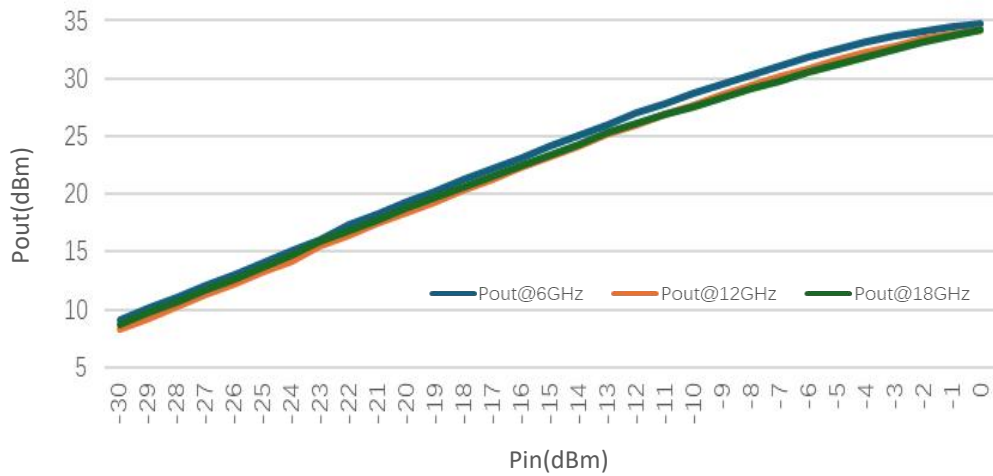


### P1dB vs Frequency

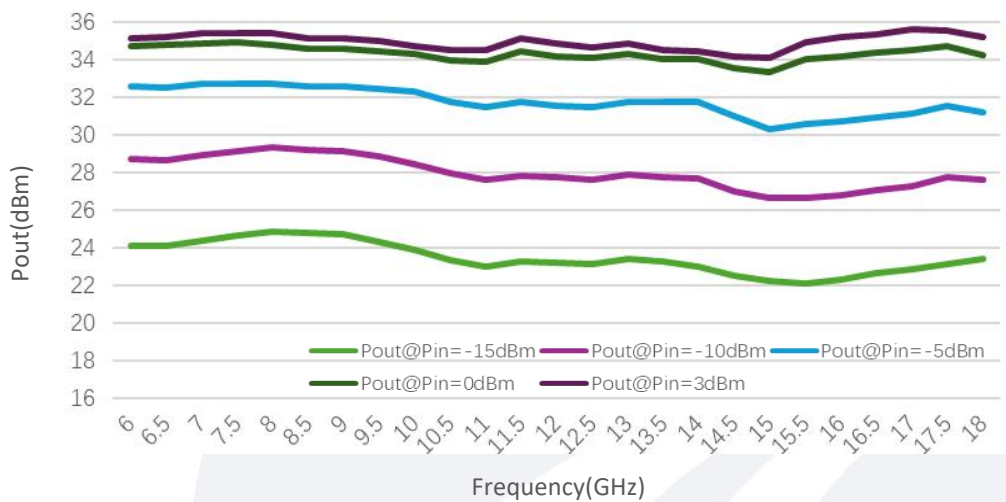


## Typical Performance Data:

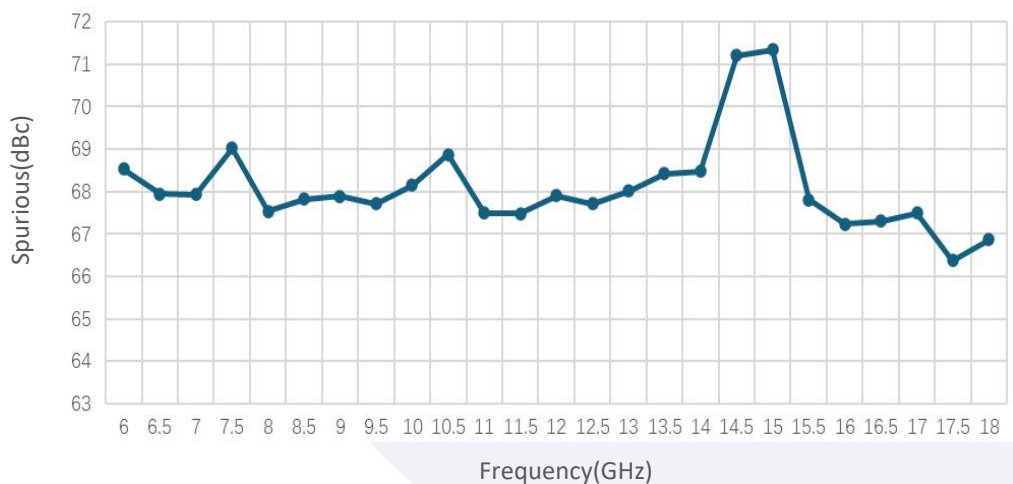
### Pout@Pin



### Pout@Equal\_Pin



### Spurious vs Frequency



## Typical Performance Data:

