

## Power Amplifier

0.7-18GHz/37dB Gain/37dBm Psat

Model: TLPA0.7G18G-37-37

TLPA0.7G18G-37-37 is a power amplifier with a minimum power gain of 37 dB and a minimum Psat of 37 dBm across the frequency range of 0.7 to 18 GHz. The DC power requirement for the amplifier is +28 VDC/3 A. The input and output port configuration offers coax adapter structure with SMA female.

### Features:

- Frequency range: 0.7-18GHz
- Gain: 37dB Min
- Output Power Psat: 37 dBm Min
- 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     | 0.7 |      | 18  | GHz   |
| Power Gain          | 37  |      |     | dB    |
| Gain Flatness       |     | ±3.5 |     | dB    |
| Output Psat         | 37  |      |     | dBm   |
| Spurious@Pout=37dBm |     |      | -60 | dBc   |
| Harmonic@Pout=37dBm |     | -15  | -10 | dBc   |
| Input VSWR          |     |      | 2   | :1    |
| DC Voltage          |     | +28  |     | V DC  |
| DC Supply Current   |     |      | 3   | A     |
| Impedance           |     | 50   |     | Ohms  |

### Mechanical Specifications:

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

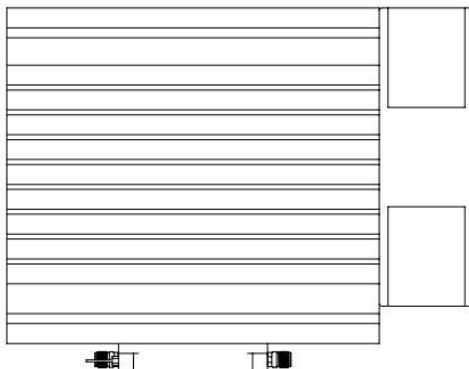
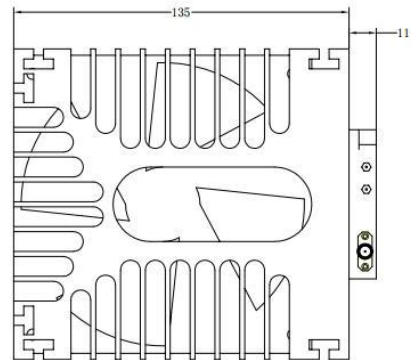
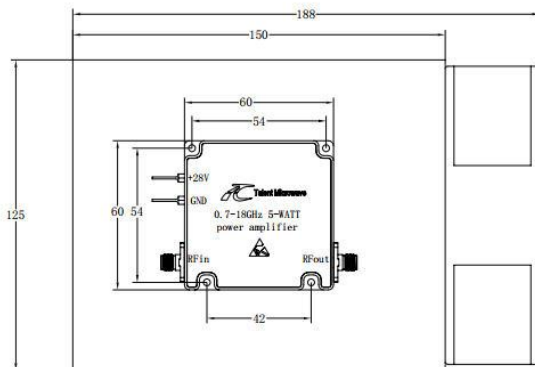
### Absolute Maximum Ratings:

| Parameter             | Value                |
|-----------------------|----------------------|
| Supply Bias Voltage   | +29 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   |     | +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 |
|----------------------|---|----------|
| TLPA0.7G18G-37-37    | Power amplifier 0.7-18GHz,<br>Gain:37dB,Psat:37dBm,+28V DC,Without Heatsink | Rev.1.1  |
| TLPA0.7G18G-37-37-HS | Power amplifier 0.7-18GHz,<br>Gain:37dB,Psat:37dBm,+28V DC,With Heatsink    | Rev.1.1  |