

## Model:TLPA1800M4G-45-42

## Power Amplifier

1.8-4GHz,Gain:45dB,Psat:42dBm

### Feature:

- Ultra Wide Band: 1.8-4GHz
- Gain:45 dB Min
- Psat Output Power: 42dBm Typ
- Good Power and Gain Flatness
- 50 Ohm Matched Input / Output

### Electrical Specifications:

| Parameter         | Min   | Typ | Max | Units |
|-------------------|-------|-----|-----|-------|
| Frequency range   | 1.8-4 |     |     | GHz   |
| Gain              | 45    | 47  |     | dB    |
| Gain Flatness     |       | ±2  | ±3  | dB    |
| Output P1dB       | 37    | 38  |     | dBm   |
| Output Psat       | 41    | 42  |     | dBm   |
| Harmonics         |       |     | -10 | dBc   |
| Input VSWR        |       | 1.5 | 2.0 | :1    |
| DC Voltage        | +26   | +28 | +30 | V DC  |
| DC Supply Current |       | 0.5 | 2.5 | A     |
| Impedance         | 50    |     |     | Ohms  |

### Mechanical Specifications:

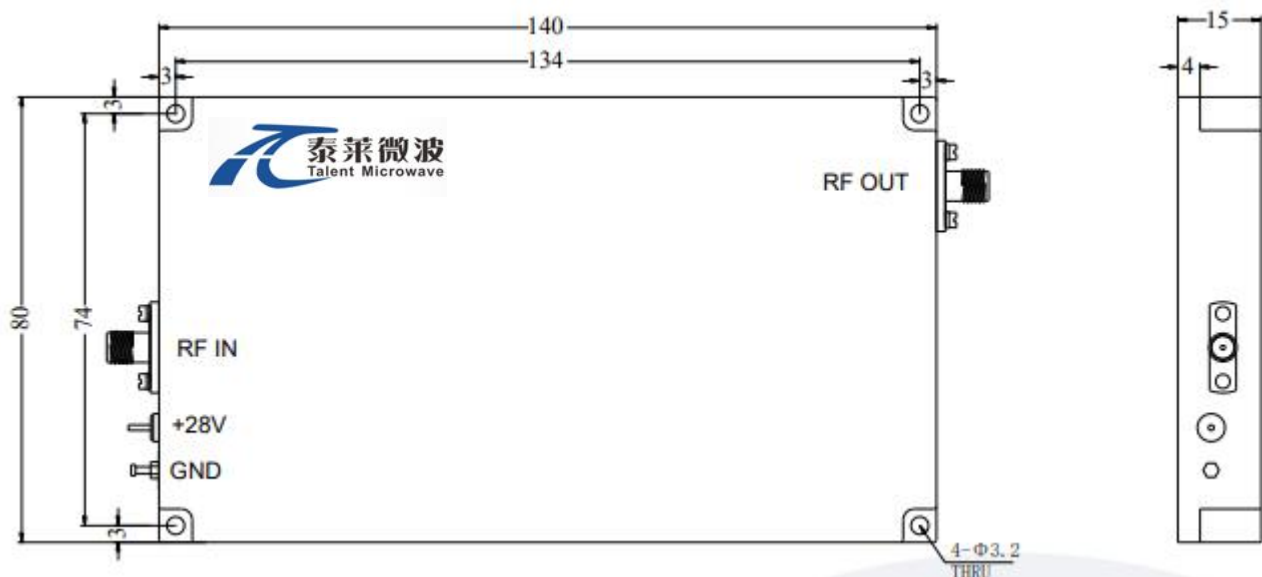
| Parameter               | Value                 | Units |
|-------------------------|-----------------------|-------|
| Input /Output Connector | SMA Female/SMA Female |       |
| DC Bias                 | Solder Pin            |       |
| Size                    | 140*80*15             | mm    |
| Weight                  | 250                   | g     |

### Absolute Maximum Ratings:

| Parameter             | Value                |
|-----------------------|----------------------|
| Supply Bias Voltage   | +30V                 |
| RF Input Power        | 3dBm                 |
| ESD sensitivity (HBm) | Class 0, passed 150V |

## 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                        | 30,000                                             |     |      | feet  |
| Shock / Vibration(MIL-STD-810F) | 20g,11ms,saw-tooth                                 |     |      |       |
| Shock(non operating)            | 20G for 11msc half sin wave,3 axis both directions |     |      |       |

## Ordering Information:

| Part Number          | Description                                                                | Revision |
|----------------------|----------------------------------------------------------------------------|----------|
| TLPA1800M4G-45-42    | Power amplifier 1.8-4GHz,Gain:45dB,Psat:42dBm,<br>+28V DC,Without Heatsink | Rev.1.1  |
| TLPA1800M4G-45-42-HS | Power amplifier 1.8-4GHz,Gain:45dB,Psat:42dBm,<br>+28V DC,With Heatsink    | Rev.1.1  |