泰莱微波
Talent Microwave

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# Power Amplifier

## 0.01-20GHz /46dB Gain/30.5dBm Psat

## Model: TLPA0.01G20G-46-30.5

TLPA0.01G20G-46-30.5 is a power amplifier with a typical gain of 46 dB and a nominal Psat of 30.5 dBm across the frequency range of 0.01 to 20 GHz. The DC power requirement for the amplifier is +24 VDC/600 mA. The input and output port configuration offers coax adapter structure with SMA female.

### Features:

- Ultra Wide Band: 0.01-20GHz
- Gain: 46dB Typ
- Output Power Psat: 30.5dBm 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 | | 0.01-20 | | GHz |
| Gain | 45 | 46 | | dB |
| Gain Flatness | | ±3 | | dB |
| Output P1dB | | 29.5 | | dBm |
| Output Psat | | 30.5 | | dBm |
| Input VSWR | | 1.8 | | :1 |
| Output VSWR | | 1.8 | | :1 |
| DC Voltage | | 24 | | V DC |
| DC Supply Current | | 600 | | mA |
| Impedance | | 50 | | Ohms |

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## Mechanical Specifications:

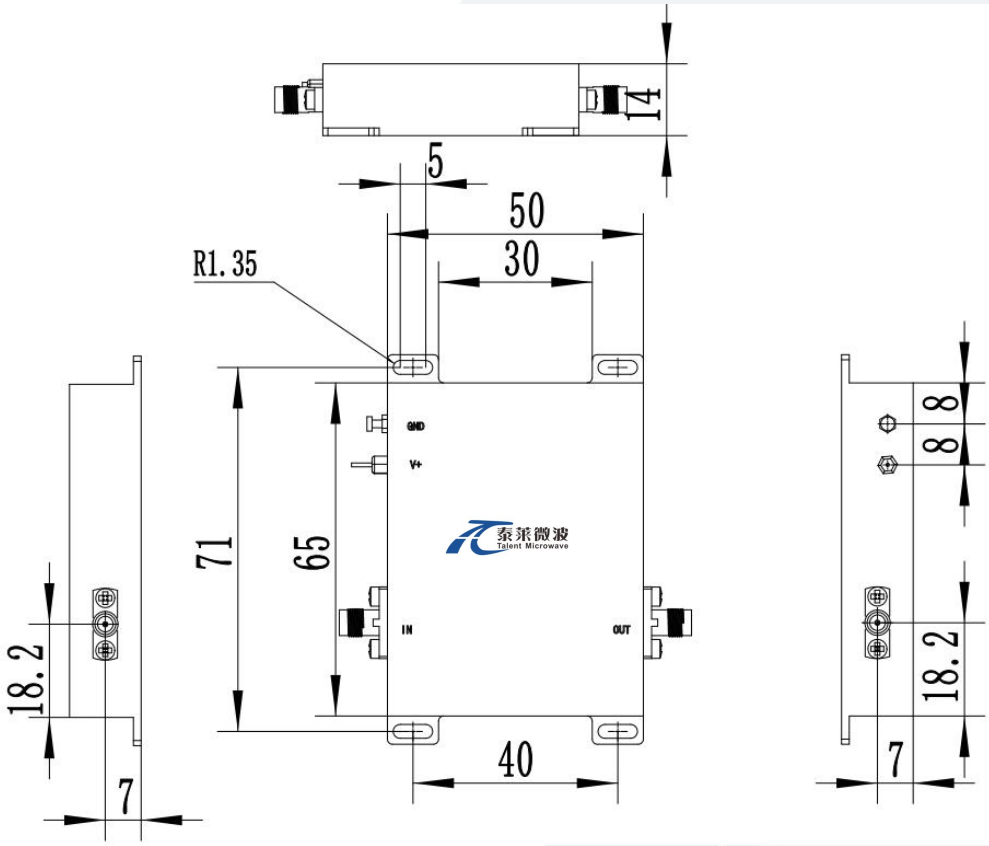
| Parameter | Value | Units |
|---|---|---|
| Input /Output Connector | SMA Female/SMA Female | |
| DC Bias | Solder Pin | |
| Size | 50*65*14(With heatsink)<br>100*50*64(Without heatsink) | mm |
| Weight | / | g |

## Absolute Maximum Ratings:

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

## Outline Drawing:

Unit:mm



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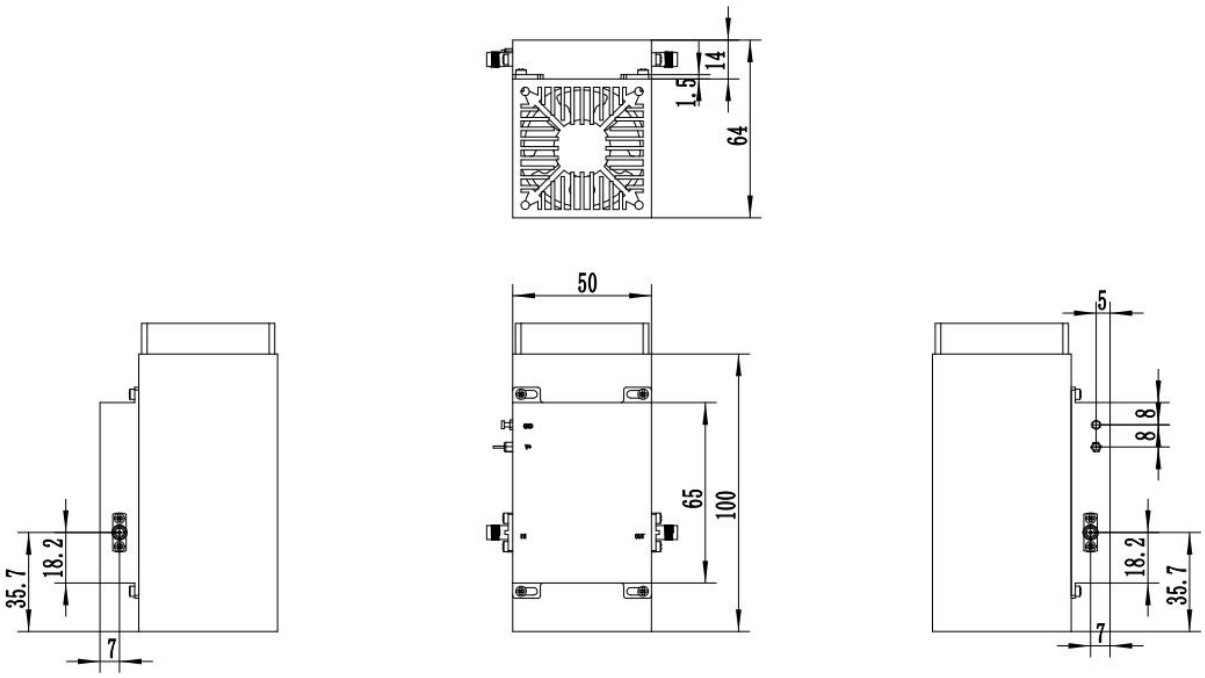


## Environmental Conditions:

| Parameter | Min | Typ | Max | Units |
|---|---|---|---|---|
| Operating Temperature* | -40 | | +60 | ℃ |
| Non-operating Temperature* | -50 | | +70 | ℃ |
| 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 | Desciption | Revision |
|---|---|---|
| TLPA0.01G20G-46-30.5 | Power amplifier 0.01-20GHz,Gain:46dB,Psat:30.5dBm, +24V DC,Without Heatsink | Rev.1.1 |
| TLPA0.01G20G-46-30.5-HS | Power amplifier 0.01-20GHz,Gain:46dB,Psat:30.5dBm, +24V DC,With Heatsink | Rev.1.1 |