

## Power Amplifier

27-32GHz/43dB Gain/43dBm Psat

Model: TLPA27G32G-43-43

TLPA27G32G-43-43 is a power amplifier with a minimum power gain of 43 dB and a minimum Psat of 43 dBm across the frequency range of 27 to 32 GHz. The DC power requirement for the amplifier is +22 VDC/7 A. The input and output port configuration offers coax adapter structure with 2.92mm female.

### Features:

- Frequency range: 27-32GHz
- Gain: 43dB Min
- Output Power Psat: 43dBm 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     | 27-32 |     |     | GHz   |
| Power Gain          | 43    |     |     | dB    |
| Gain Flatness       |       | ±3  |     | dB    |
| Output Psat         | 43    |     |     | dBm   |
| Spurious@Pout=43dBm |       |     | -50 | dBc   |
| Input VSWR          |       |     | 2   | :1    |
| DC Voltage          |       | 22  |     | V DC  |
| DC Supply Current   |       | 7   | 8.5 | A     |
| Impedance           | 50    |     |     | Ohms  |

## Mechanical Specifications:

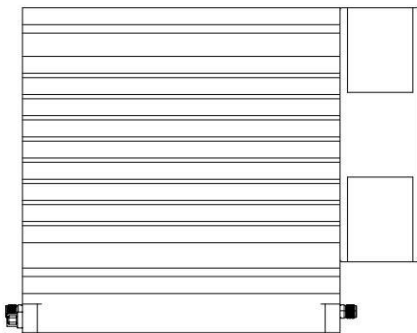
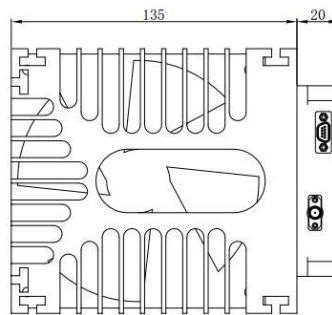
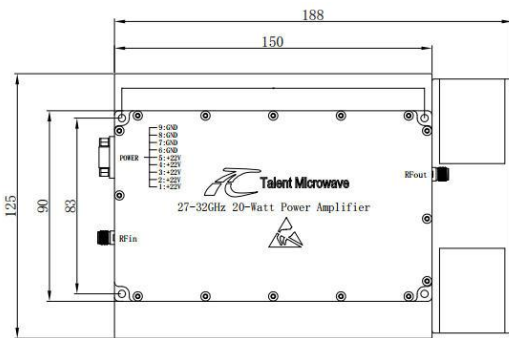
| Parameter               | Value                                                     | Units                     |
|-------------------------|-----------------------------------------------------------|---------------------------|
| Input /Output Connector | 2.92mm Female/2.92mm Female                               |                           |
| DC Bias                 | J30J-9ZKP                                                 | Pin1~5:+22V<br>Pin6~9:GND |
| Size                    | 150*90*20(Without heatsink)<br>188*125*155(with heatsink) | mm                        |
| Weight                  | 400                                                       | g                         |

## Absolute Maximum Ratings:

| Parameter             | Value                |
|-----------------------|----------------------|
| Supply Bias Voltage   | +24 V                |
| RF Input Power        | +5 dBm               |
| ESD sensitivity (Hbm) | Class 0, passed 150V |

## Outline Drawing:

Unit:mm



## Regulatory Compliance:



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



ESD Protection: Strictly adhere to ESD precautions to prevent electrostatic damage.

## Environmental Conditions:

| Parameter                       | Min                                                 | Typ | Max | Units |
|---------------------------------|-----------------------------------------------------|-----|-----|-------|
| Operating Temperature*          | -40                                                 |     | +50 | °C    |
| Non-operating Temperature*      | -50                                                 |     | +60 | °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 |
|---------------------|----------------------------------------------------------------------------|----------|
| TLPA27G32G-43-43    | Power amplifier 27-32GHz,<br>Gain:43dB,Psat:43dBm,+22V DC,Without Heatsink | Rev.1.1  |
| TLPA27G32G-43-43-HS | Power amplifier 27-32GHz,<br>Gain:43dB,Psat:43dBm,+22V DC,With Heatsink    | Rev.1.1  |