泰莱微波
Talent Microwave

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# Power Amplifier

## 6-18GHz/45dB Gain/45dBm Psat

## Model: TLPA6G18G-45-45

TLPA6G18G-45-45 is a power amplifier with a minimum power gain of 45 dB and a minimum Psat of 45 dBm across the frequency range of 6 to 18 GHz. The DC power requirement for the amplifier is +28 VDC/350W. The input and output port configuration offers coax adapter structure with SMA female.

## Features:

- Frequency range: 6-18GHz
- Gain: 45dB Min
- Output Power Psat: 45dBm 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 | 6 | | 18 | GHz |
| Power Gain | 45 | | | dB |
| Gain Flatness | | ±4 | | dB |
| Output Psat | 45 | | | dBm |
| Spurious@Pout=45dBm | | | -60 | dBc |
| Harmonic@Pout=45dBm | | | -10 | dBc |
| Input VSWR | | | 2 | :1 |
| DC Voltage | | 28 | | V DC |
| Power Consumption | | | 350 | W |
| Impedance | | 50 | | Ohms |

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## Mechanical Specifications:

| Parameter | Value | Units |
|---|---|---|
| Input /Output Connector | SMA Female/SMA Female | |
| DC Supply Connector | DSUB-7W2 | A1:+28V<br>A2:GND<br>1~5:NC |
| Size | 200*100*23(Without heatsink)<br>200*100*69.5(With heatsink) | mm |
| Weight | ≤3.5 | Kg |

## Absolute Maximum Ratings:

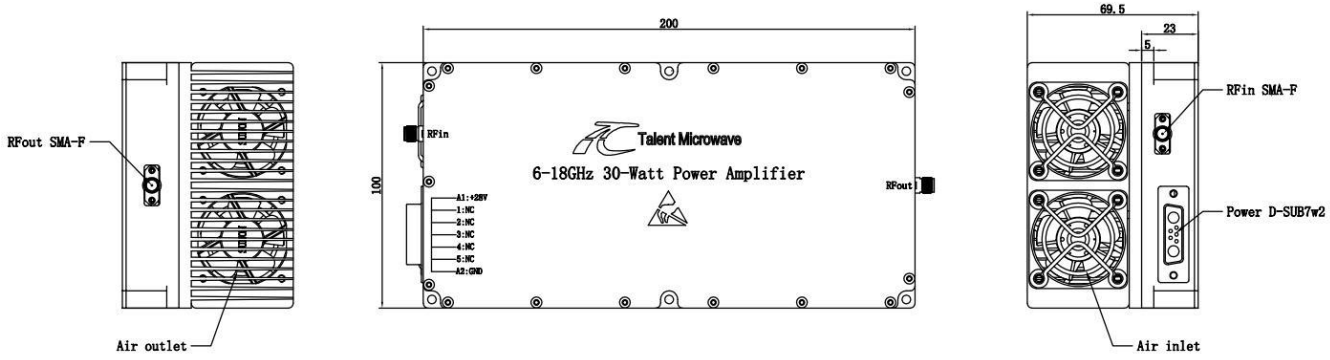
| Parameter | Value |
|---|---|
| RF Input Power | +5 dBm |
| ESD sensitivity (HBm) | Class 0, passed 150V |



Simple 220V System
Available SAC option

## Outline Drawing:

Unit:mm; Tolerance:±0.1mm




***Heat Sink Required During Operation

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

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## Environmental Conditions:

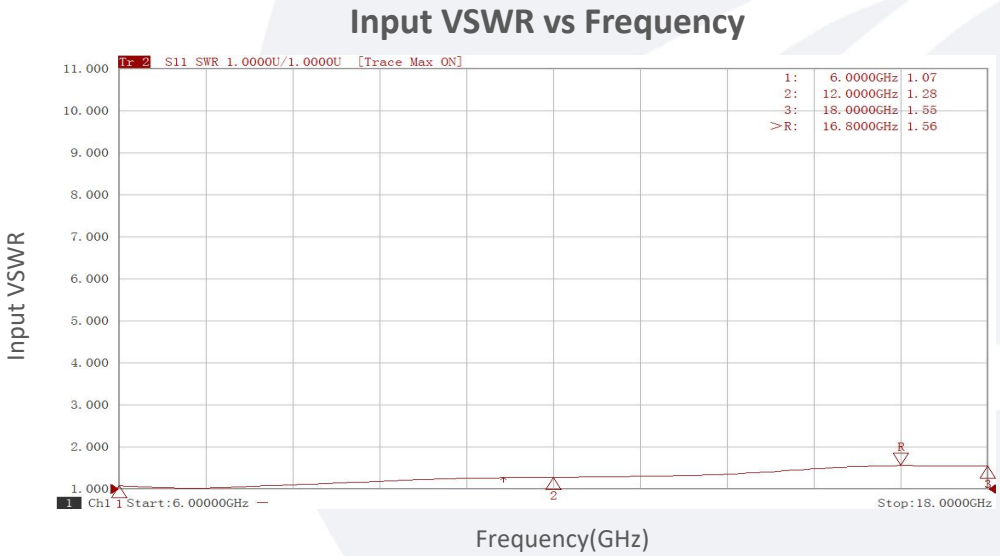
| Parameter | Min | Typ | Max | Units |
|---|---|---|---|---|
| Operating Temperature* | -40 | | +50 | ℃ |
| Non-operating Temperature* | -50 | | +60 | ℃ |
| Relative humidity | | 95 | | % |
| Altitude | 10,000 | | | feet |
| Shock / Vibration(MIL-STD-810F) | 25g rms (15 degree 2KHz) endurance, 1 hour 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 |
|---|---|---|
| TLPA6G18G-45-45 | Power amplifier 6-18GHz, Gain:45dB,Psat:45dBm,+28V DC,Without Heatsink | Rev.1.1 |
| TLPA6G18G-45-45-HS | Power amplifier 6-18GHz, Gain:45dB,Psat:45dBm,+28V DC,With Heatsink | Rev.1.1 |

## Typical Performance Data:

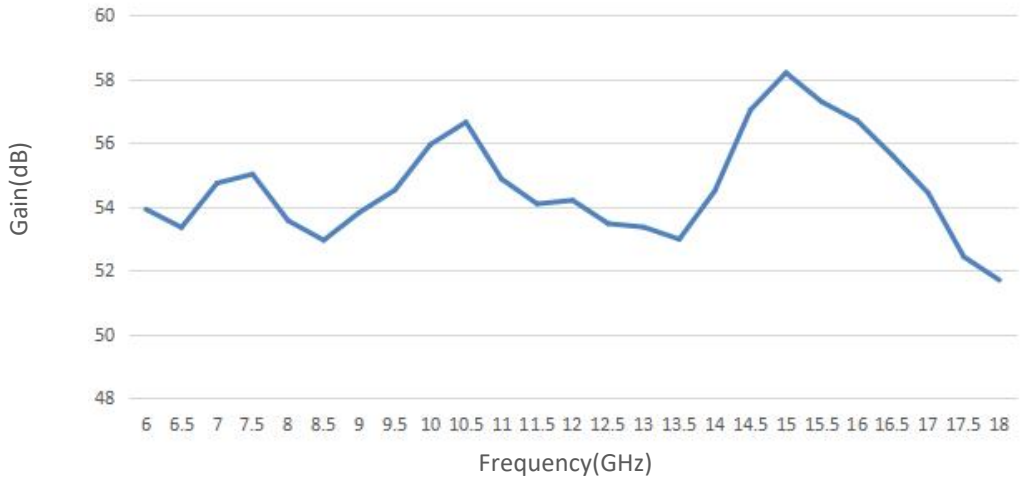



Note: Above data is for ref only, actual data may vary from unit to unit depending on operating environment and other factors like material lots etc.

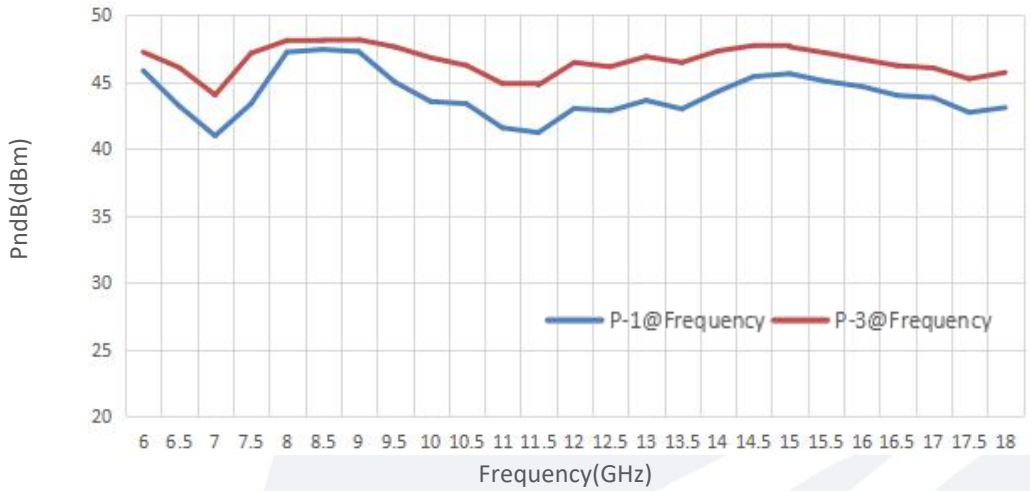
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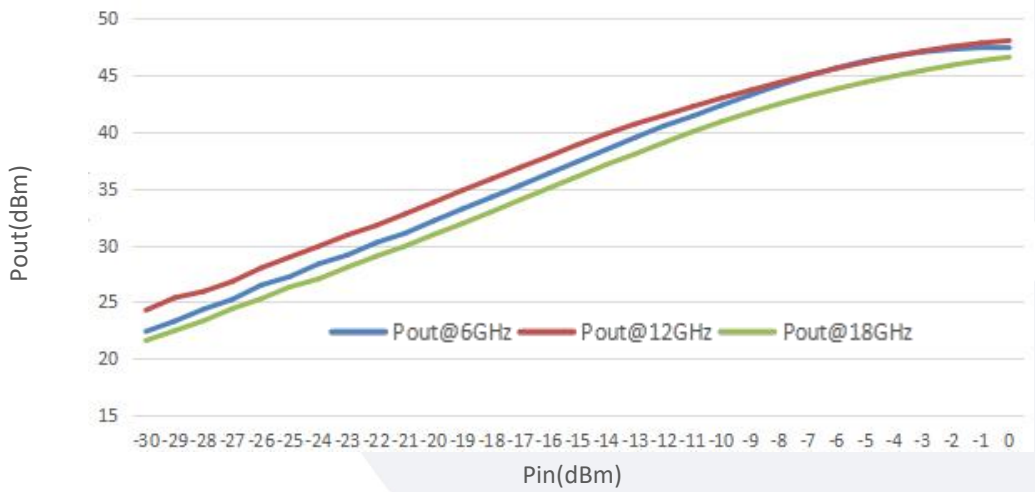
### Small Signal Gain vs Frequency




### PndB vs Frequency



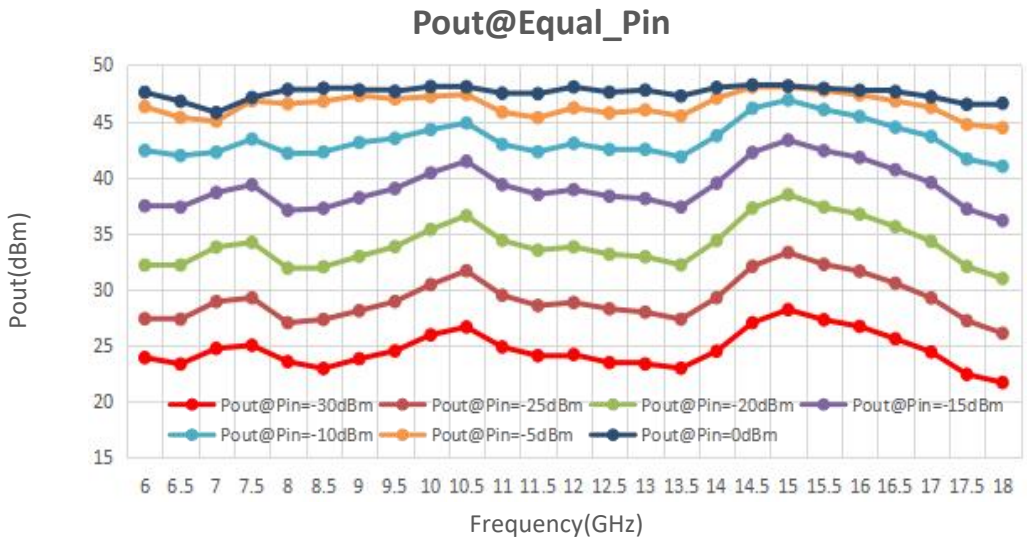

### Pout@Pin

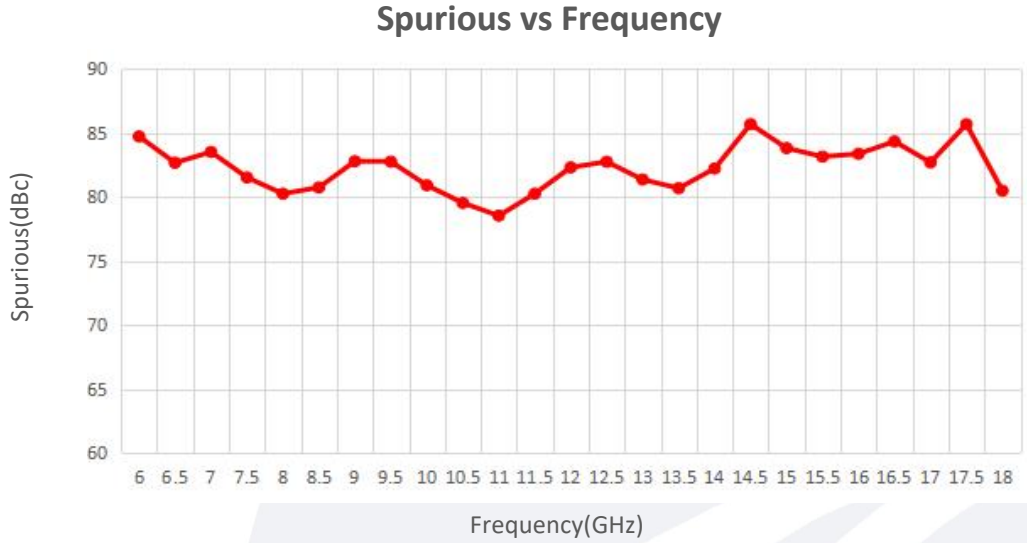


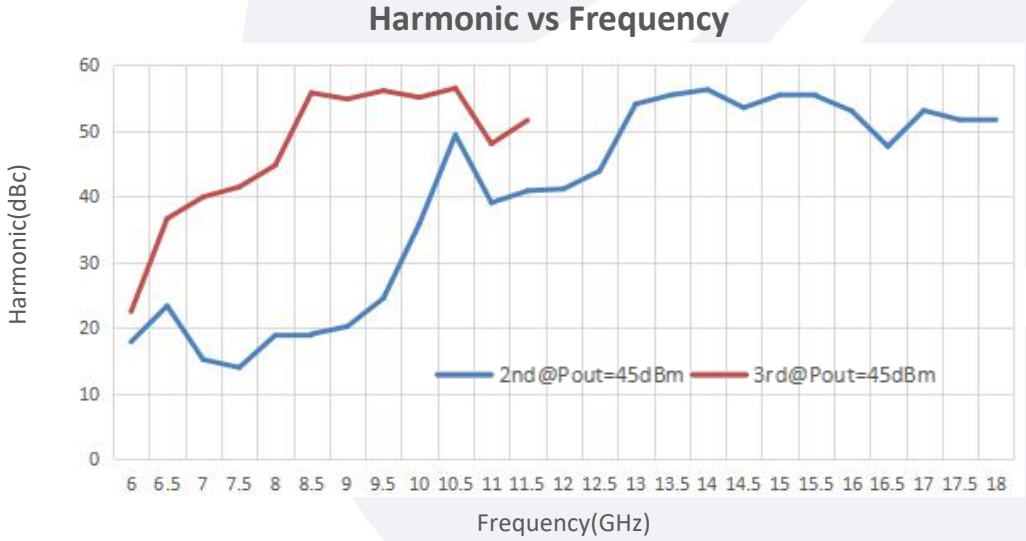

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