

Power Amplifier

0.1-22GHz /35dB Gain/30 dBm Psat

Model: TLPA0.1G22G-35-30

TLPA0.1G22G-35-30 is a power amplifier with a typical small signal gain of 35 dB and Psat of 30 dBm across the frequency range of 0.1 to 22 GHz. The DC power requirement for the amplifier is +24 VDC/0.85 A. The input and output port configuration offers coax adapter structure with SMA female.

Features:

- Frequency range: 0.1-22GHz
- Small Signal Gain: 35dB Typ
- Output Power Psat: 30 dBm 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 | 0.1 | | 22 | GHz |
| Small Signal Gain | 34 | 35 | | dB |
| Gain Flatness | | ±2.5 | | dB |
| Output P1dB | 26 | 28 | | dBm |
| Output Psat | 27 | 30 | | dBm |
| Input VSWR | | 1.6 | 2 | :1 |
| Output VSWR | | 1.6 | 2.5 | :1 |
| DC Voltage | | 24 | | V DC |
| DC Supply Current | | 850 | | mA |
| Impedance | | 50 | | Ohms |

Mechanical Specifications:

| Parameter | Value | Units |
|-------------------------|---|-------|
| Input /Output Connector | SMA Female/SMA Female | |
| Size | 60*65*11(Without Heatsink) 60*90*41(With Heatsink) | mm |
| Weight | 200 | g |

Absolute Maximum Ratings:

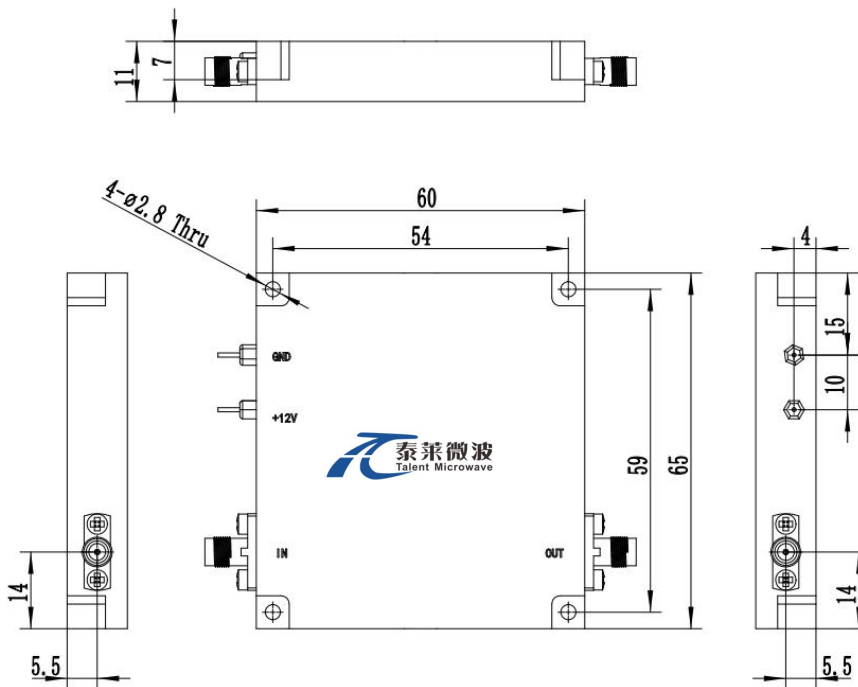
| Parameter | Value |
|-----------------------|----------------------|
| RF Input Power | 0 dBm |
| ESD sensitivity (HBm) | Class 0, passed 150V |



Simple 220V System
Available SAC option

Outline Drawing:

Unit:mm



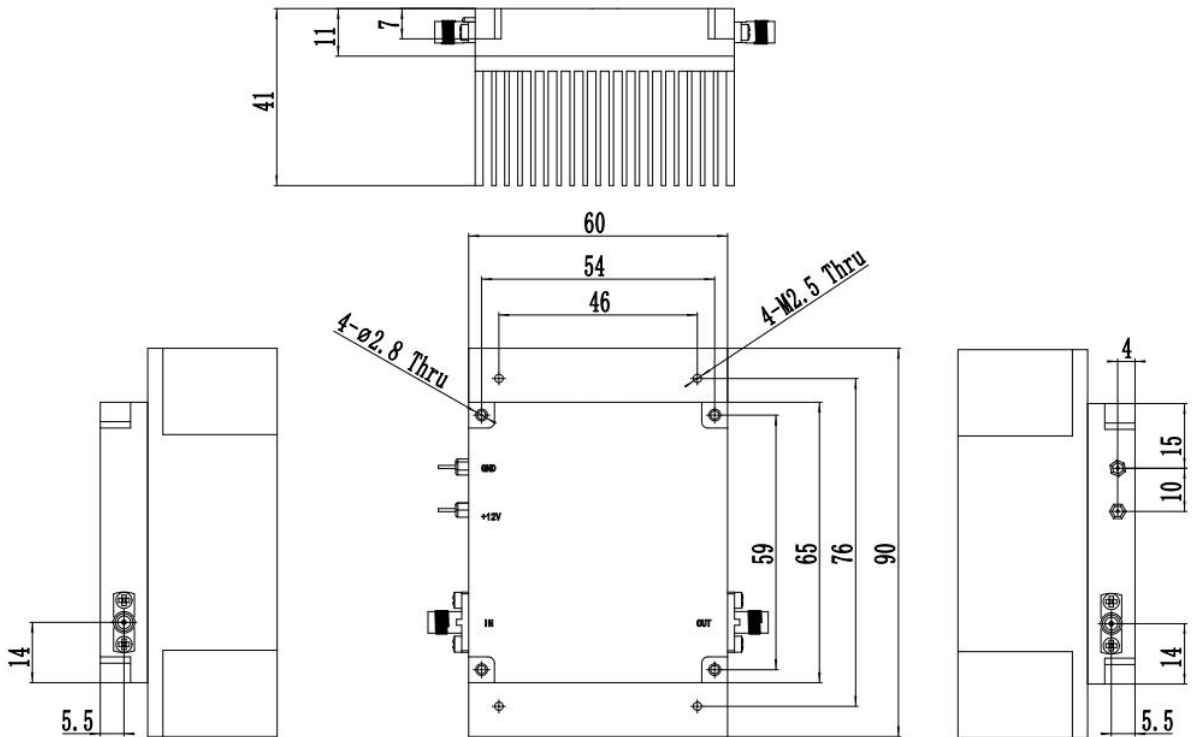
*****Heat Sink Required During Operation**



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

Outline Drawing:

Unit:mm



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 | | | |

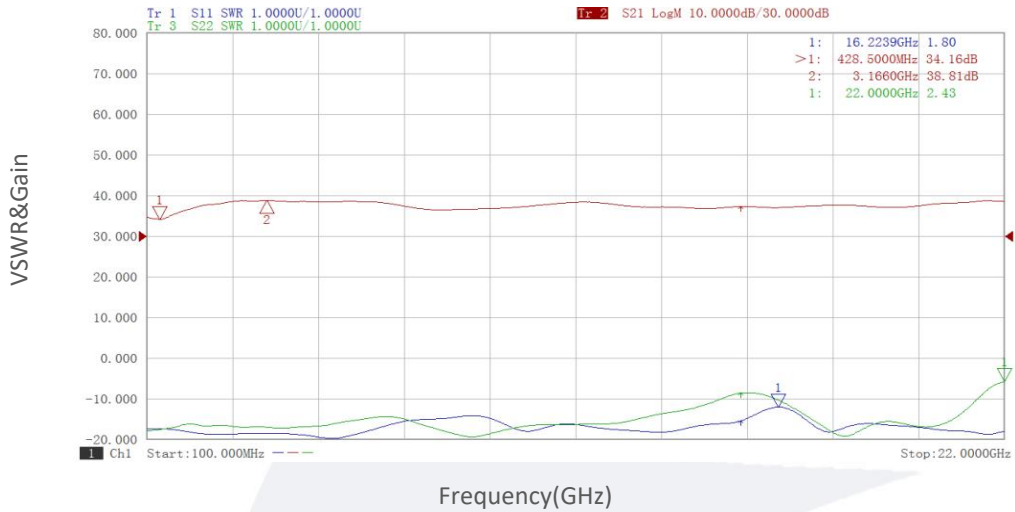
*Note: For a wider temperature range, please consult the manufacturer.

Ordering Information:

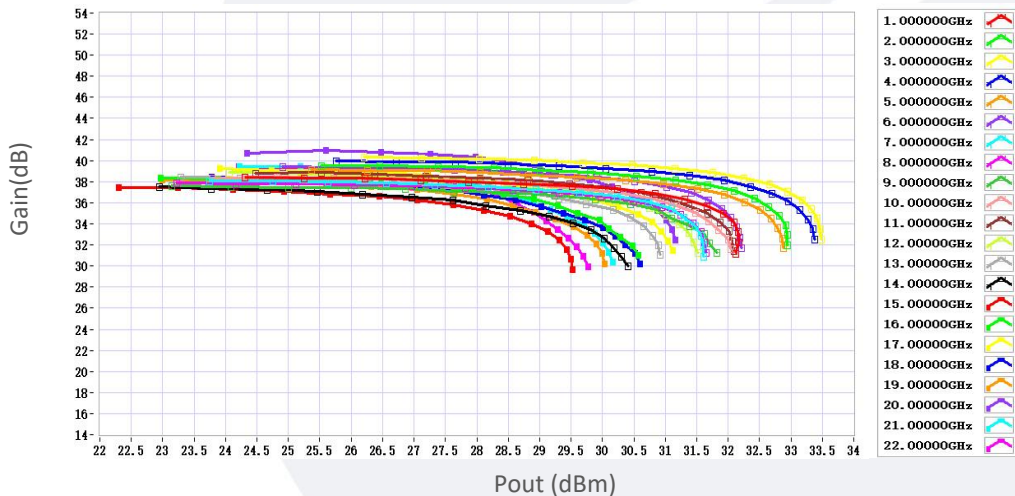
| Base Number | Description | Revision |
|----------------------|---|----------|
| TLPA0.1G22G-35-30 | Power amplifier 0.1-22GHz, Gain:35dB,Psat:30dBm,+24V DC,Without Heatsink | Rev.1.1 |
| TLPA0.1G22G-35-30-HS | Power amplifier 0.1-22GHz, Gain:35dB,Psat:30dBm,+24V DC,With Heatsink | Rev.1.1 |

Typical Performance Data:

VSWR&Gain vs Frequency



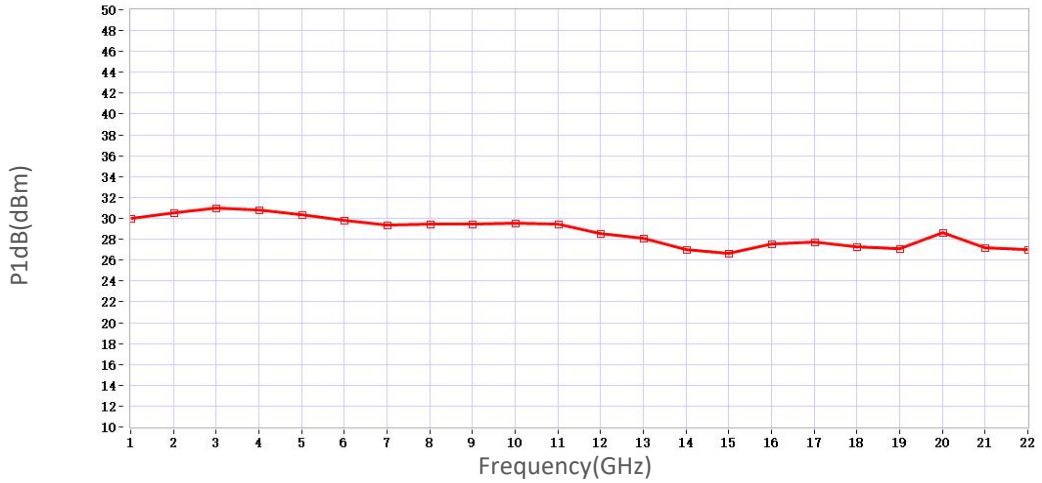
Gain vs Output Power



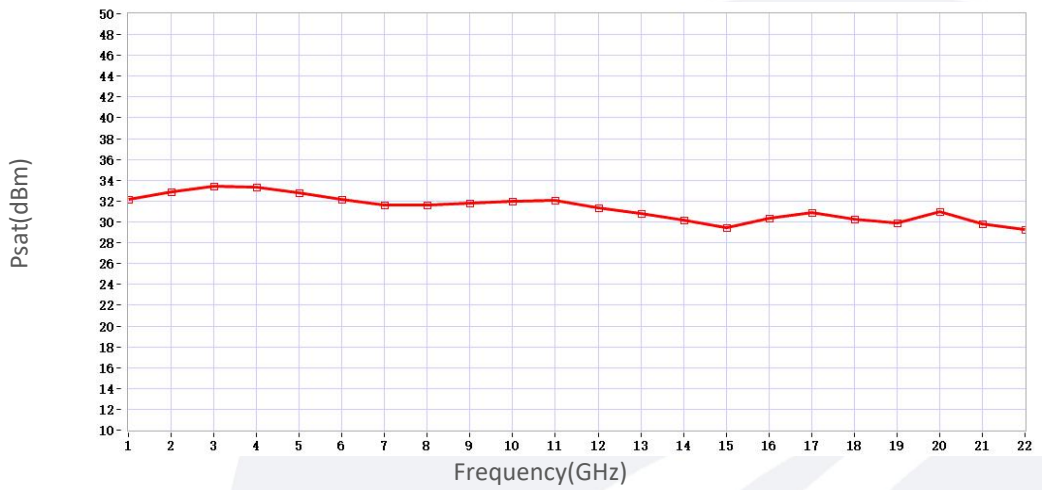
Note: Above data is for ref only, actual data may vary from unit to unit depending on operating environment and other factors like material lots etc.

Typical Performance Data:

P1dB vs Frequency



Psat vs Frequency



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.