

Model: TLLA5G20G-35-30
Low Noise Amplifier
5-20GHz, NF:3.0dB, Gain:35dB, P1dB:14.5dBm
Feature:

- Ultra Wide Band: 5-20GHz
- Gain: 35dB Min
- Noise Figure: 3.0 dB Max
- Good Power and Gain Flatness
- 50 Ohm Matched Input / Output

Electrical Specifications:

| Parameter | Min | Typ | Max | Units |
|-------------------|------|------|-----|-------|
| Frequency range | 5-20 | | | GHz |
| Gain | 35 | 37 | | dB |
| Gain Flatness | | ±1.5 | | dB |
| Noise Figure | | | 3.0 | dB |
| P1dB | | 14.5 | | dBm |
| Input VSWR | | | 2.0 | :1 |
| Output VSWR | | | 2.0 | :1 |
| DC Voltage | +10 | +12 | +18 | V DC |
| DC Supply Current | | 150 | | mA |
| Impedance | 50 | | | Ohms |

Mechanical Specifications:

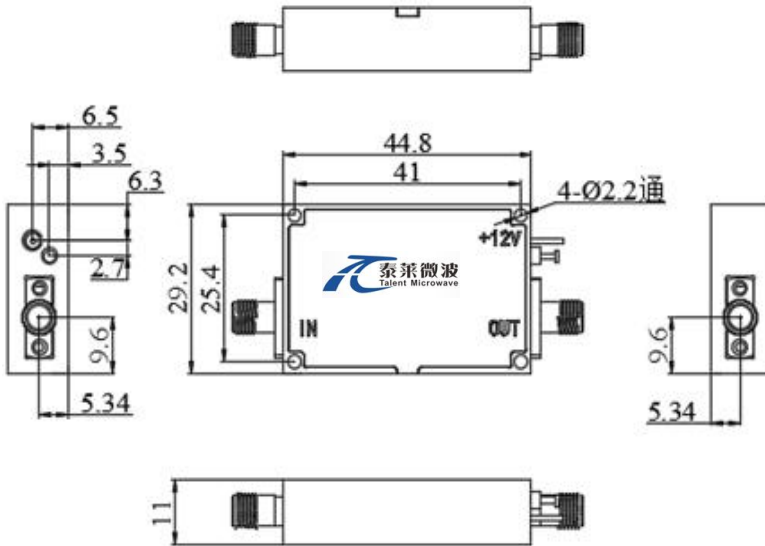
| Parameter | Value | Units |
|-------------------------|--------------|-------|
| Input /Output Connector | SMA Female | |
| DC Bias | Solder Pin | |
| Size | 44.8*29.2*11 | mm |
| Weight | 55 | g |


Absolute Maximum Ratings:

| Parameter | Value |
|-----------------------|----------------------|
| Supply Bias Voltage | +20V |
| RF Input Power | 15 dBm |
| ESD sensitivity (HBM) | Class 0, passed 150V |

Outline Drawing:

Unit: mm(inches)



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



Environmental Conditions:

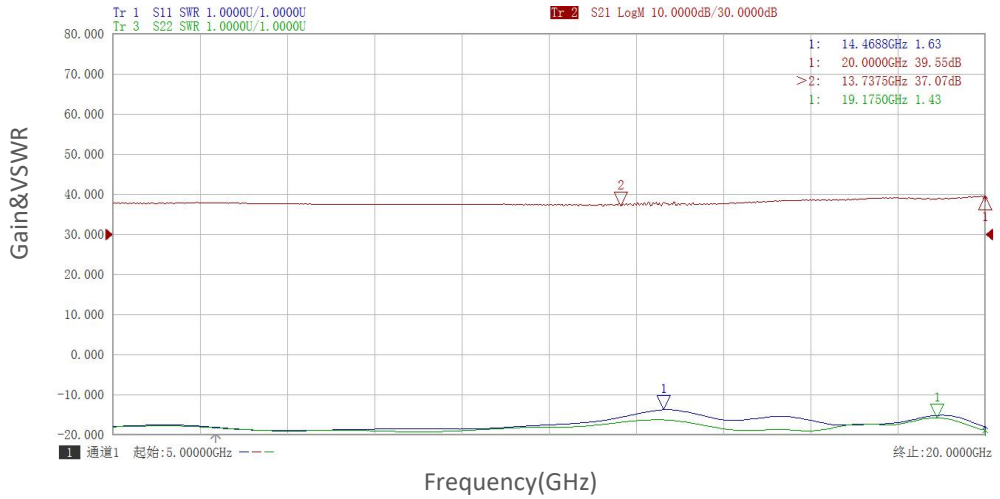
| Parameter | Min | Typ | Max | Units |
|---------------------------------|---|-----|------|-------|
| Operating Temperature | -44 | | +85 | °C |
| Non-operating Temperature | -55 | | +125 | °C |
| Relative humidity | | 95 | | % |
| Altitude | 50,000 | | | feet |
| Shock / Vibration(MIL-STD-810F) | 25g rms (15 degree 2KHz) endurance, 1 hour per axis | | | |
| Shock(non operating) | 20G for 11msc half sin wave,3 axis both directions | | | |

Ordering Information:

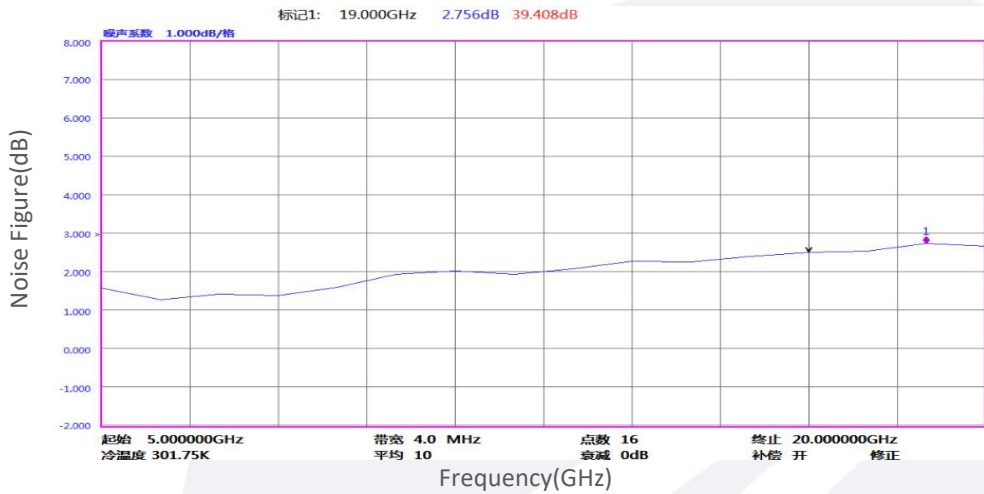
| Part Number | Description | Revision |
|-----------------|--|----------|
| TLLA5G20G-35-30 | Low Noise Amplifier, 5-20GHz, Noise Figure:3.0dB, Gain:35 dB,P1dB:14.5dBm,+12V DC,Without Heatsink | Rev.1.1 |
| TLLA5G20G-35-30 | Low Noise Amplifier, 5-20GHz, Noise Figure:3.0dB, Gain:35 dB,P1dB:14.5dBm,+12V DC,With Heatsink | Rev.1.1 |

Typical Performance Data:

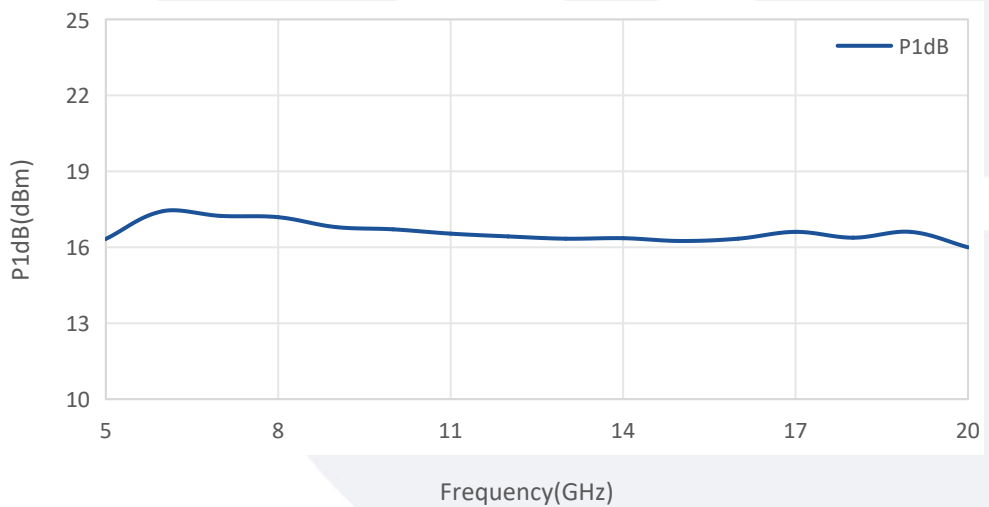
Gain&VSWR vs Frequency



Noise Figure vs Frequency



P1dB vs Frequency



Typical Performance Data:

Psat vs Frequency

