

Low Noise Amplifier

6-18GHz/4.0dB NF/28dB Gain/28 dBm P1dB

Model: TLLA6G18G-28-40

TLLA6G18G-28-40 is a low noise amplifier with a typical small signal gain of 28 dB and a nominal noise figure of 4.0 dB across the frequency range of 6 to 18 GHz. The DC power requirement for the amplifier is +12 V DC/750 mA. The input and output port configuration offers coax adapter structure with SMA female.

Features:

- Frequency range: 6-18GHz
- Gain: 28dB Typ
- Noise Figure: 4.0dB Typ
- Good Power and Gain Flatness
- 50 Ohm Matched Input / Output

Applications:

- Communication systems

Electrical Characteristics:

| Parameter | Min | Typ | Max | Units |
|-------------------|-----|------|-----|-------|
| Frequency range | 6 | | 18 | GHz |
| Small Signal Gain | | 28 | | dB |
| Gain Flatness | | ±1.5 | | dB |
| Noise Figure | | 4 | 6 | dB |
| Output P1dB | 27 | 28 | | dBm |
| Output Psat | | 29 | | dBm |
| Input VSWR | | 2 | | :1 |
| Output VSWR | | 2 | | :1 |
| DC Voltage | +10 | +12 | 20 | V DC |
| DC Supply Current | | 750 | | mA |
| Impedance | 50 | | | Ohms |

Mechanical Specifications:

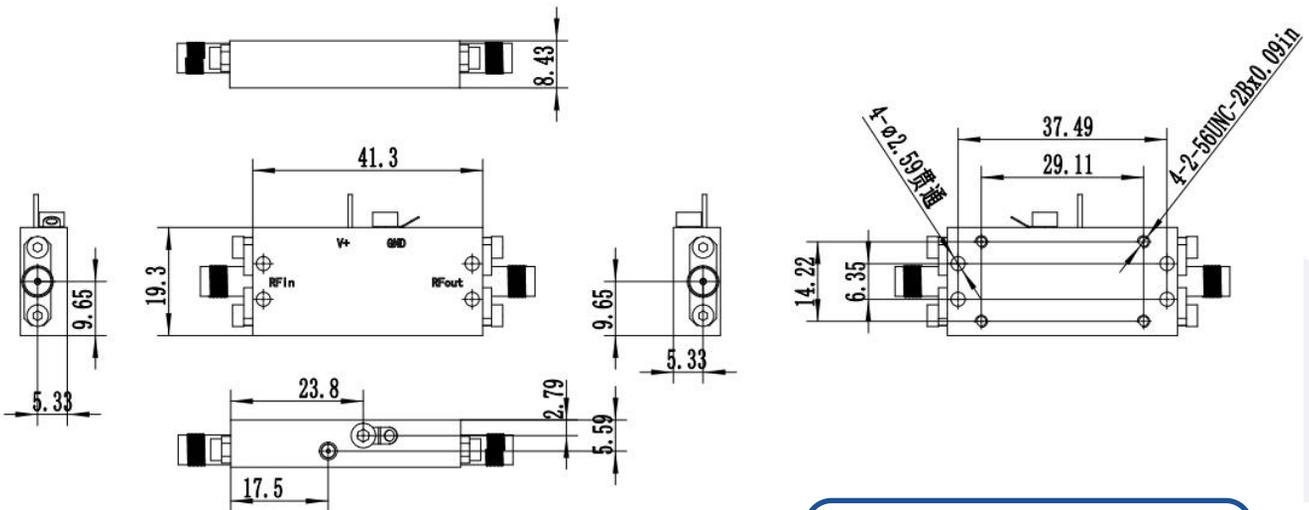
| Parameter | Value | Units |
|-------------------------|-----------------------|-------|
| Input /Output Connector | SMA Female/SMA Female | |
| DC Bias | Solder Pin | |
| Size | 41.3*19.8*8.43 | mm |

Absolute Maximum Ratings:

| Parameter | Value |
|-----------------------|----------------------|
| Supply Bias Voltage | +20 V |
| RF Input Power | +10 dBm |
| ESD sensitivity (HBm) | Class 0, passed 150V |

Outline Drawing:

Unit:mm



*****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 | -45 | | +85 | °C |
| Non-operating Temperature | -55 | | +125 | °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 | | | |

Ordering Information:

| Base Number | Description | Revision |
|--------------------|--|----------|
| TLLA6G18G-28-40 | Low Noise Amplifier, 6-18GHz, Noise Figure:4.0dB, Gain:28 dB,P1dB:28dBm,+12V DC,Without Heatsink | Rev.1.1 |
| TLLA6G18G-28-40-HS | Low Noise Amplifier, 6-18GHz, Noise Figure:4.0dB, Gain:28 dB,P1dB:28dBm,+12V DC,With Heatsink | Rev.1.1 |