

Low Noise Amplifier

18-27GHz/2.8dB NF/52dB Gain/8dBm P1dB

Model: TLLA18G27G-52-28

TLLA18G27G-52-28 is a low noise amplifier with a minimum small signal gain of 52 dB and a maximum noise figure of 2.8 dB across the frequency range of 18 to 27 GHz. The DC power requirement for the amplifier is +12 V DC/200 mA. The input and output port configuration offers coax adapter structure with 2.92mm female.

Features:

- Frequency range: 18-27GHz
- Gain: 52dB Min
- Noise Figure: 2.8dB Max
- Good Power and Gain Flatness
- 50 Ohm Matched Input / Output

Applications:

- Communication systems

Electrical Characteristics:

Parameter	Min	Typ	Max	Units
Frequency range	18		27	GHz
Small Signal Gain	52			dB
Gain Flatness		±0.6		dB
Noise Figure			2.8	dB
Output P1dB	8			dBm
Input VSWR			2	:1
DC Voltage		+12		V DC
DC Supply Current		200		mA
Impedance		50		Ohms

Mechanical Specifications:

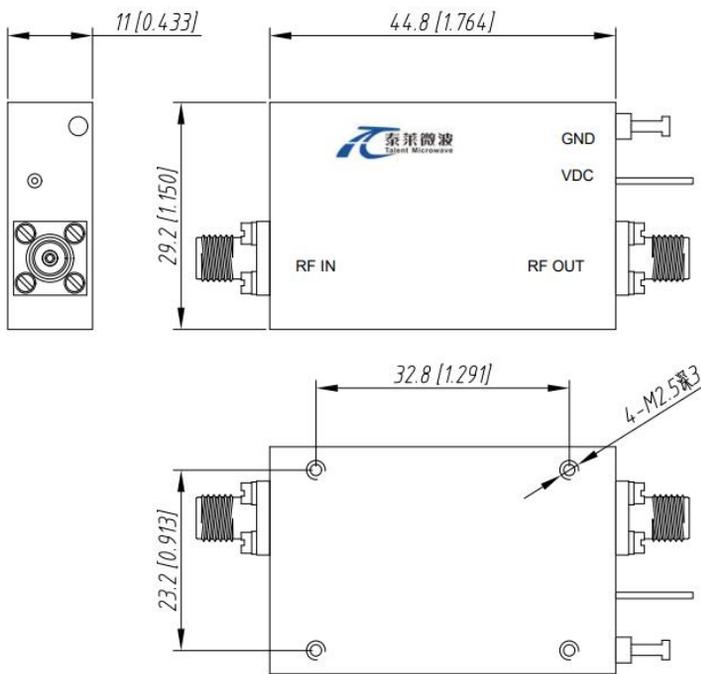
Parameter	Value	Units
Input /Output Connector	2.92mm Female/2.92mm Female	
DC Bias	Solder Pin	
Size	44.8*29.2*11	mm

Absolute Maximum Ratings:

Parameter	Value
Supply Bias Voltage	TBD
RF Input Power	TBD
ESD sensitivity (HBm)	Class 0, passed 150V

Outline Drawing:

Unit:mm



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

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

Environmental Conditions:

Parameter	Min	Typ	Max	Units
Operating Temperature	-45		+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:

Base Number	Description	Revision
TLLA18G27G-52-28	Low Noise Amplifier, 18-27GHz, Noise Figure:2.8dB, Gain:52 dB,P1dB:8dBm,+12V DC,Without Heatsink	Rev.1.1
TLLA18G27G-52-28-HS	Low Noise Amplifier, 18-27GHz, Noise Figure:2.8dB, Gain:52 dB,P1dB:8dBm,+12V DC,With Heatsink	Rev.1.1