

Low Noise Amplifier

2-20GHz/2.7dB NF/30dB Gain/10dBm P1dB

Model: TLLA2G20G-30-27

TLLA2G20G-30-27 is a low noise amplifier with a minimum small signal gain of 30 dB and a maximum noise figure of 2.7 dB across the frequency range of 2 to 20 GHz. The DC power requirement for the amplifier is +15 V DC/250 mA. The input and output port configuration offers coax adapter structure with SMA female.

Features:

- Frequency range: 2-20GHz
- Gain: 30dB Min
- Noise Figure: 2.7dB Max
- Good Power and Gain Flatness
- 50 Ohm Matched Input / Output

Applications:

- Communication systems

Electrical Characteristics:

Parameter	Min	Typ	Max	Units
Frequency range	2		20	GHz
Small Signal Gain	30			dB
Gain Flatness			±2.25	dB
Noise Figure			2.7	dB
Output P1dB	10			dBm
Input VSWR			2.3	:1
Output VSWR			2.3	:1
DC Voltage		+15		V DC
DC Supply Current		250		mA
Impedance		50		Ohms

Mechanical Specifications:

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

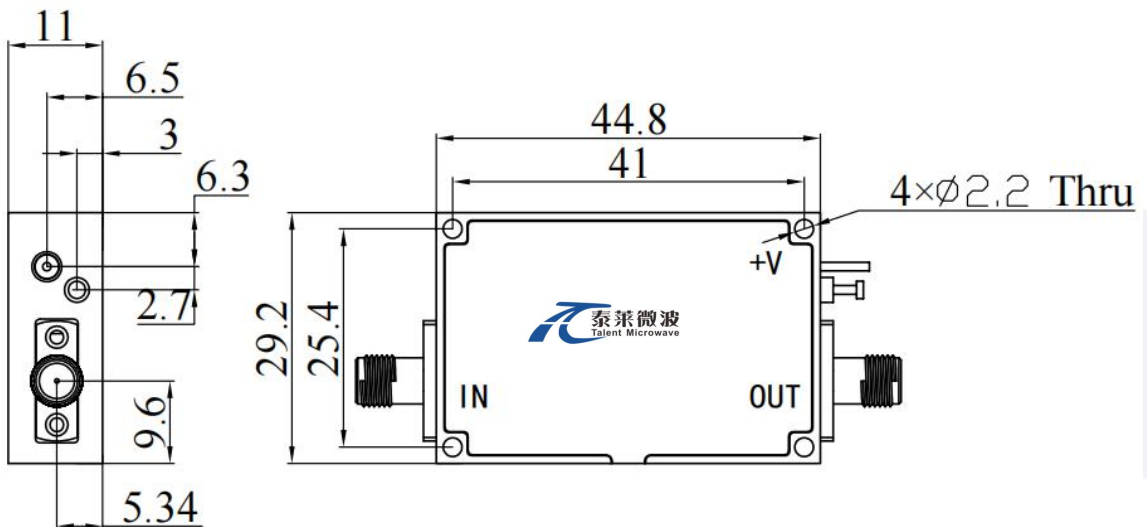
Absolute Maximum Ratings:

Parameter	Value
Supply Bias Voltage	+15 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
TLLA2G20G-30-27	Low Noise Amplifier, 2-20GHz, Noise Figure:2.7dB, Gain:30 dB,P1dB:10dBm,+15V DC,Without Heatsink	Rev.1.1
TLLA2G20G-30-27-HS	Low Noise Amplifier, 2-20GHz, Noise Figure:2.7dB, Gain:30 dB,P1dB:10dBm,+15V DC,With Heatsink	Rev.1.1