

Low Noise Amplifier

0.1-2.5GHz/2.0dB NF/30dB Gain/16dBm P1dB

Model: TLLA0.1G2.5G-30-20

TLLA0.1G2.5G-30-20 is a low noise amplifier with a minimum small signal gain of 30 dB and a nominal noise figure of 2.0 dB across the frequency range of 0.1 to 2.5 GHz. The DC power requirement for the amplifier is +5 V DC/60 mA. The input and output port configuration offers coax adapter structure with SMA female.

Features:

- Frequency range: 0.1-2.5GHz
- Gain: 30dB Min
- Noise Figure: 2.0dB Typ
- Good Power and Gain Flatness
- 50 Ohm Matched Input / Output

Applications:

- Communication systems

Electrical Characteristics:

Parameter	Min	Typ	Max	Units
Frequency range	0.1		2.5	GHz
Small Signal Gain	30			dB
Gain Flatness		±0.8		dB
Noise Figure		2		dB
Output P1dB		16		dBm
Output IP3		25		dBm
Input VSWR		1.5		:1
Output VSWR		2		:1
DC Voltage		+5	+8	V DC
DC Supply Current		60		mA
Impedance		50		Ohms

Mechanical Specifications:

Parameter	Value	Units
Input /Output Connector	SMA Female/SMA Female	
DC Bias	Solder Pin	
Size	20*28*10	mm

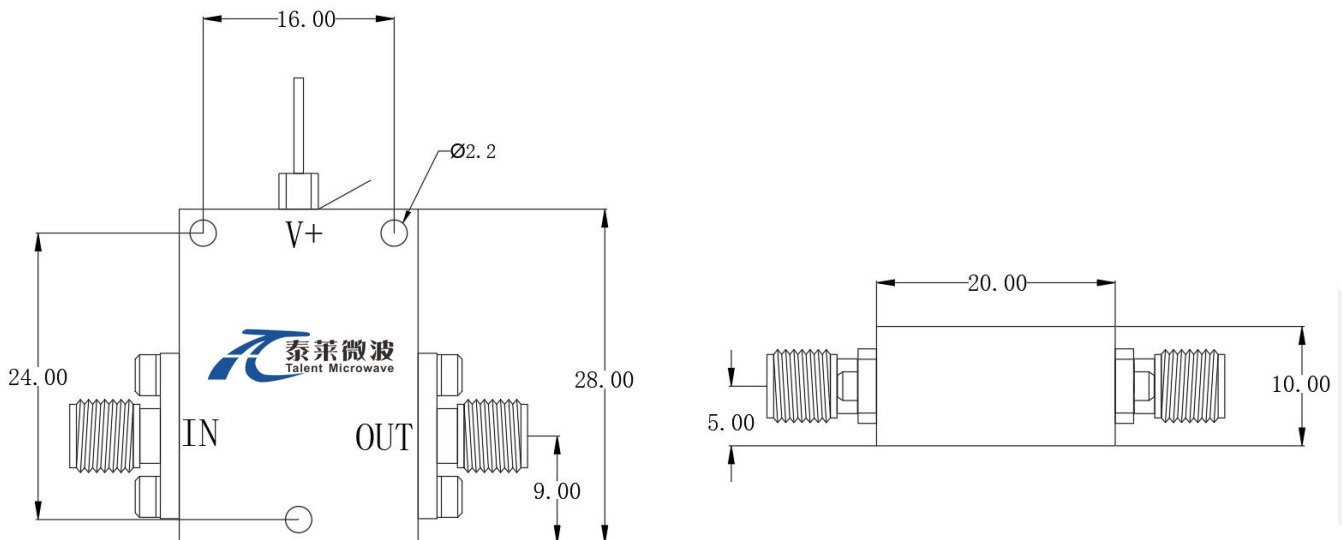
Absolute Maximum Ratings:

Parameter	Value
Supply Bias Voltage	+8 V
RF Input Power	-6 dBm
ESD sensitivity (HBm)	Class 0, passed 150V



Outline Drawing:

Unit:mm



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



OBSERVE PRECAUTIONS
ELECTROSTATIC SENSITIVE
DEVICES

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
TLLA0.1G2.5G-30-20	Low Noise Amplifier, 0.1-2.5GHz, Noise Figure:2.0dB, Gain:30 dB, P1dB:16dBm,+5V DC, Without Heatsink	Rev.1.1
TLLA0.1G2.5G-30-20-HS	Low Noise Amplifier, 0.1-2.5GHz, Noise Figure:2.0dB, Gain:30 dB, P1dB:16dBm,+5V DC, With Heatsink	Rev.1.1