Suzhou Talent Microwave,Inc
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Low Noise Amplifier

12-18GHz/1.1dB NF/24dB Gain/13dBm P1dB Model: TLLA12G18G-24-11

TLLA12G18G-24-11 is a low noise amplifier with small signal gain of 24 dB and a nominal noise figure of 1.1 dB across the frequency range of 12 to 18 GHz. The DC power requirement for the amplifier is +8 V DC/35 mA. The input and output port configuration offers coax adapter structure with SMA female.

Features:

- Frequency range: 12-18GHz
- Gain: 24dB Typ
- Noise Figure: 1.1dB Typ
- Good Power and Gain Flatness
- 50 Ohm Matched Input / Output

Applications:

- Communication systems

Electrical Characteristics:

Parameter	Min	Typ	Max	Units
Frequency range	12		18	GHz
Small Signal Gain	20	24		dB
Gain Flatness		±1.6	±2	dB
Noise Figure		1.1	1.6	dB
Output P1dB	10	13		dBm
Output Psat		14		dBm
Input VSWR		1.8	2.0	:1
Output VSWR		1.8	2.0	:1
DC Voltage	+5	+8	+12	V DC
DC Supply Current		35		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

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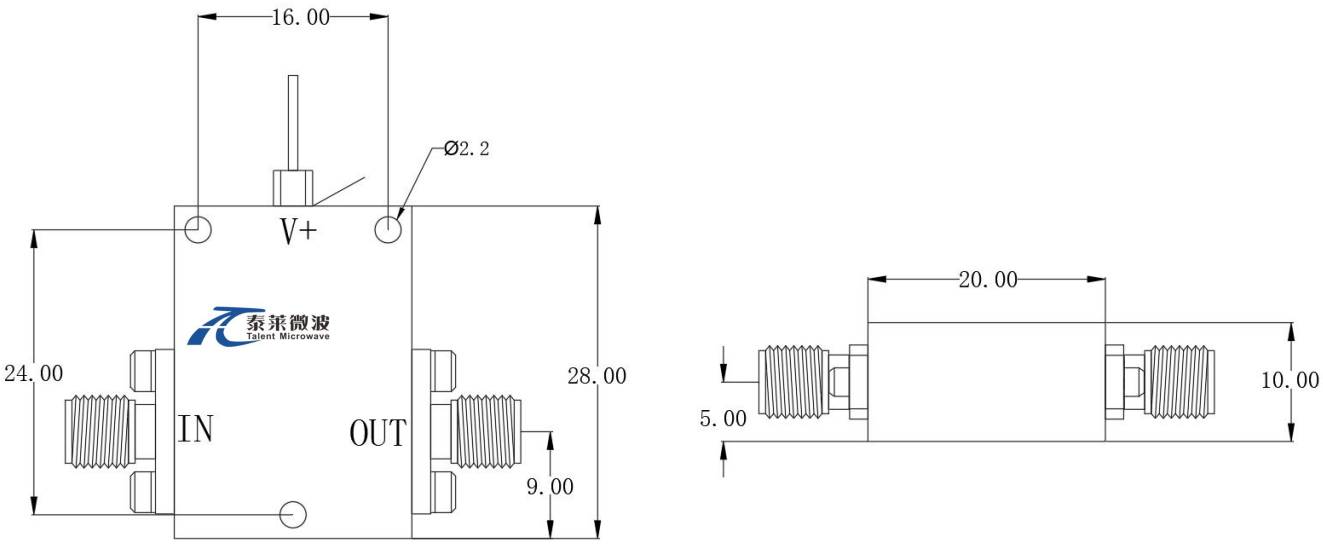
Absolute Maximum Ratings:

Parameter	Value
Supply Bias Voltage	+12 V
RF Input Power	+5 dBm
ESD sensitivity (HBm)	Class 0, passed 150V

Simple 220V System
Available SAC option

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	℃
Non-operating Temperature	-55		+125	℃
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			

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Ordering Information:

Base Number	Description	Revision
TLLA12G18G-24-11	Low Noise Amplifier, 12-18GHz, Noise Figure:1.1dB, Gain:24dB,P1dB:13dBm,+8V DC,Without Heatsink	Rev.1.1
TLLA12G18G-24-11-HS	Low Noise Amplifier, 12-18GHz, Noise Figure:1.1dB, Gain:24dB,P1dB:13dBm,+8V DC,With Heatsink	Rev.1.1