Suzhou Talent Microwave,Inc
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Low Noise Amplifier

30KHz-0.6GHz/2.2dB NF/50dB Gain/14dBm P1dB Model: TLLA30K0.6G-50-22

TLLA30K0.6G-50-22 is a low noise amplifier with a typical small signal gain of 50 dB and a nominal noise figure of 2.2 dB across the frequency range of 30 KHz to 0.6 GHz. The DC power requirement for the amplifier is +15 V DC/85 mA. The input and output port configuration offers coax adapter structure with SMA female.

Features:

- Frequency range: 30KHz-0.6GHz
- Gain: 50dB Typ
- Noise Figure: 2.2dB Typ
- Good Power and Gain Flatness
- 50 Ohm Matched Input / Output

Applications:

- Communication systems

Electrical Characteristics:

Parameter		Min	Typ	Max	Units
Frequency range		30KHz		0.6GHz	
Small Signal Gain	@30KHz	47	48.5		dB
	@20-600MHz	48	50		
Gain Flatness			±1.2	±1.5	dB
Noise Figure @300MHz			2.2	2.5	dB
Output P1dB @300MHz		12	14		dBm
Output IP3 @300MHz		22	24		dBc
Reverse Isolation @300MHz			-60	-50	dB
Input VSWR @300MHz			1.5	2	:1
Output VSWR @300MHz			1.2	1.7	:1
DC Voltage		14	15	18	V DC
DC Supply Current			85	100	mA
Impedance			50		Ohms

*Performance may degrade below 300 MHz. Please refer to below typical test plots

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Mechanical Specifications:

Parameter	Value	Units
Input /Output Connector	SMA Female/SMA Female	
DC Bias	Solder Pin	
Size	31.75*31.75*14.29	mm

Absolute Maximum Ratings:

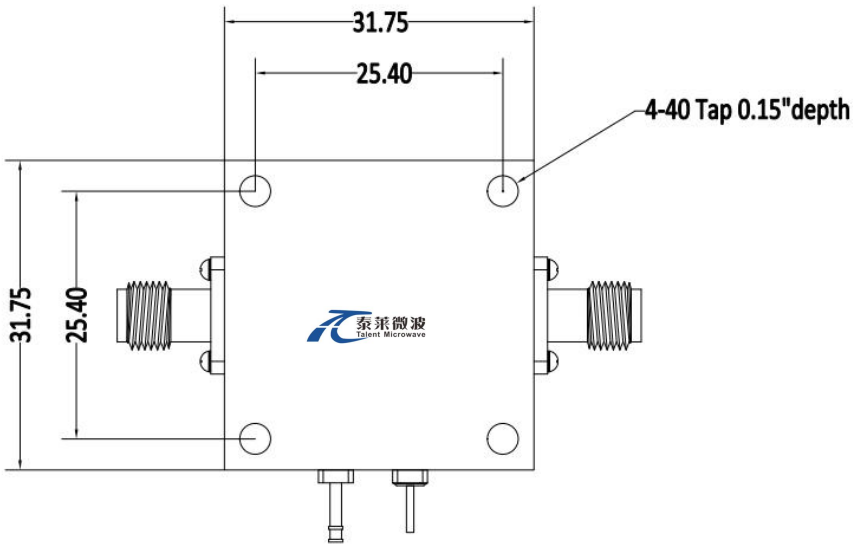
Parameter	Value
Supply Bias Voltage	+20 V
RF Input Power	+13 dBm
ESD sensitivity (HBm)	Class 0, passed 150V

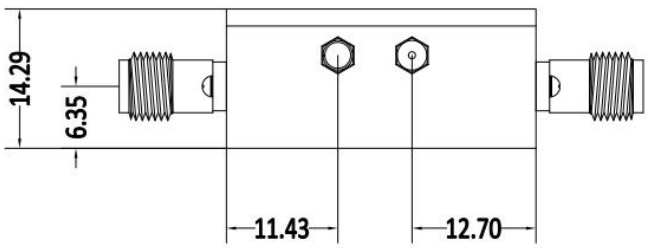


Simple 220V System
Available SAC option

Outline Drawing:

Unit:mm; Tolerance:±0.1mm







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

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Environmental Conditions:

Parameter	Min	Typ	Max	Units
Operating Temperature	-40		+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			

Ordering Information:

Base Number	Description	Revision
TLLA30K0.6G-50-22	Low Noise Amplifier, 30KHz-0.6GHz, Noise Figure:2.2dB, Gain:50dB,P1dB:14dBm,+15V DC,Without Heatsink	Rev.1.0
TLLA30K0.6G-50-22-HS	Low Noise Amplifier, 30KHz-0.6GHz, Noise Figure:2.2dB, Gain:50dB,P1dB:14dBm,+15V DC,With Heatsink	Rev.1.0