Suzhou Talent Microwave,Inc
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Low Noise Amplifier

0.2-6GHz/2.1dB NF/29dB Gain/17.5dBm P1dB

Model: TLLA0.2G6G-29-17-LC

TLLA0.2G6G-29-17-LC is a low noise amplifier with small signal gain of 29 dB and noise figure of 2.1 dB across the frequency range of 0.2 to 6 GHz. The DC power requirement for the amplifier is +5V DC/80mA. The input and output port configuration offers coax adapter structure with SMA female.

Features:

- Frequency range:0.2-6GHz
- Gain: 29dB Typ
- Noise Figure: 2.1dB Typ
- Good Power and Gain Flatness
- 50 Ohm Matched Input / Output

Applications:

- Communication systems

Electrical Characteristics:

Parameter	Min	Typ	Max	Units
Frequency range	0.2		6	GHz
Small Signal Gain		29		dB
Gain Flatness		±1		dB
Noise Figure		2.1		dB
Output P1dB		17.5		dBm
Input VSWR		2.5		:1
Output VSWR		2.8		:1
DC Voltage		5		V DC
DC Supply Current		80		mA
Impedance		50		Ohms

Mechanical Specifications:

Parameter	Value	Units
Input /Output Connector	SMA Female/SMA Female	
DC Bias	Solder Pin	
Size	25*25*9	mm

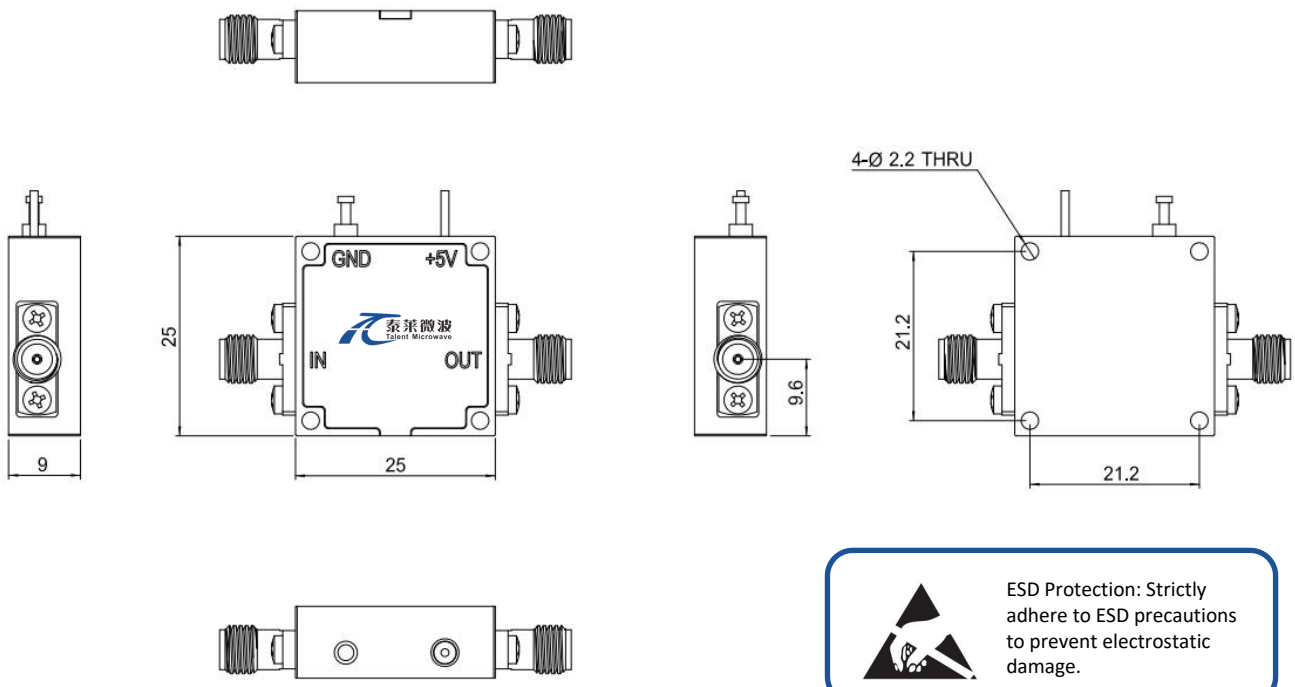
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Absolute Maximum Ratings:

Parameter	Value
Supply Bias Voltage	+8V
RF Input Power	+16 dBm
ESD sensitivity (HBm)	Class 0, passed 150V

Outline Drawing:

Unit:mm; Tolerance:±0.1mm



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

Environmental Conditions:

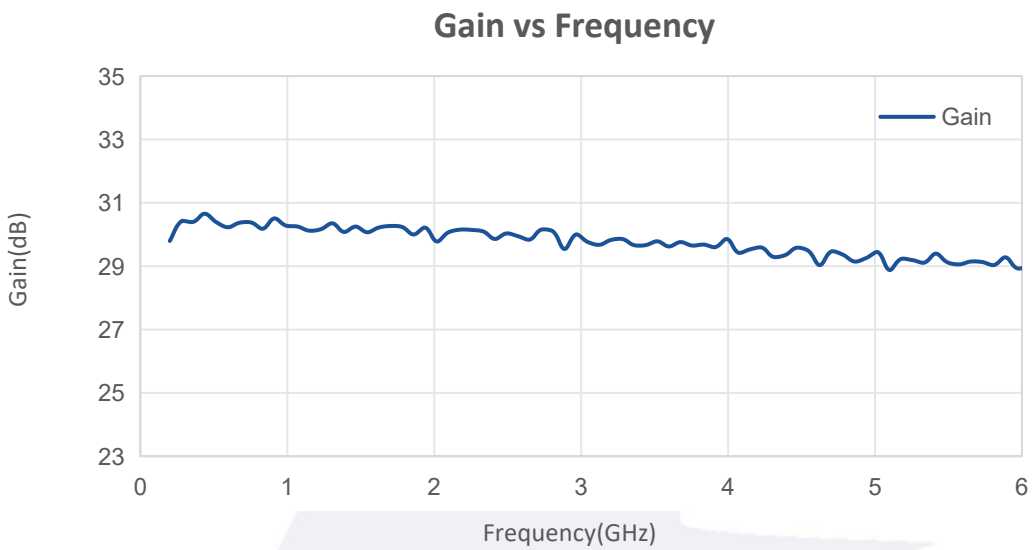
Parameter	Min	Typ	Max	Units
Operating Temperature	-45		+85	℃
Non-operating Temperature	-55		+125	℃
Relative humidity		95		%
Altitude	10,000			feet
Shock / Vibration(MIL-STD-810F)	25g rms (15 degree 2KHz) endurance, 1 hour per axis			
Shock(non operating)	20G for 11msc half sin wave,3 axis both directions			

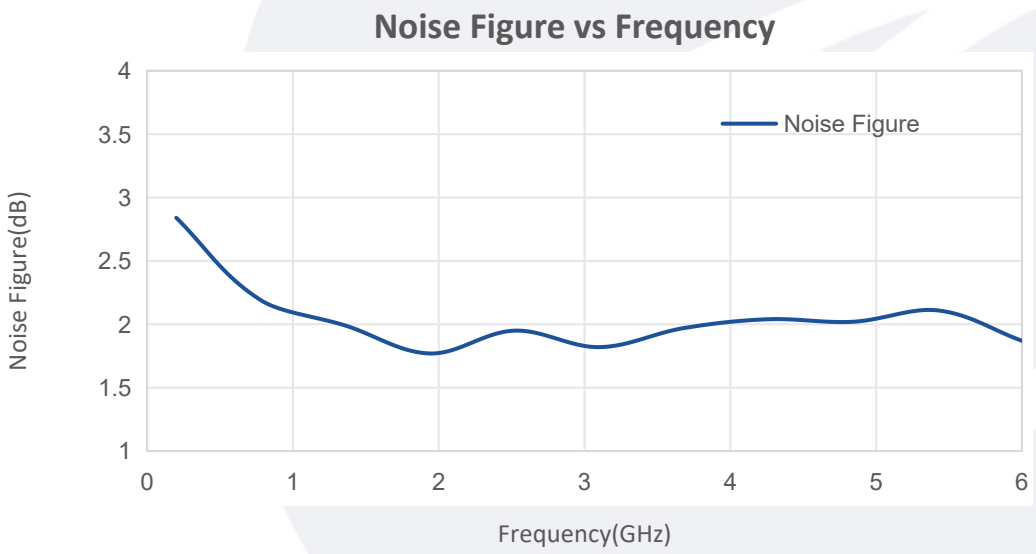
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Ordering Information:

Base Number	Description	Revision
TLLA0.2G6G-29-17-LC	Low Noise Amplifier, 0.2-6GHz, Noise Figure:2.1dB, Gain:29 dB,P1dB:17.5dBm,+5V DC,Without Heatsink	Rev.1.0

Typical Performance Data:

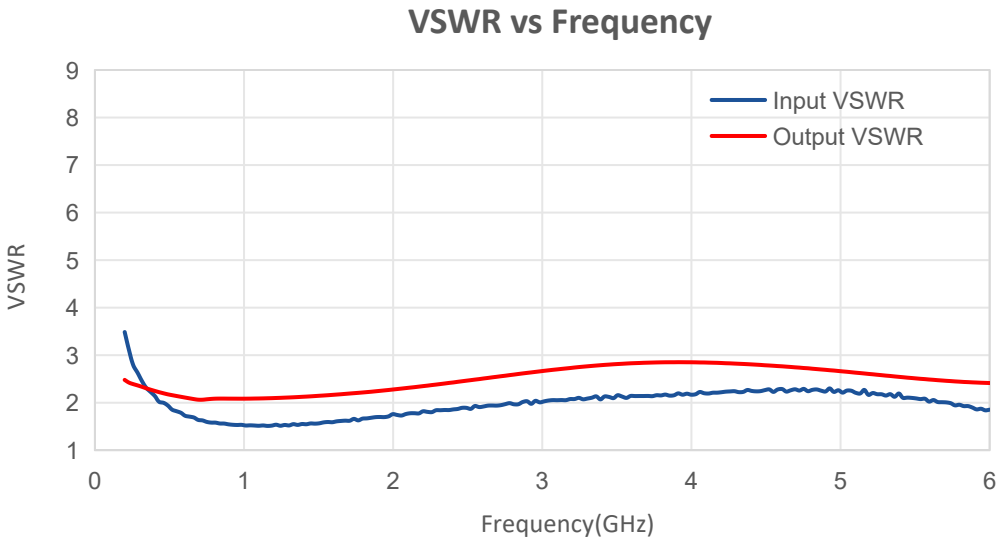




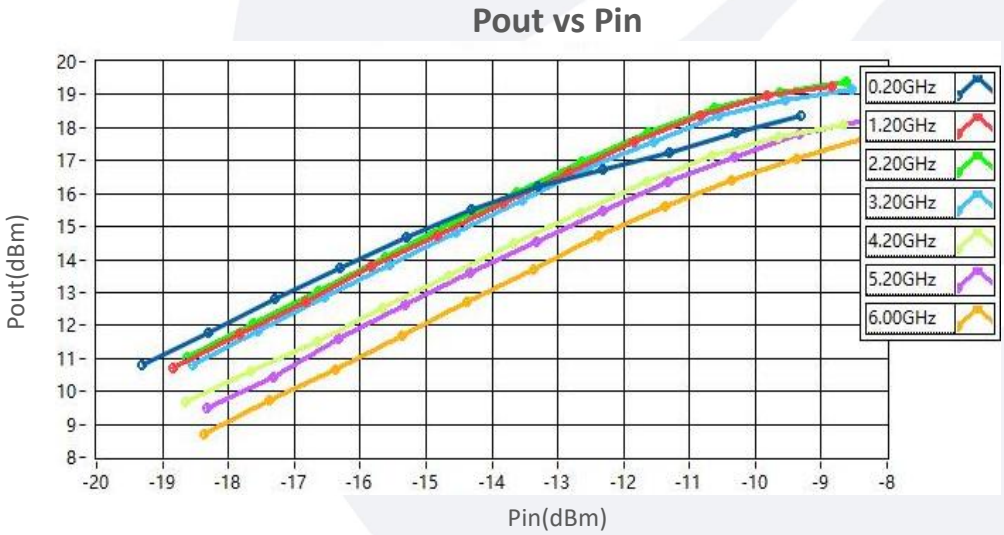
Note: Above data is for ref only, actual data may vary from unit to unit depending on operating environment and other factors like material lots etc.

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Typical Performance Data:





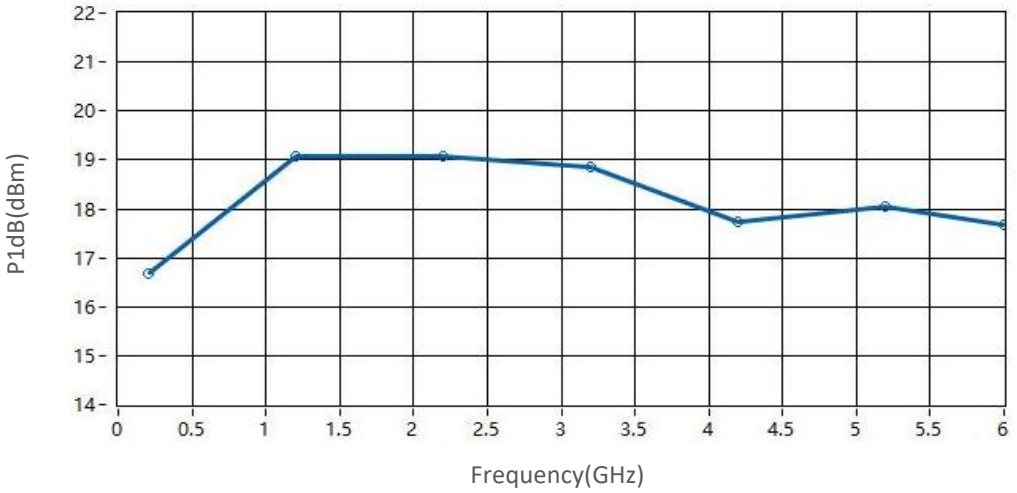


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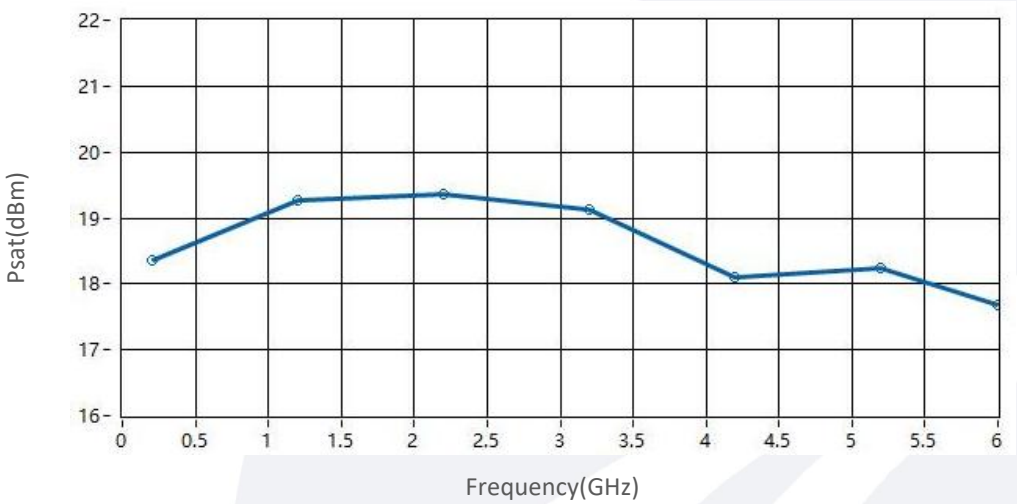
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Typical Performance Data:

P1dB vs Frequency



Psat vs Frequency



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