泰莱微波
Talent Microwave

Suzhou Talent Microwave,Inc
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Low Noise Amplifier

0.02-6GHz/2dB NF/50dB Gain/18dBm P1dB Model: TLLA0.02G6G-50-20

TLLA0.02G6G-50-20 is a low noise amplifier with a typical small signal gain of 50 dB and a nominal noise figure of 2 dB across the frequency range of 0.02 to 6 GHz. The DC power requirement for the amplifier is +8 V DC/150 mA. The input and output port configuration offers coax adapter structure with SMA female.

Features:

- Frequency range:0.02-6GHz
- Gain: 50dB Typ
- Noise Figure: 2dB Typ
- Good Power and Gain Flatness
- 50 Ohm Matched Input / Output

Applications:

- Communication systems

Electrical Characteristics:

Parameter	Min	Typ	Max	Units
Frequency range	0.02		6	GHz
Small Signal Gain	48	50		dB
Noise Figure		2		dB
Output P1dB		18		dBm
Output Psat		19.5		dBm
Input VSWR		1.8		:1
Output VSWR		1.8		:1
DC Voltage		8	12	V DC
DC Supply Current		150		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

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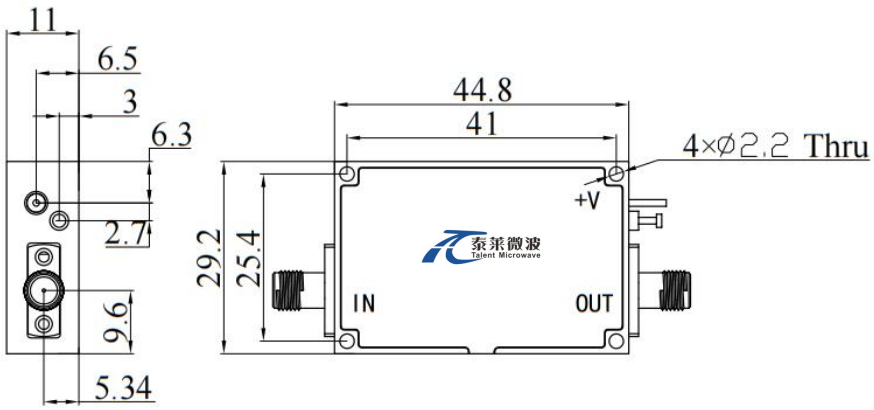
Absolute Maximum Ratings:

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

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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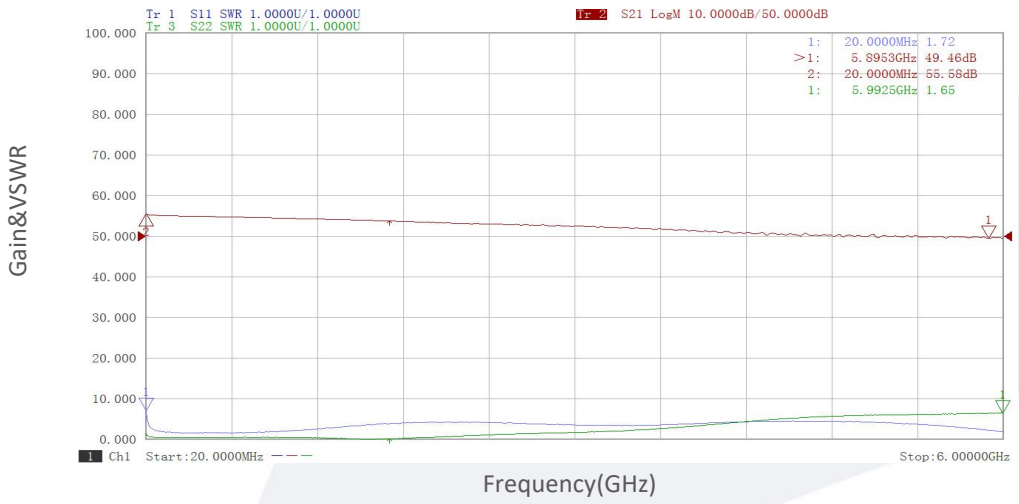
Ordering Information:

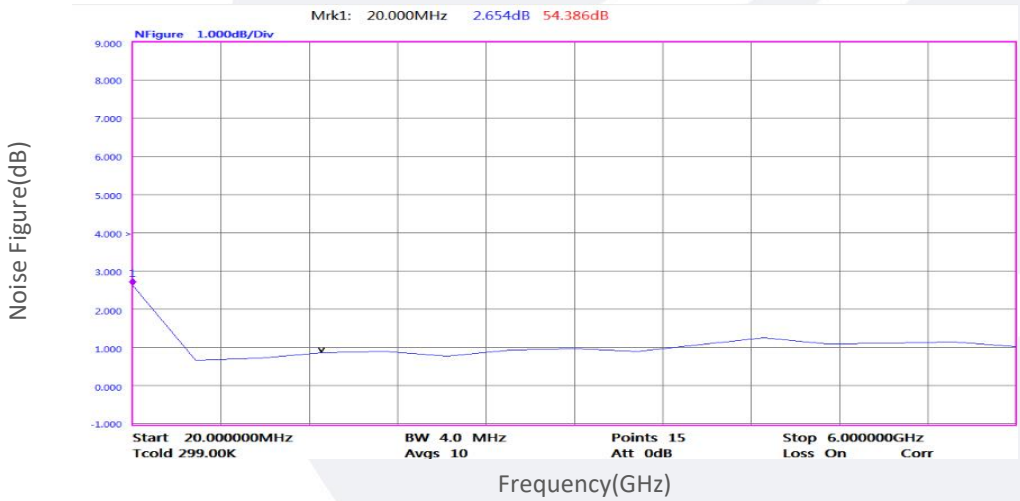
Base Number	Description	Revision
TLLA0.02G6G-50-20	Low Noise Amplifier, 0.02-6GHz, Noise Figure:2dB, Gain:50 dB,P1dB:18dBm,+8V DC,Without Heatsink	Rev.1.1
TLLA0.02G6G-50-20-HS	Low Noise Amplifier, 0.02-6GHz, Noise Figure:2dB, Gain:50 dB,P1dB:18dBm,+8V DC,With Heatsink	Rev.1.1

Typical Performance Data:

Gain&VSWR vs Frequency



Noise Figure vs Frequency



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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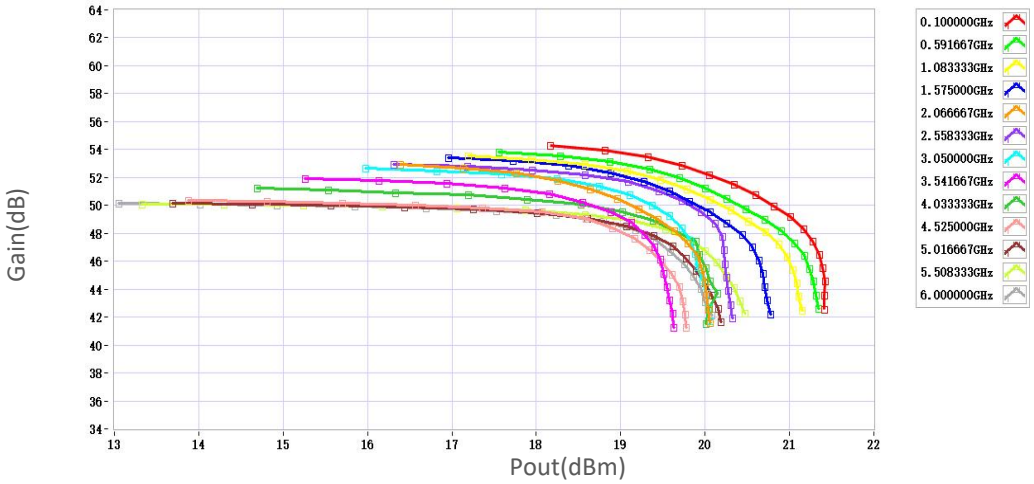
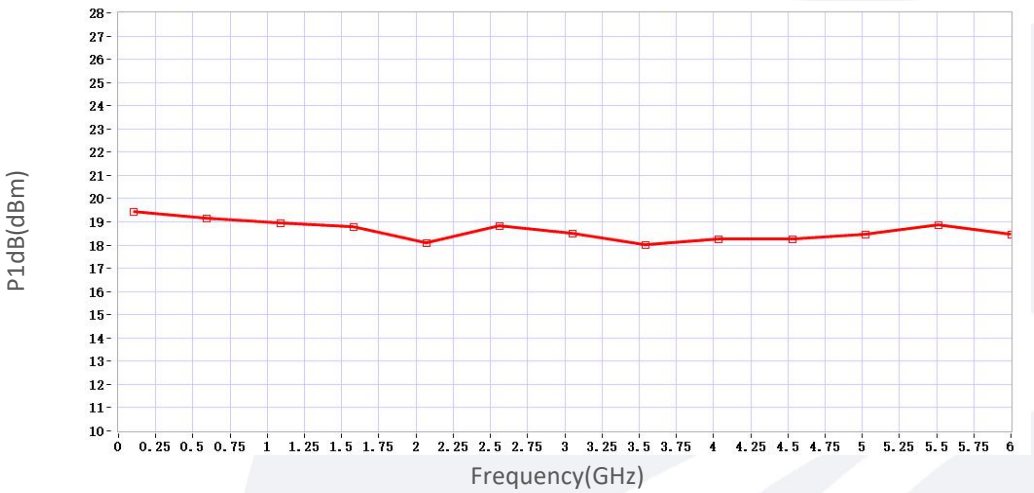
Typical Performance Data:

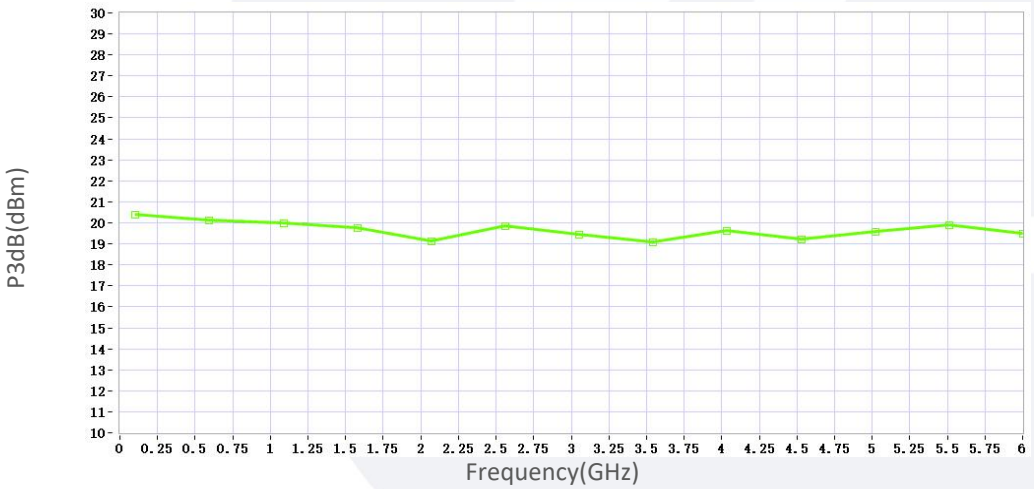
Gain vs Output Power



P1dB vs Frequency



P3dB vs Frequency



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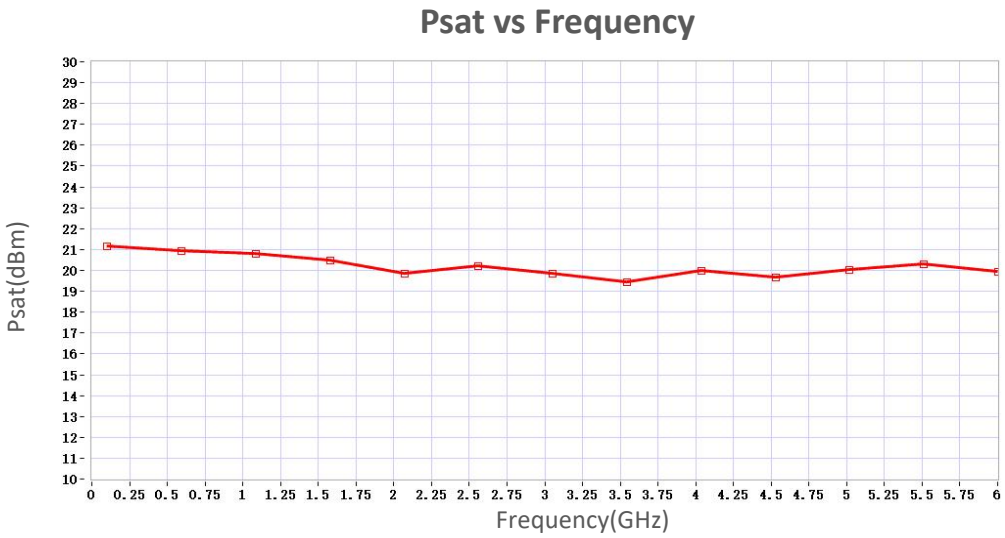

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