泰莱微波
Talent Microwave

Suzhou Talent Microwave,Inc
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Low Noise Amplifier

50KHz-20GHz/3.0dB NF/30dB Gain/15dBm P1dB Model: TLLA50K20G-30-30

TLLA50K20G-30-30 is a low noise amplifier with a typical small signal gain of 30 dB and a nominal noise figure of 3.0 dB across the frequency range of 50 KHz to 20 GHz. The DC power requirement for the amplifier is +12 V DC/180 mA. The input and output port configuration offers coax adapter structure with SMA female.

Features:

- Frequency range: 50KHz-20GHz
- Gain: 30dB Typ
- Noise Figure: 3.0dB Typ
- Good Power and Gain Flatness
- 50 Ohm Matched Input / Output

Applications:

- Communication systems

Electrical Characteristics:

Parameter	Min	Typ	Max	Units
Frequency range		50KHz-20GHz		
Small Signal Gain		30		dB
Gain Flatness		±1.5		dB
Noise Figure		3		dB
Output P1dB	15	16		dBm
Input VSWR		1.8	2	:1
Output VSWR		1.8	2	:1
DC Voltage		+12		V DC
DC Supply Current		180		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
Weight	55	g

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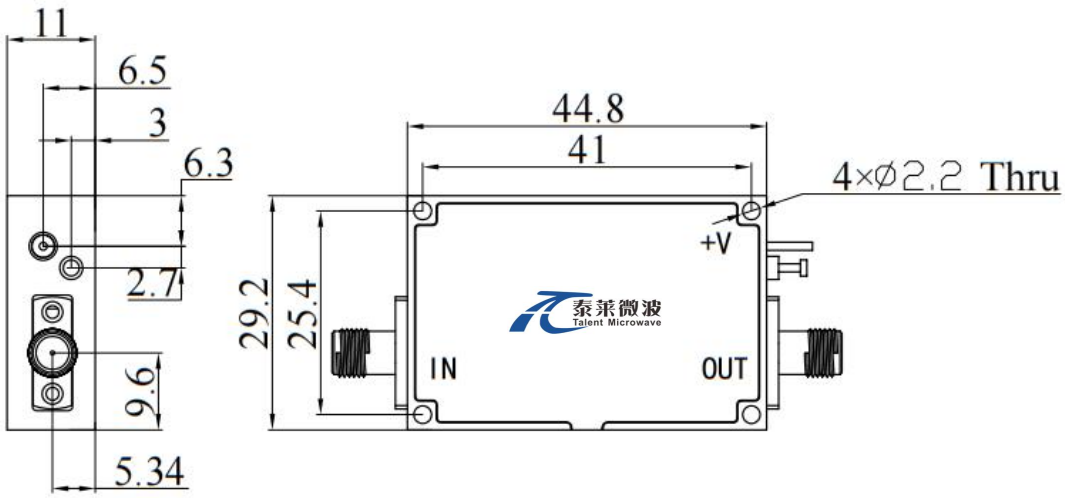
Absolute Maximum Ratings:

Parameter	Value
Supply Bias Voltage	+15 V
RF Input Power	+15 dBm
ESD sensitivity (HBm)	Class 0, passed 150V

Simple 220V System
Available SAC option

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	℃
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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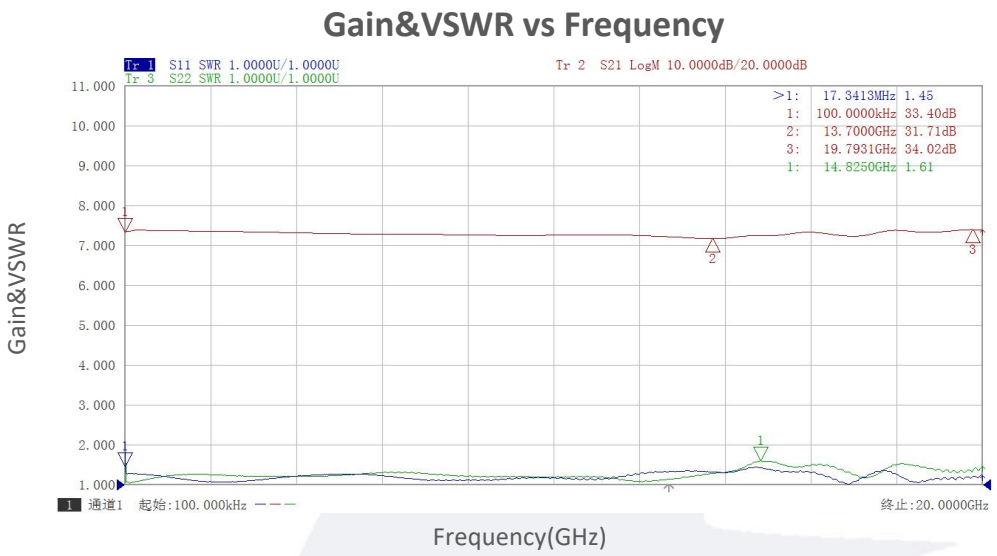
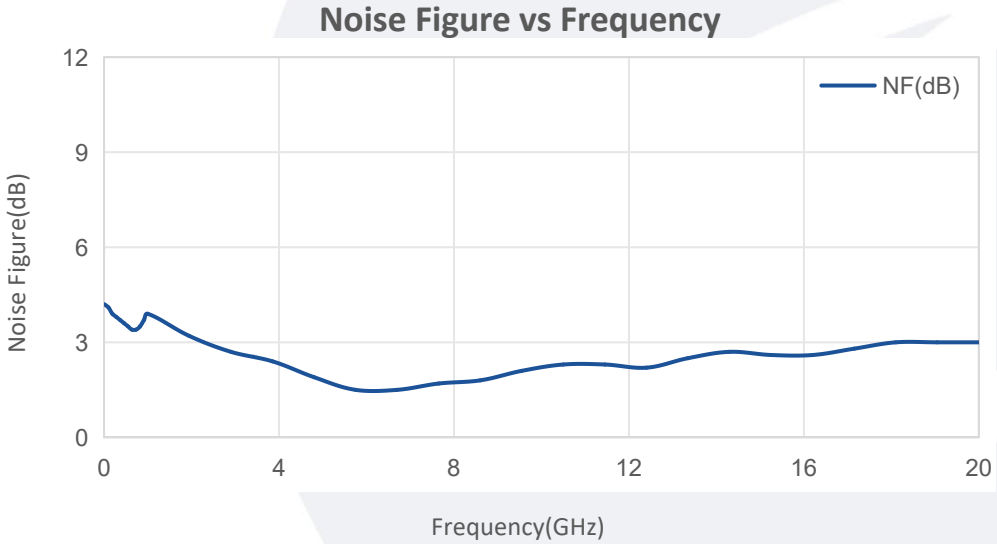
Ordering Information:

Base Number	Description	Revision
TLLA50K20G-30-30	Low Noise Amplifier, 50KHz-20GHz, Noise Figure:3.0dB, Gain:30 dB,P1dB:15dBm,+12V DC,Without Heatsink	Rev.1.1
TLLA50K20G-30-30-HS	Low Noise Amplifier, 50KHz-20GHz, Noise Figure:3.0dB, Gain:30 dB,P1dB:15dBm,+12V DC,With Heatsink	Rev.1.1

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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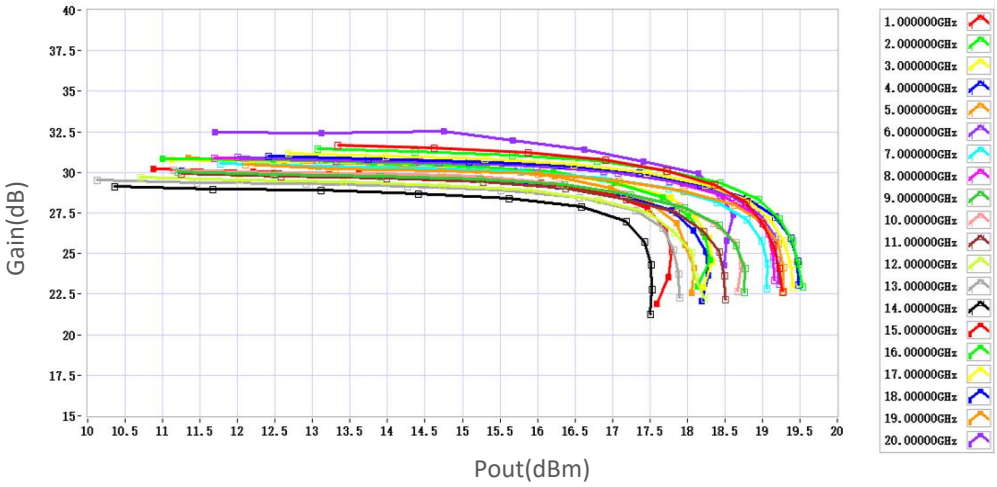
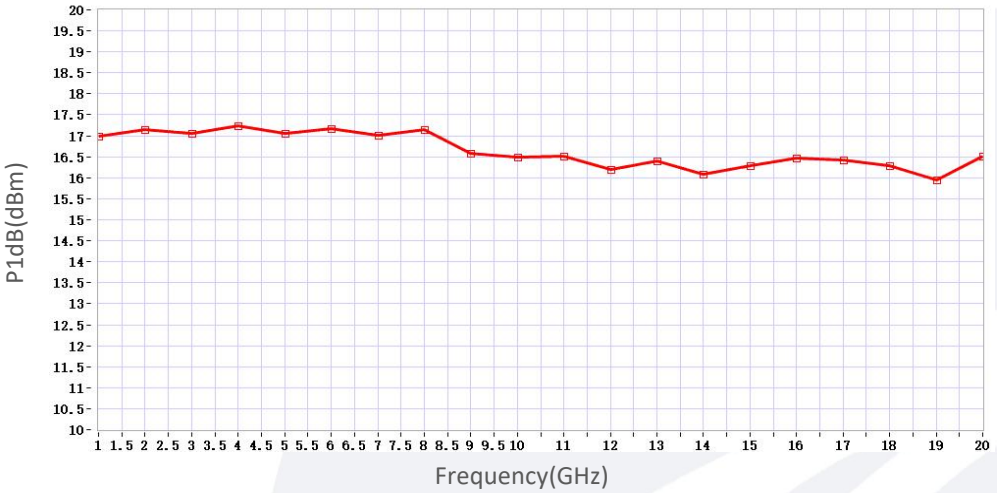
Typical Performance Data:

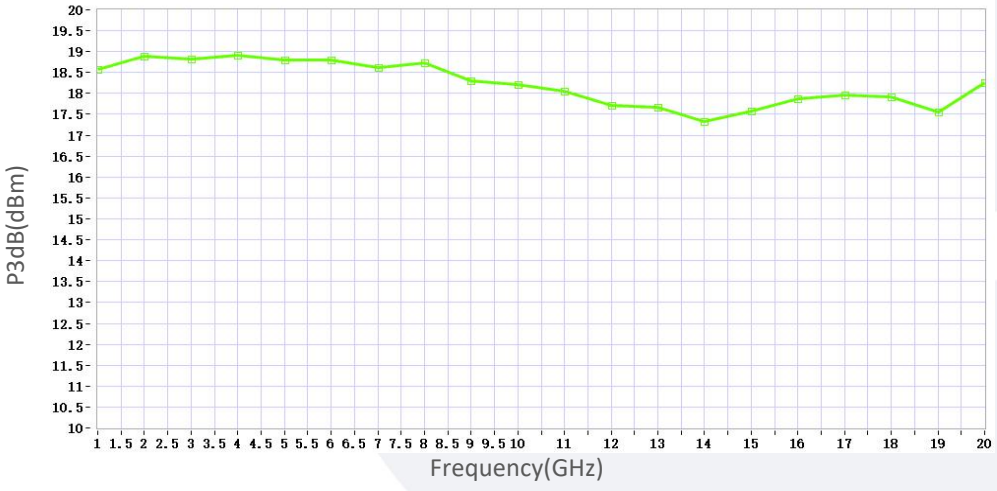
Gain vs Output Power



P1dB vs Frequency



P3dB vs Frequency



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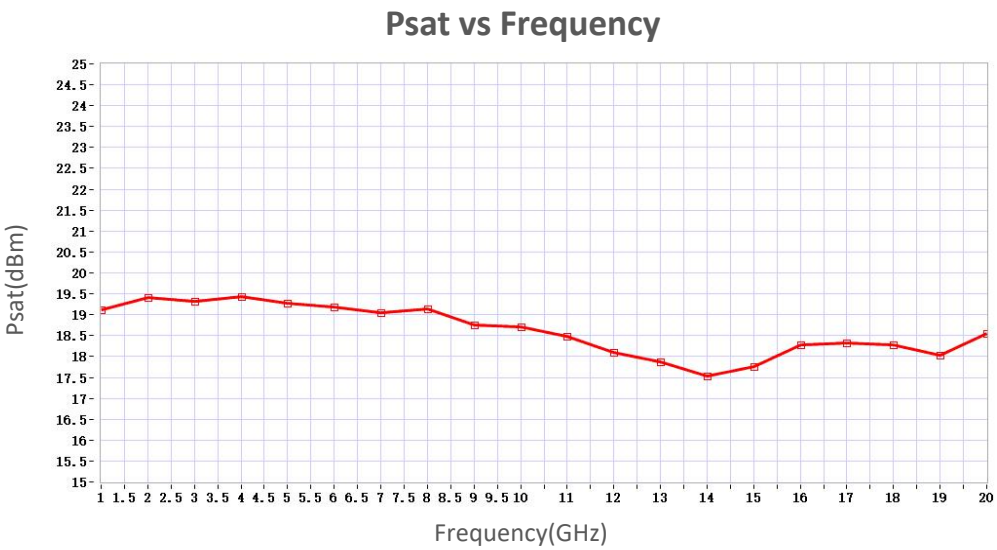

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