

Model: TLLA1G18G-13-20
Low Noise Amplifier
1-18GHz, NF:2.0dB, Gain:13dB, P1dB:14dBm
Feature:

- Ultra Wide Band: 1-18GHz
- Gain: 13dB Min
- Noise Figure: 2.0dB Typ
- Good Power and Gain Flatness
- 50 Ohm Matched Input / Output

Electrical Specifications:

Parameter	Min	Typ	Max	Units
Frequency range	1-18			GHz
Gain	13	14		dB
Gain Flatness		±1.0		dB
Noise Figure		2	2.5	dB
Output P1dB	13	14		dBm
Input VSWR		1.9		:1
Output VSWR		2		:1
DC Voltage		12		V DC
DC Supply Current		50		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

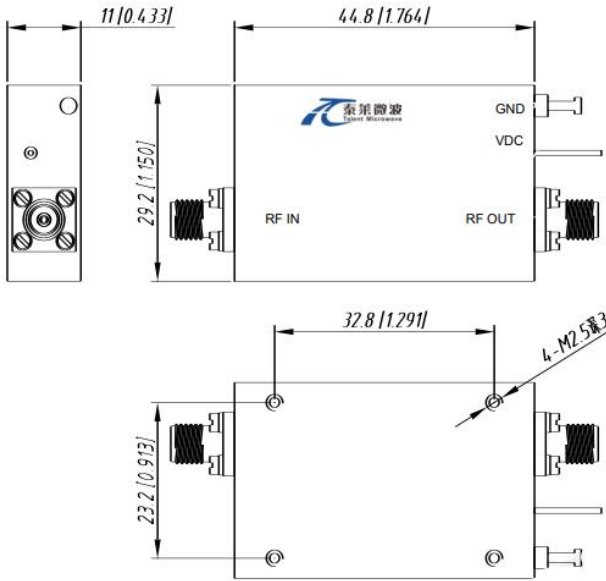
Absolute Maximum Ratings:

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


**Available 220V System
Benchtop Amplifier**

Outline Drawing:

Unit: mm(inches)



*****Heat Sink Required During Operation**



OBSERVE PRECAUTIONS
ELECTROSTATIC SENSITIVE
DEVICES

Environmental Conditions:

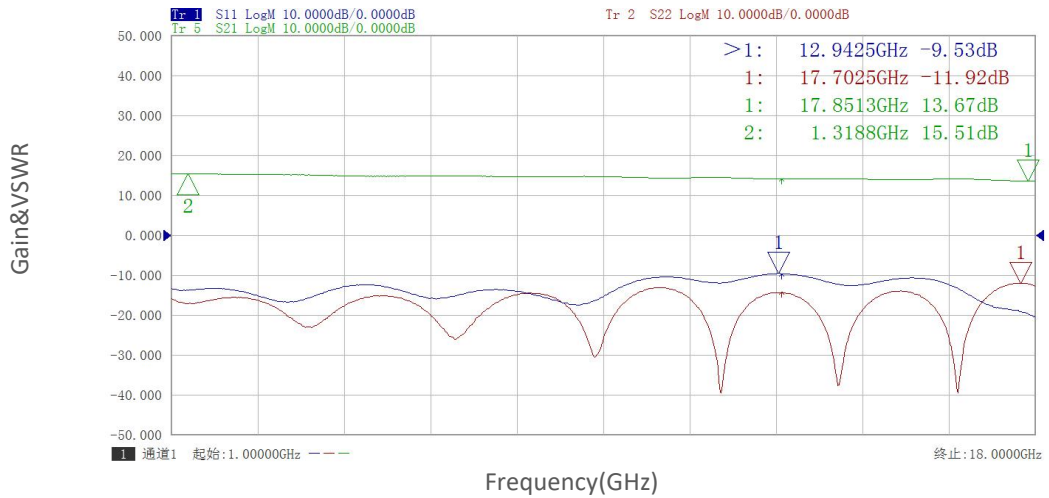
Parameter	Min	Typ	Max	Units
Operating Temperature	-40		+85	°C
Non-operating Temperature	-55		+125	°C
Relative humidity		95		%
Altitude	50,000			feet
Shock / Vibration(MIL-STD-810F)	25g rms (15 degree 2KHz) endurance, 1 hour per axis			
Shock(non operating)	20G for 11msc half sin wave,3 axis both directions			

Ordering Information:

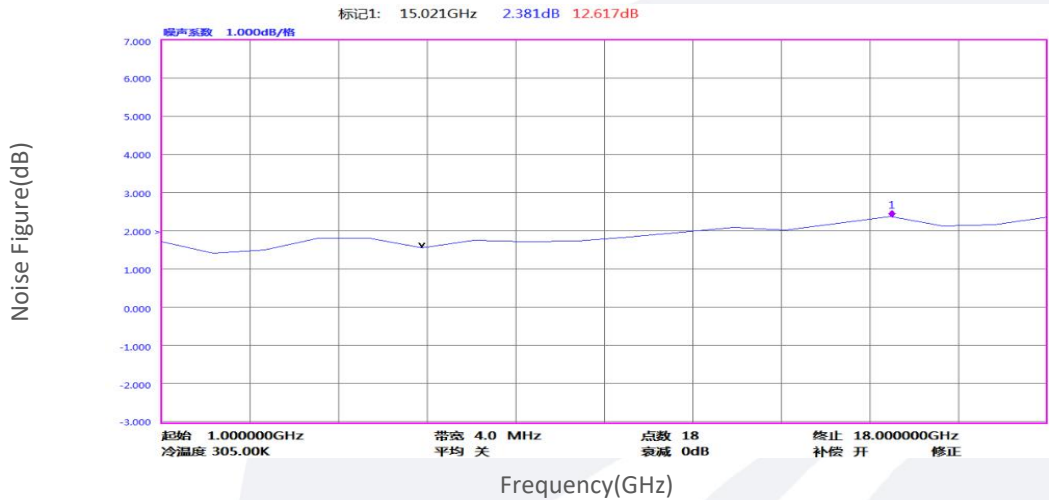
Part Number	Description	Revision
TLLA1G18G-13-20	Low Noise Amplifier, 1-18GHz, Noise Figure:2.0dB, Gain:13 dB,P1dB:14dBm,+12V DC,Without Heatsink	Rev.1.1
TLLA1G18G-13-20-HS	Low Noise Amplifier, 1-18GHz, Noise Figure:2.0dB, Gain:13 dB,P1dB:14dBm,+12V DC,With Heatsink	Rev.1.1

Typical Performance Data:

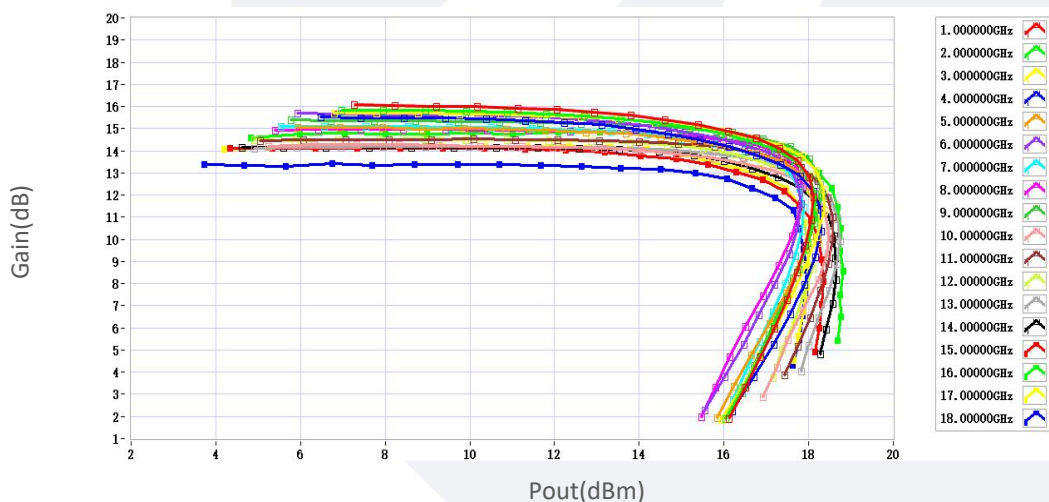
Gain&VSWR vs Frequency



Noise Figure vs Frequency

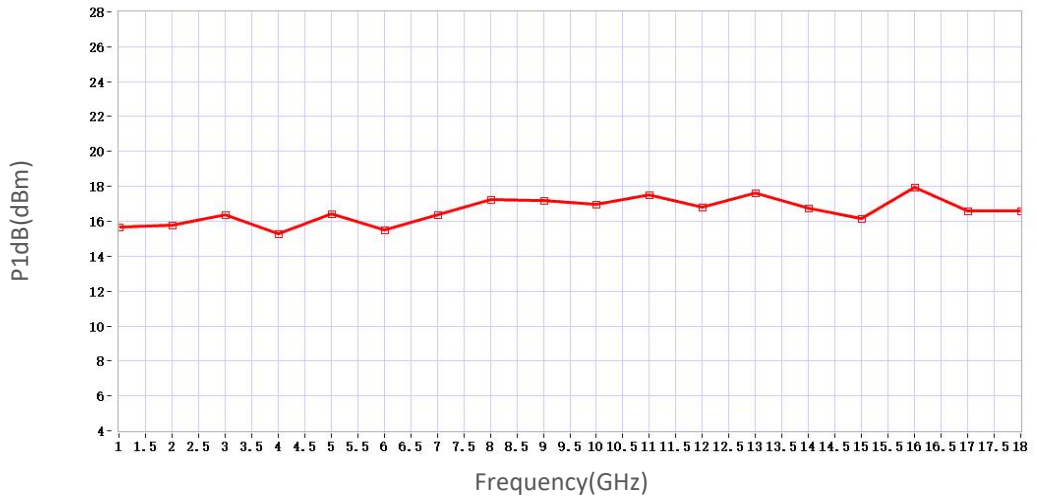


Gain vs Output Power

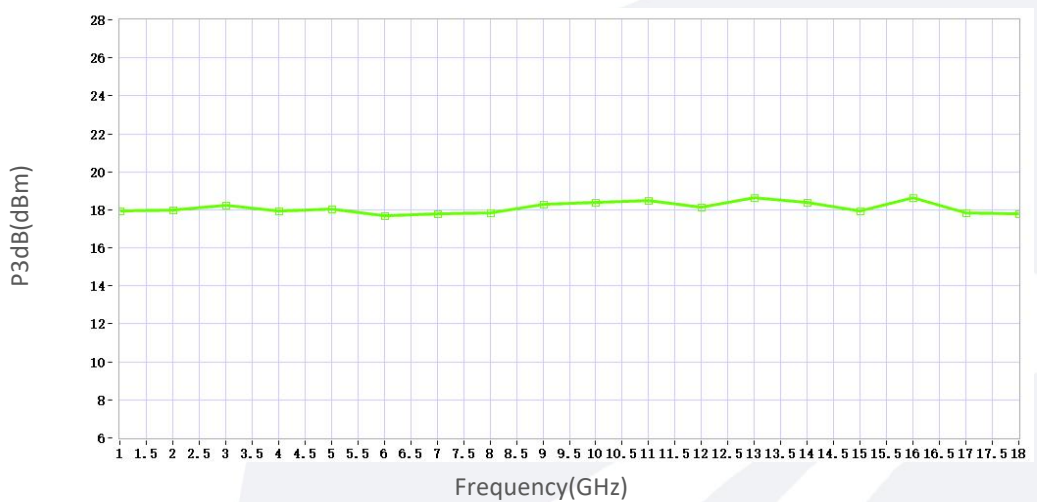


Typical Performance Data:

P1dB vs Frequency



P3dB vs Frequency



Psat vs Frequency

