

Model: TLLA9G10G-21-20
Low Noise Amplifier
9-10GHz, NF:2.0dB, Gain:21dB, P1dB:18.5dBm
Feature:

- Ultra Wide Band: 9-10 GHz
- Gain: 21dB Typ
- Noise Figure: 2.0dB Typ
- Good Power and Gain Flatness
- 50 Ohm Matched Input / Output

Electrical Specifications:

Parameter	Min	Typ	Max	Units
Frequency range	9-10			GHz
Gain		21		dB
Gain Flatness		±0.4	±0.5	dB
Noise Figure		2	2.4	dB
Output P1dB	18	18.5		dBm
Output Psat	19	19.5		dBm
Input VSWR		1.5	2.2	:1
Output VSWR		1.5	2.2	:1
DC Voltage	8	12	15	V DC
DC Supply Current		85		mA
Impedance	50			Ohms

Mechanical Specifications:

Parameter	Value	Units
Input /Output Connector	SMA Female/SMA Female	
DC Bias	Solder Pin	
Size	28*20*10	mm
Weight	/	g

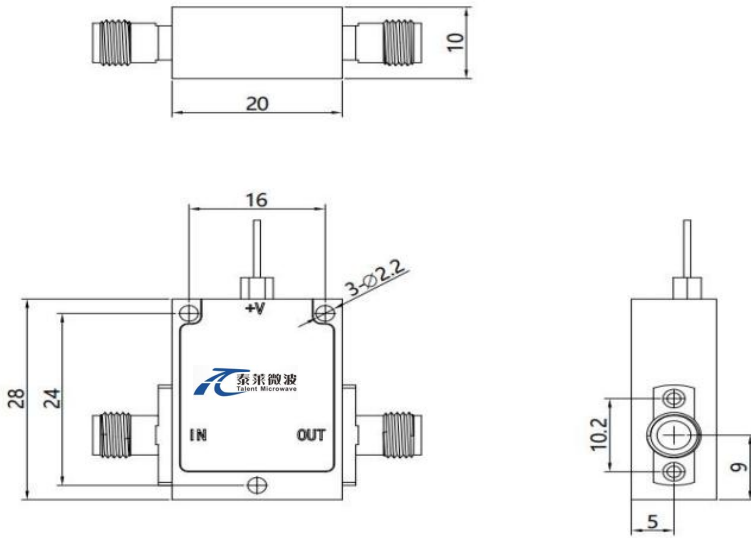
Absolute Maximum Ratings:

Parameter	Value
Supply Bias Voltage	+15V
RF Input Power	22 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:

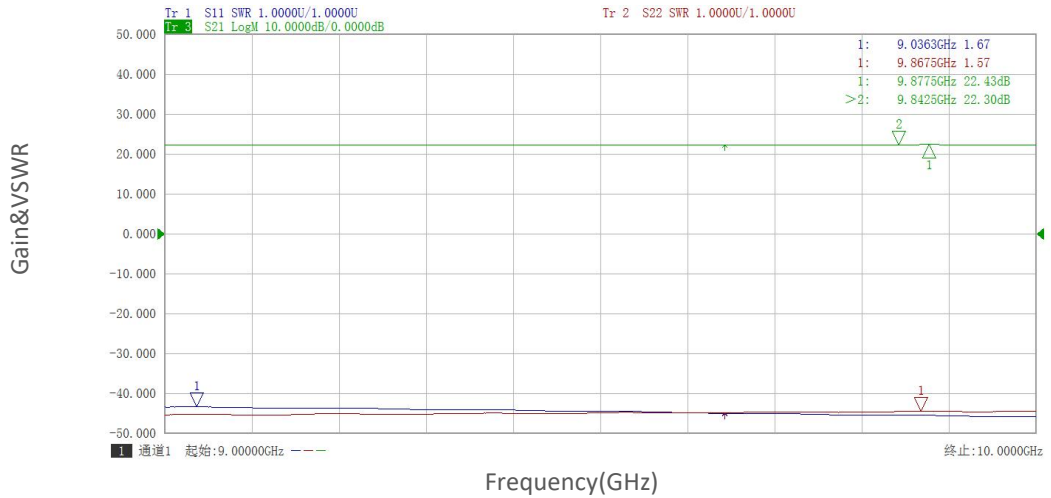
Parameter	Min	Typ	Max	Units
Operating Temperature	-45		+85	°C
Non-operating Temperature	-55		+125	°C
Relative humidity		95		%
Altitude	50,000			feet
Shock / Vibration(MIL-STD-810F)	25g rms (15 degree 2KHz) endurance, 1 hour per axis			
Shock(non operating)	20G for 11msc half sin wave,3 axis both directions			

Ordering Information:

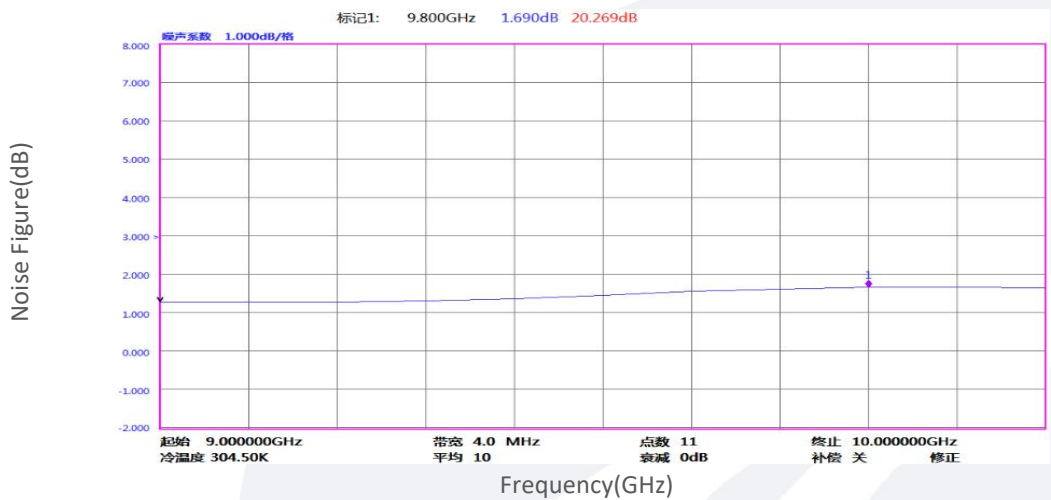
Part Number	Description	Revision
TLLA9G10G-21-20	Low Noise Amplifier, 9-10GHz, Noise Figure:2.0dB, Gain:21 dB,P1dB:18.5dBm,+12V DC,Without Heatsink	Rev.1.1
TLLA9G10G-21-20-HS	Low Noise Amplifier, 9-10GHz, Noise Figure:2.0dB, Gain:21 dB,P1dB:18.5dBm,+12V DC,With Heatsink	Rev.1.1

Typical Performance Data:

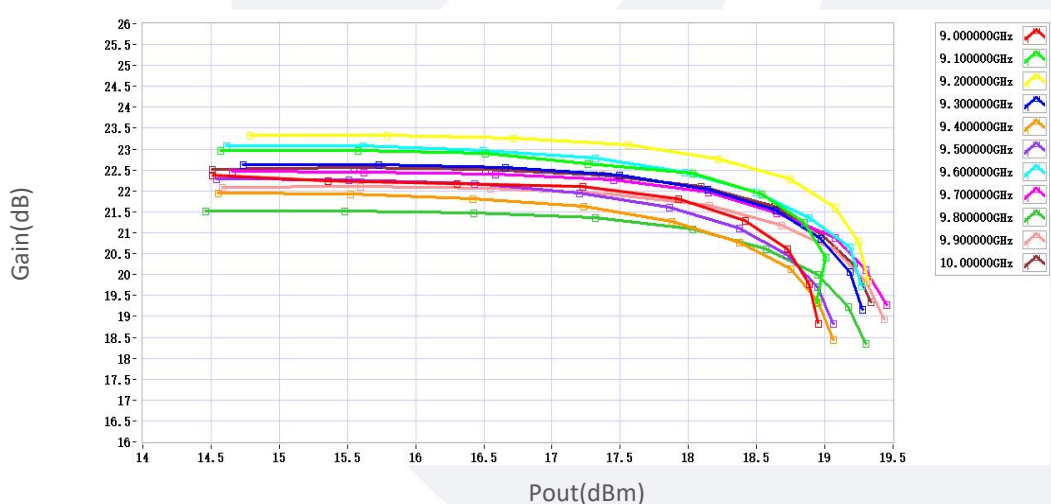
Gain&VSWR vs Frequency



Noise Figure vs Frequency

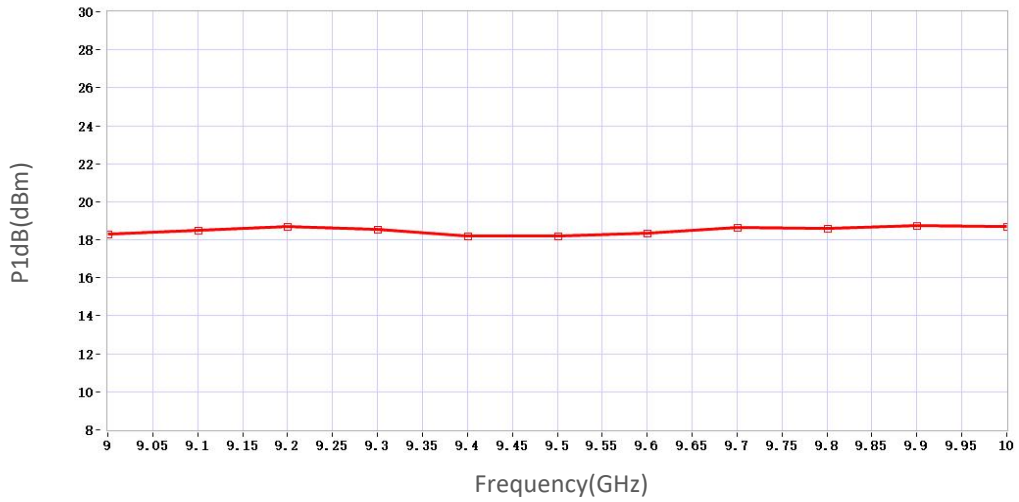


Gain vs Output Power



Typical Performance Data:

P1dB vs Frequency



P3dB vs Frequency

