

**Model: TLLA1G10G-25-11**
**Low Noise Amplifier**  
**1-10GHz, NF:1.1dB, Gain:25dB, P1dB:16dBm**
**Feature:**

- Ultra Wide Band: 1-10GHz
- Gain: 25dB Min
- Noise Figure: 1.1dB Typ.
- Good Power and Gain Flatness
- 50 Ohm Matched Input / Output

**Electrical Specifications:**

Parameter	Min	Typ	Max	Units
Frequency range	1-10			GHz
Gain	25			dB
Gain Flatness		±1.0		dB
Noise Figure		1.1		dB
Output P1dB	14	16		dBm
Input VSWR		2.0	2.2	:1
Output VSWR		2.0	2.2	:1
DC Voltage		+12		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	32.1*29.2*11	mm

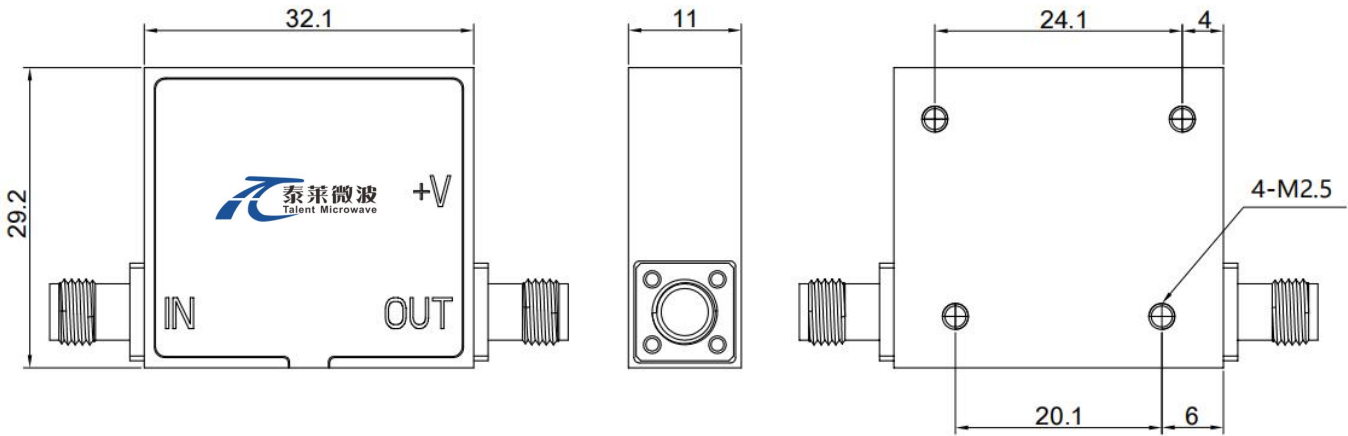
**Absolute Maximum Ratings:**

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


 Available 220V System  
 Benchtop Amplifier

**Outline Drawing:**

Unit: mm



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



OBSERVE PRECAUTIONS  
ELECTROSTATIC SENSITIVE  
DEVICES

**Environmental Conditions:**

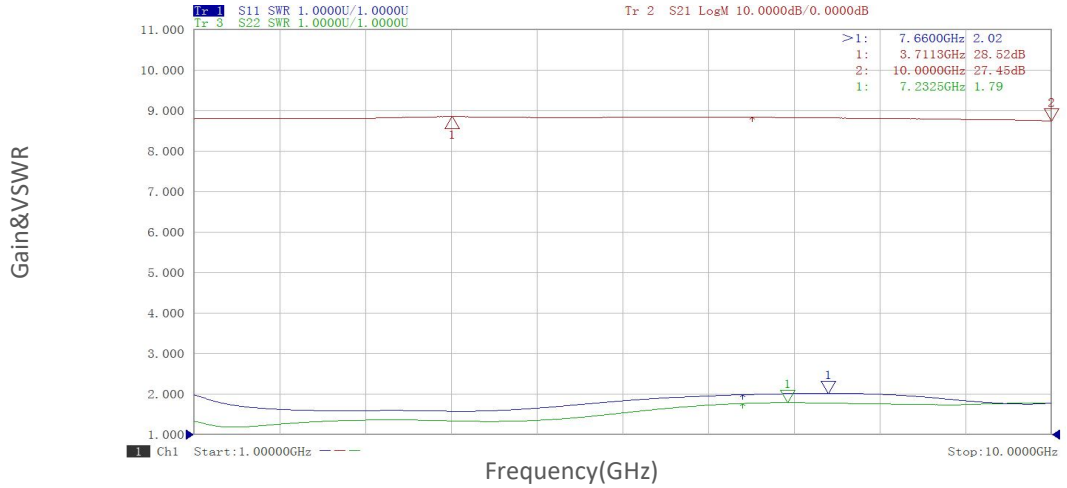
Parameter	Min	Typ	Max	Units
Operating Temperature	-45		+85	°C
Non-operating Temperature	-55		+125	°C
Relative humidity		95		%
Altitude	10,000			feet
Shock / Vibration(MIL-STD-810F)	25g rms (15 degree 2KHz) endurance, 1 hour per axis			
Shock(non operating)	20G for 11msc half sin wave,3 axis both directions			

**Ordering Information:**

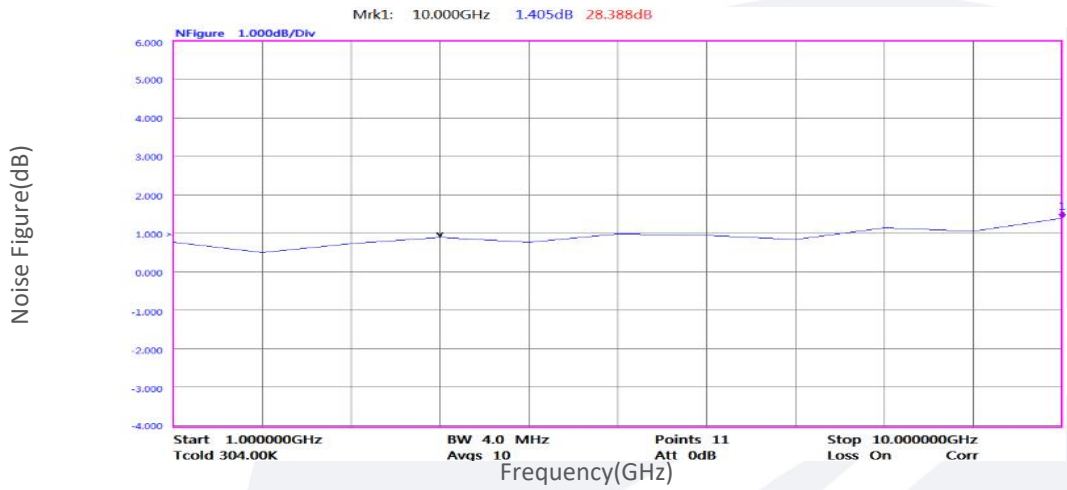
Part Number	Description	Revision
TLLA1G10G-25-11	Low Noise Amplifier, 1-10GHz, Noise Figure:1.1dB, Gain:25 dB,P1dB:16dBm,+12V DC,Without Heatsink	Rev.1.2
TLLA1G10G-25-11-HS	Low Noise Amplifier, 1-10GHz, Noise Figure:1.1dB, Gain:25 dB,P1dB:16dBm,+12V DC,With Heatsink	Rev.1.2

Typical Performance Data:

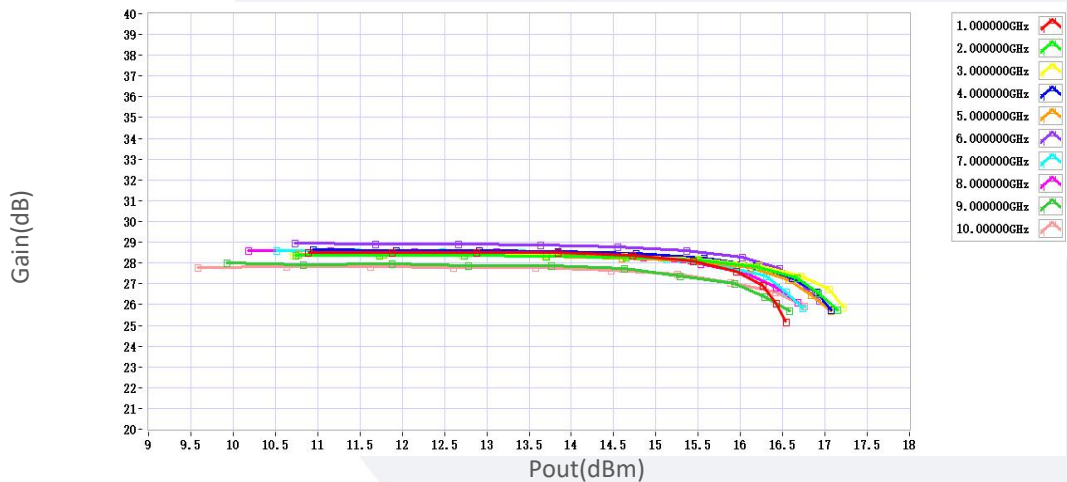
Gain&VSWR vs Frequency



Noise Figure vs Frequency



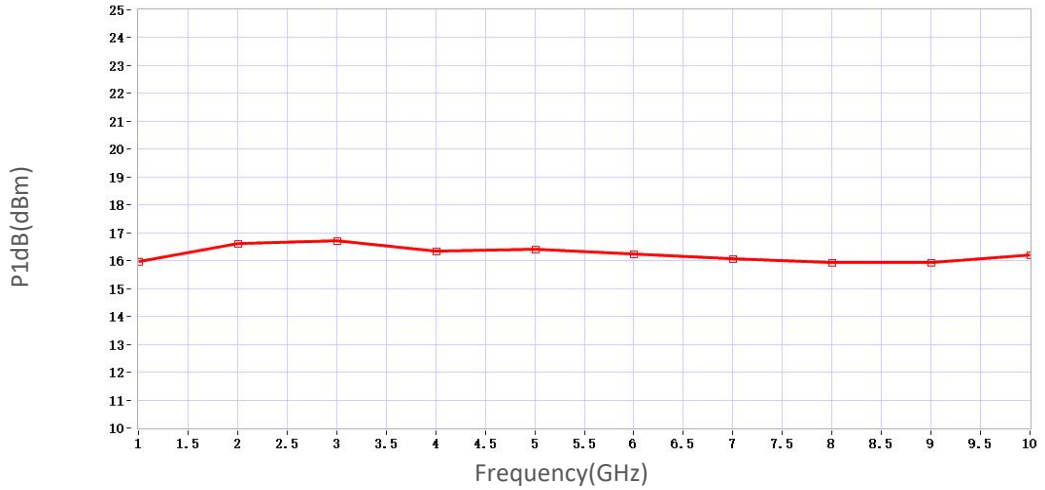
Gain vs Output Power



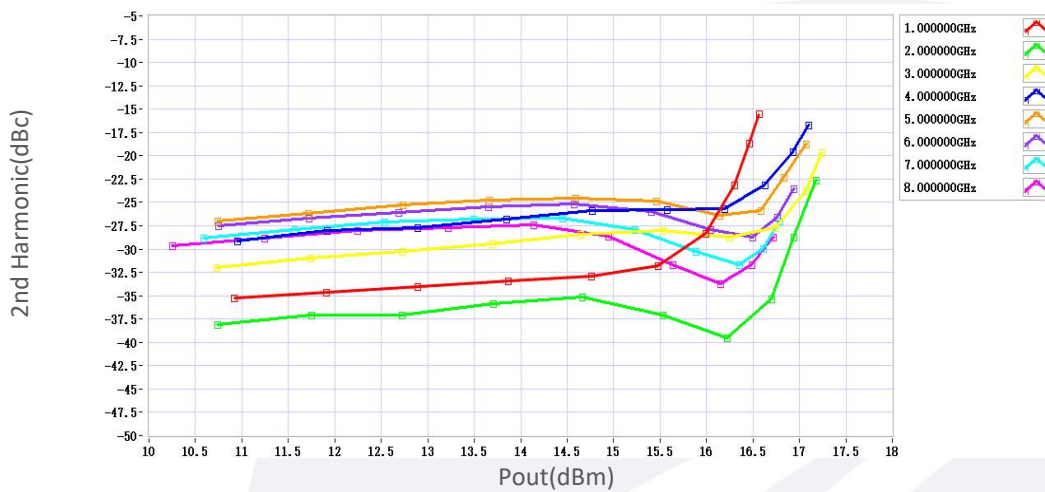
Note: Above data is for ref only, actual data may vary from unit to unit depending on operating environment and other factors like material lots etc.

Typical Performance Data:

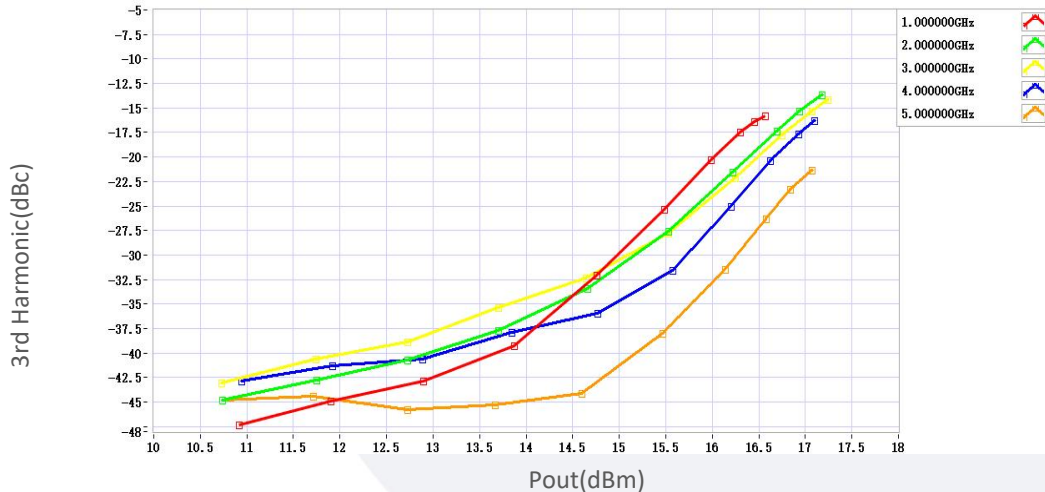
P1dB vs Frequency



2nd Harmonic vs Output Power



3rd Harmonic vs Output Power



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