

## Model: TLLA15G30G-50-40

## Low Noise Amplifier 15-30GHz, NF:4dB, Gain:50dB, P1dB:14dBm

### Feature:

- Ultra Wide Band: 15-30GHz
- Gain: 50dB Min
- Noise Figure: 4dB Max
- Good Power and Gain Flatness
- 50 Ohm Matched Input / Output

### Electrical Specifications:

Parameter	Min	Typ	Max	Units
Frequency range	15-30			GHz
Gain	50			dB
Gain Flatness		±2.0		dB
Noise Figure			4.0	dB
Output P1dB	14	16		dBm
Input VSWR		2.0	2.2	:1
Output VSWR		2.0	2.2	:1
DC Voltage	+8	+12	+15	V DC
DC Supply Current		160		mA
Impedance	50			Ohms

### Mechanical Specifications:

Parameter	Value	Units
Input /Output Connector	2.92mm Female/2.92mm Female	
DC Bias	Solder Pin	
Size	44.8*29.2*11	mm
Weight	55	g

### Absolute Maximum Ratings:

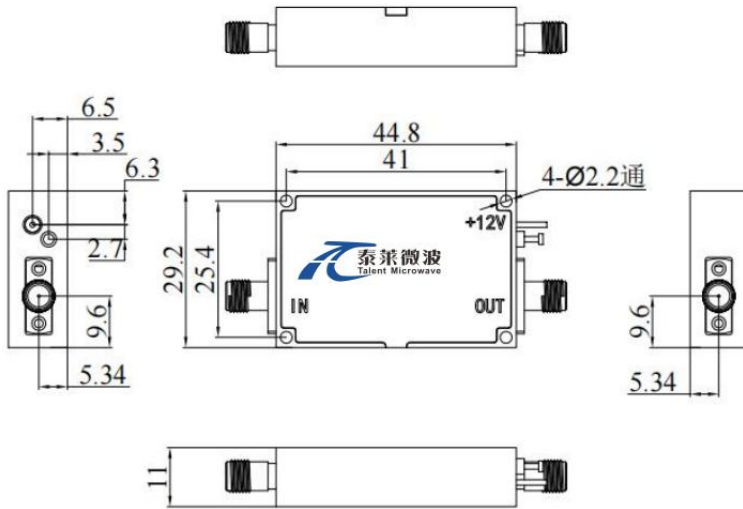
Parameter	Value
Supply Bias Voltage	+15V
RF Input Power	15 dBm
ESD sensitivity (HBm)	Class 0, passed 150V



Available 220V System  
Benchtop Amplifier

**Outline Drawing:**

Unit: mm



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



OBSERVE PRECAUTIONS  
ELECTROSTATIC SENSITIVE  
DEVICES

**Environmental Conditions:**

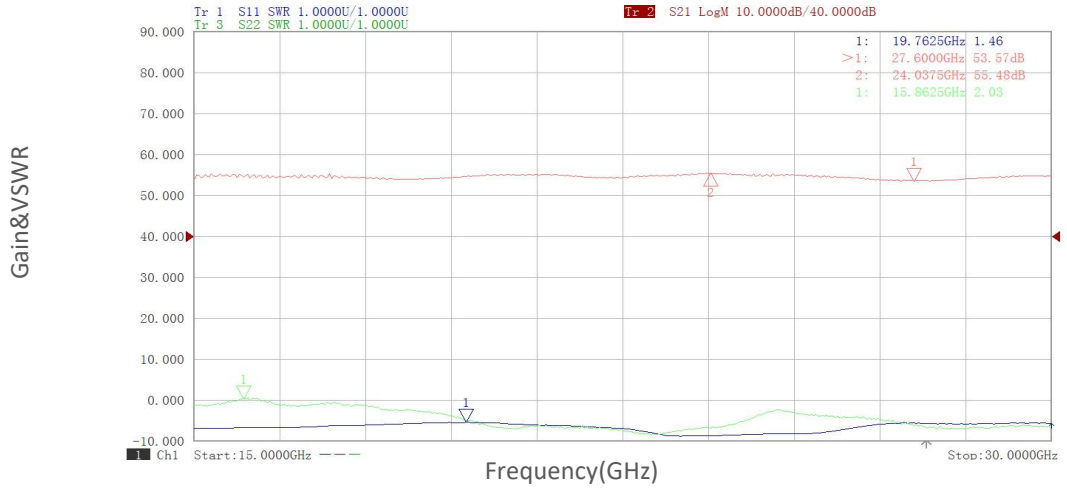
Parameter	Min	Typ	Max	Units
Operating Temperature	-45		+85	°C
Non-operating Temperature	-55		+125	°C
Relative humidity		95		%
Altitude	10,000			feet
Shock / Vibration(MIL-STD-810F)	25g rms (15 degree 2KHz) endurance, 1 hour per axis			
Shock(non operating)	20G for 11msc half sin wave,3 axis both directions			

**Ordering Information:**

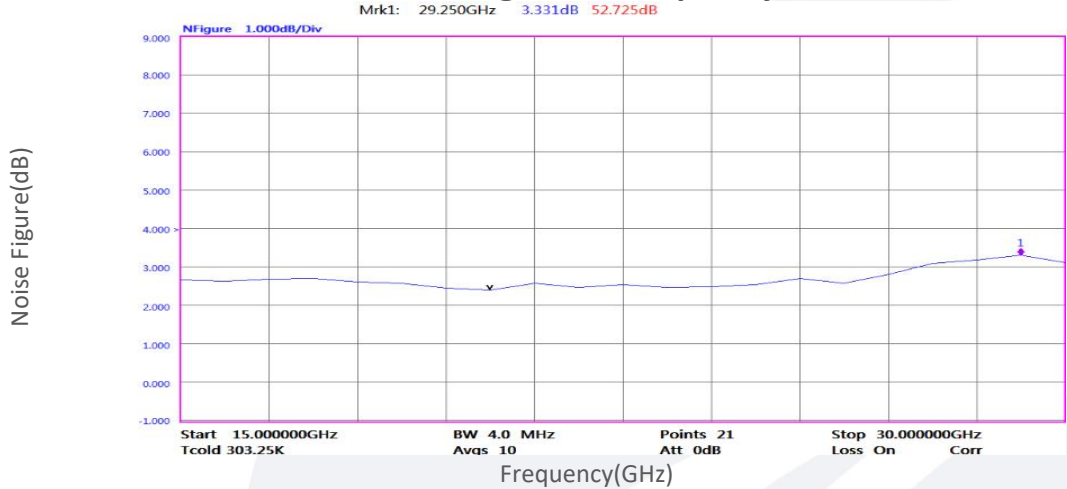
Part Number	Description	Revision
TLLA15G30G-50-40	Low Noise Amplifier, 15-30GHz, Noise Figure:4dB, Gain:50 dB,P1dB:14dBm,+12V DC,Without Heatsink	Rev.1.1
TLLA15G30G-50-40-HS	Low Noise Amplifier, 15-30GHz, Noise Figure:4dB, Gain:50 dB,P1dB:14dBm,+12V DC,With Heatsink	Rev.1.1

Typical Performance Data:

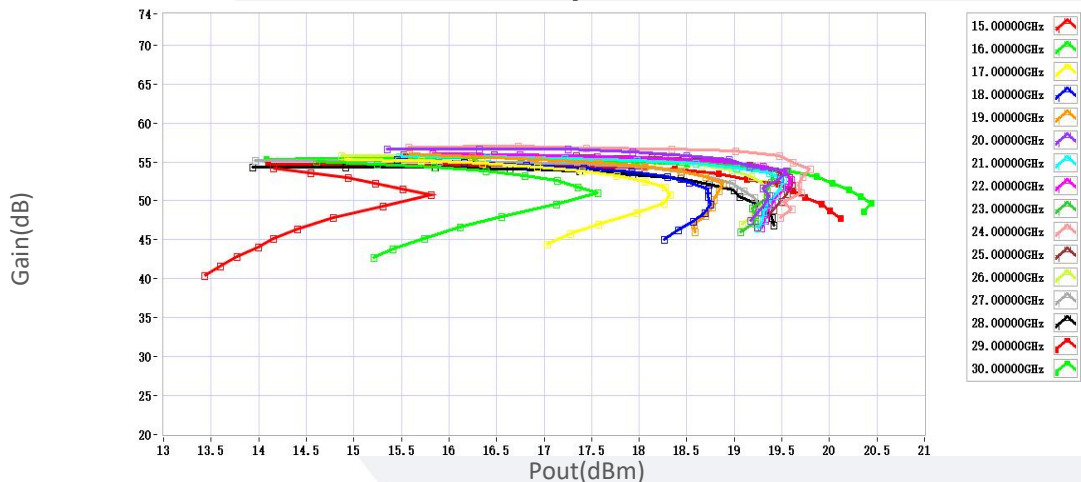
Gain&VSWR vs Frequency



Noise Figure vs Frequency



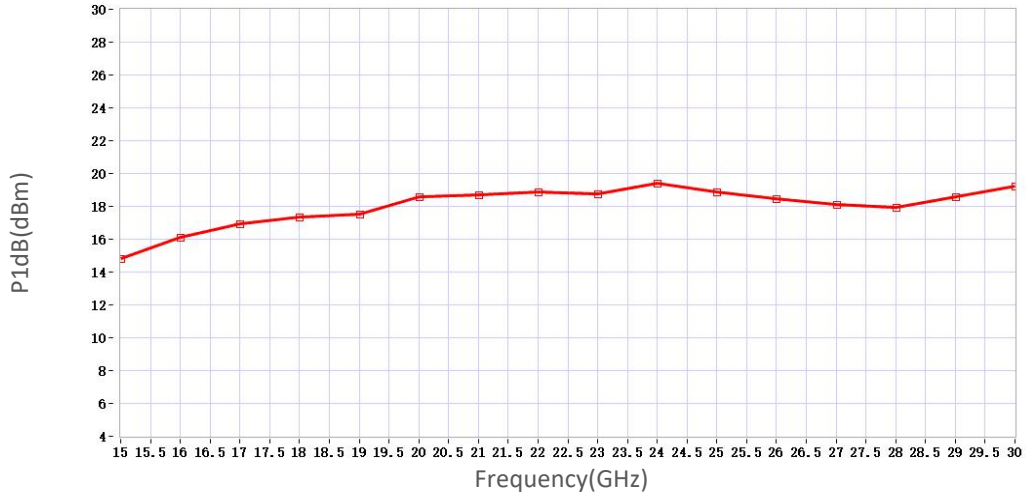
Gain vs Output Power



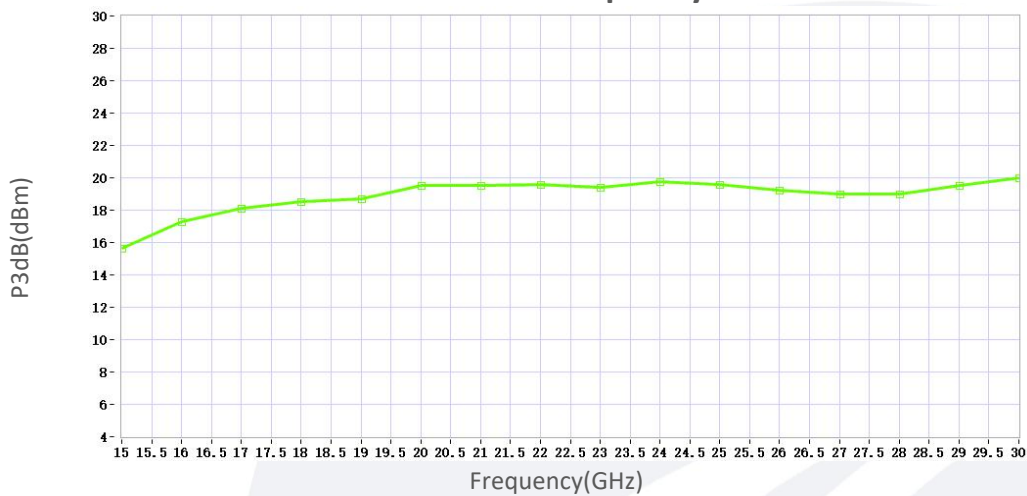
Note: Above data is for ref only, actual data may vary from unit to unit depending on operating environment and other factors like material lots etc.

Typical Performance Data:

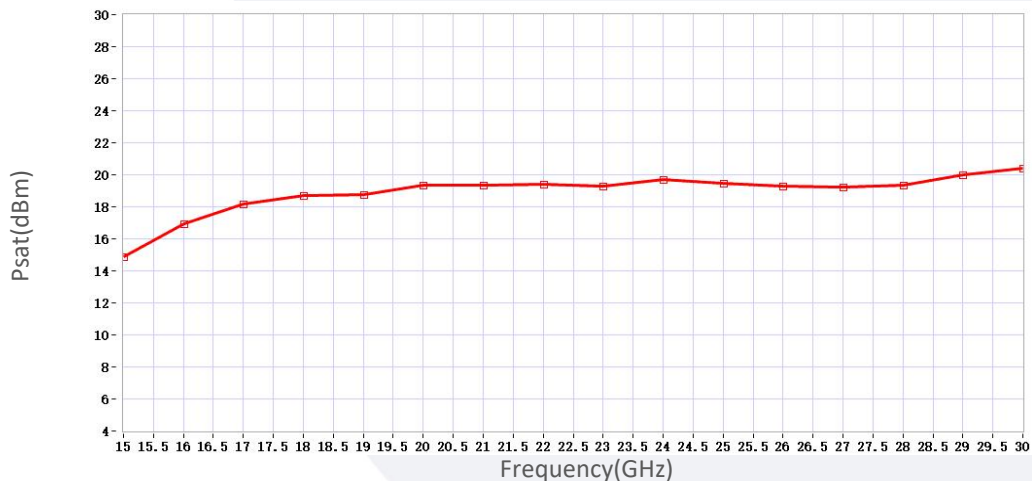
P1dB vs Frequency



P3dB vs Frequency



Psat vs Frequency



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