

Low Noise Amplifier

2-26.5GHz/3dB NF/36dB Gain/19dBm P1dB

Model: TLLA2G26.5G-38-40

TLLA2G26.5G-38-40 is a low noise amplifier with a typical small signal gain of 36 dB and a nominal noise figure of 3 dB across the frequency range of 2 to 26.5 GHz. The DC power requirement for the amplifier is +8 V DC/260 mA. The input and output port configuration offers coax adapter structure with 2.92mm female.

Features:

- Frequency range:2-26.5GHz
- Gain: 36dB Typ
- Noise Figure: 3dB Typ
- Good Power and Gain Flatness
- 50 Ohm Matched Input / Output

Applications:

- Communication systems

Electrical Characteristics:

Parameter	Min	Typ	Max	Units
Frequency range	2		26.5	GHz
Small Signal Gain	33	36		dB
Gain Flatness		±2		dB
Noise Figure		3	4	dB
Output P1dB	18	19		dBm
Output IP3		20		dBm
Input VSWR		1.8	2.4	:1
Output VSWR		1.8	2.4	:1
DC Voltage		8	10	V DC
DC Supply Current		260		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

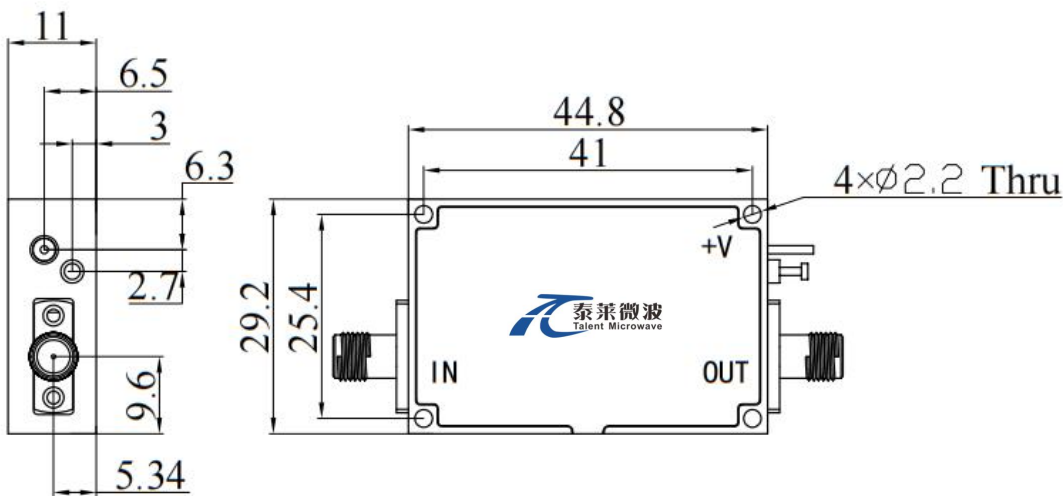
Absolute Maximum Ratings:

Parameter	Value
Supply Bias Voltage	+10 V
RF Input Power	+5 dBm
ESD sensitivity (HBm)	Class 0, passed 150V



Outline Drawing:

Unit:mm; Tolerance:±0.1mm



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



ESD Protection: Strictly adhere to ESD precautions to prevent electrostatic damage.

Environmental Conditions:

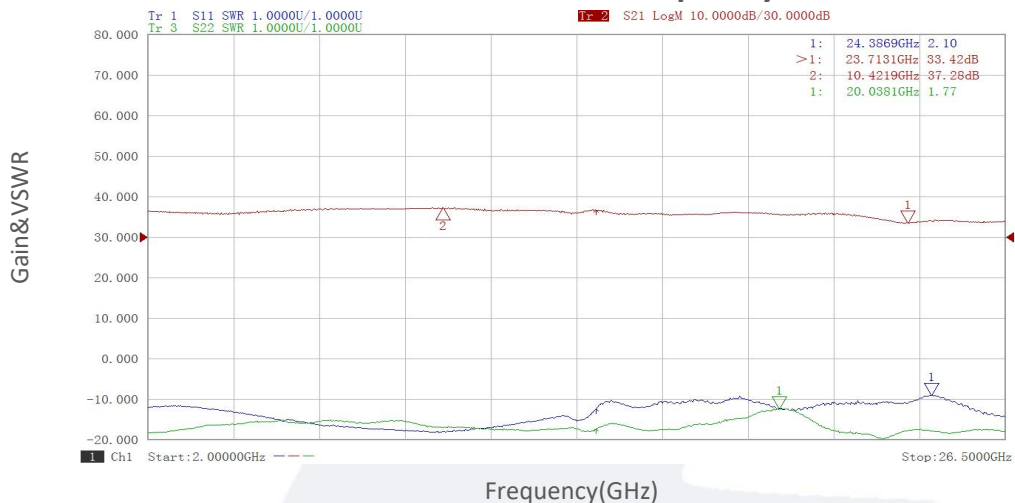
Parameter	Min	Typ	Max	Units
Operating Temperature	-45		+85	°C
Non-operating Temperature	-55		+125	°C
Relative humidity		95		%
Altitude		10,000		feet
Shock / Vibration(MIL-STD-810F)	25g rms (15 degree 2KHz) endurance, 1 hour per axis			
Shock(non operating)	20G for 11msc half sin wave,3 axis both directions			

Ordering Information:

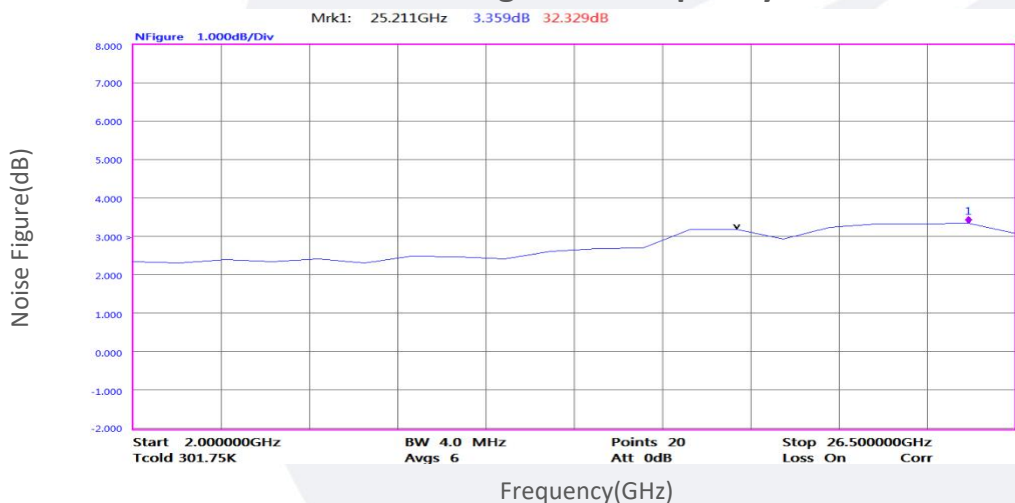
Base Number	Description	Revision
TLLA2G26.5G-38-40	Low Noise Amplifier, 2-26.5GHz, Noise Figure:3dB, Gain:36dB,P1dB:19dBm,+8V DC,Without Heatsink	Rev.1.0
TLLA2G26.5G-38-40-HS	Low Noise Amplifier, 2-26.5GHz, Noise Figure:3dB, Gain:36dB,P1dB:19dBm,+8V DC,With Heatsink	Rev.1.0

Typical Performance Data:

Gain&VSWR vs Frequency

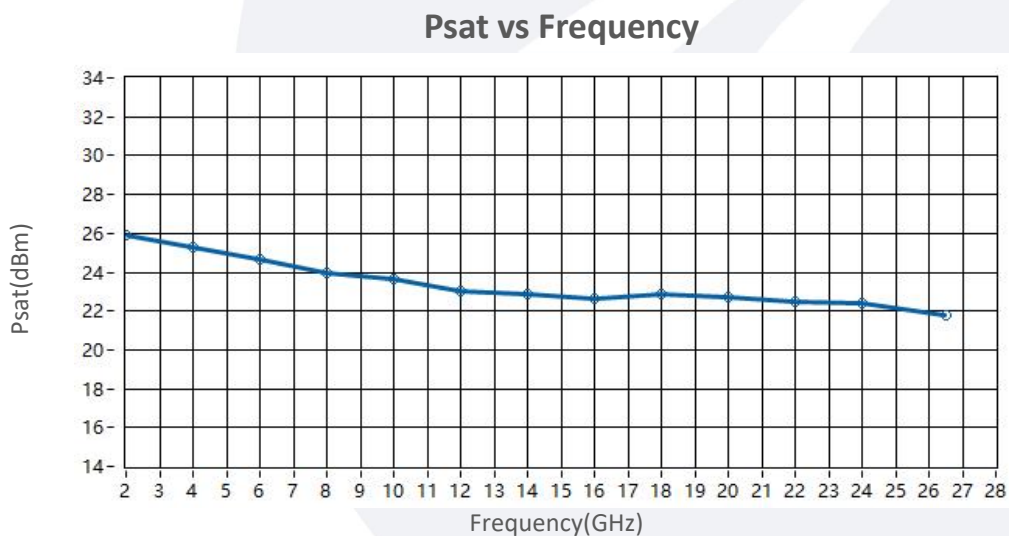
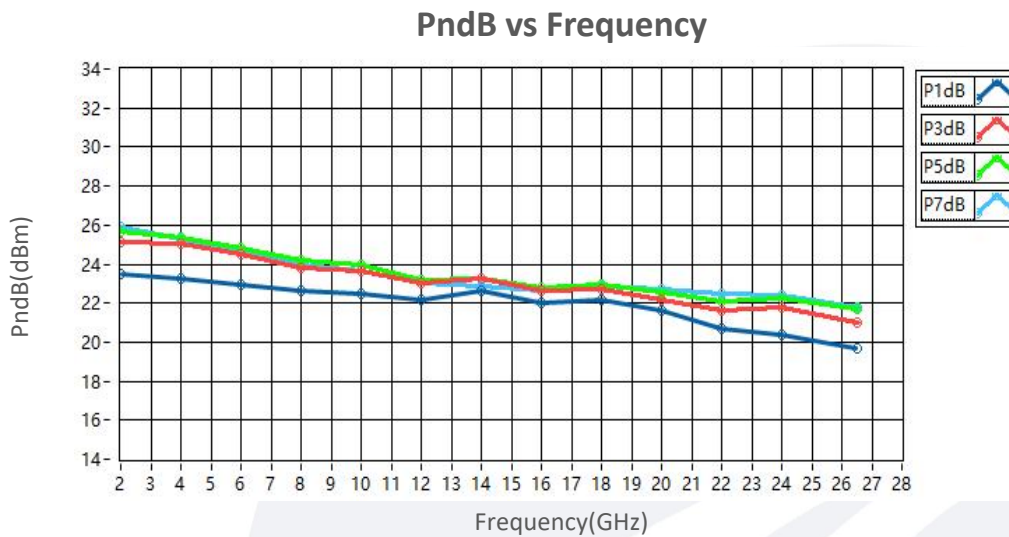
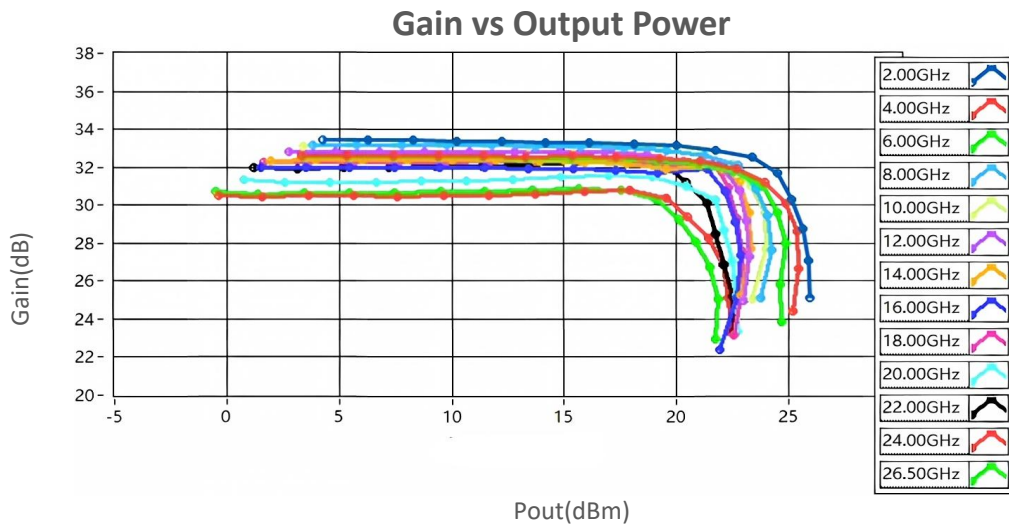


Noise Figure vs Frequency



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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