泰莱微波
Talent Microwave

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Low Noise Amplifier

2-40GHz /5.5dB NF/30dB Gain/19dBm P1dB Model: TLLA2G40G-30-45

TLLA2G40G-30-45 is a low noise amplifier with a minimum small signal gain of 30 dB and a nominal noise figure of 5.5 dB across the frequency range of 2 to 40 GHz. The DC power requirement for the amplifier is +12 V DC/240 mA. The input and output port configuration offers coax adapter structure with 2.92mm female.

Features:

- Frequency range: 2-40GHz
- Gain: 30dB Min
- Noise Figure: 5.5dB Typ
- Good Power and Gain Flatness
- 50 Ohm Matched Input / Output

Applications:

- Communication systems

Electrical Characteristics:

Parameter	Min	Typ	Max	Units
Frequency range	2		40	GHz
Small Signal Gain	30	33		dB
Gain Flatness		±2.5	±5.5	dB
Noise Figure		5.5	6	dB
Output P1dB	15	19		dBm
Output Psat		20		dBm
Spurious		-60		dBc
Input VSWR		1.8	2.2	:1
Output VSWR		1.8	2.5	:1
DC Voltage		+12		V DC
DC Supply Current		240		mA
Impedance	50			Ohms

Mechanical Specifications:

Parameter	Value	Units
Input /Output Connector	2.92mm Female/2.92mm Female	
DC Bias	Solder Pin	
Size	35.3*40.3*12	mm

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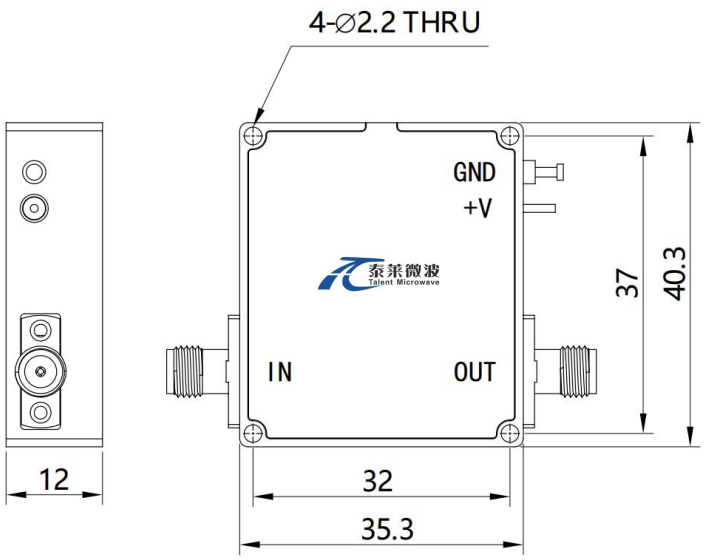
绝对最大值 Absolute Maximum Ratings:

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

Outline Drawing:

Unit:mm



***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	-25		+85	℃
Non-operating Temperature	-55		+125	℃
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			

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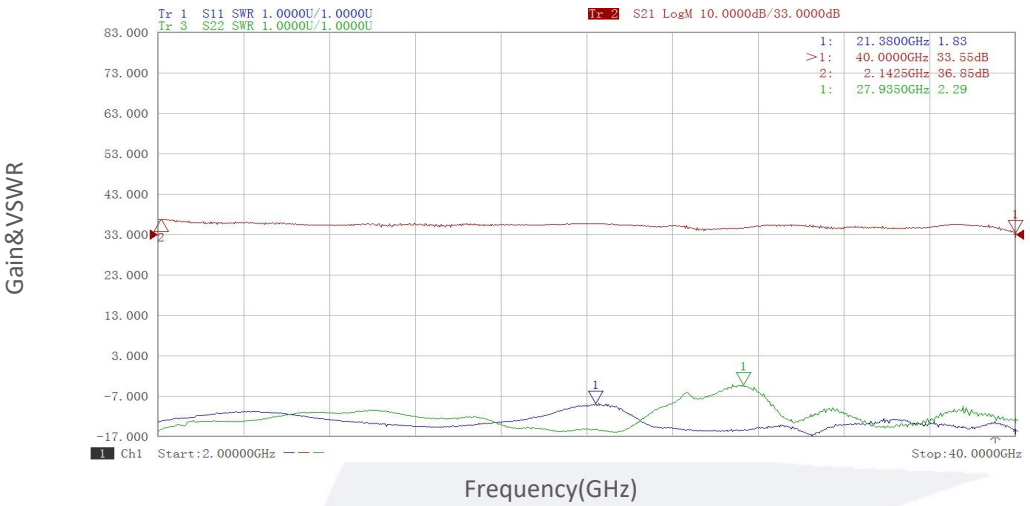
Ordering Information:

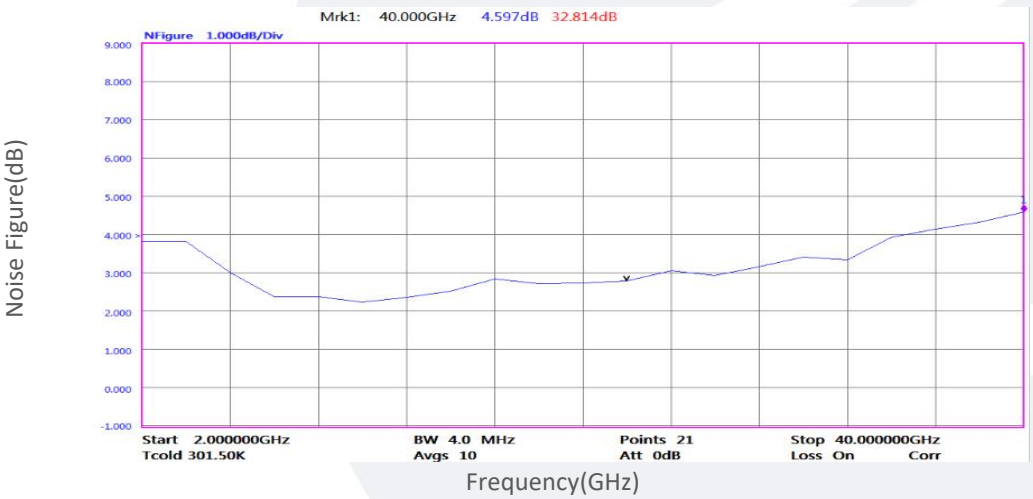
Base Number	Desciption	Revision
TLLA2G40G-30-45	Low Noise Amplifier, 2-40GHz, Noise Figure:5.5dB, Gain:30 dB,P1dB:19dBm,+12V DC,Without Heatsink	Rev.1.1
TLLA2G40G-30-45-HS	Low Noise Amplifier, 2-40GHz, Noise Figure:5.5dB, Gain:30 dB,P1dB:19dBm,+12V DC,With Heatsink	Rev.1.1

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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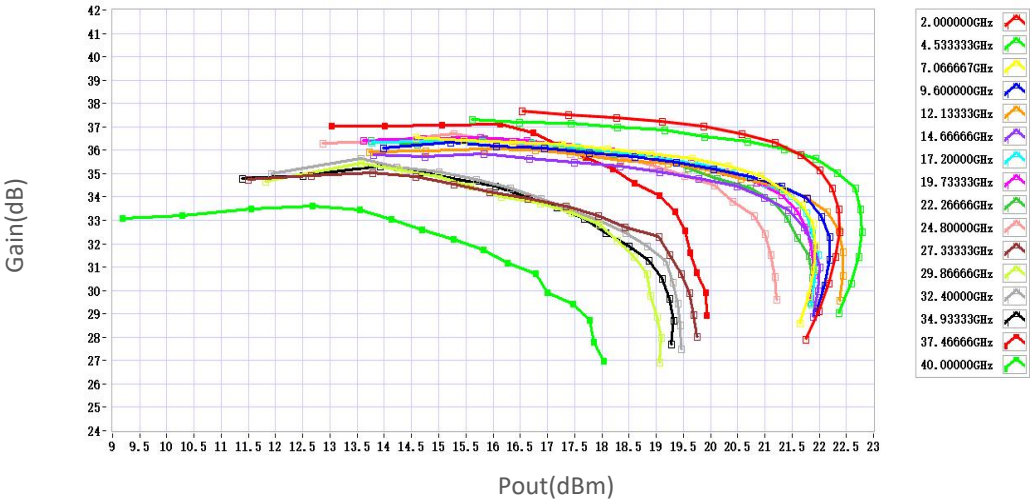
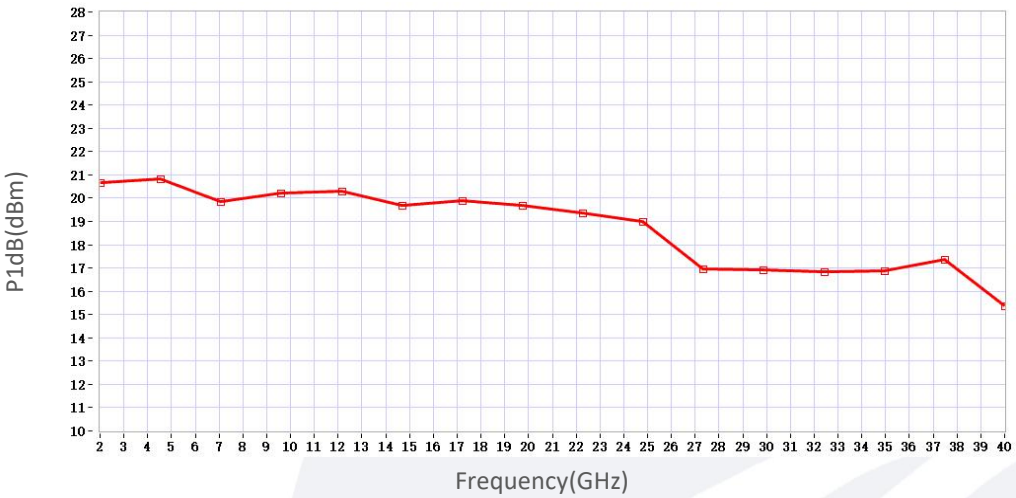
Typical Performance Data:

Gain vs Output Power



P1dB vs Frequency



P3dB vs Frequency

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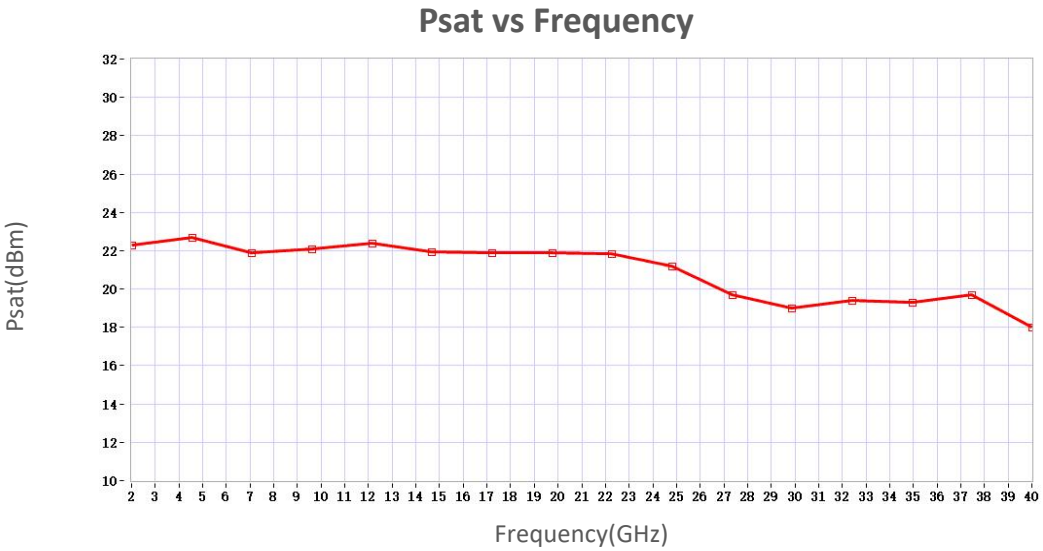
Typical Performance Data:



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