Suzhou Talent Microwave,Inc
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Low Noise Amplifier

5-6GHz/0.8dB NF/26dB Gain/10dBm P1dB Model: TLLA5G6G-26-08

TLLA5G6G-26-08 is a low noise amplifier with a typical small signal gain of 26 dB and a nominal noise figure of 0.8 dB across the frequency range of 5 to 6 GHz. The DC power requirement for the amplifier is +5 V DC/40 mA. The input and output port configuration offers coax adapter structure with SMA female.

Features:

- Frequency range: 5-6GHz
- Gain: 26dB Typ
- Noise Figure: 0.8dB Typ
- Good Power and Gain Flatness
- 50 Ohm Matched Input / Output

Applications:

- Communication systems

Electrical Characteristics:

Parameter	Min	Typ	Max	Units
Frequency range	5		6	GHz
Small Signal Gain	25	26		dB
Gain Flatness			±1.0	dB
Noise Figure		0.8	1.2	dB
Output P1dB		10		dBm
Output Psat		12		dBm
Input VSWR		1.8		:1
Output VSWR		1.8		:1
DC Voltage		+5	+8	V DC
DC Supply Current		40		mA
Impedance		50		Ohms

Mechanical Specifications:

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

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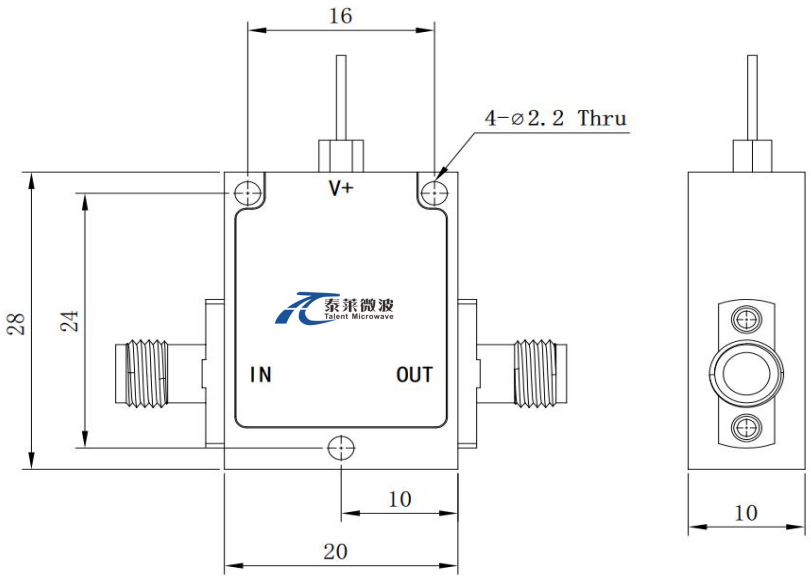
Absolute Maximum Ratings:

Parameter	Value
Supply Bias Voltage	+8 V
RF Input Power	+5 dBm
ESD sensitivity (HBm)	Class 0, passed 150V

Simple 220V System
Available SAC option

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	℃
Non-operating Temperature	-55		+125	℃
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			

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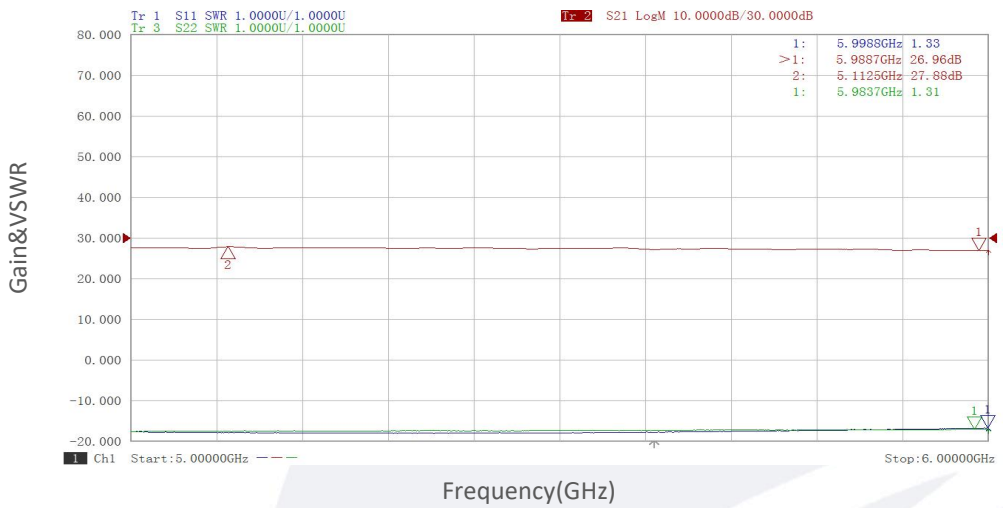
Ordering Information:

Base Number	Description	Revision
TLLA5G6G-26-08	Low Noise Amplifier, 5-6GHz, Noise Figure:0.8dB, Gain:26dB,P1dB:10dBm,+5V DC,Without Heatsink	Rev.1.0
TLLA5G6G-26-08-HS	Low Noise Amplifier, 5-6GHz, Noise Figure:0.8dB, Gain:26dB,P1dB:10dBm,+5V DC,Without Heatsink	Rev.1.0

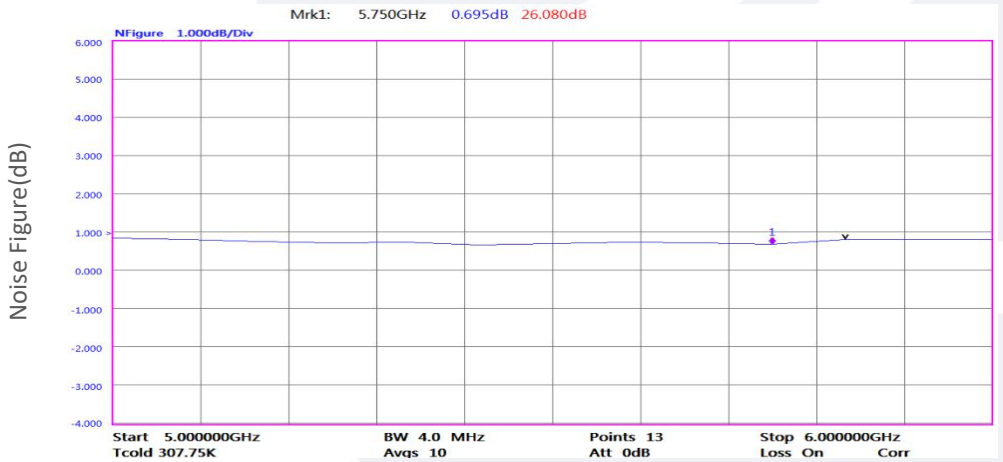
Typical Performance Data:

Gain&VSWR vs Frequency



Frequency(GHz)

Noise Figure vs Frequency



Frequency(GHz)

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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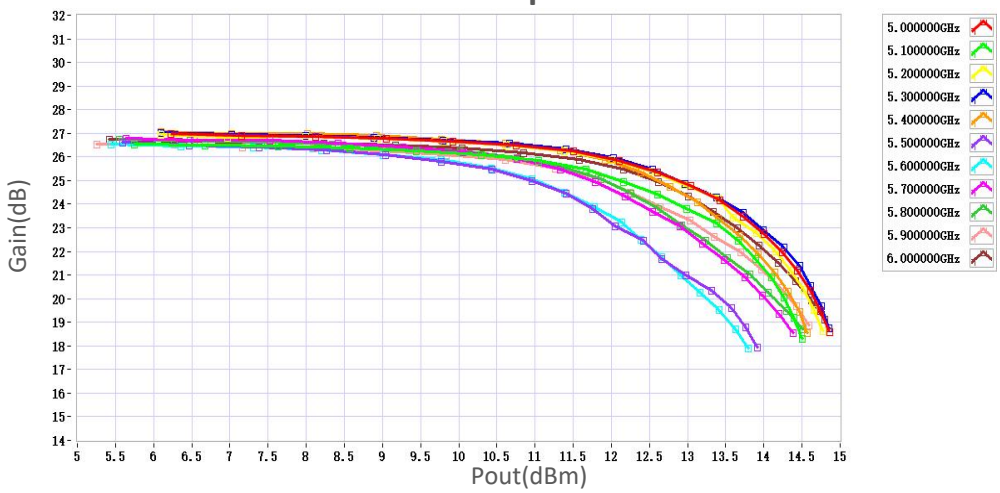
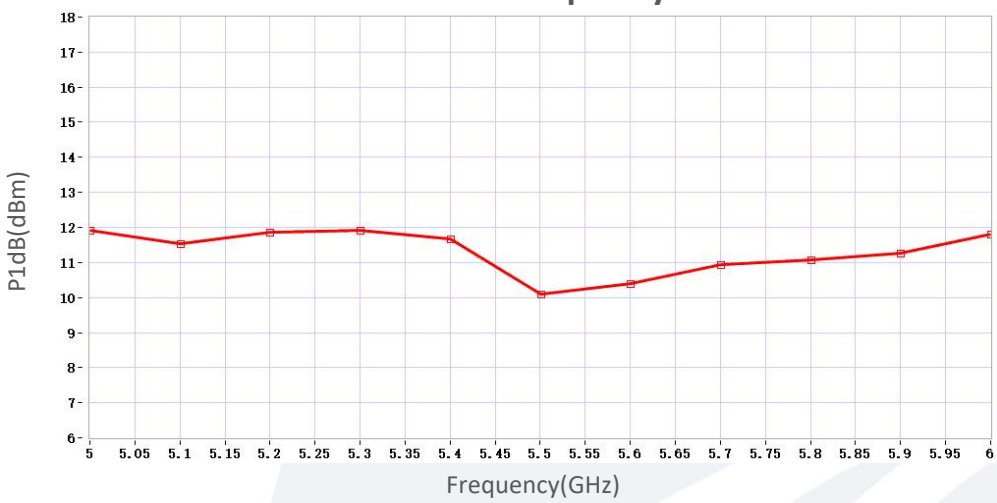
Typical Performance Data:

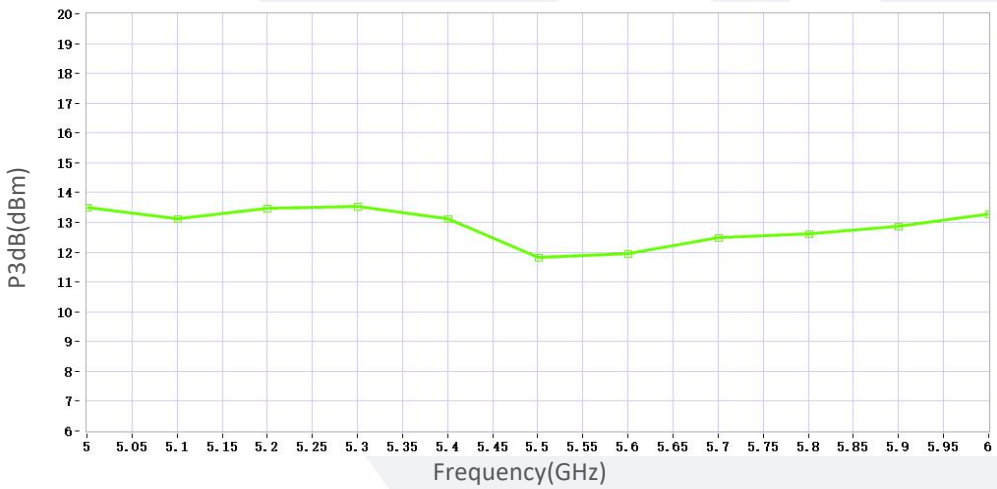
Gain vs Output Power



P1dB vs Frequency



P3dB vs Frequency



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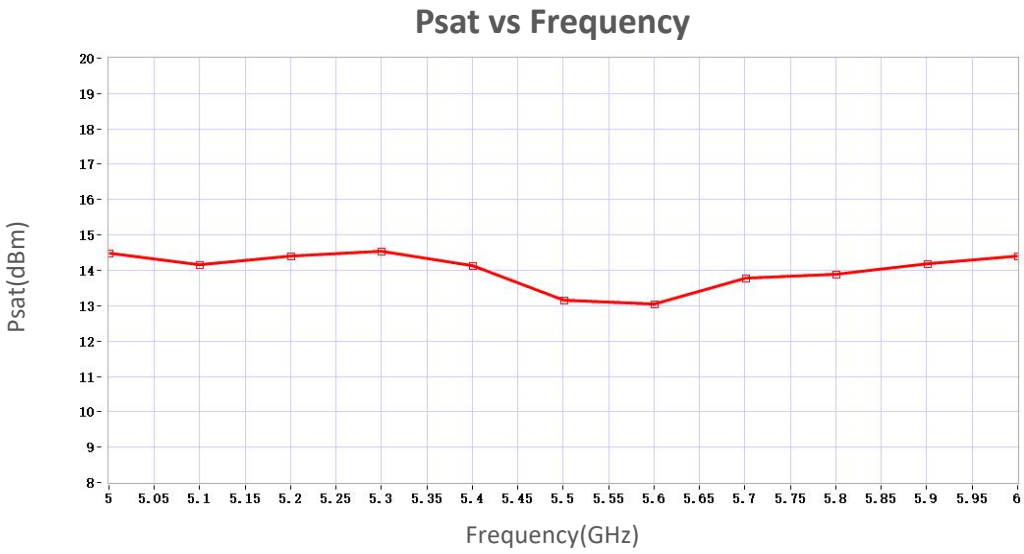

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