Suzhou Talent Microwave,Inc
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Low Noise Amplifier

50KHz-67GHz/5dB NF/25dB Gain/15dBm P1dB Model: TLLA50K67G-25-50

TLLA50K67G-25-50 is a low noise amplifier with a typical small signal gain of 25 dB and a nominal noise figure of 5 dB across the frequency range of 50KHz to 67 GHz. The DC power requirement for the amplifier is +12 V DC/300 mA. The input and output port configuration offers coax adapter structure with 1.85mm female.

Features:

- Frequency range:50KHz-67GHz
- Gain: 25dB Typ
- Noise Figure: 5dB Typ
- Good Power and Gain Flatness
- 50 Ohm Matched Input / Output

Applications:

- Communication systems

Electrical Characteristics:

Parameter	Min	Typ	Max	Units
Frequency range		50KHz-67GHz		
Small Signal Gain		25		dB
Gain Flatness		±2		dB
Noise Figure		5		dB
Output P1dB		15		dBm
Output IP3		20		dBm
Input VSWR		2		:1
Output VSWR		2		:1
DC Voltage		12		V DC
DC Supply Current		300		mA
Impedance		50		Ohms

Mechanical Specifications:

Parameter	Value	Units
Input /Output Connector	1.85mm Female/1.85mm Female	
DC Bias	Solder Pin	
Size	35*40*12	mm

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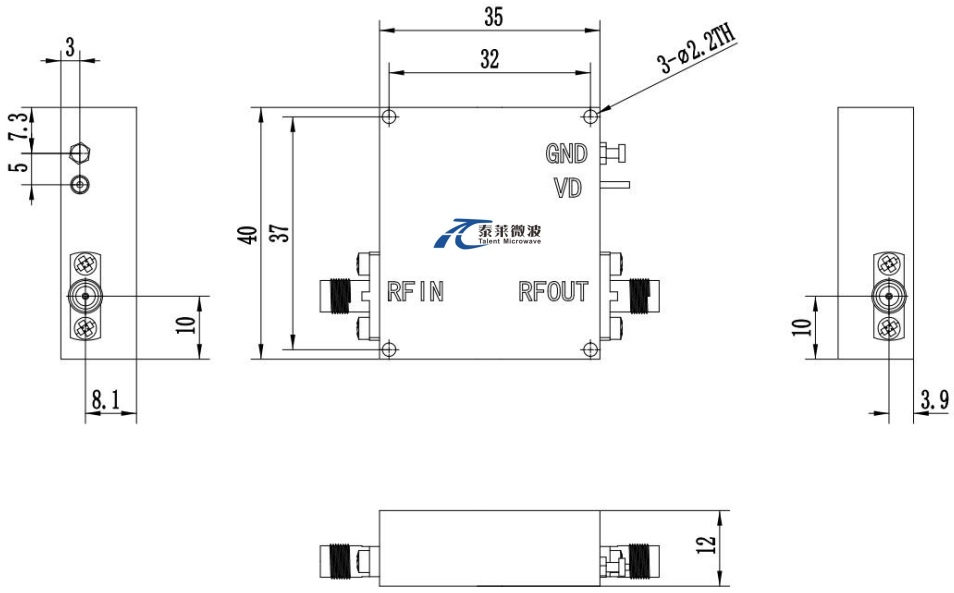
Absolute Maximum Ratings:

Parameter	Value
Supply Bias Voltage	TBD
RF Input Power	+10 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	-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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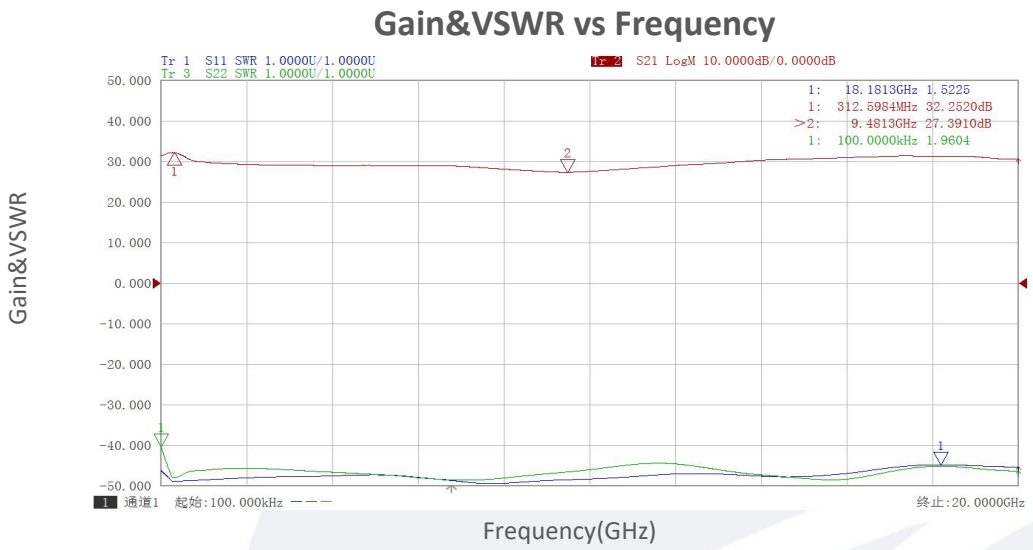
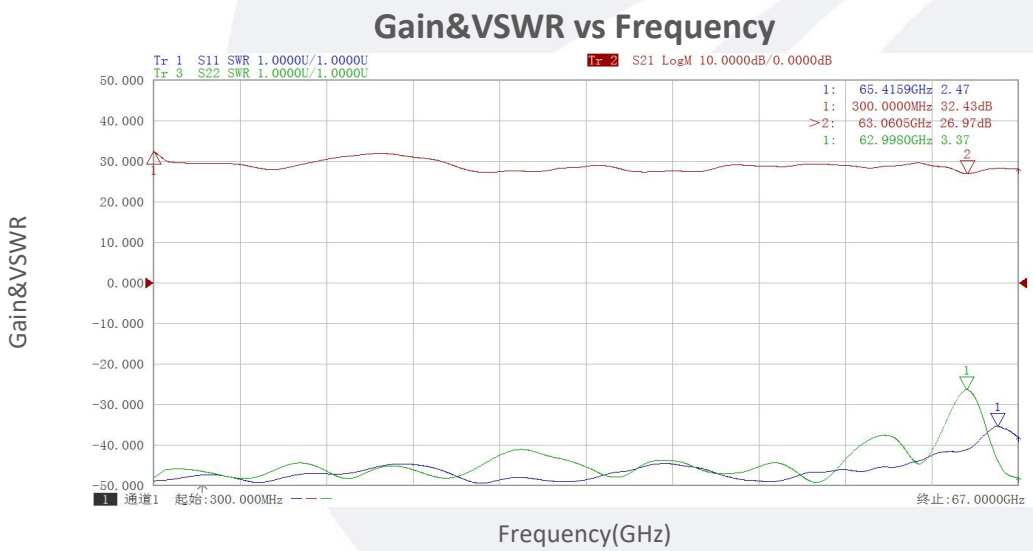
Ordering Information:

Base Number	Desciption	Revision
TLLA50K67G-25-50	Low Noise Amplifier, 50KHz-67GHz, Noise Figure:5dB, Gain:25dB,P1dB:15dBm,+12V DC,Without Heatsink	Rev.1.1
TLLA50K67G-25-50-HS	Low Noise Amplifier, 50KHz-67GHz, Noise Figure:5dB, Gain:25dB,P1dB:15dBm,+12V DC,With Heatsink	Rev.1.1

Typical Performance Data:





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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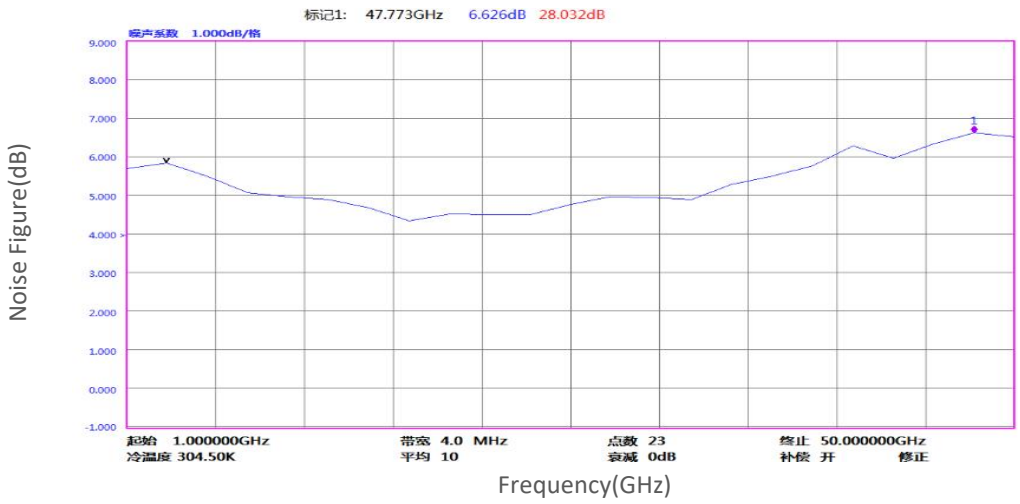
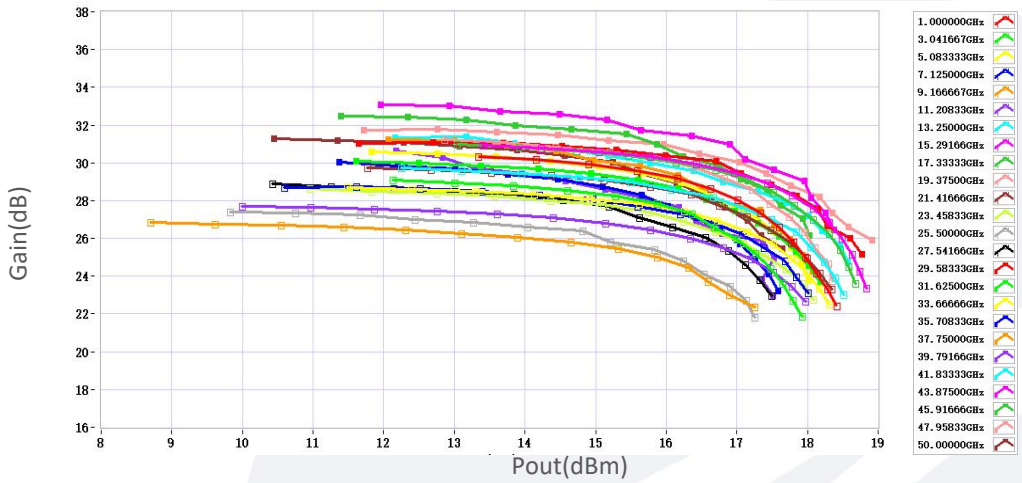
Typical Performance Data:

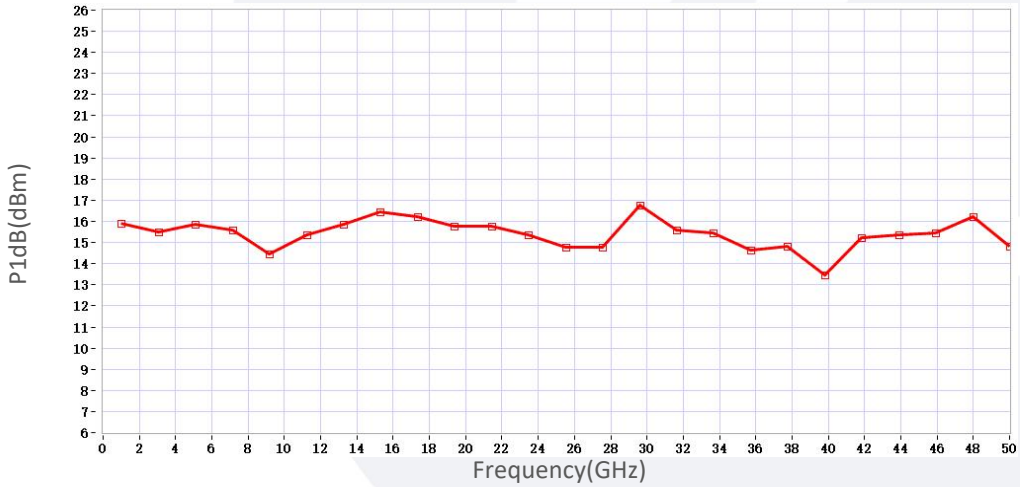
Noise Figure vs Frequency



Gain vs Output Power



P1dB vs Frequency



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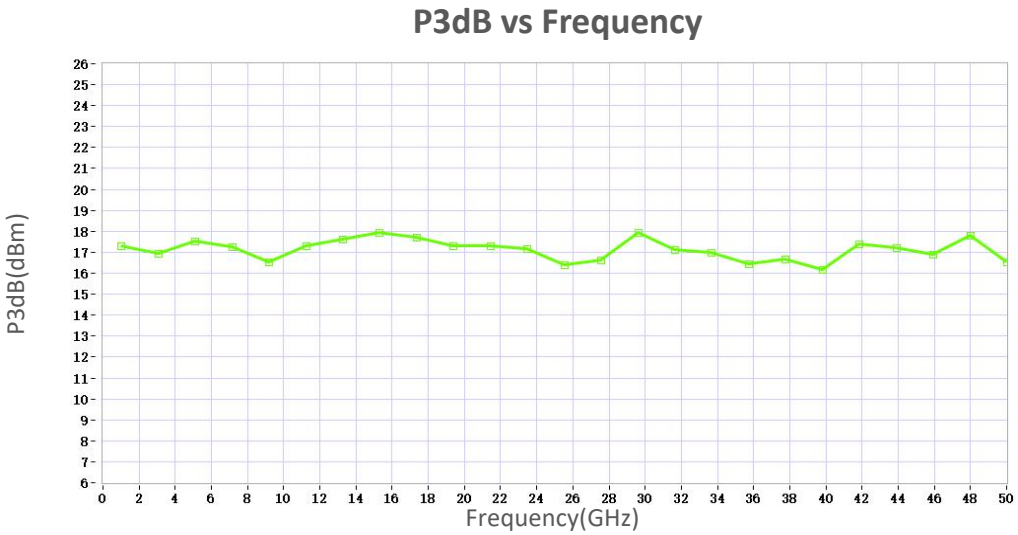

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