



## Low Noise Amplifier, 17 to 23 GHz, 30 dB, 2.5 dB NF

### Description:

**Model SBL-1732333025-KFKF-S1** is a low noise amplifier with a typical small signal gain of 30 dB and a nominal noise figure of 2.5 dB across the frequency range of 17 to 23 GHz. The DC power requirement for the amplifier is +8 V<sub>DC</sub>/200 mA. The RF connectors are female K connectors. Other port configurations, such as male K connectors and WR-42 waveguides for either the input or output port, are also available under different model numbers.



### Features:

- Broadband Performance
- State-of-the-Art Noise Figure
- Low Power Consumption

### Applications:

- Radar Systems
- Communication Systems
- Low Noise Receivers

### Electrical Specifications:

Parameter	Minimum	Typical	Maximum
Frequency	17 GHz		23 GHz
Gain		30 dB	
Noise Figure		2.5 dB	
P <sub>1dB</sub>		+10 dBm	
P <sub>in</sub>			-10 dBm
Input Return Loss		10 dB	
Output Return Loss		10 dB	
DC Voltage	+6 V <sub>DC</sub>	+8 V <sub>DC</sub>	+12 V <sub>DC</sub>
DC Supply Current		200 mA	
Specification Temperature		+25 °C	
Operating Temperature	0 °C		+50 °C

### Mechanical Specifications:

Item	Specification
Input	K(F)
Output	K(F)
Bias	Solder Pin
Case Material	Aluminum
Finish	Gold Plated
Weight	1.3 Oz
Size	1.20" (W) X 1.20" (L) X 0.50" (H)
Outline	BG-SC-1

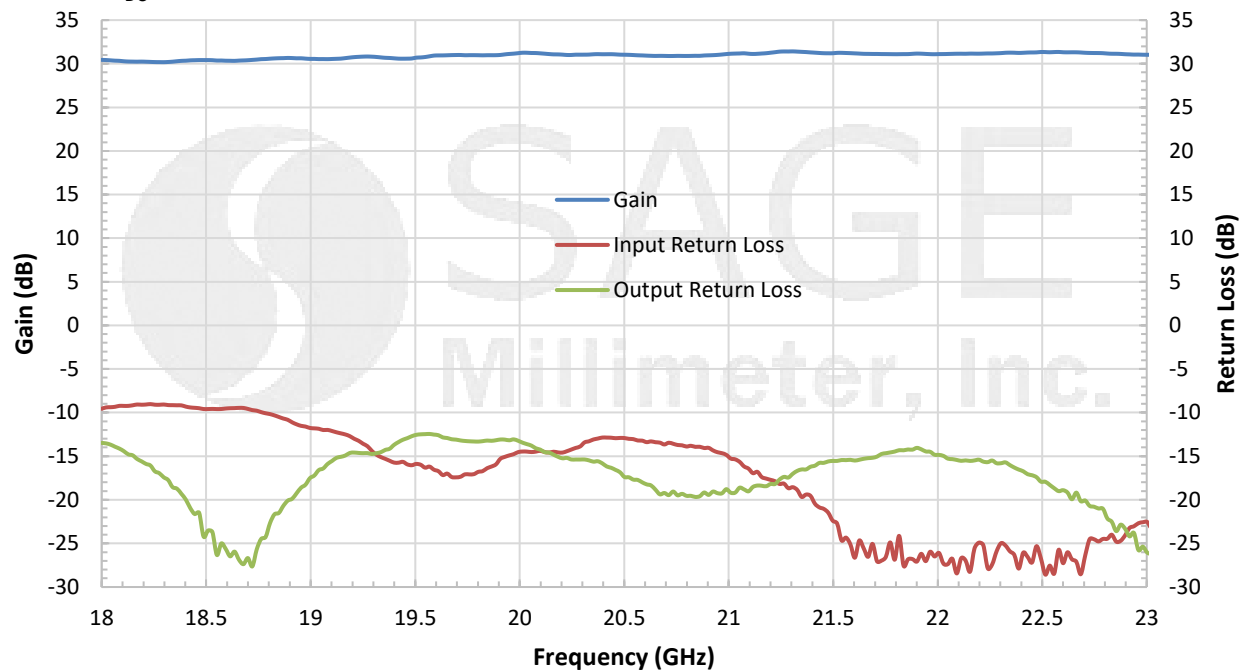




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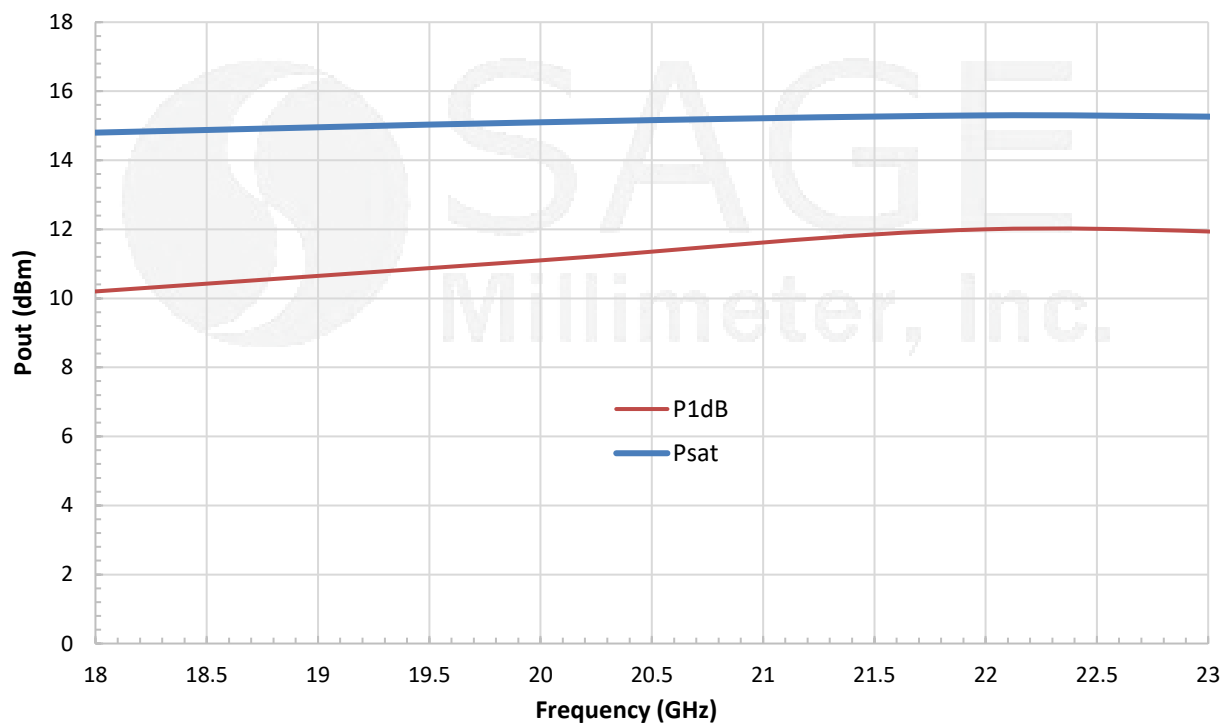
### Typical Gain and Return Loss vs. Frequency

Bias: +8 V<sub>DC</sub>/200 mA



### Typical Output Power vs. Frequency

Bias: +8 V<sub>DC</sub>/200 mA

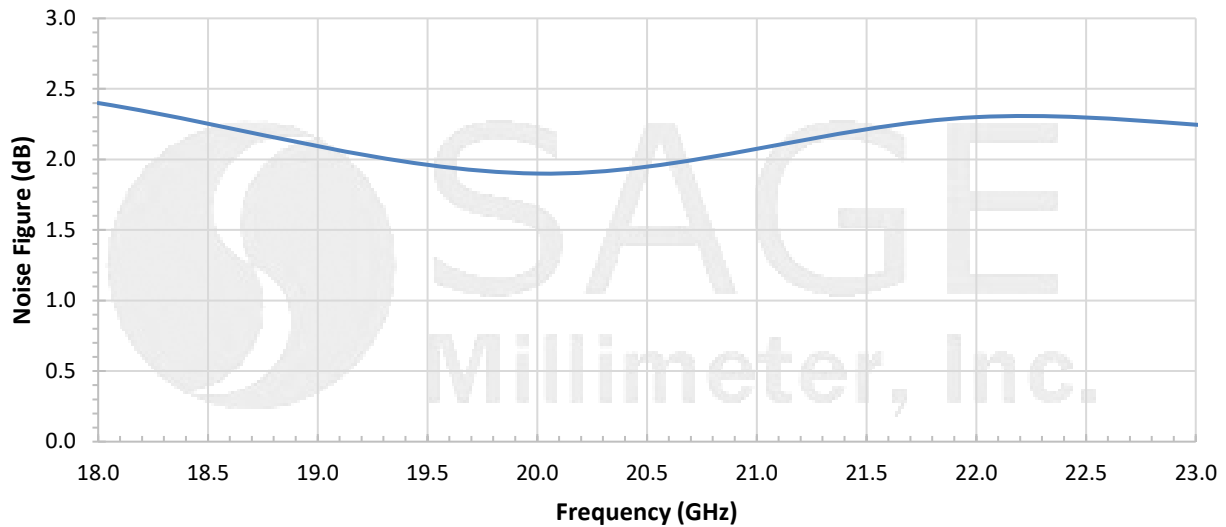




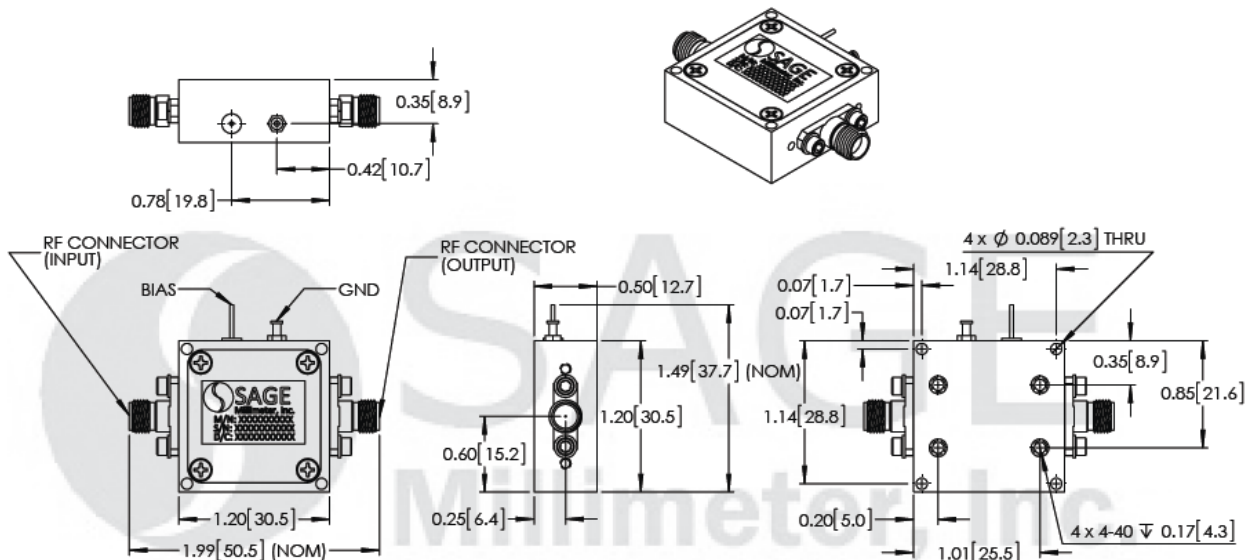
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### Typical Noise Figure vs. Frequency

Bias: +8 V<sub>DC</sub>/200 mA



**Mechanical Outline:** (Unless otherwise specified, all dimensions are in inches [millimeters])



#### Note:

- All data presented is collected from a sample lot. Actual data may vary unit to unit.
- All testing was performed under +25 °C case temperature.
- Other mechanical configurations are available under different model numbers.
- SAGE Millimeter, Inc. reserves the right to change the information presented without notice.

#### Caution:

- Exceeding absolute maximum ratings shown will damage the device.
- The device is static sensitive. Always follow ESD rules when working with the device.



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