

Coaxial Low Noise Amplifier, 37 to 52 GHz, 15 dB Gain, 4.0 dB NF

Description:

Model SBL-3735231530-2F2F-S1 is a low noise amplifier with a typical small signal gain of 15 dB across the frequency range of 37 to 52 GHz and a nominal noise figure of 4 dB. The DC power requirement for the amplifier is +6 V_{DC}/60 mA. The mechanical configuration offers two 2.4 mm female connectors. Other port configurations, such as WR-19 Uni-Guide™ waveguide, are also available under different model numbers.



Features:

- Good Gain Flatness
- State-of-the-Art Noise Figure

Applications:

- New 5G Bands
- Low Noise Receivers
- Communication Systems
- Radar Systems

Electrical Specifications:

Parameter	Minimum	Typical	Maximum
Frequency	37 GHz		52 GHz
Gain		15 dB	
Noise Figure		4 dB	
P _{1dB}		+6 dBm	
P _{in}			0 dBm
Input Return Loss		8 dB	
Output Return Loss		8 dB	
DC Voltage		+6 V _{DC}	+12 V _{DC}
DC Supply Current		60 mA	
Specification Temperature		+25 °C	
Operating Temperature	0 °C		+50 °C

Mechanical Specifications:

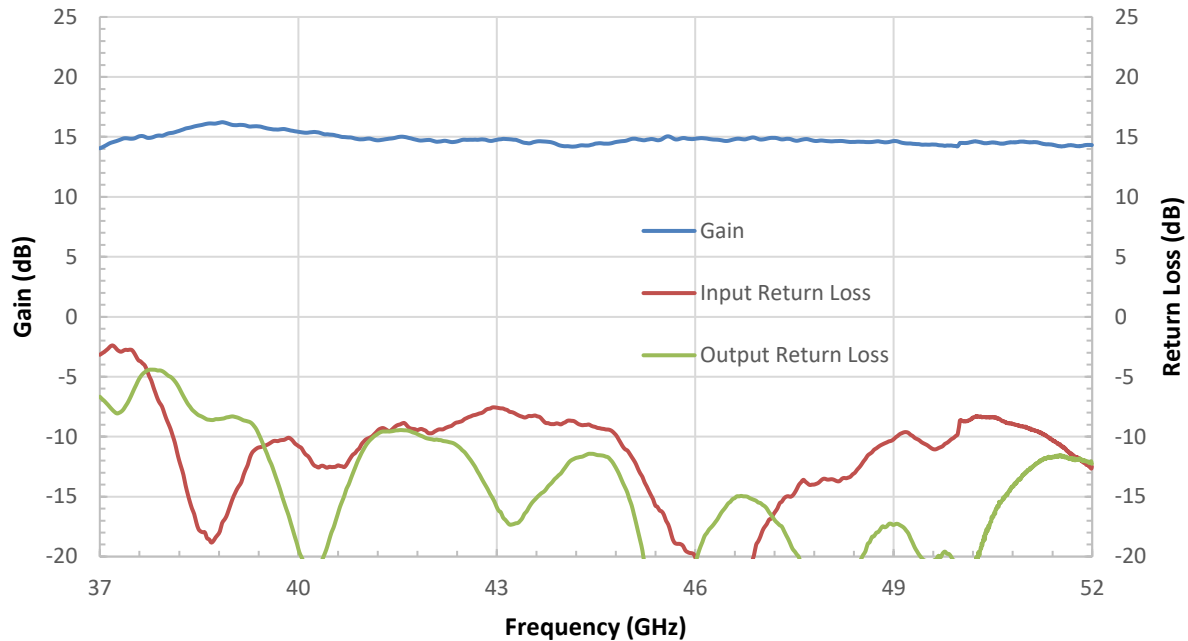
Item	Specification
Input Port	2.4mm (F)
Output Port	2.4mm (F)
Bias	Solder Pin
Case Material	Aluminum
Finish	Gold Plated
Weight	2.0 Oz
Size	1.20" (L) X 1.20" (W) X 0.50" (H)
Outline	BG-SC-1



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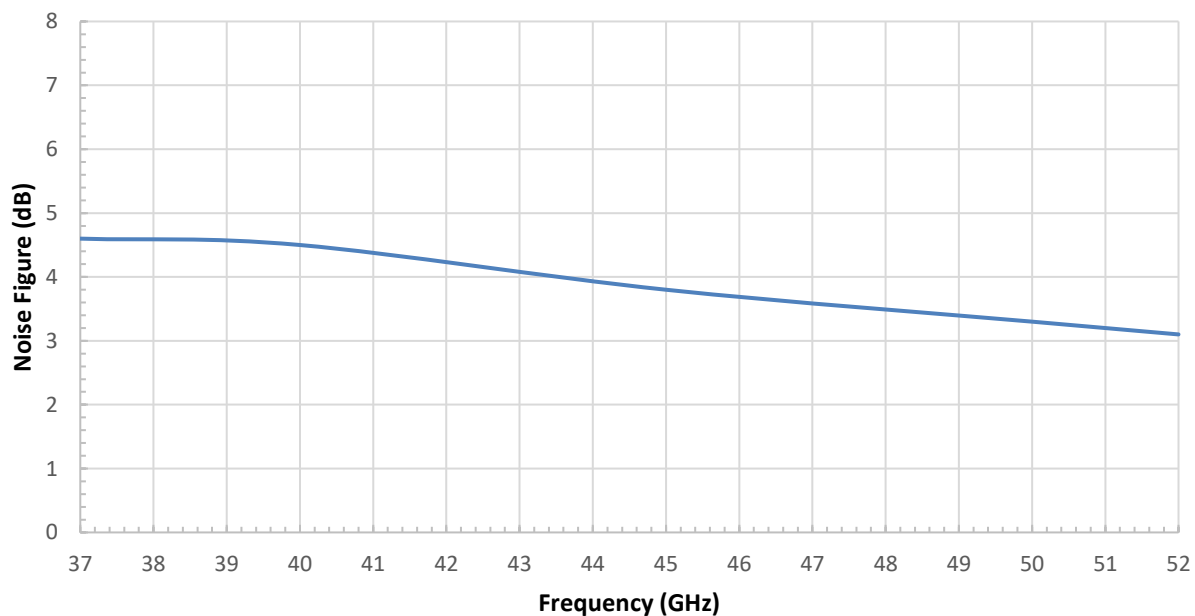
Gain and Return Loss vs. Frequency

Bias: +6 V_{DC}/50 mA



Noise Figure vs. Frequency

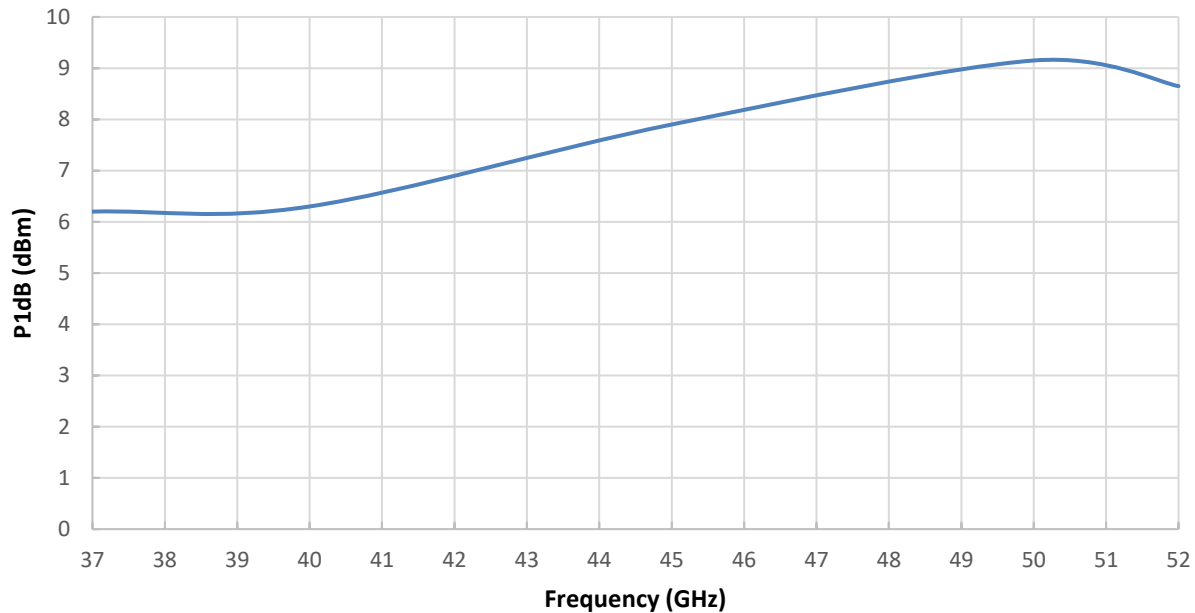
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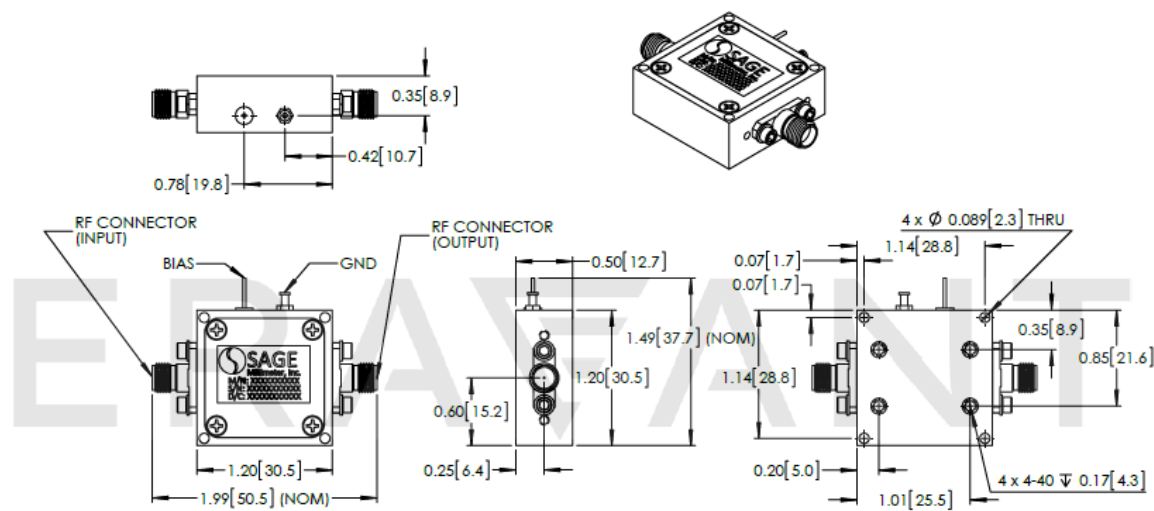
P1dB vs. Frequency

Bias: +6 V_{DC}/50 mA



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



NOTE:

RF CONNECTORS (INPUT & OUTPUT): SMA, K, 2.4MM, OR V
• MALE OR FEMALE

Note:

- All data presented is collected from a sample lot. Actual data may vary unit to unit slightly.
- All testing was performed under +25 °C case temperature.
- Other mechanical configurations are available under different model numbers.
- Eravant 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.
- The case temperature of the device shall never exceed +50 °C. Use proper heatsink or fan if necessary.
- Proper torque, 8.0 ± 0.15 inch-pounds (0.90 ± 0.02 Nm), should be applied. **SAGE Millimeter torque wrench, model SCH-08008-S1, is highly recommended.**

