

Ka-Band Low Noise Amplifier, 26.5 to 40 GHz, 30 dB Gain, 4 dB NF

Description:

Model SBL-2734033040-KFKF-S1 is a low noise amplifier with a typical small signal gain of 30 dB and a nominal noise figure of 4.0 dB across the frequency range of 26.5 to 40 GHz. The DC power requirement for the amplifier is +8 V_{DC}/330 mA. The input and output port configurations are both female 2.92 mm connectors. Other port configurations, such as male 2.92 mm connectors and WR-28 waveguides for either the input or output port, are also available under different model numbers.



Features:

- Full Waveguide Band Coverage
- State-of-the-Art Noise Figure
- Good Gain Flatness

Applications:

- Radar Systems
- Communication Systems
- Low Noise Receivers

Electrical Specifications:

Parameter	Minimum	Typical	Maximum
Frequency	26.5 GHz		40 GHz
Gain		30 dB	
Noise Figure		4.0 dB	
P _{1dB}		+12 dBm	
P _{in}			+5 dBm
Input Return Loss		10 dB	
Output Return Loss		7 dB	
DC Voltage	+6 V _{DC}	+8 V _{DC}	+15 V _{DC}
DC Supply Current		330 mA	
Specification Temperature		+25 °C	
Operating Temperature	0 °C		+50 °C

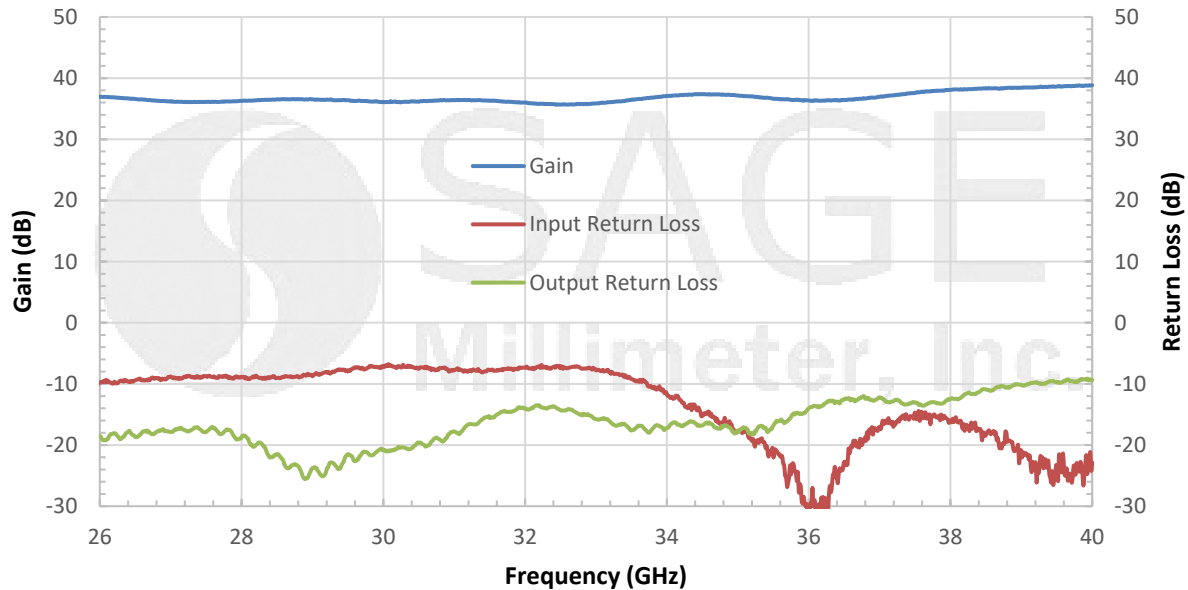
Mechanical Specifications:

Item	Specification
Input	2.92 mm (F)
Output	2.92 mm (F)
Bias	Solder Pin
Case Material	Aluminum
Finish	Gold Plated
Weight	1.3 Oz
Size	1.20" (W) 1.20" (L) X 0.50" (H)
Outline	BG-SC-1

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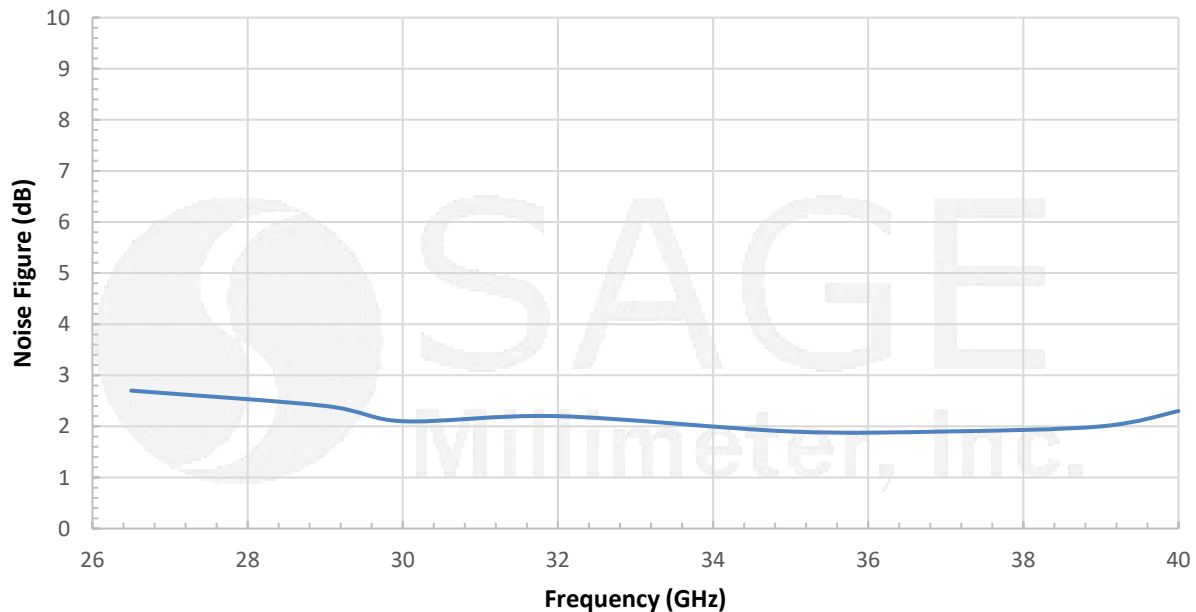
Gain and Return Loss vs. Frequency

Bias: +8 V_{DC}/174 mA



Noise Figure vs. Frequency

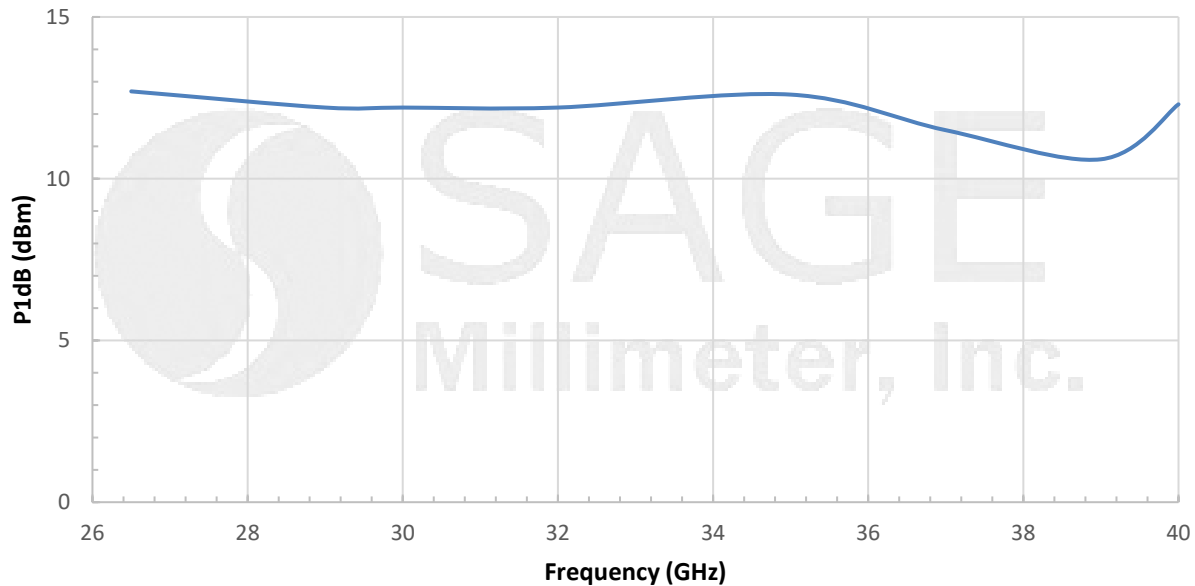
Bias: +8V_{DC}/174 mA



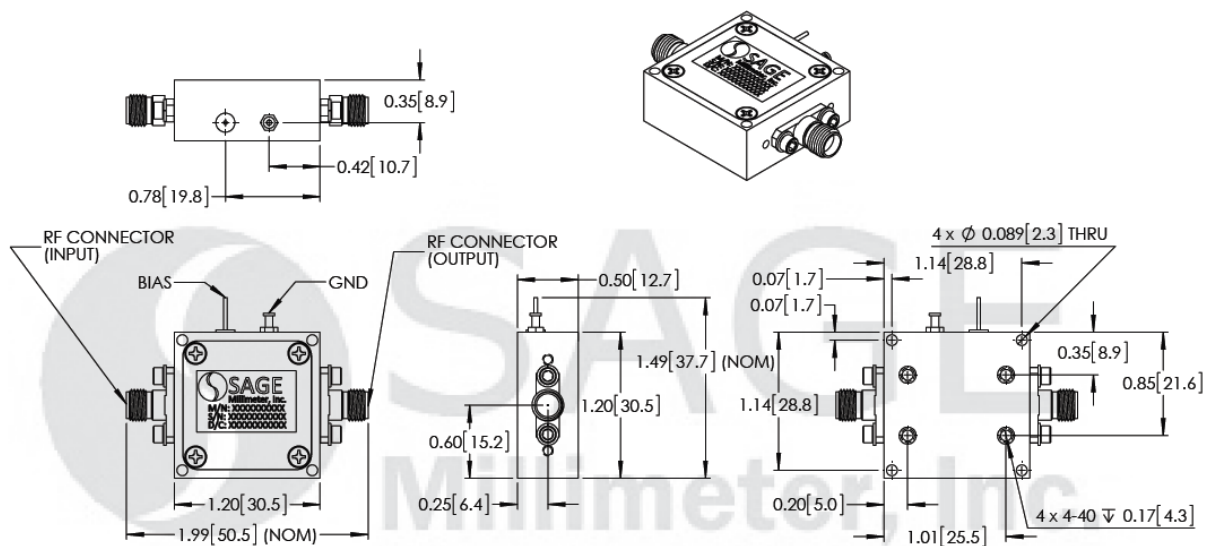
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P1dB vs. Frequency

Bias: $+8V_{DC}/174\text{ mA}$



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



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Note:

- Eravant reserves the right to change the information presented without notice.
- Other mechanical configurations are available under different model numbers.

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. **Eravant torque wrench, model SCH-08008-S1, is highly recommended.**

