SBL-2035034035-2F2F-S1

Final Rev 1.1

Broadband Low Noise Amplifier, 40 dB Gain, 3.5 dB Noise Figure

Description:

Model SBL-2035034035-2F2F-S1 is a low noise amplifier with a typical small signal gain of 40 dB and a nominal noise figure of 3.5 dB across the frequency range of 20 to 50 GHz. The DC power requirement for the amplifier is +8 V_{DC}/800 mA. The input and output port configurations are both female 2.4 mm connectors. Other port configurations are available under different model numbers.

Features:

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

Applications:

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

Electrical Specifications:

Parameter	Minimum	Typical	Maximum
Frequency	20 GHz		50 GHz
Gain		40 dB	
Noise Figure		3.5 dB	
P_{1dB}		+22 dBm	
P_{SAT}		+23 dBm	
P_{in}			+5 dBm
Input Return Loss		9 dB	
Output Return Loss		9 dB	
DC Voltage	+6 V_{DC}	+8 V_{DC}	+12 V_{DC}
DC Supply Current		800 mA	
Specification Temperature		+25 ˚C	
Operating Temperature	0 ˚C		+50 ˚C

Mechanical Specifications:

Item	Specification
Input Port	2.4 mm (F)
Output Port	2.4 mm (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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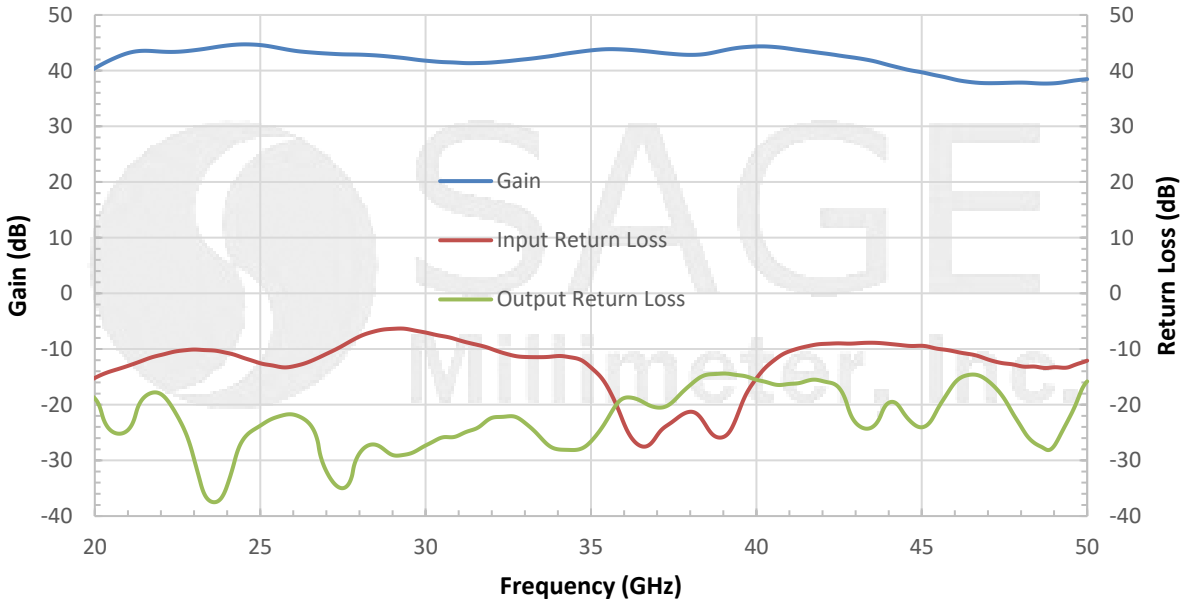
Broadband Low Noise Amplifier, 40 dB Gain, 3.5 dB Noise Figure

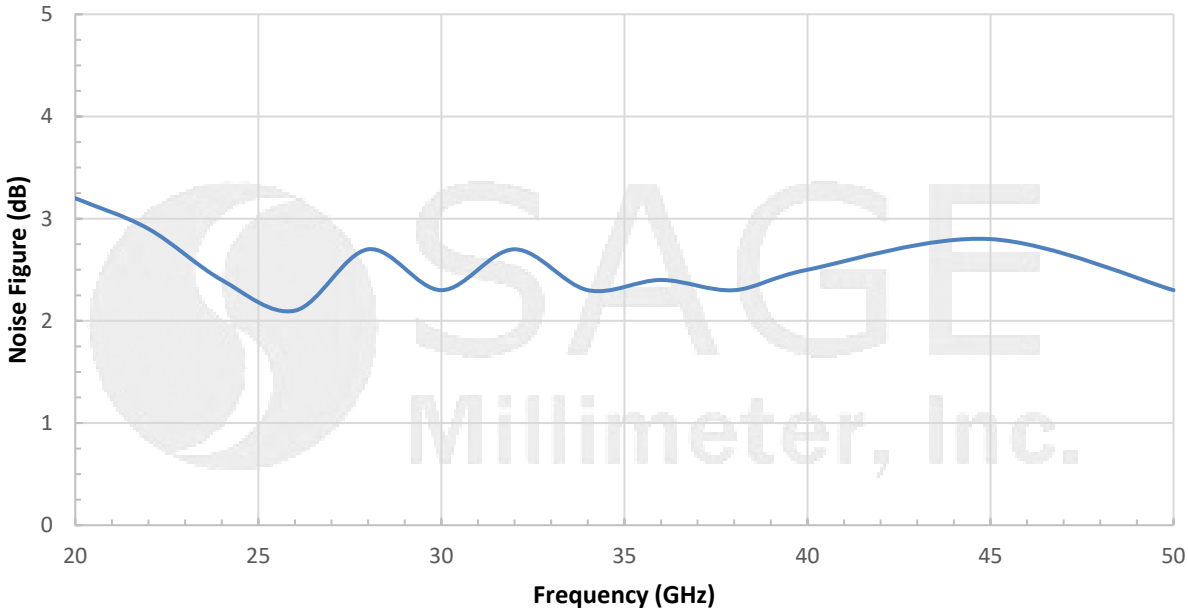
Typical Gain and Return Loss vs. Frequency

Bias: +8 V_{DC}/800 mA



Typical Noise Figure vs. Frequency

Bias: +8V_{DC}/800 mA



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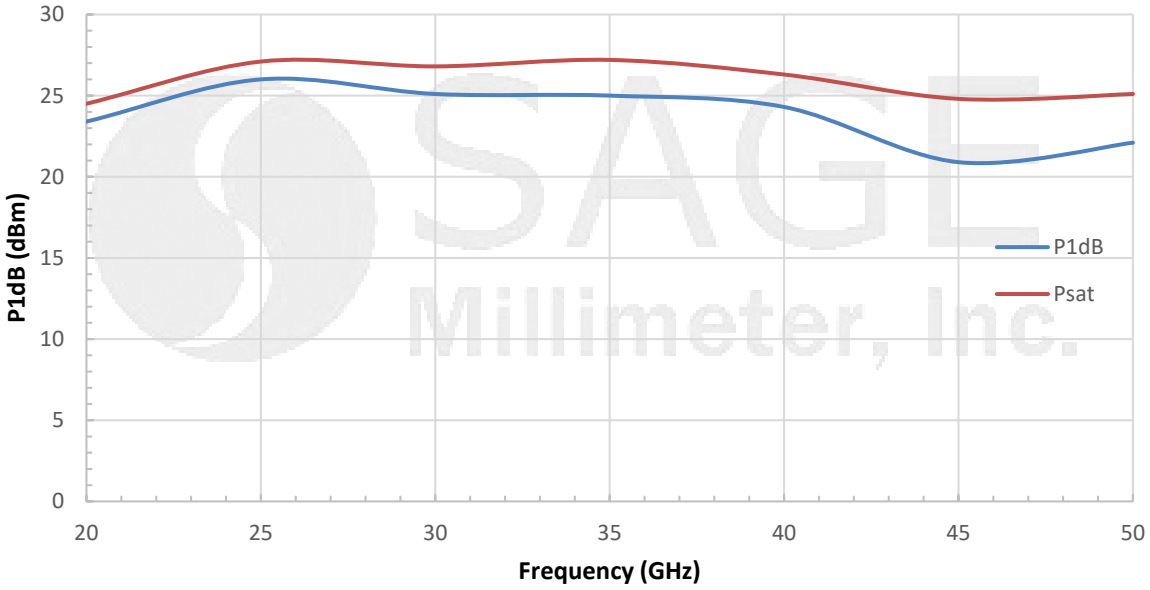
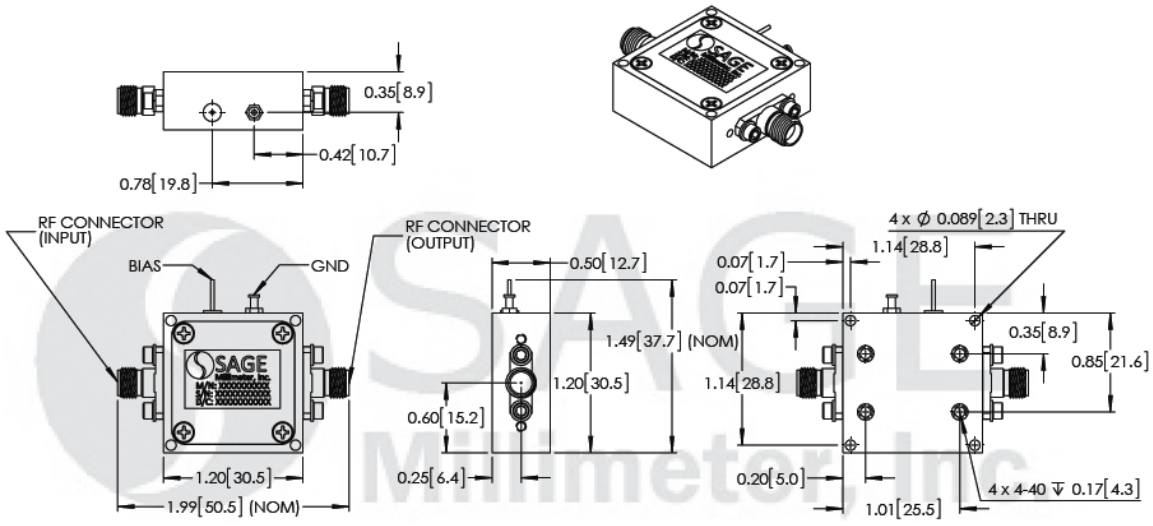
Typical Output Power vs. Frequency

Bias: +8V_{DC}/800 mA
RFsat: +8Vdc/ 1000 mA



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



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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.
- 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 (0.92 ± 0.05 Nm), should be applied. **Eravant torque wrench, model SCH-08008-S1, is highly recommended.**