



## Low Noise Amplifier, 18 to 40 GHz, 40 dB Gain, 4 dB NF

### Description:

**Model SBL-1834034038-2F2F-E3** is a broadband amplifier with a typical small signal gain of 40 dB, a nominal  $P_{1dB}$  of +18 dBm, and a typical noise figure of 4 dB across the frequency range of 18 to 40 GHz. The DC power requirement for the amplifier is +12 V<sub>DC</sub>/300 mA. The use of a heat sink is advised to assist in cooling the device. The RF connectors are female 2.4 mm connectors. Port configurations in 2.92 mm - K connectors are available under model number **SBL-1834034038-KFKF-E3**.



### Features:

- Broadband Coverage
- Good Gain Flatness

### Applications:

- RF Microwave & VSAT
- Wireless Infrastructure
- Test Equipment

### Electrical Specifications:

Parameter	Minimum	Typical	Maximum
Frequency	18 GHz		40 GHz
Gain		40 dB	
$P_{1dB}$		+18 dBm	
Noise Figure		4 dB	
$P_{in}$			-10 dBm
Input Return Loss		10 dB	
Output Return Loss		10 dB	
DC Voltage	+6 V <sub>DC</sub>	+12 V <sub>DC</sub>	+15 V <sub>DC</sub>
DC Supply Current		300 mA	350 mA
Specification Temperature		+25 °C	
Operating Temperature	0 °C		+50 °C

### Mechanical Specifications:

Item	Specification
Input	2.4 mm (F)
Output	2.4 mm (F)
Bias	Solder Pin
Case Material	Aluminum
Finish	Gold Plated
Weight	1.8 Oz
Size	1.38" (L) x 1.57" (W) x 0.47" (H)
Outline	BG-ZC-1

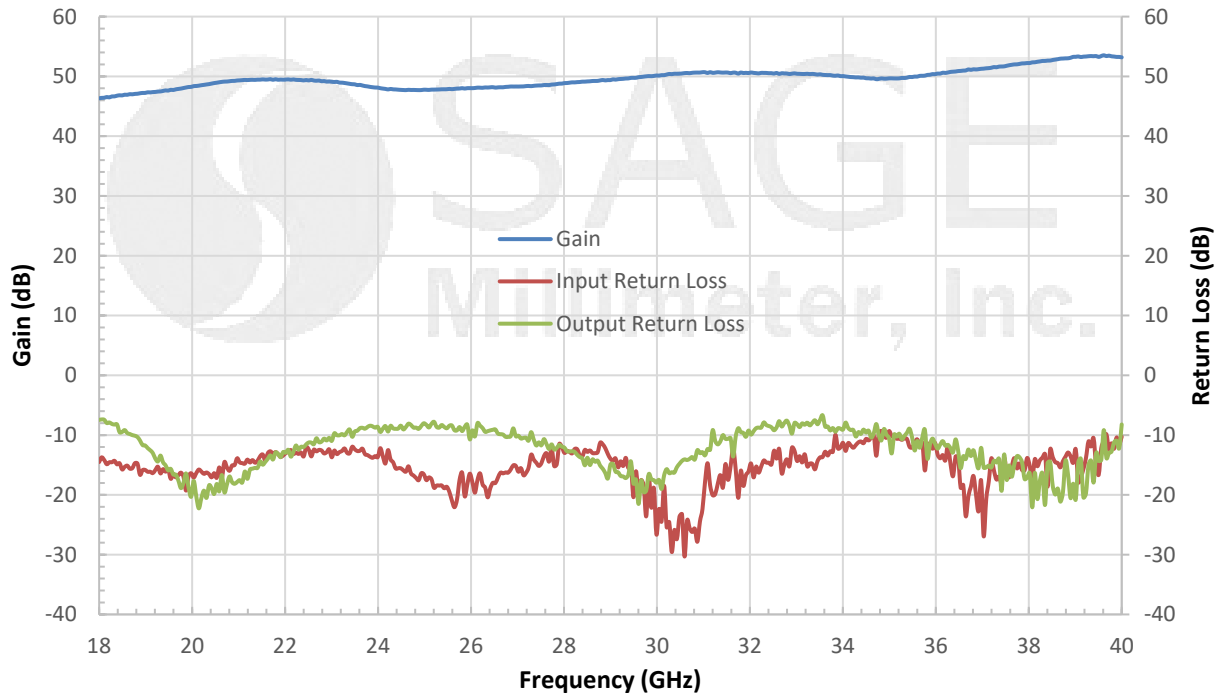




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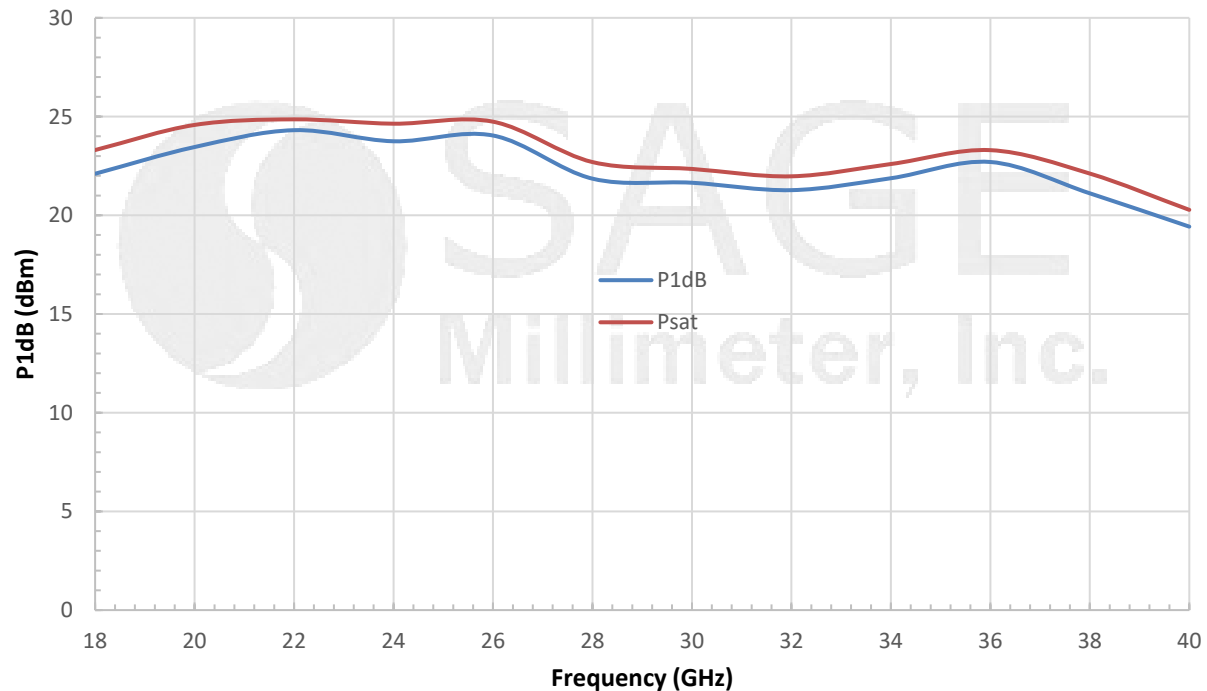
### Typical Gain and Return Loss vs. Frequency

Bias: +12 V<sub>DC</sub>/320 mA



### Typical Power vs. Frequency

Bias: +12 V<sub>DC</sub>/320 mA

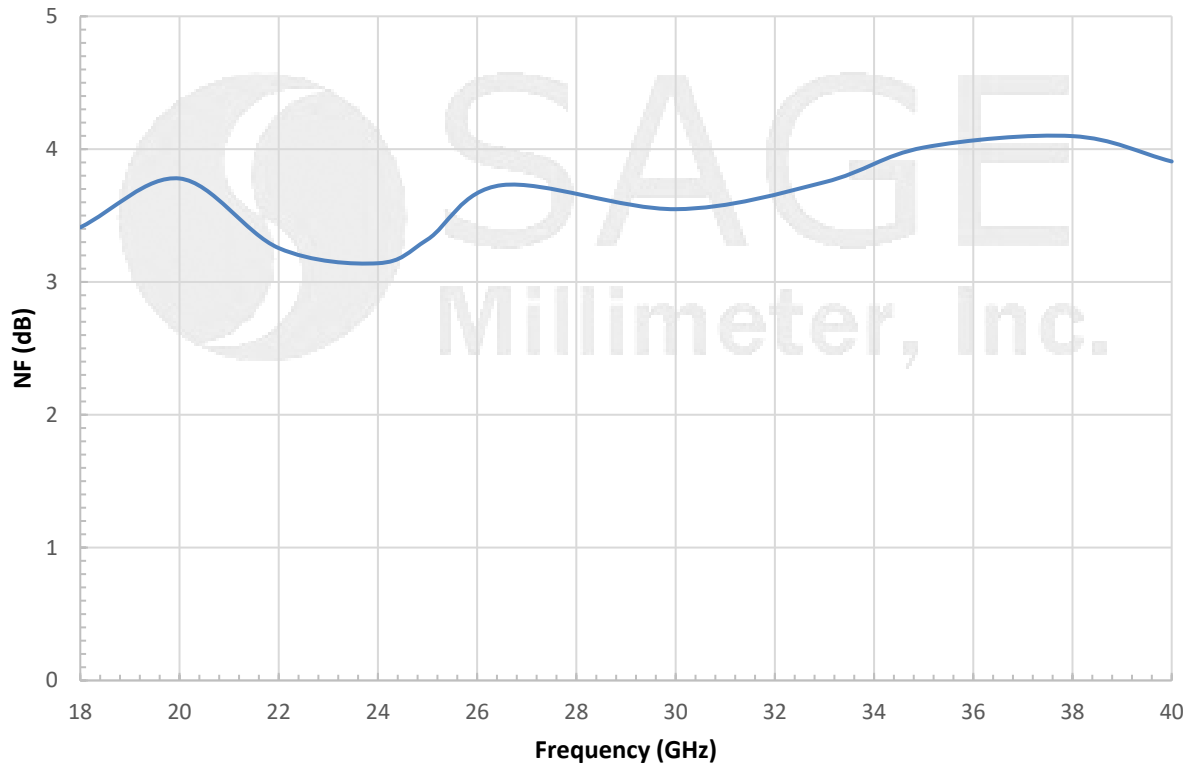




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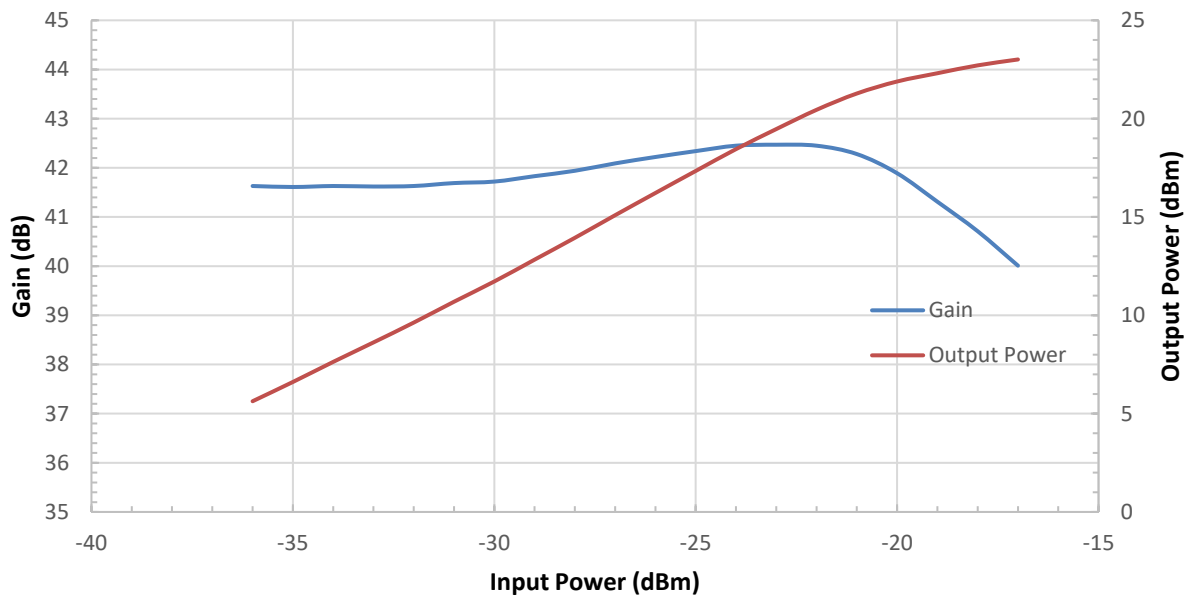
### Typical Noise Figure vs. Frequency

Bias: +12 V<sub>DC</sub>/320 mA



### Gain and Output Power vs. Input Power

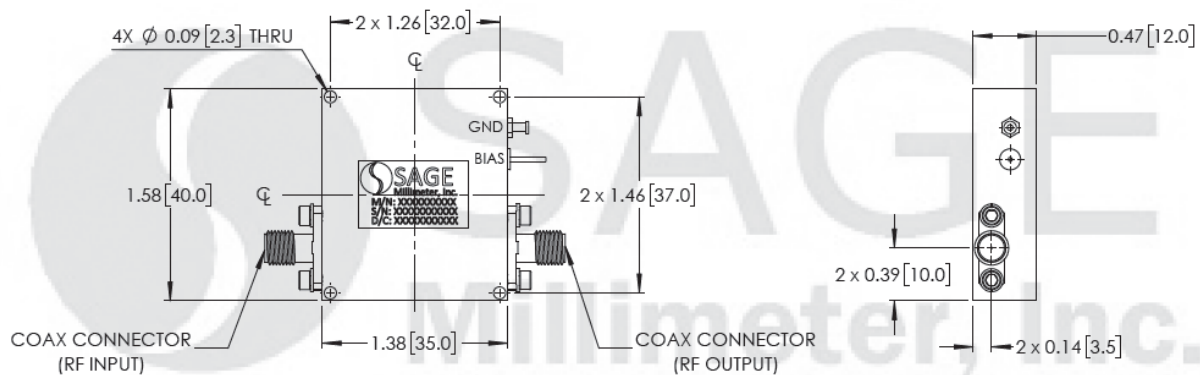
Input Frequency: 25 GHz





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**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 slightly.
- All testing was performed under +2 5°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 ± 0.4 inch-pounds (0.90 ± 0.02 Nm), should be applied. **Eravant torque wrench, model SCH-08008-S1, is highly recommended.**

