SBL-1834034038-2F2F-E3-WP

Rev 1.0

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

Description:

Model SBL-1834034038-2F2F-E3-WP 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_{DC}/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_{DC}	+12 V_{DC}	+15 V_{DC}
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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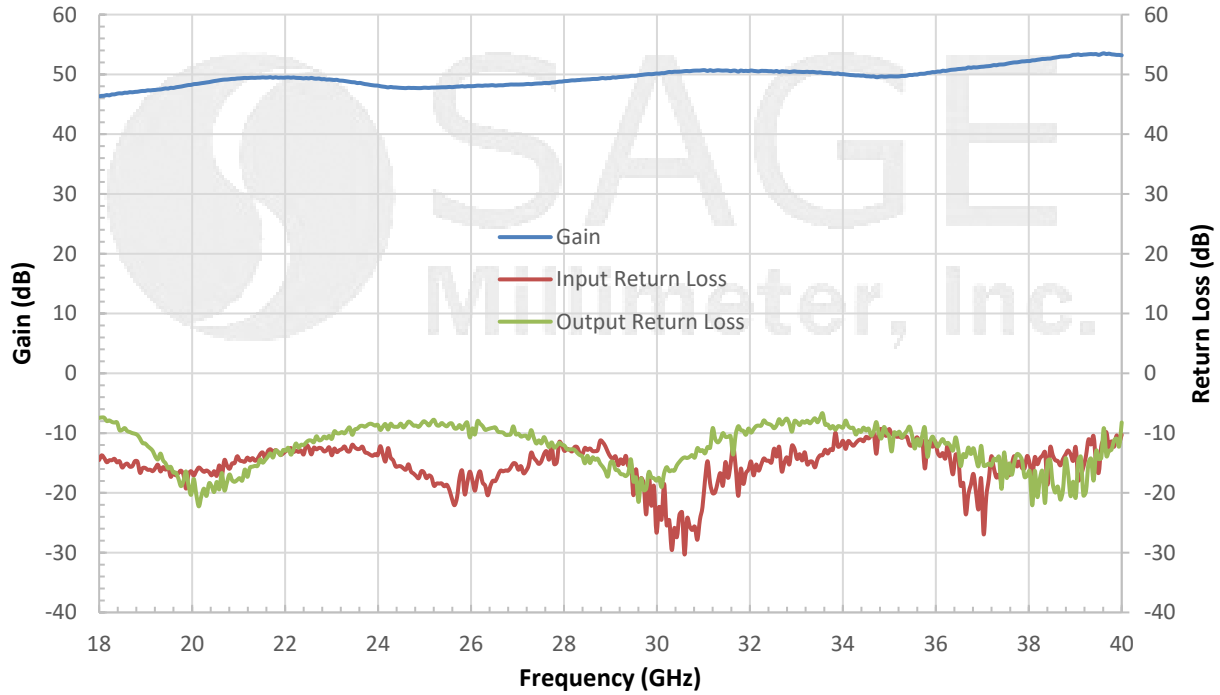
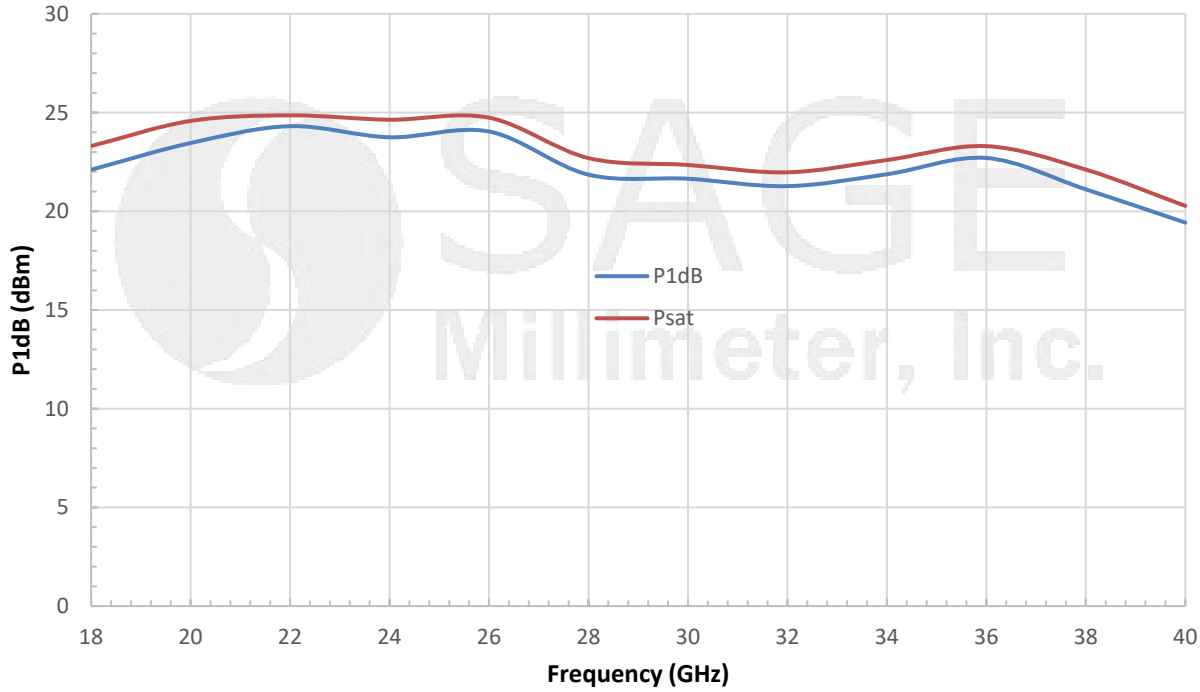
Typical Gain and Return Loss vs. Frequency

Bias: +12 V_{DC}/320 mA



Typical Power vs. Frequency

Bias: +12 V_{DC}/320 mA



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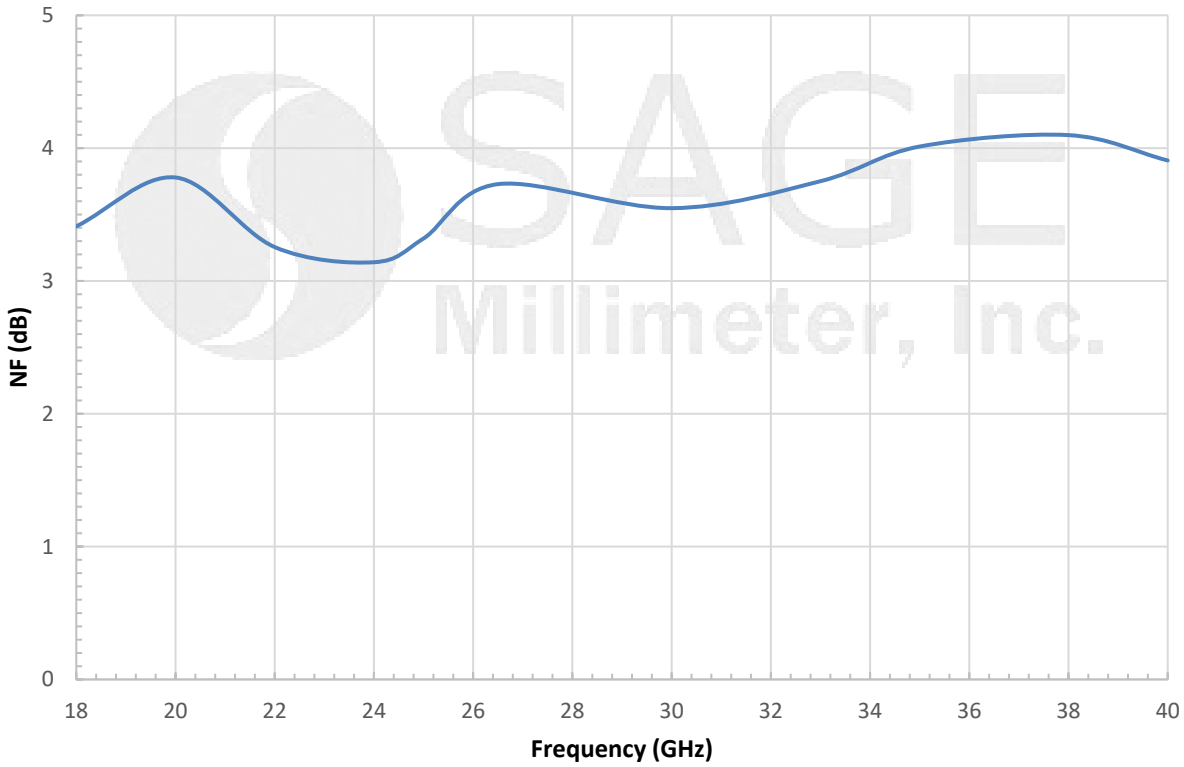
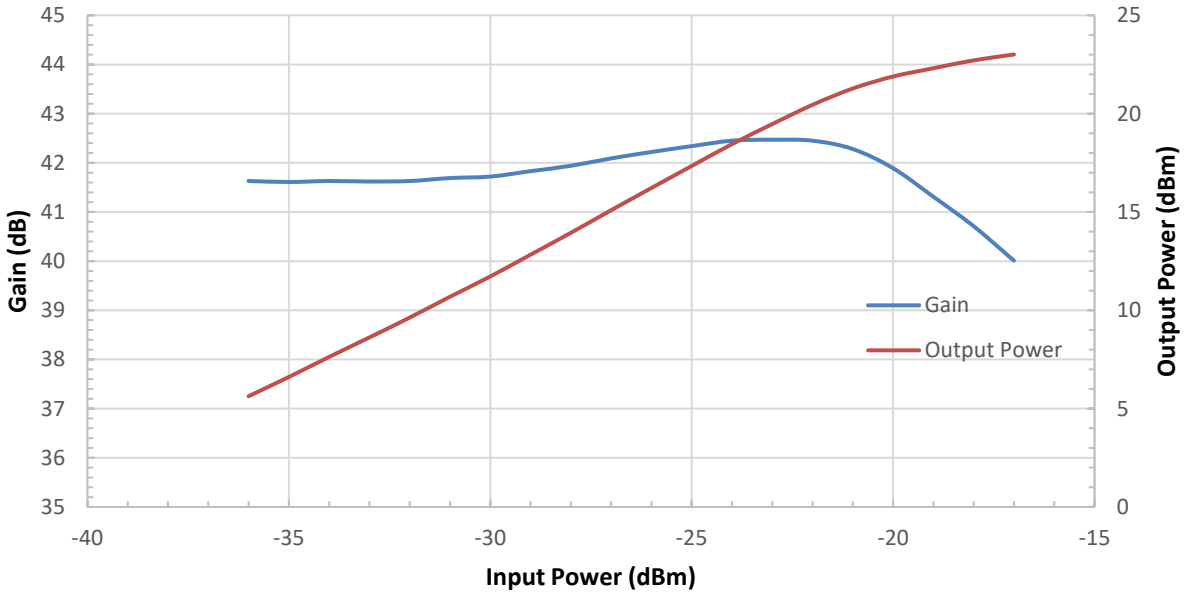
Typical Noise Figure vs. Frequency

Bias: +12 V_{DC}/320 mA



Gain and Output Power vs. Input Power

Input Frequency: 25 GHz



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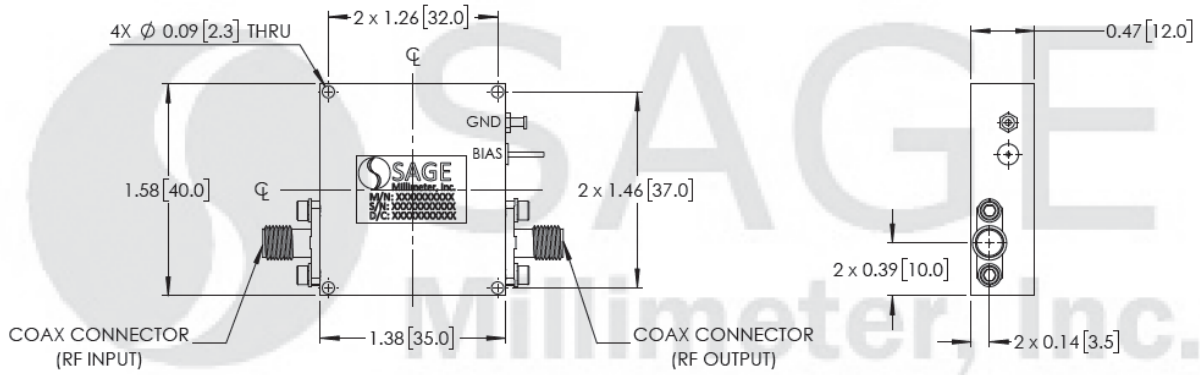
Mechanical Outline: (Unless otherwise specified, all dimensions are in inches [millimeters])



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.**

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