# SBL-3734435025-2F2F-S1

Advanced Rev 1.2

## Coax Low Noise Amplifier, 37 to 44 GHz, 50 dB Gain, 2.5 dB NF

### Description:


**Model SBL-3734435025-2F2F-S1** is a low noise amplifier with a typical small signal gain of 50 dB and a nominal noise figure of 2.5 dB across the frequency range of 37 to 44 GHz. The DC power requirement for the amplifier is +8 $V_{DC}$/1.7 A. The input and output port configurations are both female 2.4 mm connectors. Other port configurations, such as male 2.4 mm connectors and WR-22 waveguides for either the input or output port, are also available under different model numbers.

### Features:

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

### Applications:

- Starlink
- Low Noise Receivers

### Electrical Specifications:

| Parameter | Minimum | Typical | Maximum |
|---|---|---|---|
| Frequency | 37 GHz | | 44 GHz |
| Gain | | 50 dB | |
| Noise Figure | | 2.5 dB | |
| $P_{1dB}$ | | +29 dBm | |
| $P_{in}$ | | | +5 dBm |
| Input Return Loss | | 10 dB | |
| Output Return Loss | | 10 dB | |
| DC Voltage | +6 $V_{DC}$ | +8 $V_{DC}$ | +12 $V_{DC}$ |
| DC Supply Current | | 1.7 A | |
| 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 | 1.3 Oz |
| Size | 1.20” (W) 1.20” (L) X 0.50” (H) |
| Outline | BG-SC-1 |


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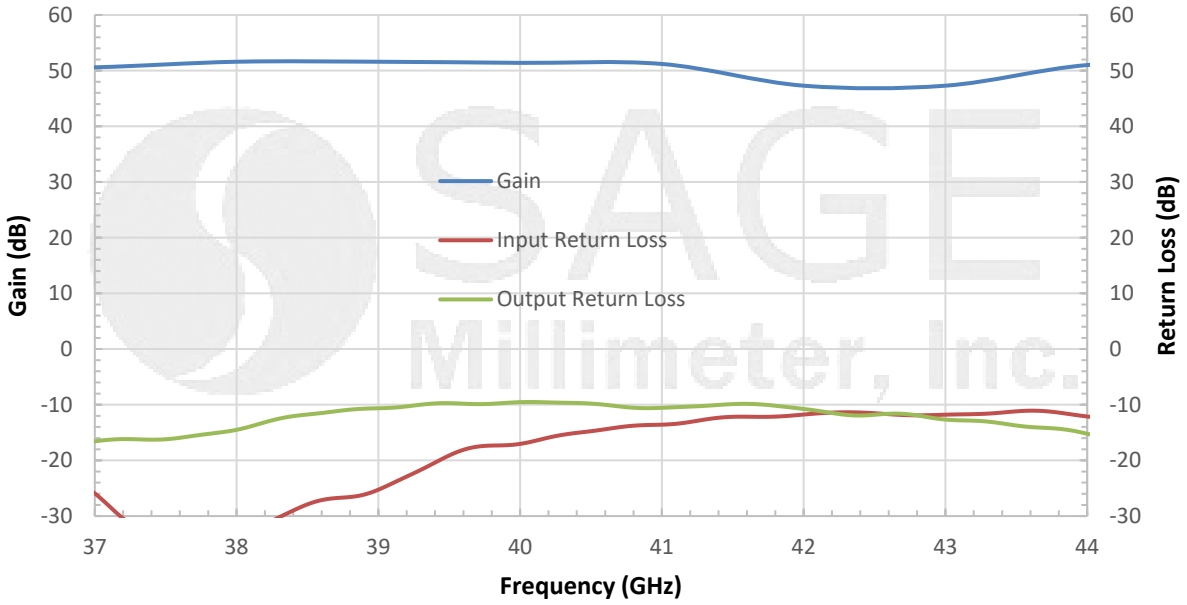
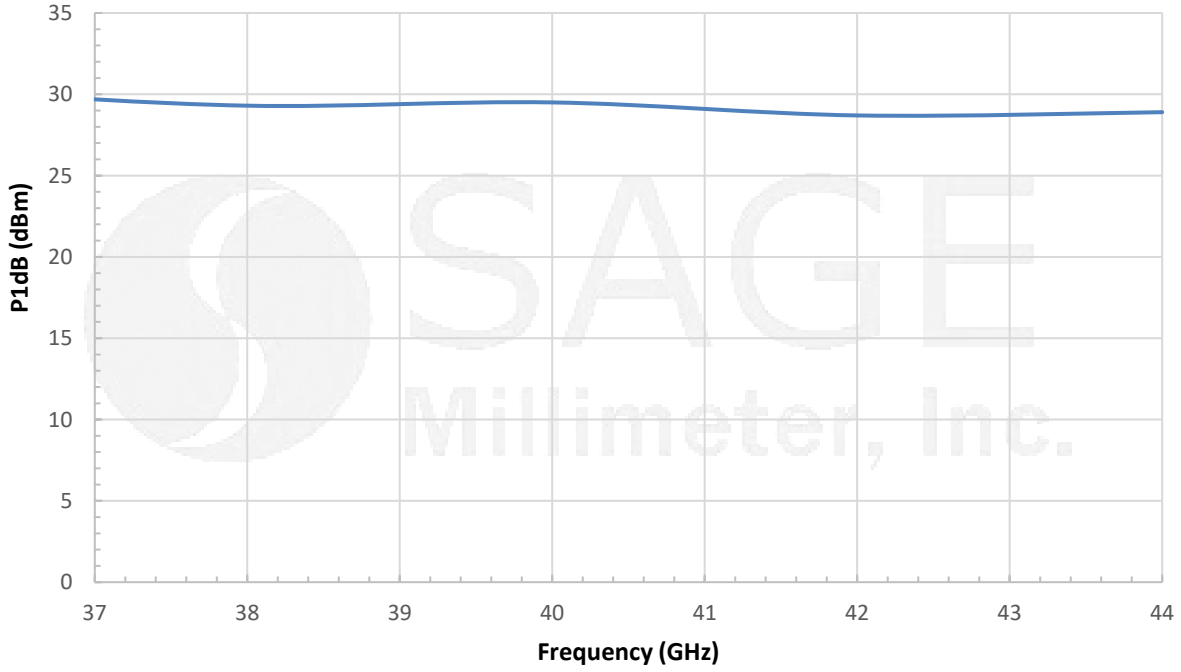
## Gain and Return Loss vs. Frequency

Bias: +8 $V_{DC}$/1.7 A




## P1dB vs. Frequency

Bias: +8 $V_{DC}$/1.7 A

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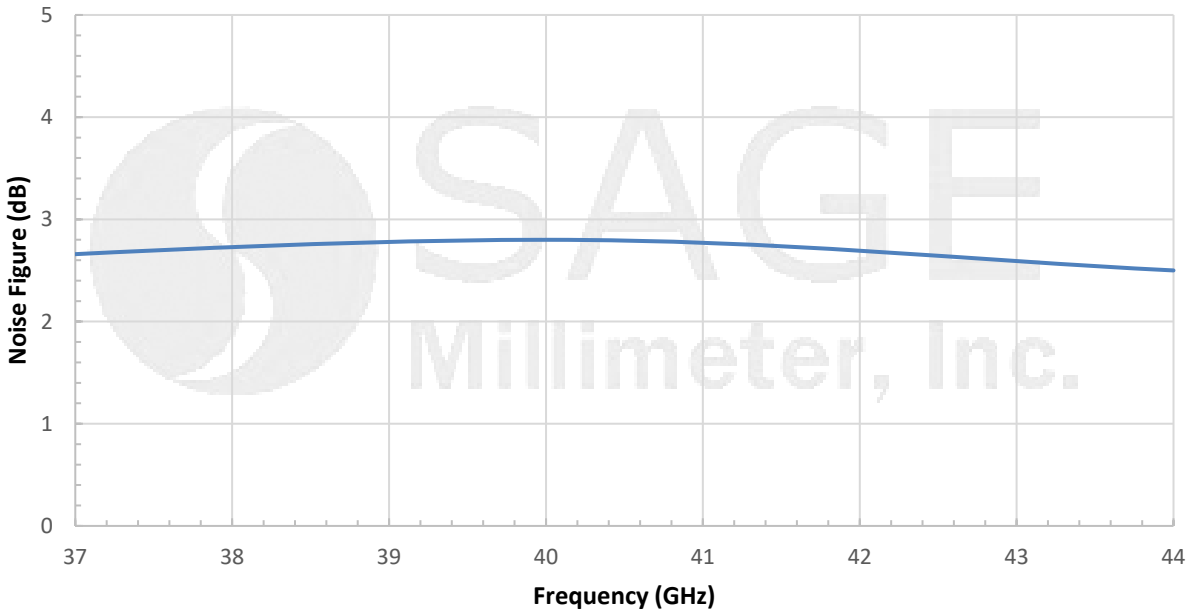
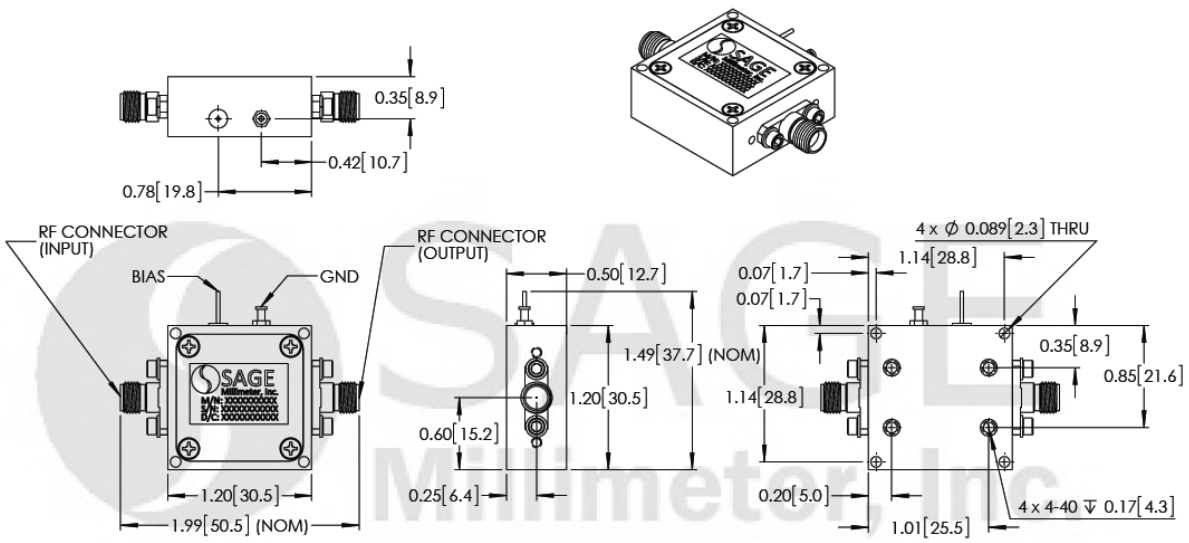
### Noise Figure vs. Frequency

Bias: +8$V_{DC}$/1.7 A




### 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.
- 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 (0.90 ± 0.02 Nm), should be applied. **Eravant torque wrench, model SCH-08008-S1, is highly recommended.**