# SBB-0114034019-KFKF-E3

Rev 1.0

## Broadband Amplifier, 0.01 to 40 GHz, 40 dB Gain, 19 dBm $P_{1dB}$, 6 dB NF

### Description:


**Model SBB-0114034019-KFKF-E3** is a broadband amplifier with a minimum small signal gain of 40 dB, a nominal $P_{1dB}$ of +19 dBm, and a typical noise figure of 6.0 dB across the frequency range of 0.01 to 40 GHz. The DC power requirement for the amplifier is +12 $V_{DC}$/400 mA. The use of a heat sink is advised to assist in cooling the device. The RF connectors are female 2.92 mm connectors. Other port configurations are available under different model numbers.

### Features:

- Broadband Operation
- Low noise and high power

### Applications:

- RF Microwave & VSAT
- Wireless Infrastructure
- Test Equipment

### Electrical Specifications:

| Parameter | Minimum | Typical | Maximum |
|---|---|---|---|
| Frequency | 0.01 GHz | | 40 GHz |
| Gain | 40 dB | | 50 dB |
| $P_{1dB}$ | | +19 dBm | |
| $P_{sat}$ | | +21 dBm | |
| Noise Figure | | 6.0 dB | 8.0 dB |
| $P_{in}$ | | | -20 dBm |
| Input Return Loss | | 8 dB | |
| Output Return Loss | | 8 dB | |
| DC Voltage | | +12 $V_{DC}$ | |
| DC Supply Current | | 400 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 | Brass |
| Finish | Gold Plated |
| Weight | 3.2 Oz |
| Size | 1.58” (L) x 1.38” (W) x 0.47” (H) |
| Outline | BG-ZC-9 |

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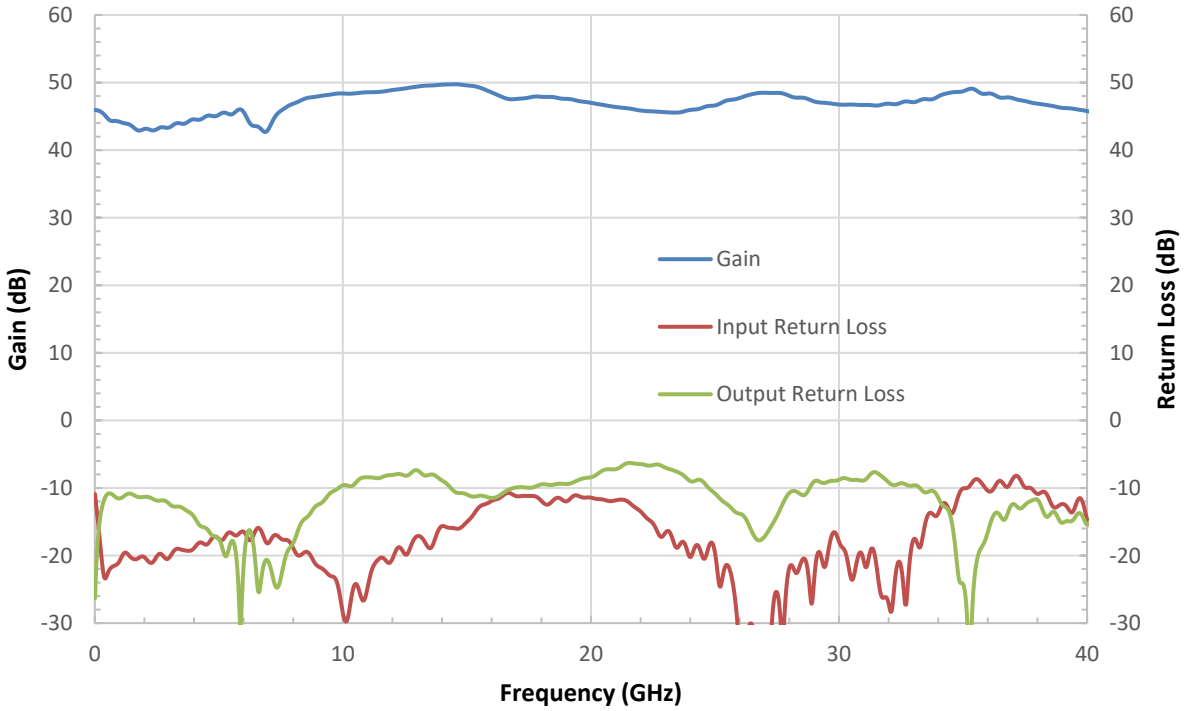
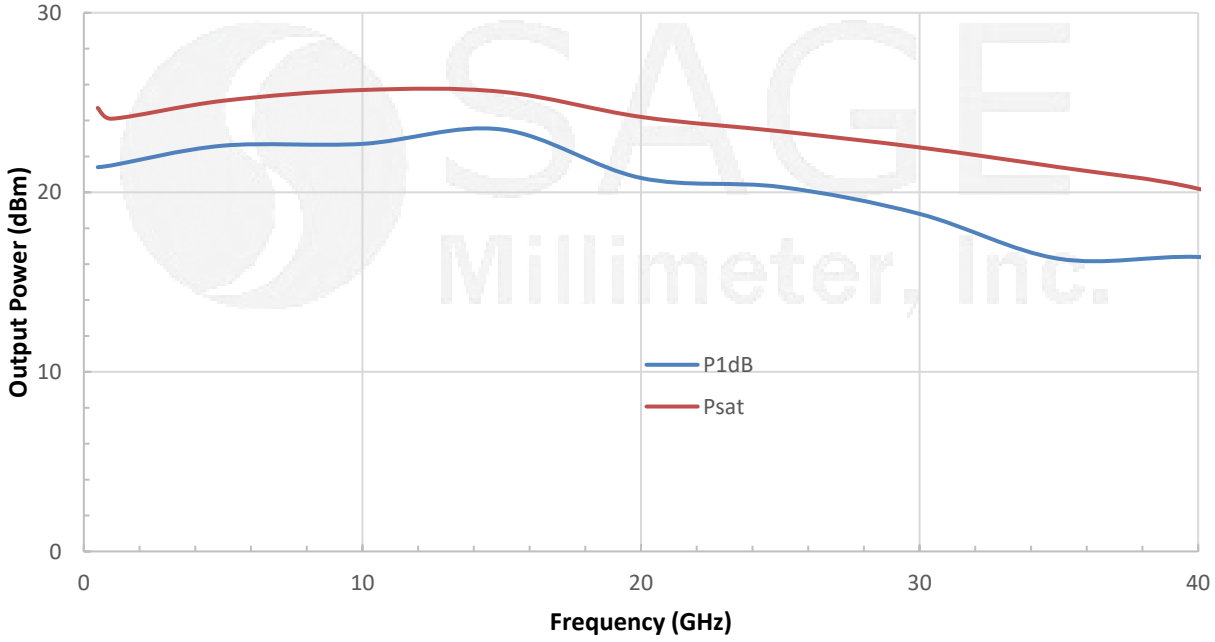
## Typical Gain and Return Loss vs. Frequency

Bias: +12$V_{DC}$/400 mA




## Typical Output Power vs. Frequency

Bias: +12 $V_{DC}$/400 mA



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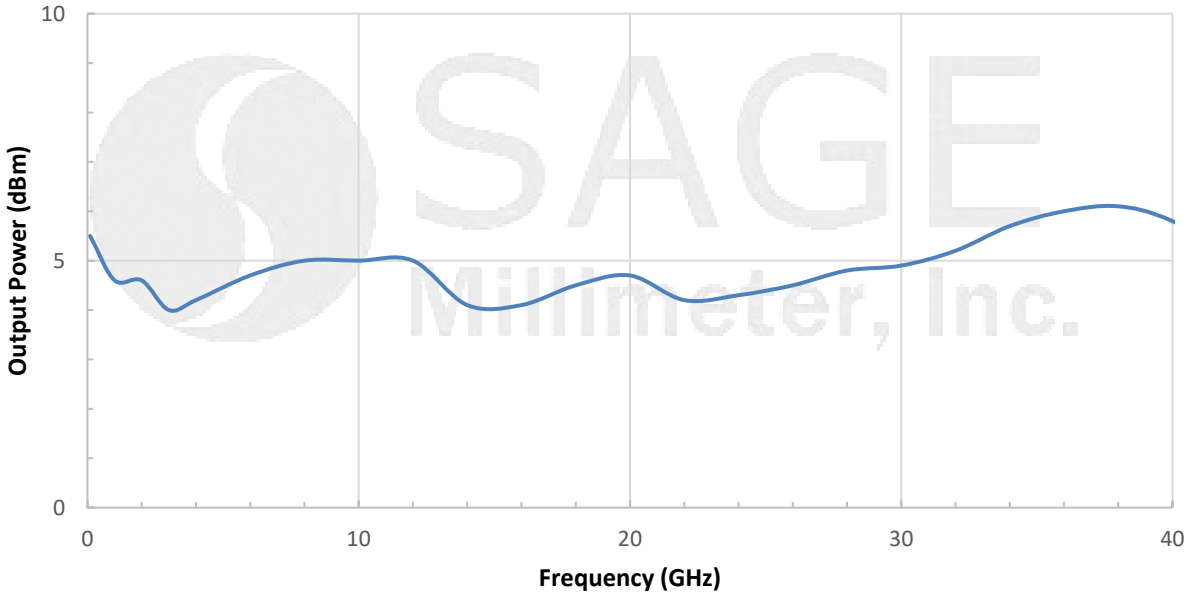
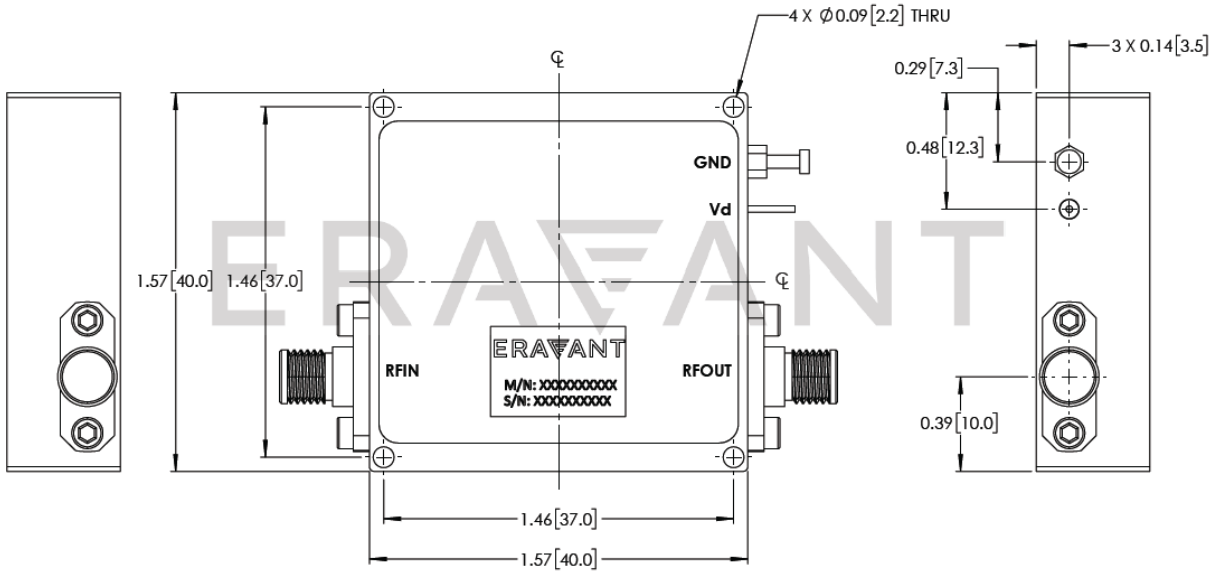
### Typical Noise Figure vs. Frequency

Bias: +12 $V_{DC}$/400 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.
- 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.**