SBB-0117033015-VFVF-E3

Advanced Rev 1.4

Broadband Amplifier, 0.01 to 70 GHz, 30 dB Gain, +15 dBm P_{1dB}, 6 dB NF

Description:

Model SBB-0117033015-VFVF-E3 is a broadband amplifier with a typical small signal gain of 30 dB, a nominal P_{1dB} of +15 dBm, and a typical noise figure of 6.0 dB across the frequency range of 0.01 to 70 GHz. The DC power requirement for the amplifier is +12 V_{DC}/600 mA. The use of a heat sink is advised to assist in cooling the device. The RF connectors are female 1.85 mm connectors. Other port configurations are available under different model numbers.

Features:

- Broadband Operation
- Low Noise and High Power

Applications:

- 5G Systems
- Wireless Infrastructure
- Test Equipment

Electrical Specifications:

Parameter	Minimum	Typical	Maximum
Frequency Range	0.01 GHz		70 GHz
Gain		30 dB	
P_{1dB}		+15 dBm	
P_{sat}		+16 dBm	
Noise Figure		6.0 dB	
P_{in}			0 dBm
Input Return Loss		10 dB	
Output Return Loss		10 dB	
DC Voltage		+12 V_{DC}	
DC Supply Current		600 mA	
Specification Temperature		+25 ˚C	
Operating Temperature	0 ˚C		+50 ˚C

Mechanical Specifications:

Item	Specification
Input Port	1.85 mm (F)
Output Port	1.85 mm (F)
Bias	Solder Pin
Case Material	Aluminum
Finish	Gold Plated
Weight	1.3 Oz
Size	1.38” (W) X 1.58” (L) X 0.47” (H)
Outline	BG-ZC-1

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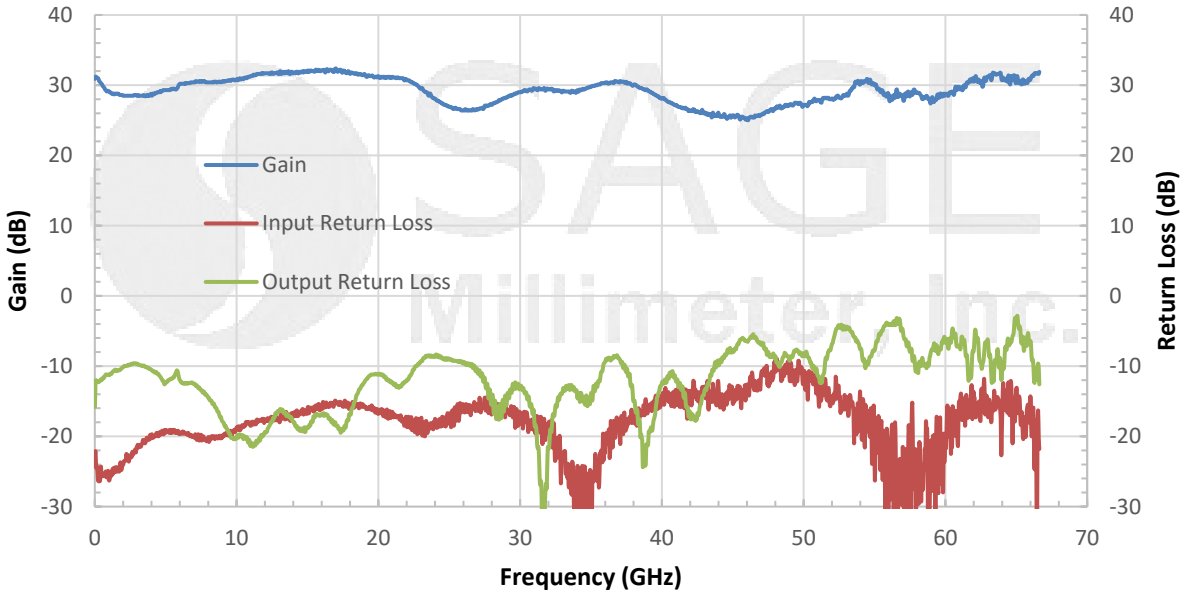
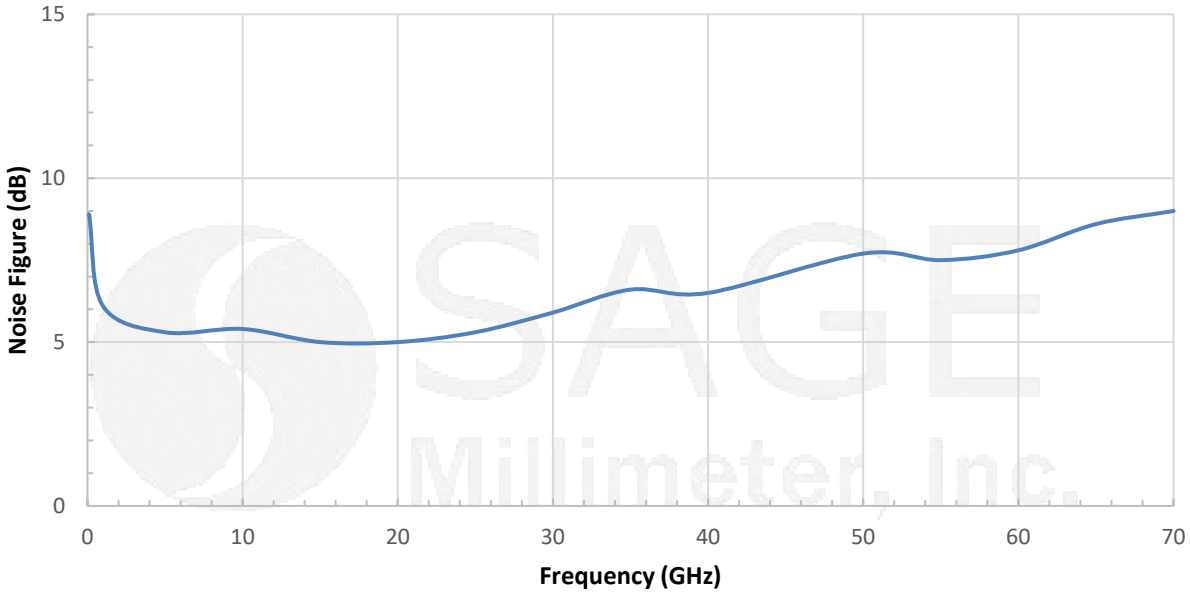
Gain and Return Loss vs. Frequency

Bias: +12 V_{DC}/590 mA



Noise Figure vs. Frequency

Bias: +12 V_{DC}/590 mA



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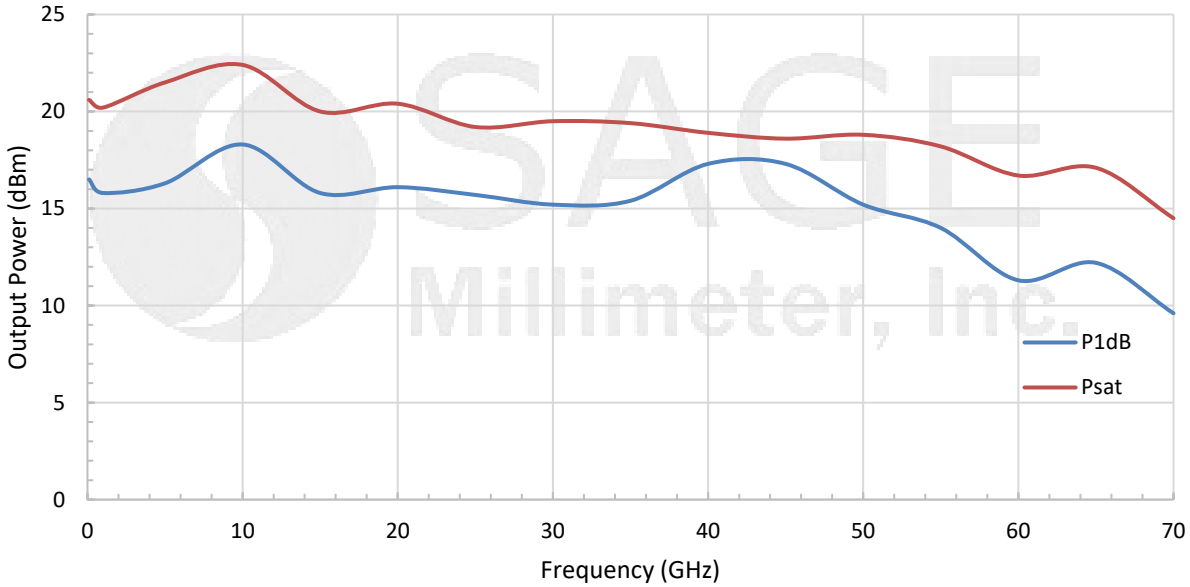
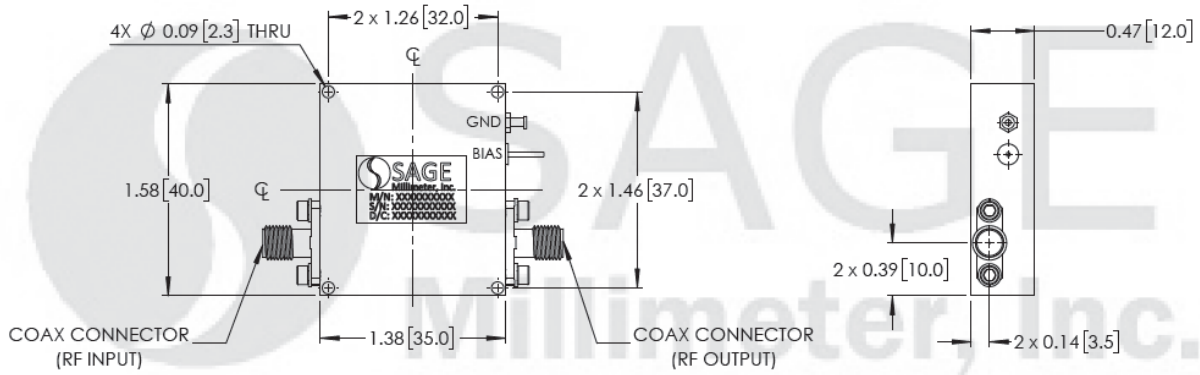
Output Power vs. Frequency
Bias: +12 VDC/590 mA



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.**