

SBB-0115034510-2F2F-E3

**Broadband Amplifier, 0.01 to 50 GHz, 45 dB Gain,
+10 dBm P_{1dB}, 8 dB NF**

SBB-0115034510-2F2F-E3 is a broadband amplifier with a typical small signal gain of 45 dB, a nominal P_{1dB} of +10 dBm, and a typical noise figure of 8 dB across the frequency range of 0.01 to 50 GHz. The DC power requirement for the amplifier is +12 V_{DC}/500 mA. The use of a heat sink is advised to assist in cooling the device. The RF connectors are female 2.4 mm connectors. Other port configurations are available under different model numbers.



Electrical Specifications:

Parameter		Minimum	Typical	Maximum
Frequency		0.01 GHz		50 GHz
Gain	0.01-40 GHz	40 dB	45 dB	
	40-50 GHz	40 dB	45 dB	
Output P _{1dB}	0.01-40 GHz		+17 dBm	
	40-50 GHz		+10 dBm	
Output P _{sat}	0.01-40 GHz		+21 dBm	
	40-50 GHz		+12 dBm	
Noise Figure	10-30 MHz		16 dB	
	30-100 MHz		10 dB	
	0.1-40 GHz		6 dB	8 dB
	40-50 GHz		6 dB	8 dB
Input Power				-20 dBm
Input Return Loss			8 dB	
Output Return Loss			8 dB	
DC Voltage			+12 V _{DC}	
DC Supply Current			500 mA	
Specification Temperature			+25 °C	
Operating Temperature		0 °C		+50 °C

ECCN

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FEATURES

- Broadband Operation
- Low Noise and High Power

APPLICATIONS

- RF Microwave & VSAT
- Wireless Infrastructure
- Test Equipment

SUPPLEMENTAL DETAILS

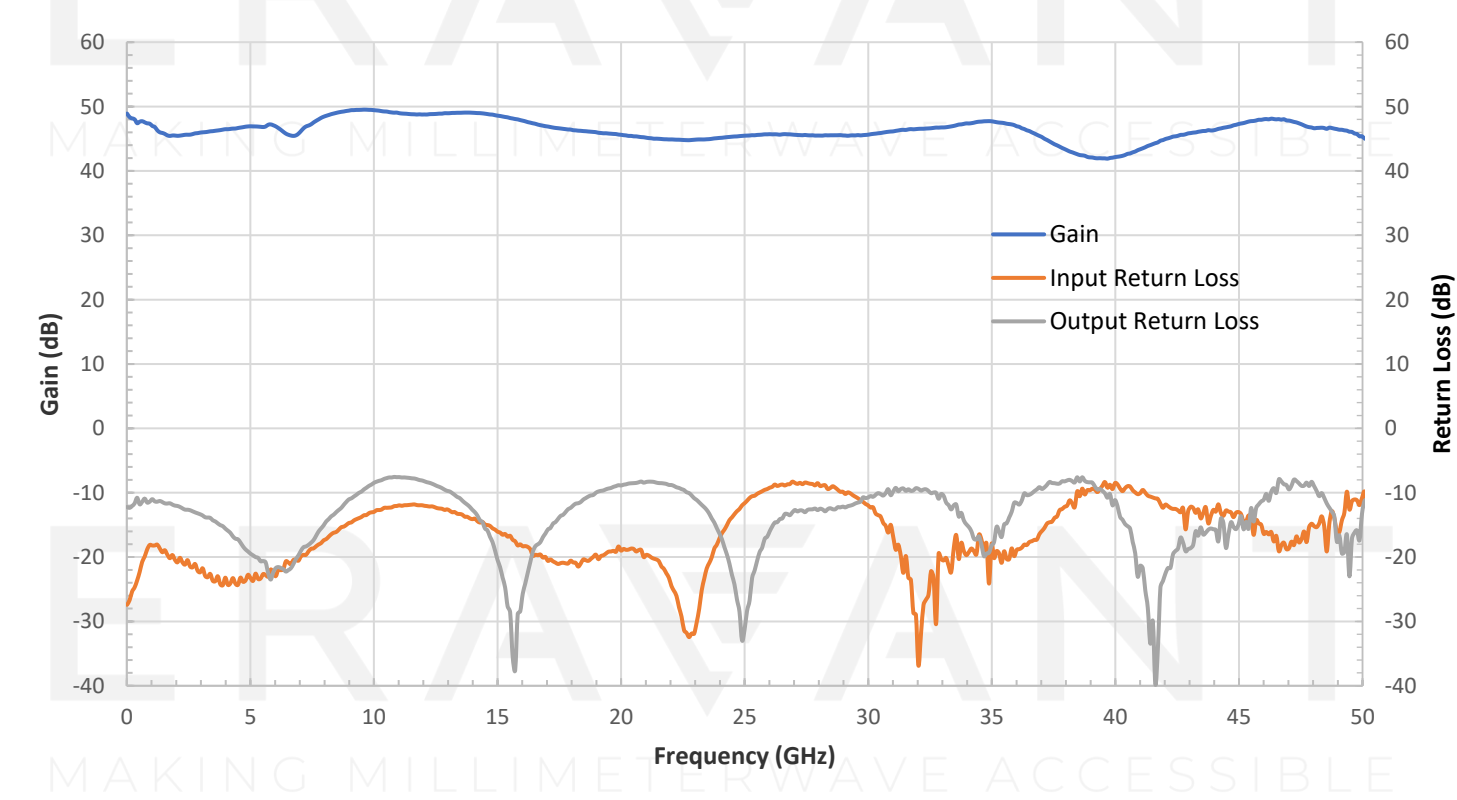


Mechanical Specifications:

Item	Specification
Input Port	2.4 mm (F)
Output Port	2.4 mm (F)
Bias	Solder Pin
Case Material	Aluminum
Finish	Gold Plated
Weight	1.8 Oz
Size	1.57" (L) x 1.57" (W) x 0.47" (H)
Outline	BG-ZC-9

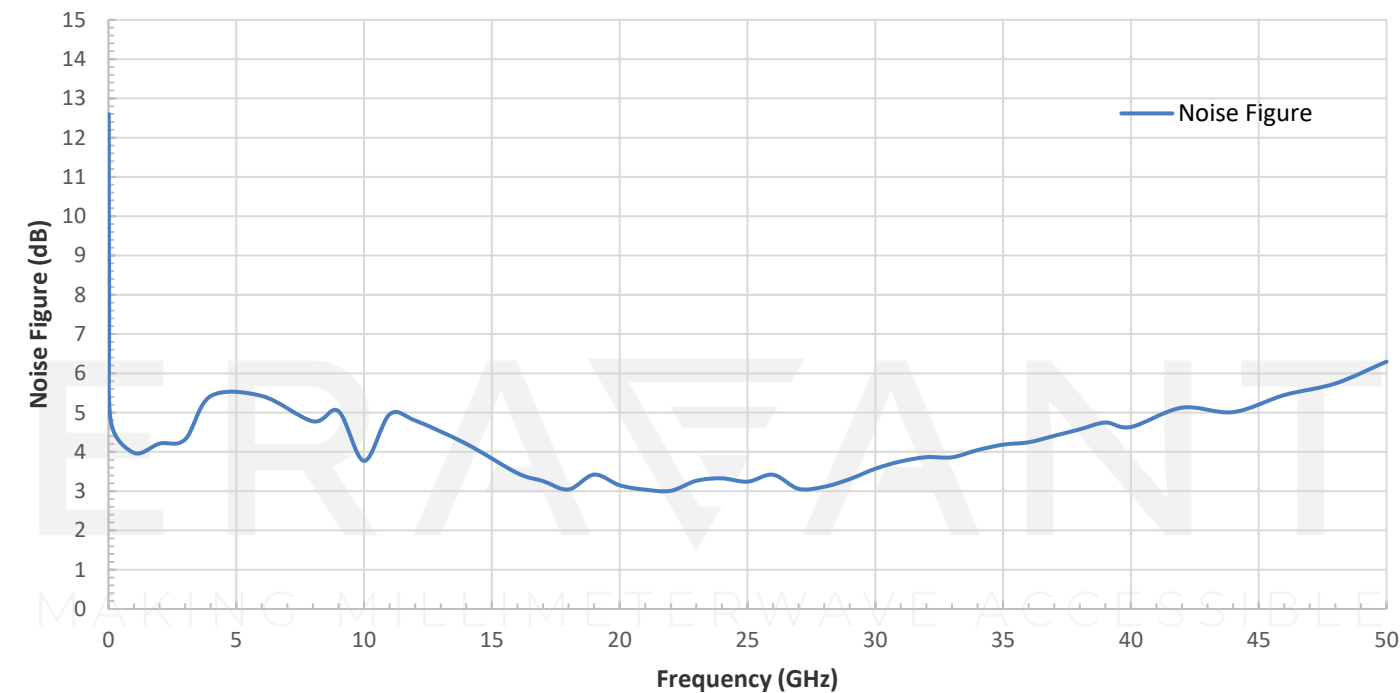
Gain and Return Loss vs. Frequency

Bias: +12 V_{DC}/300 mA



Typical Noise Figure vs. Frequency

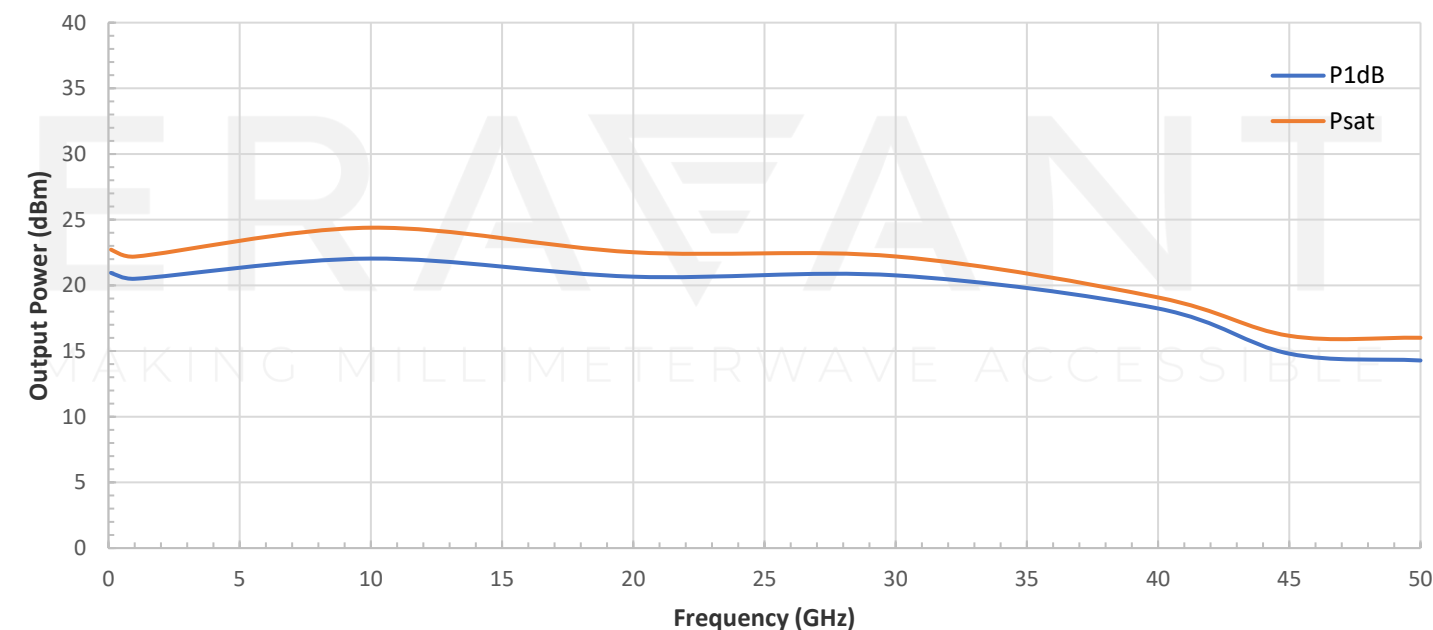
Bias: +12 V_{DC}/ 300 mA



Typical Output Power vs. Frequency

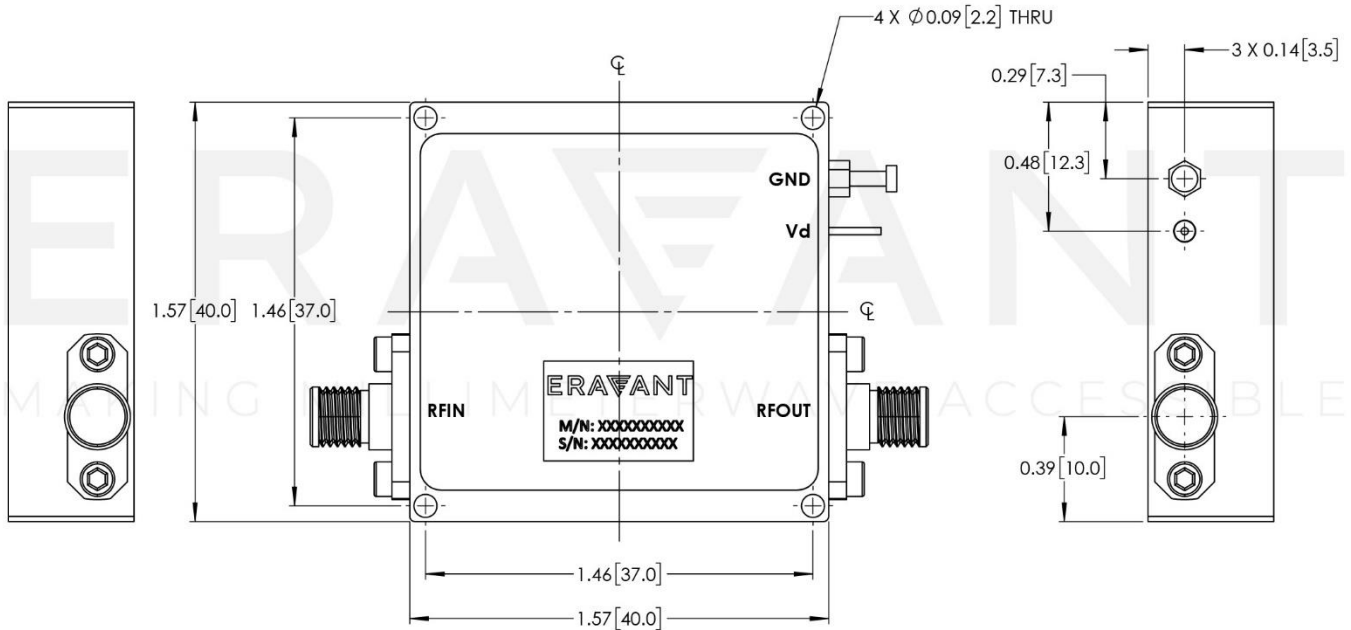
Bias: +12 V_{DC}/ 300 mA

RFsat: +12 V_{DC}/ 500 mA



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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.
- All testing was performed under +25 °C case temperature.
- Other mechanical configurations are available under different model numbers.
- Eravant reserves the right to change the information presented without notice.

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 should be applied: 8.0 ± 0.15 inch-pounds (0.90 ± 0.02 Nm). Torque wrench model SCH-08008-S1 is highly recommended.