SBB-1834033022-2F2F-E3

Broadband Amplifier, 18 to 40 GHz, 30 dB Gain, +22 dBm P_{1dB}

SBB-1834033022-2F2F-E3 is a broadband power amplifier with a typical small signal gain of 30 dB, a nominal P_{1dB} of +22 dBm, and a typical noise figure of 5.5 dB across the frequency range of 18 to 40 GHz. The DC power requirement for the amplifier is +12 V_{DC}/550 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*	18 GHz		40 GHz
Gain	28 dB	30 dB	
P_{1dB}		+22 dBm	
P_{sat}		+23 dBm	
Noise Figure		5.5 dB	
P_{in}			-5 dBm
Input Return Loss		10 dB	
Output Return Loss		10 dB	
DC Voltage	+9 V_{DC}	+12 V_{DC}	+15 V_{DC}
DC Supply Current		550 mA	850 mA
Specification Temperature		+25°C	
Operating Temperature	-40°C		+85°C

*Note: The upper operating frequency can be extended to 44 GHz.

Mechanical Specifications:

Item	Specification
Input	2.4 mm (F)
Output	2.4 mm (F)
Bias	Solder Pin
Case Material	Aluminum
Finish	Gold Plated
Weight	7.1 Oz
Size Without Heatsink	1.38” (L) x 1.58” (W) x 0.47” (H)
Outline	BG-ZC-1

ECCN

EAR99

FEATURES

- Broadband Coverage
- Good Gain Flatness

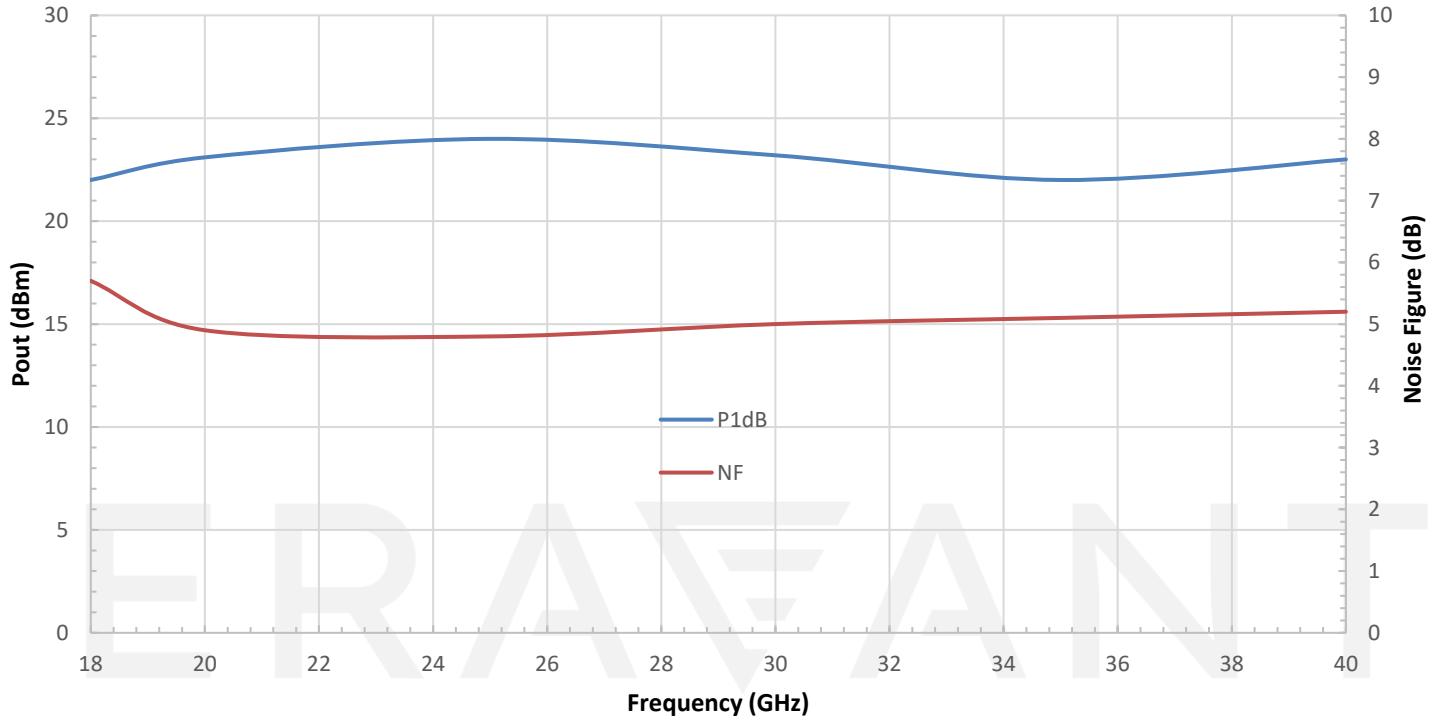
APPLICATIONS

- 5G Systems
- RF Microwave & VSAT
- Wireless Infrastructure
- Test Equipment

SUPPLEMENTAL DETAILS

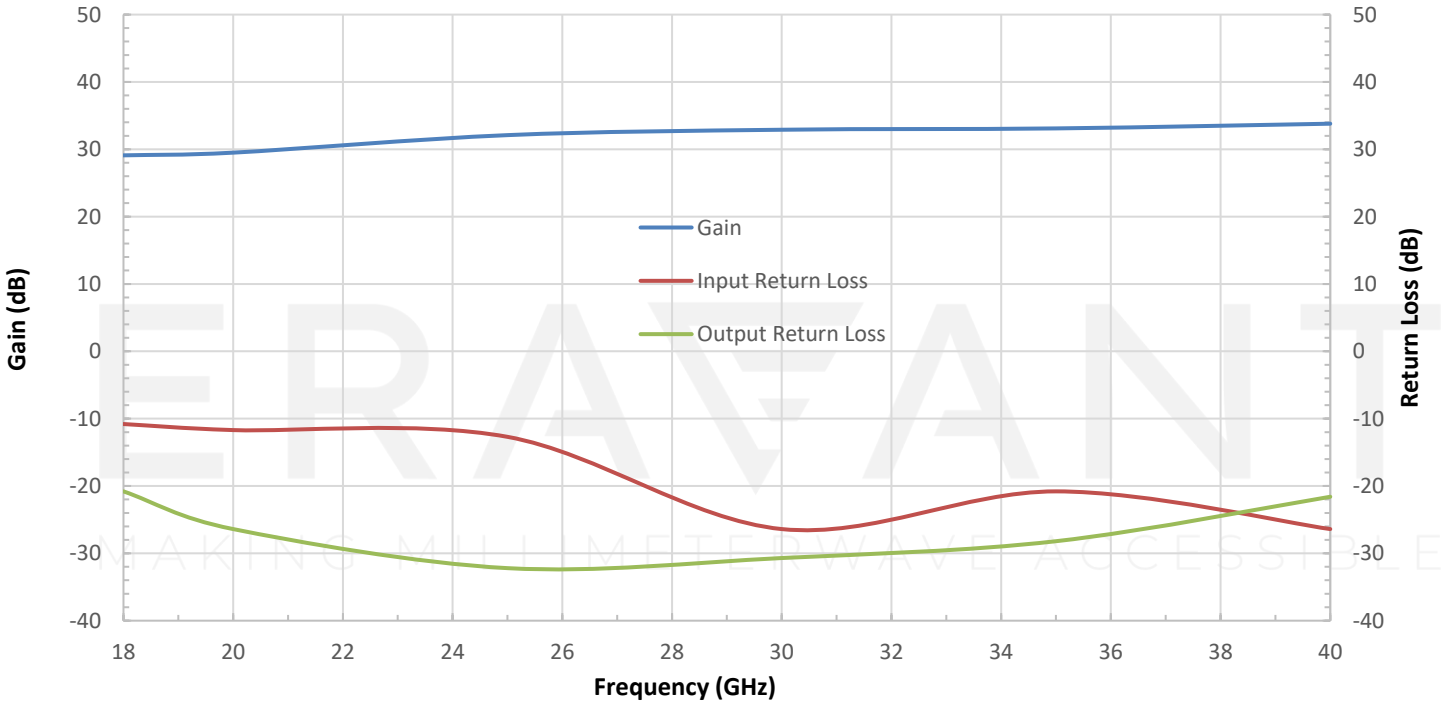
Typical P1dB and Noise Figure vs. Frequency

Bias: +12 V_{DC} / 550 mA

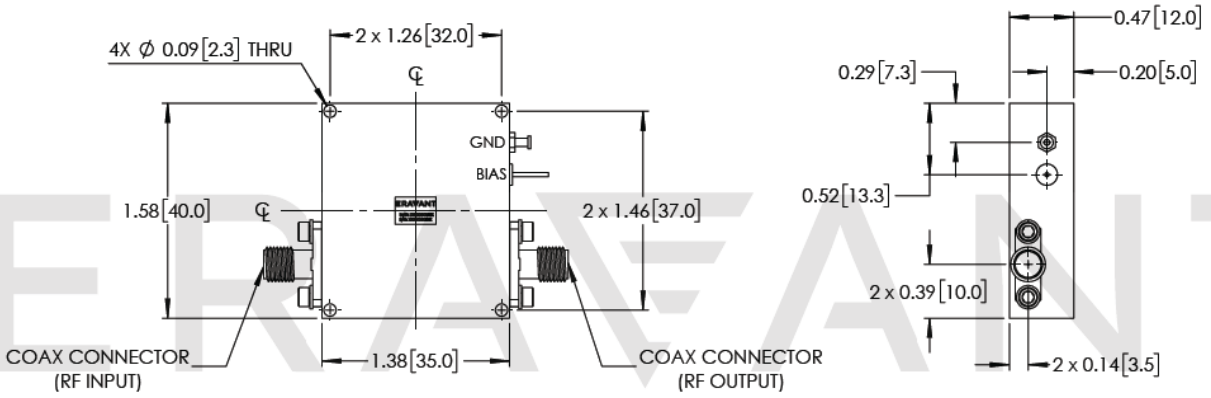


Typical Gain and Return Loss vs. Frequency

Bias: +12 V_{DC} / 550 mA



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



NOTE:

- On condition that test data is provided it is collected from a sample lot. Actual data may vary slightly from unit to unit. All testing is performed under +25 °C room 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 when operating the amplifier.
- For 1.35 mm, 1.85 mm, 2.4 mm, 2.92 mm, and SMA connectors 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.