SBB-0114034018-2F2F-E3-WP

Broadband Amplifier, 0.01 to 40 GHz , 40 dB Gain, +18 dBm P_{1dB}

SBB-0114034018-2F2F-E3-WP is a broadband amplifier with a typical small signal gain of 40 dB, a nominal P_{1dB} of +18 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}/650 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		40 GHz
Gain		40 dB	
P_{1dB}		+18 dBm	
P_{sat}		+20 dBm	
Noise Figure		6 dB	
P_{in}			-15 dBm
Input Return Loss		8 dB	
Output Return Loss		8 dB	
DC Voltage		+12 V_{DC}	
DC Supply Current		650 mA	750 mA
Specification Temperature		+25°C	
Operating Temperature	0°C		+50°C

Mechanical Specifications:

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

ECCN

EAR99

FEATURES

- Broadband Coverage
- Good Gain Flatness

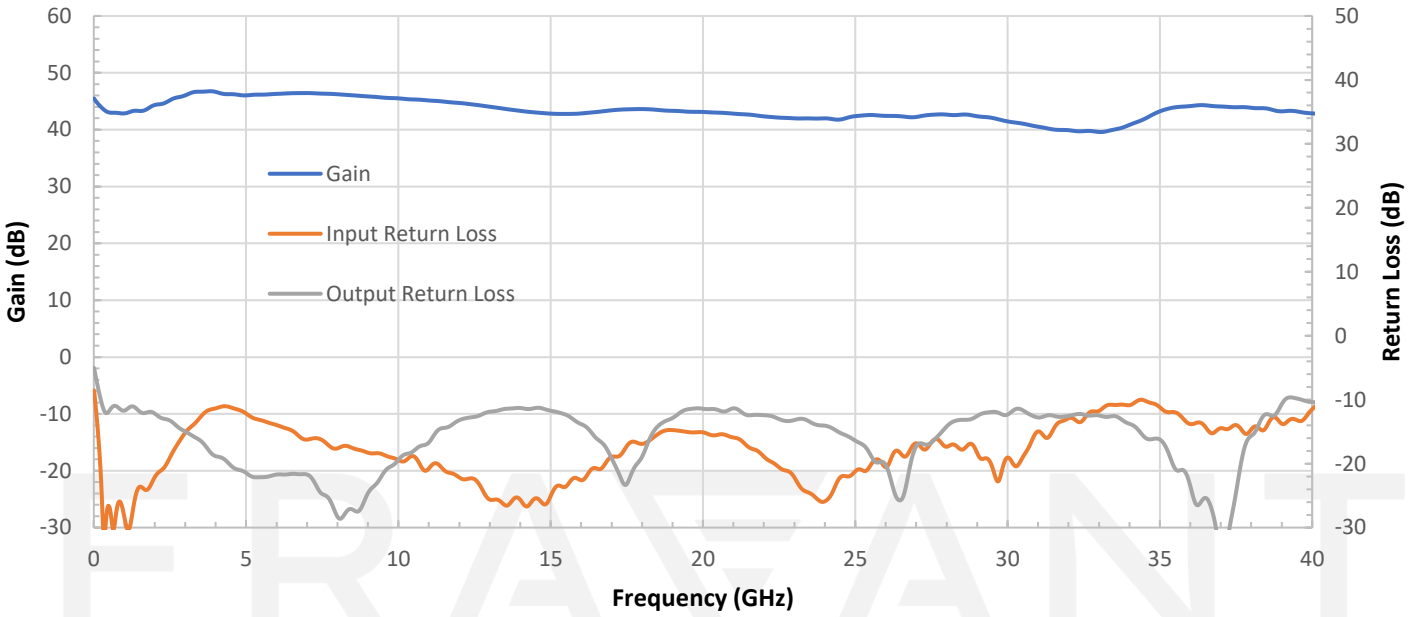
APPLICATIONS

- 5G Systems
- Radar and Communication Systems
- Test Equipment

SUPPLEMENTAL DETAILS

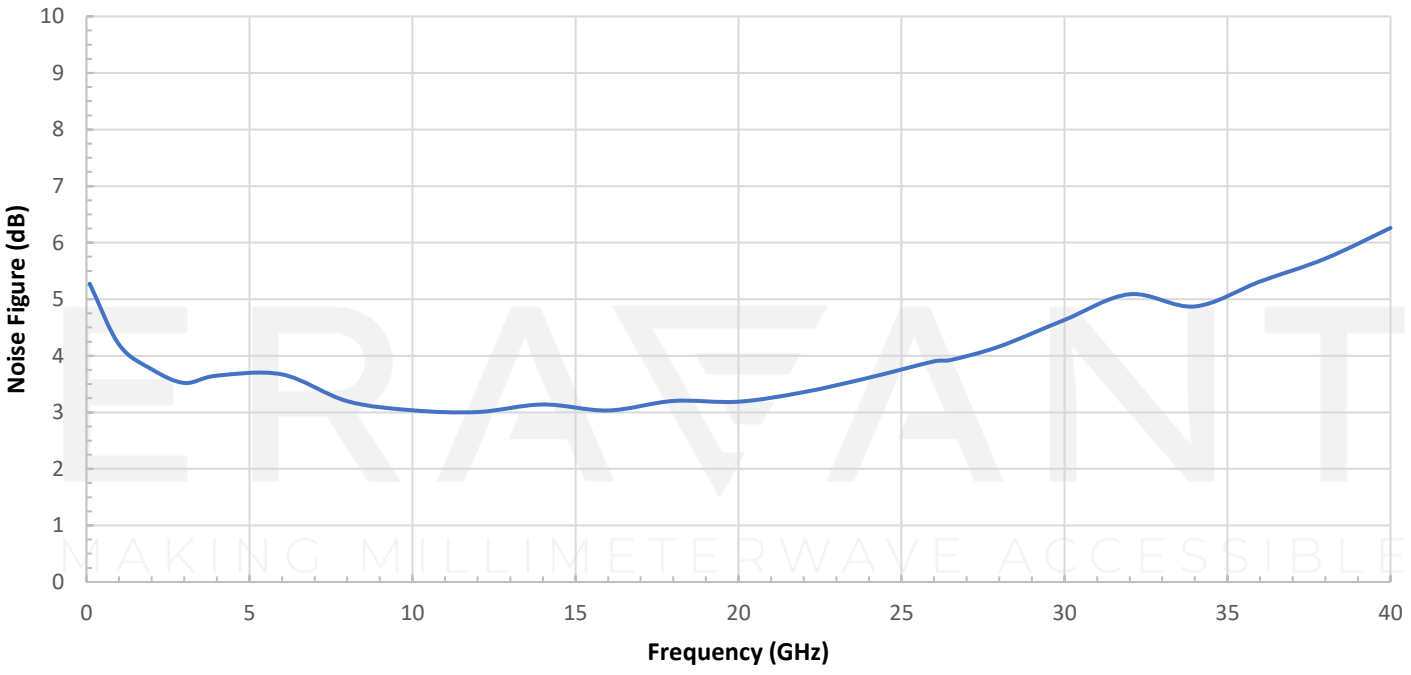
Gain and Return Loss vs. Frequency

Bias: +12 V_{DC}/600mA



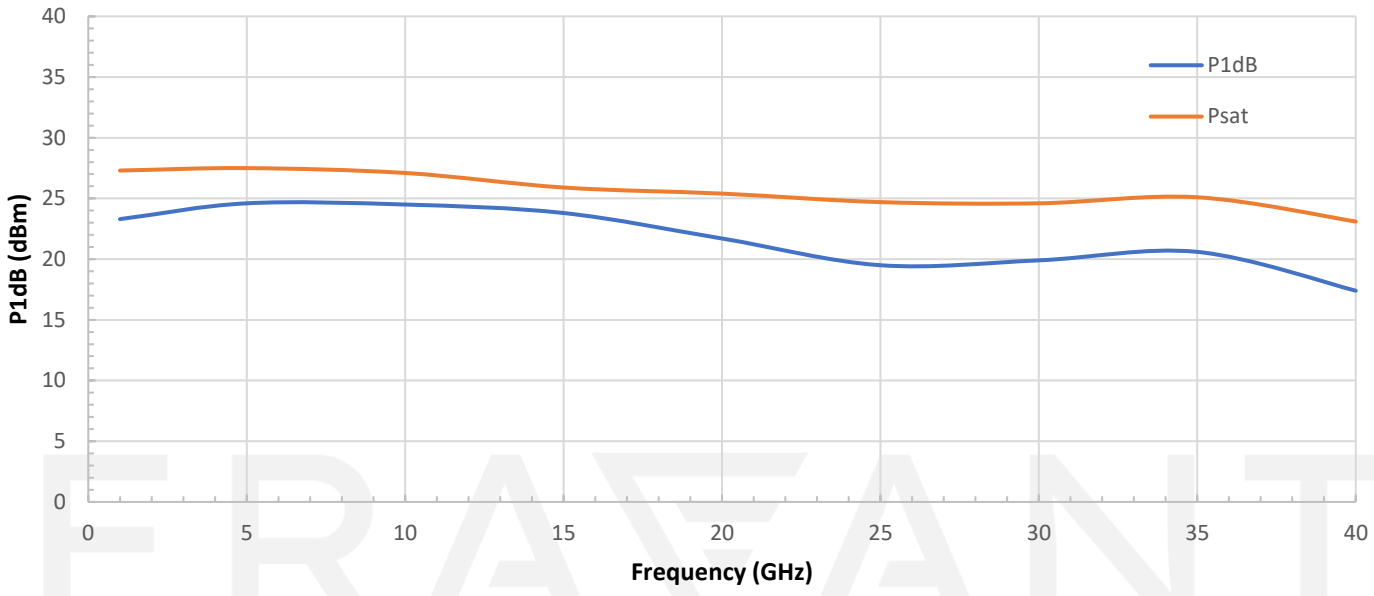
Noise Figure vs. Frequency

Bias: +12V_{DC}/600 mA

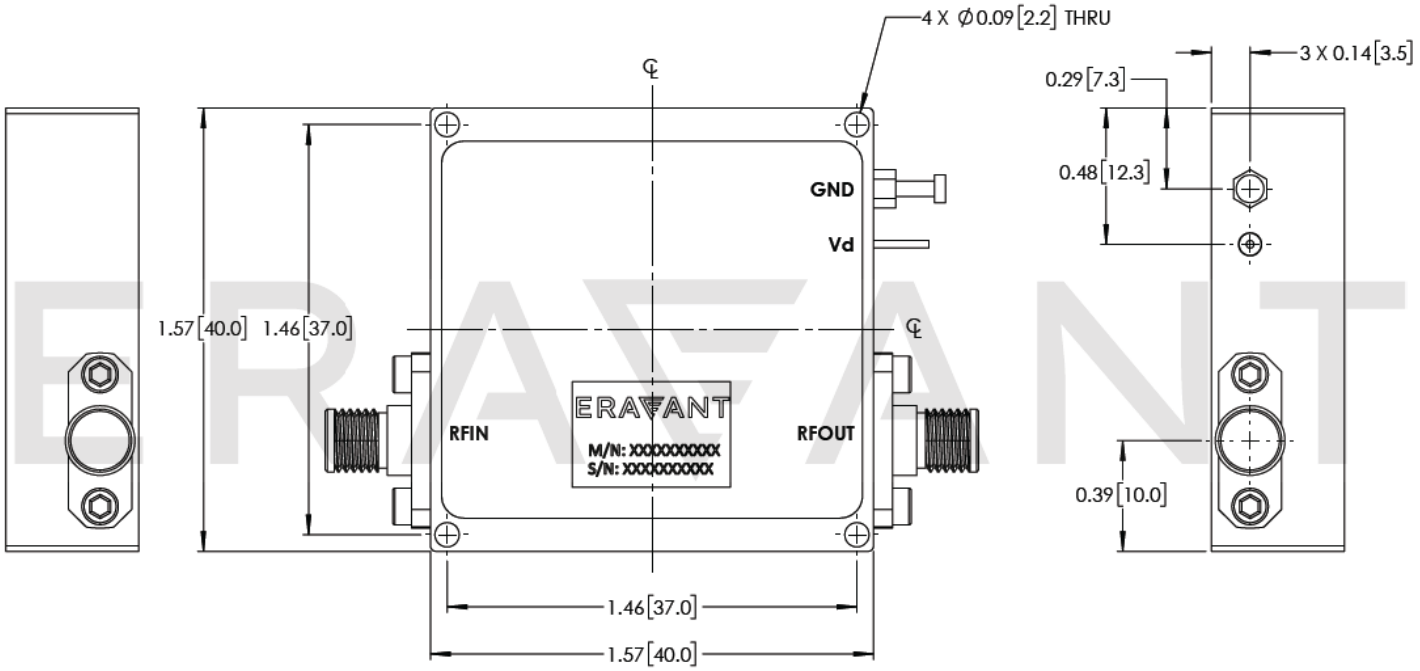


P1dB vs. Frequency

Bias: +12V_{DC}/600 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.
- On condition that simulated test data is provided, actual measured data may slightly vary.
- 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 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.
- If a waveguide is present, any foreign objects in the waveguide will cause performance degradation and may damage or destroy the unit.
- For 1 mm connectors proper torque should be applied: 4.0 ± 0.15 inch-pounds (0.45 ± 0.02 Nm). Torque wrench model SCH-06004-S1 is highly recommended.
- 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.

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