

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

Description:

Model SBB-1834034018-2F2F-E3 is a broadband amplifier with a typical small signal gain of 40 dB, a nominal P_{1dB} of +18 dBm across the frequency range of 18 to 40 GHz. The DC power requirement for the amplifier is +12 V_{DC}/650 mA. The RF connectors are 2.4 mm (F) connectors. Other port configurations, such as K(F) connectors for either the input or output port, are available under different model numbers.



Features:

- High Output Power
- Broad Bandwidth
- Exceptional Gain Flatness
- Low Noise Figure

Applications:

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

Electrical Specifications:

Parameter	Minimum	Typical	Maximum
Frequency	18.0 GHz		40.0 GHz
Gain		40 dB	
Gain Flatness		±3 dB	
P _{1dB}		+18 dBm	
P _{sat}		+19 dBm	
Noise Figure		4.0 dB	
P _{in}			-10 dBm
Input Return Loss		10 dB	
Output Return Loss		10 dB	
DC Voltage	+6 V _{DC}	+12 V _{DC}	+15 V _{DC}
DC Supply Current		650 mA	
Specification Temperature		+25 °C	
Operating Temperature	0 °C		+50 °C

Mechanical Specifications:

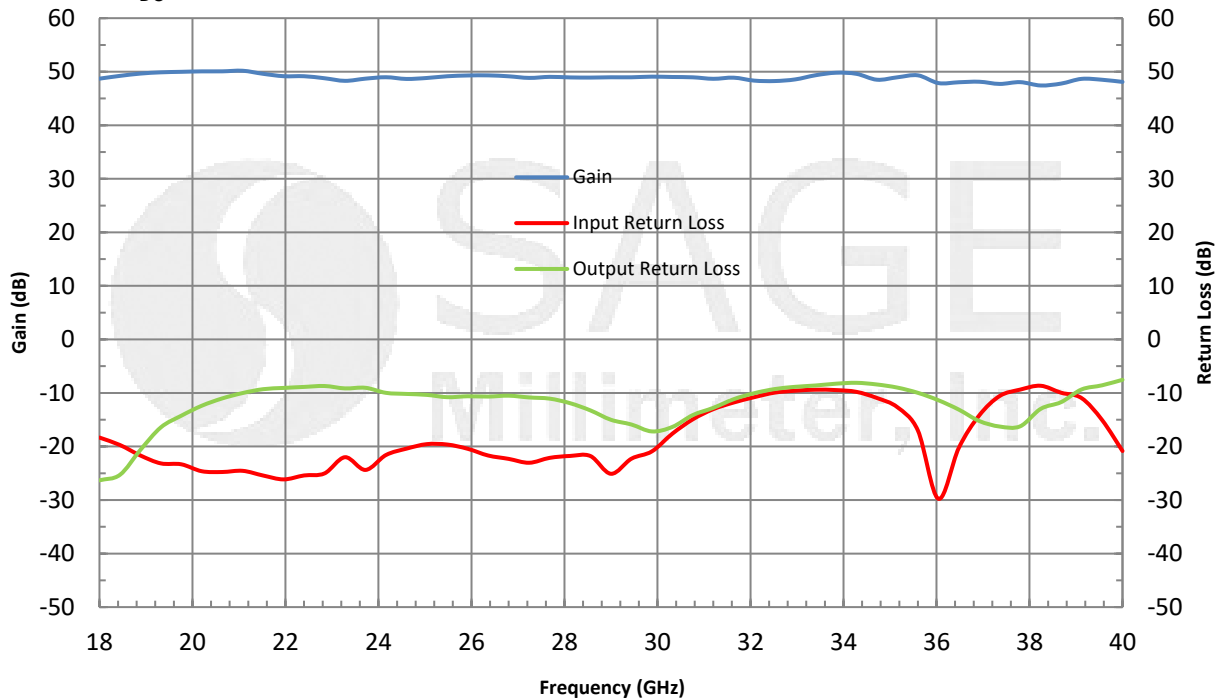
Item	Specification
Input	2.4 mm (F)
Output	2.4 mm (F)
Bias	Solder Pin
Case Material	Aluminum
Finish	Gold Plated
Weight	3.2 Oz
Size	1.57" (L) x 1.38" (W) x 0.47" (H)
Outline	BG-ZC-1



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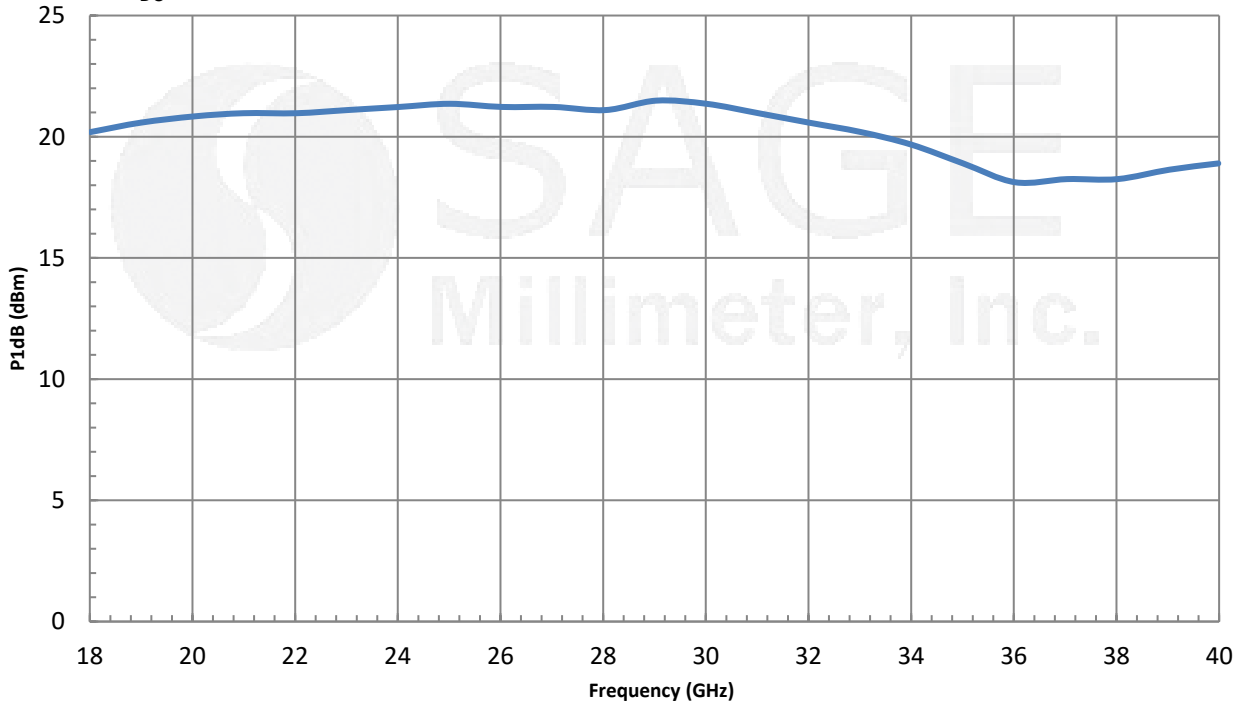
Typical Gain and Return Loss vs. Frequency

Bias: +12 V_{DC}/650 mA



Typical P_{1dB} vs. Frequency

Bias: +12 V_{DC}/650 mA

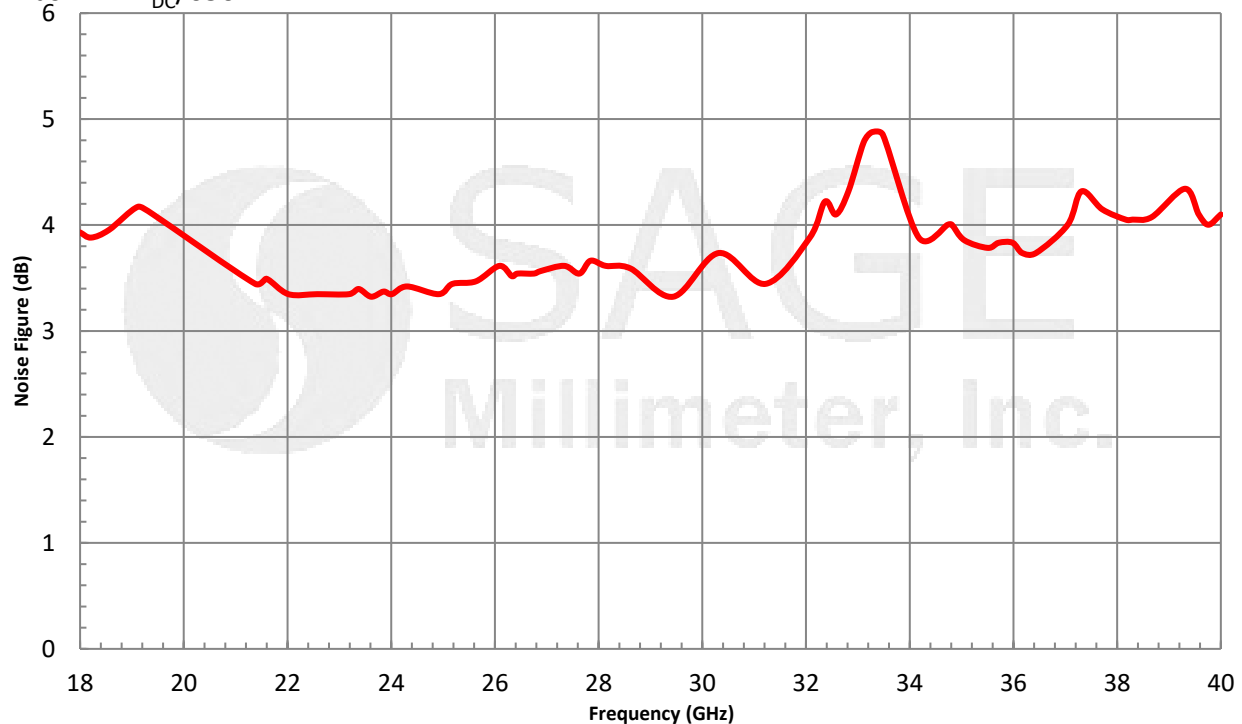




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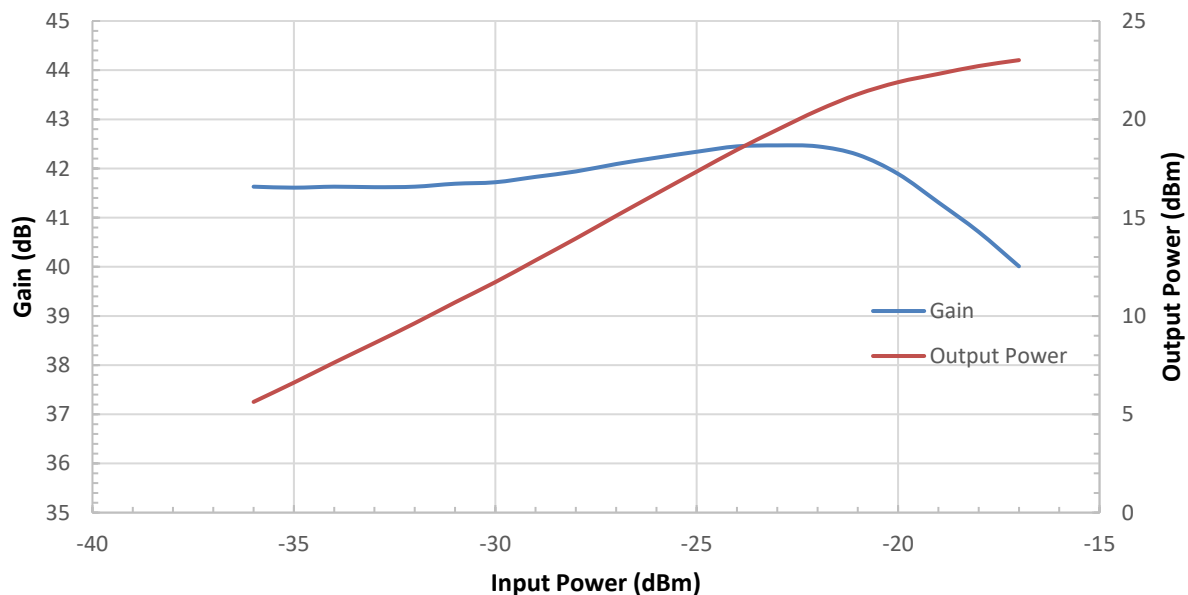
Typical Noise Figure vs. Frequency

Bias: +12 V_{DC}/650 mA



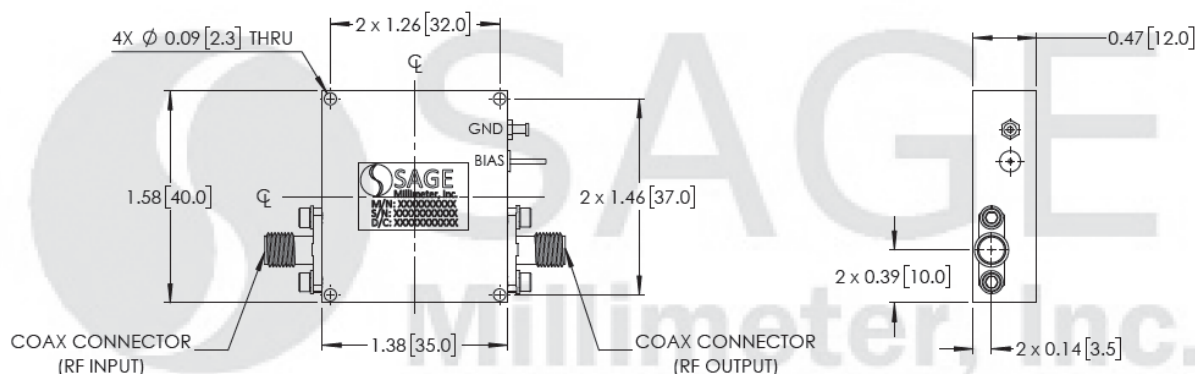
Gain and Output Power vs. Input Power

Input Frequency: 25 GHz



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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, slightly.
- 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.**

