SBB-0631831920-SFSF-S1-WP

Rev. 1.0

Broadband Amplifier, 6 to 18 GHz, 17 dB Gain, +20 dBm P_{1db}, 8 dB NF

Description:

Model SBB-0631831920-SFSF-S1-WP is a broadband amplifier with a typical small signal gain of 17 dB, a nominal P_{1dB} of +20 dBm, and a noise figure of 8 dB across the frequency range of 6 to 18 GHz. The DC power requirement for the amplifier is +8 V_{DC}/140 mA. The RF connectors are two female SMA connectors. Other port configurations are available under different model numbers.

Features:

- High Output Power
- Broad Bandwidth

Applications:

- Radar Systems
- Communication Systems
- Test Equipment

Electrical Specifications:

Parameter	Minimum	Typical	Maximum
Frequency	6 GHz		18 GHz
Gain		17 dB	
P_{1dB}		+20 dBm	
P_{sat}		+21 dBm	
Noise Figure		8 dB	
RF Input Power			+10 dBm
Input Return Loss		15 dB	
Output Return Loss		10 dB	
DC Voltage		+8 V_{DC}	+12 V_{DC}
DC Supply Current		140 mA	
Specification Temperature		+25 ˚C	
Operating Temperature	-40 ˚C		+85 ˚C

Mechanical Specifications:

Item	Specification
Input Port	SMA(F)
Output Port	SMA(F)
Bias	Solder Pin
Case Material	Aluminum
Finish	Gold Plated
Weight	1.8 Oz
Size	1.2” (L) X 1.2” (W) X 0.50” (H)
Outline	BG-SC-1

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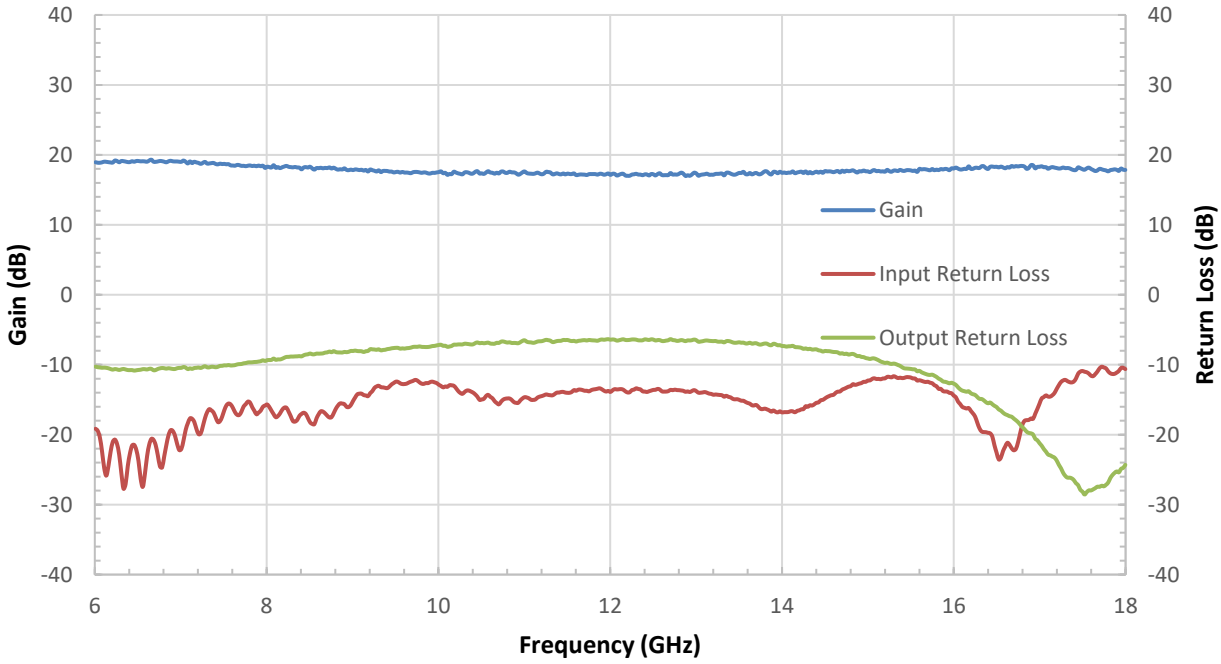
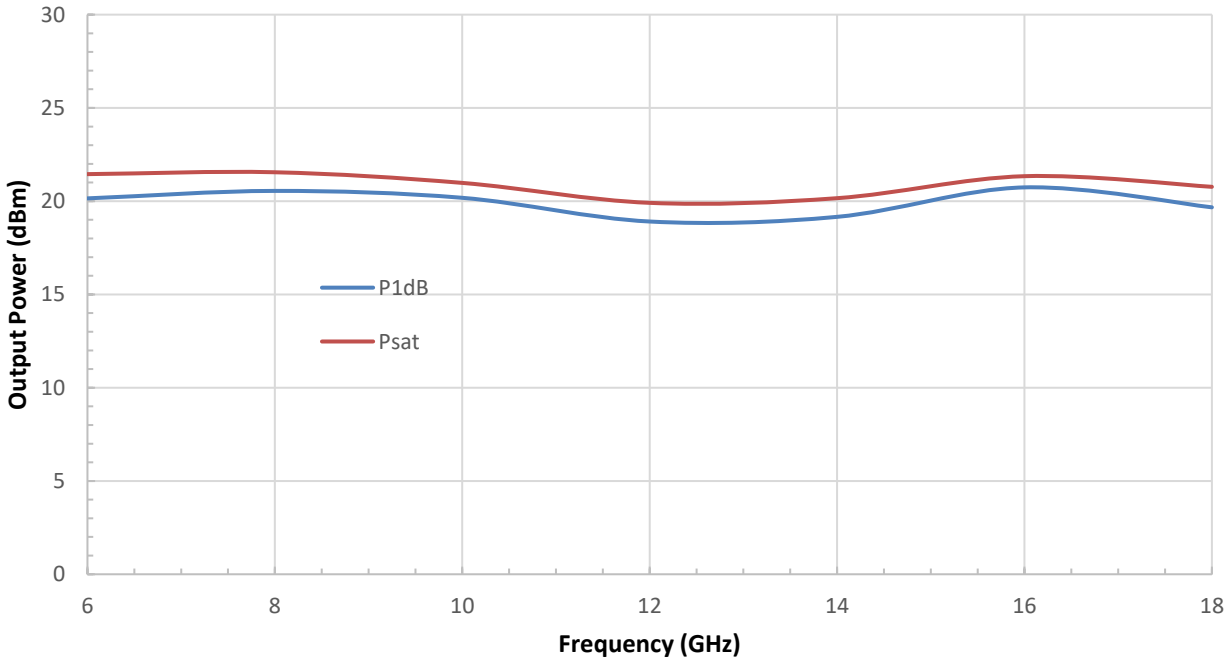
Gain and Return Loss vs. Frequency

Bias: +8 V_{DC}/140 mA



Output Power vs. Frequency

Bias: +8V_{DC}/140 mA



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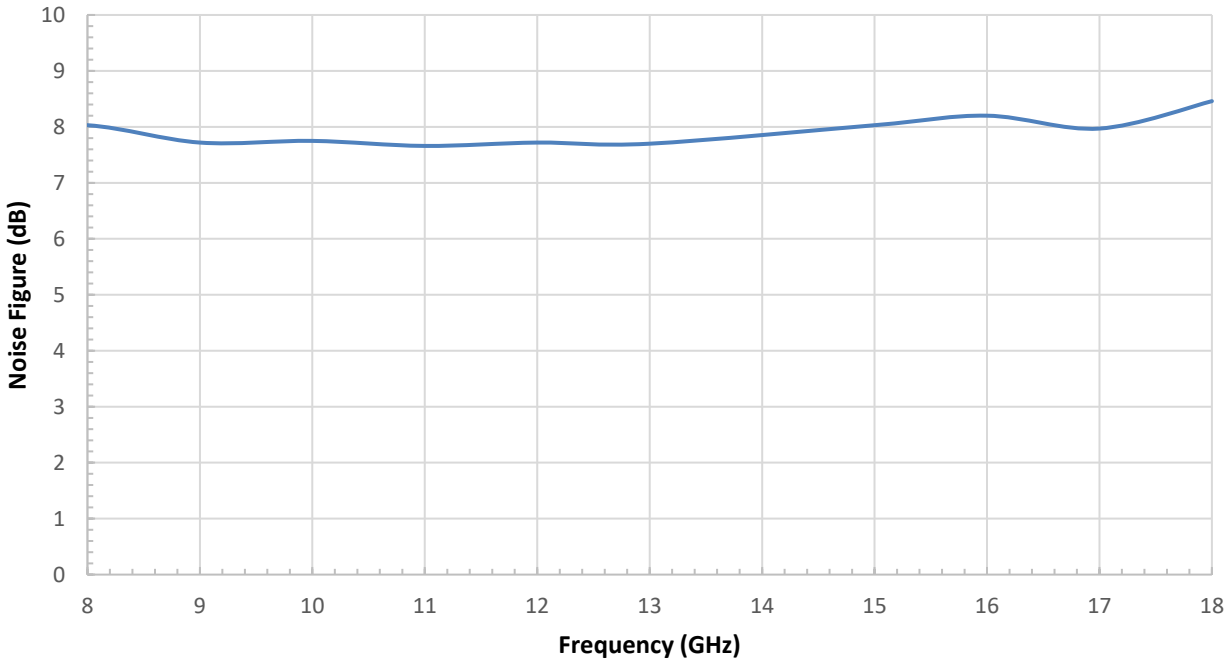
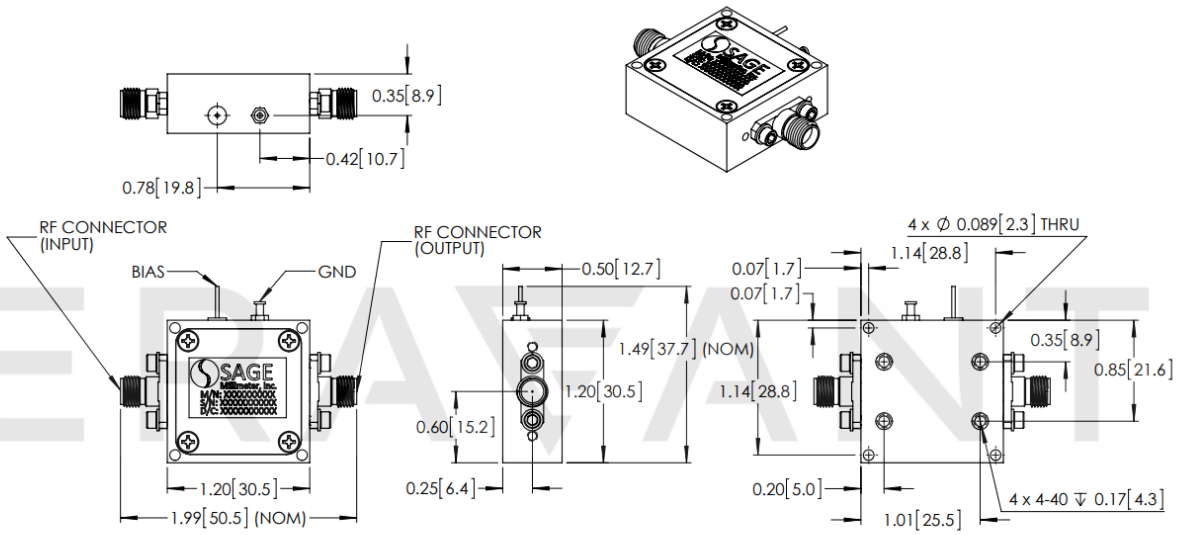
Noise Figure vs. Frequency

Bias: +8V_{DC}/140 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.**

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