



Broadband Amplifier, 0.5 to 24 GHz, 26 dB Gain, +17 dBm P_{1dB}, 5 dB NF

Description:

Model **SBB-0522432617-KFKF-S1** is a broadband amplifier with a typical small signal gain of 26 dB, a nominal P_{1dB} of +17 dBm, and a noise figure of 5 dB across the frequency range of 0.5 to 24 GHz. The DC power requirement for the amplifier is +8 V_{DC}/400 mA. The RF connectors are female K connectors. Other port configurations are available under different model numbers.



Features:

- High Output Power
- Extreme Gain Flatness

Applications:

- Radar Systems
- Communication Systems
- Test Equipment

Electrical Specifications:

Parameter	Minimum	Typical	Maximum
Frequency	0.5 GHz		24.0 GHz
Gain		26 dB	
P _{1dB}		+17 dBm	
P _{sat}		+18 dBm	
Noise Figure		5 dB	
P _{in}			0 dBm
Input Return Loss		10 dB	
Output Return Loss		10 dB	
DC Voltage	+6 V _{DC}	+8 V _{DC}	+15 V _{DC}
DC Supply Current		400 mA	
Specification Temperature		+25 °C	
Operating Temperature	0 °C		+50 °C

Mechanical Specifications:

Item	Specification
Input Port	K(F)
Output Port	K(F)
Bias	Solder Pin
Case Material	Aluminum
Finish	Gold Plated
Weight	1.3 Oz
Size	1.20" (W) X 1.20" (L) X 0.50" (H)
Outline	BG-SC-1

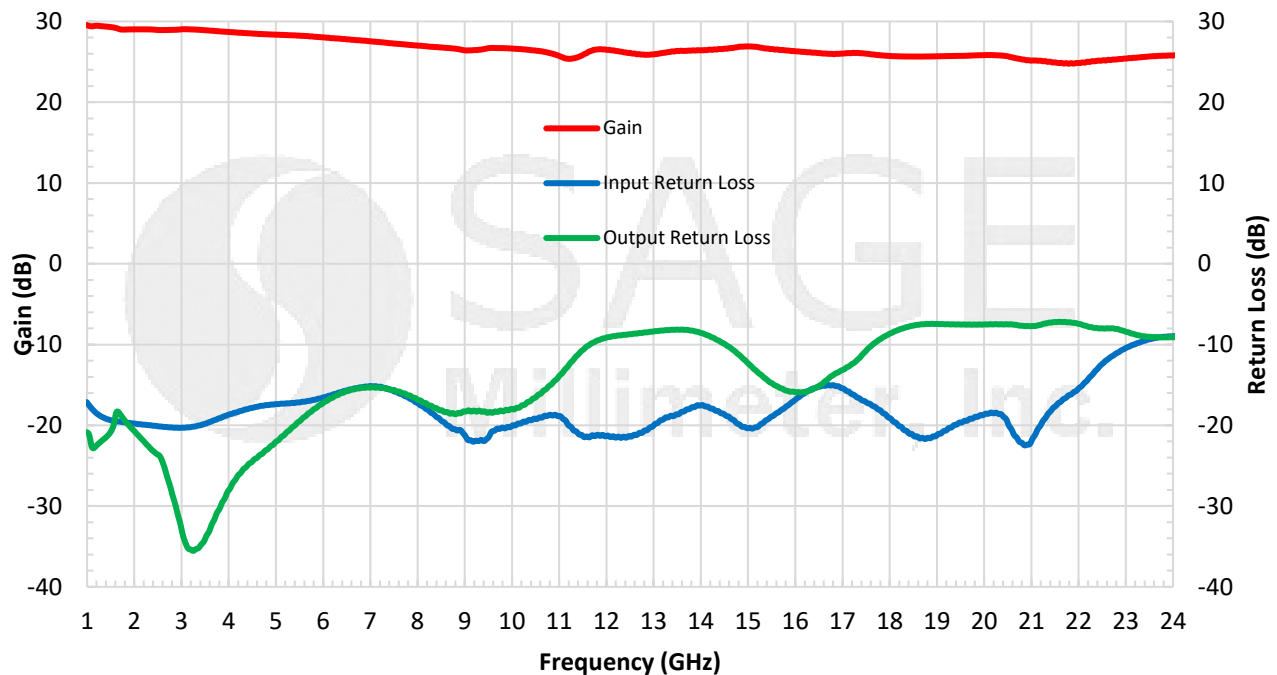




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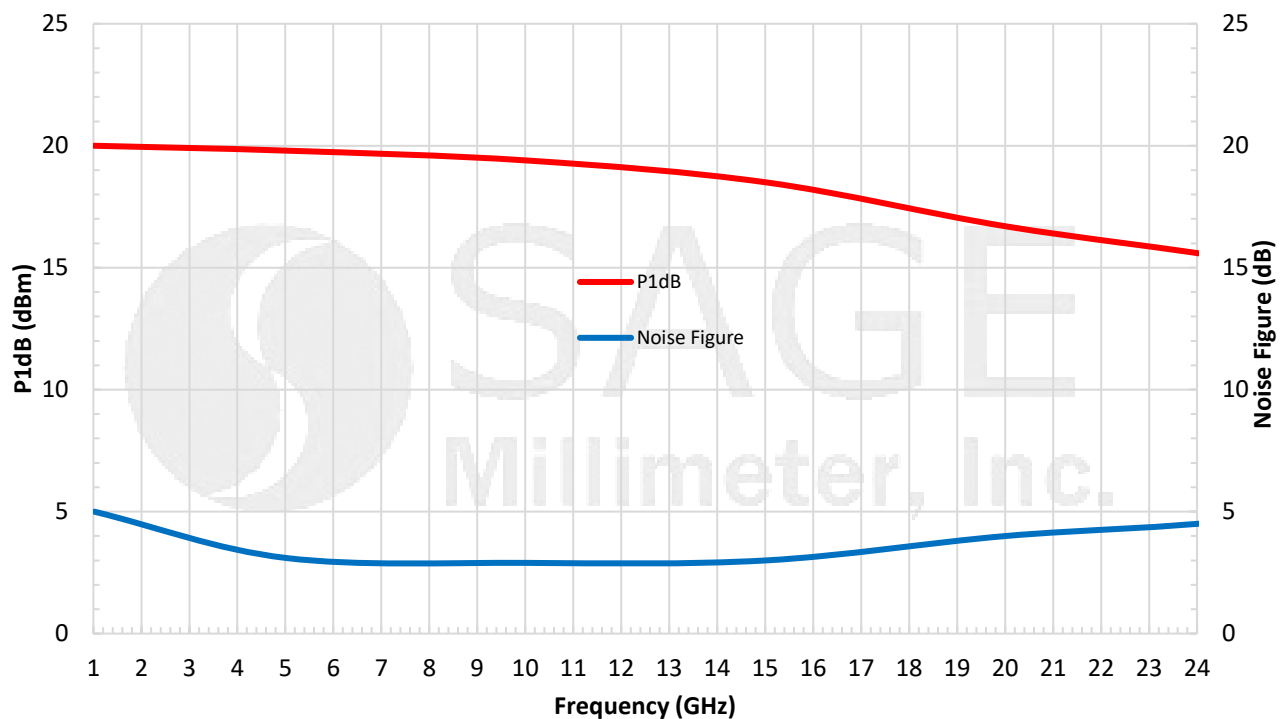
Typical Gain and Return Loss vs. Frequency

Bias: +8 V_{DC}/400 mA



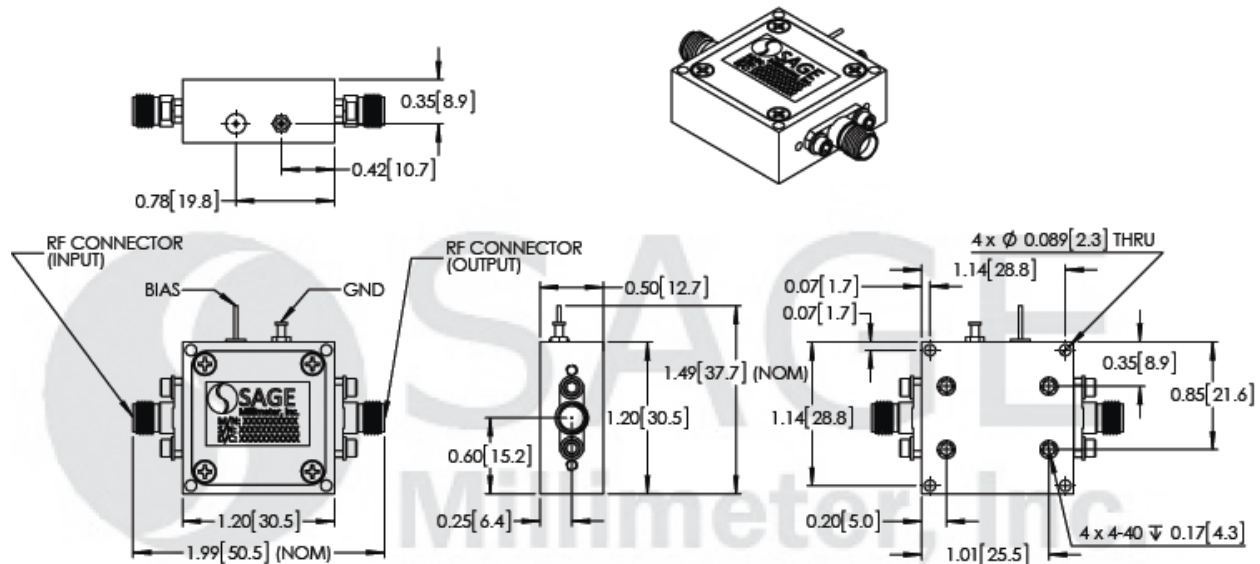
Typical P_{1dB} and Noise Figure vs. Frequency

Bias: +8 V_{DC}/400 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.
- SAGE Millimeter, Inc. 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. **SAGE Millimeter torque wrench, model SCH-08008-S1, is highly recommended.**

