SBB-1834033525-KFKF-E3-WPC

Rev. 1.1

Broadband Amplifier, 18 to 40 GHz, 35 dB Gain, +24 dBm P_{1dB}

Description:

Model SBB-1834033525-KFKF-E3-WPC is a broadband power amplifier with a typical small signal gain of 35 dB, a nominal P_{1dB} of +24 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}/900 mA. The use of a heat sink is advised to assist in cooling the device. The RF connectors are female 2.92 mm (K) connectors. Other port configurations are available under different model numbers.

Features:

- Broadband Coverage
- Good Gain Flatness

Applications:

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

Electrical Specifications:

Parameter	Minimum	Typical	Maximum
Frequency*	18 GHz		40 GHz
Gain	30 dB	35 dB	
P_{1dB}		+24 dBm	
P_{sat}		+25 dBm	
Noise Figure		5.5 dB	
P_{in}			0 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		900 mA	1,200 mA
Specification Temperature		+25 ˚C	
Operating Temperature	0 ˚C		+50 ˚C

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

Mechanical Specifications:

Item	Specification
Input	K (F)
Output	K (F)
Bias	Solder Pin
Case Material	Aluminum
Finish	Gold Plated
Weight	7.1 Oz
Size Without Heatsink	1.58” (L) x 1.38” (W) x 0.47” (H)
Outline	BG-ZC-4

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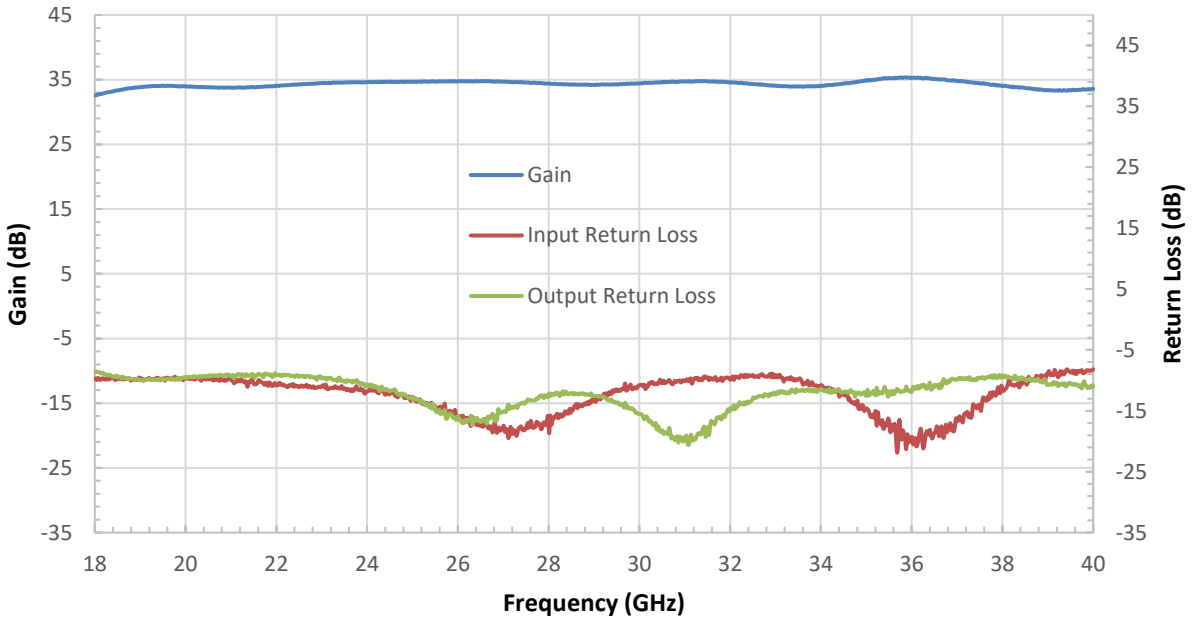
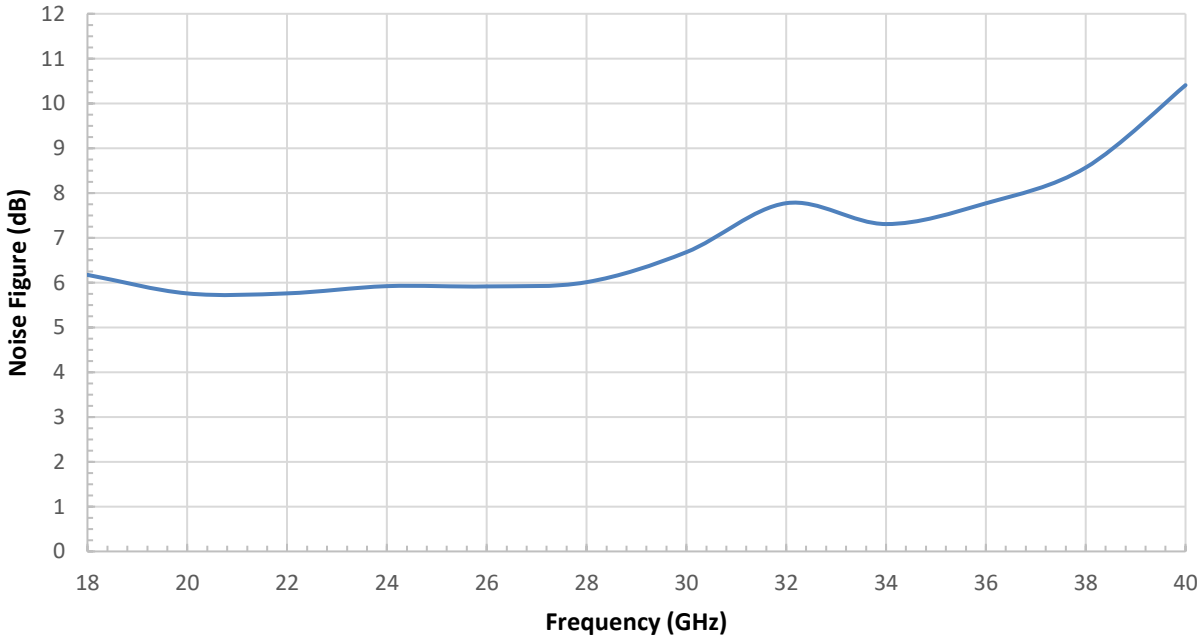
Gain and Return Loss vs. Frequency

Bias: +12 V_{DC}/328 mA



Noise Figure vs. Frequency

Bias: +12V_{DC}/328 mA



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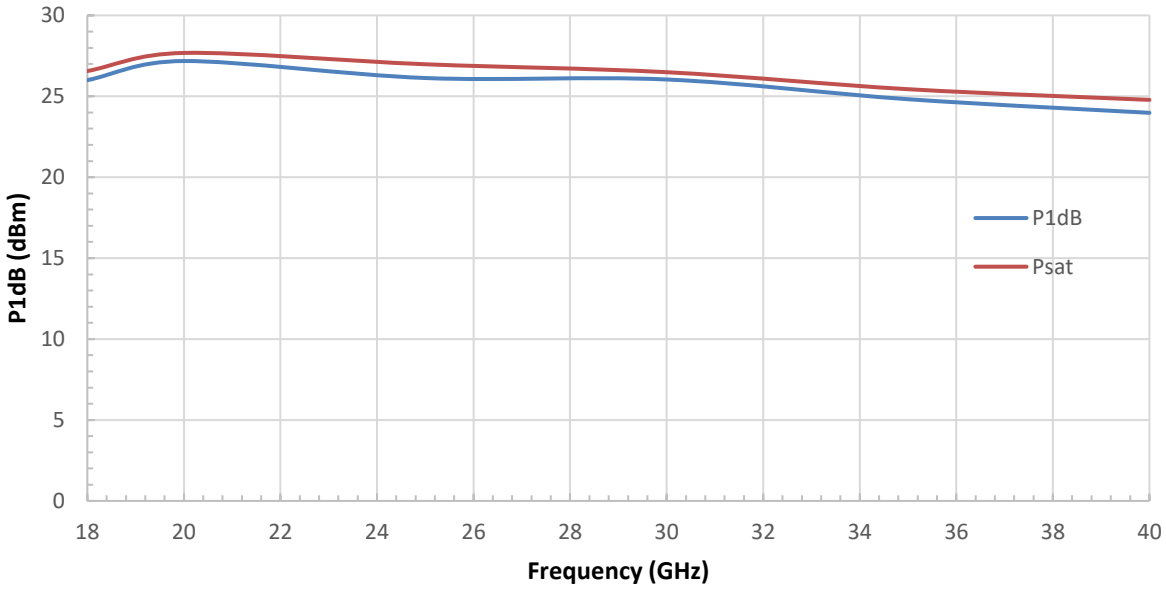
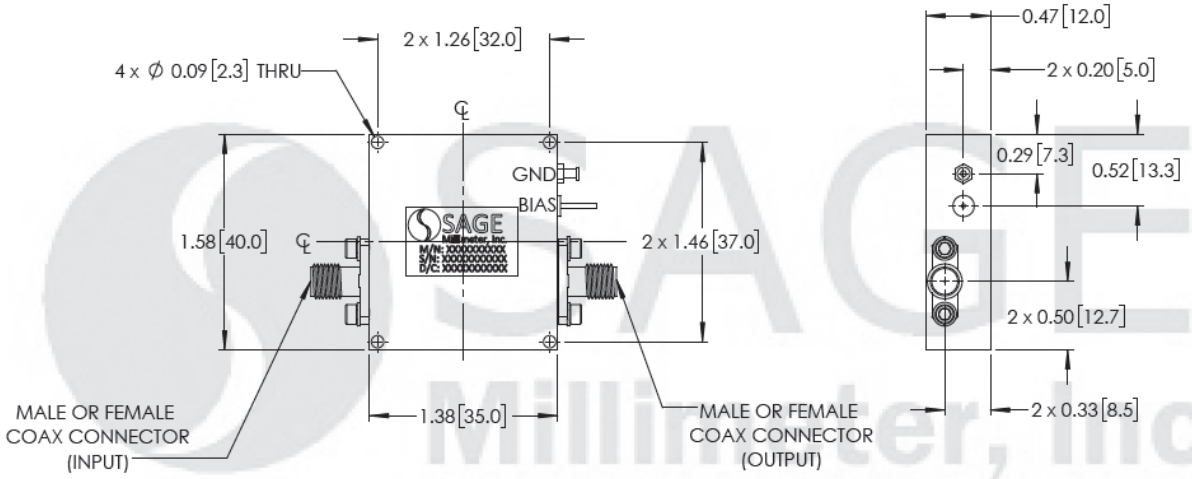
P1dB vs. Frequency

Bias: +12V_{DC}/330 mA



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.
- SAGE Millimeter, Inc. reserves the right to change the information presented without notice.
- Other mechanical configurations are available under different model numbers.

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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.
- 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.**