SBP-2734033526-KFKF-S1-2

Rev 1.1

Ka-Band Power Amplifier, 26.5 to 40 GHz, 35 dB Gain, +26 dBm P_{1dB}

Description:

Model SBP-2734033526-KFKF-S1-2 is a Ka band power amplifier with a typical small signal gain of 35 dB and a nominal P_{1dB} of +26 dBm across the frequency range of 26.5 to 40 GHz. The DC power requirement for the amplifier is +8 V_{DC}/1150 mA. The RF connectors are female 2.92 mm (K) connectors. Other port configurations are available under different model numbers. The power amplifier requires a heatsink.

Features:

- High Gain
- High Output Power
- Good Power and Gain Flatness

Applications:

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

Electrical Specifications:

Parameter	Minimum	Typical	Maximum
Frequency	26.5 GHz		40 GHz
Gain		35 dB	
P_{1dB}	+25 dBm	+26 dBm	
P_{SAT}		+28 dBm	
P_{in}			+5 dBm
Noise Figure		7 dB	
Input Return Loss		10 dB	
Output Return Loss		10 dB	
DC Voltage	+6 V_{DC}	+8 V_{DC}	+15 V_{DC}
DC Supply Current		1150 mA	
Specification Temperature		+25 ˚C	
Operating Temperature	0 ˚C		+50 ˚C

Mechanical Specifications:

Item	Specification
Input Port	2.92 mm Female Connector
Output Port	2.92 mm Female Connector
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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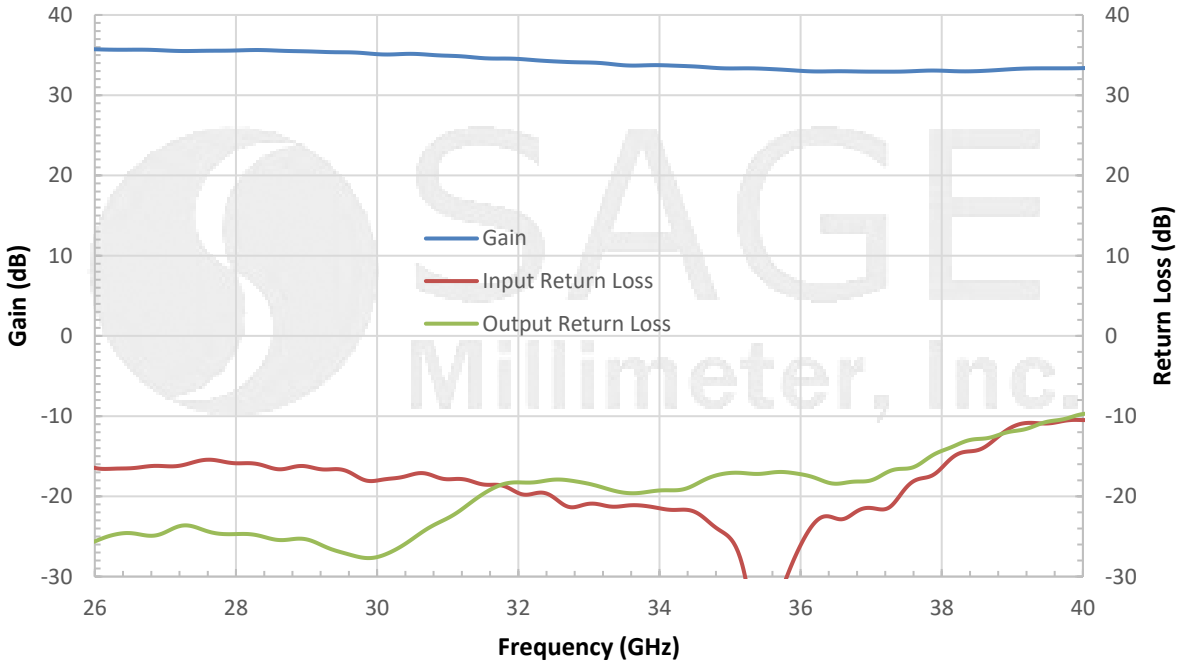
Ka-Band Power Amplifier, 26.5 to 40 GHz, 35 dB Gain, +26 dBm P_{1dB}

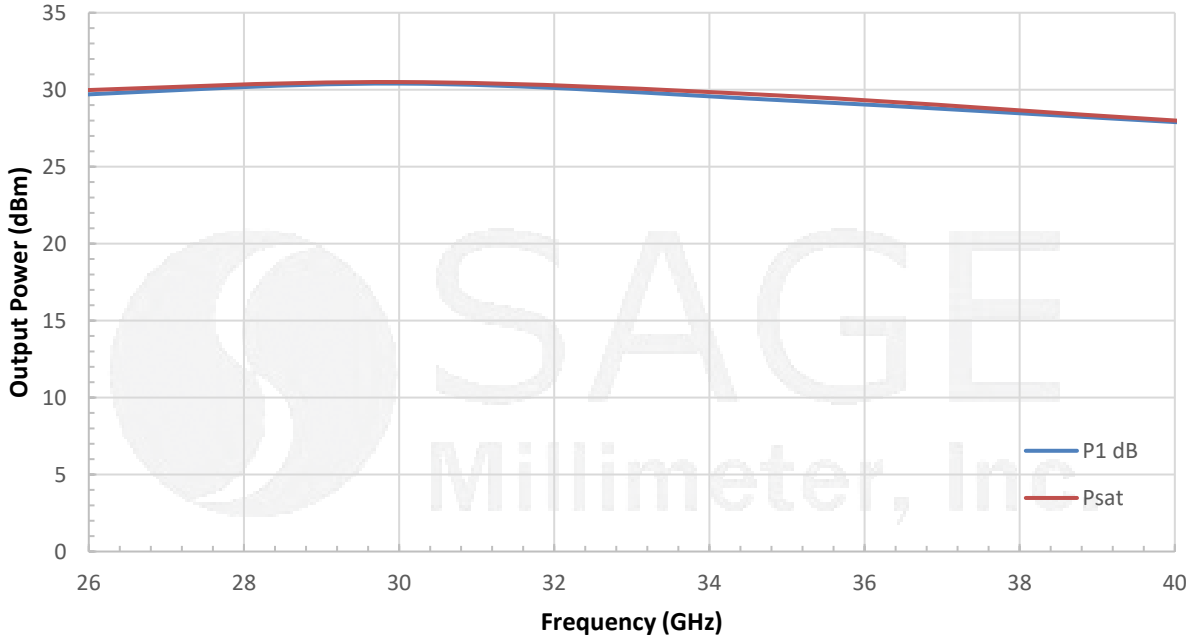
Gain and Return Loss vs. Frequency

Bias: +8 V_{DC}/1,129 mA



Output Power vs. Frequency

Bias: +8 V_{DC}/1,129 mA



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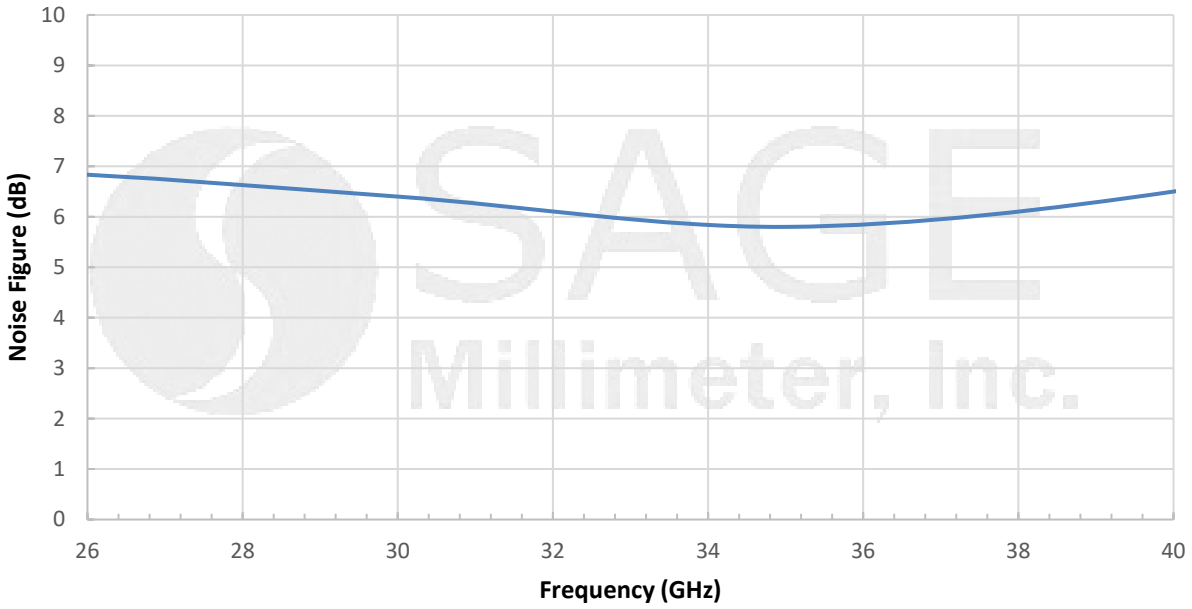
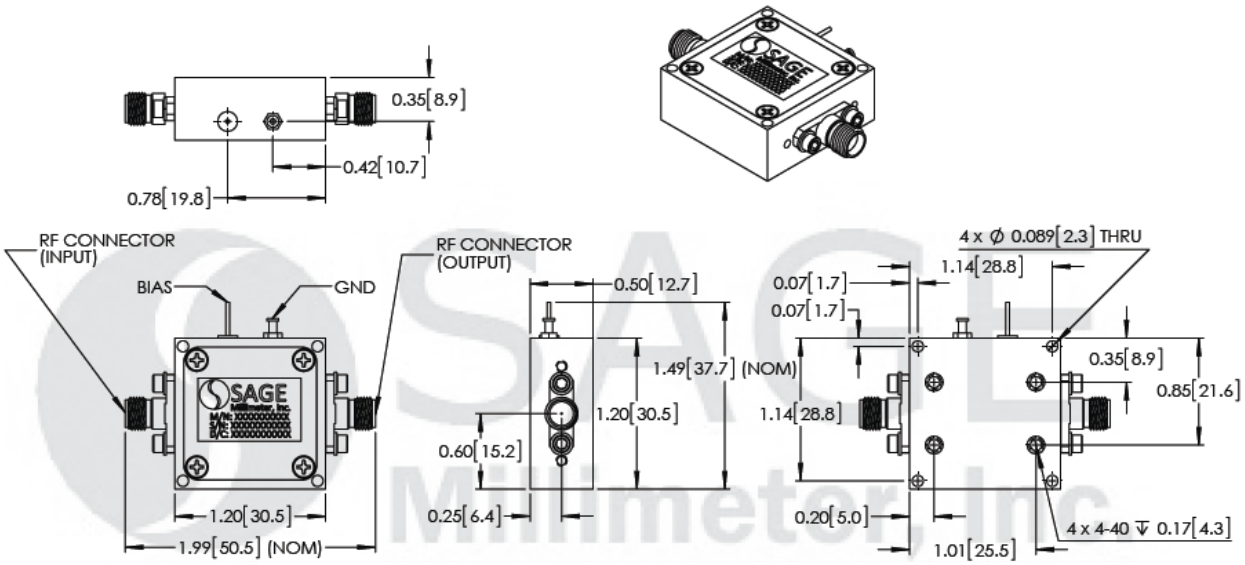
Noise Figure vs. Frequency

Bias: +8 V_{DC}/1,129 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.
- Exceeding the maximum bias voltage of **+12 V_{DC}** will cause amplifier overheating and result the instability.
- 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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