



K-Band Power Amplifier, 18 to 26.5 GHz, 25 dB Gain, +28 dBm P_{1dB}

Description:

Model SBP-1832732528-KFKF-S1 is a power amplifier with a typical small signal gain of 25 dB and a nominal P_{1dB} of +28 dBm across the frequency range of 18 to 26.5 GHz. The amplifier exhibits extreme gain flatness and 10 dBm typical input and output return loss. The DC power requirement for the amplifier is +8 V_{DC}/850 mA. The RF connectors are female K connectors. Other port configurations, such as male K connectors and WR-42 waveguides for either the input or output port, are also available under different model numbers.



Features:

- Full Waveguide Band Coverage
- High Output Power
- Extreme Gain Flatness

Applications:

- Radar Systems
- Communication Systems
- Test Equipment

Electrical Specifications:

Parameter	Minimum	Typical	Maximum
Frequency	18.0 GHz		26.5 GHz
Gain		25 dB	
P _{1dB}		+28 dBm	
P _{sat}		+30 dBm	
P _{in}			+5 dBm
Input Return Loss		10 dBm	
Output Return Loss		10 dBm	
DC Voltage	+7.5 V _{DC}	+8.0 V _{DC}	+15.0 V _{DC}
DC Supply Current		850 mA	
Specification Temperature		+25°C	
Operating Temperature	0°C		+50°C

Mechanical Specifications:

Item	Specification
Input	K(F)
Output	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

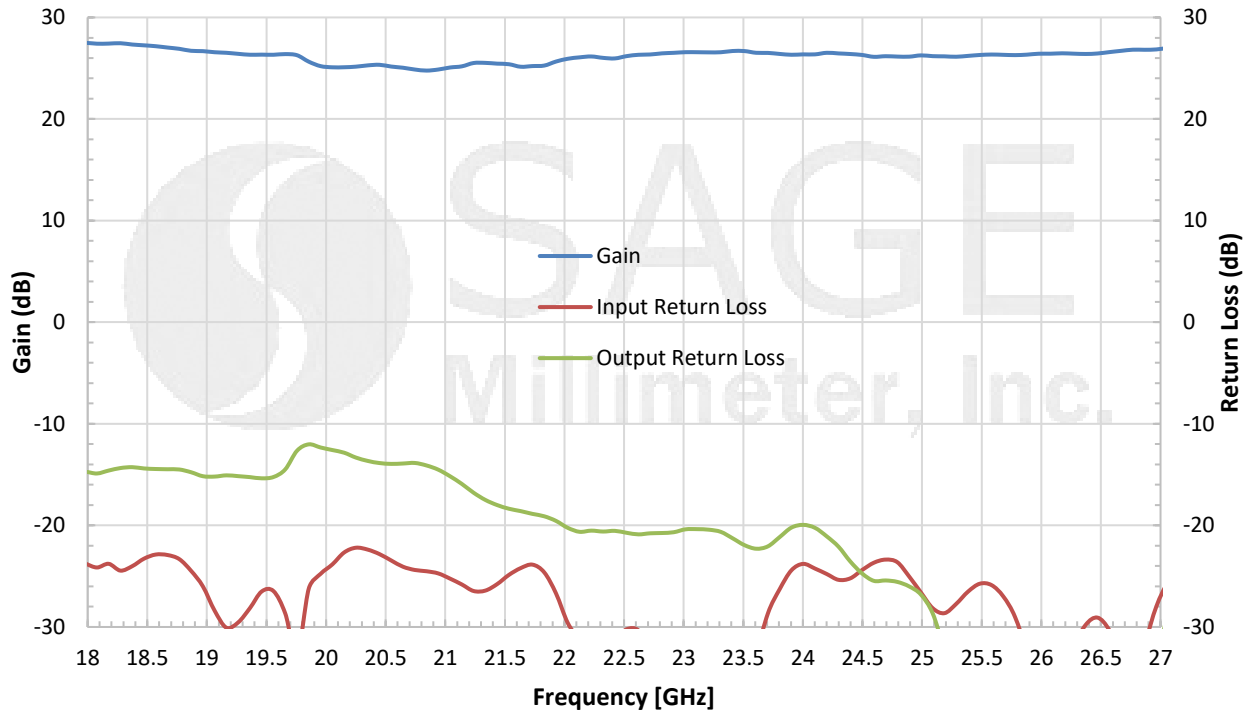




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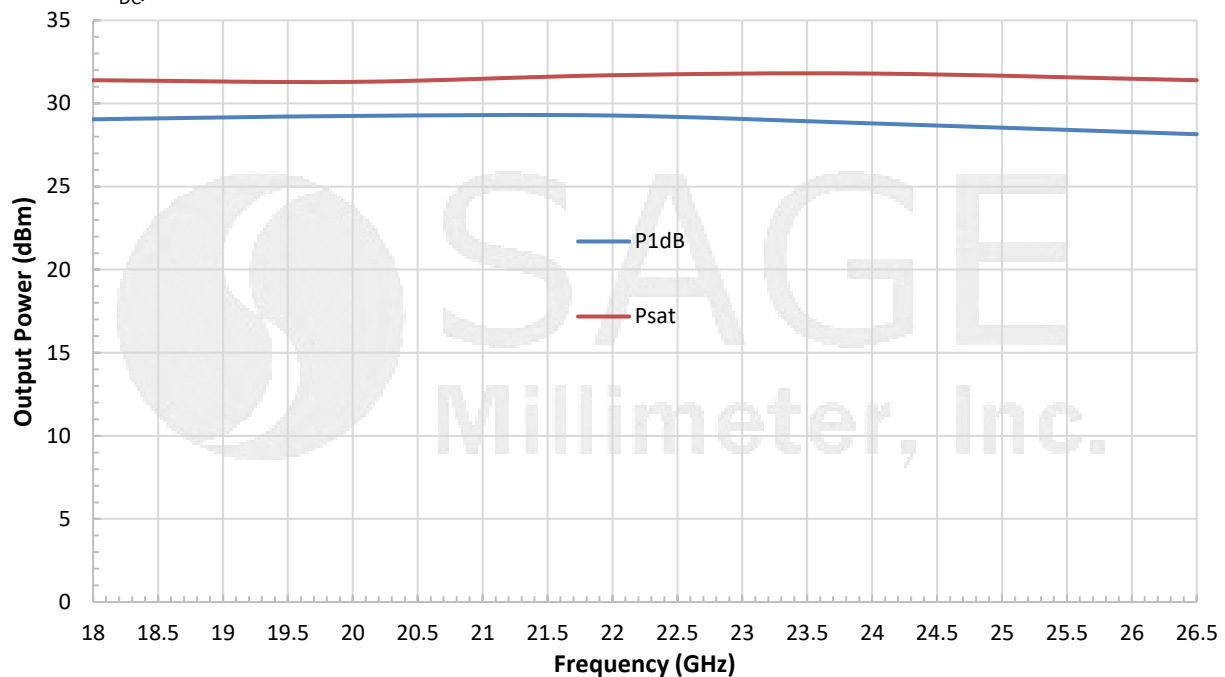
Typical Gain and Return Loss vs. Frequency

Bias: +8 V_{DC}/850 mA



Typical P_{1dB} & P_{sat} vs. Frequency

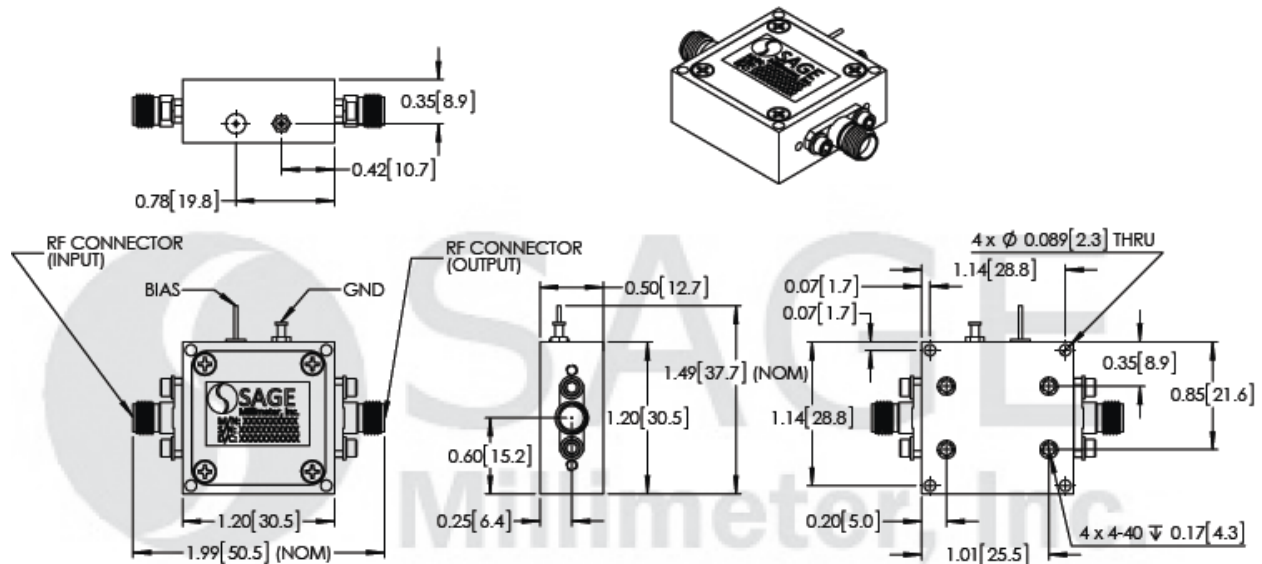
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Mechanical Outline: (Unless otherwise specified, all dimensions are in inches [millimeters])



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.
- 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.**

