



V-Band Power Amplifier, 55 to 65 GHz, 30 dB Gain, +22 dBm P_{1dB}

Description:

Model SBP-5536533022-VFVF-S1 is a power amplifier with a typical small signal gain of 30 dB and a nominal P_{1dB} of +22 dBm across the frequency range of 55 to 65 GHz. The DC power requirement for the amplifier is +8 V_{DC}/800 mA. The RF connectors are female V connectors. Other port configurations, such as male V connectors and WR-15 waveguides for either the input or output port, are also available under different model numbers.



Features:

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

Applications:

- IEEE 802.11ab WiGig
- Radar Systems
- Communication Systems
- Test Equipment

Electrical Specifications:

Parameter	Minimum	Typical	Maximum
Frequency	55 GHz		65 GHz
Gain		30 dB	
P _{1dB}		+22 dBm	
P _{SAT}		+23 dBm	
P _{in}			+0 dBm
Input Return Loss		10 dB	
Output Return Loss		10 dB	
DC Voltage	+7 V _{DC}	+8 V _{DC}	+12 V _{DC}
DC Supply Current		800 mA	
Specification Temperature		+25°C	
Operating Temperature	0°C		+50°C

Mechanical Specifications:

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

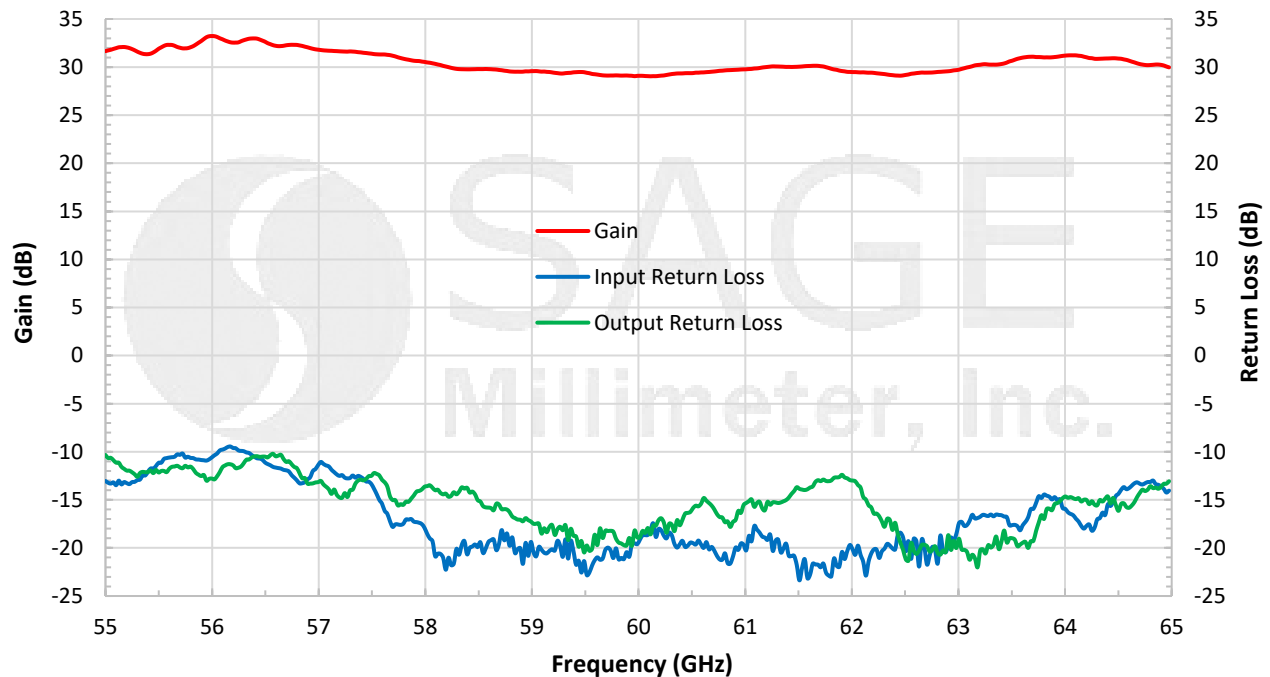




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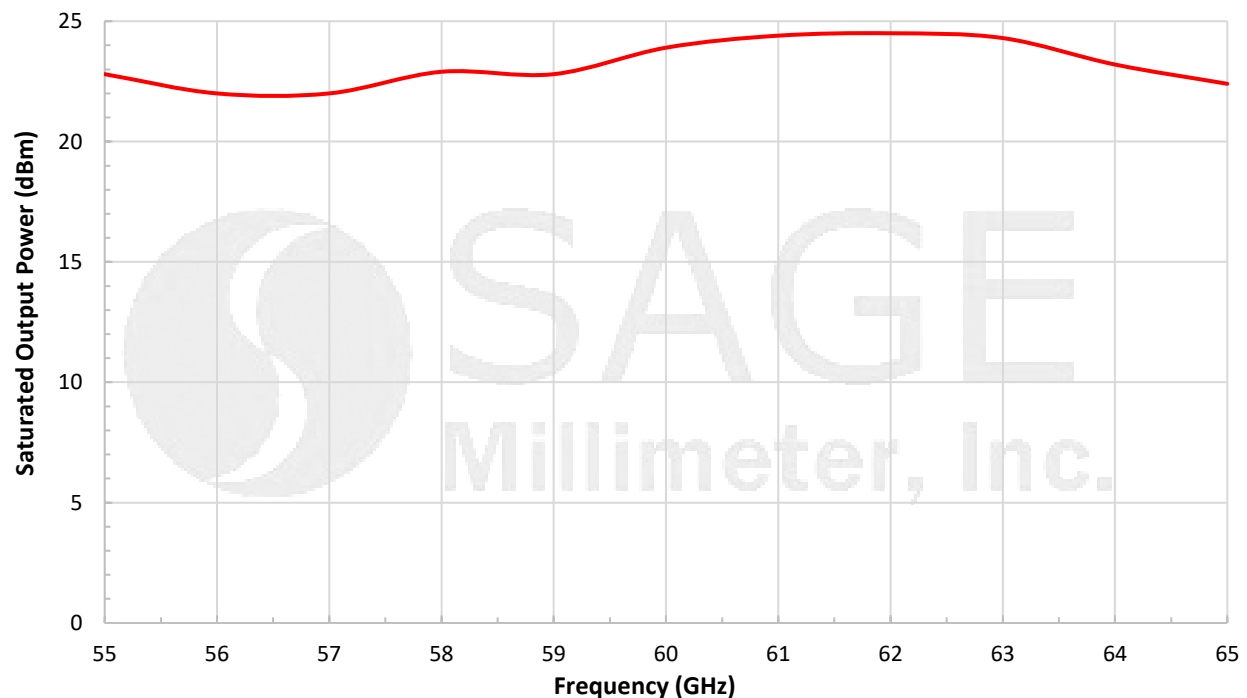
Typical Gain and Return Loss vs. Frequency

Bias: +8 V_{DC}/800 mA



Typical Saturated Output Power vs. Frequency

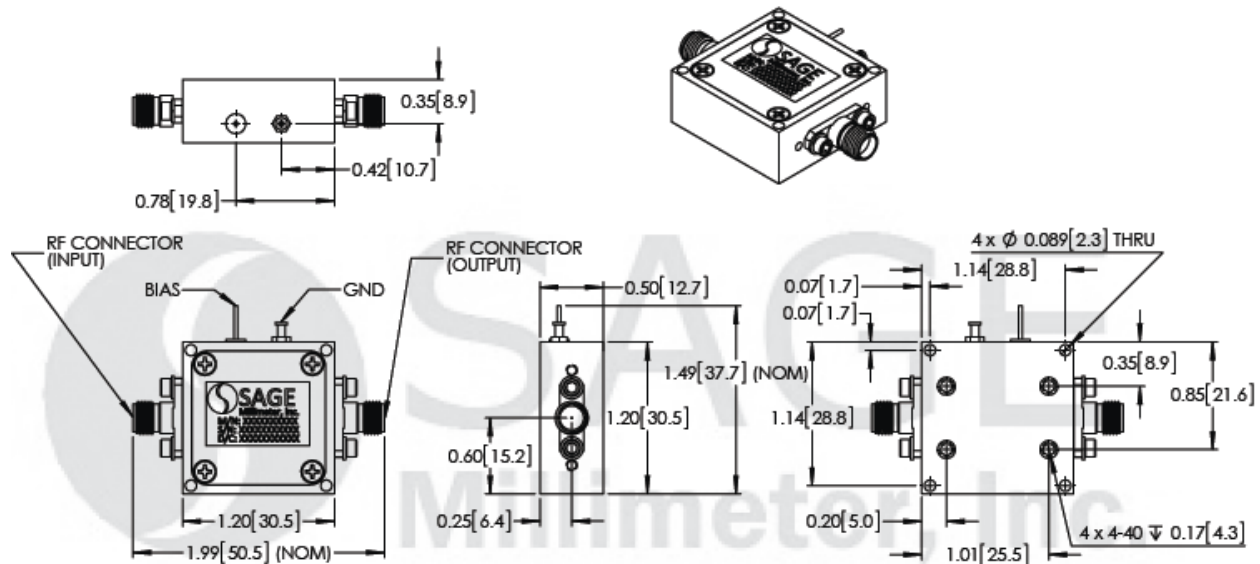
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Mechanical Outline: (Unless otherwise specified, all dimensions are in inches [millimeters])



Note:

- All data presented is collected from a sample lot. Actual data may vary unit to unit.
- 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 ± 0.4 inch-pounds (0.90 ± 0.02 Nm), should be applied. **SAGE Millimeter torque wrench, model SCH-08008-S1, is highly recommended.**

