SBP-5037033522-VFVF-S1

Rev 1.0

V-Band Power Amplifier, 50 to 70 GHz, 35 dB Gain, +22 dBm P_{1dB}

Description:

Model SBP-5037033522-VFVF-S1 is a power amplifier with a typical small signal gain of 35 dB and a nominal P_{1dB} of +22 dBm across the frequency range of 50 to 70 GHz. The DC power requirement for the amplifier is +8 V_{DC}/1450 mA. The input and output ports are both female V connectors. Other port configurations, such as inline and right-angle waveguides, are also available under different model numbers.

Features:

- Broadband Performance
- High Output Power
- High Gain

Applications:

- IEEE 802.11.ad WiGig
- Radar Systems
- Communication Systems
- Test Equipment

Electrical Specifications:

Parameter	Minimum	Typical	Maximum
Frequency	50 GHz		70 GHz
Gain		35 dB	
P_{1dB}		+22 dBm	
P_{sat}		+24 dBm	
P_{in}			+20 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		1450 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
Size	1.20” (W) X 2.00” (L) X 0.50” (H)
Outline	BG-SC-1-2.0

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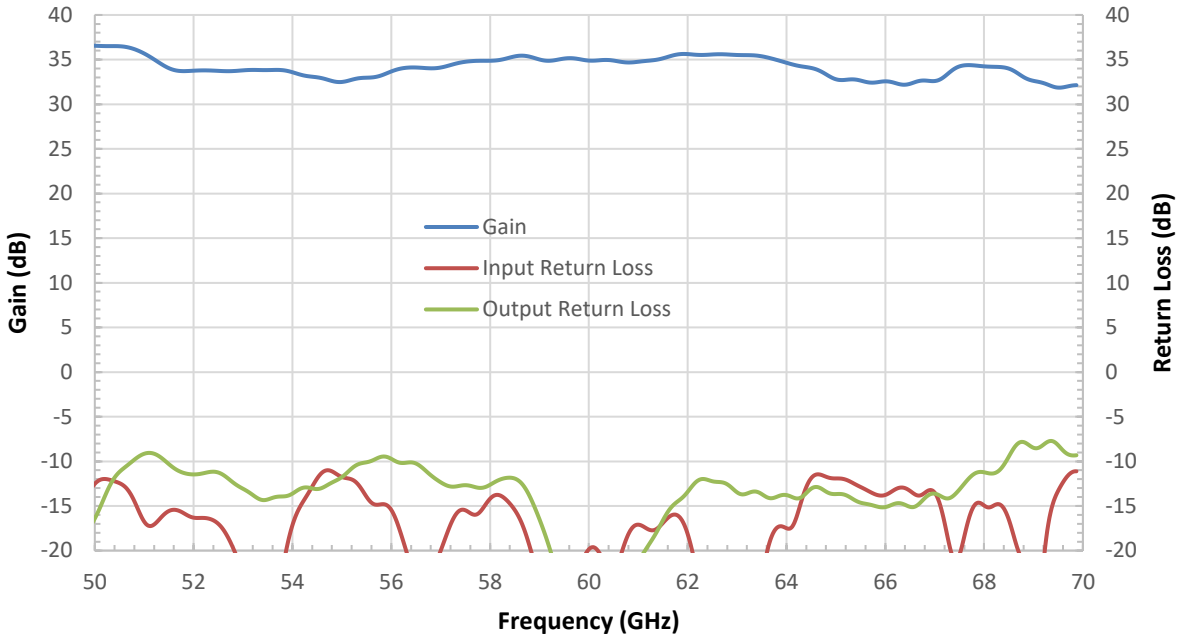
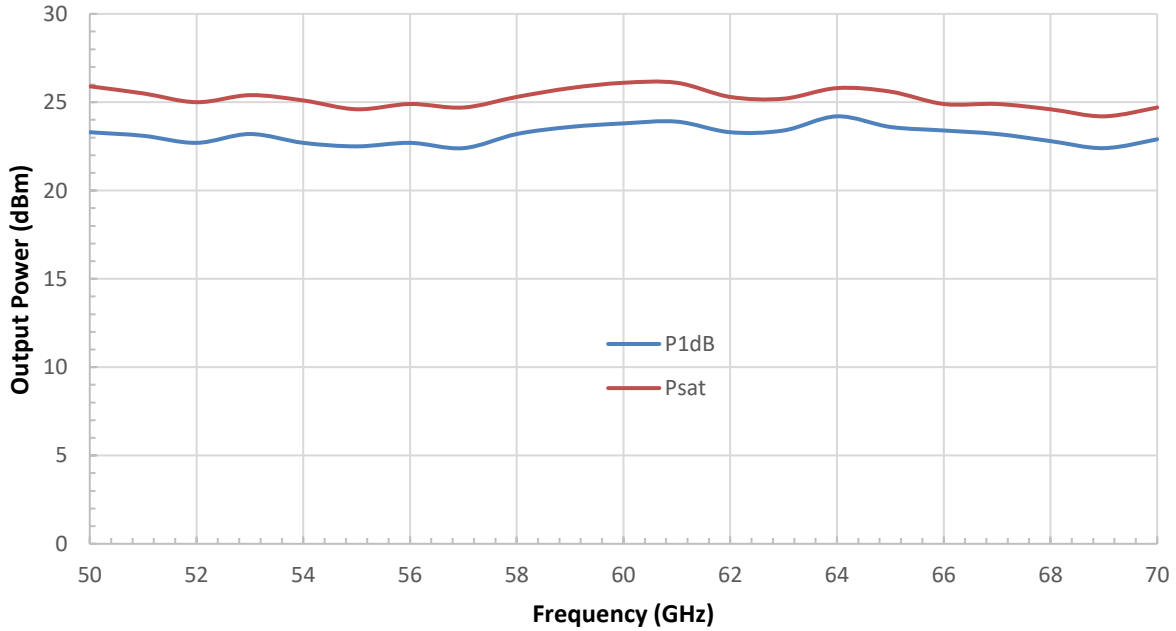
Gain and Return Loss vs. Frequency

Bias: +8 V_{DC}/1,466 mA



Output Power vs. Frequency

Bias: +8 V_{DC}/1,466 mA
RFsat: +8Vdc/1,850 mA



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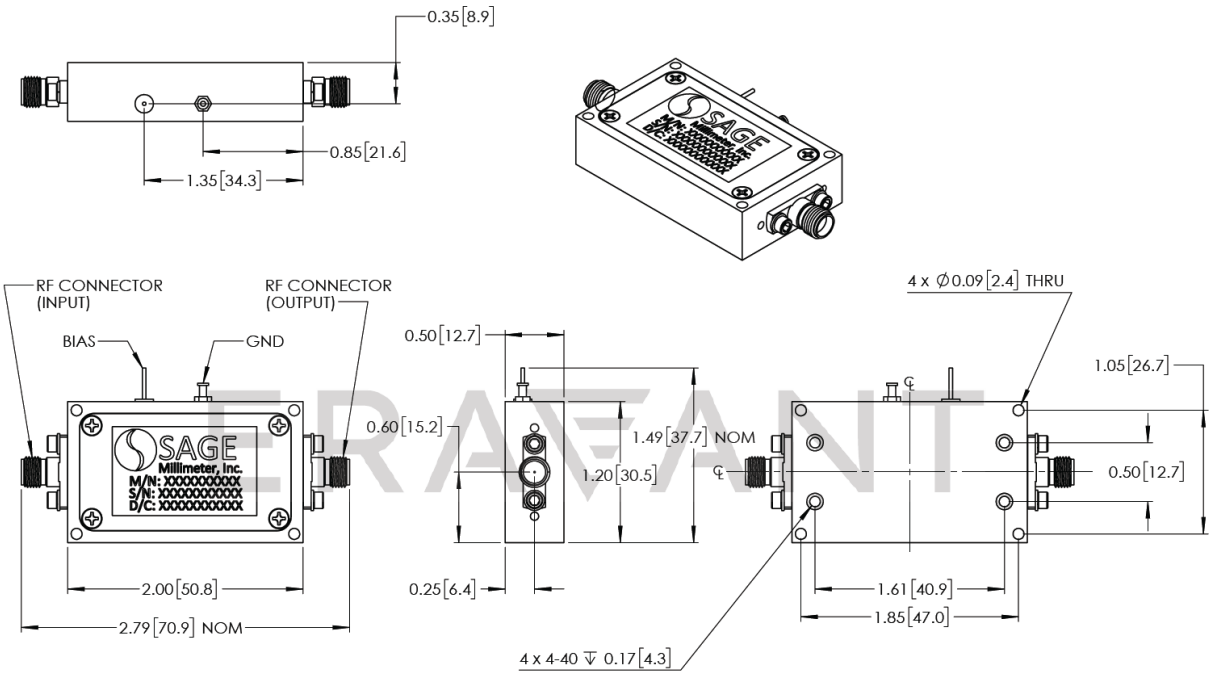
Mechanical Outline: (Unless otherwise specified, all dimensions are in inches [millimeters])



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.
- 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.
- 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. **Eravant torque wrench, model SCH-08008-S1, is highly recommended.**