

## SBP-5536533022-VFVF-S1

### V-Band Power Amplifier, 55 to 65 GHz, 30 dB Gain, +22 dBm P<sub>1dB</sub>

**SBP-5536533022-VFVF-S1** is a power amplifier with a typical small signal gain of 30 dB and a nominal P<sub>1dB</sub> of +22 dBm across the frequency range of 55 to 65 GHz. The DC power requirement for the amplifier is +8 V<sub>DC</sub>/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.



#### Electrical Specifications:

Parameter	Minimum	Typical	Maximum
Frequency	55 GHz		65 GHz
Gain		30 dB	
P <sub>1dB</sub>		+22 dBm	
P <sub>sat</sub>		+23 dBm	
P <sub>In</sub>			0 dBm
Input Return Loss		10 dB	
Output Return Loss		10 dB	
DC Voltage	+6 V <sub>DC</sub>	+8 V <sub>DC</sub>	+15 V <sub>DC</sub>
DC Supply Current		800 mA	
Specification Temperature		+25°C	
Operating Temperature	0°C		+50°C

#### Mechanical Specifications:

Item	Specification
Ports	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

#### ECCN

3A001.b.4

#### FEATURES

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

#### APPLICATIONS

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

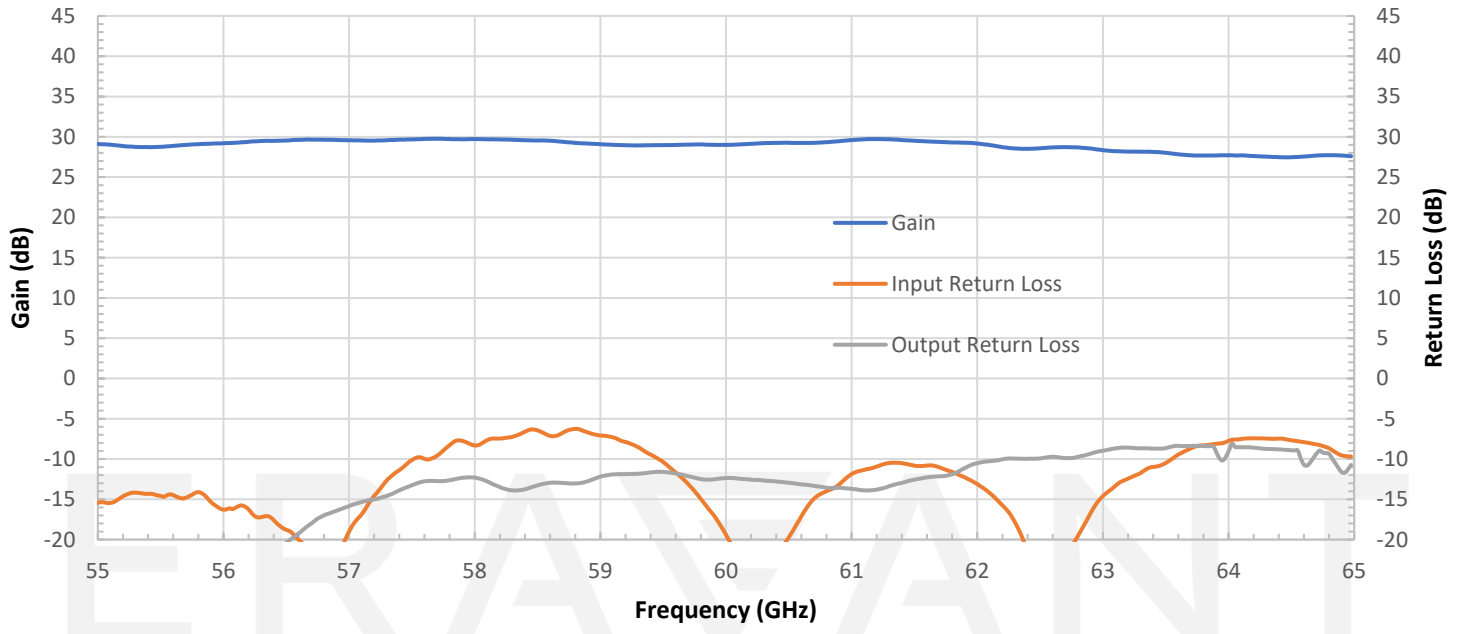
#### SUPPLEMENTAL DETAILS



## SBP-5536533022-VFVF-S1

### Gain and Return Loss vs. Frequency

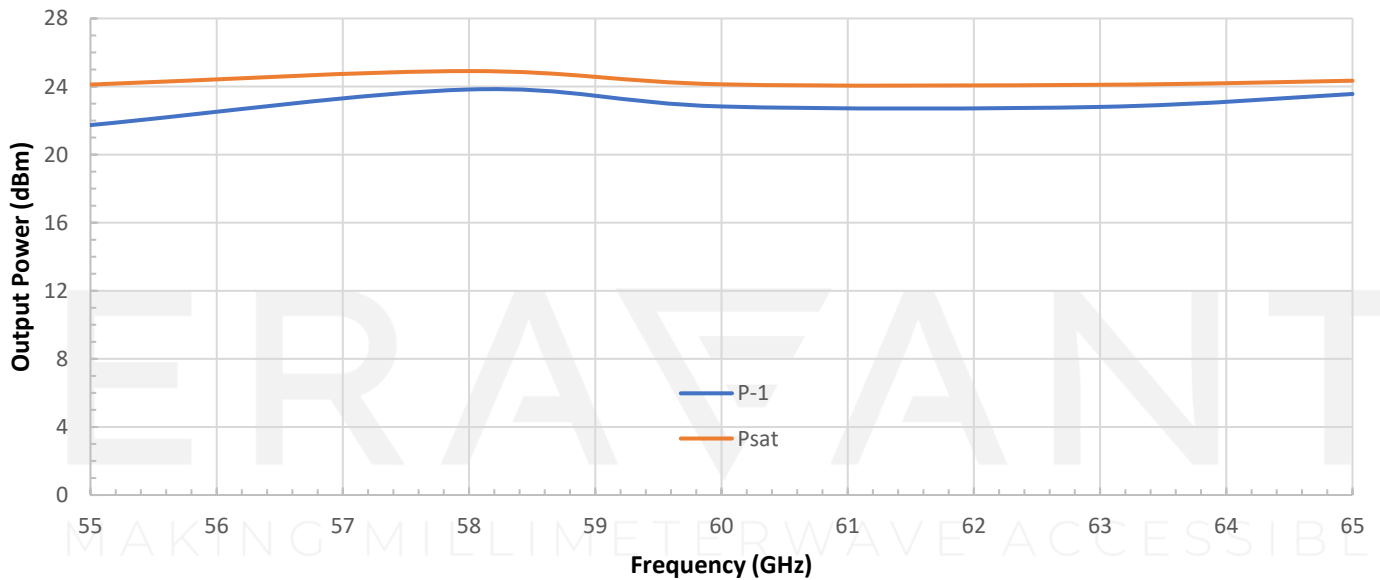
Bias: +8 V<sub>DC</sub>/732 mA



### Output Power vs. Frequency

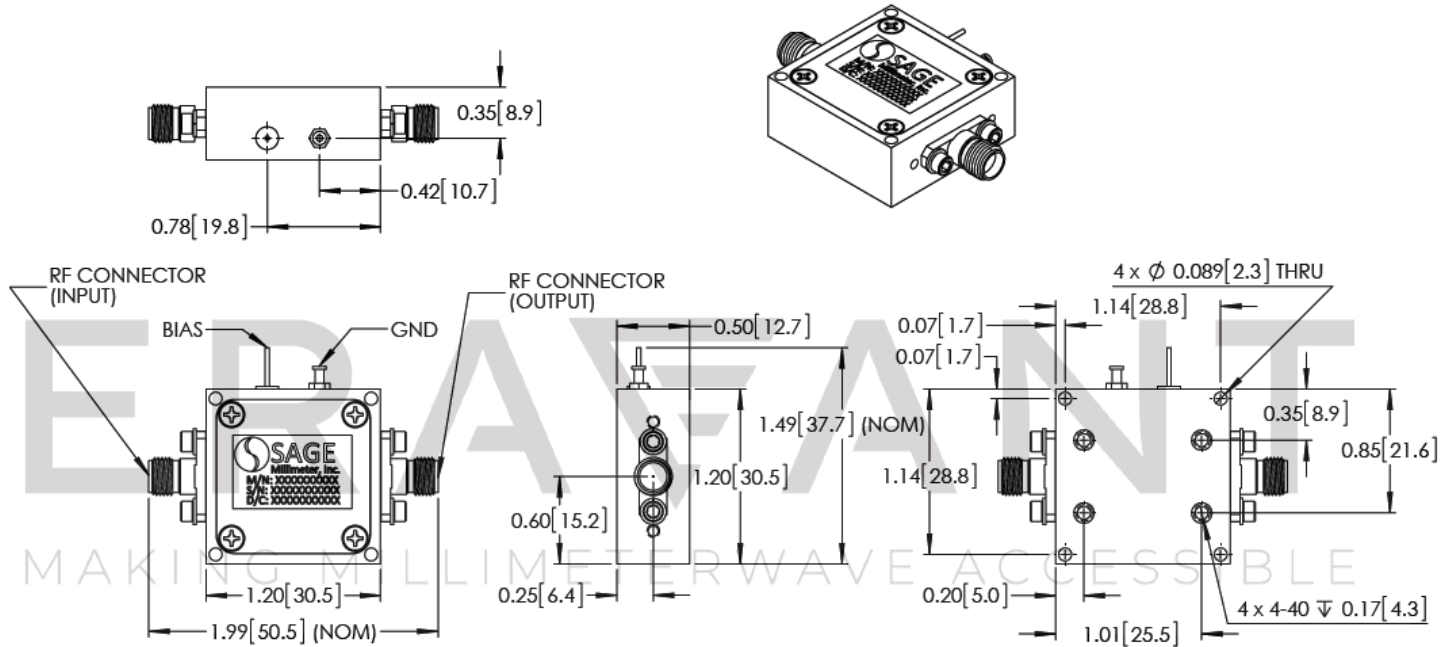
Bias: +8 V<sub>DC</sub>/732 mA

RFsat: +8Vdc/920mA



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



### NOTE:

- On condition that test data is provided it is collected from a sample lot. Actual data may vary slightly from unit to unit. All testing is performed under +25 °C room temperature.
- On condition that simulated test data is provided, actual measured data may slightly vary.
- Eravant reserves the right to change the information presented without notice.

### 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.
- If a waveguide is present, any foreign objects in the waveguide will cause performance degradation and may damage or destroy the unit.
- For 1 mm connectors proper torque should be applied:  $4.0 \pm 0.15$  inch-pounds ( $0.45 \pm 0.02$  Nm). Torque wrench model [SCH-06004-S1](#) is highly recommended.
- For 1.35 mm, 1.85 mm, 2.4 mm, 2.92 mm, and SMA connectors proper torque should be applied:  $8.0 \pm 0.15$  inch-pounds ( $0.90 \pm 0.02$  Nm). Torque wrench model [SCH-08008-S1](#) is highly recommended