# SBP-4036033522-VFVF-S1

# U-Band Power Amplifier, 40 to 60 GHz, 35 dB Gain, +22 dBm $P_{1dB}$

Description:

**Model SBP-4036033522-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 40 to 60 GHz. The DC power requirement for the amplifier is +8  $V_{DC}/1450$  mA. The input and output ports are both female 1.85 mm connectors. Other port configurations, such as inline and right-angle waveguides, are also available under different model numbers.

# A VECTOR AND A VEC

## Features:

- Broadband Performance
- High Output Power

**Electrical Specifications:** 

• High Gain

# **Applications:**

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

Parameter	Minimum	Typical	Maximum
Frequency	40 GHz		60 GHz
Gain		35 dB	
P <sub>1dB</sub>		+22 dBm	
P <sub>sat</sub>		+24 dBm	
P <sub>in</sub>			+20 dBm
Input Return Loss		10 dB	
Output Return Loss		10 dB	
DC Voltage	+6 V <sub>DC</sub>	+8 V <sub>DC</sub>	+12 V <sub>DC</sub>
DC Supply Current		1450 mA	
Specification Temperature		+25 °C	
Operating Temperature	0°C		+50 °C

## **Mechanical Specifications:**

Item	Specification	
Input Port	1.85 mm (F)	
Output Port	1.85 mm (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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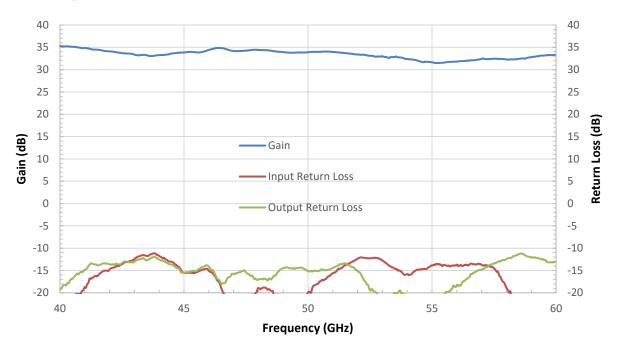


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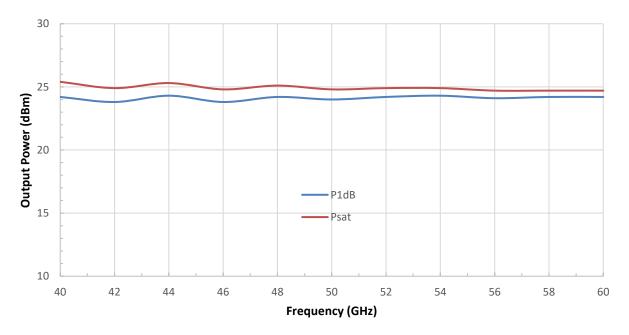
## Gain and Return Loss vs. Frequency

Bias: +8 V<sub>DC</sub>/1.5 A



**Output Power vs. Frequency** 

Bias: +8 V<sub>DC</sub>/1.5 A



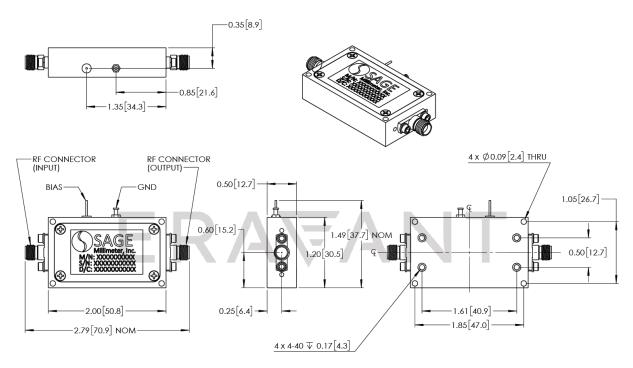


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Mechanical Outline: (Unless otherwise specified, all dimensions are in inches [millimeters])



#### 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.



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