

SBP-5536533022-1515-S1

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

SBP-5536533022-1515-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 mechanical configuration offers a right angle structure with WR-15 waveguides and UG-385/U flanges. Other port configurations, such as an in line structure with WR-15 waveguides or 1 mm connectors, are also available under different model numbers.



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	+6 V _{DC}	+8 V _{DC}	+15 V _{DC}
DC Supply Current		800 mA	
Specification Temperature		+25°C	
Operating Temperature	0°C		+50°C

Mechanical Specifications:

Item	Specification
Ports	WR-15 Waveguide with UG-385/U Flange
Bias	Solder Pin
Case Material	Aluminum
Finish	Gold Plated
Weight	1.3 Oz
Size	1.10" (W) X 1.70" (L) X 0.50" (H)
Outline	BG-SV-1

ECCN

3A001.b.4

FEATURES

- High Output Power
- High Gain and Good Gain Flatness

APPLICATIONS

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

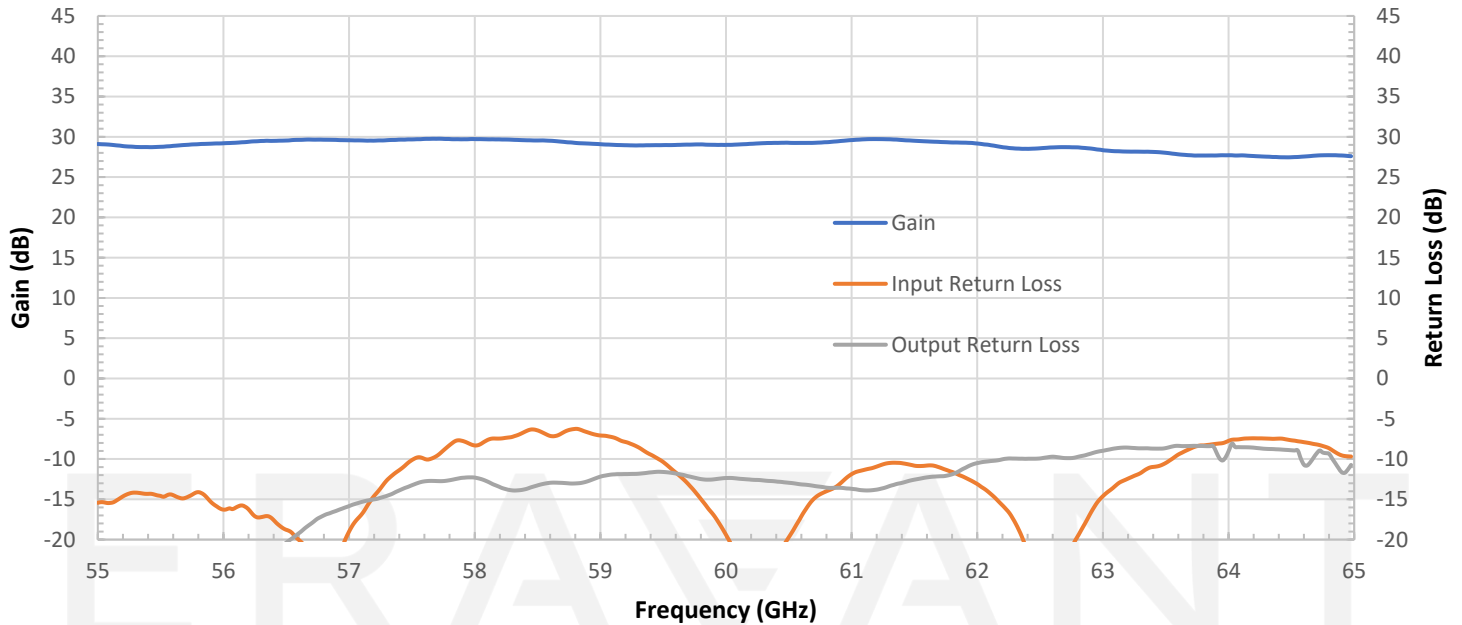
SUPPLEMENTAL DETAILS



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Gain and Return Loss vs. Frequency

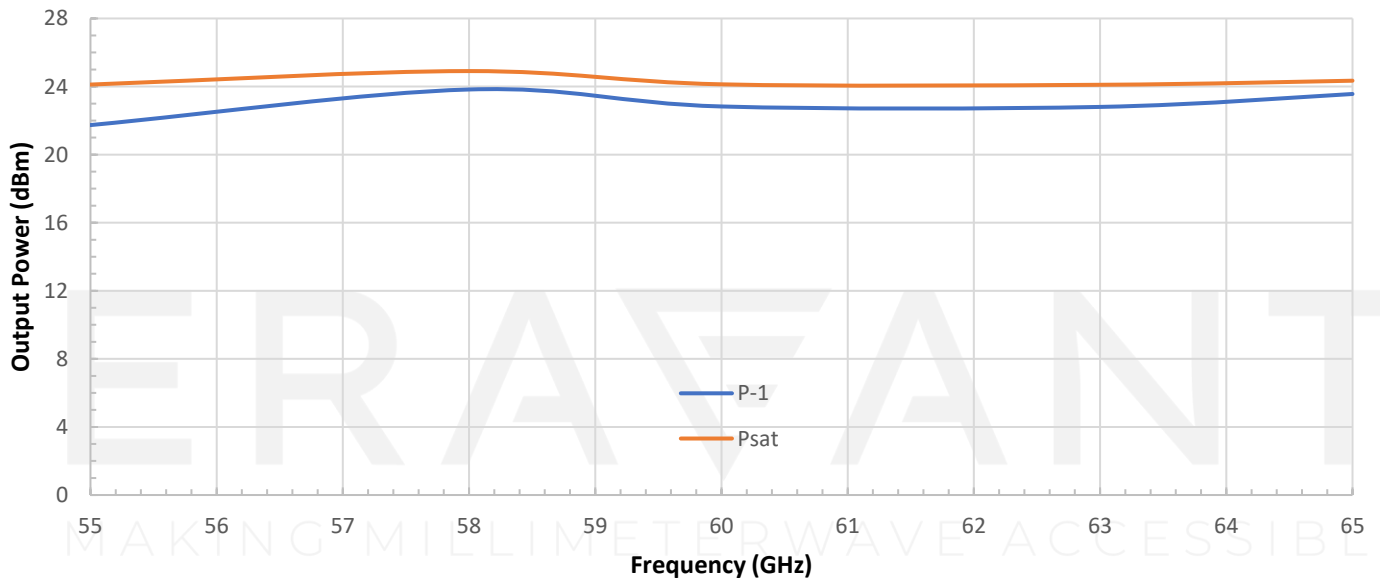
Bias: +8 V_{DC}/732 mA



Output Power vs. Frequency

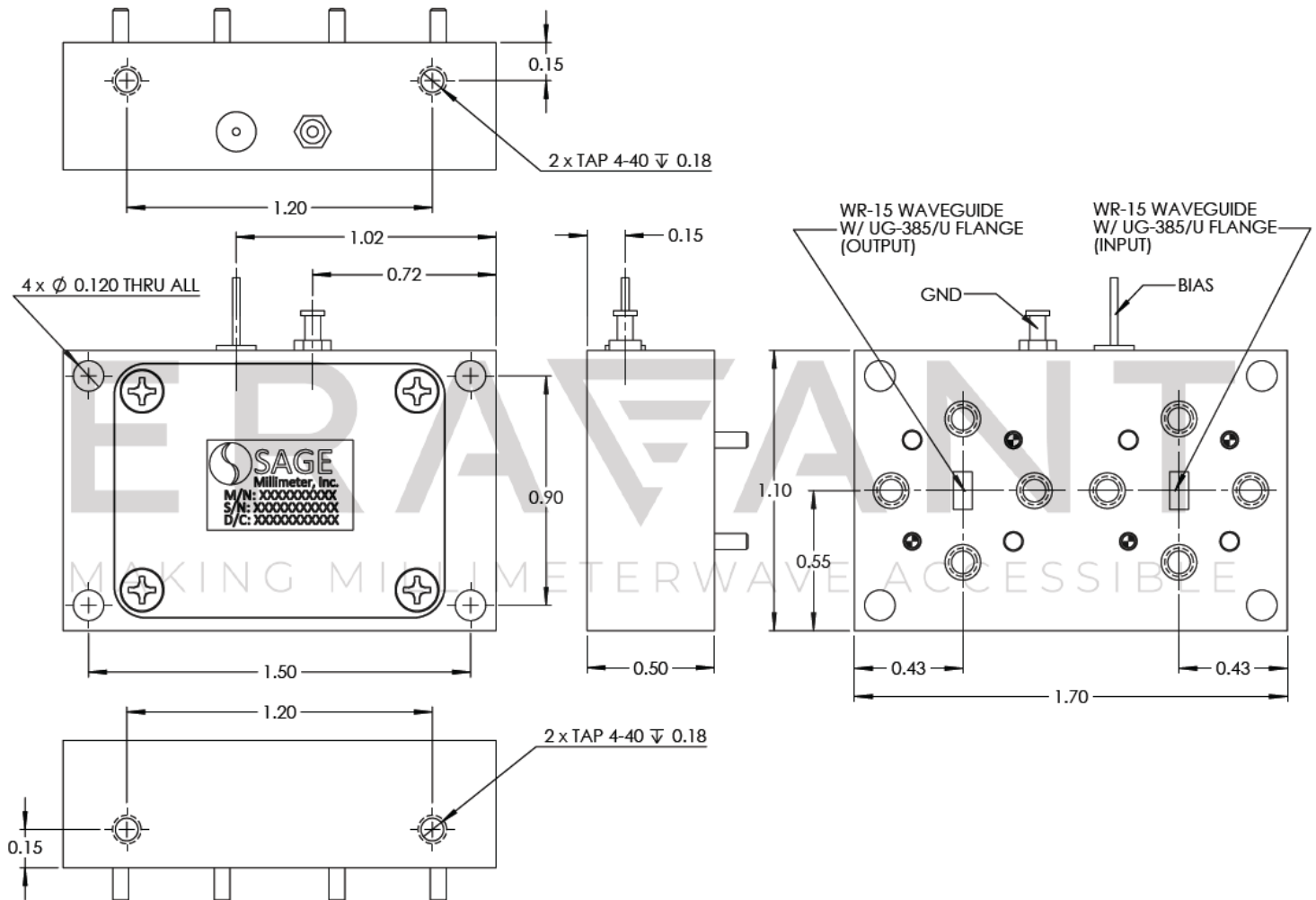
Bias: +8 V_{DC}/732 mA

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 ± 0.15 inch-pounds (0.45 ± 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 ± 0.15 inch-pounds (0.90 ± 0.02 Nm). Torque wrench model [SCH-08008-S1](#) is highly recommended