SBL-5036833540-1515-S1-WPC

Rev 1.0

V-Band Low Noise Amplifier, 50 to 68 GHz, 35 dB Gain, 4.0 dB NF

Description:

Model SBL-5036833540-1515-S1-WPC is a low noise amplifier with a typical small signal gain of 35 dB and a nominal noise figure of 4.0 dB across the frequency range of 50 to 68 GHz. The DC power requirement for the amplifier is +8 V_{DC}/200 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.

Features:

- State-of-the-Art Noise Figure
- High Gain

Applications:

- IEEE 802.11ab WiGig
- Low Noise Receivers
- Communication Systems
- Test Equipment

Electrical Specifications:

Parameter	Minimum	Typical	Maximum
Frequency	50 GHz		68 GHz
Gain		35 dB	
Noise Figure		4.0 dB	
P_{1dB}		+12 dBm	
P_{in}			-5 dBm
Input Return Loss		8 dB	
Output Return Loss		8 dB	
DC Voltage	+6 V_{DC}	+8 V_{DC}	+15 V_{DC}
DC Supply Current		200 mA	
Specification Temperature		+25 ˚C	
Operating Temperature	0 ˚C		+50 ˚C

Mechanical Specifications:

Item	Specification
Input Port	WR-15 Waveguide with UG-385/U Flange
Output Port	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) 1.70” (L) X 0.50” (H)
Outline	BG-SV-1

www.eravant.com |501 Amapola Avenue, Torrance, CA 90501
Phone: 424-757-0168 | Fax: 424-757-0188 | Email: support@eravant.com

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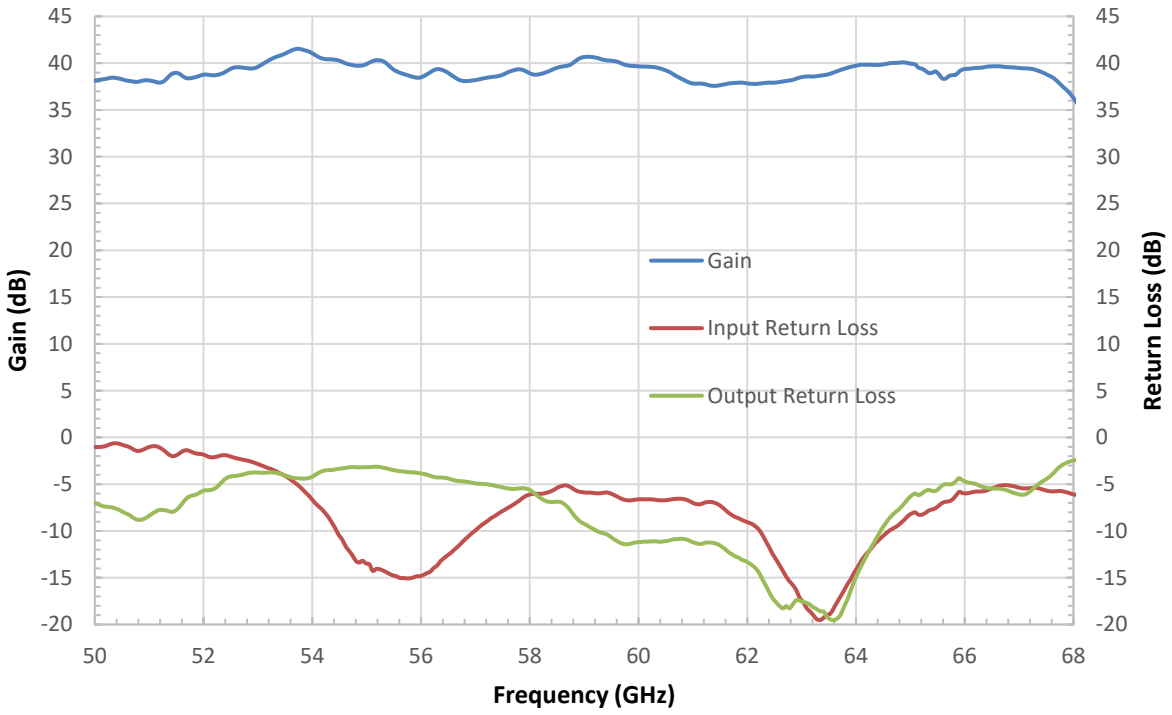
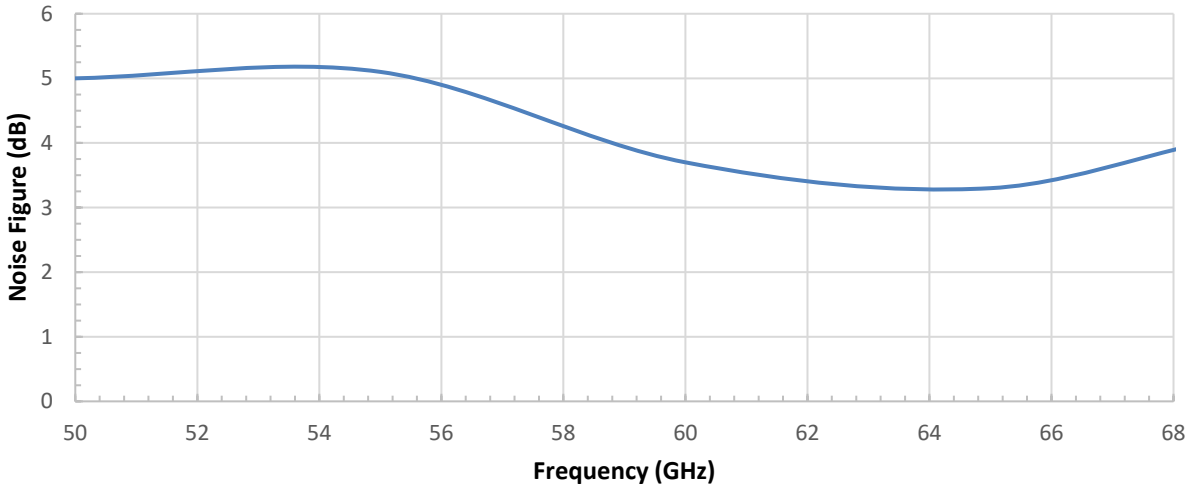
Gain and Return Loss vs. Frequency

Bias: +8 V_{DC}/200 mA



Noise Figure vs. Frequency

Bias: +8V_{DC}/200 mA



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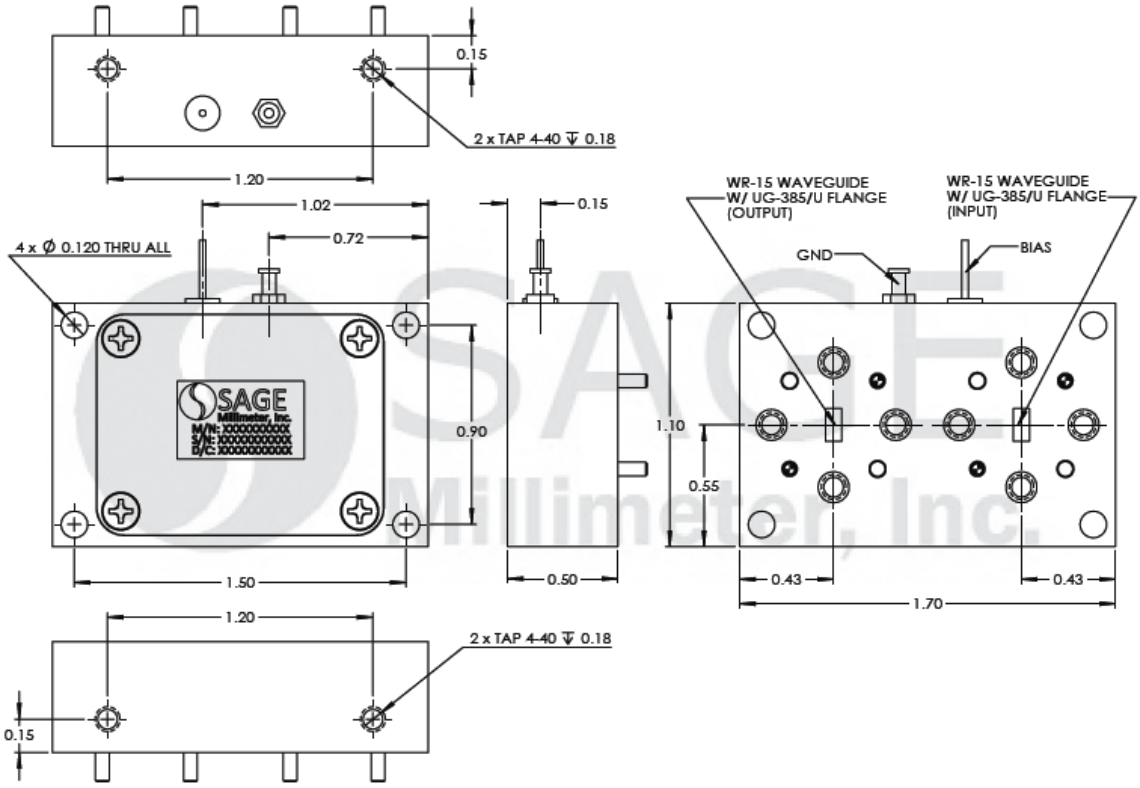
Mechanical Outline: (Unless otherwise specified, all dimensions are in inches)



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.
- Any foreign objects in the waveguide will cause performance degradation and may damage the device.

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