SBL-5436631850-1515-S1

Advanced

V-Band Low Noise Amplifier, 54 to 66 GHz, 18 dB Gain, 5 dB NF

Description:

Model SBL-5436631850-1515-S1 is a low noise amplifier with a typical small signal gain of 18 dB and a nominal noise figure of 5 dB across the frequency range of 54 to 66 GHz. The DC power requirement for the amplifier is +8 V_{DC}/100 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:

- Full Waveguide Band Performance
- 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	54 GHz		66 GHz
Gain		18 dB	
Noise Figure		5 dB	
P_{1dB}		+10 dBm	
P_{in}			+15 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		100 mA	
Specification Temperature		+25˚C	
Operating Temperature	0˚C		+50˚C

Mechanical Specifications:

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

www.sagemillimeter.com | 3043 Kashiwa Street, Torrance, CA 90505
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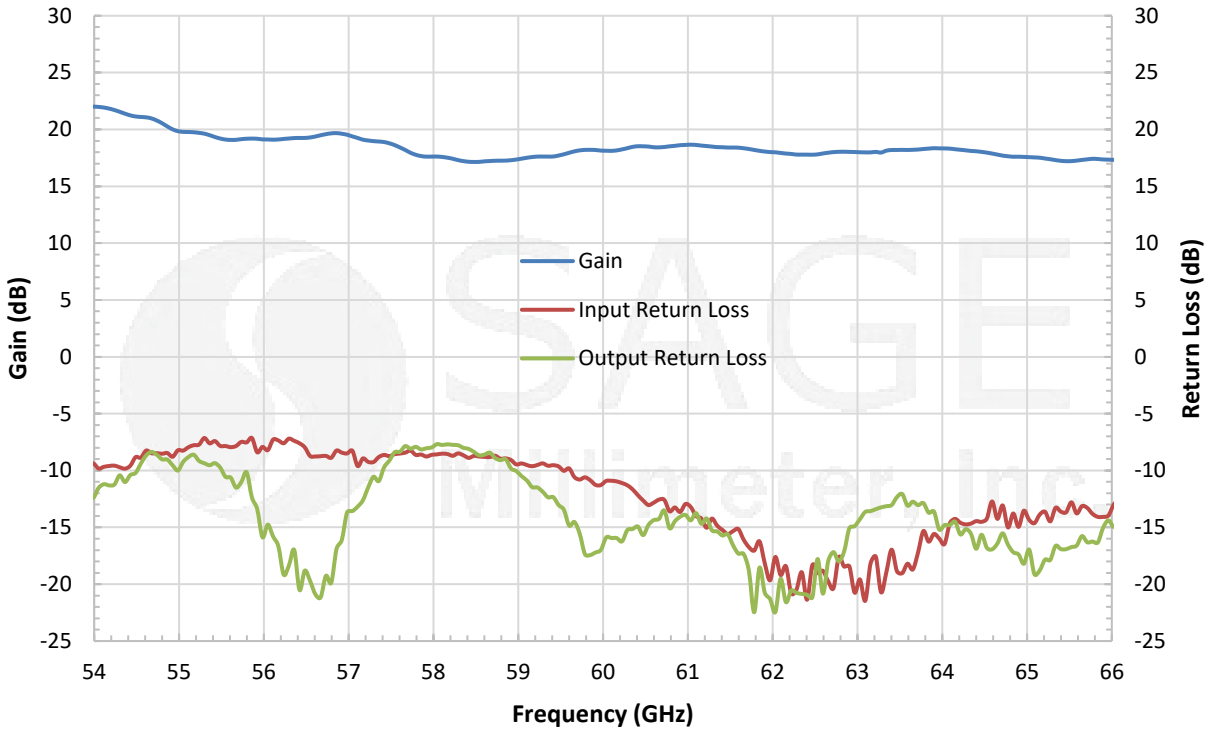
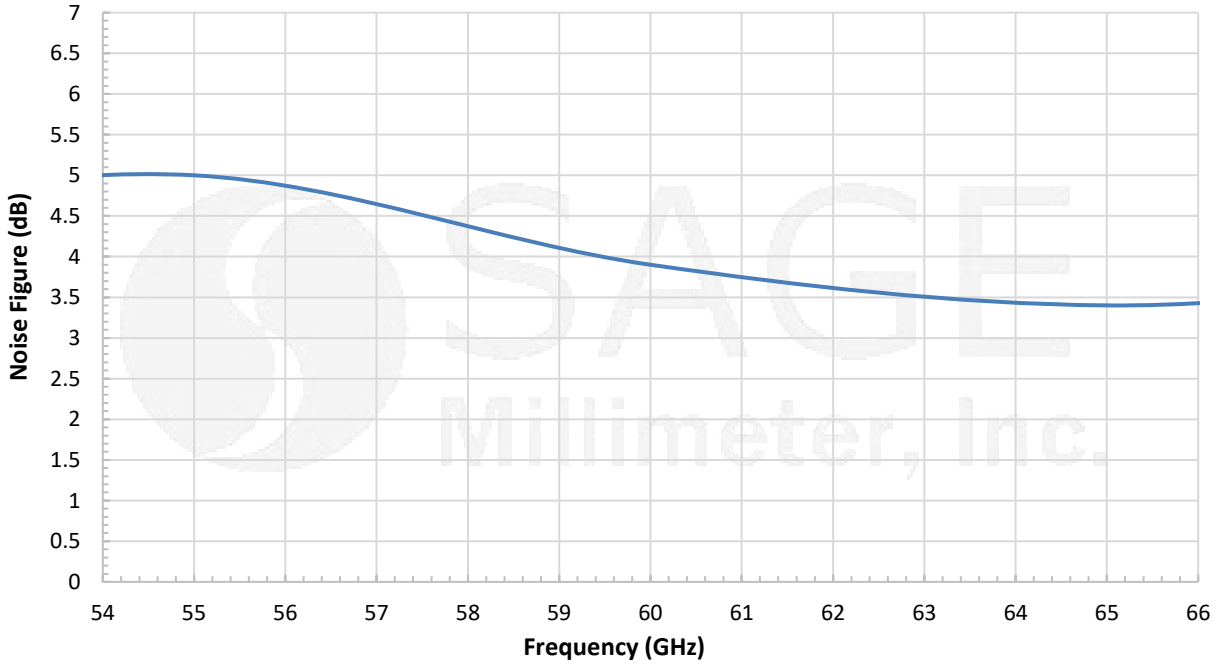
Typical Gain and Return Loss vs. Frequency

Bias: +8 V_{DC}/100 mA



Typical Noise Figure vs. Frequency

Bias: +8 V_{DC}/100 mA



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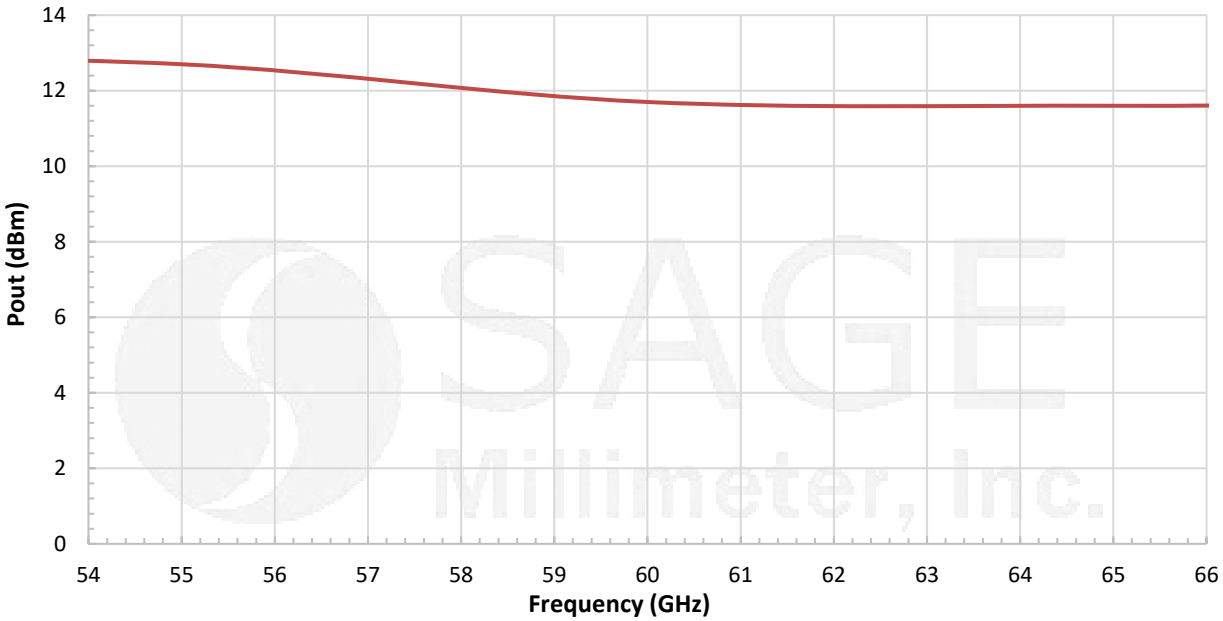
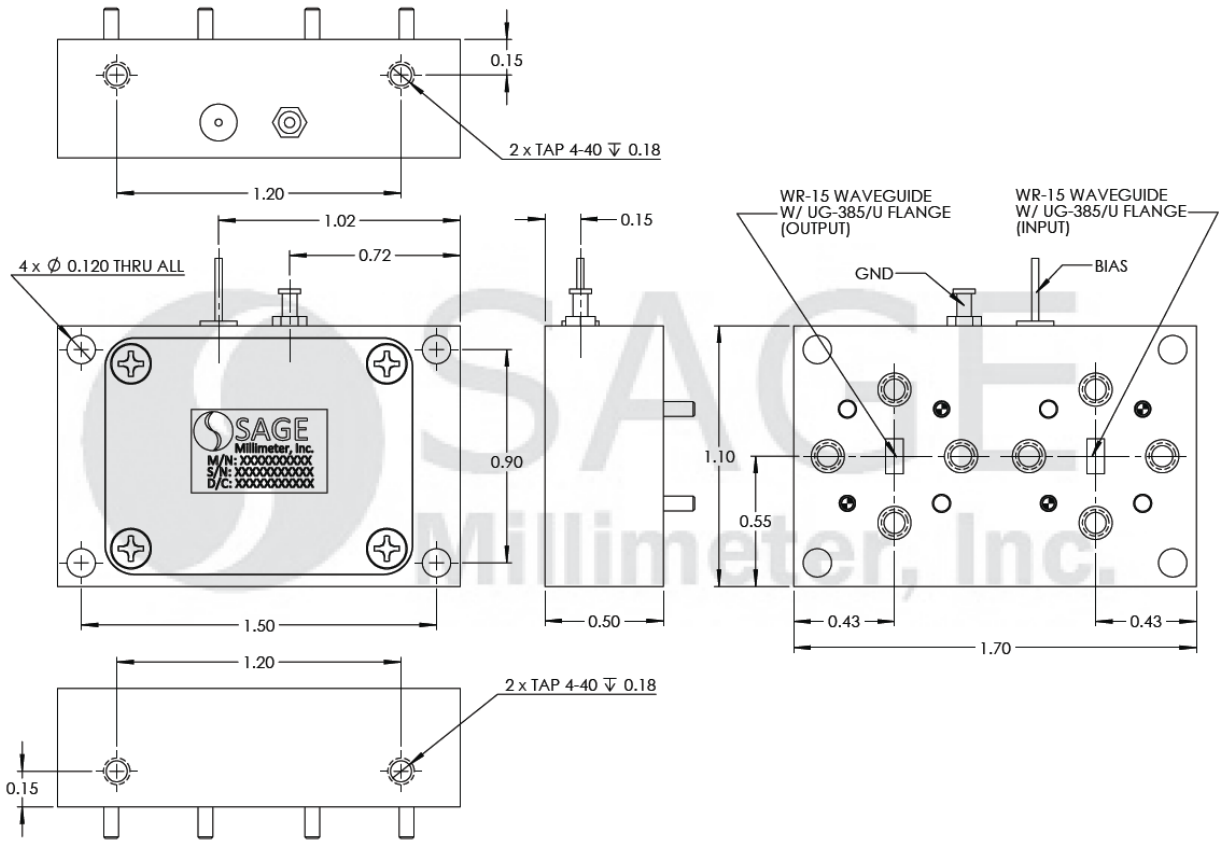
Typical Output Power vs. Frequency

Bias: +8 V_{DC}/100 mA



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



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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.
- SAGE Millimeter, Inc. 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.