

SBL-6531243550-1010-S1

W-Band Low Noise Amplifier, 65 to 116 GHz, 35 dB Gain, 5 dB NF

SBL-6531243550-1010-S1 is a W-band low noise amplifier with a typical small signal gain of 35 dB and a nominal noise figure of 5 dB across the frequency range of 65 to 116 GHz. The DC power requirement for the amplifier is +8 VDC/65 mA. The mechanical configuration offers a right angle structure with WR-10 waveguides and UG-387/U-M flanges. Other port configurations, such as an in line structure with WR-10 waveguides or 1 mm connectors, are also available under different model numbers.



Electrical Specifications:

Parameter	Minimum	Typical	Maximum
Frequency	65 GHz		116 GHz
Gain		35 dB	
Noise Figure		5 dB	
P _{1dB}		-5 dBm	
P _{in}			+10 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		65 mA	
Specification Temperature		+25°C	
Operating Temperature	0°C		+50°C

Mechanical Specifications:

Item	Specification
Input	WR-10 Waveguide with UG-387/U-M Flange
Output	WR-10 Waveguide with UG-387/U-M 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-SW-1

ECCN

3A001.b.4

FEATURES

- Full Waveguide Band Coverage
- State-of-the-Art Noise Figure Performance
- Low Power Consumption

APPLICATIONS

- W-Band Imaging
- Communications Systems
- Radar Systems

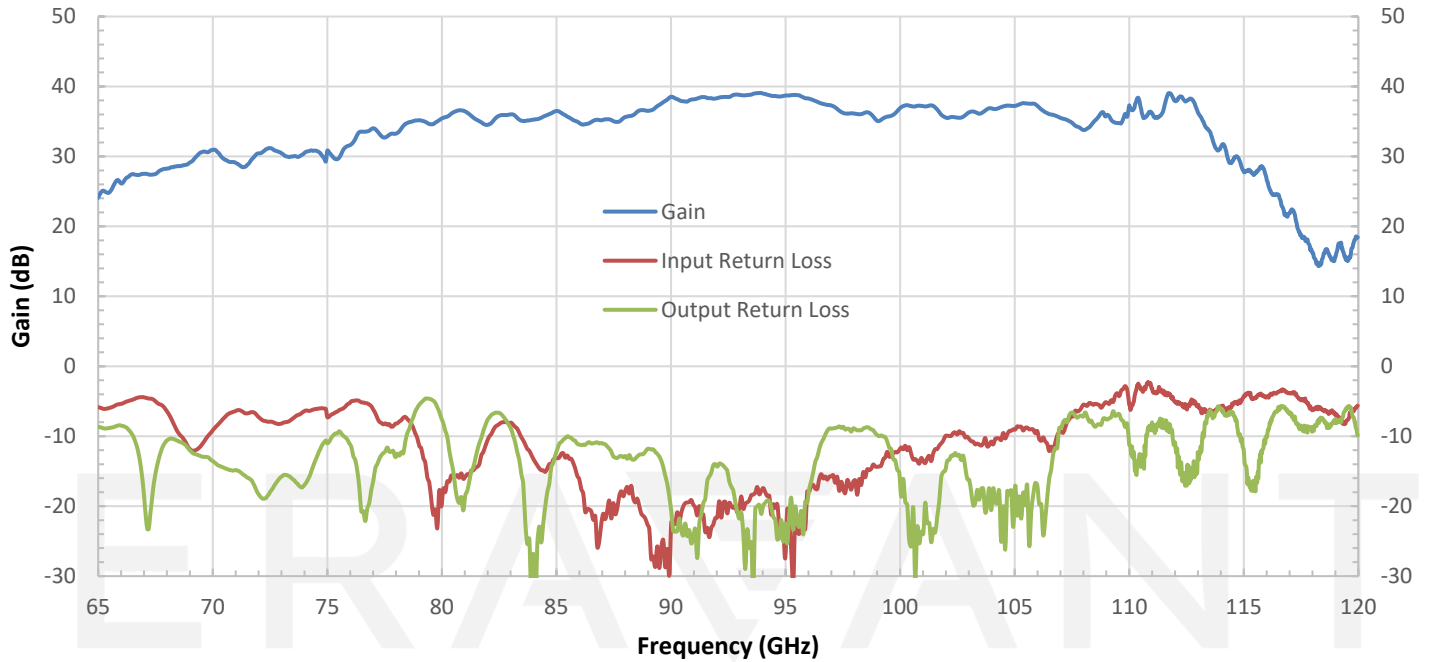
SUPPLEMENTAL DETAILS



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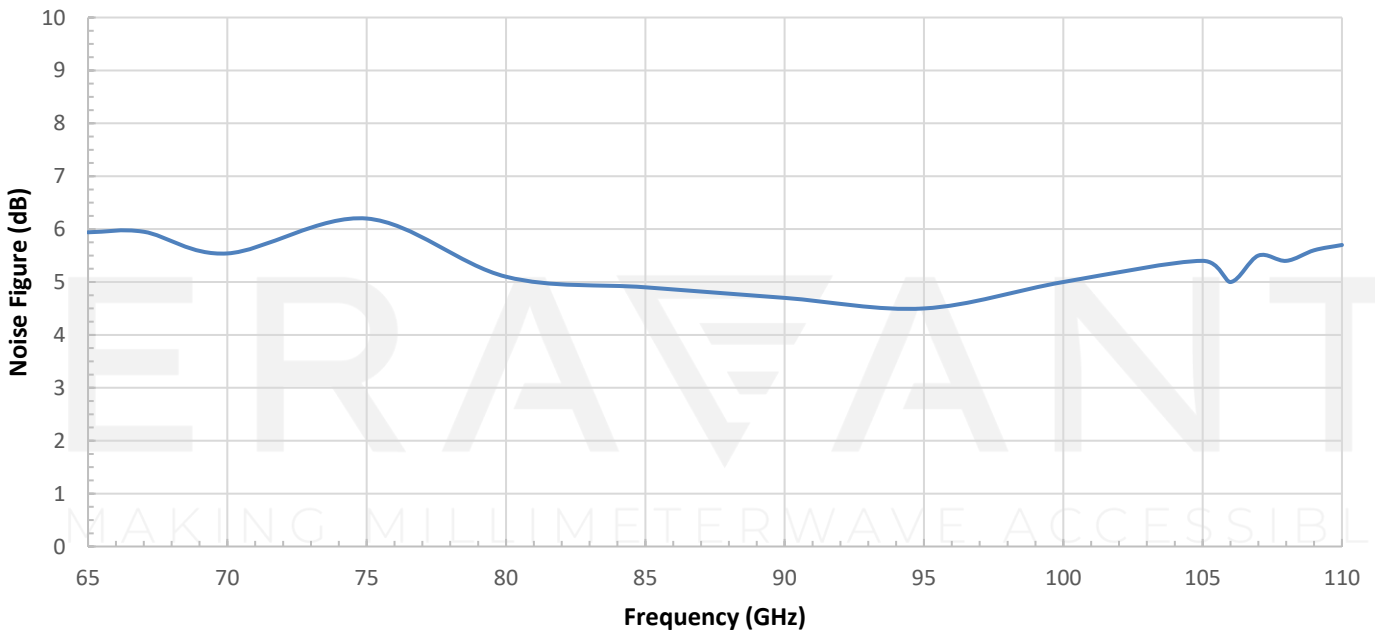
Gain and Return Loss vs. Frequency

Bias: +8 V_{DC}/70 mA



Noise Figure vs. Frequency

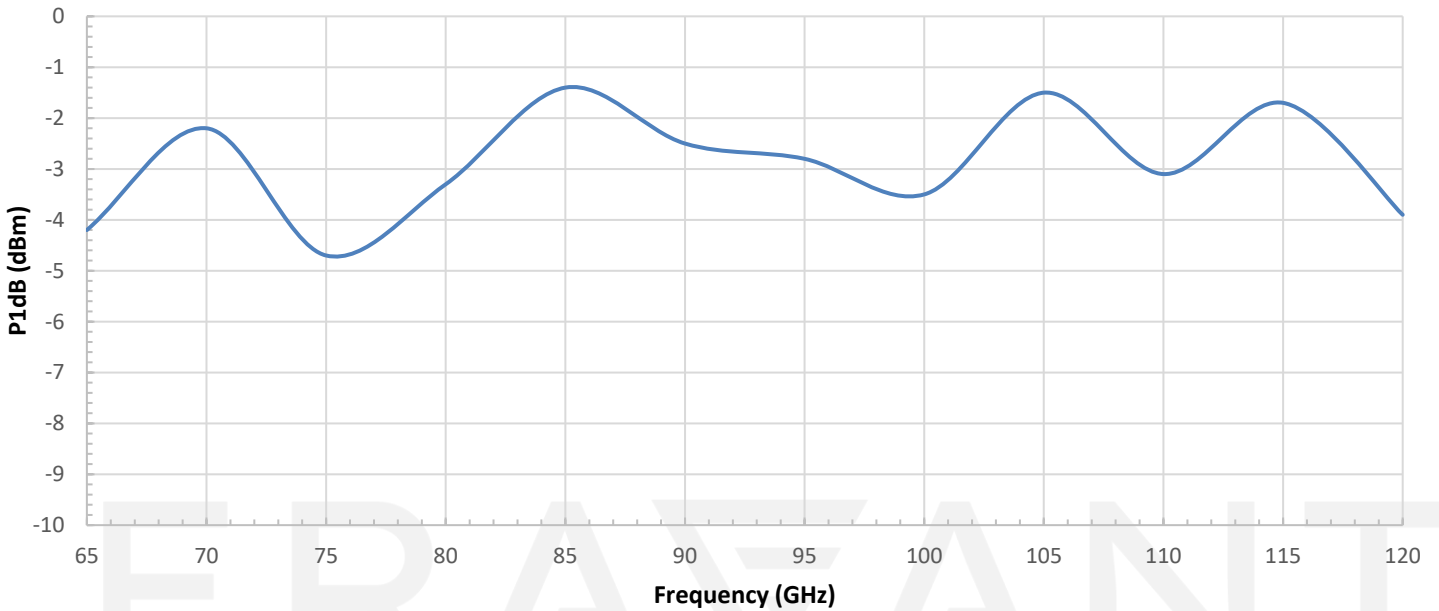
Bias: +8V_{DC}/70 mA



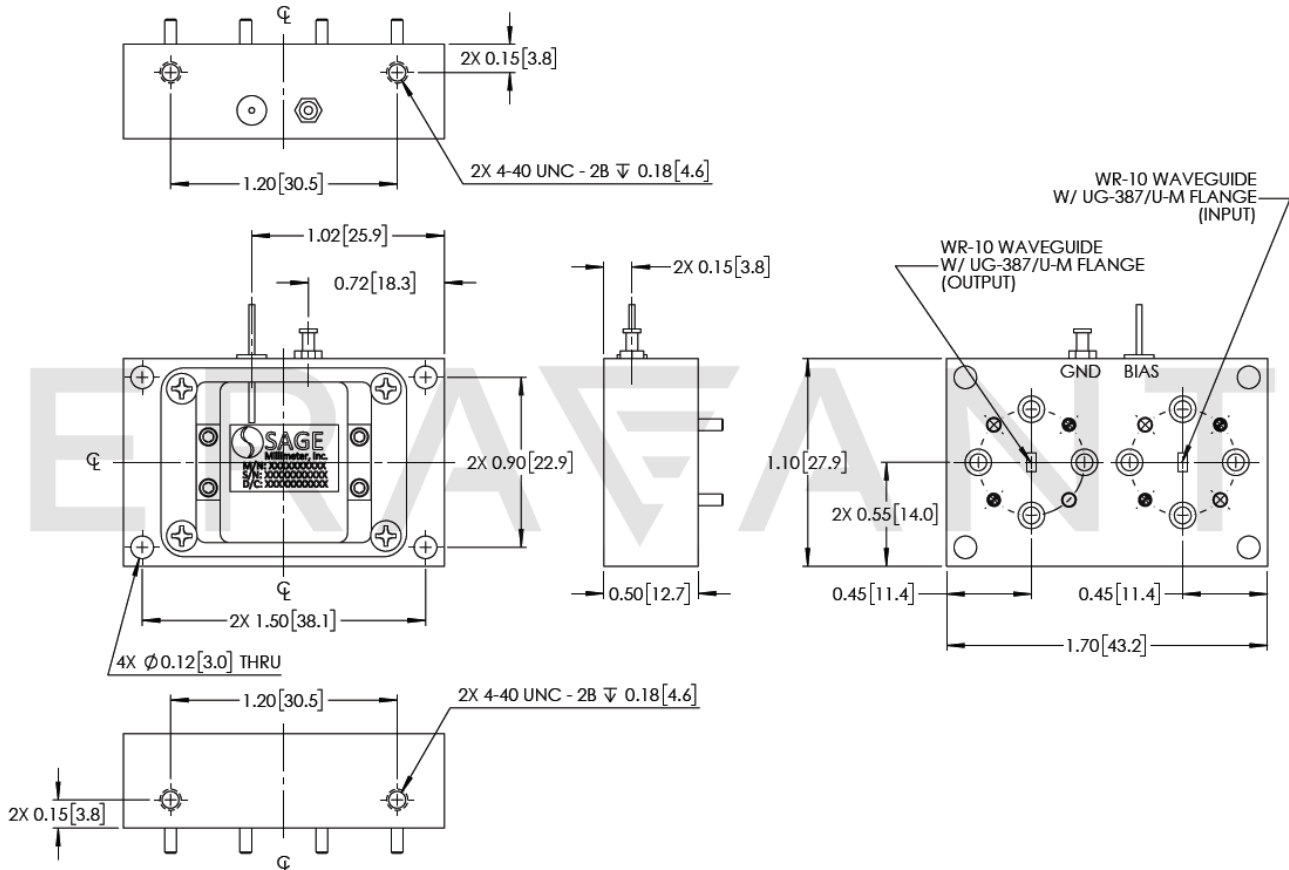
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P1dB vs. Frequency

Bias: +8 V_{DC}/70 mA



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.
- 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.
- If a waveguide is present, any foreign objects in the waveguide will cause performance degradation and may damage or destroy the unit.

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