



## D-Band Low Noise Amplifier, 110 to 130 GHz, 15 dB Gain, 7 dB NF

### Description:

**Model SBL-1141341570-0606-E1** is a low noise amplifier with a typical small signal gain of 15 dB and a nominal noise figure of 7.0 dB across the frequency range of 110 to 130 GHz. The DC power requirement for the amplifier is +8 V<sub>DC</sub>/75 mA. The mechanical configuration offers a in line structure with WR-06 waveguides and UG-387/U-M flanges. Other port configurations are available under different model numbers.



### Features:

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

### Applications:

- D-Band Imaging
- Communication Systems
- Lab Equipment

### Electrical Specifications:

Parameter	Minimum	Typical	Maximum
Frequency	110 GHz		130 GHz
Gain		15 dB	
Noise Figure		7.0 dB	
P <sub>1dB</sub>		-2 dBm	
Input Return Loss		6 dB	
Output Return Loss		6 dB	
DC Voltage		+8 V <sub>DC</sub>	
DC Supply Current		75 mA	
Specification Temperature		+25 °C	
Operating Temperature	0 °C		+50 °C

### Mechanical Specifications:

Item	Specification
Input Port	WR-06 Waveguide with UG-387/U-M Flange
Output Port	WR-06 Waveguide with UG-387/U-M Flange
Bias	Solder Pin
Material	Aluminum
Finish	Gold Plated
Weight	0.8 Oz
Size	0.75" (W) X 1.00" (L) X 0.75" (H)
Outline	BG-SD-2

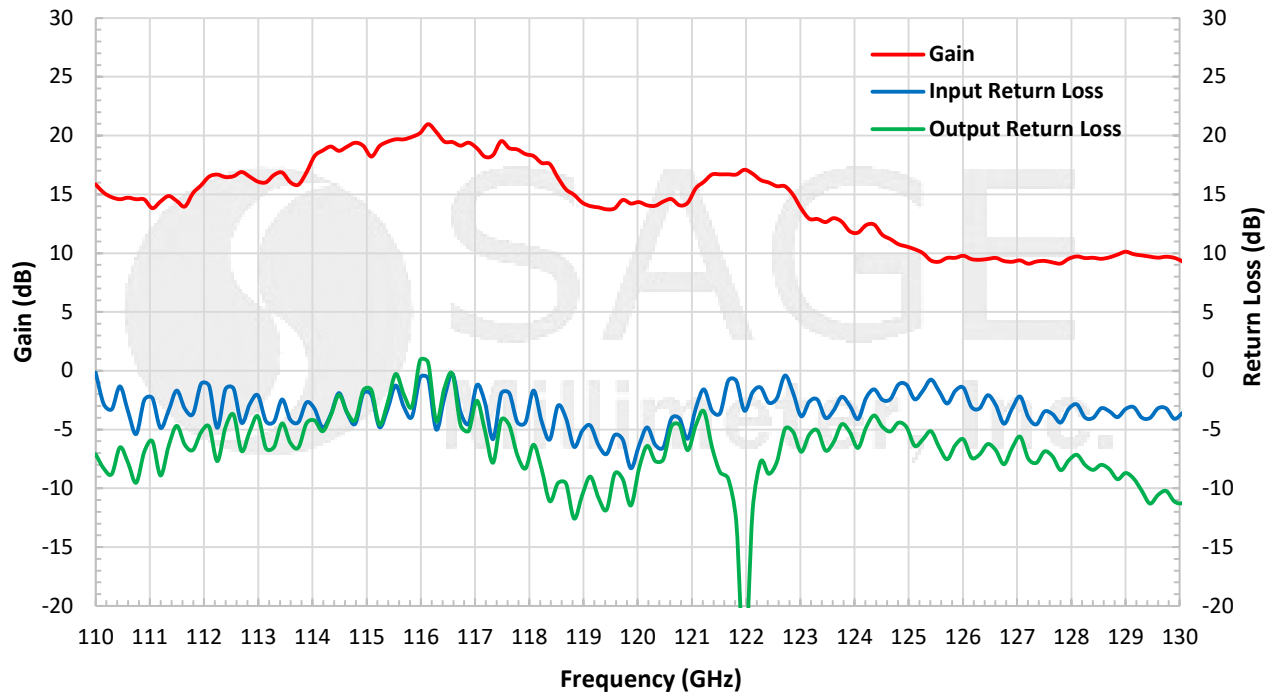




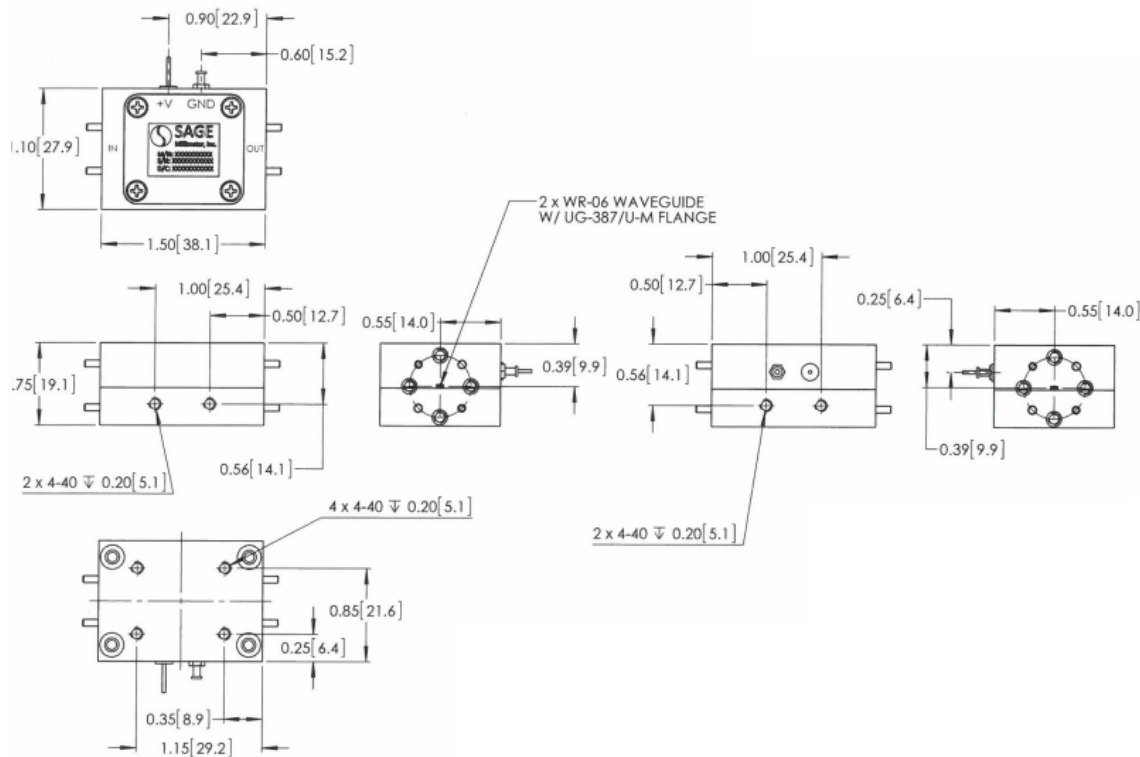
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### Typical Gain and Return Loss vs. Frequency

Bias: +8 V<sub>DC</sub>/75 mA



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





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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.

