SBL-7039032250-1212-E1

E-Band Low Noise Amplifier, 70 to 90 GHz, 22 dB Gain, 5.0 dB NF

SBL-7039032250-1212-E1 is a low noise amplifier with a typical small signal gain of 22 dB and a nominal noise figure of 5.0 dB across the frequency range of 70 to 90 GHz. The DC power requirement for the amplifier is +8 VDC/60 mA. The mechanical configuration offers an in line structure with WR-12 waveguides and UG-387/U anti-cocking flanges. Other port configurations, such as with 1 mm connectors or a right angle structure with WR-12 waveguides, are also available under different model numbers

Electrical Specifications:

Parameter	Minimum	Typical	Maximum
Frequency Range	70 GHz		90 GHz
Gain		22 dB	
Noise Figure		5.0 dB	
P_{1dB}		+7 dBm	
P_{in}			+15 dBm
Input Return Loss		8 dB	
Output Return Loss		10 dB	
DC Voltage	+6 V_{DC}	+8 V_{DC}	+12 V_{DC}
DC Supply Current		60 mA	
Specification Temperature		+25°C	
Operating Temperature	0°C		+50°C

Mechanical Specifications:

Item	Specification
Input	WR-12 Waveguide with UG-387/U Anti-Cocking Flange
Output	WR-12 Waveguide with UG-387/U Anti-Cocking Flange
Bias	Solder Pin
Case Material	Aluminum
Finish	Gold Plated
Weight	1.6 Oz
Size	1.10” (W) x 1.50” (L) x 0.75” (H)
Outline	BG-SE-2-A

ECCN

3A001.b.4

FEATURES

- State-of-the-Art Noise Figure
- Broadband Performance
- Low Power Consumption

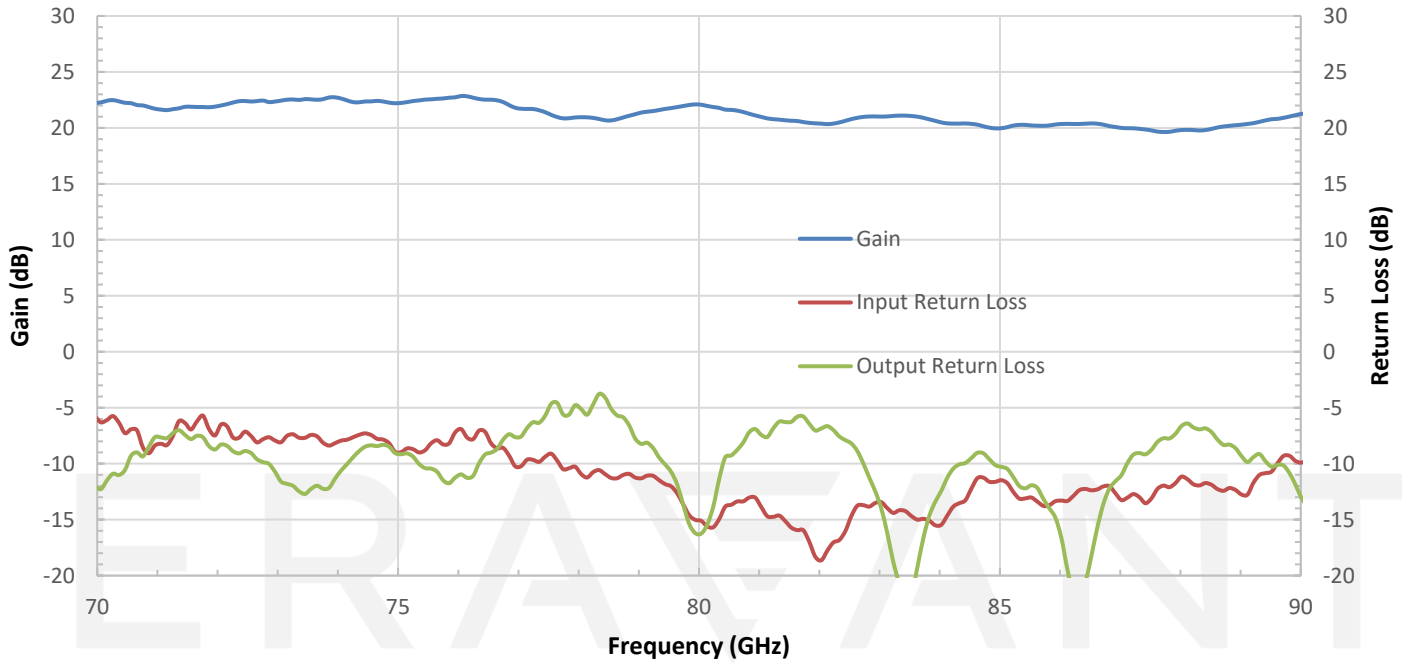
APPLICATIONS

- Low Noise Receivers
- Radar Systems
- Communication Systems

SUPPLEMENTAL DETAILS

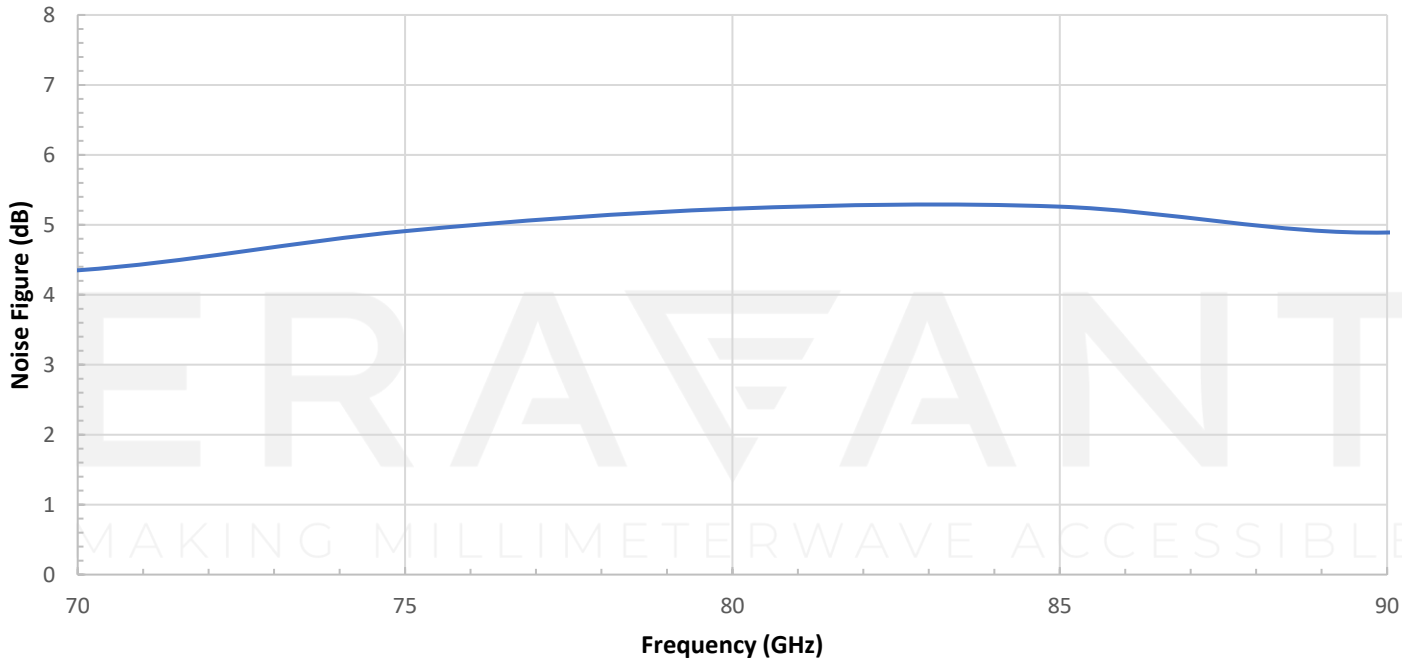
Typical Gain and Return Loss vs. Frequency

Bias: +8 V_{DC}/60 mA



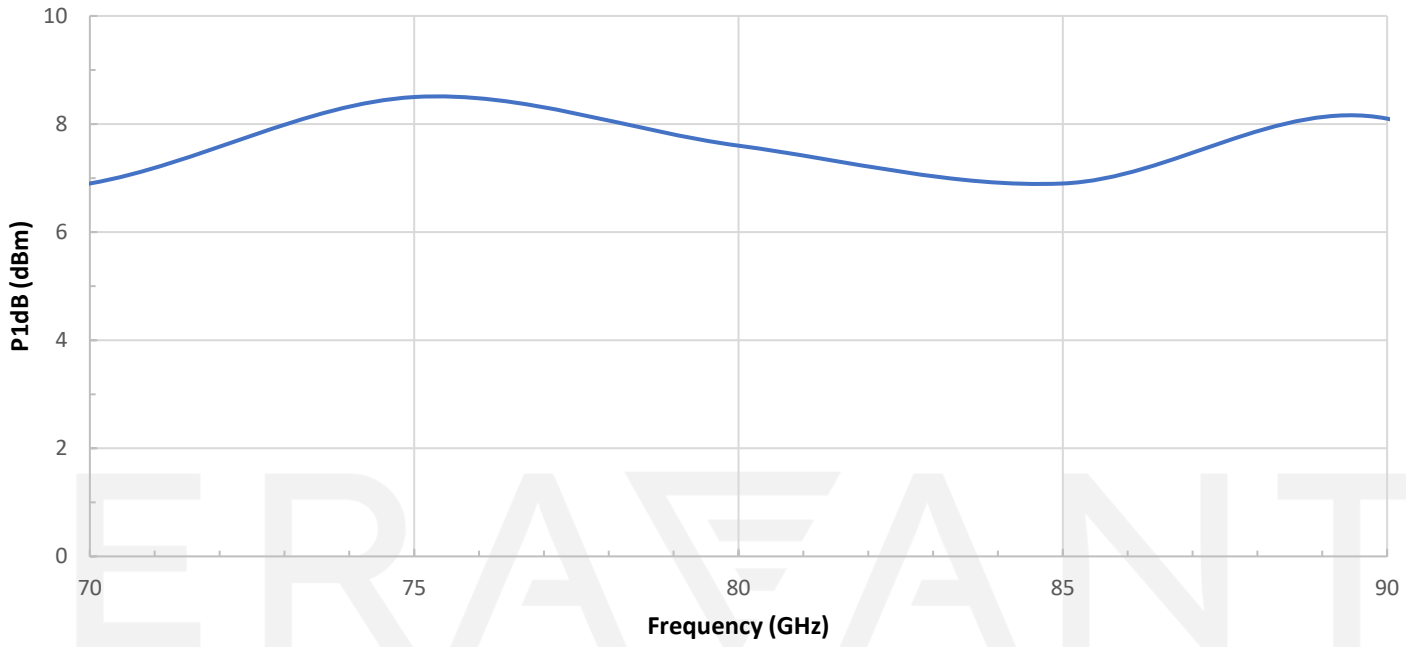
Typical Noise Figure vs. Frequency

Bias: +8V_{DC}/60 mA

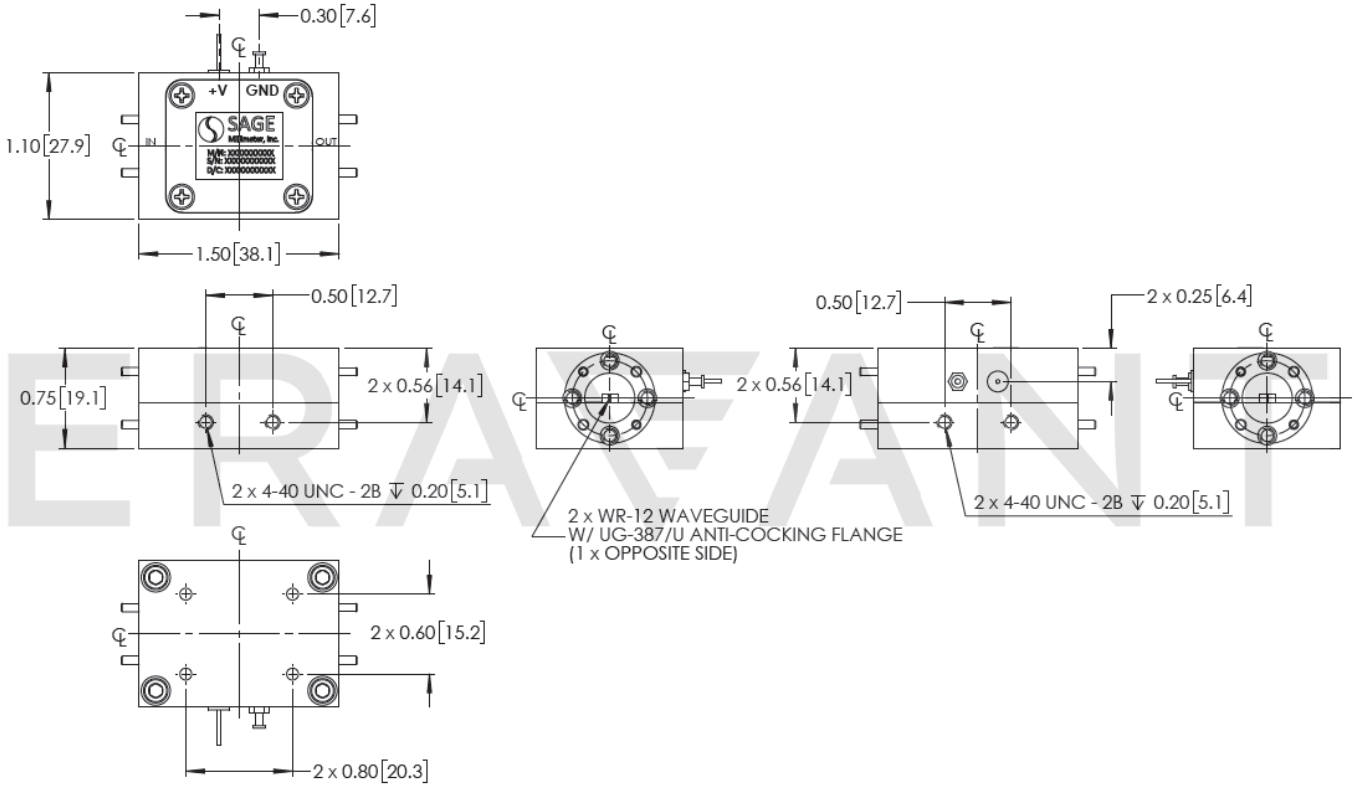


Typical P1dB vs. Frequency

Bias: +8 V_{DC}/60 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.
- 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.
- 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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