SBL-0131833025-SFSF-E3-WPC

Low Noise Amplifier, 1 to 18 GHz, 30 dB Gain, 2.5 dB NF

SBL-0131833025-SFSF-E3-WPC is a broadband low noise amplifier with a typical small signal gain of 30 dB and a nominal noise figure of 2.5 dB across the frequency range of 1 to 18 GHz. The DC power requirement for the amplifier is +12 V_{DC}/250 mA. The input and output port configurations are both female SMA connectors. Other port configurations are available under different model numbers.

Electrical Specifications:

Parameter	Minimum	Typical	Maximum
Frequency	1 GHz		18 GHz
Gain		30 dB	
Noise Figure		2.5 dB	
Output P_{1dB}		20 dBm	
Output P_{sat}		22 dBm	
Input Return Loss		13 dB	
Output Return Loss		13 dB	
Operational RF Input Power			0 dBm
Damage RF Input Power			+18 dBm
DC Voltage		+12 V_{DC}	
DC Supply Current		250 mA	
Specification Temperature		+25°C	
Operating Temperature	0°C		+50°C

Mechanical Specifications:

Item	Specification
Input Port	SMA (F) Connector
Output Port	SMA (F) Connector
Bias	Solder Pin
Case Material	Aluminum
Finish	Gold Plated
Weight	1.8 Oz
Size	1.18” (L) X 1.18” (W) X 0.32” (H)
Outline	BL-ZC-8

ECCN

EAR99

FEATURES

- Broad Band Performance
- State-of-the-Art Noise Figure
- High Gain

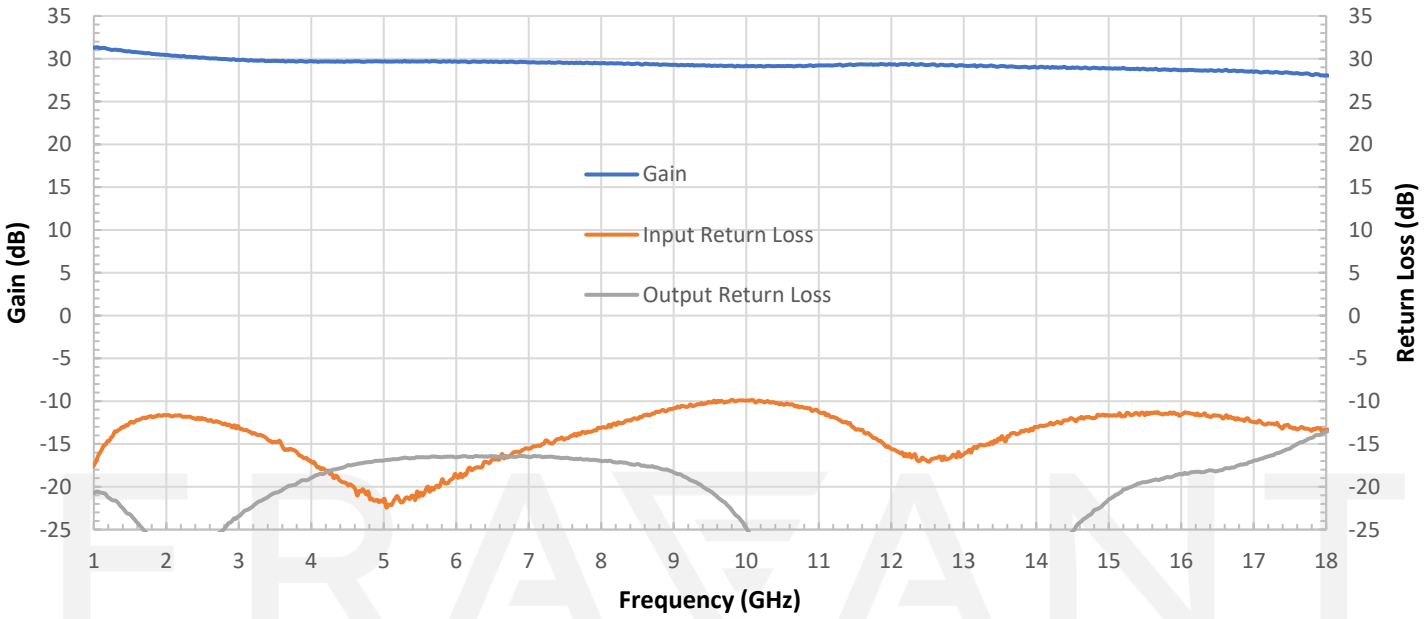
APPLICATIONS

- Radar Systems
- Communication Systems
- Low Noise Receivers

SUPPLEMENTAL DETAILS

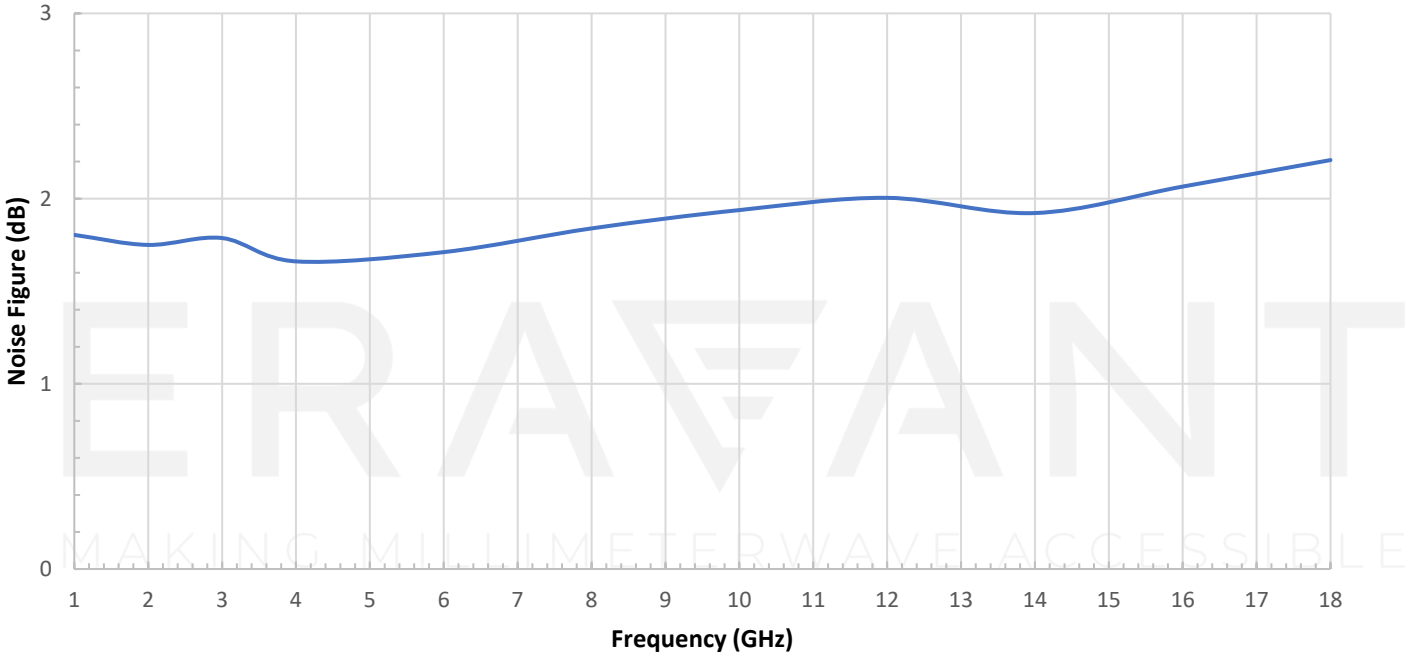
Typical Gain and Return Loss vs. Frequency

Bias: +12 V_{DC}/250 mA



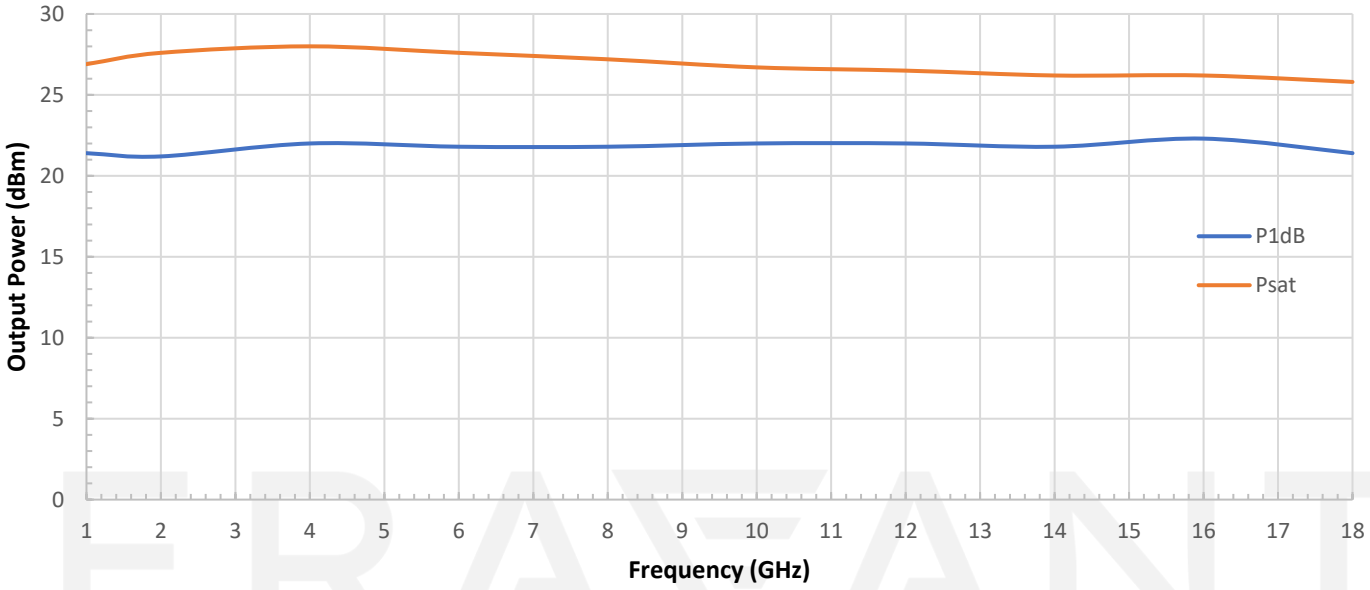
Typical Noise Figure vs. Frequency

Bias: +12V_{DC}/250mA

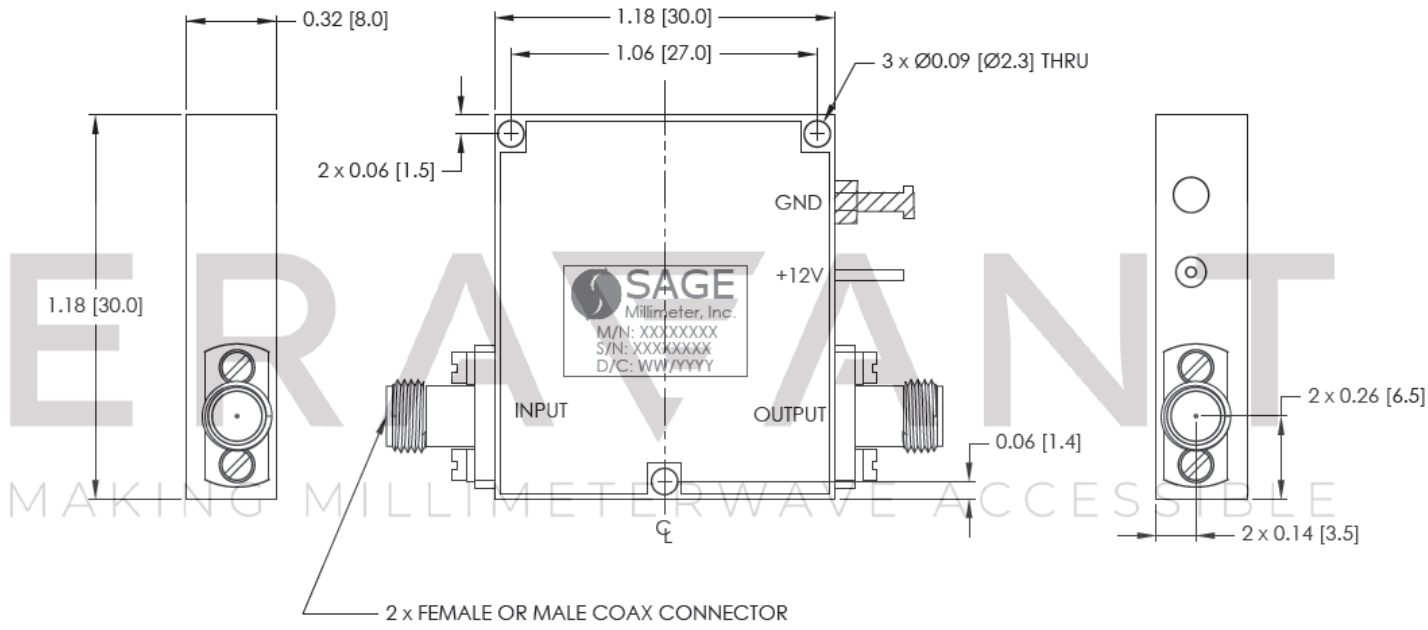


Typical Output Power vs. Frequency

Bias: +12V_{DC}/250 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.
- Other mechanical configurations are available under different model numbers.
- Eravant reserves the right to change the information presented without notice.

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.
- For 1 mm connectors proper torque should be applied: 4.0 ± 0.15 inch-pounds (0.45 ± 0.02 Nm). Torque wrench model SCH-06004-S1 is highly recommended.
- For 1.35 mm, 1.85 mm, 2.4 mm, 2.92 mm, and SMA connectors proper torque should be applied: 8.0 ± 0.15 inch-pounds (0.90 ± 0.02 Nm). Torque wrench model SCH-08008-S1 is highly recommended.

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