SBL-0131833025-SFSF-E3-ET

Rev 1.0

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

Description:

Model SBL-0131833025-SFSF-E3-ET is a broad band 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.

Features:

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

Applications:

- Radar Systems
- Communication Systems
- Low Noise Receivers

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	-40 ˚C		+85 ˚C

Mechanical Specifications:

Item	Specification
Input Port	SMA Female Connector
Output Port	SMA Female Connector
Bias	Solder Pin
Case Material	Aluminum
Finishing	Gold Plated
Weight	1.8 Oz
Outline	BL-ZC-8

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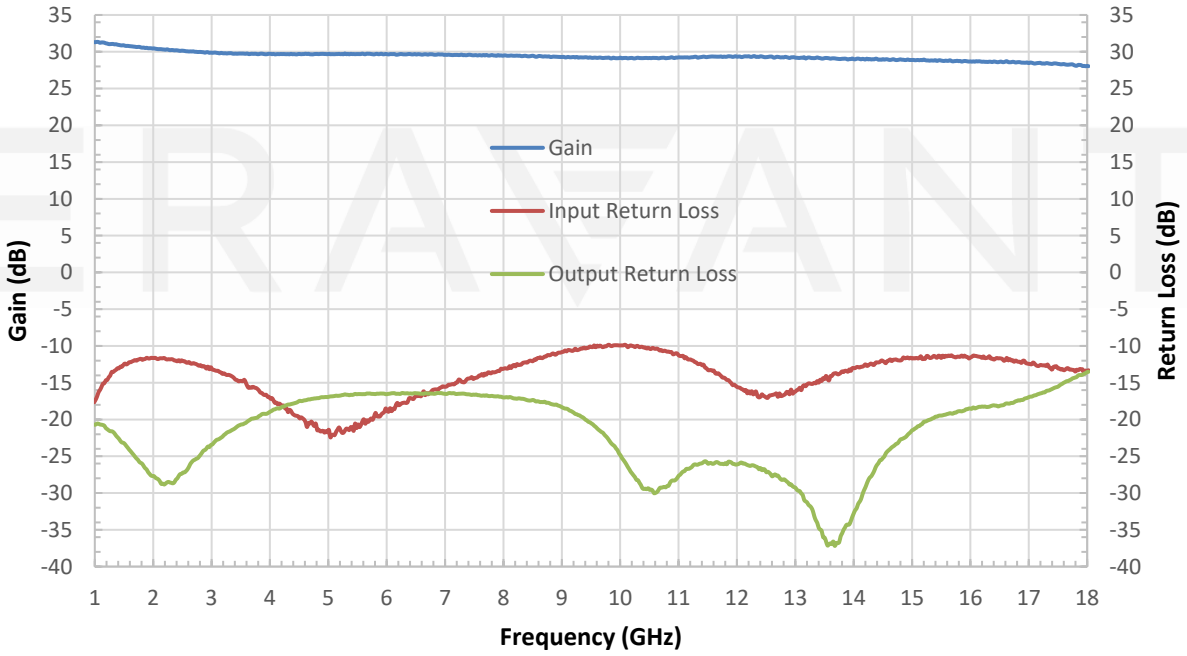
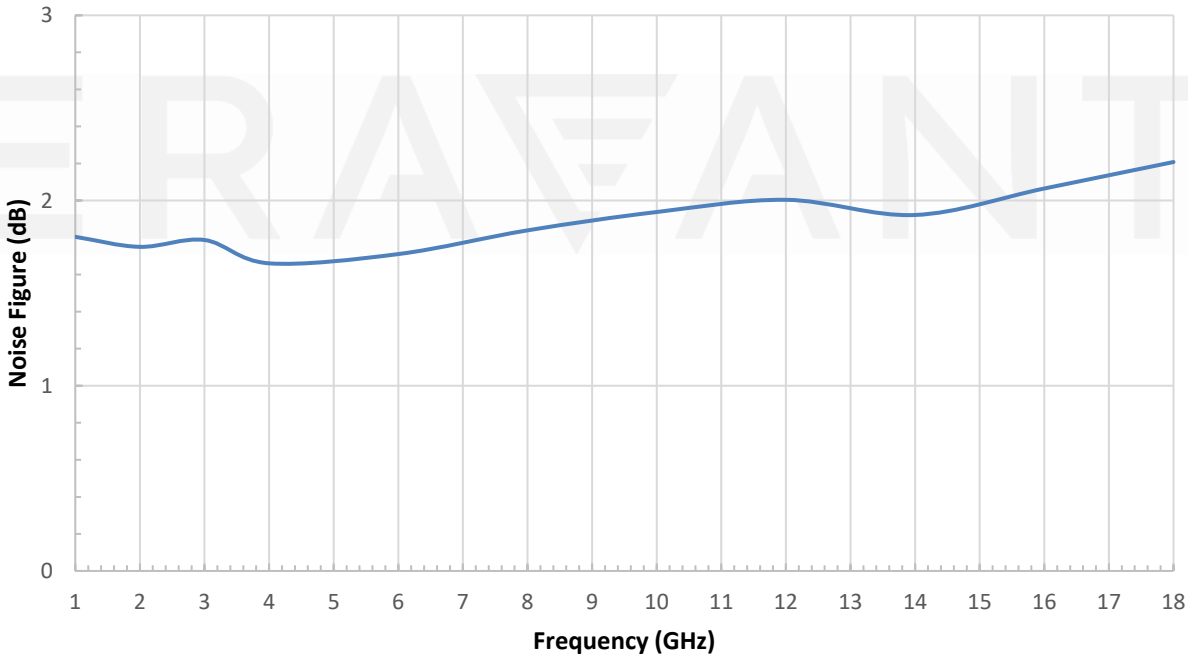
Typical Gain and Return Loss vs. Frequency

Bias: +12 V_{DC}/250 mA



Typical Noise Figure vs. Frequency

Bias: +12V_{DC}/250mA



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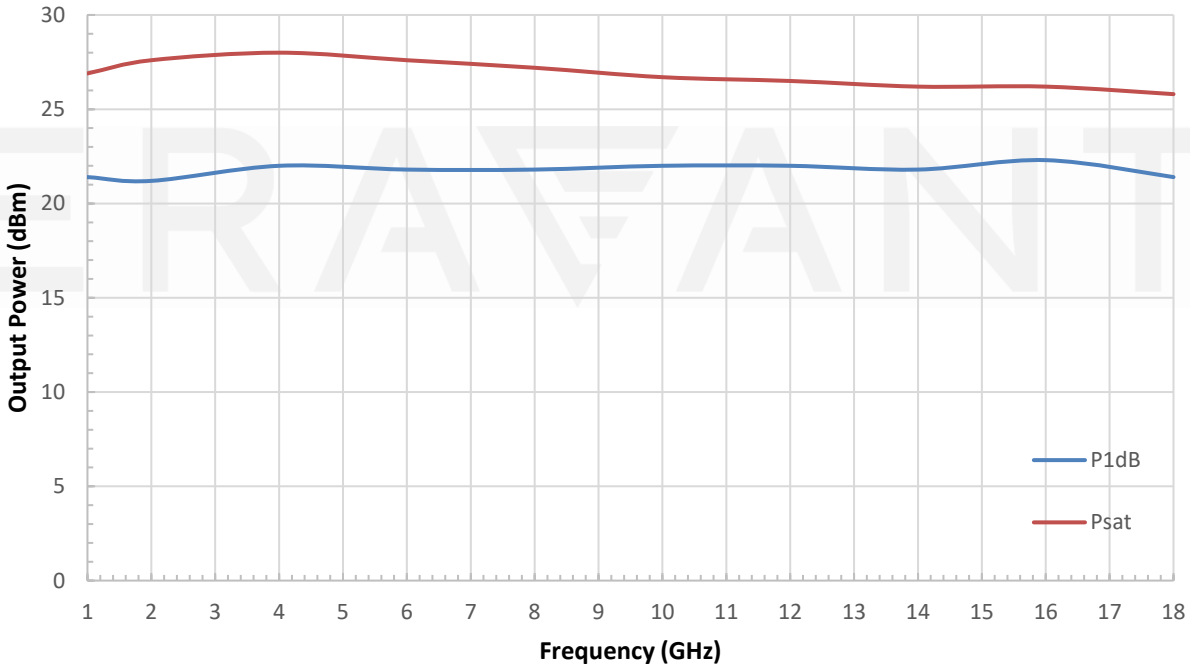
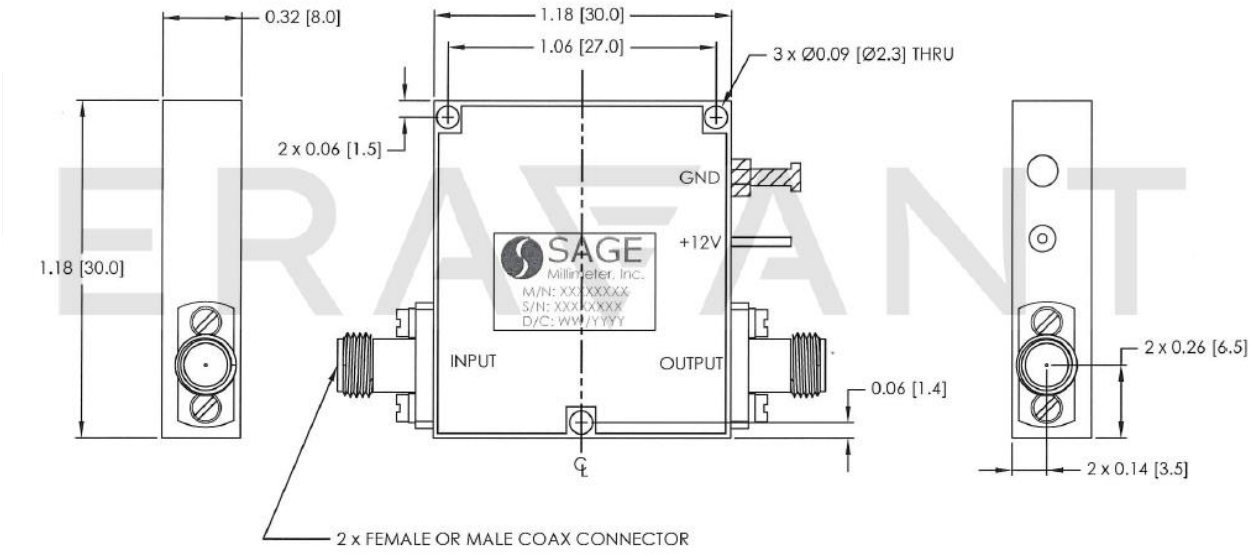
Typical Output Power vs. Frequency

Bias: +12V_{DC}/250 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.
- 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 +85 ˚C. Use proper heatsink or fan if necessary.
- Proper torque, 8.0 ± 0.15 inch-pounds (0.92 ± 0.05 Nm), should be applied. **Eravant torque wrench, model SCH-08008-S1, is highly recommended.**