SBL-0131832630-SFSF-I1

Rev. 1.0

Low Noise Amplifier, 1 to 18 GHz

Description:

Model SBL-0131832630-SFSF-I1 is a low noise amplifier with a frequency range of 1.0 to 18.0 GHz. The amplifier has a small signal gain of 26 dB minimum and 28 dB typical with a gain flatness of ±2.0 dB maximum. The noise figure is 2.5 dB typical and 3.0 dB maximum. The input and output ports have a voltage standing wave ratio of 2.5:1 typical. The DC power requirement for the amplifier is +12.0 V_{DC}/160 mA. The RF connectors are female SMA connectors.

Features:

- Broadband Performance
- Low Noise Figure
- High Gain Flatness

Applications:

- Radar Systems
- Communication Systems
- Low Noise Receivers

Electrical Specifications:

Parameter	Minimum	Typical	Maximum
Frequency	1.0 GHz		18.0 GHz
Gain	26 dB	28 dB	30 dB
Gain Flatness		±1.5 dB	±2.0 dB
Noise Figure		2.5 dB	3.0 dB
P_{1dB}	+14 dBm	+15 dBm	
Input Power			+ 16 dBm
Input VSWR		2.5:1	
Output VSWR		2.5:1	
DC Voltage		+12 V_{DC}	+15 V_{DC}
DC Supply Current		160 mA	
Specification Temperature		+25˚C	
Operating Temperature	-40˚C		+85˚C

Mechanical Specifications:

Item	Specification
Input	SMA (F)
Output	SMA (F)
Bias	Solder Pin
Size	0.70” (W) X 1.39” (L) X 0.29” (H)
Finish	Gold Plated
Weight	0.32 Oz
Outline	BG-IC-2

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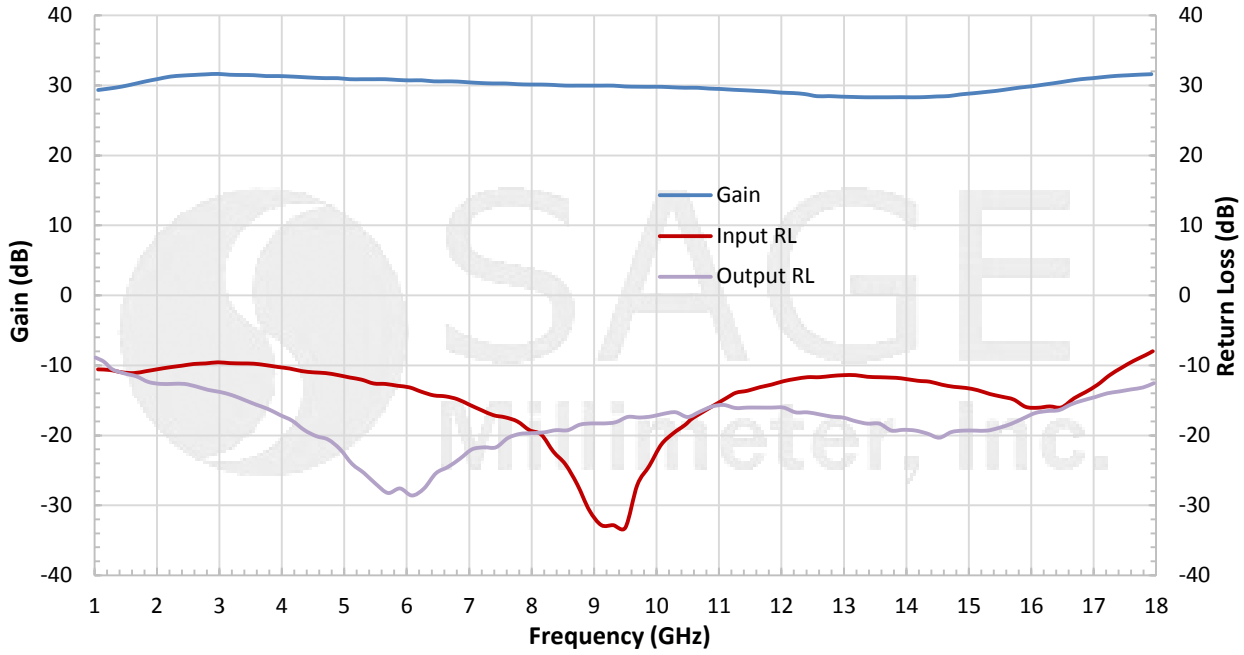
Low Noise Amplifier, 1 to 18 GHz

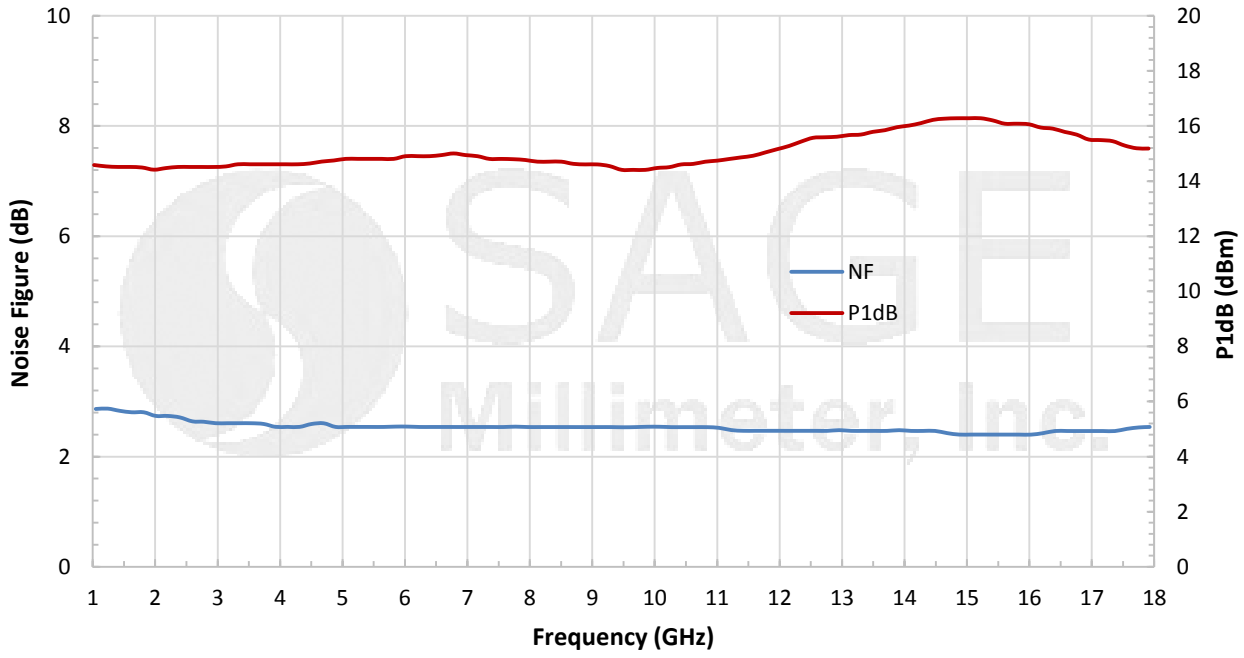
Typical Gain and Return Loss vs. Frequency

Bias: +12 V_{DC}/160 mA



Typical Noise Figure and P_{1dB} vs. Frequency

Bias: +12 V_{DC}/160 mA



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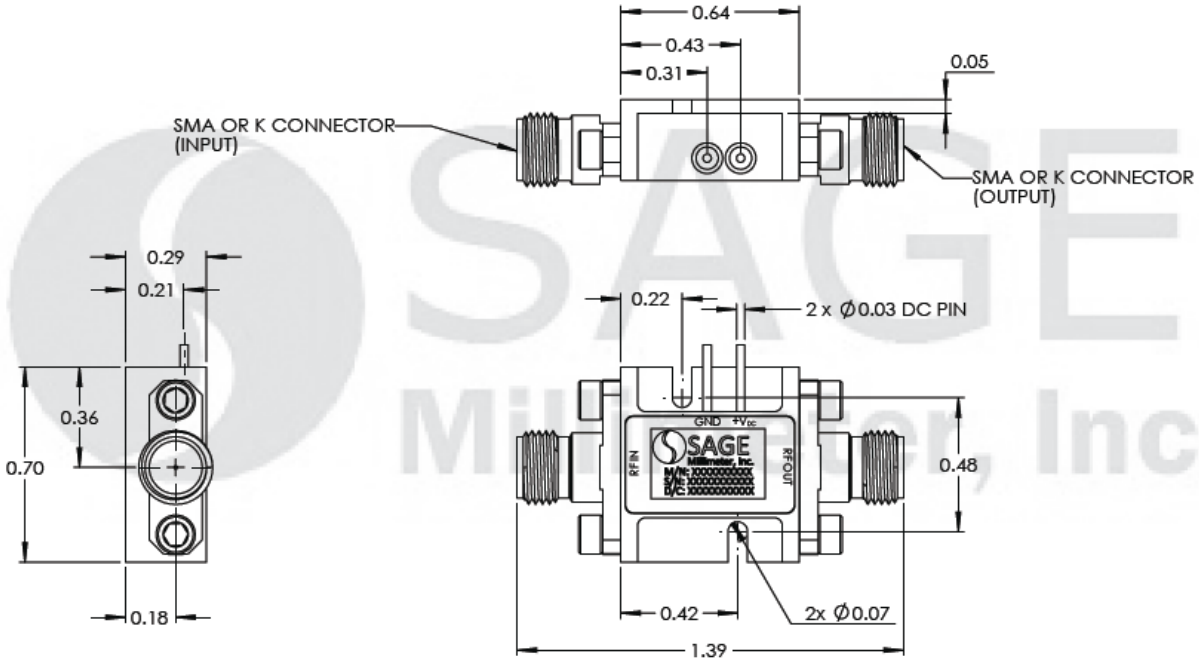
Mechanical Outline: (Unless otherwise specified, all dimensions are in inches)



Note:

- All data are presented using a limited 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.

Caution:

- Exceeding absolute maximum ratings shown will damage the device.
- The device is static sensitive. Always follow ESD rules when working with the device.