

Low Noise Amplifier, 0.3 to 20 GHz, 15dB Gain, 3 dB NF

Description:

Model SBL-0322031530-SFSF-E3 is a low noise amplifier with a typical small signal gain of 15 dB and a nominal noise figure of 3 dB across the frequency range of 0.3 to 20 GHz. The typical port return losses are 10 dB. The DC power requirement for the amplifier is +12 V_{DC}/70 mA. The output P_{1dB} is +10 dBm. The RF connectors are both female SMA connectors. Other port configurations are available under different model numbers.



Features:

- Broadband Performance
- Low Noise Figure
- Good Output P_{1dB} Across the Band

Applications:

- Radar Systems
- Communication Systems
- Low Noise Receivers

Electrical Specifications:

Parameter	Minimum	Typical	Maximum
Frequency	0.3 GHz		20.0 GHz
Gain		15 dB	
Gain Flatness		±2.5 dB	
Noise Figure		3.0 dB	3.8 dB
P _{1dB}		+10 dBm	
P _{in}			+10 dBm
Input Return Loss		10 dB	
Output Return Loss		10 dB	
DC Voltage	+10 V _{DC}	+12 V _{DC}	+16 V _{DC}
DC Supply Current		70 mA	
Specification Temperature		+25 °C	
Operating Temperature	-40 °C		+85 °C

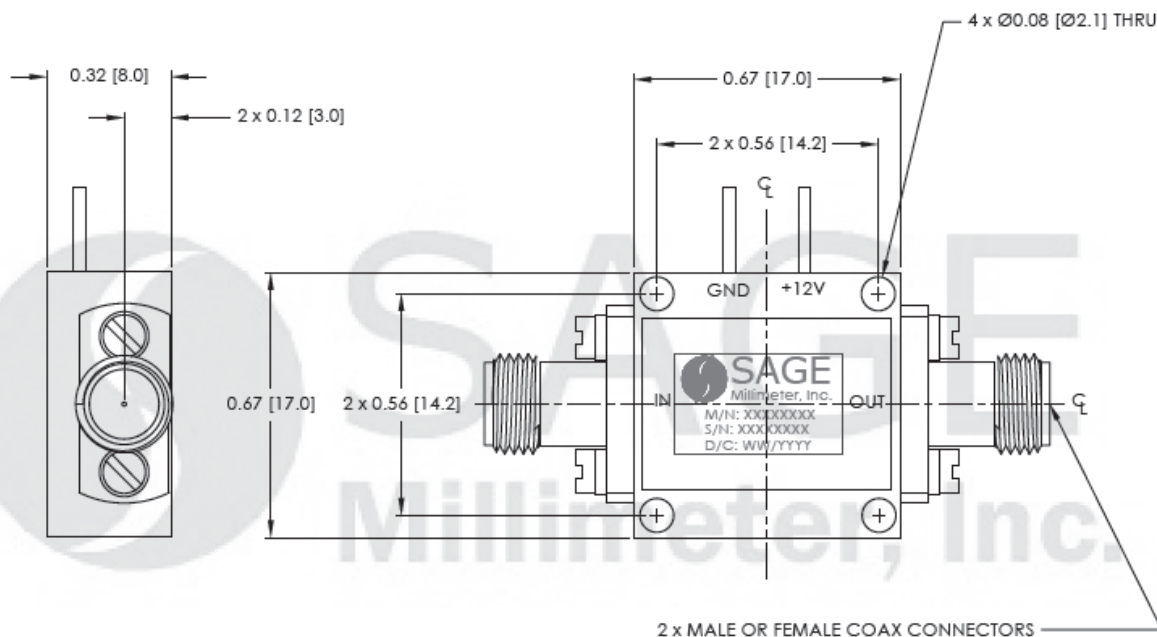
Mechanical Specifications:

Item	Specification
Input Port	SMA (F)
Output Port	SMA (F)
Bias Port	Solder Pin
Case Material	Aluminum
Finish	Gold Plated
Weight	0.35 Oz
Size	0.67" (W) X 0.67" (L) X 0.32" (H)
Outline	BG-ZC-7



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



Note:

- 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.
- Proper torque, 8.0 ± 0.15 inch-pounds (0.92 ± 0.05 Nm), should be applied. **SAGE Millimeter torque wrench, model SCH-08008-S1, is highly recommended.**