SBL-3335033040-VFVF-S1

Q-Band Low Noise Amplifier, 33 to 50 GHz, 30 dB Gain, 4 dB NF

SBL-3335033040-VFVF-S1 is a low noise amplifier with a typical small signal gain of 30 dB and a nominal noise figure of 4.0 dB across the frequency range of 33 to 50 GHz. The DC power requirement for the amplifier is +8 V_{DC}/160 mA. The input and output port configurations are both female 1.85 mm connectors. Other port configurations, such as male 1.85 mm connectors and WR-22 waveguides for either the input or output port, are also available under different model numbers.

Electrical Specifications:

Parameter	Minimum	Typical	Maximum
Frequency Range	33 GHz		50 GHz
Gain		30 dB	
Noise Figure		4.0 dB	
P_{1dB}		+12 dBm	
P_{in}			+15 dBm
Input Return Loss		10 dB	
Output Return Loss		7 dB	
DC Voltage	+6 V_{DC}	+8 V_{DC}	+15 V_{DC}
DC Supply Current		160 mA	
Specification Temperature		+25°C	
Operating Temperature	-40°C		+85°C

Mechanical Specifications:

Item	Specification
RF Ports	1.85 mm (F)
Bias	Solder Pin
Case Material	Aluminum
Finish	Gold Plated
Weight	1.3 Oz
Size	1.20” (W) x 1.20” (L) x 0.50” (H)
Outline	BG-SC-1

ECCN

EAR99

FEATURES

- Full Waveguide Band Coverage
- State-of-the-Art Noise Figure
- Good Gain Flatness

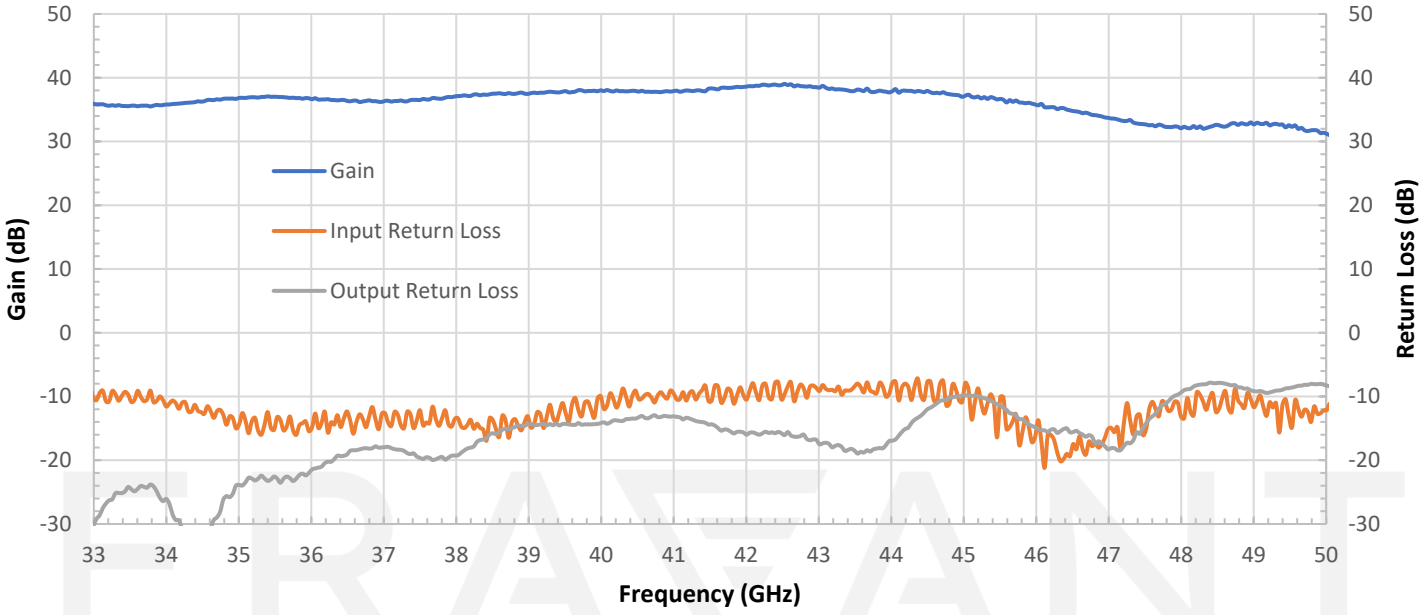
APPLICATIONS

- Radar Systems
- Communication Systems
- Low Noise Receivers

SUPPLEMENTAL DETAILS

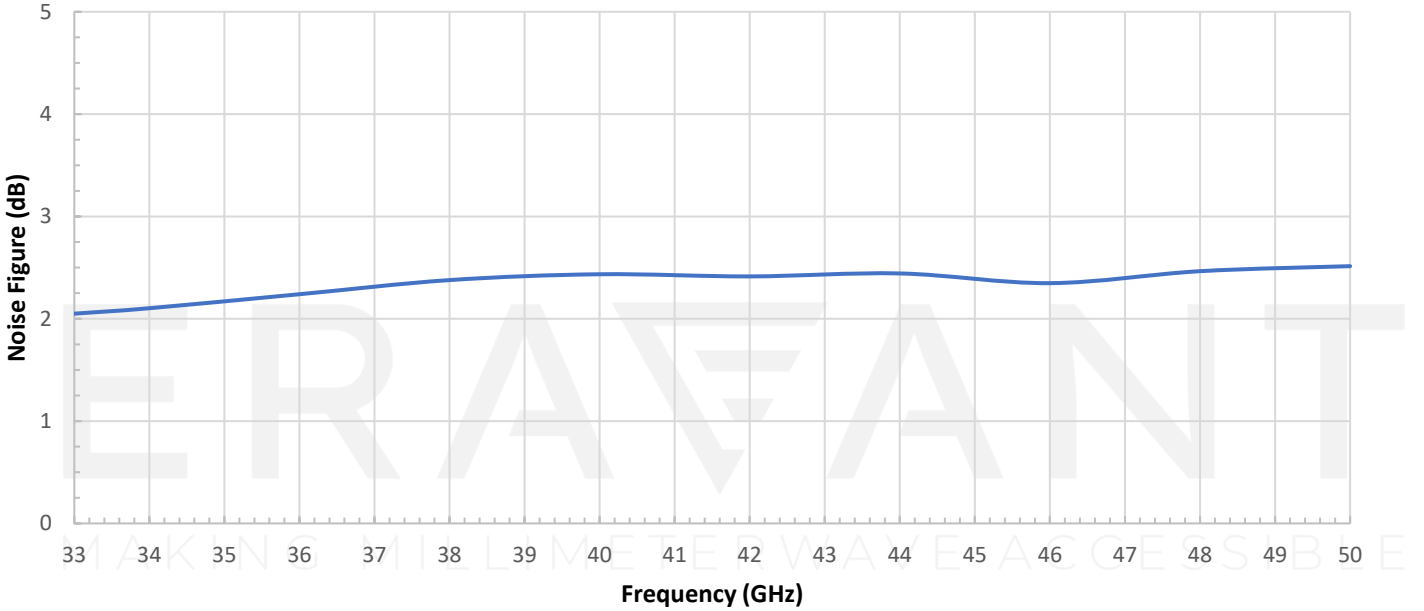
Typical Gain and Return Loss vs. Frequency

Bias: +8 V_{DC}/162 mA



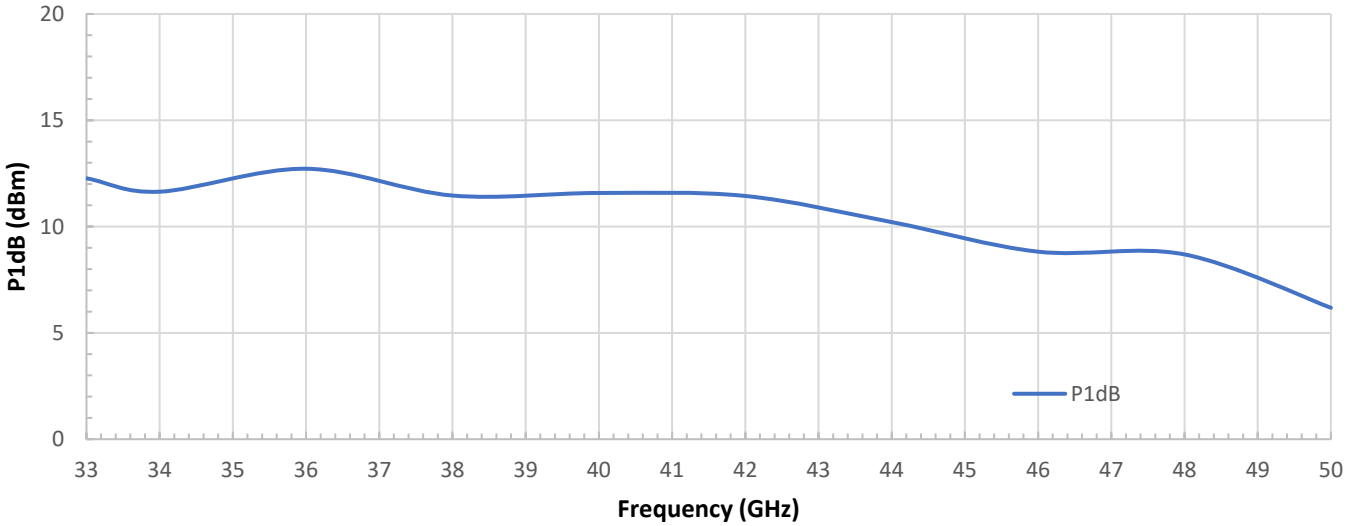
Typical Noise Figure vs. Frequency

Bias: +8V_{DC}/162 mA

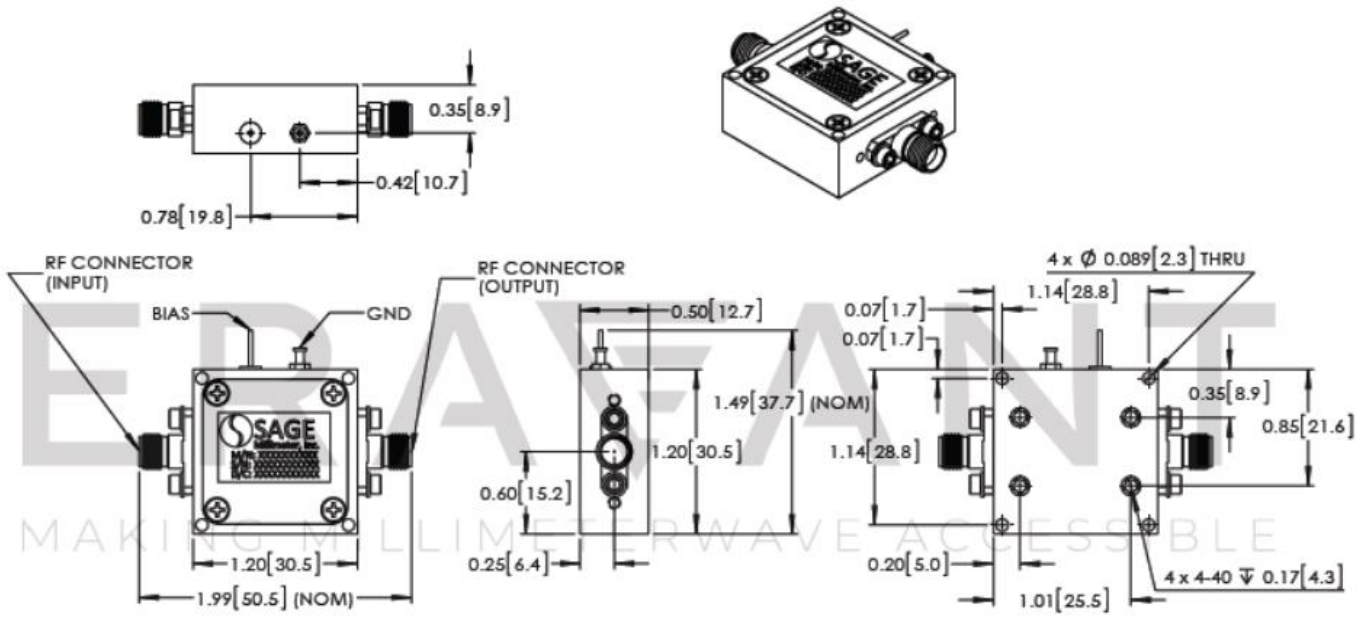


Typical P1dB vs. Frequency

Bias: +8V_{DC}/162 mA



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



NOTE:

- All data presented is collected from a sample lot. Actual data may vary slightly from unit to unit.
- All testing is performed under +25 °C room 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 +50 ˚C. Use proper heatsink or fan if necessary.
- Proper torque should be applied: 8.0 ± 0.15 inch-pounds (0.90 ± 0.02 Nm). **Eravant torque wrench, model SCH-08008-S1, is highly recommended.**

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