SBL-2434233035-KFKF-S1

Advanced

Low Noise Amplifier, 24 to 42 GHz, 30 dB Gain, 3.5 dB NF

Description:

Model SBL-2434233035-KFKF-S1 is a low noise amplifier with a typical small signal gain of 30 dB and a nominal noise figure of 3.5 dB across the frequency range of 24 to 42 GHz. The DC power requirement for the amplifier is +8 V_{DC}/550 mA. The RF connectors are female K connectors. Other port configurations are also available under different model numbers.

Features:

- Full Waveguide Band Operation
- State-of-the-Art Noise Figure
- Good Gain Flatness
- High Output P_{1dB}

Applications:

- 5G Systems
- Radar Systems
- Communication Systems
- Low Noise Receivers

Electrical Specifications:

Parameter	Minimum	Typical	Maximum
Frequency	24 GHz		42 GHz
Gain		30 dB	
Noise Figure		3.5 dB	
P_{1dB}		+20 dBm	
P_{in}			+2 dBm
Input Return Loss		5 dB	
Output Return Loss		10 dB	
DC Voltage	+6 V_{DC}	+8 V_{DC}	+15 V_{DC}
DC Supply Current		550 mA	
Specification Temperature		+25 ˚C	
Operating Temperature	0 ˚C		+50 ˚C

Mechanical Specifications:

Item	Specification
Input Port	2.92 mm (K) Female
Output Port	2.92 mm (K) Female
Bias	Solder Pin
Case Material	Aluminum
Finish	Gold Plated
Weight	2.0 Oz
Outline	BG-SC-1

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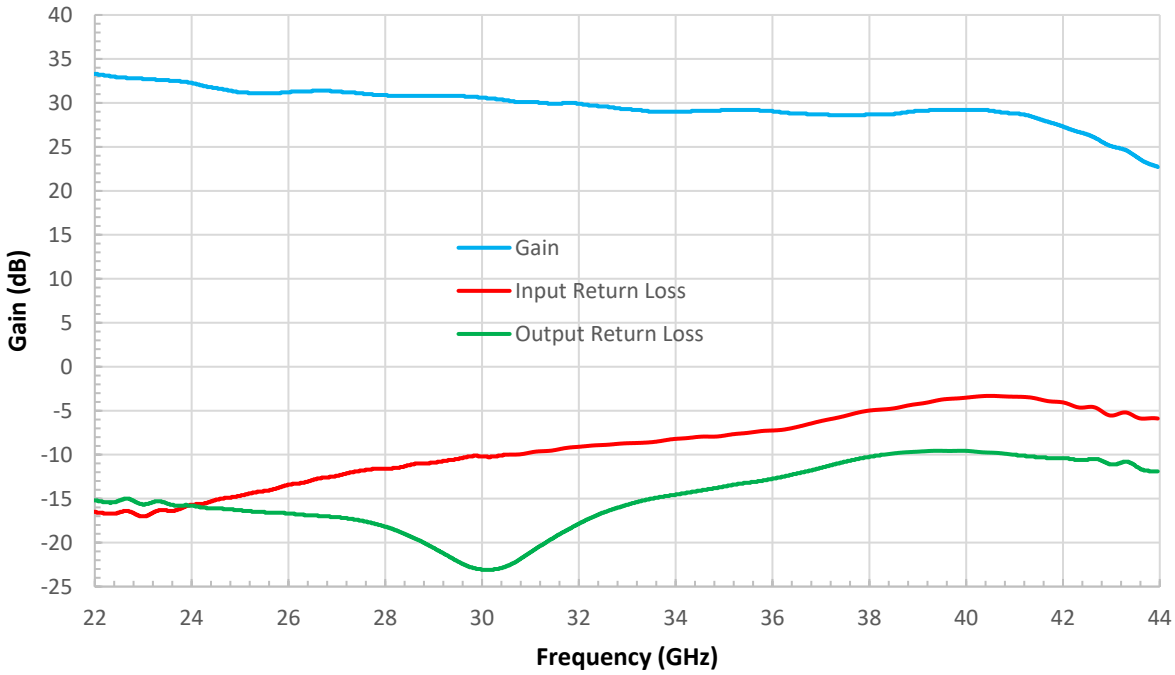
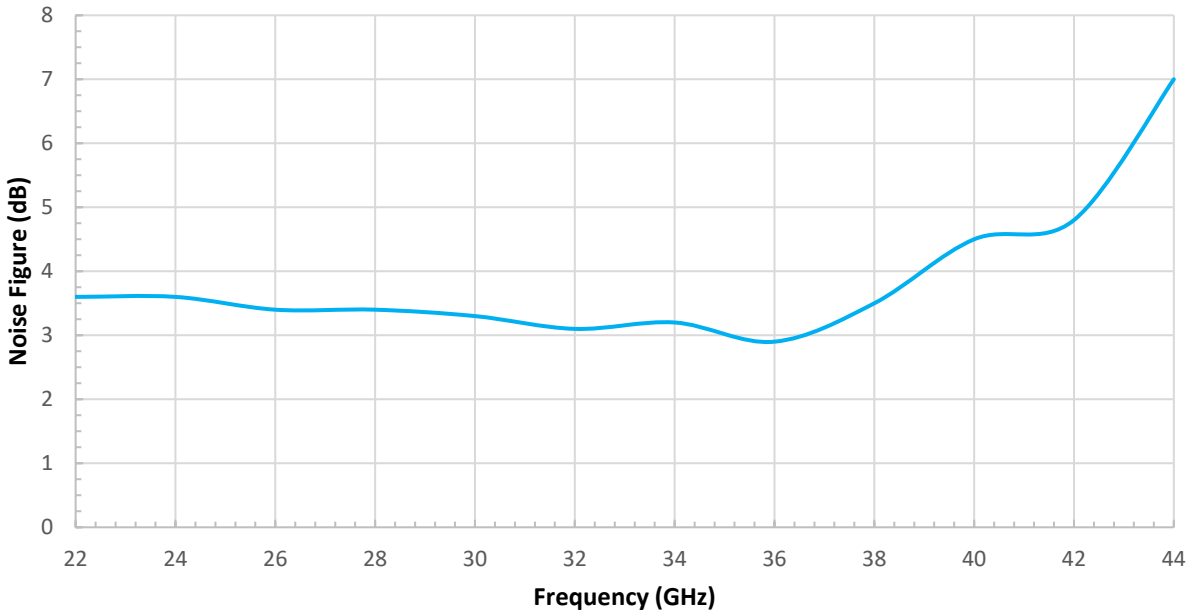
Gain and Return Loss vs. Frequency

Bias: +8 V_{DC}/568 mA



Noise Figure vs. Frequency

Bias: +8V_{DC}/568 mA



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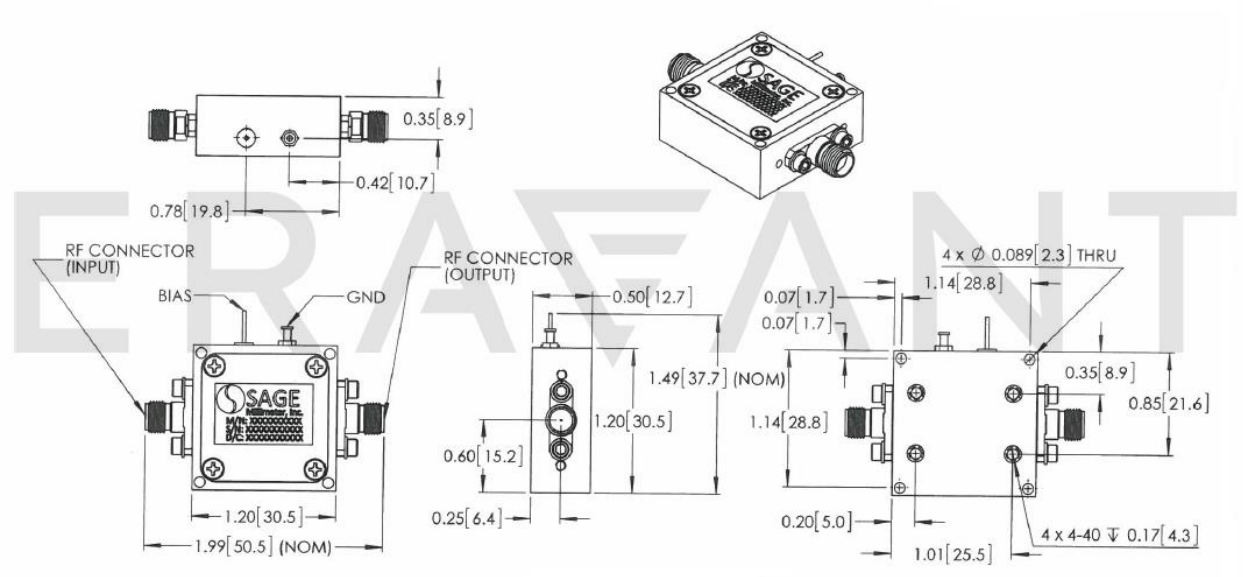
Mechanical Outline: (Unless otherwise specified, all dimensions are in inches [millimeters])



Note:

- All data presented is collected from a sample lot. Actual data may vary unit to unit.
- All testing was performed under +25 ˚C case temperature.
- 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.
- Exceeding the maximum bias voltage of **+15 V_{DC}** will cause amplifier overheating and result the instability.
- 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.
- Any foreign objects in the waveguide will cause performance degradation and may damage the device.