



Broadband Amplifier, 18 to 40 GHz, 40 dB Gain, 3 dB Noise Figure

Description:

Model STB-1834034030-KFKF-L1 is a broadband benchtop low noise amplifier with a typical small signal gain of 40 dB and a nominal noise figure of 3 dB across the frequency range of 18 to 40 GHz. The power supply required is a single phase AC voltage in the range of 100 to 240 V_{AC}, which can be supplied by a wall outlet. The LED light helps to indicate the working status of the amplifier. The input and output port configurations are female K connectors.



Features:

- Ultra-Broadband Coverage
- Good Gain Flatness

Applications:

- Bench Top Power Amplification
- Antenna Range
- Power Boosting

Electrical Specifications:

Parameter	Minimum	Typical	Maximum
Frequency	18 GHz		40 GHz
Gain		40 dB	
Noise Figure		3 dB	
P _{1dB}		+10 dBm	
RF Input Damage Level			-20 dBm
Input Return Loss		10 dB	
Output Return Loss		10 dB	
Power Supply (AC Adapter Provided)	100 V _{AC}		240 V _{AC}
Specification Temperature		+25 °C	
Case Temperature	0 °C		+50 °C

Mechanical Specifications:

Item	Specification
Input Port	K(F)
Output Port	K(F)
DC Bias Port	2.5 mm DC Jack (AC-to-DC power converter included)
DC Bias Switch	On-Off Rocker Switch with Indicator Light
Enclosure Material	Extruded Aluminum
Finish	Black Anodized
Weight	1.5 lbs
Size	3.22" (W) x 4.12" (L) x 1.74" (H)
Outline	TB-SC



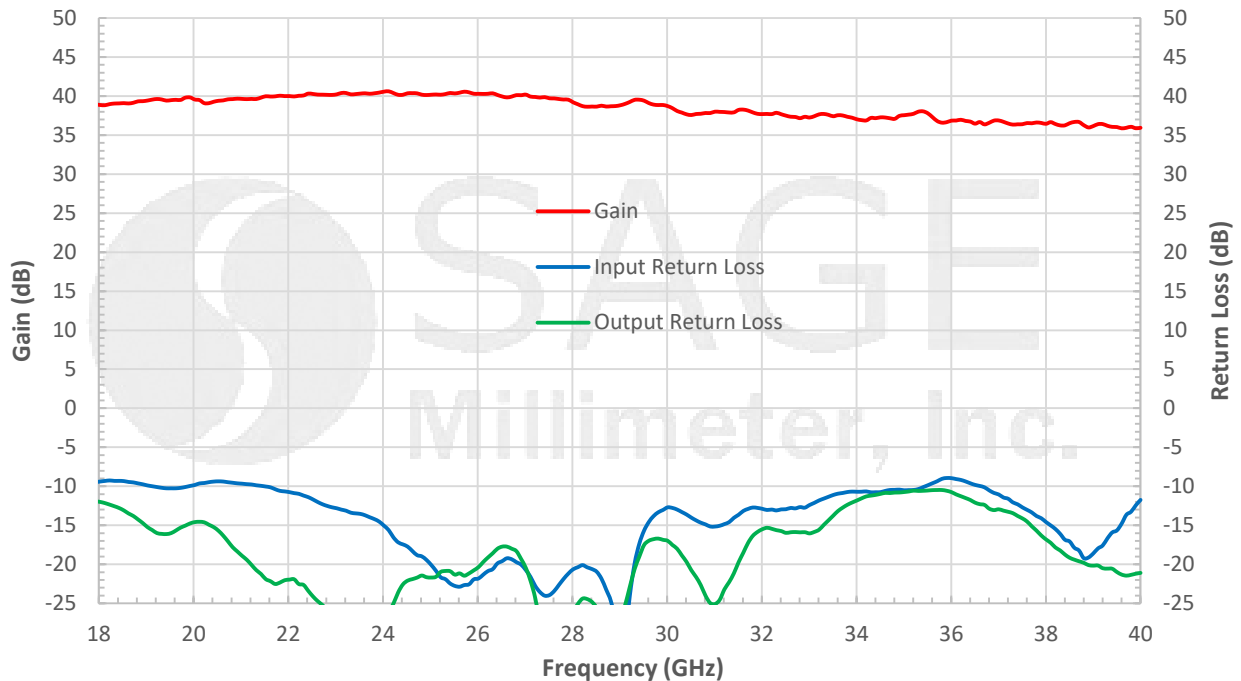
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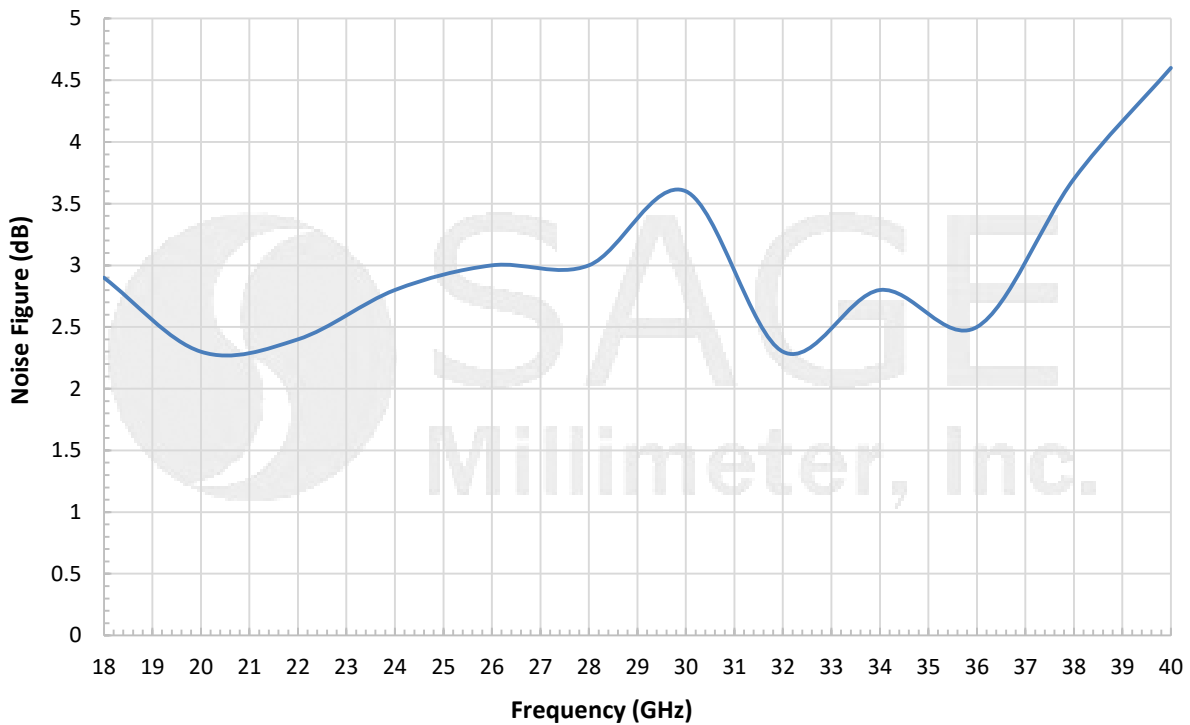
Typical Gain and Return Loss vs. Frequency

Bias: +8 V_{DC}/200 mA



Typical Noise Figure vs. Frequency

Bias: +8 V_{DC}/200 mA

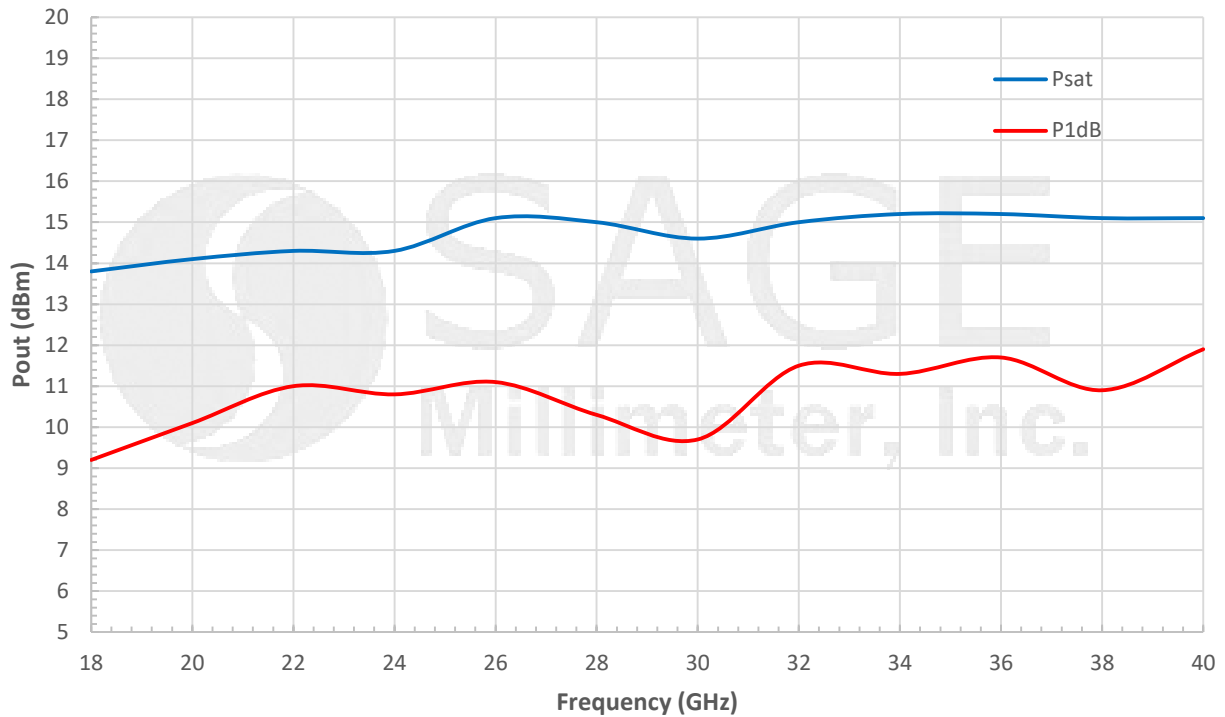




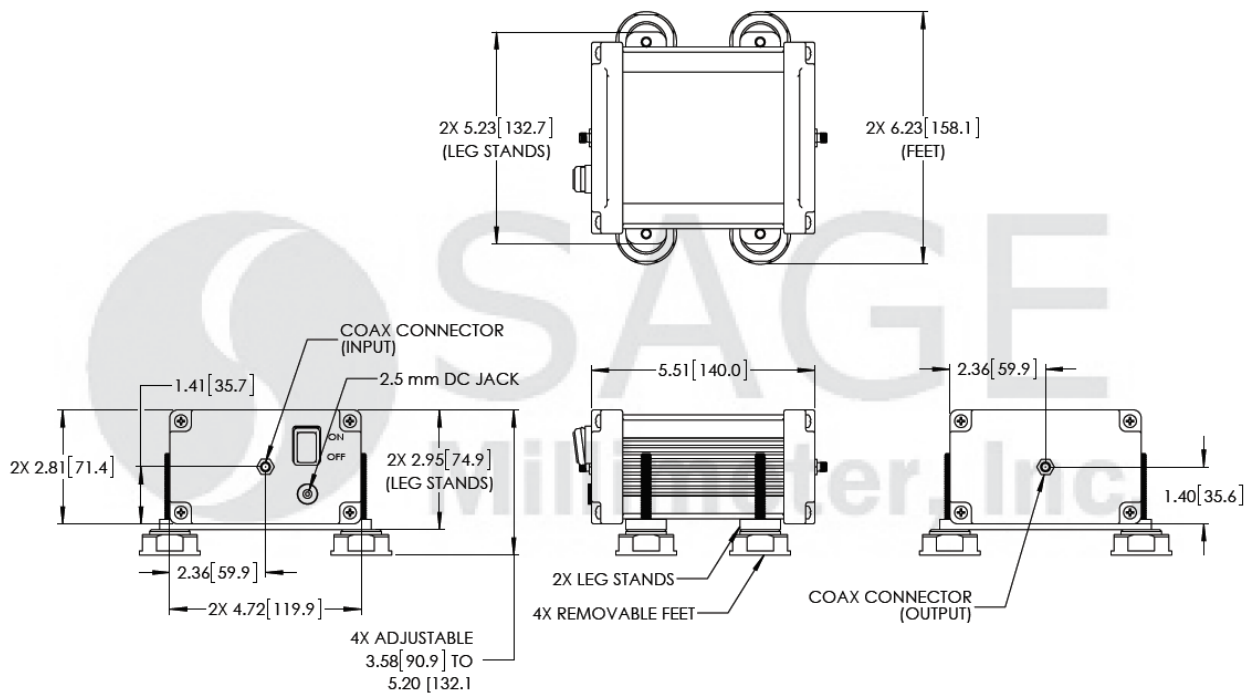
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Typical Output power vs. Frequency

Bias: +8 V_{DC}/200 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.
- AC-to-DC power converter with cord is included.
- Other mechanical configurations are available under different model numbers.
- 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.
- 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.**

