STB-2734033840-282F-L1-1

Rev. 1.1

Low Noise Bench Top Amplifier, 38 dB Gain, 4.0 dB NF

Description:

Model STB-2734033840-282F-L1-1 is a low noise bench top amplifier with a typical small signal gain of 38 dB and a nominal Noise Figure of 4.0 dB across the frequency range of 26.5 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 port configuration is a WR-28 waveguide with UG-599/U compatible flange and output port configuration is a 2.4 mm female connector. The standard model with K(F) connector output is offered under model number **STB-2734033840-28KF-L1-1.**

Features:

- Broadband Coverage
- Good Gain Flatness
- Low Noise Figure

Applications:

- 5G System Evaluation
- Bench Top Gain Booster
- Antenna Range

Electrical Specifications:

Parameter	Minimum	Typical	Maximum
Frequency	26.5 GHz		40 GHz
Gain		38 dB	
P_{1dB}		+10 dBm	
Noise Figure		4.0 dB	
RF Input Damage Level			-18 dBm
Input Return Loss		6 dB	
Output Return Loss		6 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	WR-28 Waveguide w/ UG-599/U compatible flange
Output	2.4 mm (F)
DC Bias	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	4.72” (W) x 5.51” (L) x 2.81” (H)
Outline	TB-SA-WC

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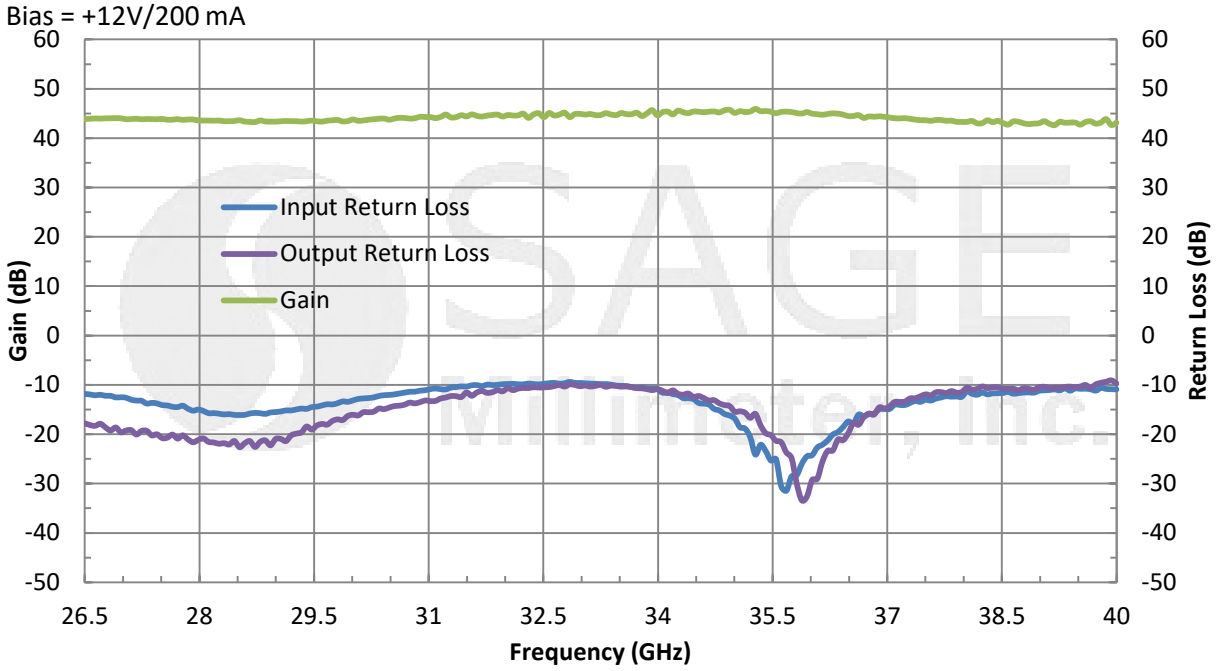
Low Noise Bench Top Amplifier, 38 dB Gain, 4.0 dB NF

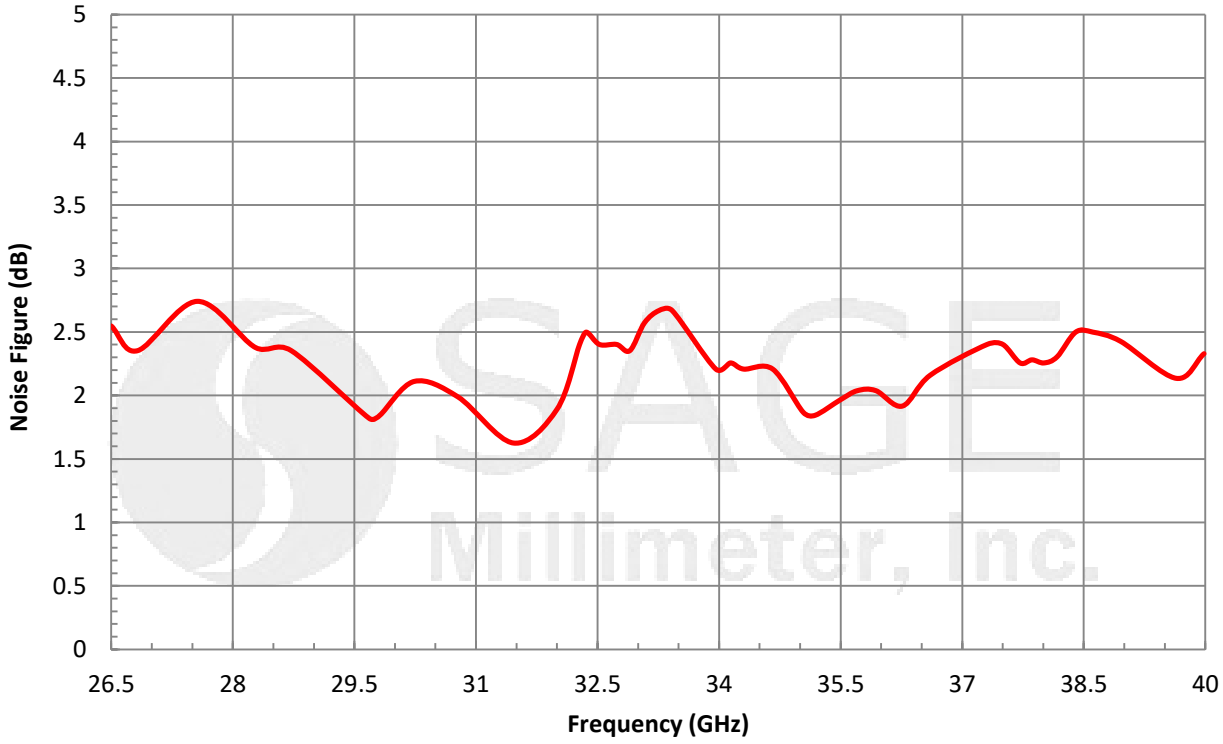
Typical Gain and Return Loss vs Frequency

Bias = +12V/200 mA



Typical Noise Figure vs. Frequency

Bias = +12V/200 mA



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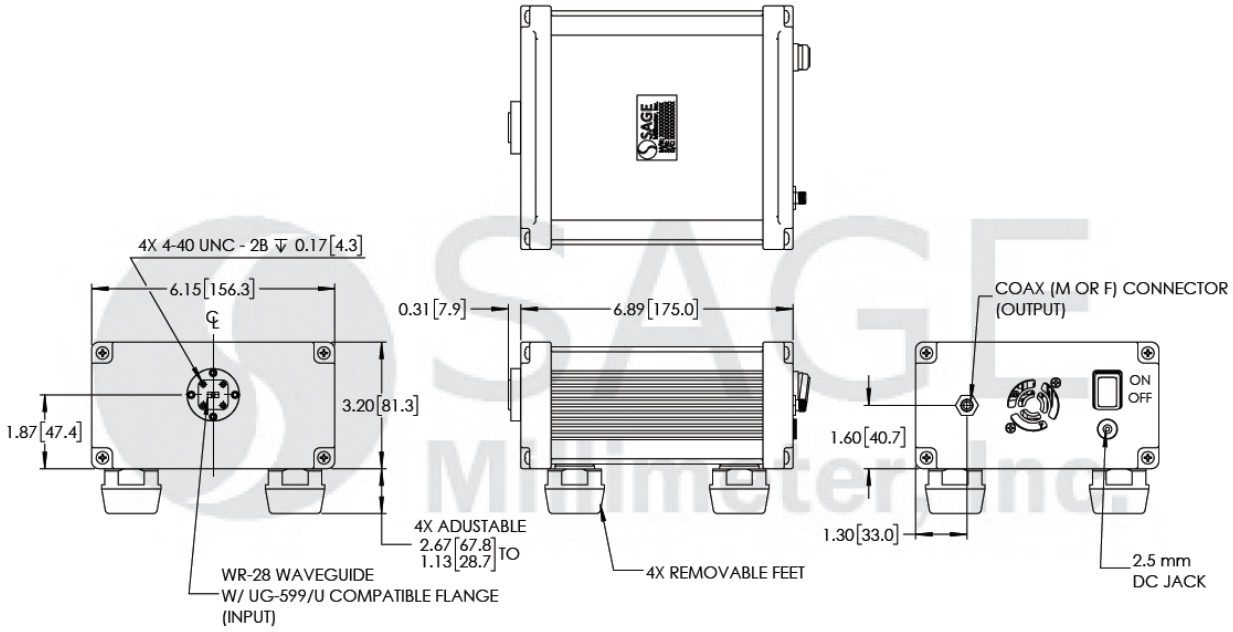
Mechanical Outline: (Unless otherwise specified, all dimensions are in inches [millimeters])



Note:

- All data presented is collected from a sample lot. Actual data may vary unit to unit, slightly.
- 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.**

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