SBL-5037531525-1515-E1

WR-15 Low Noise Amplifier, 50 to 75 GHz, 15 dB Gain, 2.5 dB NF

SBL-5037531525-1515-E1 is a WR-15 low noise amplifier with a typical small signal gain of 15 dB and a nominal noise figure of 2.5 dB across the frequency range of 50 to 75 GHz. The DC power requirement for the amplifier is +8 VDC/30 mA. The input and output port configuration offers an inline structure with WR- 15 waveguides and UG-385/U anti-cocking flanges.

Electrical Specifications:

Parameter	Minimum	Typical	Maximum
Frequency Range	50 GHz		75 GHz
Gain		15 dB	
Noise Figure		2.5 dB	
P_{1dB}		+0 dBm	
P_{in}			+10 dBm
Input Return Loss		10 dB	
Output Return Loss		10 dB	
DC Voltage		+8 V_{DC}	+12 V_{DC}
DC Supply Current		30 mA	
Specification Temperature		+25°C	
Operating Temperature	0°C		+50°C

Mechanical Specifications:

Item	Specification
Input	WR-15 Waveguide with UG-385/U Anti-Cocking Flange
Output	WR-15 Waveguide with UG-385/U Anti-Cocking Flange
Bias	Solder Pin
Case Material	Aluminum
Finish	Gold Plated
Weight	1.6 Oz
Size	1.50” (L) X 1.10” (W) X 0.75” (H)
Outline	BG-SV-2-A

ECCN

EAR99

FEATURES

- State-of-the-Art Noise Figure
- Low Power Consumption

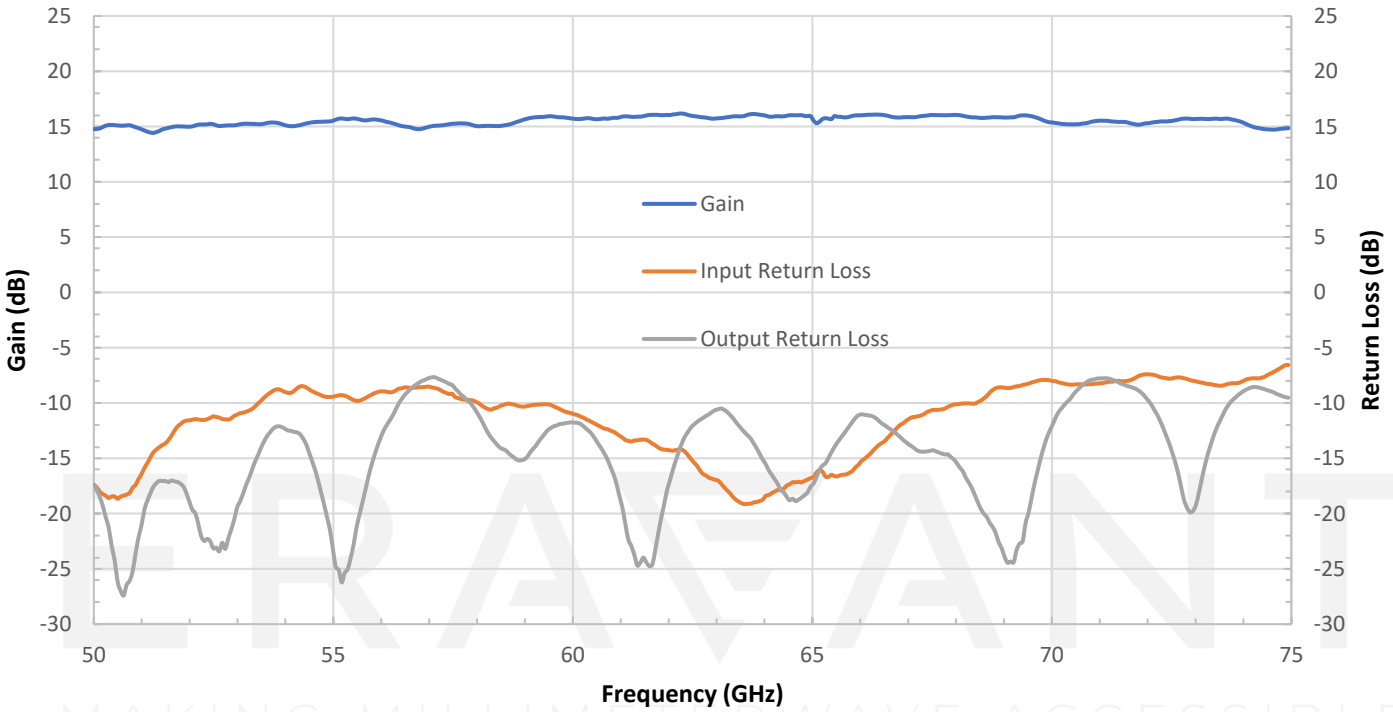
APPLICATIONS

- 6G Systems

SUPPLEMENTAL DETAILS

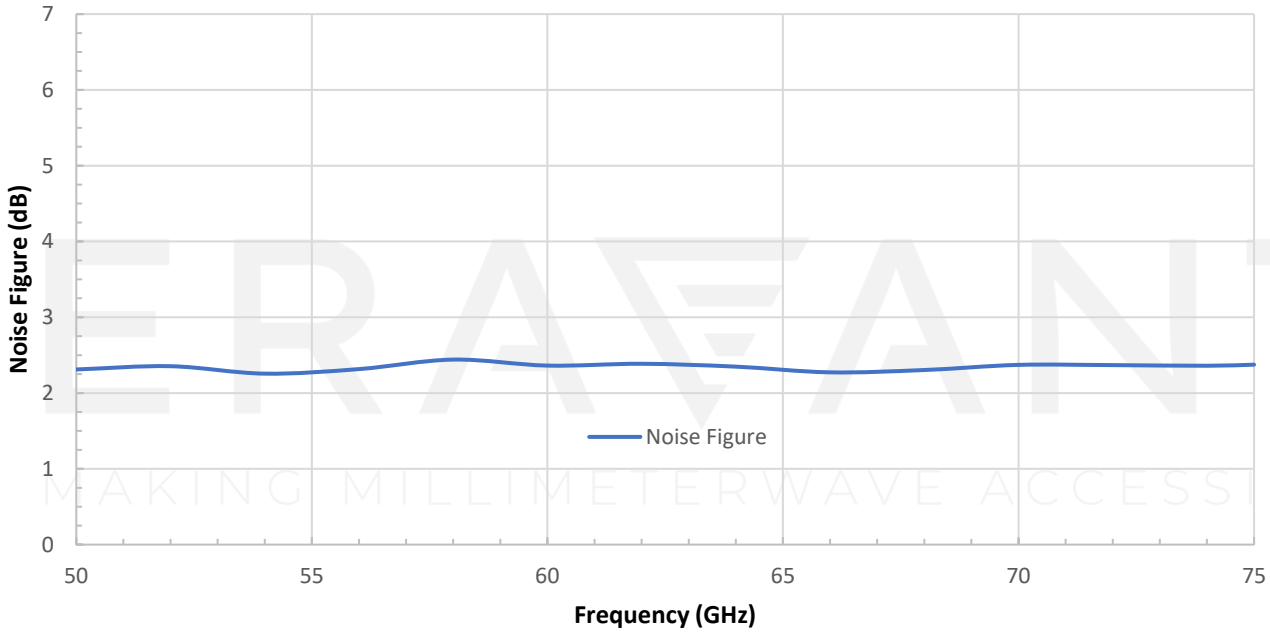
Gain and Return Loss vs. Frequency

Bias: +8 V_{DC}/30 mA

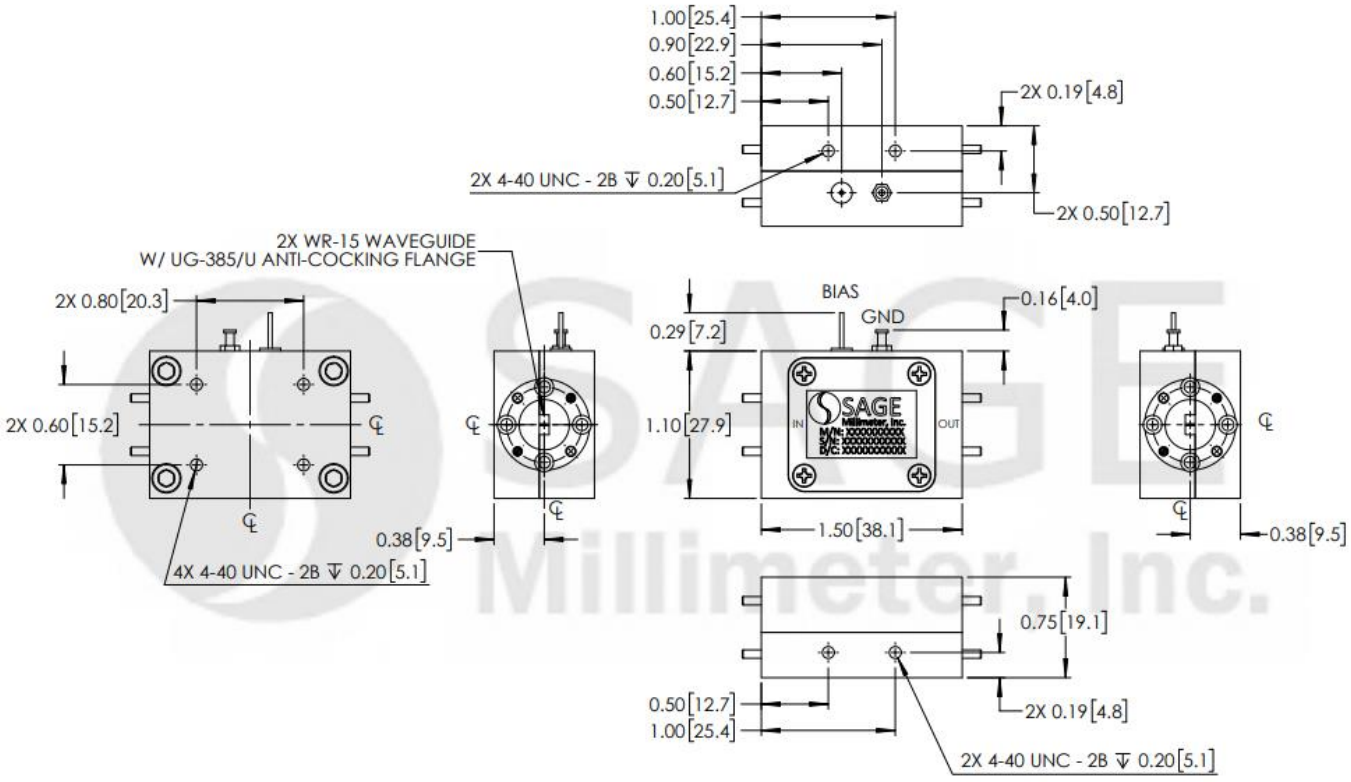


Noise Figure vs. Frequency

Bias: +8V_{DC}/30 mA



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



NOTE:

- On condition that test data is provided it is collected from a sample lot. Actual data may vary slightly from unit to unit. All testing is performed under +25 °C room temperature.
- On condition that simulated test data is provided, actual measured data may slightly vary.
- Eravant reserves the right to change the information presented without notice.

CAUTION:

- If a waveguide is present, any foreign objects in the waveguide will cause performance degradation and may damage or destroy the unit.
- Any foreign objects in the device will cause performance degradation and possible device damage.
- 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.
- For 1 mm connectors proper torque should be applied: 4.0 ± 0.15 inch-pounds (0.45 ± 0.02 Nm). Torque wrench model SCH-06004-S1 is highly recommended.
- For 1.35 mm, 1.85 mm, 2.4 mm, 2.92 mm, and SMA connectors proper torque should be applied: 8.0 ± 0.15 inch-pounds (0.90 ± 0.02 Nm). Torque wrench model SCH-08008-S1 is highly recommended.